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Received

NMED Hazardous Waste Bureau

ENTERED

Los Alamos NATIONAL LABORATORY

**Environmental Protection and Compliance Division**
Los Alamos National Laboratory
P.O. Box 1663, MS M969
Los Alamos, NM 87545
505-667-8160

**National Nuclear Security Administration**
Los Alamos Field Office
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Los Alamos, NM 87544
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**Symbol:** EPC-DO-23-086
**Date:** March 13, 2023
LA-UR -23-21636

Mr. Dave Cobrain, Acting Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6313

**Subject: Request for Class 2 Permit Modification for the Addition of New Hazardous Waste Management Unit at Technical Area 60, Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID #NM0890010515**

Dear Mr. Cobrain:

The purpose of this letter is to submit to the New Mexico Environment Department-Hazardous Waste Bureau (NMED-HWB) a request for a Class 2 permit modification to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (the Permit). The Permit authorizes the U.S. Department of Energy (DOE) National Security Administration Los Alamos Field Office (NA-LA); DOE Environmental Management Los Alamos Field Office (EM-LA); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) (collectively, Permittees) to manage, store, and treat hazardous waste at LANL.

This permit modification requests the addition of a new container storage unit at Technical Area (TA)-60. The unit consists of the southern portion of Building TA-60-0017. The changes to the Permit include minor text revisions to the following:

- Permit parts: Part 1, *General Permit Conditions*
- Part 3, *Storage in Containers*
- TA-specific unit description in Attachment A, *TA-Unit Descriptions*
- Attachment B, *Part A Application*
- Emergency equipment changes in Attachment D, *Contingency Plan*
- Addition of the unit in Attachment J, *Hazardous Waste Management Units*
- Addition of a closure plan for the unit in Attachment G, *Closure Plans*
- Updates and addition of figures in Attachment N, *Figures*

The Permittees prepared this permit modification in accordance with 40 CFR §270.42(b). The changes made to the Permit as part of this modification are applicable to the conditions of Appendix I of 40 CFR §270.42, Item F.1.b, for Class 2 permit modification, and Item F.1.c, for a Class 1 requiring prior approval. A full description of the permit modification, rationale for the Class 2 modification, the required permit revisions, and a signed certification page are included in Enclosure 1.

Provided herein are three hard copies of the permit modification request package as well as an electronic version that will be delivered to the NMED-HWB. The hard-copy submittal contains specific pages or sections where text changes have been proposed rather than including entire copies of Permit attachments. The electronic copy will be provided only to NMED-HWB and contains a portable document format (PDF) version of the hard copy, along with all word processing and figure files used to create the hard copy.

In addition, the public notice (Enclosure 2) will be sent to the NMED-HWB–maintained LANL facility mailing list within 7 days of transmittal of this request. The notice contains the announcement of a 60-day comment period, location and date of a scheduled public meeting, points of contact, and location to view permit modification request supporting information. In accordance with 40 CFR §270.42(b)(2), the notice will also be published in several local newspapers within 7 days of transmittal of this request.

If you have questions or comments regarding this submittal, please contact Patrick Padilla (Triad) at (505) 412-0462 or by email at plpadilla@lanl.gov or Karen Armijo (NA-LA) at (505) 665-7314 or by email at karen.armijo@nnsa.doe.gov.

Sincerely,

STEVEN STORY (Affiliate) Digitally signed by STEVEN STORY (Affiliate) Date: 2023.03.09 14:16:29 -07'00'

Jennifer E. Payne
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC
Los Alamos National Laboratory

Sincerely,

Robert A. Gallegos Digitally signed by Robert A. Gallegos Date: 2023.03.09 17:01:49 -07'00'

Karen Armijo
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

JP/KEA/PLP

Enclosures: (1) Permit Modification Request, Technical Area 60, Hazardous Waste Storage Unit

(2) Public Notice of Class 2 Permit Modification Request and Public Meeting for Technical Area 60, New Container Storage Unit

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# ENCLOSURE 1

*Permit Modification Request, Technical Area 60*

*Hazardous Waste Storage Unit*

*Los Alamos National Laboratory,*

*EPA ID# NM0890010515*

EPC-DO-23-086
LA-UR-23-21636

U.S. Department of Energy,
National Nuclear Security Administration Los Alamos Field Office, and
Triad National Security, LLC

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LA-UR-23-21636
March 2023

# Permit Modification Request, Technical Area 60, Hazardous Waste Storage Unit

Revision 0.0

Los Alamos
NATIONAL LABORATORY

**Prepared for:** U.S. Department of Energy/National Nuclear Security Administration, Los Alamos Field Office

**Prepared by:** Environmental Protection and Compliance – Waste Management Programs

**Editing and Layout by:** Tamara Hawman, Communications Specialist
Technical Editing and Communications (CEA-TEC)

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## Figures



## Tables

# 1 Introduction

This Class 2 permit modification requests the addition of a new hazardous waste management unit to the Los Alamos National Laboratory (LANL) Hazardous Waste Facility Permit (U.S. Environmental Protection Agency [EPA] Identification Number NM0890010515), hereinafter referred to as the Permit, issued by the New Mexico Environment Department (NMED) in November 2010. The Permit authorizes the U.S. Department of Energy (DOE); DOE Environmental Management Los Alamos Field Office (EM-LA); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) (collectively, Permittees) to manage, store, and treat hazardous waste at LANL. This modification request was prepared in accordance with the requirements of Permit Section 1.6.2 (20.4.1.900 New Mexico Administrative Code [NMAC]) specific to Technical Area (TA) 60, the southern portion of Building 17 (TA-60-0017). With few exceptions, 20.4.1 NMAC adopts Title 40 Code of Federal Regulations (CFR) Parts 260 through 266, Part 268, Part 270, and Part 273; therefore, regulatory citations in this document reference the appropriate federal hazardous waste regulations. Table 1-1 provides a list of regulatory references and their corresponding locations in this permit modification request or previous applications.

The Permit contains the conditions that address the requirements of the New Mexico Hazardous Waste Act (NMHWA) and implementing regulations—specifically 40 CFR—that are common to all active LANL hazardous waste management units. The relevant sections of the Permit are referenced throughout this document as applicable for the addition of the proposed unit. Together, information provided in this document and in the Permit meet the applicable requirements specified in 40 CFR Parts 264 and 270 for the proposed unit.

Table 1-1. Regulatory Crosswalk

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.13 | Part A permit application | 2020 LANL General Part A[1]<br>Updated form included as Attachment 1 of this permit modification request. | Yes |
| § 270.14(b)(1) | General facility description | Revisions to Permit[2] Attachment A, Section A.7 is included in Attachment 3 of this permit modification request, and Section 3.1 of this permit modification request. | Yes |
| § 270.14(b)(2) | Chemical and physical analysis of hazardous waste | Permit[2] Section 2.4 and Permit[2] Attachment C | No |
| § 270.14(b)(3) | Waste analysis plan | Permit[2] Attachment C | No |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 264.13(b) | Development and implementation of a written waste analysis plan | Permit[2] Section 2.4 and Permit[2] Attachment C | No |
| § 264.13(c) | Off-site waste analysis requirements | Permit[2] Section 2.2.1 | No |
| § 270.14(b)(4) | Security procedures and equipment | Permit[2] Section 2.5 and Revisions to Permit[2] Attachment A, Section A.7.2 is included in Attachment 3 of this permit request. | Yes |
| § 264.14 | Security procedures and equipment | Permit[2] Section 2.5 and Revisions to Permit[2] Attachment A, Section A.7.2 is included in Attachment 3 of this permit request. | Yes |
| § 270.14(b)(5) | General inspection schedule | Permit[2] Section 2.6 and Permit[2] Attachment E | No |
| § 264.15(b) | General inspection schedule | Permit[2] Section 2.6 and Permit[2] Attachment E | No |
| § 264.174 | Inspections/containers | Permit[2] Section 2.6 and Permit[2] Attachment E | No |
| § 264.193(i) | Tank inspections | Not applicable | Not applicable |
| § 264.195 | Overfill control inspections | Not applicable | Not applicable |
| § 264.226 | Surface impoundment monitoring and inspection | Not applicable | Not applicable |
| § 264.254 | Waste pile monitoring and inspection | Not applicable | Not applicable |
| § 264.273 | Land treatment and operating requirements | Not applicable | Not applicable |
| § 264.303 | Landfill monitoring and inspection | Not applicable | Not applicable |
| § 264.602 | Monitoring, analysis, inspection, response, reporting, and corrective action | Not applicable | Not applicable |
| § 264.1033 | Process vent standards | Not applicable | Not applicable |
| § 264.1052 | Equipment leak air emissions standards | Not applicable | Not applicable |
| § 264.1053 | Compressor standards | Not applicable | Not applicable |
| § 264.1058 | Standards for pumps, valves, pressure relief devices, flanges, and connections | Not applicable | Not applicable |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 264.1084 | Air emissions standards: tanks | Not applicable | Not applicable |
| § 264.1085 | Air emissions standards: surface impoundments | Not applicable | Not applicable |
| § 264.1086 | Air emissions standards: containers | Permit[2] Section 3.9 and Permit[2] Attachment E, Section E.8 | No |
| § 264.1088 | Inspection and monitoring requirements | Permit[2] Section 3.9 and Permit[2] Attachment E, Section E.8 | No |
| § 270.14(b)(6) | Request for waiver from preparedness and prevention requirements of 264 Subpart C | Not applicable | No |
| § 264.30-34 & 37 | Preparedness and prevention: applicability, design and operation, required equipment, testing and maintenance of equipment, access to communications or alarm systems, and arrangements with local authorities | Permit Section 2.10<br>Section 3 of this permit modification request | Yes |
| § 264.35 | Required aisle space | Permit[2] Section 3.5.1(1) | No |
| § 264.227 | Surface impoundment emergency repairs | Not applicable | Not applicable |
| § 264.200 | Air emissions standards: Tank systems | Not applicable | Not applicable |
| § 270.14(b)(7) | Contingency plan | Revisions to Permit[2] Attachment D, TA-60, Table D-1 (TA-60-0017) are included in Attachment 3 of this permit request | Yes |
| § 264.50-56 | Contingency plan and emergency procedures: applicability, purpose/ implementation of contingency plan, content of contingency plan, copies of contingency plan, amendment to contingency, emergency coordinator, and emergency procedures | Revisions to Permit[2] Attachment D, TA-60, Table D-1 (TA-60-0017) are included in Attachment 3 of this permit request | Yes |
| § 270.14(b)(8) | Description of preparedness and prevention | Permit[2] Section 2.10 and Sections 3.3 and 3.4 of this permit modification request | Yes |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.14(b)(8)(i) | Hazard prevention in unloading operations | Permit[2] Section 3.15 and Section 3.4.1 of this permit modification request | Yes |
| § 270.14(b)(8)(ii) | Runoff prevention | Permit[2] Section 3.15 and Section 3.4.2 of this permit modification request | Yes |
| § 270.14(b)(8)(iii) | Prevent contamination of water supplies | Permit[2] Section 3.15 and Section 3.4.2 of this permit modification request | Yes |
| § 270.14(b)(8)(iv) | Mitigation of equipment failure and power outages | Permit[2] Section 3.15 and Section 3.4.3 of this permit modification request | Yes |
| § 270.14(b)(8)(v) | Prevention of undue exposure of personnel to hazardous waste | Permit[2] Section 3.15 and Section 3.5.5 of this permit modification request | Yes |
| § 270.14(b)(8)(vi) | Prevention of releases to the atmosphere | Permit[2] Section 3.15 and Section 3.4.4 of this permit modification request | Yes |
| 270.14(b)(9) | Prevention of accidental ignition or reaction of ignitable, reactive, or incompatible wastes | Permit[2] Section 2.8 | No |
| § 264.17 | Procedures to prevent accidental ignition, reaction of ignitables, reaction of reactives, reaction of incompatibles, and documentation of compliance with 40 CFR § 264.17 (general requirements for ignitable, reactive, or incompatible wastes) | Permit[2] Section 2.8 | No |
| § 270.14(b)(10) | Traffic pattern: volume, controls, and access | Attachment 2of this Permit Modification Request | Yes |
| § 270.14(b)(11) | Facility/unit identification and location information | Section 3 of this permit modification request | Yes |
| § 270.14(b)(11)(i) | Seismic standard applicability [40 CFR § 264.18(a)] | Section 3.6.1 and Attachment 2 of this permit modification request | Yes |
| § 270.14(b)(11)(ii) | Seismic standard requirements | Section 3.6.1 and Attachment 2 of this permit modification request | Yes |
| § 270.14(b)(11)(ii)(A) | No fault within 3,000 feet (ft) with displacement in Holocene time | Section 3.6.1 and Attachment 2 of this permit modification request | Yes |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.14(b)(11)(ii)(B) | If faults that have displacement in Holocene time are present within 3,000 ft, no faults pass within 200 ft of portions of the facility where treatment, storage, or disposal will be conducted | Section 3.6.1 and Attachment 2 of this permit modification request | Yes |
| § 264.18(a) | Seismic considerations | Attachment 2 of this permit modification request | Yes |
| § 270.14(b)(11)(iii) | 100-year floodplain standard | Figure 3-8 of this permit modification request | Yes |
| § 270.14(b)(11)(iv)(A–C) | Facilities located within the 100-year floodplain | Not applicable | Not applicable |
| § 270.14(b)(11)(v) | Compliance schedule for 40 CFR § 264.18(b) | Not applicable | Not applicable |
| § 270.14(b)(12) | Personnel training program (40 CFR § § 264.13(a)(3) and 264.16) | Permit[2] Section 2.7 and Permit[2] Attachment F | No |
| § 270.14(b)(13) | Closure and post-closure plans | Section 4 and Attachment 4 of this permit modification request | Yes |
| § 264, Subpart G | Closure and post-closure | Attachment 4 of this permit modification request | Yes |
| § 264.178 | Closure/containers | Not applicable | Not applicable |
| § 264.197 | Closure and post-closure care/tanks | Not applicable | Not applicable |
| § 264.228 | Surface impoundments | Not applicable | Not applicable |
| § 264.258 | Waste piles | Not applicable | Not applicable |
| § 264.280 | Land treatment | Not applicable | Not applicable |
| § 264.310 | Landfills | Not applicable | Not applicable |
| § 264.351 | Incinerators | Not applicable | Not applicable |
| § 264.603 | Requirements by the Secretary | Not applicable | Not applicable |
| § 270.14(b)(14) | Deed restrictions/post-closure notices (40 CFR § 264.119) | Not applicable | Not applicable |
| § 270.14(b)(15) | Closure cost estimate (40 CFR § 264.142) | Not applicable | Not applicable |
| § 270.14(b)(16) | Post-closure cost estimate (40 CFR § 264.144) | Not applicable | Not applicable |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.14(b)(17) | Liability insurance (40 CFR § 264.147) | Not applicable | Not applicable |
| § 270.14(b)(18) | Proof of financial coverage (40 CFR § 264.149-150) | Not applicable | Not applicable |
| § 270.14(b)(19) | Topographic map requirements | 2020 LANL General Permit Part A and TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(i) | Map scale and date | TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(ii) | 100-year floodplain area | TA-60 Figure 3-8 of this permit modification request | Yes |
| § 270.14(b)(19)(iii) | Surface waters | 2020 LANL General Permit Part A and TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(iv) | Surrounding land uses | Permit[2] Attachment N, Figures 1, 2, and 3<br>2020 LANL General Permit Part A and TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(v) | Wind rose | TA-60 Figure 3-11 of this permit modification request | Yes |
| § 270.14(b)(19)(vi) | Map orientation | 2020 LANL General Permit Part A and TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(vii) | Legal boundaries | 2020 LANL General Permit Part A and TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(viii) | Access control | Permit[2] Attachment N and TA-60 Figure 3-9 of this permit modification request | Yes |
| § 270.14(b)(19)(ix) | Wells | TA-60 Figure 3-1 of this permit modification request | Yes |
| § 270.14(b)(19)(x) | Buildings | 2020 LANL General Permit Part A and TA-60 Figure 3-10 of this permit modification request | Yes |
| § 270.14(b)(19)(xi) | Drainage barriers or flood control | TA-60 Figure 3-1 and Figure 3-8 of this permit modification request | Yes |
| § 270.14(b)(19)(xii) | Location of operational units | TA-60 Figure 3-3 of this permit modification request | Yes |
| § 270.14(b)(20) | Considerations under federal law | Section 3.6.3 of this permit modification request | Yes |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.3(a) | Wild and Scenic Rivers Act | Section 3.6.3 of this permit modification request | Yes |
| § 270.3(b) | National Historic Preservation Act | Section 3.6.3 of this permit modification request | Yes |
| § 270.3(c) | Endangered Species Act | Section 3.6.3 of this permit modification request | Yes |
| § 270.3(d) | Coastal Zone Management | Section 3.6.3 of this permit modification request | Yes |
| § 270.3(e) | Fish and Wildlife Coordination Act | Section 3.6.3 of this permit modification request | Yes |
| § 270.3(f) | Executive Orders | Section 3.6.3 of this permit modification request | Yes |
| § 270.14(b)(21) | Notice of extension approval for land disposal facilities | Not applicable | Not applicable |
| § 270.14(b)(22) | A summary of the pre-application meeting | Not applicable | Not applicable |
| § 270.14(c) | Groundwater monitoring requirements for regulated units | Not applicable | Not applicable |
| § 270.14(d) | Information requirements for SWMUs | Section 5 and TA-60 Figure 3-7 of this permit modification request | Yes |
| § 270.14(d)(2) | Information on releases from SWMUs | Section 5 and TA-60 Figure 3-7 of this permit modification request | Yes |
| § 270.14(d)(3) | RCRA[3] facility assessment sampling and analysis results | Not applicable | Not applicable |
| § 270.15 | Information requirements for containers | Revisions to Permit[2] Section 3.15 in Attachment 3 of this permit modification request, and Section 3 of this permit modification request | Yes |
| § 270.15(a) | Description of containment system | Permit[2] Section 3.7 | No |
| § 270.15(b) | Storage areas holding wastes that do not contain free liquids | Permit[2] Section 3.7, and Permit[2] Attachment A, Section A.5 | No |
| § 264.171 | Condition of containers | Permit[2] Part 3 | No |
| § 264.172 | Compatibility of waste with containers | Permit[2] Part 3 | No |
| § 264.173 | Management of containers | Permit[2] Part 3 | No |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 264.175(a-c) | Containment | Units comply with containment requirements of Permit[2] Section 3.7<br>A general description of the unit is located at Permit[2] Section 3.15 and Section 3 and Attachment 3 of this permit modification request | Yes |
| § 270.15(c) | Requirements for ignitable, reactive, and incompatible wastes | Permit[2] Sections 2.8 | No |
| § 270.15(d) | Requirements for incompatible wastes | Permit[2] Section 2.8 | No |
| § 264.176 | 15-meter storage buffer for ignitable or reactive wastes | Permit[2] Section 2.8 | No |
| § 264.177(a) | Incompatible wastes in containers | Permit[2] Section 2.8 | No |
| § 264.177(b) | Incompatible wastes in containers | Permit[2] Section 2.8 | No |
| § 264.177 (c) | Incompatible wastes separation or segregation | Permit[2] Section 2.8 | No |
| § 264.17 (b) | Prevention of reactions | Permit[2] Section 2.8 | No |
| § 264.17(c) | Documentation of precautions for ignitable, reactive or incompatible waste | Permit[2] Section 2.8 | No |
| § 270.15(e) | Information on air emissions control equipment | Permit[2] Section 3.9 and Permit[2] Attachment E, Section E.8 | No |
| § 270.27 | Air emissions controls for containers | Permit[2] Section 3.9, Permit[2] Attachment C, Section C.5.4, and Permit[2] Attachment E, Section E.8 | No |
| § 270.16 | Information requirements for tank systems | Not applicable | Not applicable |
| § 270.17 | Information requirements for surface impoundments | Not applicable | Not applicable |
| § 270.18 | Information requirements for waste piles | Not applicable | Not applicable |
| § 270.19 | Information requirements for incinerators | Not applicable | Not applicable |
| § 270.20 | Information requirements for land treatment facilities | Not applicable | Not applicable |
| § 270.21 | Information requirements for landfills | Not applicable | Not applicable |

| Regulatory Citation(s) 40 CFR | Description of Requirement | Location of Documentation | Revision or Supplementary Information |
|---|---|---|---|
| § 270.62 | Hazardous waste incinerator permits | Not applicable | Not applicable |
| § 270.63 | Permits for land treatment demonstrations using field test or laboratory analysis | Not applicable | Not applicable |

1 *Transmittal of General Part A Permit Application (Revision 10.0) for the Los Alamos National Laboratory; EPA ID No. NM0890010515*, June 2020 (ESHQSS-20-029, LA-UR-19-32403).
2 Requirement of information is also addressed in the *Hazardous Waste Facility Permit Issued by the New Mexico Environment Department to Los Alamos National Laboratory*, EPA No. NM0890010515, November 2010.
3 RCRA = Resource Conservation and Recovery Act

# 2 Overview of Class 2 Permit Modification Request

This Class 2 permit modification request is drafted to add a new hazardous waste management unit located at TA-60 to the Permit. The information within this document and its attachments addresses the relevant permit application requirements of 40 CFR Part 270, Subpart B. The unit to be permitted consists of the southern portion of TA-60-0017.

## 2.1 Permit Modification Outline

This permit modification request is organized as follows:

- Section 1: Includes an introduction to the permit modification request and a crosswalk of the regulatory requirements associated with the proposed units
- Section 2: Contains an overview of the Class 2 Permit Modification Request
- Section 3: Includes a description of TA-60-0017 and addresses waste-handling procedures, waste characterization, security, preparedness, hazards prevention, emergency equipment, inspection requirements, and recordkeeping requirements
- Section 4: Includes closure requirements
- Section 5: Contains a description of the seven solid waste management units (SWMUs) located within a 1,000-ft radius of the southern portion of TA-60-0017
- Section 6: Contains a list of references used throughout this document
- Section 7: Contains the certification statement and signatures for this permit modification request as required by 40 CFR § 270.11

Attachments included with this permit modification request provide detailed information to meet regulatory requirements. These attachments include the following:

- Attachment 1: Part A Form and Other Part A Application Requirements
- Attachment 2: Seismic Report for the TA-60 Facility

- Attachment 3: Proposed Modifications to the LANL Hazardous Waste Facility Permit – Red Line/Highlight
- Attachment 4: TA-60-0017 Closure Plan, Indoor Container Storage Unit
- Attachment 5: LANL Traffic Study and TA-60 Traffic Data
- Attachment 6: Design Drawings

## 2.2 Class 2 Permit Modification Requirements

The 40 CFR § 270.42(b) requirements state that the Permittees shall submit a modification request to the Department that contains all of the following information:

- describes the exact changes to be made to the permit conditions and supporting documents referenced by the Permit,
- identifies that the modification is a Class 2,
- explains why the modification is needed, and
- provides the applicable information required by 40 CFR § 270.13 and § 270.14.

Sections 2.2.1 through 2.2.3 provide the information required by the first three items above. The remainder of the document contains the application information that is required by the fourth item above. Table 1-1 outlines each of the regulatory references and the locations where the information can be found in existing documentation and/or within this permit modification request.

### 2.2.1 *Proposed Changes*

Attachment 3 contains proposed Permit changes that incorporate descriptions and site-specific equipment and procedures for this unit. Additional and revised text is proposed for both Permit Parts and Permit Attachments. The Permit sections proposed for revision include the following:

- Permit Part 1, General Permit Conditions
  - Permit Table 1.2.1, *List of Hazardous Waste Management Units and Co-Operators*, is revised to include TA-60.
  - Permit Section 1.5, *Effect of Inaccuracies in Permit Application*, is revised to include this permit modification request.
- Permit Part 3, Storage in Containers
  - Permit Section 3.15, *TA-60 Container Storage Requirements,* and subsection added to include a permitted unit at TA-60-0017.
- Permit Attachment A, Technical Area (TA) – Unit Descriptions
  - Permit Attachment Section A.7, *TA-60,* and subsection added to include TA-60-0017.
- Permit Attachment B, *Part A Application*
  - Changes to Permit Attachment B are included within Attachment 1 of this permit modification request and are reproduced in Attachment 3 for completeness. Updates to the

Part A Application form include the use of the most current EPA form, updates to contact information for both owners and operators, updates to the list of other environmental permits, and the addition of the applicable information for TA-60-0017 in Item 6, *Process Codes and Design Capacities* and Item 7, *Description of Hazardous Wastes*.

- Permit Attachment D, General Contingency Plan
  - Inclusion of available emergency equipment as Permit Attachment Table D-1, *TA-60 Building 17, Container Storage Emergency Equipment*, as well as reference to the table in applicable sections of Permit Attachment
- Permit Attachment G.31, Technical Area 60, Building 17 Container Storage Unit
  - Addition of a closure plan for a permitted unit at TA-16-0017.
- Permit Attachment J, Hazardous Waste Management Units
  - Inclusion of applicable information for TA-60-0017 in Table J-1, *Active Portion of the Facility*.
- Permit Attachment N, *Figures*
  - Revision of Figure 2, LANL Facility Boundary and Technical Area (TA)-Specific Map and Figure 3, LANL Facility Boundary with Detail of Non-LANL Areas to include TA-60. Addition of Figure 51, TA-60 Location Map; Figure 52, Security and Access to TA-60-0017; and Figure 53, TA-60-0017 Site Plan.

The TA-60 Rack Tower Complex, which includes Buildings 17 and 19, was constructed in 1986. Design drawings are discussed in Section 3 and included in Attachment 6 of this permit modification request to illustrate construction details for TA-60-0017. The relevant part of 40 CFR § 270.14(a) requires that design drawings are submitted with waste management unit applications for approval be certified by a qualified professional engineer. The drawings in this permit modification request have been certified by professional engineers registered in the State of New Mexico. These engineers were responsible for the preparation of the drawings in support of the design process for the unit.

### 2.2.2 *Purpose of the Permit Modification*

The intent of this Class 2 permit modification request is to add a new hazardous waste storage unit (TA-60-0017) to the Permit.

The Laboratory's strategy for hazardous waste is to first minimize both the volume and toxicity of any hazardous waste generated on site, based on the permit, policies, and procedures (including the *2019 Enduring Waste Mission Management Plan*) in place. Nevertheless, the generation of hazardous waste occurs and requires waste management and storage. Implementation of the Laboratory strategy for hazardous waste is focused on waste-generator training, planning, and waste avoidance. Waste avoidance is accomplished by minimizing the volume and toxicity of waste generated to achieve source reduction and to reduce the overall volume and cost of hazardous waste disposal. Any waste that is generated is managed in controlled storage areas and shipped to off-site treatment, storage, and disposal facilities (TSDFs). Hazardous waste is currently either shipped offsite directly from generation sites or from the southern portion of TA-60-0017, which in its existing configuration is used as a Central

Accumulation Area (CAA) and is authorized for storage for less than 90 days as well as for consolidation of hazardous and mixed waste shipments from generator areas throughout the Laboratory. Other wastes, such as non-hazardous, New Mexico Special Waste, polychlorinated biphenyls (PCBs), universal, used oil, and low-level waste are also stored within the building. The area is used to effectively pre-package, label, group, and/or stage shipments from generator sites to ensure that shipments of waste are optimized to the extent practicable. However, there is a need for longer-term waste storage options as the use of TA-54 Area L—now managed by N3B—shifted and is no longer a viable option for routine longer-term storage needs.

Therefore, the addition of TA-60-0017 as a hazardous waste management unit to the LANL Hazardous Waste Facility Permit is critical to facility operations and mission success. Transitioning the facility from a CAA to a permitted unit, allowing for storage up to 1 year, is an important near-term option to facilitate overall storage and transportation efficiencies until a more permanent solution is identified. Incorporating an option for treatment by macroencapsulation is also included in the permit modification request. The long-term strategy is to continue direct off-site shipments and to design/build a new integrated modern facility suitable for an enduring mission consolidated storage area for hazardous waste, low-level waste, and mixed low-level waste requirements on the Pajarito corridor outside of TA-54.

Site review of this geospatial location for technical feasibility was completed as part of overall efforts to determine its viability as a permitted container storage unit under the Permit. This evaluation included considerations for traffic patterns within the area associated with waste management activities and compliance with seismic location standards. The area was also reviewed for complications associated with a temporary or permanent changes to the mission designation, because it is a portion of a historic building complex with military significance.

### 2.2.3 *Justification for Classification*

The addition of the proposed unit will result in up to and no greater than a 0.3 percent increase in the facility's storage capacity. This Class 2 permit modification request will be initiated pursuant to 40 CFR § 270.42, Appendix I, Item F.1.b. The capacity for the unit (TA-60-0017, southern portion) is approximately 17,600 gallons (gal.) (320 drums or drum equivalents). The total current capacity for existing, permitted hazardous waste storage units across the entire LANL campus, as listed in Table J-1, *Active Portion of the Facility* in Attachment J, *Hazardous Waste Management Units,* of the Permit, is 4,758,720 gallons (~86,522 drums or drum equivalents). This modification also adds a treatment process to the proposed unit that falls under 40 CFR § 270.42, Appendix I, Item F.1.c that requires a Class 1 permit modification with prior approval. The addition of the proposed unit falls under the more robust class 2 requirements, therefore this modification has been drafted in accordance with those requirements.

# 3 Facility Requirements

This section of the permit modification request addresses general requirements for TA-60-0017 that are not currently included the Permit. If the information is contained in the Permit, it is not discussed in this request. Information provided that is specific to the unit to be permitted includes the following:

- the waste management unit description,
- preparedness and prevention,
- emergency equipment, and
- a listing and locations for required topographic maps.

## 3.1 Description of the Proposed Waste Management Unit

The waste management unit proposed in this application will provide additional storage for hazardous waste. The facility (Figure 3-1) is part of an existing structure and specifically consists of the southern portion of TA-60-0017. Table 3-1 identifies the unit requested to be permitted, including the location, storage, and treatment capacity. The unit will provide container storage for hazardous waste, including the hazardous component of mixed low-level waste streams. Treatment via macroencapsulation will be conducted for select waste streams as described in Section 3.1.3. This unit will manage hazardous waste streams generated throughout the LANL campus. The information provided in this section is submitted to address the applicable requirements of 40 CFR § 270.14(b)(1).

Table 3-1. TA-60 Proposed Unit to be Permitted

| Waste Management Unit Name | Location | Capacity |
|---|---|---|
| TA-60-0017 | Southern Portion of TA-60-0017 | 17,600 gallons Storage |
| | | 3,441 gallons/day Treatment |

### 3.1.1 *TA-60-0017*

The TA-60-0017 facility, part of the historic Rack Tower Complex that includes TA-60-0017 (Rack Assembly Facility) and TA-60-0019 (Test Fabrication Facility), was constructed in 1986 to support atomic tests conducted at the Nevada Test Site. TA-60-0017 is located in the north central part of LANL approximately 0.8 miles east of the intersection of Diamond and Enewetak Drives adjacent to the LANL Roads and Grounds maintenance area.

It is a unique, pre-engineered, steel-frame structure that consists of two wings connected by a small control room and stairwell enclosure. The north wing was the harness fabrication and tensile test facility and the south wing—the focus of this proposed storage unit permit modification request—was the paint building. The building consists of substantial concrete footings, slabs, and stem walls. The south portion is 120 feet (ft) long by 29 ft wide and 23 ft high. The building exterior is in excellent condition. While showing some signs of weathering, no indication exists of any structural damage or water infiltration.

The permitted boundary will be the entire footprint of the southern portion of the building. Waste will be stored in accordance with Permit Section 3.5.1. The 2-ft emergency egress aisles will be maintained appropriately in accordance with Permit Section 3.5.1(1). See Figure 3-2 for a plan view of TA-60-0017. The southern portion of the building will consist of one hazardous waste management unit. The maximum storage capacity in the facility was calculated based on the utilization of the designated area in Figure 3-3. As noted in previous sections, the maximum storage capacity is estimated to be approximately 17,600 gallons or the equivalent of 320 55-gallon drums. The waste may be stored in, but is not limited to storage in, the following types of Department of Transportation (DOT) compliant containers:

- 5-gallon through 85-gallon containers;
- standard waste boxes (SWBs);
- large waste boxes;
- waste bags; and
- double-layered plastic wrap for solid, oversized items contaminated with hazardous wastes that cannot be effectively containerized within previously referenced options.

The approximate storage configuration is shown in Figure 3-3. The design drawing for the facility floor plan is included for TA-60-0017 as Figure 3-4 in this permit modification request to illustrate the construction details for the unit structure. Additional design drawings for TA-60-0017 are included as Attachment 6 of this permit modification request. These drawings have been certified by professional engineers registered in the State of New Mexico. These engineers were responsible for the preparation of the drawings in support of the design process for the facility.

### 3.1.2 *Storage Activities*

Waste containers will be stored in the designated permitted area of TA-60-0017. Raised pallets, wheeled drum dollies, and/or other appropriate approaches will be used to elevate containers off the floor. Most of the containers on pallets may be stacked two high; small containers such as 5-gallon buckets may be stacked three high. Not more than 17,600 gallons or the equivalent of 320 drums (55-gallons) of waste will be stored in the unit at any one time. This storage unit will increase the storage capacity at LANL by approximately 0.3 percent. Forklifts or hand trucks will be used to move the waste.

All storage activities will be managed according to all applicable requirements contained in the Permit, including the following:

- Part 1 – General Permit Conditions
- Part 2 – General Facility Conditions
- Part 3 – Storage in Containers
- Attachment C – Waste Analysis Plan
- Attachment D – Contingency Plan
- Attachment E – Inspection Plan

- Attachment F – Personnel Training Plan

### 3.1.3 *Treatment by Macroencapsulation*

Macroencapsulation is an EPA-approved immobilization technology that includes the application of surface-coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. The encapsulating material must completely encapsulate debris and be resistant to degradation by the debris and its contaminants and materials with which it may contact after placement (leachate, other waste, microbes). This section outlines the macroencapsulation treatment processes conducted at TA-60-0017 in accordance with this permit modification request and the requirements of 40 CFR 264, Subpart I, *Use and Management of Containers*.

Treatment by macroencapsulation will treat only those wastes with the EPA Hazardous Waste Numbers listed in association with the "Other Treatment" (T04) activities in Attachment J, Table J-1, and in the LANL General Part A Permit Application updates and are included in this permit modification request, Attachment 1, *Part A Form and Other Part A Application Requirements*. Waste constituents and characterization details for the authorized wastes are included in Permit Attachment C, *Waste Analysis Plan*. Hazardous debris waste and radioactive lead solids waste will be treated within TA-60-0017. The treatment objective of macroencapsulation is to use an EPA-approved macroencapsulation treatment technology to meet the land disposal restriction (LDR) treatment standard for hazardous debris waste and radioactive lead solids specified in 40 CFR 268.42 and 40 CFR 268.45. Treatment of hazardous waste by macroencapsulation will use a polymer coating or a jacket of inert inorganic materials to immobilize wastes by completely surrounding the waste with a leach-resistant coating to meet the LDR treatment standard for hazardous debris waste and radioactive lead solids as specified above.

Containers will be managed in accordance with the requirements of Permit Part 3, *Storage in Containers*. Macroencapsulation containers will not be stacked after the treatment process and will not be moved using the straps or handles connected to the containers. Containers used for the macroencapsulation treatment process will be stored, managed, and transported according to manufacturers' requirements (including protection from the sun). The macroencapsulation containers will be inspected to ensure that no tears or damage occurs to the containers during the macroencapsulation treatment process. After treatment, the waste will meet LDR treatment standards for toxicity characteristic hazardous waste debris. The EPA hazardous waste numbers D004–D011 and D018–D043 will no longer apply to the waste.

No design, construction, or operational requirements are associated with this treatment technology. LANL will ensure that the macroencapsulation treatment technology used is approved by EPA and is accepted by the ultimate off-site disposal facility. Additionally, treatment by macroencapsulation will occur indoors to ensure that no moisture or precipitation comes in contact with the encapsulation/immobilization jacket.

## 3.2 Authorized Wastes and Waste Acceptance

The TA-60-0017 facility will store hazardous wastes identified by one or more of the EPA Hazardous Waste Numbers presented in LANL General Part A Permit Application updates and are included in this permit modification request, Attachment 1, *Part A Form and Other Part A Application Requirements*.

## 3.3 Preparedness and Prevention

The following sections define how operations at TA-60-0017 will comply with the preparedness and prevention requirements of 40 CFR Part 264, Subpart C, *Preparedness and Prevention*. Health and safety procedures, followed by site personnel during routine operations are described in Section 3.4, *Hazards Prevention* of this permit modification request.

*Required Equipment*

Decontamination equipment is available at TA-60-0017. This equipment includes a spill kit control station, a safety shower, and an eyewash station. If necessary, additional decontamination equipment may be provided by facility emergency response personnel during an emergency.

## 3.4 Hazards Prevention

A description of the preventive procedures, structures, and equipment at the TA-60-0017 facility is presented below. This information is provided in accordance with the requirements of 40 CFR Part 264, Subpart C; and 40 CFR § 270.14(b)(8).

### 3.4.1 *Preventing Hazards During Unloading*

Flatbed trucks, trailers, forklifts, and/or other appropriate vehicles may be used to transport waste containers to and from the hazardous waste management unit at TA-60-0017. If necessary, forklift operators may use a boom to improve handling capabilities. Small containers may be handled manually or with a dolly. To mitigate hazards while moving containers, operators are required to use handling equipment appropriate for a container's size and weight.

### 3.4.2 *Preventing Run-on/Run-off*

The TA-60-0017 waste storage unit is completely enclosed, which precludes precipitation run-on. Run-off control of liquids that results from any fire-suppression activities will be accomplished using a vacuum truck, a portable pump, a high-efficiency particulate air vacuum, and/or sorbents, depending on the volume and location of accumulated liquid.

Site drainage allows rainwater to flow away from the structure (Figure 3-1, Figure 3-2, and Figure 3-5). Pursuant to the requirements of 40 CFR § 270.14(b)(19)(xi), topographic contours and surface drainage around TA-60-0017 are also shown in Figure 3-1 of this document. These features will prevent run-on to TA-60-0017.

### 3.4.3 *Mitigating Effects of Power Outages*

Electrical power is supplied to operate lights, equipment, various instruments, and other devices at TA-60-0017. Evacuation alarms located throughout TA-60 are equipped with a battery backup and will continue to operate for 8 hours during a power failure. Waste management operations would be discontinued temporarily if electrical power is not restored quickly or if container-handling equipment fails. Neither a power nor an equipment failure would affect containment at TA-60-0017.

### 3.4.4 *Preventing Releases to the Atmosphere*

Releases to the atmosphere are not anticipated from the waste stored in TA-60-0017. All waste containers meet DOT Class A shipping container standards and will be fully inspected before placement at the unit. All waste materials are packaged and sealed before entering the building and will remain in sealed containers during handling and storage until shipped offsite except when repackaging or sampling activities must be conducted. Waste is never left open and unattended to prevent exposure to workers, the building, or the environment in the storage area.

During storage, waste containers will be inspected in accordance with Permit Section 2.6 and Attachment E, *Inspection Plan*, requirements. In the event of an unexpected release, all personnel working within or near the area will be notified immediately to evacuate.

## 3.5 Contingency Plan

In accordance with 40 CFR Part 264, Subpart D, *Contingency Plan and Emergency Procedures*, and 40 CFR § 270.14(b)(7), emergency measures applicable to TA-60-0017 will be included in Permit Attachment D, *Contingency Plan*, (proposed language is shown in red line highlighted text in Attachment 3 of this permit modification request). A copy of the Contingency Plan in Attachment D of the Permit will be maintained at the permitted unit. Proposed contingency plan language for TA-60-0017 is presented in Sections 3.5.1 through 3.5.6 of this permit modification request.

Figure 3-6 shows an evacuation route and assembly/muster area that may be used at the facility in the event of an emergency. This plan is updated and accessible at all times. The evacuation route, assembly/muster area location, and emergency equipment are subject to change.

The following sections describe the equipment located at TA-60-0017 in case of an emergency.

### 3.5.1 *Fire Control Equipment*

The structure is equipped with a wet pipe sprinkler system, an alarm system (pull stations, horn, and strobe units), and a partial smoke detection system. The smoke detection is located over the fire alarm control panel (FACP) and is required for the FACP. Also, exit signage, emergency lights, and ABC- and/or BC-rated fire extinguishers are located and spaced accordingly in the structure. An ABC- and/or BC-rated fire extinguisher is located in each vehicle used to transport waste containers to the facility. In the event of a small fire, portable and manually operated fire extinguishers may be used by any qualified employee. For larger fires, the Emergency

Operations and Support Center (EOSC) and the Los Alamos Fire Department (LAFD) is alerted and requested to respond.

The EOSC and LAFD are also notified upon activation of the flame or smoke detectors.

A fire hydrant is located near TA-60-0017, that supplies water at an adequate volume and pressure to satisfy the requirements of 40 CFR 264.32(d).

### 3.5.2 *Spill Control Equipment*

Spill control stations and/or portable spill kits are located at TA-60-0017. Each spill kit generally includes bags of absorbent and an inventory of tools and supplies.

### 3.5.3 *Communication Equipment*

A telephone system is located at TA-60-0017. Facility personnel use cell phones for communications. A telephone and portable two-way radios for internal and external communication is available for use by any employee. Employees can be notified of an emergency situation and appropriate response action through the LANL Alert notification system.

A fire alarm pull station is located at TA-60-0017. In case of a fire, notification will be made via telephone. In the event of a fire, manually operated fire alarms may be activated by any employee to alert site personnel, EOSC, and the LAFD.

Fire and public address system alarms are located throughout the facility. The fire alarm system is activated or used to provide a sound signal to alert personnel of fires or the need to clear the area.

### 3.5.4 *Decontamination Equipment*

A safety shower, eyewash station, and applicable safety data sheets (SDSs) are available at TA-60-0017. The SDS information is maintained where appropriate for personnel accessibility and is used for chemicals that will be needed to support operations or emergency activities.

The emergency shower and eyewash may be used by personnel who are exposed to hazardous waste or chemicals or who receive a splash to the eyes. Specific SDSs should be reviewed before working with materials.

### 3.5.5 *Personal Protective Equipment*

Personnel at TA-60-0017 are required to use appropriate personal protective equipment (PPE) to protect themselves from hazards found under normal operating conditions. This PPE may include gloves, steel-toe footwear, and eye protection. Additional PPE may be required during unusual hazardous situations. First aid kits and hearing protection are also available.

To prevent undue exposure of personnel to hazardous waste, PPE appropriate for the waste containers being managed will be worn by all on-site personnel at TA-60-0017. First aid kits are available and may be used by personnel who sustain minor injuries at the unit in the course of operations. Hearing protection may be used by operations personnel to mitigate noise impacts.

#### 3.5.6 *Other*

If transportation is needed for evacuation, vehicles may be obtained through the LANL Emergency Management and Response Group.

### 3.6 Facility Requirements

This section of the TA-60 permit modification request addresses facility information requirements including location information (i.e., seismic standard); provides a listing and location for required topographic maps; and includes an evaluation of other federal laws. Floodplain standards are also addressed.

#### 3.6.1 *Seismic Standard*

The proposed TA-60-0017 facility is compliant with the seismic location standards of 40 CFR § 270.14(b)(11) and 264.18(a). These regulations require seismic studies for new facilities to demonstrate that evidence of Holocene faulting is not found within 200 feet of the waste management unit. The seismic investigation included in Attachment 2, *Seismic Report for the TA-60 Facility*, of this permit modification request demonstrates that there has been no direct evidence observed for Holocene faulting within the noted radius of the facility.

#### 3.6.2 *Floodplain Standard*

TA-60-0017 is located on a mesa top. In accordance with 40 CFR § 270.14(b)(11)(iii through v), the facility is not located within the 100-year floodplain boundary.

Figure 3-1 of this permit modification request shows that the TA-60-0017 unit is not located within the 100-year floodplain.

#### 3.6.3 *Historic Cultural Sites*

TA-60-0017 is part of the Rack Tower Complex (TA-60-0017 and TA-60-0019), which was declared eligible in 2006 for the National Register of Historic Places and part of a potential Cold War–period National Historic Landmark District. The building is in excellent condition according to LANL Heritage Assets reporting and is included in the LANL Cultural Resources Management Plan. Structure use, preservation, and maintenance activities have been coordinated internally with LANL subject matter experts and externally in consultation with the New Mexico State Historic Preservation Officer (SHPO); concurrence for waste management activities has been provided with conditions to protect the structure.

#### 3.6.4 *Topographic Maps*

Topographic maps and figures are provided in this permit modification request or are referenced to meet the requirements of 40 CFR § 270.14(b)(19). The maps clearly show the map scale, the date of preparation, and a north arrow. The maps and figures used to fulfill the regulatory requirements in this submittal include the following:

- The locations of structures, the hazardous waste management unit, surface water features, and terrain topography (1-mile radius) are included in Attachment 1: *Part A Form and Other Part A Application Requirements*, and Figure 3-1 of this permit modification request.
- A map showing the RCRA unit, water table contours, monitoring wells, springs, and drainage areas within 1 mile of TA-60-0017 is included as Figure 3-2 of this permit modification request.
- Configuration of the storage unit in the southern wing of TA-60-0017 is shown in Figure 3-3.
- A topographic map of the area surrounding TA-60-0017, within 1,000 ft, along with natural drainage, streams (perennial), and wetlands is shown as Figure 3-5 of this permit modification request.
- Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) in the vicinity of TA-60-0017 based on the LANL Potential Release Site (PRS) database are included as Figure 3-7 and are detailed in Section 5 of this permit modification request.
- A 100-year floodplain map showing the location of the TA-60 unit is included in Figure 3-8 of this permit modification request.
- Security access control features are identified in Figure 3-9 of this permit modification request.
- A map that displays structures, roads, and traffic signs near TA-60-0017 is included as Figure 3-10 of this permit modification request.
- Wind roses for TA-06—the location of the closest wind observation towers to TA-60 at LANL—are shown in Figure 3-11 (day and night) of this permit modification request.
- Maps showing the legal boundaries of LANL are located in Permit Attachment N, Figures 1 through 3 of the Permit. Updates to Figures 2 and 3 within Permit Attachment N are included in Attachment 3 of this permit modification request.
- A map showing National Pollutant Discharge Elimination System (NPDES) discharge structure locations is included as Map 2 in the LANL General Part A Permit Application, Revision 10.0 (LANL 2020).
- Fire stations that serve LANL and the County of Los Alamos are shown on Figure 49 of Permit Attachment N.

### 3.6.5 *Other Federal Laws*

Under 40 CFR § 270.3 and § 270.14(b)(20), the following additional federal laws are required to be given consideration when applying for a hazardous waste facility permit:

*The Wild and Scenic Rivers Act* (16 United States Code [USC] 1273 et seq.) provides for a national wild and scenic rivers system and prohibits construction of any waterway that would have a direct adverse effect on the values for which a wild and scenic river was established.

*The National Historic Preservation Act of 1966* (16 USC 470 et seq.) establishes a program for the preservation of historic properties throughout the country. The act has provisions that require mitigation of adverse effects to registered properties.

*The Endangered Species Act of 1973* (16 USC 1531) provides for the conservation of endangered and threatened species of fish, wildlife, and plants. The act prohibits any action that would jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

*The Coastal Zone Management Act of 1972* (16 USC 1451 et seq.) establishes national policy for the management, use, protection, and development of land and water resources of the nation's coastal zones. Section 307(c) of the act and implementing regulations prohibit the EPA from issuing a permit for activity affecting coastal zone land or water use without the certification from the applicant that the activity is in compliance with the state Coastal Zone Management Program.

*The Fish and Wildlife Coordination Act of 1934*, as amended (16 USC 661 et seq.) promotes the conservation of wildlife, fish, and game and integrates this conservation with water resource projects. Certain provisions of the act require that permits that propose or authorize the impoundment, diversion, or other control or modification of any body of water be considered by the appropriate state agency for impacts to wildlife resources.

Special consideration was given to *the National Historic Preservation Act*, *the Endangered Species Act*, and *the Fish and Wildlife Coordination Act* in particular because of ongoing programs at LANL.

*The National Historic Preservation Act* is administered by the Advisory Council on Historic Preservation, appointed by the President and the New Mexico State Historic Preservation Division of the New Mexico Department of Cultural Affairs. Section 106 of the Act requires DOE to consider the effects of its actions on historic properties and to provide the Council with a reasonable opportunity to comment on those actions and the manner in which DOE takes historic properties into account in their decisions. DOE meets this requirement through consultation with the SHPO whenever a project may potentially impact a historic property. LANL may prepare a Historic Building Survey Report that assesses the eligibility of a historic building that dates from the Manhattan Project and early Cold War periods (1943 to 1956) for the National Register of Historic Places and evaluates the impacts of the proposed actions. The consultation process was formalized in April 2000 through a Programmatic Agreement between DOE, the Advisory Council, and the State of New Mexico. As noted in Section 3.6.3, LANL has been collaborating with SHPO to develop effective solutions.

For any undertaking on DOE land that may directly or indirectly impact threatened and endangered (T&E) species or their habitat, DOE must consult with the U.S. Fish and Wildlife Service (USFWS) as provided under Section 7 of the Endangered Species Act. Similarly, DOE must consult with the USFWS for projects that would impound, divert, or otherwise control or modify a body of water as required by the *Fish and Wildlife Coordination Act*.

For *Endangered Species Act* compliance, LANL may prepare a biological assessment to document the presence of T&E species and to evaluate the impacts of a project on a listed species or its habitat. DOE will then request in writing that the USFWS concur with the DOE's findings in the biological assessment. In recent years, DOE and LANL have streamlined the consultation process by preparing a T&E Species Habitat Management Plan. This plan fulfills the provisions of the *Endangered Species Act* that require federal agencies to carry out programs for the conservation of T&E species and their habitat. The USFWS approved this plan originally in February 1999, and the plan is updated as needed.

Provisions in the *Wild and Scenic Rivers Act* and the *Coastal Zone Management Act* are not applicable to LANL's activities.

LANL also continues to actively review all proposed actions such as this permit modification request via the Integrated Review Tool (IRT) including the Permits and Requirements Identification (PRID) in accordance with the *National Environmental Policy Act* (NEPA). The DOE/NNSA NEPA Analysis determined that the proposed action meets the conditions for categorical exclusion. Additionally, consideration will be given to *Executive Orders*—issued by the President—that are relevant to waste management activities at LANL. When any of these Orders are applicable, its provisions will be followed. Requirements for Executive Orders are reserved in 40 CFR § 270.3(f).

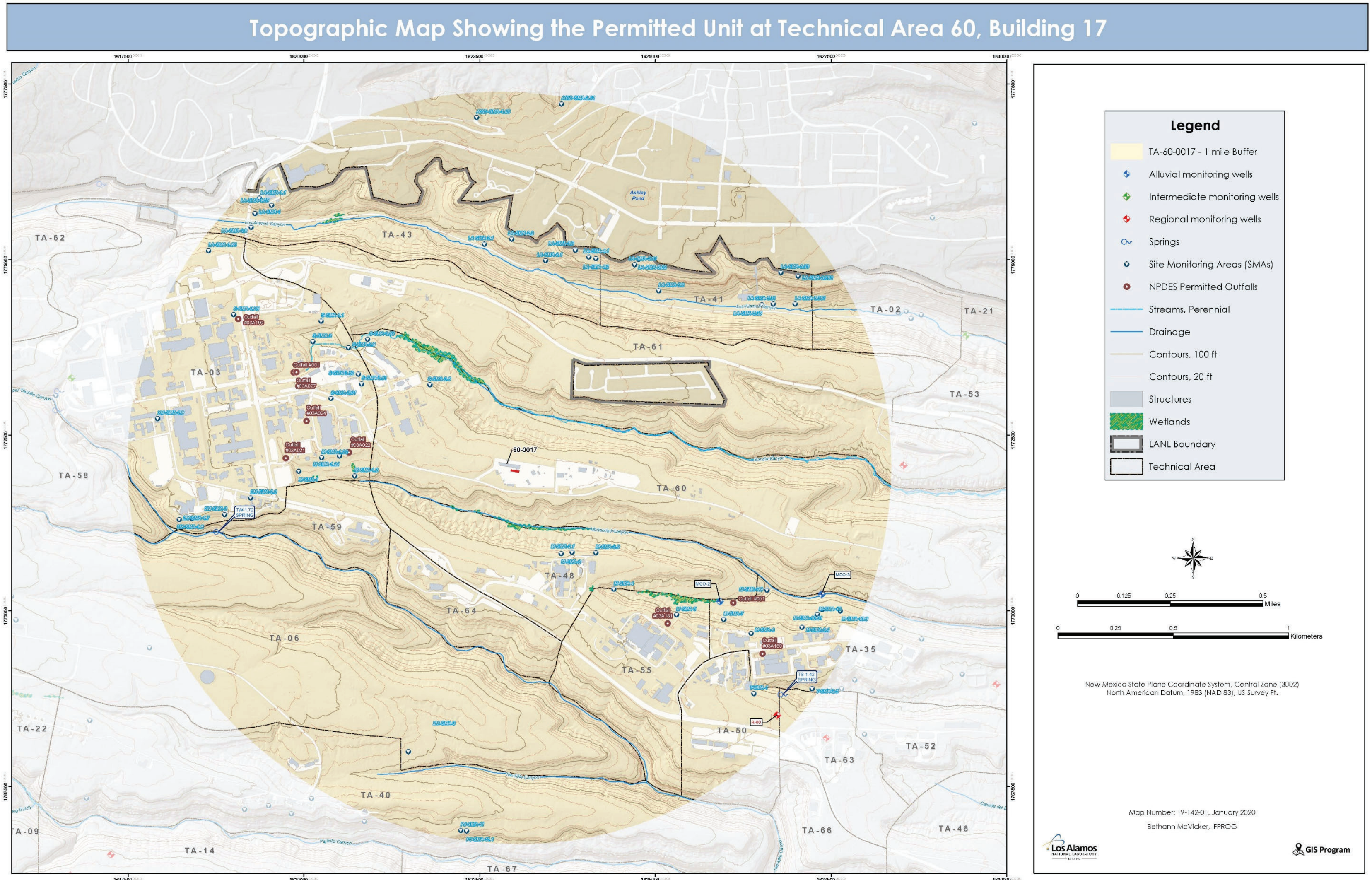


Figure 3-1. TA-60-0017 RCRA Storage Unit with Topographic Features.

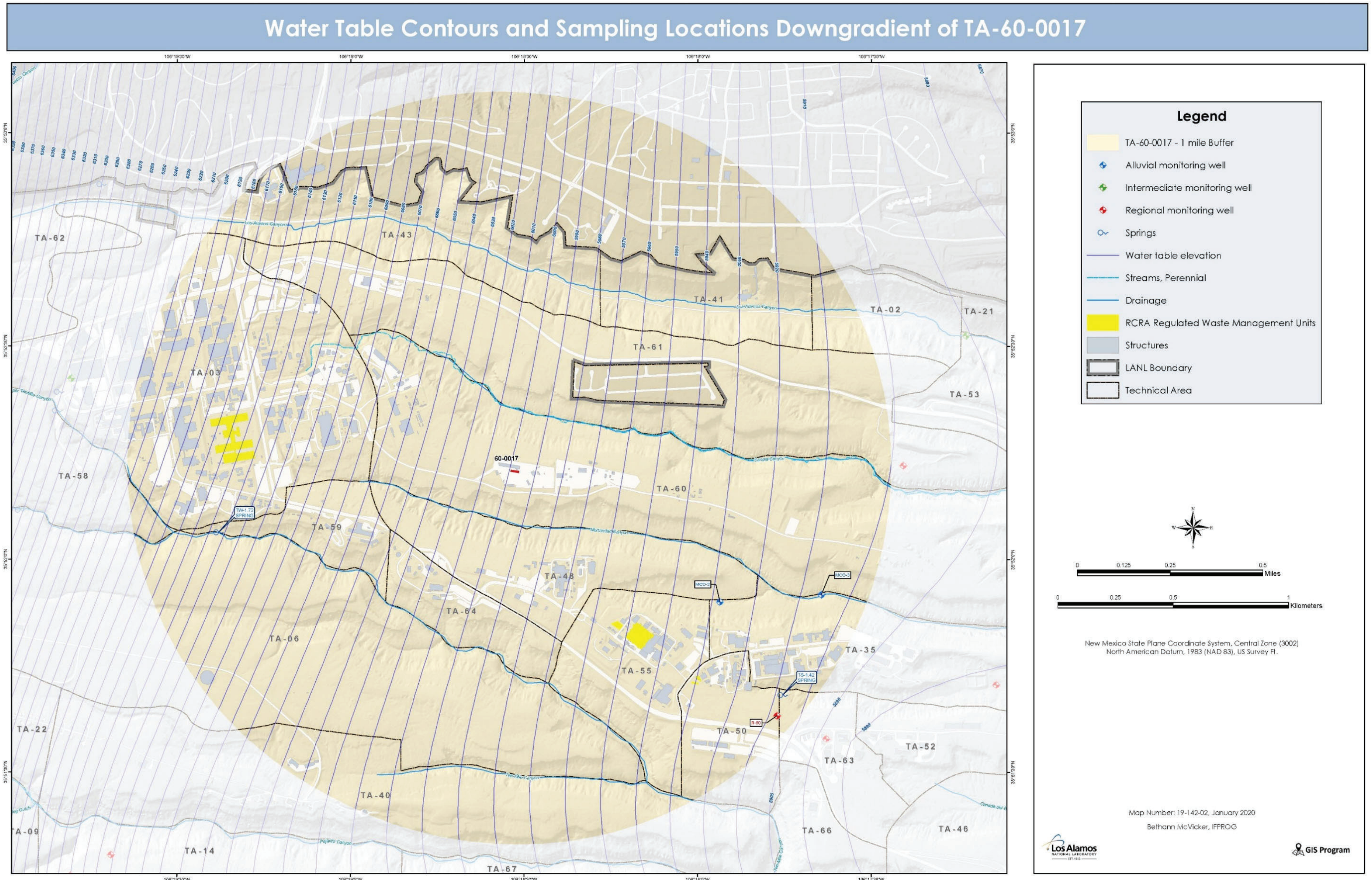


Figure 3-2. TA 60-0017 with Water Table Contours and Sampling Locations.

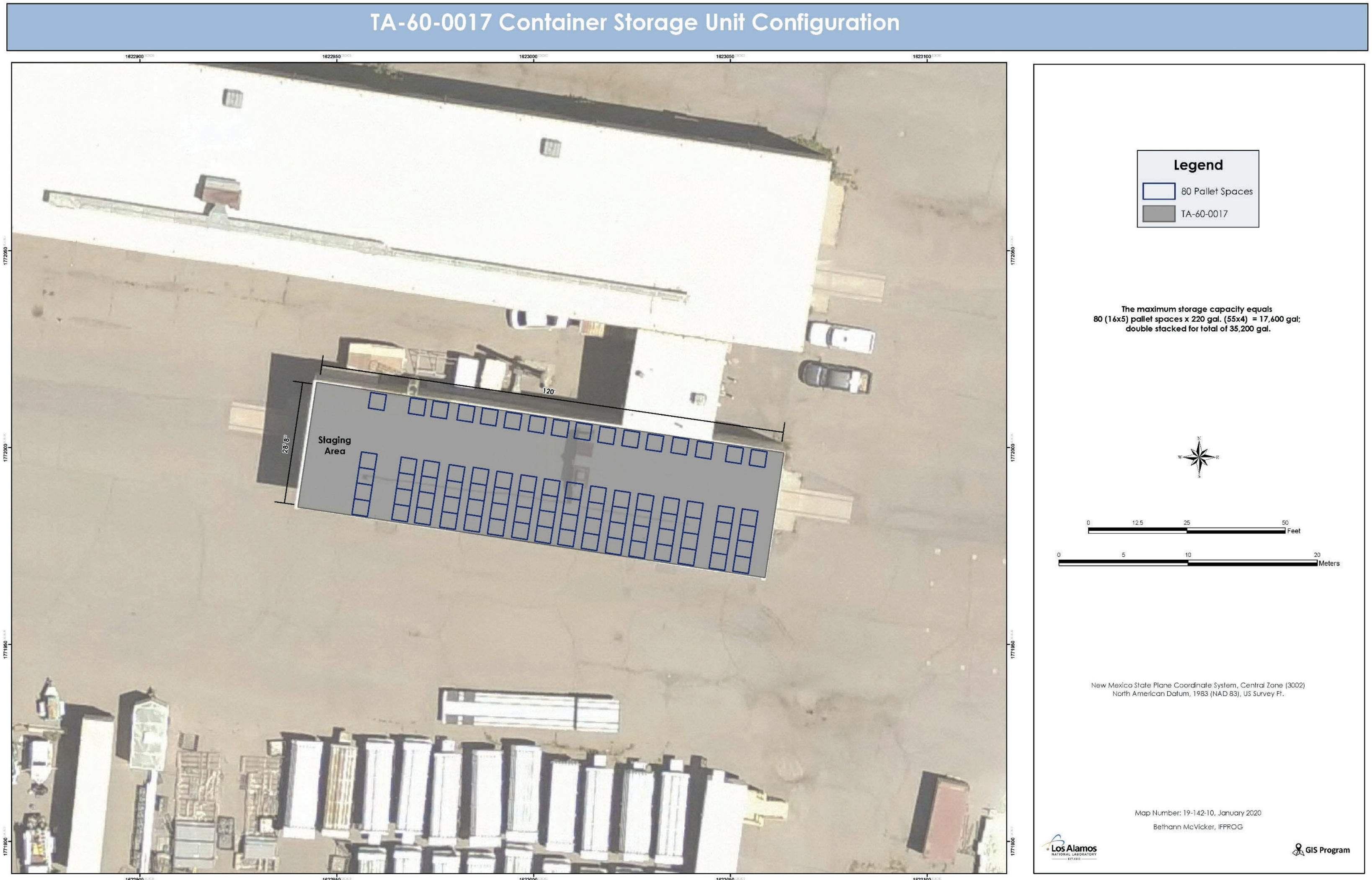


Figure 3-3. TA 60-0017 Container Storage Unit Configuration

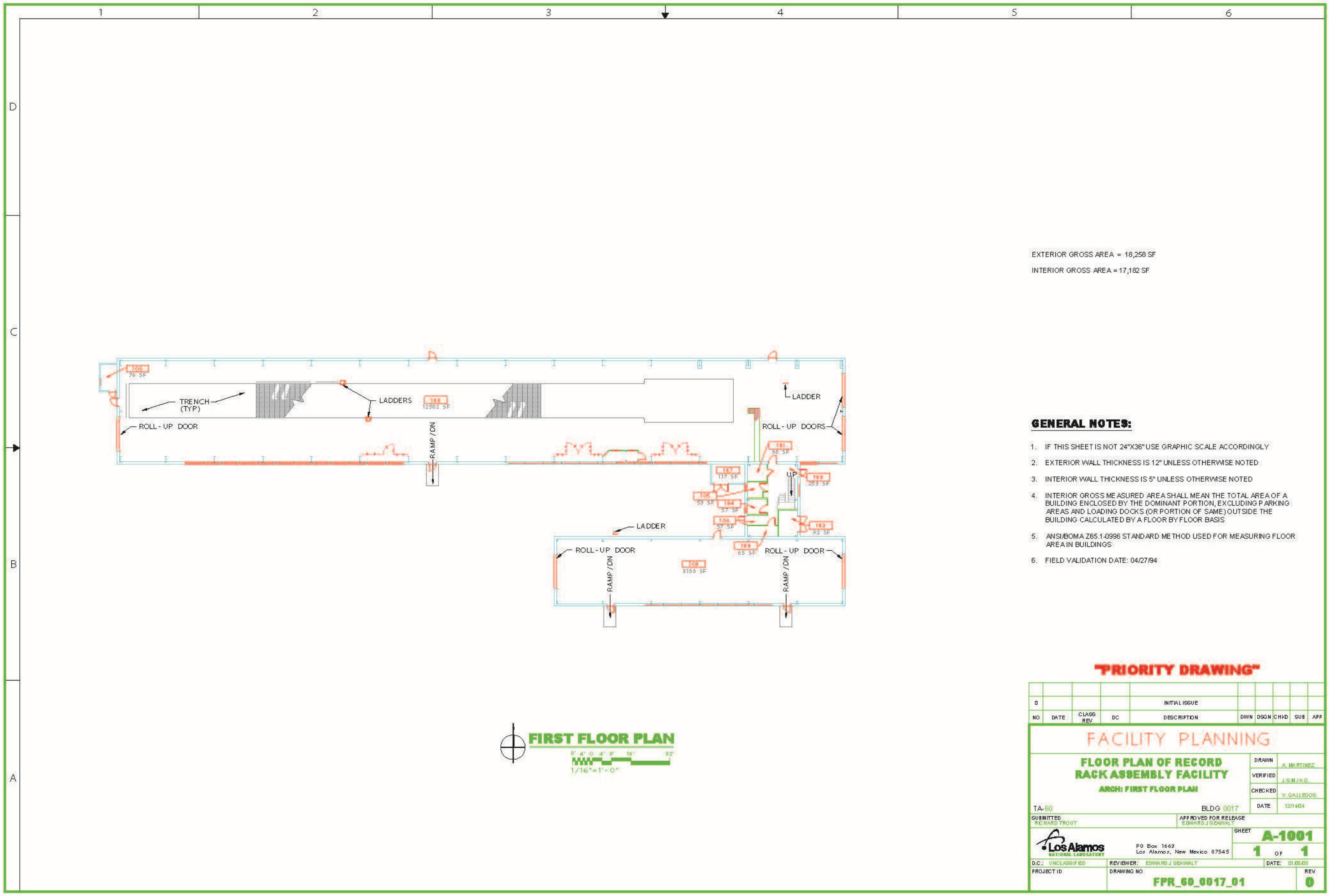


Figure 3-4. Design Drawing Facility Floor Plan.

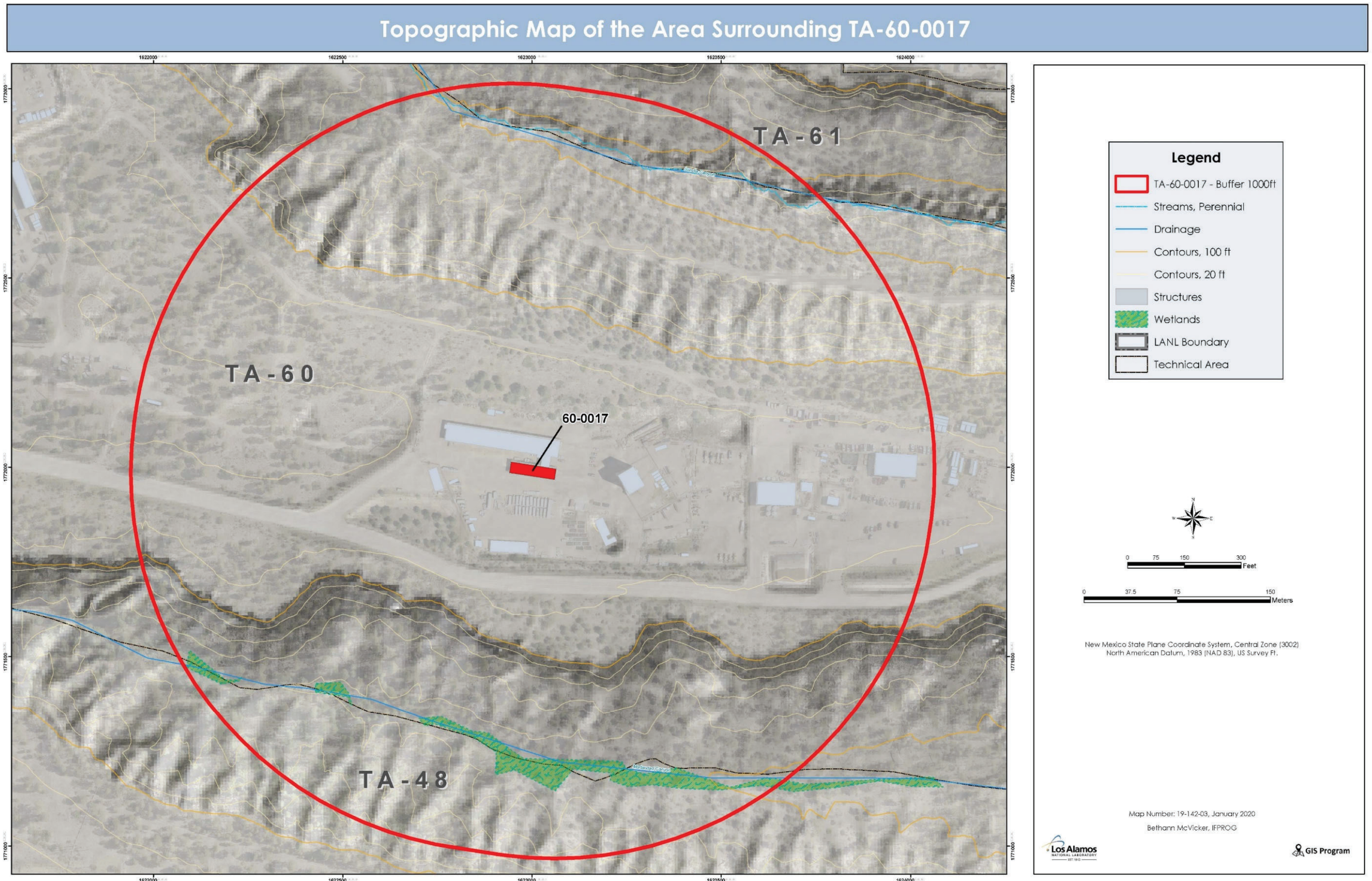


Figure 3-5. TA 60-0017 Surrounding Area.

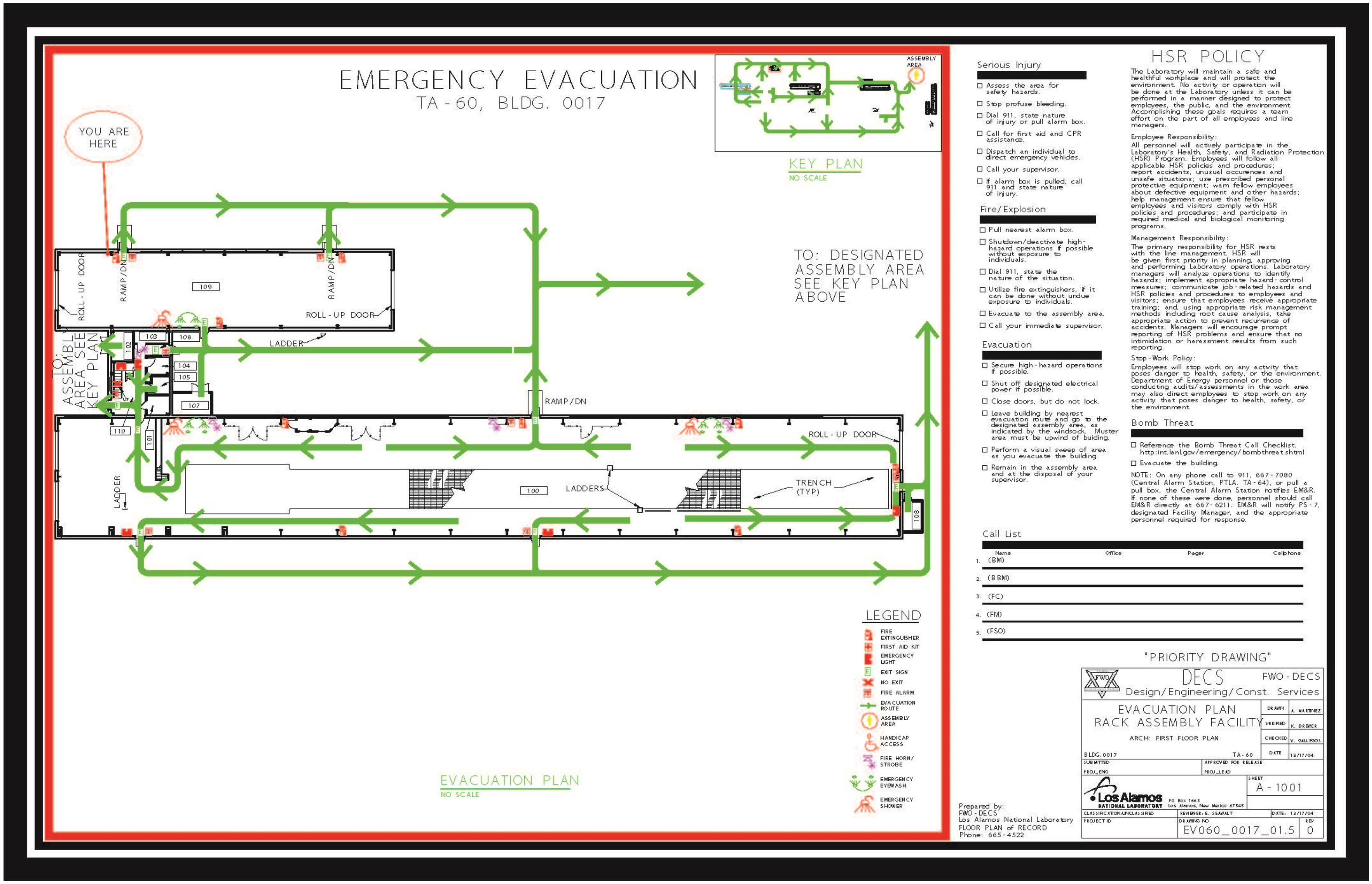


Figure 3-6. TA 60-0017 Emergency Evacuation Plan.

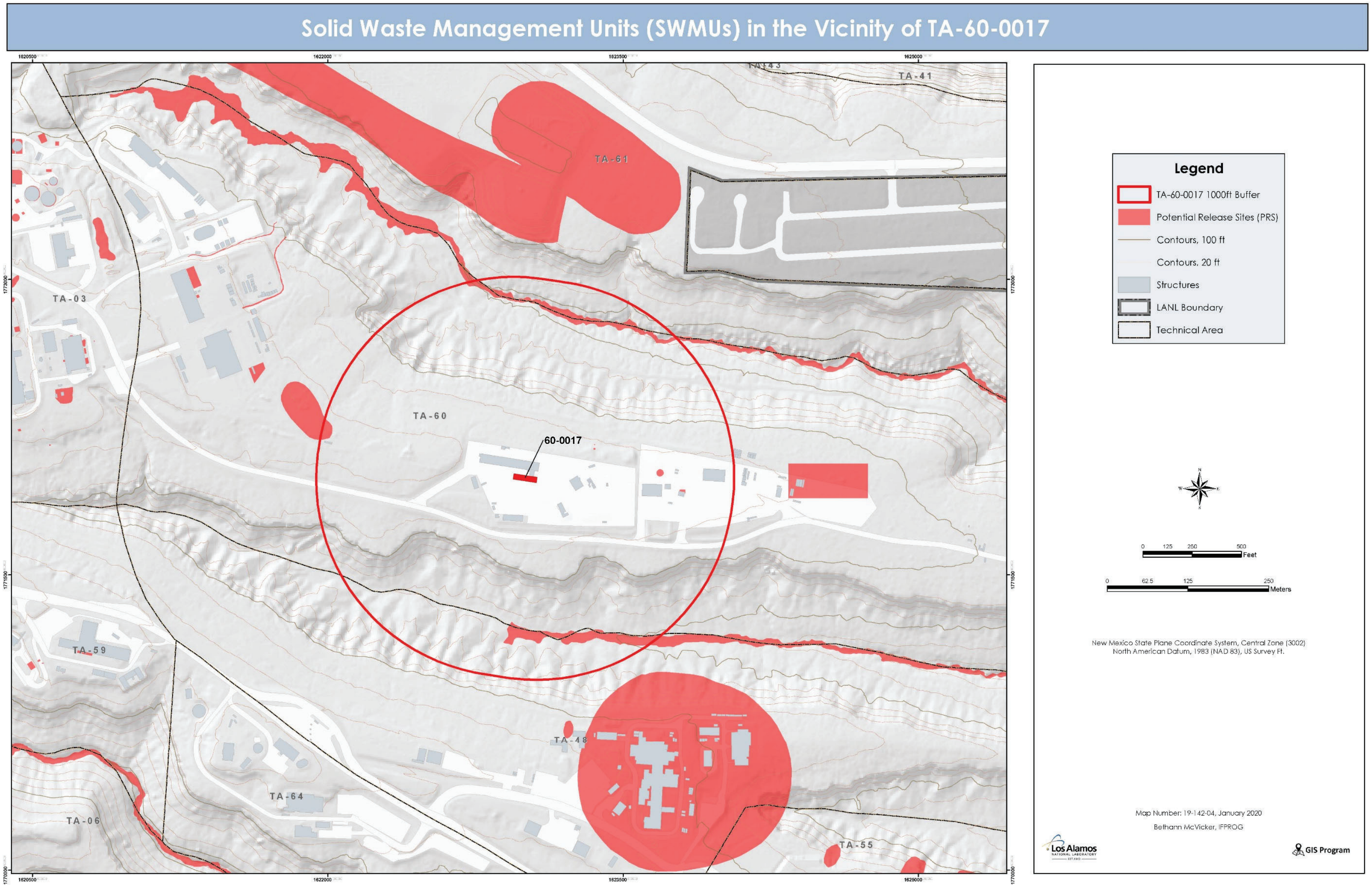


Figure 3-7. TA-60-0017 and Solid Waste Management Units in Broader Area.

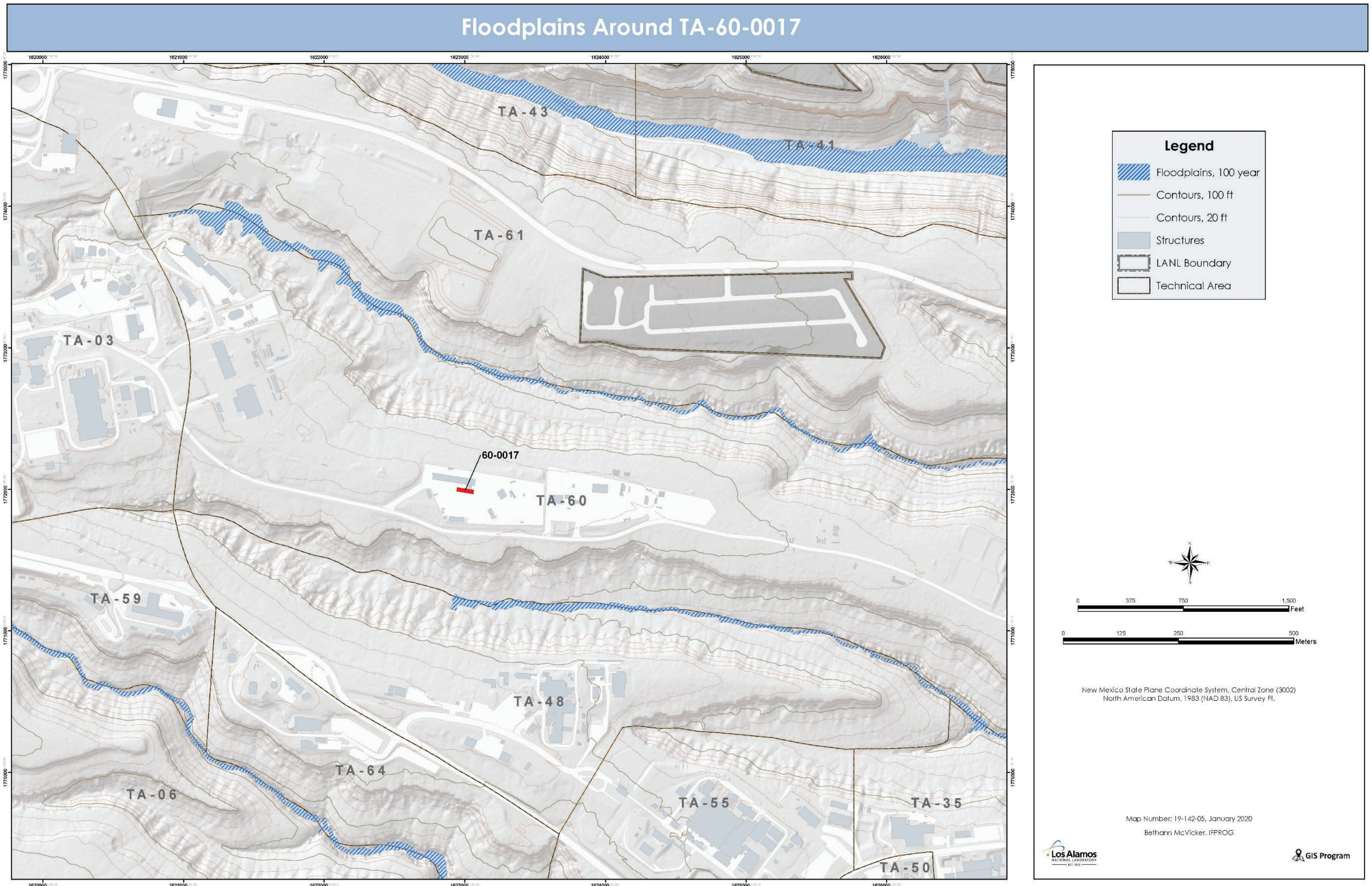


Figure 3-8. TA 60-0017 Floodplains.

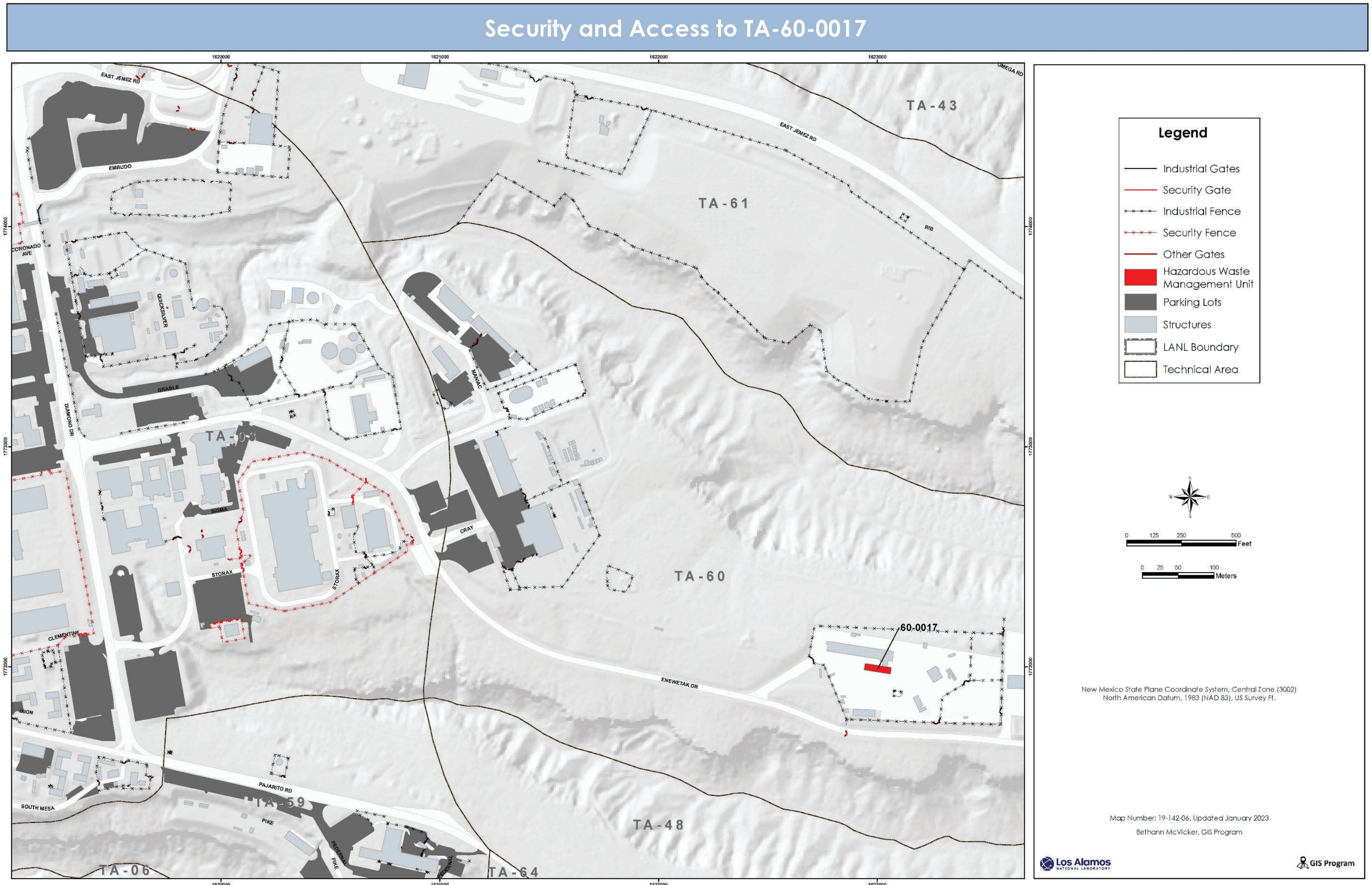


Figure 3-9. TA 60-0017 Security and Access.

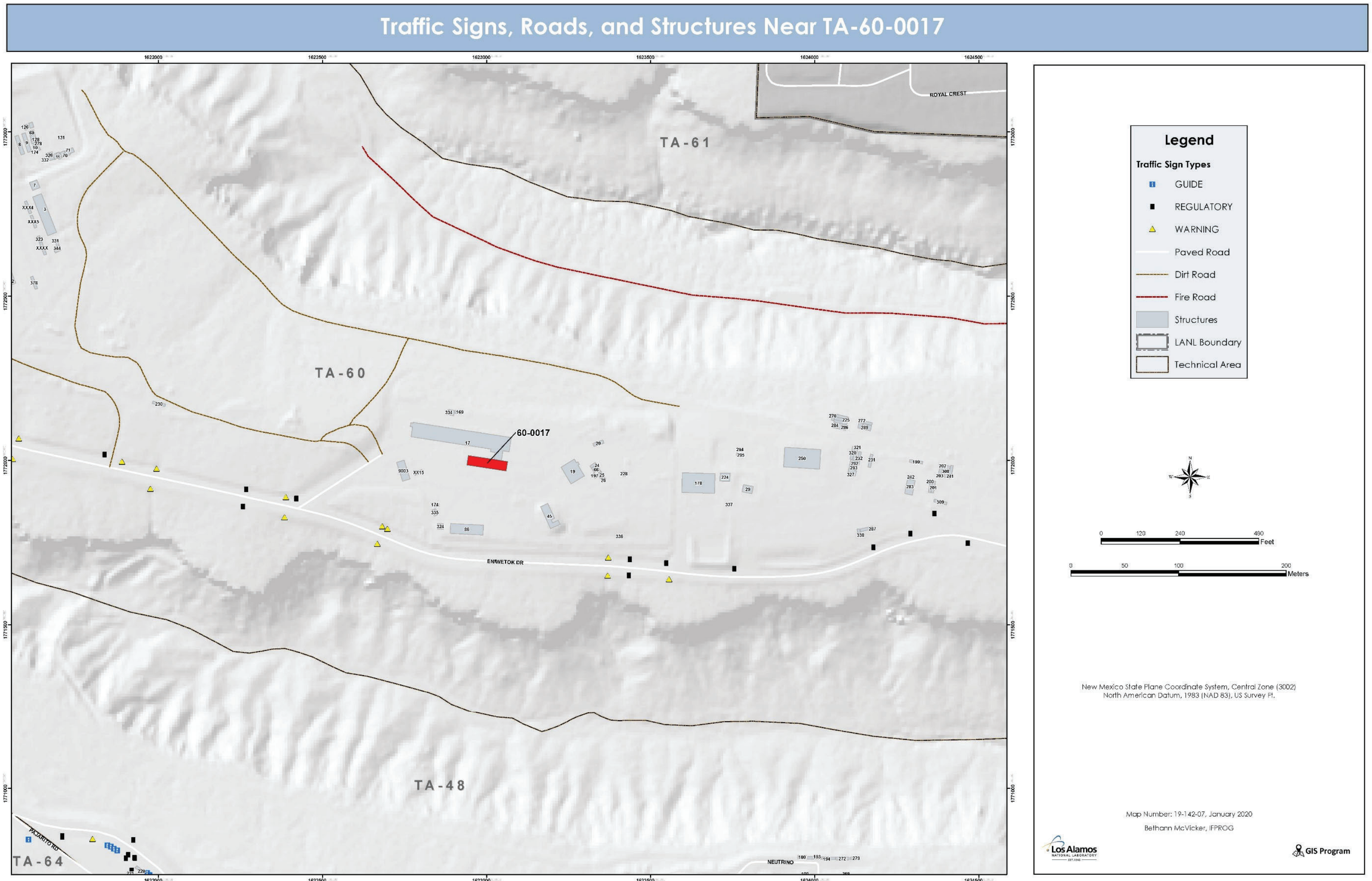


Figure 3-10. TA 60-0017 Surrounding Buildings, Roads, and Traffic Signs.

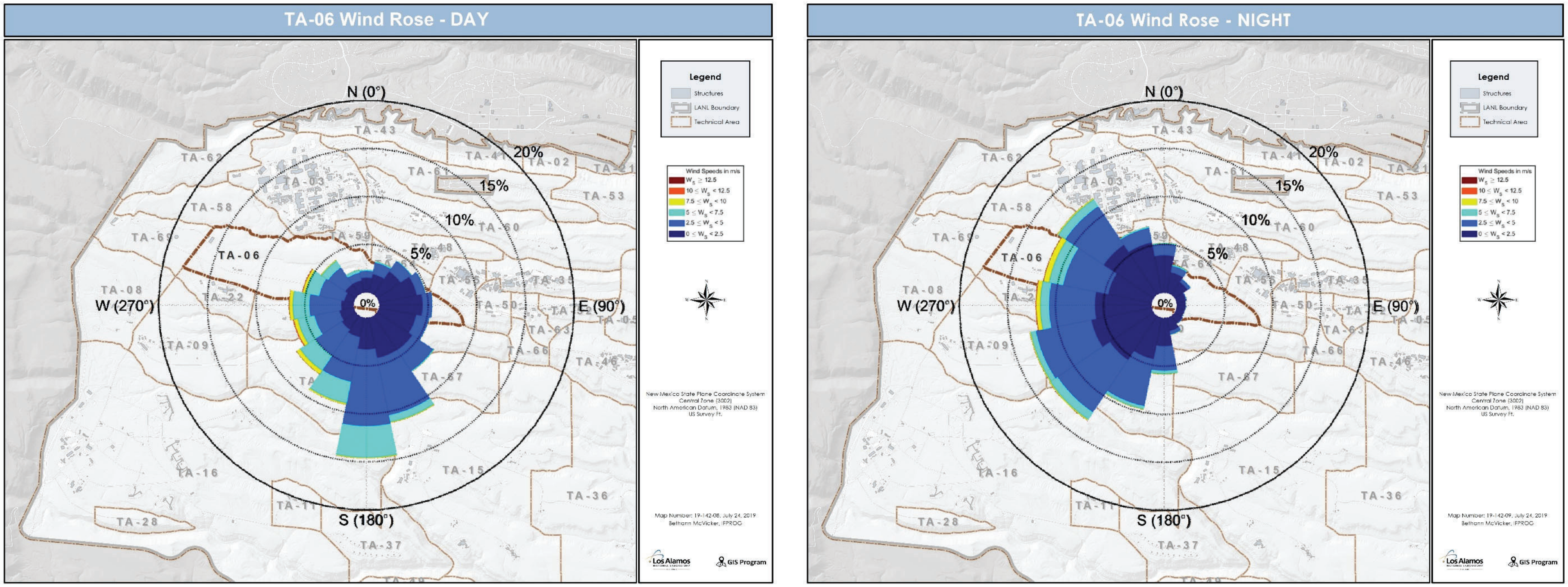


Figure 3-11. Wind Roses for TA-60 (Day and Night).

# 4 Closure Plan

The closure plan describes the activities necessary to close the TA-60-0017 Unit. The information provided in the closure plan address the closure requirements specified in Permit Part 9, 40 CFR Part 264, Subpart G, *Closure and Post-Closure*, for hazardous waste management units operated at LANL under RCRA and the NMHWA.

The proposed closure plan for the TA-60-0017 unit is included as Attachment 4 of this permit modification request and includes references to the requirements of Permit Part 9, *Closure*, and information regarding the procedures to meet them. The closure plan closely follows the format and content of the current closure plans included in Attachment G of the Permit. The closure plan includes descriptions of the closure performance standards, schedules, closure procedures (including waste equipment disposition, structure removal, decontamination, and verification), the sampling and analysis plan, the waste management plan, and the closure certification report.

Until closure is complete and has been certified in accordance with Permit Section 9.5, *Closure Certification Report*, a copy of the approved closure plan or the Permit that contains the plan, any approved revisions, and closure activity documentation associated with the closure will be on file with hazardous waste permitting and compliance personnel at LANL and at the DOE National Nuclear Security Administration Los Alamos Field Office. Before closure of the TA-60-0017 unit, the closure plan may be amended in accordance with Permit Section 9.4.8, as necessary and appropriate, to provide an updated sampling and analysis plan and to incorporate updated decontamination technologies. The amended closure plan will be submitted to the NMED for approval before implementing closure activities.

### *Closure Cost Estimate, Financial Assurance, and Liability Requirements*

LANL is a federal facility owned by the DOE. In accordance with 40 CFR § 264.140(c), LANL is exempt from the 40 CFR § 264 Subpart H, *Financial Requirements*, requirements to provide a cost estimate, financial assurance mechanisms, and liability insurance for closure actions. Therefore, these provisions are not included in the closure plan included as Attachment 4 of this permit modification request.

# 5 Solid Waste Management Units

Based on the LANL potential release site (PRS) database, seven solid waste management units (SWMUs) are located within a 1,000-ft radius of the southern portion of TA-60-0017, including the following Areas of Concern (AOCs) and SWMUs:

- AOC 60-001(c) (two areas)
- SWMU 60-006(a)
- AOC C-60-002
- SWMU 60-002
- AOC 60-001(d)

- AOC C-00-007
- AOC C-00-008

The AOCs and SWMUs located beyond this immediate radius are described (summarized from the LANL PRS) in the following sections. Figure 3-7 provides the locations of these AOCs and SWMUs throughout the surrounding TAs.

## 5.1 Area of Concern (AOC) 60-001(c)

AOC 60-001(c) consists of two satellite accumulation areas that began operations in 1990. They were established at LANL inside buildings at the Nevada Test Site (NTS) Test Fabrication Facility located on Sigma Mesa approximately one-half mile east of TA-60-0002. No historical releases are known to have occurred at these areas.

AOC 60-001(c) is inactive and was proposed for no further action (NFA) in 1993*,* the NFA proposal was approved by EPA in 1994, and reaffirmed in 2005 in a letter to NMED. This site is listed in Permit Attachment K, Table K-3, *SWMUs and AOCs Corrective Action Complete Without Controls*.

## 5.2 Solid Waste Management Unit (SWMU) 60-006(a)

SWMU 60-006(a) is the former location of a decommissioned septic system located near the northeast corner of the fence that surrounds buildings TA-60-0017 and TA-60-0019 on Sigma Mesa. The septic system consisted of a 1,000-gal. septic tank, drainlines, and associated 4-ft-wide × 50-ft-deep seepage pit. No outfall is associated with this septic system. This septic system formerly served TA-60-0017 (NTS test rack fabrication facility) and TA-60-0019 (NTS test tower). TA-60-0017 and TA-60-0019 were constructed in 1985 to fabricate equipment for testing activities carried out at NTS. From 1986 to 1989, wastewater generated from facility bathrooms and seven floor drains—including one in a paint booth—discharged to the septic system. In 1989, TA-60-0017 and TA-60-0019 were connected to the sanitary sewer and the TA-03 Wastewater Treatment Plant (WWTP). The area was investigated for metals; semi-volatile organic compounds (SVOCs); gross-alpha, -beta, and -gamma radiation; and tritium. During the 2009 Phase I Consent Order investigation, the SWMU 60-006(a) septic tank was removed, and inlet and outlet drainlines were plugged. Nine confirmation samples were collected from two locations beneath the tank inlet and outlet and one location beneath the bottom of the tank. Seven additional samples were collected from one borehole approximately 4 ft downgradient of the seepage pit. Because of site conditions, an associated seepage pit was not removed according to the approved investigation work plan.

Decision-level data collected at SWMU 60-006(a) consist of results from 16 samples collected from four locations in 2009 and 2010. The 2015 supplemental investigation report concluded that the nature and extent of contamination have been defined, and no further sampling for extent is warranted.

SWMU 60-006(a) is included in the September 2015 *Supplemental Investigation Report for Upper Sandia Aggregate Area*, Revision 1, submitted to NMED under the Consent Order. The site was found to have no complete exposure pathways to human and ecological receptors under all three human health risk scenarios, meets ecological risk levels, and was recommended for corrective action complete in that report. Upon approval of the supplemental investigation report by NMED, SWMU 60-006(a) will be eligible for a certificate of completion without controls.

### 5.3 Area of Concern (AOC) C-60-002

AOC C-60-002 is a 4,000-gal. decommissioned diesel fuel underground storage tank (UST), TA-03-0318. The tank was located on Sigma Mesa near the decommissioned communications bunker, TA-03-0219. The tank's installation date is unknown. In 1987, the tank was excavated and removed as part of a Laboratory-wide UST-removal program. After removal, the manufacturer's original chalk markings inside the tank showed that it never held product fuel. The tank was cut up, and the metal scrap was transported to the salvage yard.

AOC C-60-002 was proposed for NFA in 1995, the NFA proposal was approved by EPA in 1995, and reaffirmed in 2005 in a letter to NMED. This site is listed in Permit Attachment K, Table K-3, *SWMUs and AOCs Corrective Action Complete Without Controls*.

### 5.4 Solid Waste Management Unit (SWMU) 60-002

SWMU 60-002 consists of three former storage areas (designated as West, Central, and East) on Sigma Mesa at TA-60. The former western storage area measures approximately 150 ft × 300 ft and is located approximately 300 ft southeast of TA-60-0002, on the north side of the unimproved portion of Enewetak Drive that traverses the mesa. Historically, piles of concrete blocks, wooden poles, tuff, fill, and cables were stored at this location. A large mound of fill—with pieces of cured asphalt and concrete—was situated in the northern portion of the site. The central storage area was located approximately 50 ft north of the Roads and Grounds salt and sand storage facility (TA-60-0178) and consisted of a 50-ft-diameter mound of fill approximately 10 ft high that contained construction debris, including concrete fence post supports, pipe, metal strips, and wood. The eastern storage area is located on the south side of the unimproved portion of Enewetak Drive about 300 ft west of SWMU 60-007(a) near the east end of Sigma Mesa. This area was used to stage piles of broken cured asphalt removed from roadways and parking lots around the Laboratory for recycling. The eastern storage area location is currently the site of the Laboratory's asphalt batch plant.

The SWMU 60-002 central storage area debris pile was removed and disposed of offsite in 2002 to accommodate a new Roads and Grounds equipment storage yard. Six confirmation samples were collected from three locations beneath the former debris pile. This site is inactive and was investigated for metals, VOCs, SVOCs, PCBs, and TPH.

SWMU 60-002 is included in the September 2015 *Supplemental Investigation Report for Upper Sandia Aggregate Area*, Revision 1, submitted NMED under the Consent Order. The site meets residential and ecological risk levels and is recommended for corrective action complete without controls in that report. SWMU 60-002 will be eligible for a certificate of completion upon approval of the investigation report by NMED.

## 5.5 Area of Concern (AOC) 60-001(d)

AOC 60-001(d) is the pesticide storage shed, TA-60-0029, located approximately 650 ft east of the NTS Test Fabrication Facility, TA-60-0002. TA-60-0029 is a corrugated metal structure constructed in 1988. A bermed concrete pad is attached to the north side of the structure to contain any spills that could occur during the mixing and/or filling of pesticide-spraying equipment. No wastes are stored in the shed, although the unit was listed as a RCRA satellite accumulation area.

AOC 60-001(d) was proposed for NFA in the 1993, the NFA proposal was approved by EPA in 1994, and reaffirmed in 2005 in a letter to NMED. This site is listed in Permit Attachment K, Table K-3, *SWMUs and AOCs Corrective Action Complete Without Controls*.

## 5.6 Area of Concern (AOC) C-00-007

AOC C-00-007 consists of the Sandia Canyon system. Sandia Canyon originates on LANL property within TA-03 at an elevation of approximately 7,300 ft and trends east-southeast across LANL. Sandia Canyon crosses the east LANL boundary and briefly crosses Bandelier National Monument property before entering San Ildefonso Pueblo land. The canyon continues east-southeast across San Ildefonso Pueblo land before joining the Rio Grande in White Rock Canyon at an elevation of approximately 5490 ft. Sandia Canyon has a watershed area of 5.5 square miles and a channel length of 9.6 miles. Streamflow in upper Sandia Canyon is continuous due to discharges from the TA-03 power plant. These discharges have created a wetland area in upper Sandia Canyon. Other contributions to flow in the canyon are surface runoff from rainfall and snowmelt. Also, a small reach with continuous flow in lower Sandia Canyon is fed by Sandia Spring. The width of the canyon on LANL property ranges from approximately 1,700 ft to 2,500 ft, and the canyon's maximum depth is 200 ft. Two municipal water supply wells (PM-1 and PM-3) are located within Sandia Canyon. Previous environmental investigations at AOC C-00-007 include regular environmental monitoring that has been conducted in Sandia Canyon since approximately 1970 as part of the LANL Environmental Surveillance Program. This program includes monitoring surface water and sediments in the canyon and groundwater at Sandia Spring. In addition, the alluvial and regional aquifers in Sandia Canyon are monitored as part of LANL's Groundwater Protection Management Program. Past investigations have detected trace amounts of PCBs in wetland sediments in upper Sandia Canyon. In addition, several inorganic chemicals (cadmium, lead, silver, and zinc) and radionuclides (plutonium-238, -239, and -240; and uranium) have been detected slightly above background values/fallout values in Sandia Canyon sediments at the eastern LANL boundary. Elevated chromium levels were detected in surface water in upper Sandia Canyon in the 1970s and were believed to be associated with historical use of chromates in cooling towers, which has been discontinued. Tritium was detected in regional groundwater in Sandia Canyon (wells PM-1 and PM-3) in 1981 but has not been detected since. Parts of the Sandia Canyon watershed were burned during the Cerro Grande fire of May 2000.

Potential contamination sources for canyon systems include SWMUs/AOCs associated with TAs in or adjacent to the canyons. Sandia Canyon passes through or is adjacent to TA-03, former TA-20, -53, -60, -61, and -72. Historically, LANL has used Sandia Canyon for disposal of industrial and sanitary wastewaters. The largest discharges have been from the outfall at the TA-03 power plant (up to 300,000 gallons per day) and cooling towers at TA-53 (seasonally up to 200,000 gallons per day). The outfall receives effluent from the sanitary wastewater systems consolidation at TA-46, which is used as cooling water.

TA-03 is located on the mesa around the upper end of Sandia Canyon. TA-03 contains numerous contaminant sources. SWMUs/AOCs at TA-03 include outfalls that discharge into Sandia Canyon, material and equipment storage areas, electrical equipment that contains PCBs, fuel storage tanks, and releases to the ground surface from spills and stacks. These SWMUs/AOCs could have released contaminants to Sandia Canyon either by direct discharge or by contaminating surface runoff entering the canyon.

Former TA-20 is located within the middle portion of Sandia Canyon, south of current TA-53. TA-20 was used during the 1940s as a firing site. SWMUs/AOCs at TA-20 include the former firing sites—which used high explosives and radioactive materials—and associated facilities, including small landfills and septic tanks.

TA-53 is located on a mesa between Sandia Canyon and Los Alamos Canyon and is the site of a high-energy linear accelerator. SWMUs/AOCs at TA-53 include outfalls, material and equipment storage areas, electrical equipment that contains PCBs, radioactive waste storage tanks, and decommissioned surface impoundments that received sanitary, industrial, and radioactive liquid waste. These SWMUs/AOCs may have released contaminants to Sandia Canyon either by direct discharge or by contaminating surface runoff entering the canyon. The surface impoundments represent the most significant potential source of contamination at TA-53. Most discharges from the surface impoundments went to a tributary to Los Alamos Canyon, although historically some could have entered Sandia Canyon.

TA-60 is located on a narrow mesa between upper Sandia Canyon and Mortandad Canyon (AOC C-00-008) and houses LANL support and maintenance operations and contractor service facilities. Potential sources of contamination include spills from a fuel storage yard.

TA-61 is located on the north rim of upper Sandia Canyon and is the location of the Los Alamos County municipal solid waste landfill, a residential trailer park, a private concrete batch plant, a LANL-owned asphalt batch plant, and a former PCB equipment storage area (SWMU 61-007).

TA-72 is located within Sandia Canyon and is the location of the small arms firing range used by the LANL security force, which is the only AOC (72-001) in TA-72 currently under investigation.

The Los Alamos Legacy Cleanup Contractor has developed a work plan for investigating the Sandia Canyon system. For the sediment investigation, work will be focused on six reaches. The reach locations were selected to collect data needed to assess current and future risk associated with potentially contaminated sediments and to improve understanding of transport processes.

The Los Alamos Legacy Cleanup Contractor has implemented the investigation of two of the six reaches first because of the past detection of PCBs in wetland sediments and the presence of PCBs at many of the SWMUs/AOCs in the upper portion of the Sandia Canyon watershed. The sampling and analysis plan for this investigation included sediment investigations and quarterly surface water base flow and stormwater runoff sampling. These investigations began in 1998 and were reported on in 2000.

## 5.7 Area of Concern (AOC) C-00-008

AOC C-00-008 consists of the Mortandad Canyon system. Mortandad Canyon originates on LANL property within TA-03 at an elevation of approximately 7,410 ft and trends east-southeast across LANL. Mortandad Canyon then crosses the eastern LANL boundary and enters San Ildefonso Pueblo land. The canyon crosses San Ildefonso Pueblo land and is joined by Cañada del Buey (AOC C-00-009) before reaching the Rio Grande in White Rock Canyon at an elevation of approximately 5,450 ft. Mortandad Canyon has a watershed area of 4.7 square miles and a length of 10 miles. The Mortandad Canyon watershed was partly burned during the Cerro Grande fire of May 2000.

Tributaries to Mortandad Canyon on LANL property include Ten Site Canyon and Effluent Canyon. Ten Site Canyon heads at the south side of TA-50 at an elevation of approximately 7250 ft and includes a small tributary, locally referred to as Pratt Canyon, that originates in TA-35. Ten Site Canyon extends east approximately 1.5 miles and joins Mortandad Canyon in TA-05. Effluent Canyon heads at the east side of TA-48 at an elevation of approximately 7,300 ft and extends east approximately 0.6 mile before joining Mortandad Canyon. Streamflow in the canyon is entirely ephemeral, with no perennial springs or natural perennial reaches. Flow in the canyon is due to snowmelt and stormwater runoff as well as discharges from LANL outfalls. Discharges from TA-48 into Effluent Canyon support a small wetlands area, and discharges from TA-03 into the head of Mortandad Canyon support additional wetlands.

The primary contamination source in the Mortandad Canyon system has been the discharge of wastewaters from various LANL operations, which have occurred since at least 1951 and possibly as early as 1943. Beginning in 1963, wastewaters have been treated at the RLWTF and treated effluent discharged to an NPDES-permitted outfall. SWMUs located within Mortandad Canyon itself are the Mortandad Canyon sediment traps (SWMU 00-001) and the Mortandad Canyon garden plot (SWMU 00-005). The sediment traps consist of three basins excavated into the stream channel and are surrounded by U-shaped berms. They are located approximately 1.7 miles downstream of the Radioactive Liquid Wastewater Treatment Facility (RLWTF) outfall and were constructed in 1976 to capture streamflow and prevent downstream migration of contaminated sediments. SWMU 00-005 is a former experimental garden plot that was used from 1976 to the early 1980s to study the transport of radionuclides to plants.

Regular environmental monitoring has been conducted in Mortandad Canyon since approximately 1970 as part of the LANL Environmental Surveillance Program. This program includes monitoring surface water and sediments in the canyon. In addition, the alluvial and regional aquifers in Mortandad Canyon are monitored as part of LANL's Groundwater Protection Management Program. Past sediment sampling has detected elevated levels of americium-241; cesium-137; plutonium-238, -239, and -240; and strontium-90, with the highest concentrations in or downstream of Effluent Canyon. Concentrations at the southeast LANL boundary are generally at or near background. Americium-241; plutonium-238, -239, and -240; and tritium have been detected in surface water and alluvial groundwater.

Potential contamination sources for canyon systems include SWMUs/AOCs associated with TAs in or adjacent to the canyons. Mortandad Canyon passes through Laboratory TA-03, -05, -35, -42, -48, and former TA-04. In addition, some TA-00 sites are adjacent to the canyon, and certain TA-50, -52, -54, -55, -60, and -63 sites are associated with the canyon.

TA-03, which is located on the mesa at the head of Mortandad Canyon, contains numerous potential contaminant sources. SWMUs/AOCs at TA-03 include outfalls that discharge into Mortandad Canyon, material and equipment storage areas, electrical equipment that contains PCBs, and releases to the ground surface from spills and stacks. These SWMUs/AOCs may have released contaminants to Mortandad Canyon either by direct discharge or by contaminating surface runoff entering the canyon.

Former TA-04 is located on a mesa within current TA-52 south of Ten Site Canyon and was used in the 1940s as a firing site. SWMUs/AOCs at TA-04 include the former firing site that used HE and radioactive materials and associated facilities, including a photo processing facility, surface disposal area, and outfalls.

TA-05 primarily serves as a LANL reserve area. The TA includes an inactive firing site located on the south rim of Mortandad Canyon that was used from 1944 to 1959. Potential contaminant sources include former firing sites, a septic tank, and a drain.

TA-35 is located on a mesa between Mortandad and Ten Site Canyons and was constructed in 1951 to house experimental reactor and hot-cell facilities. TheTA-35 WWTP [consolidated unit 35-003(a)-99] was used until 1963 to treat wastewater from radiochemistry laboratories in TA-35. Plant effluent discharged to Pratt Canyon is the most significant TA-35 contaminant source in the Mortandad Canyon system. More than 2,700,000 gallons of wastewater, which contained 20.7 Ci of gross beta activity, was discharged into Pratt Canyon. In addition to consolidated unit 35-003(a)-99, SWMUs/AOCs in TA-35 include surface impoundments, oil storage and treatment facilities, transformers, septic systems, and disposal areas. These SWMUs/AOCs may have released contaminants to Mortandad Canyon either by direct discharge or by contaminating surface runoff entering the canyon.

Former TA-42 is located within current TA-55 and was used from 1951 to 1952 to incinerate radioactive wastes and from 1957 to 1969 to decontaminate radioactive equipment. These facilities underwent D&D in 1977 and 1978. SWMUs/AOCs include the former incinerator and decontamination facility and associated equipment.

TA-48 is located on the south rim of Mortandad Canyon and houses radiochemistry laboratories. Potential contaminant sources include outfalls that discharge to Mortandad and Effluent Canyons, a septic system, container storage areas, and stack releases.

TA-50 is located at the head of Ten Site Canyon and is the location of the RLWTF, which became operational in 1963 and began discharging treated effluent into Effluent Canyon; sediment and groundwater monitoring began at that time. Plant effluent is the most significant TA-50 contaminant source in the Mortandad Canyon system. A total of 1,294,000,000 gal. of wastewater containing approximately 0.3 Ci plutonium was discharged from the plant outfall [SWMU 50-006(d)] from 1963 to 1995. Other sources at TA-50 include an outfall area at the head of Ten Site Canyon, where spills of untreated radioactive wastewater occurred [SWMU 50-006(a)].

TA-52 is located on a mesa at the head of Cañada del Buey and is the location of the former Ultra High Temperature and Reactor Experiment. SWMUs/AOCs at TA-52 include outfalls that could have discharged into Ten Site Canyon.

TA-55 is located on the south rim of Mortandad Canyon and is the location of plutonium processing facilities. SWMUs/AOCs at TA-55 include outfalls that discharge water into Mortandad Canyon.

TA-60 is located on Sigma Mesa between Mortandad and Sandia Canyons and houses LANL support and maintenance operations and contractor service facilities. Potential contamination sources include spills from a fuel storage yard.

TA-63 is located on the south rim of Ten Site Canyon and houses engineering offices and shops. SWMUs are limited to two inactive septic systems.

The Los Alamos Legacy Cleanup Contractor has developed a work plan for investigating the Mortandad Canyon system. For the sediment investigation, work has focused on six reaches in Mortandad Canyon, three reaches in Ten Site Canyon, one reach in Effluent Canyon, and two reaches in an unnamed tributary to Mortandad Canyon. Most of these reaches have additional subreaches that have been investigated. The work plan for Mortandad Canyon was approved by NMED in 2002.

# 6 Acronyms

| Acronym | Definition |
|---|---|
| AOC | Area of Concern |
| CAA | Central Accumulation Area |
| CFR | Code of Federal Regulations |
| DOE | (U.S.) Department of Energy |
| DOT | New Mexico Department of Transportation |
| DRO | diesel range organics |
| EPA | Environmental Protection Agency |
| FACP | fire alarm control panel |
| GRO | gasoline range organics |
| LAFD | Los Alamos Fire Department |
| LANL | Los Alamos National Laboratory |
| LDR | land disposal restriction |
| N3B | Newport News Nuclear BWXT-Los Alamos, LLC |
| NFA | no further action |
| NMAC | New Mexico Administrative Code |
| NMED | New Mexico Environment Department |
| NMHWA | New Mexico Hazardous Waste Act |
| NPDES | National Pollutant Discharge Elimination System |
| NTS | Nevada Test Site |
| PCB | polychlorinated biphenyl |
| PPE | personal protective equipment |
| PRS | Potential Release Site |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA Facility Investigation |
| SDS | safety data sheet |
| SHPO | (New Mexico) State Historic Preservation Officer |
| SVOC | semi-volatile organic compound |
| SWB | standard waste box |
| SWMU | Solid Waste Management Unit |
| T&E | threatened and endangered |
| TA | Technical Area |
| TAL | target analyte list |
| TPH | total petroleum hydrocarbons |
| USC | United States Code |
| USFWS | U.S. Fish and Wildlife Service |
| UST | underground storage tank |
| VOC | volatile organic compound |
| WWTP | Wastewater Treatment Plant |

# 7 References


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# 8 Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

STEVEN STORY (Affiliate)
Digitally signed by STEVEN STORY (Affiliate)
Date: 2023.03.09 14:46:06 -07'00'

3/9/23

**Jennifer E. Payne**
Division Leader
Environmental Protection and Compliance Division
Triad National Security, LLC
Los Alamos National Laboratory

Date Signed

Robert A. Gallegos
Digitally signed by Robert A. Gallegos
Date: 2023.03.09 17:02:03 -07'00'

Acting for

**Karen E. Armijo**
Permitting and Compliance Program Manager
National Nuclear Security Administration
Los Alamos Field Office
U.S. Department of Energy

Date Signed

# Attachment 1 Part A Form and Other Part A Application Requirements

United States Environmental Protection Agency

RCRA SUBTITLE C SITE IDENTIFICATION FORM

**1. Reason for Submittal** (Select only one.)

| | |
|---|---|
| ☐ | Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time. |
| ☐ | Submitting as a component of the Hazardous Waste Report for __________ (Reporting Year) |
| | ☐ Site was a TSD facility, a reverse distributor, and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations) |
| ☐ | Notifying that regulated activity is no longer occurring at this Site |
| ☐ | Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities |
| ☑ | Submitting a new or revised Part A (permit) Form |

**2. Site EPA ID Number**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | M | 0 | 8 | 9 | 0 | 0 | 1 | 0 | 5 | 1 | 5 |

**3. Site Name**

Los Alamos National Laboratory

**4. Site Location Address**

| | | | | | |
|---|---|---|---|---|---|
| Street Address | Bikini Atoll Road, SM-30 | | | | |
| City, Town, or Village | Los Alamos | | | County | Los Alamos |
| State | New Mexico | Country | USA | Zip Code | 87545 |
| Latitude | 35.874074N | Longitude | -106.329337 | ☐ Use Lat/Long as Primary Address | |

**5. Site Mailing Address** ☐ Same as Location Street Address

| | | | | | |
|---|---|---|---|---|---|
| Street Address | PO Box 1663, MS A316 | | | | |
| City, Town, or Village | Los Alamos | | | | |
| State | New Mexico | Country | USA | Zip Code | 87545 |

**6. Site Land Type**

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

**7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)**

| | | | |
|---|---|---|---|
| A. (Primary) | 928110 | C. | 562211 |
| B. | 54171 | D. | 562910 |

**8. Site Contact Information** ☐ Same as Location Address

| | | |
|---|---|---|
| First Name Theodore | MI A | Last Name Wyka |
| Title Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy | | |
| Street Address 3747 West Jemez Road, MS A316 | | |
| City, Town, or Village Los Alamos | | |
| State New Mexico | Country USA | Zip Code 87544 |
| Email theodore.wyka@nnsa.doe.gov | | |
| Phone (505) 667-5105 | Ext | Fax (505) 606-5948 |

**9. Legal Owner and Operator of the Site**

**A. Name of Site's Legal Owner** ☐ Same as Location Address

| | |
|---|---|
| Full Name U. S. Department of Energy | Date Became Owner (mm/dd/yyyy) 1/1/1943 |
| Owner Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other | |
| Street Address 3747 West Jemez Road, MS A316 | |
| City, Town, or Village Los Alamos | |

| | | |
|---|---|---|
| State New Mexico | Country USA | Zip Code 87544 |
| Email theodore.wyka@nnsa.doe.gov | | |
| Phone (505) 667-5105 | Ext | Fax (505) 606-5948 |
| Comments The U.S Department of Energy (DOE) owns and co-operates the facility. The DOE National Nuclear Security Administration, Los Alamos Field Office and Triad National Security, LLC (Triad) co-operate specified hazardous waste management units located at Technical Areas (TA) 3, 14, 16, 36, 39, 50, 55, 63, and 54 West. The DOE Environmental Management, Los Alamos Field Office and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) co-operate different hazardous waste management units located at TA 54, Areas G, H and L. | | |

**B. Name of Site's Legal Operator** ☐ Same as Location Address

| | |
|---|---|
| Full Name Triad National Security, LLC | Date Became Operator (mm/dd/yyyy) 11/1/2018 |
| Operator Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other | |
| Street Address Bikini Atoll Road, Bldg SM-30, MS A102 | |
| City, Town, or Village Los Alamos | |

| | | |
|---|---|---|
| State New Mexico | Country USA | Zip Code 87545 |
| Email scoleman@lanl.gov | | |
| Phone (505) 606-0154 | Ext | Fax |
| Comments See Item 18, Comments, for additional Owner/Operator information | | |

**10. Type of Regulated Waste Activity (at your site)**
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities**

| | | | |
|---|---|---|---|
| ☑ Y ☐ N | 1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c | | |
| | ☑ | a. LQG | -Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or<br>- Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or<br>- Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material. |
| | ☐ | b. SQG | 100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material. |
| | ☐ | c. VSQG | Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste. |
| ☐ Y ☑ N | 2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.* | | |
| ☑ Y ☐ N | 3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities. | | |
| ☑ Y ☐ N | 4. Receives Hazardous Waste from Off-site | | |
| ☐ Y ☑ N | 5 Recycler of Hazardous Waste | | |
| | ☐ | a. Recycler who stores prior to recycling | |
| | ☐ | b. Recycler who does not store prior to recycling | |
| ☐ Y ☑ N | 6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply. | | |
| | ☐ | a. Small Quantity On-site Burner Exemption | |
| | ☐ | b. Smelting, Melting, and Refining Furnace Exemption | |

**B. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| See 3a and 3b | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| None | | | | | | |
| | | | | | | |

**10. Type of Regulated Waste Activity (at your site)**

**B. Waste Codes for Federally Regulated Hazardous Wastes.**

| | | | | | | |
|---|---|---|---|---|---|---|
| D001 | D002 | D003 | D004 | D005 | D006 | D007 |
| D008 | D009 | D010 | D011 | D012 | D013 | D014 |
| D015 | D016 | D017 | D018 | D019 | D020 | D021 |
| D022 | D023 | D024 | D025 | D026 | D027 | D028 |
| D029 | D030 | D031 | D032 | D033 | D034 | D035 |
| D036 | D037 | D038 | D039 | D040 | D041 | D042 |
| D043 | F001 | F002 | F003 | F004 | F005 | F006 |
| F007 | F008 | F009 | F010 | F011 | F012 | F019 |
| F020 | F021 | F022 | F023 | F024 | F025 | F026 |
| F027 | F028 | F032 | F034 | F035 | F037 | F038 |
| F039 | K044 | K045 | K046 | K047 | K084 | K101 |
| K102 | P001 | P002 | P003 | P004 | P005 | P006 |
| P007 | P008 | P009 | P010 | P011 | P012 | P013 |
| P014 | P015 | P016 | P017 | P018 | P020 | P021 |
| P022 | P023 | P024 | P026 | P027 | P028 | P029 |
| P030 | P031 | P033 | P034 | P036 | P037 | P038 |
| P039 | P040 | P041 | P042 | P043 | P044 | P045 |
| P046 | P047 | P048 | P049 | P050 | P051 | P054 |
| P056 | P057 | P058 | P059 | P060 | P062 | P063 |
| P064 | P065 | P066 | P067 | P068 | P069 | P070 |
| P071 | P072 | P073 | P074 | P075 | P076 | P077 |
| P078 | P081 | P082 | P084 | P085 | P087 | P088 |
| P089 | P092 | P093 | P094 | P095 | P096 | P097 |
| P098 | P099 | P101 | P102 | P103 | P104 | P105 |
| P106 | P108 | P109 | P110 | P111 | P112 | P113 |
| P114 | P115 | P116 | P118 | P119 | P120 | P121 |
| P122 | P123 | P127 | P128 | P185 | P188 | P189 |
| P190 | P191 | P192 | P194 | P196 | P197 | P198 |
| P199 | P201 | P202 | P203 | P204 | P205 | U001 |
| U002 | U003 | U004 | U005 | U006 | U007 | U008 |
| U009 | U010 | U011 | U012 | U014 | U015 | U016 |
| U017 | U018 | U019 | U020 | U021 | U022 | U023 |
| U024 | U025 | U026 | U027 | U028 | U029 | U030 |
| U031 | U032 | U033 | U034 | U035 | U036 | U037 |
| U038 | U039 | U041 | U042 | U043 | U044 | U045 |
| U046 | U047 | U048 | U049 | U050 | U051 | U052 |
| U053 | U055 | U056 | U057 | U058 | U059 | U060 |
| U061 | U062 | U063 | U064 | U066 | U067 | U068 |
| U069 | U070 | U071 | U072 | U073 | U074 | U075 |

**10. Type of Regulated Waste Activity (at your site)**
**B. Waste Codes for Federally Regulated Hazardous Wastes. (Continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| U076 | U077 | U078 | U079 | U080 | U081 | U082 |
| U083 | U084 | U085 | U086 | U087 | U088 | U089 |
| U090 | U091 | U092 | U093 | U094 | U095 | U096 |
| U097 | U098 | U099 | U101 | U102 | U103 | U105 |
| U106 | U107 | U108 | U109 | U110 | U111 | U112 |
| U113 | U114 | U115 | U116 | U117 | U118 | U119 |
| U120 | U121 | U122 | U123 | U124 | U125 | U126 |
| U127 | U128 | U129 | U130 | U131 | U132 | U133 |
| U134 | U135 | U136 | U137 | U138 | U140 | U141 |
| U142 | U143 | U144 | U145 | U146 | U147 | U148 |
| U149 | U150 | U151 | U152 | U153 | U154 | U155 |
| U156 | U157 | U158 | U159 | U160 | U161 | U162 |
| U163 | U164 | U165 | U166 | U167 | U168 | U169 |
| U170 | U171 | U172 | U173 | U174 | U176 | U177 |
| U178 | U179 | U180 | U181 | U182 | U183 | U184 |
| U185 | U186 | U187 | U188 | U189 | U190 | U191 |
| U192 | U193 | U194 | U196 | U197 | U200 | U201 |
| U202 | U203 | U204 | U205 | U206 | U207 | U208 |
| U209 | U210 | U211 | U213 | U214 | U215 | U216 |
| U217 | U218 | U219 | U220 | U221 | U222 | U223 |
| U225 | U226 | U227 | U228 | U234 | U235 | U236 |
| U237 | U238 | U239 | U240 | U243 | U244 | U246 |
| U247 | U248 | U249 | U271 | U278 | U279 | U280 |
| U328 | U353 | U359 | U364 | U367 | U372 | U373 |
| U387 | U389 | U394 | U395 | U404 | U409 | U410 |
| U411 | | | | | | |

**11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**

**A. Other Waste Activities**

| | | |
|---|---|---|
| ☑ Y ☐ N | | 1. Transporter of Hazardous Waste—If "Yes", mark all that apply. |
| | ☑ | a. Transporter |
| | ☑ | b. Transfer Facility (at your site) |
| ☐ Y ☑ N | | 2. Underground Injection Control |
| ☐ Y ☑ N | | 3. United States Importer of Hazardous Waste |
| ☐ Y ☑ N | | 4. Recognized Trader—If "Yes", mark all that apply. |
| | ☐ | a. Importer |
| | ☐ | b. Exporter |
| ☐ Y ☑ N | | 5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply. |
| | ☐ | a. Importer |
| | ☐ | b. Exporter |

**B. Universal Waste Activities**

| | | |
|---|---|---|
| ☑ Y ☐ N | | 1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated. |
| | ☑ | a. Batteries |
| | ☑ | b. Pesticides |
| | ☑ | c. Mercury containing equipment |
| | ☑ | d. Lamps |
| | ☑ | e. Aerosol Cans |
| | ☐ | f. Other (specify) ________________ |
| | ☐ | g. Other (specify) ________________ |
| ☐ Y ☑ N | | 2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity. |

**C. Used Oil Activities**

| | | |
|---|---|---|
| ☐ Y ☑ N | | 1. Used Oil Transporter—If "Yes", mark all that apply. |
| | ☐ | a. Transporter |
| | ☐ | b. Transfer Facility (at your site) |
| ☐ Y ☑ N | | 2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply. |
| | ☐ | a. Processor |
| | ☐ | b. Re-refiner |
| ☐ Y ☑ N | | 3. Off-Specification Used Oil Burner |
| ☐ Y ☑ N | | 4. Used Oil Fuel Marketer—If "Yes", mark all that apply. |
| | ☐ | a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner |
| | ☐ | b. Marketer Who First Claims the Used Oil Meets the Specifications |

**D. Pharmaceutical Activities**

| | | |
|---|---|---|
| ☐ Y ☑ N | | 1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor. |
| | ☐ | a. Healthcare Facility |
| | ☐ | b. Reverse Distributor |
| ☐ Y ☑ N | | 2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals. |

**12. Eligible Academic Entities with Laboratories**—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

| | | |
|---|---|---|
| ☐ Y ☑ N | | A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities. |
| | ☐ | 1. College or University |
| | ☐ | 2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university |
| | ☐ | 3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university |
| ☐ Y ☑ N | | B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories. |

**13. Episodic Generation**

| | |
|---|---|
| ☐ Y ☑ N | Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator. |

**14. LQG Consolidation of VSQG Hazardous Waste**

| | |
|---|---|
| ☐ Y ☑ N | Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste. |

**15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)**

| | |
|---|---|
| ☐ Y ☑ N | LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility. |
| | A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility |
| | B. Expected closure date: ____________ mm/dd/yyyy |
| | C. Requesting new closure date: ____________ mm/dd/yyyy |
| | D. Date closed : ____________ mm/dd/yyyy<br>☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)<br>☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8) |

**16. Notification of Hazardous Secondary Material (HSM) Activity**

| | |
|---|---|
| ☑ Y ☐ N | Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material. |

**17. Electronic Manifest Broker**

| | |
|---|---|
| ☐ Y ☑ N | Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator? |

**18. Comments** (include item number for each comment)

**8. Site Contact Information (Continued)**
**First Name: Michael MI: A Last Name: Mikolanis**
**Title: Manager, Environmental Management, Los Alamos Field Office, U. S. Department of Energy**
**Street Address: 1200 Trinity Drive, Suite 400P City, Town, or Village: Los Alamos**
**State: NM Country: USA Zip Code: 87544**
**Email: michael.mikolanis@em.doe.gov**
**Phone: (240) 562-1122 Ext: Fax:**

**9.B. Name of Site Legal Operator (Continued)**
**Newport News Nuclear BWXT-Los Alamos, LLC (N3B) Date Became an Operator: 04/30/2018**
**Operator Type: Private**
**Street Address: 1200 Trinity Drive, Suite 150 City, Town, or Village: Los Alamos**
**State: NM Country: USA Zip Code: 87544**
**Email: kim.lebak@em-la.doe.gov Phone: (505) 257-7690**

**10.B. Waste Codes for Federally Regulated Hazardous Wastes. See pages 3a and 3b.**
**19. Certification (Continued). See pages 6 and 6a.**

**19. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11)**.

| | |
|---|---|
| Signature of legal owner, operator or authorized representative<br>Robert A. Gallegos Digitally signed by Robert A. Gallegos Date: 2023.03.09 17:02:23 -07'00' | Date (mm/dd/yyyy) Acting for |
| Printed Name (First, Middle Initial Last)<br>**Karen E. Armijo** | Title **Permitting and Compliance Program Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy** |
| Email<br>**karen.armijo@nnsa.doe.gov** | |

| | |
|---|---|
| Signature of legal owner, operator or authorized representative<br>STEVEN STORY (Affiliate) Digitally signed by STEVEN STORY (Affiliate) Date: 2023.03.09 14:13:52 -07'00' | Date (mm/dd/yyyy)<br>3/9/23 |
| Printed Name (First, Middle Initial Last)<br>**Jennifer E. Payne** | Title **Division Leader, Environmental Protection and Compliance Division, Triad National Security, LLC** |
| Email<br>**jpayne@lanl.gov** | |

**16. Notification of Hazardous Secondary Material (HSM) Activity**

| | |
|---|---|
| ☐ Y ☐ N | Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material. |

**17. Electronic Manifest Broker**

| | |
|---|---|
| ☐ Y ☐ N | Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator? |

**18. Comments** (include item number for each comment)

**19. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11)**.

| | |
|---|---|
| Signature of legal owner, operator or authorized representative<br>M Lee Bishop Digitally signed by M Lee Bishop Date: 2023.03.09 13:44:08 -07'00' | Date (mm/dd/yyyy)<br>3/9/23 |
| Printed Name (First, Middle Initial Last)<br>**M. Lee Bishop** | Title **Director, Office of Quality and Regulatory Compliance, Environmental Management, Los Alamos Field Office, U.S. Department of Energy** |
| Email<br>**lee.bishop@em.doe.gov** | |

| | |
|---|---|
| Signature of legal owner, operator or authorized representative<br>Robert M. H. Macfarlane Digitally signed by Robert M. H. Macfarlane Date: 2023.03.06 18:04:25 -07'00' | Date (mm/dd/yyyy)<br>3/6/23 |
| Printed Name (First, Middle Initial Last)<br>**Robert Macfarlane** | Title **Program Manager, Environment, Safety, Health and Quality, Newport News Nuclear BWXT-Los Alamos, LLC (N3B)** |
| Email<br>**robert.macfarlane@em-la.doe.gov** | |

# ADDENDUM TO THE SITE IDENTIFICATION FORM:
# NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY

**ONLY fill out this form if:**

- You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent; See https://www.epa.gov/hw/where-2018-definition-solid-waste-rule-effect for a list of eligible states; AND
- You are or will be managing excluded HSM in compliance with 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent) or have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section. Note: If your facility was granted a solid waste variance under 40 CFR 260.30 prior to July 13, 2015, your management of HSM under 40 CFR 260.30 is grandfathered under the previous regulations and you are not required to notify for the HSM management activity excluded under 40 CFR 260.30.

**1. Reason for Notification** (Include dates where requested)

☐ Facility will begin managing excluded HSM as of ________________ (mm/dd/yyyy).

☑ Facility is still managing excluded HSM/re-notifying as required by March 1 of each even-numbered year.

☐ Facility has stopped managing excluded HSM as of ________________ (mm/dd/yyyy) and is notifying as required.

**2. Description of Excluded HSM Activity**. Please list the appropriate codes (see Code List section of the instructions) and quantities, in short tons, to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

| A. Facility Code | B. Waste Code(s) for HSM | C. Estimate Short Tons of excluded HSM to be managed annually | D. Actual Short Tons of excluded HSM that was managed during the most recent odd-numbered year | E. Land-based Unit Code |
|---|---|---|---|---|
| 01 | D001, D002, D003, F003 | 1 | LT 1 | NA |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# ADDENDUM TO THE SITE IDENTIFICATION FORM: EPISODIC GENERATOR

**ONLY fill out this form if:**

- You are an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more then 60 days, that moves the generator to a higher generator category pursuant to 40 CFR 262 Subpart L. Note: Only one planned and one unplanned episodic event are allowed within one year; otherwise, you must follow the requirements of the higher generator category. Use additional pages if more space is needed.

**Episodic Event**

| 1. Planned | 2. Unplanned |
|---|---|
| ☐ Excess chemical inventory removal | ☐ Accidental spills |
| ☐ Tank cleanouts | ☐ Production process upsets |
| ☐ Short-term construction or demolition | ☐ Product recalls |
| ☐ Equipment maintenance during plant shutdowns | ☐ "Acts of nature" (Tornado, hurricane, flood, etc.) |
| ☐ Other ______________________ | ☐ Other ______________________ |

| 3. Emergency Contact Phone | 4. Emergency Contact Name |
|---|---|
| | |

| 5. Beginning Date ____________ (mm/dd/yyyy) | 6. End Date ____________ (mm/dd/yyyy) |
|---|---|

**Waste 1**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**Waste 2**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**Waste 3**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

# ADDENDUM TO THE SITE IDENTIFICATION FORM:
# LQG CONSOLIDATION OF VSQG HAZARDOUS WASTE

**ONLY fill out this form if:**

- You are an LQG receiving hazardous waste from VSQGs under the control of the same person. Use additional pages if more space is needed.

| **VSQG 1** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

| **VSQG 2** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

| **VSQG 3** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

United States Environmental Protection Agency

# HAZARDOUS WASTE PERMIT PART A FORM

## 1. Facility Permit Contact

| | | |
|---|---|---|
| First Name **Theodore** | MI **A** | Last Name **Wyka** |
| Title **Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy** | | |
| Email **theodore.wyka@nnsa.doe.gov** | | |
| Phone **(505) 667-5105** | Ext | Fax **(505) 667-5948** |

## 2. Facility Permit Contact Mailing Address

| | | |
|---|---|---|
| Street Address **3747 West Jemez Road, MS A316** | | |
| City, Town, or Village **Los Alamos** | | |
| State **NM** | Country **USA** | Zip Code **87544** |

## 3. Facility Existence Date (mm/dd/yyyy)

**1/1/1943**

## 4. Other Environmental Permits

| A. Permit Type | B. Permit Number | C. Description |
|---|---|---|
| **See Page 10a** | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

## 5. Nature of Business

**The central mission of Los Alamos National Laboratory is the reduction of global nuclear danger supported by research that also contributes to conventional defense, civilian, and industrial needs. This includes programs in nuclear, medium energy, and space physics; hydrodynamics; conventional explosives; chemistry; metallurgy; radiochemistry; space nuclear systems; controlled thermonuclear fusion; laser research; environmental technology; geothermal, solar, and fossil energy research; nuclear safeguards; biomedicine; health and biotechnology; and industrial partnerships.**

**4. Other Environmental Permits (continued)**

| A. Permit Type | B. Permit Number | | | | | | | | | | | | | C. Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | N | M | R | 1 | 0 | 0 | - | - | - | | | | | NPDES Construction General Permit coverage for various individual construction projects: NMR100xxx |
| N | N | M | 0 | 0 | 2 | 8 | 3 | 5 | 5 | | | | | NPDES Industrial and Sanitary Point Source Discharges |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 1 | | | | | NPDES Storm Water Multi-Sector General Permit (MSGP) |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 2 | | | | | NPDES MSGP |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 3 | | | | | NPDES MSGP |
| N | N | M | 0 | 0 | 3 | 0 | 7 | 5 | 9 | | | | | NPDES LANL Storm Water Individual Permit |
| N | N | M | G | 8 | 7 | 0 | 0 | 0 | 2 | | | | | NPDES Pesticides General Permit (PGP) for discharges from the application of pesticides |
| R | N | M | 0 | 8 | 9 | 0 | 0 | 1 | 0 | 5 | 1 | 5 | | RCRA Hazardous Waste Facility Permit |
| E | D | P | - | 8 | 5 | 7 | | | | | | | | TA-46 SWWS Plant and TA-3 Sanitary Effluent Reclamation Facility (SERF) Discharge Permit |
| E | D | P | - | 1 | 1 | 3 | 2 | | | | | | | TA-50 Radioactive Liquid Waste Treatment Facility, Discharge Permit |
| E | D | P | - | 1 | 5 | 8 | 9 | | | | | | | Six (6) Domestic Septic Tank/Leachfield Systems, Discharge Permit |
| E | D | P | - | 1 | 7 | 9 | 3 | | | | | | | On-Site Treatment and Land Application of Groundwater, Discharge Permit |
| E | D | P | - | 1 | 8 | 3 | 5 | | | | | | | Injection of Treated Groundwater into Class V Underground Injection Control (UIC) Wells, Discharge |
| F | N | W | P | - | 4 | 3 | | | | | | | | Water Canyon West Jemez road Storm Drain Controls |
| F | N | W | P | - | 3 | 8 | | | | | | | | Sandia Canyon TA-72 Storm Water Controls |
| F | N | W | P | - | 2 | 7 | | | | | | | | Habitat Restoration- Mortandad Wetland Enhancement |
| F | N | W | P | - | 4 | 3 | | | | | | | | Sandia Canyon (Lower) Area 1 Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | Sandia Canyon (Lower) Area 2 Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | Upper Ancho Canyon Structure Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | North Ancho Canyon Lower Structure Storm Water Controls |
| F | N | W | P | - | 1 | 8 | | | | | | | | North Ancho Canyon Aggregate Area Phase II Project |
| F | N | W | P | - | 5 | | | | | | | | | Lower LA Canyon Gaging Station E110.7 Installation and E109.9 Gage Structure Removal |
| E | P | 1 | 0 | 0 | - | R | 2 | - | M | 4 | | | | LANL Air Emissions Title V Operating Permit |
| E | 2 | 1 | 9 | 5 | - | R | 1 | - | R | 9 | 0 | | | Various 20 NMAC 2.72.202 Exemptions |
| E | 2 | 1 | 9 | 5 | B | - | M | 3 | R | 1 | | | | TA-3 Power Plant |
| E | 2 | 1 | 9 | 5 | F | - | R | 4 | | | | | | TA-33 Large Generator |
| E | G | C | P | 3 | - | 2 | 1 | 9 | 5 | G | - | R | 1 | TA-60 Asphalt Plant |
| E | 2 | 1 | 9 | 5 | H | - | R | 1 | | | | | | Data disintegrator |
| E | 2 | 1 | 9 | 5 | N | - | R | 2 | | | | | | Chemistry and Metallurgy Research Replacement Facility |
| E | 2 | 1 | 9 | 5 | P | - | R | 1 | | | | | | TA-33 Small Generators |
| E | 6 | 3 | 4 | - | M | 2 | - | R | 1 | | | | | TA-3-141 Beryllium Operations |
| E | 6 | 3 | 2 | - | R | 1 | | | | | | | | TA-35-213 Beryllium Operations |
| E | 1 | 0 | 8 | 1 | M | 1 | - | R | 7 | | | | | TA-55-4 Beryllium Operations |

**6. Process Codes and Design Capacities**

| Line Number | | A. Process Code | | | B. Process Design Capacity (1) Amount | B. Process Design Capacity (2) Unit of Measure | C. Process Total Number of Units | D. Unit Name |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | See Page 11a |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) )

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | See Pages 11b-11pppp |
| | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | |

**8. Map**

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

**9. Facility Drawing**

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

**10. Photographs**

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

**11. Comments**

**Items 4, 6, and 7 have supplemental pages added in this document as referenced at each applicable item. All documentation is arranged by individual Technical Areas (TAs) at the Los Alamos National Laboratory.**

**6. Process Codes and Design Capacities (continued)**

| Line Number | | A. Process Code | | | B. Process Design Capacity (1) Amount | B. Process Design Capacity (2) Unit of Measure | C. Process Total Number of Units | D. Unit Name |
|---|---|---|---|---|---|---|---|---|
| X | 1 | S | 0 | 1 | 18,500 | G | 001 | Technical Area 3 |
| X | 2 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 3 |
| X | 3 | X | 0 | 1 | 20 or 50 | J* | 002 | Technical Area 14<br>*Total indicates per day not per hour |
| X | 4 | X | 0 | 1 | 1,200 or 50 | J* or U | 002 | Technical Area 16<br>*Total indicates per day not per hour |
| X | 5 | X | 0 | 1 | 2,000 | J* | 001 | Technical Area 36<br>*Total indicates per day not per hour |
| X | 6 | X | 0 | 1 | 2,000 | J* | 002 | Technical Area 39<br>*Total indicates per day not per hour |
| X | 7 | S | 0 | 1 | 31,500 | G | 002 | Technical Area 50 |
| X | 8 | T | 0 | 4 | 3,716 | U | 002 | Technical Area 50 |
| X | 9 | S | 0 | 1 | 407,880 | G | 001 | Technical Area 54, Area L |
| 1 | 0 | T | 0 | 4 | 23,160 | U | 001 | Technical Area 54, Area L |
| 1 | 1 | D | 8 | 0 | 1,200 | Y | 001 | Technical Area 54, Area L |
| 1 | 2 | S | 9 | 9 | 600 | G | 001 | Technical Area 54, Area L |
| 1 | 3 | S | 0 | 1 | 4,346,590 | G | 009 | Technical Area 54, Area G |
| 1 | 4 | T | 0 | 4 | 185,280 | U | 008 | Technical Area 54, Area G |
| 1 | 5 | S | 9 | 9 | 4,950 | G | 001 | Technical Area 54, Area G |
| 1 | 6 | D | 8 | 0 | 14 | Y | 001 | Technical Area 54, Area G |
| 1 | 7 | S | 0 | 1 | 34,110 +<br>13,410+ | G | 002 | Technical Area 54, West<br>+Total includes excess storage capacity |
| 1 | 8 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 54, West |
| 1 | 9 | D | 8 | 0 | 63 | Y | 001 | Technical Area 54, Area H |
| 2 | 0 | S | 0 | 1 | 272,145 | G | 009 | Technical Area 55 |
| 2 | 1 | S | 0 | 2 | 137 | G | 001 | Technical Area 55 |
| 2 | 2 | T | 0 | 4 | 13,914 | U | 005 | Technical Area 55 |
| 2 | 3 | S | 0 | 1 | 105,875 | G | 001 | Technical Area 63 |
| 2 | 4 | T | 0 | 4 | 23,160 | U | 001 | Technical Area 63 |
| 2 | 5 | S | 0 | 1 | 17,600 | G | 001 | Technical Area 60 |
| 2 | 6 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 60 |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| Technical Area 3 | | | | | | | | | | | | | | | | | |
| | 1 | D | 0 | 0 | 1 | 7,000 | P | S | 0 | 1 | | | | | | | |
| | 2 | D | 0 | 0 | 2 | 21,000 | P | S | 0 | 1 | | | | | | | |
| | 3 | D | 0 | 0 | 3 | 2,500 | P | S | 0 | 1 | | | | | | | |
| | 4 | D | 0 | 0 | 4 | 3,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 5 | D | 0 | 0 | 5 | 3,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 6 | D | 0 | 0 | 6 | 2,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 7 | D | 0 | 0 | 7 | 7,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 8 | D | 0 | 0 | 8 | 27,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 9 | D | 0 | 0 | 9 | 4,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 0 | D | 0 | 1 | 0 | 2,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 1 | D | 0 | 1 | 1 | 3,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 2 | D | 0 | 1 | 2 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 3 | D | 0 | 1 | 8 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 4 | D | 0 | 1 | 9 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 5 | D | 0 | 2 | 1 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 6 | D | 0 | 2 | 2 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 7 | D | 0 | 2 | 3 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 8 | D | 0 | 2 | 4 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 9 | D | 0 | 2 | 5 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 0 | D | 0 | 2 | 6 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 1 | D | 0 | 2 | 7 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 2 | D | 0 | 2 | 8 | 2,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 3 | D | 0 | 2 | 9 | 1,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 4 | D | 0 | 3 | 0 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 5 | D | 0 | 3 | 2 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 6 | D | 0 | 3 | 3 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 7 | D | 0 | 3 | 4 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 8 | D | 0 | 3 | 5 | 3,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 9 | D | 0 | 3 | 6 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 0 | D | 0 | 3 | 7 | 1,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 1 | D | 0 | 3 | 8 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 2 | D | 0 | 3 | 9 | 2,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 3 | D | 0 | 4 | 0 | 2,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 4 | D | 0 | 4 | 2 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 5 | D | 0 | 4 | 3 | 1,500 | P | S | 0 | 1 | T | 0 | 4 | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 3 (continued)** | | | | | |
| 36 | F001 | 21,000 | P | S01 T04 | |
| 37 | F002 | 21,000 | P | S01 T04 | |
| 38 | F003 | 21,000 | P | S01 | |
| 39 | F004 | 2,500 | P | S01 T04 | |
| 40 | F005 | 21,000 | P | S01 | |
| 41 | F006 | 500 | P | S01 | |
| 42 | F007 | 500 | P | S01 | |
| 43 | F009 | 500 | P | S01 | |
| 44 | P003 | 1,000 | P | S01 | |
| 45 | P012 | 1,000 | P | S01 | |
| 46 | P015 | 1,000 | P | S01 | |
| 47 | P029 | 1,000 | P | S01 | |
| 48 | P030 | 1,000 | P | S01 | |
| 49 | P031 | 1,000 | P | S01 | |
| 50 | P038 | 1,000 | P | S01 | |
| 51 | P056 | 1,000 | P | S01 | |
| 52 | P063 | 1,000 | P | S01 | |
| 53 | P068 | 1,000 | P | S01 | |
| 54 | P073 | 1,000 | P | S01 | |
| 55 | P076 | 1,000 | P | S01 | |
| 56 | P078 | 1,000 | P | S01 | |
| 57 | P095 | 1,000 | P | S01 | |
| 58 | P096 | 1,000 | P | S01 | |
| 59 | P098 | 1,000 | P | S01 | |
| 60 | P099 | 500 | P | S01 | |
| 61 | P106 | 1,000 | P | S01 | |
| 62 | P113 | 1,000 | P | S01 | |
| 63 | P120 | 1,000 | P | S01 | |
| 64 | U001 | 1,000 | P | S01 | |
| 65 | U002 | 1,000 | P | S01 | |
| 66 | U003 | 1,000 | P | S01 | |
| 67 | U012 | 1,000 | P | S01 | |
| 68 | U019 | 1,000 | P | S01 | |
| 69 | U022 | 1,000 | P | S01 | |
| 70 | U029 | 1,000 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 3 (continued)** | | | | | |
| 71 | U031 | 1,000 | P | S01 | |
| 72 | U037 | 1,000 | P | S01 | |
| 73 | U044 | 1,000 | P | S01 | |
| 74 | U045 | 1,000 | P | S01 | |
| 75 | U052 | 1,000 | P | S01 | |
| 76 | U056 | 1,000 | P | S01 | |
| 77 | U057 | 1,000 | P | S01 | |
| 78 | U075 | 1,000 | P | S01 | |
| 79 | U077 | 1,000 | P | S01 | |
| 80 | U080 | 1,000 | P | S01 | |
| 81 | U103 | 500 | P | S01 | |
| 82 | U108 | 1,000 | P | S01 | |
| 83 | U112 | 1,000 | P | S01 | |
| 84 | U115 | 1,000 | P | S01 | |
| 85 | U117 | 1,000 | P | S01 | |
| 86 | U121 | 1,000 | P | S01 | |
| 87 | U122 | 1,000 | P | S01 | |
| 88 | U123 | 1,000 | P | S01 | |
| 89 | U131 | 1,000 | P | S01 | |
| 90 | U133 | 1,000 | P | S01 | |
| 91 | U134 | 1,000 | P | S01 | |
| 92 | U135 | 1,000 | P | S01 | |
| 93 | U140 | 1,000 | P | S01 | |
| 94 | U144 | 1,000 | P | S01 | |
| 95 | U151 | 1,000 | P | S01 | |
| 96 | U154 | 1,000 | P | S01 | |
| 97 | U159 | 1,000 | P | S01 | |
| 98 | U160 | 1,000 | P | S01 | |
| 99 | U161 | 1,000 | P | S01 | |
| 100 | U165 | 1,000 | P | S01 | |
| 101 | U169 | 1,000 | P | S01 | |
| 102 | U188 | 1,000 | P | S01 | |
| 103 | U190 | 1,000 | P | S01 | |
| 104 | U196 | 1,000 | P | S01 | |
| 105 | U204 | 1,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| 1 0 | 6 | U | 2 | 1 | 0 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 0 | 7 | U | 2 | 1 | 1 | 1,000 | P | S | 0 | 1 | | | | | | | |
| **Technical Area 3 (continued)** | | | | | | | | | | | | | | | | | |
| 1 0 | 8 | U | 2 | 1 | 3 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 0 | 9 | U | 2 | 1 | 6 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 0 | U | 2 | 1 | 8 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 1 | U | 2 | 1 | 9 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 2 | U | 2 | 2 | 0 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 3 | U | 2 | 2 | 5 | 500 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 4 | U | 2 | 2 | 6 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 5 | U | 2 | 2 | 7 | 500 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 6 | U | 2 | 2 | 8 | 1,000 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 7 | U | 2 | 3 | 9 | 500 | P | S | 0 | 1 | | | | | | | |
| 11 | 8 | U | 2 | 4 | 6 | 500 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | |
|---|---|---|---|---|---|
| | | | | (1) Process Codes | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 14** | | | | | |
| 1 | D001 | 2,000 | P | X01 | |
| 2 | D003 | | | | Included with above. |
| 3 | D005 | | | | Included with above. |
| 4 | D006 | | | | Included with above. |
| 5 | D007 | | | | Included with above. |
| 6 | D008 | | | | Included with above. |
| 7 | D009 | | | | Included with above. |
| 8 | D011 | | | | Included with above. |
| 9 | D018 | | | | Included with above. |
| 10 | D022 | | | | Included with above. |
| 11 | D028 | | | | Included with above. |
| 12 | D029 | | | | Included with above. |
| 13 | D030 | | | | Included with above. |
| 14 | D035 | | | | Included with above. |
| 15 | D036 | | | | Included with above. |
| 16 | D038 | | | | Included with above. |
| 17 | D040 | | | | Included with above. |
| 18 | F001 | | | | Included with above. |
| 19 | F002 | | | | Included with above. |
| 20 | F003 | | | | Included with above. |
| 21 | F004 | | | | Included with above. |
| 22 | F005 | | | | Included with above. |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 16** | | | | | |
| 1 | D001 | 20,000 | P | X01 | |
| 2 | D002 | | | | Included with above. |
| 3 | D003 | | | | Included with above. |
| 4 | D005 | | | | Included with above. |
| 5 | D006 | | | | Included with above. |
| 6 | D007 | | | | Included with above. |
| 7 | D008 | | | | Included with above. |
| 8 | D009 | | | | Included with above. |
| 9 | D010 | | | | Included with above. |
| 10 | D011 | | | | Included with above. |
| 11 | D018 | | | | Included with above. |
| 12 | D022 | | | | Included with above. |
| 13 | D028 | | | | Included with above. |
| 14 | D029 | | | | Included with above. |
| 15 | D030 | | | | Included with above. |
| 16 | D035 | | | | Included with above. |
| 17 | D036 | | | | Included with above. |
| 18 | D038 | | | | Included with above. |
| 19 | D040 | | | | Included with above. |
| 20 | F001 | | | | Included with above. |
| 21 | F002 | | | | Included with above. |
| 22 | F003 | | | | Included with above. |
| 23 | F004 | | | | Included with above. |
| 24 | F005 | | | | Included with above. |
| 25 | K044 | | | | Included with above. |
| 26 | K045 | | | | Included with above. |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 36** | | | | | |
| 1 | D001 | 15,000 | P | X01 | |
| 2 | D003 | | | | Included with above. |
| 3 | D005 | | | | Included with above. |
| 4 | D006 | | | | Included with above. |
| 5 | D007 | | | | Included with above. |
| 6 | D008 | | | | Included with above. |
| 7 | D009 | | | | Included with above. |
| 8 | D010 | | | | Included with above. |
| 9 | D011 | | | | Included with above. |
| 10 | D018 | | | | Included with above. |
| 11 | D022 | | | | Included with above. |
| 12 | D028 | | | | Included with above. |
| 13 | D029 | | | | Included with above. |
| 14 | D030 | | | | Included with above. |
| 15 | D035 | | | | Included with above. |
| 16 | D036 | | | | Included with above. |
| 17 | D038 | | | | Included with above. |
| 18 | D040 | | | | Included with above. |
| 19 | F001 | | | | Included with above. |
| 20 | F002 | | | | Included with above. |
| 21 | F003 | | | | Included with above. |
| 22 | F004 | | | | Included with above. |
| 23 | F005 | | | | Included with above. |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 39** | | | | | | | | | | | | | | | | | |
| | 1 | D | 0 | 0 | 1 | 15,000 | P | X | 0 | 1 | | | | | | | |
| | 2 | D | 0 | 0 | 3 | | | | | | | | | | | | Included with above. |
| | 3 | D | 0 | 0 | 5 | | | | | | | | | | | | Included with above. |
| | 4 | D | 0 | 0 | 6 | | | | | | | | | | | | Included with above. |
| | 5 | D | 0 | 0 | 7 | | | | | | | | | | | | Included with above. |
| | 6 | D | 0 | 0 | 8 | | | | | | | | | | | | Included with above. |
| | 7 | D | 0 | 0 | 9 | | | | | | | | | | | | Included with above. |
| | 8 | D | 0 | 1 | 0 | | | | | | | | | | | | Included with above. |
| | 9 | D | 0 | 1 | 1 | | | | | | | | | | | | Included with above. |
| 1 | 0 | D | 0 | 1 | 8 | | | | | | | | | | | | Included with above. |
| 1 | 1 | D | 0 | 2 | 2 | | | | | | | | | | | | Included with above. |
| 1 | 2 | D | 0 | 2 | 8 | | | | | | | | | | | | Included with above. |
| 1 | 3 | D | 0 | 2 | 9 | | | | | | | | | | | | Included with above. |
| 1 | 4 | D | 0 | 3 | 0 | | | | | | | | | | | | Included with above. |
| 1 | 5 | D | 0 | 3 | 5 | | | | | | | | | | | | Included with above. |
| 1 | 6 | D | 0 | 3 | 6 | | | | | | | | | | | | Included with above. |
| 1 | 7 | D | 0 | 3 | 8 | | | | | | | | | | | | Included with above. |
| 1 | 8 | D | 0 | 4 | 0 | | | | | | | | | | | | Included with above. |
| 1 | 9 | F | 0 | 0 | 1 | | | | | | | | | | | | Included with above. |
| 2 | 0 | F | 0 | 0 | 2 | | | | | | | | | | | | Included with above. |
| 2 | 1 | F | 0 | 0 | 3 | | | | | | | | | | | | Included with above. |
| 2 | 2 | F | 0 | 0 | 4 | | | | | | | | | | | | Included with above. |
| 2 | 3 | F | 0 | 0 | 5 | | | | | | | | | | | | Included with above. |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| Technical Area 50 | | | | | | | | | | | | | | | | | |
| | 1 | D | 0 | 0 | 1 | 69,696 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 2 | D | 0 | 0 | 2 | 52,734 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 3 | D | 0 | 0 | 3 | 3,444 | P | S | 0 | 1 | | | | | | | |
| | 4 | D | 0 | 0 | 4 | 7,531 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 5 | D | 0 | 0 | 5 | 7,740 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 6 | D | 0 | 0 | 6 | 535, 451 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 7 | D | 0 | 0 | 7 | 567, 226 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 8 | D | 0 | 0 | 8 | 1,405,439 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 9 | D | 0 | 0 | 9 | 75,666 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 0 | D | 0 | 1 | 0 | 8,922 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 1 | D | 0 | 1 | 1 | 31,255 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 2 | D | 0 | 1 | 2 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 | 3 | D | 0 | 1 | 3 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 | 4 | D | 0 | 1 | 4 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 | 5 | D | 0 | 1 | 5 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 | 6 | D | 0 | 1 | 6 | 44 | P | S | 0 | 1 | | | | | | | |
| 1 | 7 | D | 0 | 1 | 7 | 66 | P | S | 0 | 1 | | | | | | | |
| 1 | 8 | D | 0 | 1 | 8 | 5,535 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 9 | D | 0 | 1 | 9 | 4,261 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 0 | D | 0 | 2 | 0 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 1 | D | 0 | 2 | 1 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 2 | D | 0 | 2 | 2 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 3 | D | 0 | 2 | 3 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 4 | D | 0 | 2 | 4 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 5 | D | 0 | 2 | 5 | 100 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 6 | D | 0 | 2 | 6 | 518 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 7 | D | 0 | 2 | 7 | 972 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 8 | D | 0 | 2 | 8 | 216,783 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 9 | D | 0 | 2 | 9 | 215,184 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 0 | D | 0 | 3 | 0 | 5,491 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 1 | D | 0 | 3 | 1 | 293 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 2 | D | 0 | 3 | 2 | 3,135 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 3 | D | 0 | 3 | 3 | 2,222 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 4 | D | 0 | 3 | 4 | 1,228 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 5 | D | 0 | 3 | 5 | 1,792 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 6 | D | 0 | 3 | 6 | 549 | P | S | 0 | 1 | T | 0 | 4 | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 37 | D037 | 761 | P | S01 T04 | |
| 38 | D038 | 1,549 | P | S01 T04 | |
| 39 | D039 | 1,675 | P | S01 T04 | |
| 40 | D040 | 3,942 | P | S01 T04 | |
| 41 | D041 | 293 | P | S01 T04 | |
| 42 | D042 | 1,182 | P | S01 T04 | |
| 43 | D043 | 655 | P | S01 T04 | |
| 44 | F001 | 442,263 | P | S01 T04 | |
| 45 | F002 | 147,347 | P | S01 T04 | |
| 46 | F003 | 50,980 | P | S01 T04 | |
| 47 | F004 | 2,817 | P | S01 T04 | |
| 48 | F005 | 334,821 | P | S01 T04 | |
| 49 | F006 | 100 | P | S01 T04 | |
| 50 | F007 | 100 | P | S01 T04 | |
| 51 | F008 | 100 | P | S01 | |
| 52 | F009 | 165 | P | S01 T04 | |
| 53 | F010 | 100 | P | S01 | |
| 54 | F011 | 100 | P | S01 | |
| 55 | F012 | 100 | P | S01 | |
| 56 | F019 | 100 | P | S01 | |
| 57 | F020 | 100 | P | S01 | |
| 58 | F021 | 100 | P | S01 | |
| 59 | F022 | 100 | P | S01 | |
| 60 | F023 | 100 | P | S01 | |
| 61 | F024 | 100 | P | S01 | |
| 62 | F025 | 100 | P | S01 | |
| 63 | F026 | 100 | P | S01 | |
| 64 | F027 | 165 | P | S01 | |
| 65 | F028 | 100 | P | S01 | |
| 66 | F032 | 100 | P | S01 | |
| 67 | F034 | 100 | P | S01 | |
| 68 | F035 | 100 | P | S01 | |
| 69 | F037 | 100 | P | S01 | |
| 70 | F038 | 100 | P | S01 | |
| 71 | F039 | 100 | P | S01 | |
| 72 | K044 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 73 | K045 | 100 | P | S01 | |
| 74 | K046 | 100 | P | S01 | |
| 75 | K047 | 100 | P | S01 | |
| 76 | K084 | 100 | P | S01 | |
| 77 | K101 | 100 | P | S01 | |
| 78 | K102 | 100 | P | S01 | |
| 79 | P001 | 100 | P | S01 | |
| 80 | P002 | 100 | P | S01 | |
| 81 | P003 | 293 | P | S01 | |
| 82 | P004 | 100 | P | S01 | |
| 83 | P005 | 100 | P | S01 | |
| 84 | P006 | 143 | P | S01 | |
| 85 | P007 | 100 | P | S01 | |
| 86 | P008 | 100 | P | S01 | |
| 87 | P009 | 100 | P | S01 | |
| 88 | P010 | 100 | P | S01 | |
| 89 | P011 | 143 | P | S01 | |
| 90 | P012 | 293 | P | S01 | |
| 91 | P013 | 100 | P | S01 | |
| 92 | P014 | 100 | P | S01 | |
| 93 | P015 | 293 | P | S01 | |
| 94 | P016 | 100 | P | S01 | |
| 95 | P017 | 100 | P | S01 | |
| 96 | P018 | 100 | P | S01 | |
| 97 | P020 | 100 | P | S01 | |
| 98 | P021 | 100 | P | S01 | |
| 99 | P022 | 100 | P | S01 | |
| 100 | P023 | 100 | P | S01 | |
| 101 | P024 | 100 | P | S01 | |
| 102 | P026 | 100 | P | S01 | |
| 103 | P027 | 100 | P | S01 | |
| 104 | P028 | 100 | P | S01 | |
| 105 | P029 | 293 | P | S01 | |
| 106 | P030 | 485 | P | S01 | |
| 107 | P031 | 485 | P | S01 | |
| 108 | P033 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 109 | P034 | 100 | P | S01 | |
| 110 | P036 | 100 | P | S01 | |
| 111 | P037 | 100 | P | S01 | |
| 112 | P038 | 227 | P | S01 | |
| 113 | P039 | 100 | P | S01 | |
| 114 | P040 | 100 | P | S01 | |
| 115 | P041 | 100 | P | S01 | |
| 116 | P042 | 100 | P | S01 | |
| 117 | P043 | 143 | P | S01 | |
| 118 | P044 | 100 | P | S01 | |
| 119 | P045 | 100 | P | S01 | |
| 120 | P046 | 100 | P | S01 | |
| 121 | P047 | 100 | P | S01 | |
| 122 | P048 | 143 | P | S01 | |
| 123 | P049 | 100 | P | S01 | |
| 124 | P050 | 100 | P | S01 | |
| 125 | P051 | 100 | P | S01 | |
| 126 | P054 | 100 | P | S01 | |
| 127 | P056 | 2,624 | P | S01 | |
| 128 | P057 | 100 | P | S01 | |
| 129 | P058 | 100 | P | S01 | |
| 130 | P059 | 100 | P | S01 | |
| 131 | P060 | 100 | P | S01 | |
| 132 | P062 | 100 | P | S01 | |
| 133 | P063 | 293 | P | S01 | |
| 134 | P064 | 100 | P | S01 | |
| 135 | P065 | 100 | P | S01 | |
| 136 | P066 | 100 | P | S01 | |
| 137 | P067 | 100 | P | S01 | |
| 138 | P068 | 293 | P | S01 | |
| 139 | P069 | 100 | P | S01 | |
| 140 | P070 | 100 | P | S01 | |
| 141 | P071 | 100 | P | S01 | |
| 142 | P072 | 100 | P | S01 | |
| 143 | P073 | 293 | P | S01 | |
| 144 | P074 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 145 | P075 | 100 | P | S01 | |
| 146 | P076 | 403 | P | S01 | |
| 147 | P077 | 100 | P | S01 | |
| 148 | P078 | 425 | P | S01 | |
| 149 | P081 | 100 | P | S01 | |
| 150 | P082 | 100 | P | S01 | |
| 151 | P084 | 100 | P | S01 | |
| 152 | P085 | 100 | P | S01 | |
| 153 | P087 | 100 | P | S01 | |
| 154 | P088 | 100 | P | S01 | |
| 155 | P089 | 100 | P | S01 | |
| 156 | P092 | 143 | P | S01 | |
| 157 | P093 | 100 | P | S01 | |
| 158 | P094 | 100 | P | S01 | |
| 159 | P095 | 293 | P | S01 | |
| 160 | P096 | 293 | P | S01 | |
| 161 | P097 | 100 | P | S01 | |
| 162 | P098 | 293 | P | S01 | |
| 163 | P099 | 100 | P | S01 | |
| 164 | P101 | 100 | P | S01 | |
| 165 | P102 | 100 | P | S01 | |
| 166 | P103 | 100 | P | S01 | |
| 167 | P104 | 143 | P | S01 | |
| 168 | P105 | 143 | P | S01 | |
| 169 | P106 | 293 | P | S01 | |
| 170 | P108 | 100 | P | S01 | |
| 171 | P109 | 100 | P | S01 | |
| 172 | P110 | 100 | P | S01 | |
| 173 | P111 | 100 | P | S01 | |
| 174 | P112 | 143 | P | S01 | |
| 175 | P113 | 293 | P | S01 | |
| 176 | P114 | 100 | P | S01 | |
| 177 | P115 | 100 | P | S01 | |
| 178 | P116 | 100 | P | S01 | |
| 179 | P118 | 100 | P | S01 | |
| 180 | P119 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 181 | P120 | 293 | P | S01 | |
| 182 | P121 | 100 | P | S01 | |
| 183 | P122 | 100 | P | S01 | |
| 184 | P123 | 100 | P | S01 | |
| 185 | P127 | 100 | P | S01 | |
| 186 | P128 | 100 | P | S01 | |
| 187 | P185 | 100 | P | S01 | |
| 188 | P188 | 100 | P | S01 | |
| 189 | P189 | 100 | P | S01 | |
| 190 | P190 | 100 | P | S01 | |
| 191 | P191 | 100 | P | S01 | |
| 192 | P192 | 100 | P | S01 | |
| 193 | P194 | 100 | P | S01 | |
| 194 | P196 | 100 | P | S01 | |
| 195 | P197 | 100 | P | S01 | |
| 196 | P198 | 100 | P | S01 | |
| 197 | P199 | 100 | P | S01 | |
| 198 | P201 | 100 | P | S01 | |
| 199 | P202 | 100 | P | S01 | |
| 200 | P203 | 100 | P | S01 | |
| 201 | P204 | 100 | P | S01 | |
| 202 | P205 | 100 | P | S01 | |
| 203 | U001 | 293 | P | S01 | |
| 204 | U002 | 954 | P | S01 | |
| 205 | U003 | 485 | P | S01 | |
| 206 | U004 | 100 | P | S01 | |
| 207 | U005 | 100 | P | S01 | |
| 208 | U006 | 100 | P | S01 | |
| 209 | U007 | 143 | P | S01 | |
| 210 | U008 | 143 | P | S01 | |
| 211 | U009 | 143 | P | S01 | |
| 212 | U010 | 100 | P | S01 | |
| 213 | U011 | 100 | P | S01 | |
| 214 | U012 | 293 | P | S01 | |
| 215 | U014 | 100 | P | S01 | |
| 216 | U015 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 217 | U016 | 100 | P | S01 | |
| 218 | U017 | 100 | P | S01 | |
| 219 | U018 | 143 | P | S01 | |
| 220 | U019 | 470 | P | S01 | |
| 221 | U020 | 100 | P | S01 | |
| 222 | U021 | 100 | P | S01 | |
| 223 | U022 | 293 | P | S01 | |
| 224 | U023 | 100 | P | S01 | |
| 225 | U024 | 100 | P | S01 | |
| 226 | U025 | 100 | P | S01 | |
| 227 | U026 | 100 | P | S01 | |
| 228 | U027 | 100 | P | S01 | |
| 229 | U028 | 100 | P | S01 | |
| 230 | U029 | 293 | P | S01 | |
| 231 | U030 | 100 | P | S01 | |
| 232 | U031 | 293 | P | S01 | |
| 233 | U032 | 100 | P | S01 | |
| 234 | U033 | 143 | P | S01 | |
| 235 | U034 | 100 | P | S01 | |
| 236 | U035 | 100 | P | S01 | |
| 237 | U036 | 100 | P | S01 | |
| 238 | U037 | 143 | P | S01 | |
| 239 | U038 | 100 | P | S01 | |
| 240 | U039 | 100 | P | S01 | |
| 241 | U041 | 143 | P | S01 | |
| 242 | U042 | 100 | P | S01 | |
| 243 | U043 | 100 | P | S01 | |
| 244 | U044 | 293 | P | S01 | |
| 245 | U045 | 293 | P | S01 | |
| 246 | U046 | 100 | P | S01 | |
| 247 | U047 | 100 | P | S01 | |
| 248 | U048 | 100 | P | S01 | |
| 249 | U049 | 100 | P | S01 | |
| 250 | U050 | 100 | P | S01 | |
| 251 | U051 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 252 | U052 | 293 | P | S01 | |
| 253 | U053 | 100 | P | S01 | |
| 254 | U055 | 143 | P | S01 | |
| 255 | U056 | 293 | P | S01 | |
| 256 | U057 | 293 | P | S01 | |
| 257 | U058 | 100 | P | S01 | |
| 258 | U059 | 100 | P | S01 | |
| 259 | U060 | 100 | P | S01 | |
| 260 | U061 | 100 | P | S01 | |
| 261 | U062 | 100 | P | S01 | |
| 262 | U063 | 100 | P | S01 | |
| 263 | U064 | 100 | P | S01 | |
| 264 | U066 | 100 | P | S01 | |
| 265 | U067 | 143 | P | S01 | |
| 266 | U068 | 143 | P | S01 | |
| 267 | U069 | 100 | P | S01 | |
| 268 | U070 | 165 | P | S01 | |
| 269 | U071 | 100 | P | S01 | |
| 270 | U072 | 100 | P | S01 | |
| 271 | U073 | 100 | P | S01 | |
| 272 | U074 | 100 | P | S01 | |
| 273 | U075 | 381 | P | S01 | |
| 274 | U076 | 100 | P | S01 | |
| 275 | U077 | 293 | P | S01 | |
| 276 | U078 | 100 | P | S01 | |
| 277 | U079 | 100 | P | S01 | |
| 278 | U080 | 4,129 | P | S01 T04 | |
| 279 | U081 | 100 | P | S01 | |
| 280 | U082 | 100 | P | S01 | |
| 281 | U083 | 100 | P | S01 | |
| 282 | U084 | 100 | P | S01 | |
| 283 | U085 | 143 | P | S01 | |
| 284 | U086 | 100 | P | S01 | |
| 285 | U087 | 100 | P | S01 | |
| 286 | U088 | 100 | P | S01 | |
| 287 | U089 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 288 | U090 | 100 | P | S01 | |
| 289 | U091 | 518 | P | S01 | |
| 290 | U092 | 143 | P | S01 | |
| 291 | U093 | 100 | P | S01 | |
| 292 | U094 | 100 | P | S01 | |
| 293 | U095 | 100 | P | S01 | |
| 294 | U096 | 100 | P | S01 | |
| 295 | U097 | 100 | P | S01 | |
| 296 | U098 | 100 | P | S01 | |
| 297 | U099 | 100 | P | S01 | |
| 298 | U101 | 100 | P | S01 | |
| 299 | U102 | 100 | P | S01 | |
| 300 | U103 | 143 | P | S01 | |
| 301 | U105 | 100 | P | S01 | |
| 302 | U106 | 100 | P | S01 | |
| 303 | U107 | 100 | P | S01 | |
| 304 | U108 | 293 | P | S01 | |
| 305 | U109 | 143 | P | S01 | |
| 306 | U110 | 100 | P | S01 | |
| 307 | U111 | 100 | P | S01 | |
| 308 | U112 | 293 | P | S01 | |
| 309 | U113 | 100 | P | S01 | |
| 310 | U114 | 100 | P | S01 | |
| 311 | U115 | 293 | P | S01 | |
| 312 | U116 | 100 | P | S01 | |
| 313 | U117 | 293 | P | S01 | |
| 314 | U118 | 100 | P | S01 | |
| 315 | U119 | 100 | P | S01 | |
| 316 | U120 | 100 | P | S01 | |
| 317 | U121 | 293 | P | S01 | |
| 318 | U122 | 778 | P | S01 | |
| 319 | U123 | 293 | P | S01 | |
| 320 | U124 | 143 | P | S01 | |
| 321 | U125 | 100 | P | S01 | |
| 322 | U126 | 100 | P | S01 | |
| 323 | U127 | 100 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 324 | U128 | 100 | P | S01 | |
| 325 | U129 | 100 | P | S01 | |
| 326 | U130 | 100 | P | S01 | |
| 327 | U131 | 293 | P | S01 | |
| 328 | U132 | 100 | P | S01 | |
| 329 | U133 | 293 | P | S01 | |
| 330 | U134 | 667 | P | S01 | |
| 331 | U135 | 447 | P | S01 | |
| 332 | U136 | 143 | P | S01 | |
| 333 | U137 | 100 | P | S01 | |
| 334 | U138 | 100 | P | S01 | |
| 335 | U140 | 293 | P | S01 | |
| 336 | U141 | 100 | P | S01 | |
| 337 | U142 | 100 | P | S01 | |
| 338 | U143 | 100 | P | S01 | |
| 339 | U144 | 293 | P | S01 | |
| 340 | U145 | 293 | P | S01 | |
| 341 | U146 | 100 | P | S01 | |
| 342 | U147 | 100 | P | S01 | |
| 343 | U148 | 100 | P | S01 | |
| 344 | U149 | 100 | P | S01 | |
| 345 | U150 | 100 | P | S01 | |
| 346 | U151 | 884 | P | S01 | |
| 347 | U152 | 100 | P | S01 | |
| 348 | U153 | 143 | P | S01 | |
| 349 | U154 | 359 | P | S01 | |
| 350 | U155 | 100 | P | S01 | |
| 351 | U156 | 100 | P | S01 | |
| 352 | U157 | 100 | P | S01 | |
| 353 | U158 | 100 | P | S01 | |
| 354 | U159 | 315 | P | S01 | |
| 355 | U160 | 293 | P | S01 | |
| 356 | U161 | 470 | P | S01 | |
| 357 | U162 | 143 | P | S01 | |
| 358 | U163 | 143 | P | S01 | |
| 359 | U164 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 360 | U165 | 293 | P | S01 | |
| 361 | U166 | 100 | P | S01 | |
| 362 | U167 | 143 | P | S01 | |
| 363 | U168 | 143 | P | S01 | |
| 364 | U169 | 293 | P | S01 | |
| 365 | U170 | 143 | P | S01 | |
| 366 | U171 | 100 | P | S01 | |
| 367 | U172 | 100 | P | S01 | |
| 368 | U173 | 100 | P | S01 | |
| 369 | U174 | 100 | P | S01 | |
| 370 | U176 | 100 | P | S01 | |
| 371 | U177 | 100 | P | S01 | |
| 372 | U178 | 100 | P | S01 | |
| 373 | U179 | 100 | P | S01 | |
| 374 | U180 | 100 | P | S01 | |
| 375 | U181 | 100 | P | S01 | |
| 376 | U182 | 100 | P | S01 | |
| 377 | U183 | 100 | P | S01 | |
| 378 | U184 | 100 | P | S01 | |
| 379 | U185 | 100 | P | S01 | |
| 380 | U186 | 100 | P | S01 | |
| 381 | U187 | 100 | P | S01 | |
| 382 | U188 | 293 | P | S01 | |
| 383 | U189 | 100 | P | S01 | |
| 384 | U190 | 293 | P | S01 | |
| 385 | U191 | 100 | P | S01 | |
| 386 | U192 | 100 | P | S01 | |
| 387 | U193 | 100 | P | S01 | |
| 388 | U194 | 100 | P | S01 | |
| 389 | U196 | 293 | P | S01 | |
| 390 | U197 | 100 | P | S01 | |
| 391 | U200 | 100 | P | S01 | |
| 392 | U201 | 100 | P | S01 | |
| 393 | U202 | 100 | P | S01 | |
| 394 | U203 | 100 | P | S01 | |
| 395 | U204 | 293 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 396 | U205 | 100 | P | S01 | |
| 397 | U206 | 100 | P | S01 | |
| 398 | U207 | 100 | P | S01 | |
| 399 | U208 | 100 | P | S01 | |
| 400 | U209 | 100 | P | S01 | |
| 401 | U210 | 513 | P | S01 | |
| 402 | U211 | 359 | P | S01 | |
| 403 | U213 | 293 | P | S01 | |
| 404 | U214 | 100 | P | S01 | |
| 405 | U215 | 100 | P | S01 | |
| 406 | U216 | 293 | P | S01 | |
| 407 | U217 | 100 | P | S01 | |
| 408 | U218 | 293 | P | S01 | |
| 409 | U219 | 293 | P | S01 | |
| 410 | U220 | 491 | P | S01 | |
| 411 | U221 | 100 | P | S01 | |
| 412 | U222 | 100 | P | S01 | |
| 413 | U223 | 143 | P | S01 | |
| 414 | U225 | 293 | P | S01 | |
| 415 | U226 | 6,594 | P | S01 | |
| 416 | U227 | 293 | P | S01 | |
| 417 | U228 | 1,219 | P | S01 | |
| 418 | U234 | 100 | P | S01 | |
| 419 | U235 | 100 | P | S01 | |
| 420 | U236 | 100 | P | S01 | |
| 421 | U237 | 100 | P | S01 | |
| 422 | U238 | 100 | P | S01 | |
| 423 | U239 | 646 | P | S01 | |
| 424 | U240 | 143 | P | S01 | |
| 425 | U243 | 100 | P | S01 | |
| 426 | U244 | 100 | P | S01 | |
| 427 | U246 | 231 | P | S01 | |
| 428 | U247 | 100 | P | S01 | |
| 429 | U248 | 100 | P | S01 | |
| 430 | U249 | 100 | P | S01 | |
| 431 | U271 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 50 (continued)** | | | | | |
| 432 | U278 | 100 | P | S01 | |
| 433 | U279 | 100 | P | S01 | |
| 434 | U280 | 100 | P | S01 | |
| 435 | U328 | 100 | P | S01 | |
| 436 | U353 | 100 | P | S01 | |
| 437 | U359 | 100 | P | S01 | |
| 438 | U364 | 100 | P | S01 | |
| 439 | U367 | 100 | P | S01 | |
| 440 | U372 | 100 | P | S01 | |
| 441 | U373 | 100 | P | S01 | |
| 442 | U387 | 100 | P | S01 | |
| 443 | U389 | 100 | P | S01 | |
| 444 | U394 | 100 | P | S01 | |
| 445 | U395 | 100 | P | S01 | |
| 446 | U404 | 100 | P | S01 | |
| 447 | U409 | 100 | P | S01 | |
| 448 | U410 | 100 | P | S01 | |
| 449 | U411 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 54, Area L** | | | | | | | | | | | | | | | | | |
| | 1 | D | 0 | 0 | 1 | 220,000 | P | S | 0 | 1 | | | | | | | |
| | 2 | D | 0 | 0 | 2 | 365,000 | P | S | 0 | 1 | | | | | | | |
| | 3 | D | 0 | 0 | 3 | 100,000 | P | S | 0 | 1 | | | | | | | |
| | 4 | D | 0 | 0 | 4 | 25,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 5 | D | 0 | 0 | 5 | 80,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 6 | D | 0 | 0 | 6 | 65,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 7 | D | 0 | 0 | 7 | 75,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| | 8 | D | 0 | 0 | 8 | 800,000 | P | S | 0 | 1 | T | 0 | 4 | S | 9 | 9 | |
| | 9 | D | 0 | 0 | 9 | 65,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 0 | D | 0 | 1 | 0 | 30,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 1 | D | 0 | 1 | 1 | 40,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 2 | D | 0 | 1 | 2 | 12,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 3 | D | 0 | 1 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 4 | D | 0 | 1 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 5 | D | 0 | 1 | 5 | 7,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 6 | D | 0 | 1 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 7 | D | 0 | 1 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 | 8 | D | 0 | 1 | 8 | 20,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 1 | 9 | D | 0 | 1 | 9 | 20,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 0 | D | 0 | 2 | 0 | 30,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 1 | D | 0 | 2 | 1 | 10,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 2 | D | 0 | 2 | 2 | 23,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 3 | D | 0 | 2 | 3 | 4,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 4 | D | 0 | 2 | 4 | 4,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 5 | D | 0 | 2 | 5 | 4,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 6 | D | 0 | 2 | 6 | 4,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 7 | D | 0 | 2 | 7 | 12,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 8 | D | 0 | 2 | 8 | 30,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 2 | 9 | D | 0 | 2 | 9 | 7,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 0 | D | 0 | 3 | 0 | 20,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 1 | D | 0 | 3 | 1 | 12,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 2 | D | 0 | 3 | 2 | 19,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 3 | D | 0 | 3 | 3 | 19,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 4 | D | 0 | 3 | 4 | 19,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 5 | D | 0 | 3 | 5 | 20,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |
| 3 | 6 | D | 0 | 3 | 6 | 9,000 | P | S | 0 | 1 | T | 0 | 4 | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 37 | D037 | 7,000 | P | S01 T04 | |
| 38 | D038 | 4,000 | P | S01 T04 | |
| 39 | D039 | 10,000 | P | S01 T04 | |
| 40 | D040 | 15,000 | P | S01 T04 | |
| 41 | D041 | 7,000 | P | S01 T04 | |
| 42 | D042 | 12,000 | P | S01 T04 | |
| 43 | D043 | 15,000 | P | S01 T04 | |
| 44 | F001 | 660,000 | P | S01 T04 | |
| 45 | F002 | 350,000 | P | S01 T04 | |
| 46 | F003 | 250,000 | P | S01 | |
| 47 | F004 | 30,000 | P | S01 T04 | |
| 48 | F005 | 250,000 | P | S01 | |
| 49 | F006 | 7,000 | P | S01 | |
| 50 | F007 | 28,000 | P | S01 | |
| 51 | F008 | 7,000 | P | S01 | |
| 52 | F009 | 8,000 | P | S01 | |
| 53 | F010 | 4,000 | P | S01 | |
| 54 | F011 | 4,000 | P | S01 | |
| 55 | F012 | 4,000 | P | S01 | |
| 56 | F019 | 500 | P | S01 | |
| 57 | F020 | 500 | P | S01 | |
| 58 | F021 | 500 | P | S01 | |
| 59 | F022 | 500 | P | S01 | |
| 60 | F023 | 500 | P | S01 | |
| 61 | F024 | 500 | P | S01 | |
| 62 | F025 | 500 | P | S01 | |
| 63 | F026 | 500 | P | S01 | |
| 64 | F027 | 4,000 | P | S01 | |
| 65 | F028 | 4,000 | P | S01 | |
| 66 | F032 | 500 | P | S01 | |
| 67 | F034 | 500 | P | S01 | |
| 68 | F035 | 500 | P | S01 | |
| 69 | F037 | 500 | P | S01 | |
| 70 | F038 | 500 | P | S01 | |
| 71 | F039 | 4,000 | P | S01 | |
| 72 | K044 | 22,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 7 3 | K 0 4 5 | 4,000 | P | S 0 1 | |
| 7 4 | K 0 4 6 | 4,000 | P | S 0 1 | |
| 7 5 | K 0 4 7 | 4,000 | P | S 0 1 | |
| 7 6 | K 0 8 4 | 500 | P | S 0 1 | |
| 7 7 | K 1 0 1 | 500 | P | S 0 1 | |
| 7 8 | K 1 0 2 | 500 | P | S 0 1 | |
| 7 9 | P 0 0 1 | 4,000 | P | S 0 1 | |
| 8 0 | P 0 0 2 | 4,000 | P | S 0 1 | |
| 8 1 | P 0 0 3 | 4,000 | P | S 0 1 | |
| 8 2 | P 0 0 4 | 4,000 | P | S 0 1 | |
| 8 3 | P 0 0 5 | 4,000 | P | S 0 1 | |
| 8 4 | P 0 0 6 | 4,000 | P | S 0 1 | |
| 8 5 | P 0 0 7 | 4,000 | P | S 0 1 | |
| 8 6 | P 0 0 8 | 4,000 | P | S 0 1 | |
| 8 7 | P 0 0 9 | 4,000 | P | S 0 1 | |
| 8 8 | P 0 1 0 | 4,000 | P | S 0 1 | |
| 8 9 | P 0 1 1 | 4,000 | P | S 0 1 | |
| 9 0 | P 0 1 2 | 4,000 | P | S 0 1 | |
| 9 1 | P 0 1 3 | 4,000 | P | S 0 1 | |
| 9 2 | P 0 1 4 | 4,000 | P | S 0 1 | |
| 9 3 | P 0 1 5 | 4,000 | P | S 0 1 | |
| 9 4 | P 0 1 6 | 4,000 | P | S 0 1 | |
| 9 5 | P 0 1 7 | 4,000 | P | S 0 1 | |
| 9 6 | P 0 1 8 | 4,000 | P | S 0 1 | |
| 9 7 | P 0 2 0 | 4,000 | P | S 0 1 | |
| 9 8 | P 0 2 1 | 4,000 | P | S 0 1 | |
| 9 9 | P 0 2 2 | 4,000 | P | S 0 1 | |
| 1 0 0 | P 0 2 3 | 4,000 | P | S 0 1 | |
| 1 0 1 | P 0 2 4 | 4,000 | P | S 0 1 | |
| 1 0 2 | P 0 2 6 | 4,000 | P | S 0 1 | |
| 1 0 3 | P 0 2 7 | 4,000 | P | S 0 1 | |
| 1 0 4 | P 0 2 8 | 4,000 | P | S 0 1 | |
| 1 0 5 | P 0 2 9 | 4,000 | P | S 0 1 | |
| 1 0 6 | P 0 3 0 | 4,000 | P | S 0 1 | |
| 1 0 7 | P 0 3 1 | 4,000 | P | S 0 1 | |
| 1 0 8 | P 0 3 3 | 4,000 | P | S 0 1 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 109 | P034 | 4,000 | P | S01 | |
| 110 | P036 | 4,000 | P | S01 | |
| 111 | P037 | 4,000 | P | S01 | |
| 112 | P038 | 4,000 | P | S01 | |
| 113 | P039 | 4,000 | P | S01 | |
| 114 | P040 | 4,000 | P | S01 | |
| 115 | P041 | 4,000 | P | S01 | |
| 116 | P042 | 4,000 | P | S01 | |
| 117 | P043 | 4,000 | P | S01 | |
| 118 | P044 | 4,000 | P | S01 | |
| 119 | P045 | 4,000 | P | S01 | |
| 120 | P046 | 4,000 | P | S01 | |
| 121 | P047 | 4,000 | P | S01 | |
| 122 | P048 | 4,000 | P | S01 | |
| 123 | P049 | 4,000 | P | S01 | |
| 124 | P050 | 4,000 | P | S01 | |
| 125 | P051 | 4,000 | P | S01 | |
| 126 | P054 | 4,000 | P | S01 | |
| 127 | P056 | 4,000 | P | S01 | |
| 128 | P057 | 4,000 | P | S01 | |
| 129 | P058 | 4,000 | P | S01 | |
| 130 | P059 | 4,000 | P | S01 | |
| 131 | P060 | 4,000 | P | S01 | |
| 132 | P062 | 4,000 | P | S01 | |
| 133 | P063 | 4,000 | P | S01 | |
| 134 | P064 | 4,000 | P | S01 | |
| 135 | P065 | 4,000 | P | S01 | |
| 136 | P066 | 4,000 | P | S01 | |
| 137 | P067 | 4,000 | P | S01 | |
| 138 | P068 | 4,000 | P | S01 | |
| 139 | P069 | 4,000 | P | S01 | |
| 140 | P070 | 4,000 | P | S01 | |
| 141 | P071 | 4,000 | P | S01 | |
| 142 | P072 | 4,000 | P | S01 | |
| 143 | P073 | 4,000 | P | S01 | |
| 144 | P074 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | | | | | | | | | | | | | |
| 1 4 | 5 | P | 0 | 7 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 4 | 6 | P | 0 | 7 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 4 | 7 | P | 0 | 7 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 4 | 8 | P | 0 | 7 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 4 | 9 | P | 0 | 8 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 0 | P | 0 | 8 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 1 | P | 0 | 8 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 2 | P | 0 | 8 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 3 | P | 0 | 8 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 4 | P | 0 | 8 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 5 | P | 0 | 8 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 6 | P | 0 | 9 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 7 | P | 0 | 9 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 8 | P | 0 | 9 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 5 | 9 | P | 0 | 9 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 0 | P | 0 | 9 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 1 | P | 0 | 9 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 2 | P | 0 | 9 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 3 | P | 0 | 9 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 4 | P | 1 | 0 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 5 | P | 1 | 0 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 6 | P | 1 | 0 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 7 | P | 1 | 0 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 8 | P | 1 | 0 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 6 | 9 | P | 1 | 0 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 0 | P | 1 | 0 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 1 | P | 1 | 0 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 2 | P | 1 | 1 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 3 | P | 1 | 1 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 4 | P | 1 | 1 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 5 | P | 1 | 1 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 6 | P | 1 | 1 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 7 | P | 1 | 1 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 8 | P | 1 | 1 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 7 | 9 | P | 1 | 1 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 0 | P | 1 | 1 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 181 | P120 | 4,000 | P | S01 | |
| 182 | P121 | 4,000 | P | S01 | |
| 183 | P122 | 4,000 | P | S01 | |
| 184 | P123 | 4,000 | P | S01 | |
| 185 | P127 | 4,000 | P | S01 | |
| 186 | P128 | 4,000 | P | S01 | |
| 187 | P185 | 4,000 | P | S01 | |
| 188 | P188 | 4,000 | P | S01 | |
| 189 | P189 | 4,000 | P | S01 | |
| 190 | P190 | 4,000 | P | S01 | |
| 191 | P191 | 4,000 | P | S01 | |
| 192 | P192 | 4,000 | P | S01 | |
| 193 | P194 | 4,000 | P | S01 | |
| 194 | P196 | 4,000 | P | S01 | |
| 195 | P197 | 4,000 | P | S01 | |
| 196 | P198 | 4,000 | P | S01 | |
| 197 | P199 | 4,000 | P | S01 | |
| 198 | P201 | 4,000 | P | S01 | |
| 199 | P202 | 4,000 | P | S01 | |
| 200 | P203 | 4,000 | P | S01 | |
| 201 | P204 | 4,000 | P | S01 | |
| 202 | P205 | 4,000 | P | S01 | |
| 203 | U001 | 4,000 | P | S01 | |
| 204 | U002 | 4,000 | P | S01 | |
| 205 | U003 | 4,000 | P | S01 | |
| 206 | U004 | 4,000 | P | S01 | |
| 207 | U005 | 4,000 | P | S01 | |
| 208 | U006 | 4,000 | P | S01 | |
| 209 | U007 | 4,000 | P | S01 | |
| 210 | U008 | 4,000 | P | S01 | |
| 211 | U009 | 4,000 | P | S01 | |
| 212 | U010 | 4,000 | P | S01 | |
| 213 | U011 | 4,000 | P | S01 | |
| 214 | U012 | 4,000 | P | S01 | |
| 215 | U014 | 4,000 | P | S01 | |
| 216 | U015 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | | | | | | | | | | | | | |
| 2 1 | 7 | U | 0 | 1 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 8 | U | 0 | 1 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 9 | U | 0 | 1 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 0 | U | 0 | 1 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 1 | U | 0 | 2 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 2 | U | 0 | 2 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 3 | U | 0 | 2 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 4 | U | 0 | 2 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 5 | U | 0 | 2 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 6 | U | 0 | 2 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 7 | U | 0 | 2 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 8 | U | 0 | 2 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 2 | 9 | U | 0 | 2 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 0 | U | 0 | 2 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 1 | U | 0 | 3 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 2 | U | 0 | 3 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 3 | U | 0 | 3 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 4 | U | 0 | 3 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 5 | U | 0 | 3 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 6 | U | 0 | 3 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 7 | U | 0 | 3 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 8 | U | 0 | 3 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 3 | 9 | U | 0 | 3 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 0 | U | 0 | 3 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 1 | U | 0 | 4 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 2 | U | 0 | 4 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 3 | U | 0 | 4 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 4 | U | 0 | 4 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 5 | U | 0 | 4 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 6 | U | 0 | 4 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 7 | U | 0 | 4 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 8 | U | 0 | 4 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 4 | 9 | U | 0 | 4 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 0 | U | 0 | 5 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 1 | U | 0 | 5 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 2 | U | 0 | 5 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 253 | U053 | 4,000 | P | S01 | |
| 254 | U055 | 4,000 | P | S01 | |
| 255 | U056 | 4,000 | P | S01 | |
| 256 | U057 | 4,000 | P | S01 | |
| 257 | U058 | 4,000 | P | S01 | |
| 258 | U059 | 4,000 | P | S01 | |
| 259 | U060 | 4,000 | P | S01 | |
| 260 | U061 | 4,000 | P | S01 | |
| 261 | U062 | 4,000 | P | S01 | |
| 262 | U063 | 4,000 | P | S01 | |
| 263 | U064 | 4,000 | P | S01 | |
| 264 | U066 | 4,000 | P | S01 | |
| 265 | U067 | 4,000 | P | S01 | |
| 266 | U068 | 4,000 | P | S01 | |
| 267 | U069 | 4,000 | P | S01 | |
| 268 | U070 | 4,000 | P | S01 | |
| 269 | U071 | 4,000 | P | S01 | |
| 270 | U072 | 4,000 | P | S01 | |
| 271 | U073 | 4,000 | P | S01 | |
| 272 | U074 | 4,000 | P | S01 | |
| 273 | U075 | 4,000 | P | S01 | |
| 274 | U076 | 4,000 | P | S01 | |
| 275 | U077 | 4,000 | P | S01 | |
| 276 | U078 | 4,000 | P | S01 | |
| 277 | U079 | 4,000 | P | S01 | |
| 278 | U080 | 4,000 | P | S01 | |
| 279 | U081 | 4,000 | P | S01 | |
| 280 | U082 | 4,000 | P | S01 | |
| 281 | U083 | 4,000 | P | S01 | |
| 282 | U084 | 4,000 | P | S01 | |
| 283 | U085 | 4,000 | P | S01 | |
| 284 | U086 | 4,000 | P | S01 | |
| 285 | U087 | 4,000 | P | S01 | |
| 286 | U088 | 4,000 | P | S01 | |
| 287 | U089 | 4,000 | P | S01 | |
| 288 | U090 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 289 | U091 | 4,000 | P | S01 | |
| 290 | U092 | 4,000 | P | S01 | |
| 291 | U093 | 4,000 | P | S01 | |
| 292 | U094 | 4,000 | P | S01 | |
| 293 | U095 | 4,000 | P | S01 | |
| 294 | U096 | 4,000 | P | S01 | |
| 295 | U097 | 4,000 | P | S01 | |
| 296 | U098 | 4,000 | P | S01 | |
| 297 | U099 | 4,000 | P | S01 | |
| 298 | U101 | 4,000 | P | S01 | |
| 299 | U102 | 4,000 | P | S01 | |
| 300 | U103 | 4,000 | P | S01 | |
| 301 | U105 | 4,000 | P | S01 | |
| 302 | U106 | 4,000 | P | S01 | |
| 303 | U107 | 4,000 | P | S01 | |
| 304 | U108 | 4,000 | P | S01 | |
| 305 | U109 | 4,000 | P | S01 | |
| 306 | U110 | 4,000 | P | S01 | |
| 307 | U111 | 4,000 | P | S01 | |
| 308 | U112 | 4,000 | P | S01 | |
| 309 | U113 | 4,000 | P | S01 | |
| 310 | U114 | 4,000 | P | S01 | |
| 311 | U115 | 4,000 | P | S01 | |
| 312 | U116 | 4,000 | P | S01 | |
| 313 | U117 | 4,000 | P | S01 | |
| 314 | U118 | 4,000 | P | S01 | |
| 315 | U119 | 4,000 | P | S01 | |
| 316 | U120 | 4,000 | P | S01 | |
| 317 | U121 | 4,000 | P | S01 | |
| 318 | U122 | 4,000 | P | S01 | |
| 319 | U123 | 4,000 | P | S01 | |
| 320 | U124 | 4,000 | P | S01 | |
| 321 | U125 | 4,000 | P | S01 | |
| 322 | U126 | 4,000 | P | S01 | |
| 323 | U127 | 4,000 | P | S01 | |
| 324 | U128 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 325 | U129 | 4,000 | P | S01 | |
| 326 | U130 | 4,000 | P | S01 | |
| 327 | U131 | 4,000 | P | S01 | |
| 328 | U132 | 4,000 | P | S01 | |
| 329 | U133 | 4,000 | P | S01 | |
| 330 | U134 | 4,000 | P | S01 | |
| 331 | U135 | 4,000 | P | S01 | |
| 332 | U136 | 4,000 | P | S01 | |
| 333 | U137 | 4,000 | P | S01 | |
| 334 | U138 | 4,000 | P | S01 | |
| 335 | U140 | 4,000 | P | S01 | |
| 336 | U141 | 4,000 | P | S01 | |
| 337 | U142 | 4,000 | P | S01 | |
| 338 | U143 | 4,000 | P | S01 | |
| 339 | U144 | 4,000 | P | S01 | |
| 340 | U145 | 4,000 | P | S01 | |
| 341 | U146 | 4,000 | P | S01 | |
| 342 | U147 | 4,000 | P | S01 | |
| 343 | U148 | 4,000 | P | S01 | |
| 344 | U149 | 4,000 | P | S01 | |
| 345 | U150 | 4,000 | P | S01 | |
| 346 | U151 | 4,000 | P | S01 | |
| 347 | U152 | 4,000 | P | S01 | |
| 348 | U153 | 4,000 | P | S01 | |
| 349 | U154 | 4,000 | P | S01 | |
| 350 | U155 | 4,000 | P | S01 | |
| 351 | U156 | 4,000 | P | S01 | |
| 352 | U157 | 4,000 | P | S01 | |
| 353 | U158 | 4,000 | P | S01 | |
| 354 | U159 | 4,000 | P | S01 | |
| 355 | U160 | 4,000 | P | S01 | |
| 356 | U161 | 4,000 | P | S01 | |
| 357 | U162 | 4,000 | P | S01 | |
| 358 | U163 | 4,000 | P | S01 | |
| 359 | U164 | 4,000 | P | S01 | |
| 360 | U165 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 361 | U166 | 4,000 | P | S01 | |
| 362 | U167 | 4,000 | P | S01 | |
| 363 | U168 | 4,000 | P | S01 | |
| 364 | U169 | 4,000 | P | S01 | |
| 365 | U170 | 4,000 | P | S01 | |
| 366 | U171 | 4,000 | P | S01 | |
| 367 | U172 | 4,000 | P | S01 | |
| 368 | U173 | 4,000 | P | S01 | |
| 369 | U174 | 4,000 | P | S01 | |
| 370 | U176 | 4,000 | P | S01 | |
| 371 | U177 | 4,000 | P | S01 | |
| 372 | U178 | 4,000 | P | S01 | |
| 373 | U179 | 4,000 | P | S01 | |
| 374 | U180 | 4,000 | P | S01 | |
| 375 | U181 | 4,000 | P | S01 | |
| 376 | U182 | 4,000 | P | S01 | |
| 377 | U183 | 4,000 | P | S01 | |
| 378 | U184 | 4,000 | P | S01 | |
| 379 | U185 | 4,000 | P | S01 | |
| 380 | U186 | 4,000 | P | S01 | |
| 381 | U187 | 4,000 | P | S01 | |
| 382 | U188 | 4,000 | P | S01 | |
| 383 | U189 | 4,000 | P | S01 | |
| 384 | U190 | 4,000 | P | S01 | |
| 385 | U191 | 4,000 | P | S01 | |
| 386 | U192 | 4,000 | P | S01 | |
| 387 | U193 | 4,000 | P | S01 | |
| 388 | U194 | 4,000 | P | S01 | |
| 389 | U196 | 4,000 | P | S01 | |
| 390 | U197 | 4,000 | P | S01 | |
| 391 | U200 | 4,000 | P | S01 | |
| 392 | U201 | 4,000 | P | S01 | |
| 393 | U202 | 4,000 | P | S01 | |
| 394 | U203 | 4,000 | P | S01 | |
| 395 | U204 | 4,000 | P | S01 | |
| 396 | U205 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 397 | U206 | 4,000 | P | S01 | |
| 398 | U207 | 4,000 | P | S01 | |
| 399 | U208 | 4,000 | P | S01 | |
| 400 | U209 | 4,000 | P | S01 | |
| 401 | U210 | 4,000 | P | S01 | |
| 402 | U211 | 4,000 | P | S01 | |
| 403 | U213 | 4,000 | P | S01 | |
| 404 | U214 | 4,000 | P | S01 | |
| 405 | U215 | 4,000 | P | S01 | |
| 406 | U216 | 4,000 | P | S01 | |
| 407 | U217 | 4,000 | P | S01 | |
| 408 | U218 | 4,000 | P | S01 | |
| 409 | U219 | 4,000 | P | S01 | |
| 410 | U220 | 7,000 | P | S01 | |
| 411 | U221 | 4,000 | P | S01 | |
| 412 | U222 | 4,000 | P | S01 | |
| 413 | U223 | 4,000 | P | S01 | |
| 414 | U225 | 4,000 | P | S01 | |
| 415 | U226 | 7,000 | P | S01 | |
| 416 | U227 | 4,000 | P | S01 | |
| 417 | U228 | 7,000 | P | S01 | |
| 418 | U234 | 4,000 | P | S01 | |
| 419 | U235 | 4,000 | P | S01 | |
| 420 | U236 | 4,000 | P | S01 | |
| 421 | U237 | 4,000 | P | S01 | |
| 422 | U238 | 4,000 | P | S01 | |
| 423 | U239 | 7,000 | P | S01 | |
| 424 | U240 | 4,000 | P | S01 | |
| 425 | U243 | 4,000 | P | S01 | |
| 426 | U244 | 4,000 | P | S01 | |
| 427 | U246 | 4,000 | P | S01 | |
| 428 | U247 | 4,000 | P | S01 | |
| 429 | U248 | 4,000 | P | S01 | |
| 430 | U249 | 4,000 | P | S01 | |
| 431 | U271 | 4,000 | P | S01 | |
| 432 | U278 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area L (continued)** | | | | | |
| 433 | U279 | 4,000 | P | S01 | |
| 434 | U280 | 4,000 | P | S01 | |
| 435 | U328 | 4,000 | P | S01 | |
| 436 | U353 | 4,000 | P | S01 | |
| 437 | U359 | 4,000 | P | S01 | |
| 438 | U364 | 4,000 | P | S01 | |
| 439 | U367 | 4,000 | P | S01 | |
| 440 | U372 | 4,000 | P | S01 | |
| 441 | U373 | 4,000 | P | S01 | |
| 442 | U387 | 4,000 | P | S01 | |
| 443 | U389 | 4,000 | P | S01 | |
| 444 | U394 | 4,000 | P | S01 | |
| 445 | U395 | 4,000 | P | S01 | |
| 446 | U404 | 4,000 | P | S01 | |
| 447 | U409 | 4,000 | P | S01 | |
| 448 | U410 | 4,000 | P | S01 | |
| 449 | U411 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Material Disposal Area L (Impoundments B and D/ Shafts 1, 13-17, and 19-34)** | | | | | |
| 1 | D001 | 82,000 | P | D80 | |
| 2 | D002 | 17,200 | P | D80 | |
| 3 | D003 | 750 | P | D80 | |
| 4 | D004 | 1,700 | P | D80 | |
| 5 | D006 | 650 | P | D80 | |
| 6 | D007 | 1,000 | P | D80 | |
| 7 | D008 | 1,250 | P | D80 | |
| 8 | D009 | 2,200 | P | D80 | |
| 9 | D011 | 100 | P | D80 | |
| 10 | D016 | 600 | P | D80 | |
| 11 | F002 | 1,400 | P | D80 | |
| 12 | P015 | 4,000 | P | D80 | |
| 13 | P087 | 15 | P | D80 | |
| 14 | U002 | 5,000 | P | D80 | |
| 15 | U019 | 200 | P | D80 | |
| 16 | U069 | 500 | P | D80 | |
| 17 | U080 | 2,000 | P | D80 | |
| 18 | U122 | 550 | P | D80 | |
| 19 | U151 | 35 | P | D80 | |
| 20 | U154 | 550 | P | D80 | |
| 21 | U159 | 300 | P | D80 | |
| 22 | U161 | 500 | P | D80 | |
| 23 | U165 | 140 | P | D80 | |
| 24 | U220 | 620 | P | D80 | |
| 25 | U226 | 10,000 | P | D80 | |
| 26 | U228 | 4,400 | P | D80 | |
| 27 | U239 | 345 | P | D80 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G** | | | | | |
| 1 | D001 | 330,000 | P | S01 | |
| 2 | D002 | 395,000 | P | S01 | |
| 3 | D003 | 185,000 | P | S01 | |
| 4 | D004 | 2,525,000 | P | S01 T04 S99 | |
| 5 | D005 | 82,000 | P | S01 T04 S99 | |
| 6 | D006 | 515,000 | P | S01 T04 S99 | |
| 7 | D007 | 3,775,000 | P | S01 T04 S99 | |
| 8 | D008 | 5,400,000 | P | S01 T04 S99 | |
| 9 | D009 | 100,000 | P | S01 T04 S99 | |
| 10 | D010 | 45,000 | P | S01 T04 S99 | |
| 11 | D011 | 2,540,000 | P | S01 T04 S99 | |
| 12 | D012 | 18,000 | P | S01 | |
| 13 | D013 | 4,000 | P | S01 | |
| 14 | D014 | 4,000 | P | S01 | |
| 15 | D015 | 7,000 | P | S01 | |
| 16 | D016 | 4,000 | P | S01 | |
| 17 | D017 | 4,000 | P | S01 | |
| 18 | D018 | 30,000 | P | S01 T04 | |
| 19 | D019 | 25,000 | P | S01 T04 | |
| 20 | D020 | 30,000 | P | S01 T04 | |
| 21 | D021 | 15,000 | P | S01 T04 | |
| 22 | D022 | 33,000 | P | S01 T04 | |
| 23 | D023 | 4,000 | P | S01 T04 | |
| 24 | D024 | 4,000 | P | S01 T04 | |
| 25 | D025 | 4,000 | P | S01 T04 | |
| 26 | D026 | 4,000 | P | S01 T04 | |
| 27 | D027 | 22,000 | P | S01 T04 | |
| 28 | D028 | 40,000 | P | S01 T04 | |
| 29 | D029 | 7,000 | P | S01 T04 | |
| 30 | D030 | 30,000 | P | S01 T04 S99 | |
| 31 | D031 | 22,000 | P | S01 T04 | |
| 32 | D032 | 29,000 | P | S01 T04 | |
| 33 | D033 | 29,000 | P | S01 T04 | |
| 34 | D034 | 29,000 | P | S01 T04 | |
| 35 | D035 | 30,000 | P | S01 T04 | |
| 36 | D036 | 19,000 | P | S01 T04 S99 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | | | |
| 37 | D037 | 7,000 | P | S01 | T04 | | |
| 38 | D038 | 14,000 | P | S01 | T04 | | |
| 39 | D039 | 20,000 | P | S01 | T04 | | |
| 40 | D040 | 25,000 | P | S01 | T04 | | |
| 41 | D041 | 17,000 | P | S01 | T04 | | |
| 42 | D042 | 22,000 | P | S01 | T04 | | |
| 43 | D043 | 25,000 | P | S01 | T04 | | |
| 44 | F001 | 6,410,000 | P | S01 | T04 | | |
| 45 | F002 | 3,450,000 | P | S01 | T04 | S99 | |
| 46 | F003 | 2,850,000 | P | S01 | | S99 | |
| 47 | F004 | 35,000 | P | S01 | T04 | S99 | |
| 48 | F005 | 3,250,000 | P | S01 | | S99 | |
| 49 | F006 | 7,000 | P | S01 | | | |
| 50 | F007 | 18,000 | P | S01 | | | |
| 51 | F008 | 7,000 | P | S01 | | | |
| 52 | F009 | 8,000 | P | S01 | | | |
| 53 | F010 | 4,000 | P | S01 | | | |
| 54 | F011 | 4,000 | P | S01 | | | |
| 55 | F012 | 4,000 | P | S01 | | | |
| 56 | F019 | 4,000 | P | S01 | | | |
| 57 | F020 | 4,000 | P | S01 | | | |
| 58 | F021 | 4,000 | P | S01 | | | |
| 59 | F022 | 4,000 | P | S01 | | | |
| 60 | F023 | 4,000 | P | S01 | | | |
| 61 | F024 | 4,000 | P | S01 | | | |
| 62 | F025 | 4,000 | P | S01 | | | |
| 63 | F026 | 4,000 | P | S01 | | | |
| 64 | F027 | 4,000 | P | S01 | | | |
| 65 | F028 | 4,000 | P | S01 | | | |
| 66 | F032 | 4,000 | P | S01 | | | |
| 67 | F034 | 4,000 | P | S01 | | | |
| 68 | F035 | 4,000 | P | S01 | | | |
| 69 | F037 | 4,000 | P | S01 | | | |
| 70 | F038 | 4,000 | P | S01 | | | |
| 71 | F039 | 4,000 | P | S01 | | | |
| 72 | K044 | 22,000 | P | S01 | | | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 73 | K045 | 4,000 | P | S01 | |
| 74 | K046 | 4,000 | P | S01 | |
| 75 | K047 | 4,000 | P | S01 | |
| 76 | K084 | 500 | P | S01 | |
| 77 | K101 | 500 | P | S01 | |
| 78 | K102 | 500 | P | S01 | |
| 79 | P001 | 4,000 | P | S01 | |
| 80 | P002 | 4,000 | P | S01 | |
| 81 | P003 | 4,100 | P | S01 | |
| 82 | P004 | 4,000 | P | S01 | |
| 83 | P005 | 4,000 | P | S01 | |
| 84 | P006 | 4,000 | P | S01 | |
| 85 | P007 | 4,000 | P | S01 | |
| 86 | P008 | 4,000 | P | S01 | |
| 87 | P009 | 4,000 | P | S01 | |
| 88 | P010 | 4,000 | P | S01 | |
| 89 | P011 | 4,000 | P | S01 | |
| 90 | P012 | 4,100 | P | S01 | |
| 91 | P013 | 4,000 | P | S01 | |
| 92 | P014 | 4,000 | P | S01 | |
| 93 | P015 | 4,100 | P | S01 | |
| 94 | P016 | 4,000 | P | S01 | |
| 95 | P017 | 4,000 | P | S01 | |
| 96 | P018 | 4,000 | P | S01 | |
| 97 | P020 | 4,000 | P | S01 | |
| 98 | P021 | 4,000 | P | S01 | |
| 99 | P022 | 4,000 | P | S01 | |
| 100 | P023 | 4,000 | P | S01 | |
| 101 | P024 | 4,000 | P | S01 | |
| 102 | P026 | 4,000 | P | S01 | |
| 103 | P027 | 4,000 | P | S01 | |
| 104 | P028 | 4,000 | P | S01 | |
| 105 | P029 | 4,100 | P | S01 | |
| 106 | P030 | 4,100 | P | S01 | |
| 107 | P031 | 4,100 | P | S01 | |
| 108 | P033 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 109 | P034 | 4,000 | P | S01 | |
| 110 | P036 | 4,000 | P | S01 | |
| 111 | P037 | 4,000 | P | S01 | |
| 112 | P038 | 4,100 | P | S01 | |
| 113 | P039 | 4,000 | P | S01 | |
| 114 | P040 | 4,000 | P | S01 | |
| 115 | P041 | 4,000 | P | S01 | |
| 116 | P042 | 4,000 | P | S01 | |
| 117 | P043 | 4,000 | P | S01 | |
| 118 | P044 | 4,000 | P | S01 | |
| 119 | P045 | 4,000 | P | S01 | |
| 120 | P046 | 4,000 | P | S01 | |
| 121 | P047 | 4,000 | P | S01 | |
| 122 | P048 | 4,000 | P | S01 | |
| 123 | P049 | 4,000 | P | S01 | |
| 124 | P050 | 4,000 | P | S01 | |
| 125 | P051 | 4,000 | P | S01 | |
| 126 | P054 | 4,000 | P | S01 | |
| 127 | P056 | 4,100 | P | S01 | |
| 128 | P057 | 4,000 | P | S01 | |
| 129 | P058 | 4,000 | P | S01 | |
| 130 | P059 | 4,000 | P | S01 | |
| 131 | P060 | 4,000 | P | S01 | |
| 132 | P062 | 4,000 | P | S01 | |
| 133 | P063 | 4,100 | P | S01 | |
| 134 | P064 | 4,000 | P | S01 | |
| 135 | P065 | 4,000 | P | S01 | |
| 136 | P066 | 4,000 | P | S01 | |
| 137 | P067 | 4,000 | P | S01 | |
| 138 | P068 | 4,100 | P | S01 | |
| 139 | P069 | 4,000 | P | S01 | |
| 140 | P070 | 4,000 | P | S01 | |
| 141 | P071 | 4,000 | P | S01 | |
| 142 | P072 | 4,000 | P | S01 | |
| 143 | P073 | 4,100 | P | S01 | |
| 144 | P074 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 54, Area G (continued)** | | | | | | | | | | | | | | | | | |
| 14 | 5 | P | 0 | 7 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 14 | 6 | P | 0 | 7 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 14 | 7 | P | 0 | 7 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 14 | 8 | P | 0 | 7 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 14 | 9 | P | 0 | 8 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 0 | P | 0 | 8 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 1 | P | 0 | 8 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 2 | P | 0 | 8 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 3 | P | 0 | 8 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 4 | P | 0 | 8 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 5 | P | 0 | 8 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 6 | P | 0 | 9 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 7 | P | 0 | 9 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 8 | P | 0 | 9 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 15 | 9 | P | 0 | 9 | 5 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 16 | 0 | P | 0 | 9 | 6 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 16 | 1 | P | 0 | 9 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 2 | P | 0 | 9 | 8 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 16 | 3 | P | 0 | 9 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 4 | P | 1 | 0 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 5 | P | 1 | 0 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 6 | P | 1 | 0 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 7 | P | 1 | 0 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 8 | P | 1 | 0 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 16 | 9 | P | 1 | 0 | 6 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 17 | 0 | P | 1 | 0 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 1 | P | 1 | 0 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 2 | P | 1 | 1 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 3 | P | 1 | 1 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 4 | P | 1 | 1 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 5 | P | 1 | 1 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 6 | P | 1 | 1 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 7 | P | 1 | 1 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 8 | P | 1 | 1 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 17 | 9 | P | 1 | 1 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 0 | P | 1 | 1 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | | | | | | | | | | | | | |
| 18 | 1 | P | 1 | 2 | 0 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 18 | 2 | P | 1 | 2 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 3 | P | 1 | 2 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 4 | P | 1 | 2 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 5 | P | 1 | 2 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 6 | P | 1 | 2 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 7 | P | 1 | 8 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 8 | P | 1 | 8 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 18 | 9 | P | 1 | 8 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 0 | P | 1 | 9 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 1 | P | 1 | 9 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 2 | P | 1 | 9 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 3 | P | 1 | 9 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 4 | P | 1 | 9 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 5 | P | 1 | 9 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 6 | P | 1 | 9 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 7 | P | 1 | 9 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 8 | P | 2 | 0 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 19 | 9 | P | 2 | 0 | 2 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 0 | P | 2 | 0 | 3 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 1 | P | 2 | 0 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 2 | P | 2 | 0 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 3 | U | 0 | 0 | 1 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 20 | 4 | U | 0 | 0 | 2 | 7,100 | P | S | 0 | 1 | | | | | | | |
| 20 | 5 | U | 0 | 0 | 3 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 20 | 6 | U | 0 | 0 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 7 | U | 0 | 0 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 8 | U | 0 | 0 | 6 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 20 | 9 | U | 0 | 0 | 7 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 0 | U | 0 | 0 | 8 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 1 | U | 0 | 0 | 9 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 2 | U | 0 | 1 | 0 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 3 | U | 0 | 1 | 1 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 4 | U | 0 | 1 | 2 | 4,100 | P | S | 0 | 1 | | | | | | | |
| 21 | 5 | U | 0 | 1 | 4 | 4,000 | P | S | 0 | 1 | | | | | | | |
| 21 | 6 | U | 0 | 1 | 5 | 4,000 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 217 | U016 | 4,000 | P | S01 | |
| 218 | U017 | 4,000 | P | S01 | |
| 219 | U018 | 4,000 | P | S01 | |
| 220 | U019 | 4,100 | P | S01 | |
| 221 | U020 | 4,000 | P | S01 | |
| 222 | U021 | 4,000 | P | S01 | |
| 223 | U022 | 4,100 | P | S01 | |
| 224 | U023 | 4,000 | P | S01 | |
| 225 | U024 | 4,000 | P | S01 | |
| 226 | U025 | 4,000 | P | S01 | |
| 227 | U026 | 4,000 | P | S01 | |
| 228 | U027 | 4,000 | P | S01 | |
| 229 | U028 | 4,000 | P | S01 | |
| 230 | U029 | 4,100 | P | S01 | |
| 231 | U030 | 4,000 | P | S01 | |
| 232 | U031 | 4,100 | P | S01 | |
| 233 | U032 | 4,000 | P | S01 | |
| 234 | U033 | 4,000 | P | S01 | |
| 235 | U034 | 4,000 | P | S01 | |
| 236 | U035 | 4,000 | P | S01 | |
| 237 | U036 | 4,000 | P | S01 | |
| 238 | U037 | 4,100 | P | S01 | |
| 239 | U038 | 4,000 | P | S01 | |
| 240 | U039 | 4,000 | P | S01 | |
| 241 | U041 | 4,000 | P | S01 | |
| 242 | U042 | 4,000 | P | S01 | |
| 243 | U043 | 4,000 | P | S01 | |
| 244 | U044 | 4,100 | P | S01 | |
| 245 | U045 | 4,100 | P | S01 | |
| 246 | U046 | 4,000 | P | S01 | |
| 247 | U047 | 4,000 | P | S01 | |
| 248 | U048 | 4,000 | P | S01 | |
| 249 | U049 | 4,000 | P | S01 | |
| 250 | U050 | 4,000 | P | S01 | |
| 251 | U051 | 4,000 | P | S01 | |
| 252 | U052 | 4,100 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 253 | U053 | 4,000 | P | S01 | |
| 254 | U055 | 4,000 | P | S01 | |
| 255 | U056 | 4,100 | P | S01 | |
| 256 | U057 | 4,100 | P | S01 | |
| 257 | U058 | 4,000 | P | S01 | |
| 258 | U059 | 4,000 | P | S01 | |
| 259 | U060 | 4,000 | P | S01 | |
| 260 | U061 | 4,000 | P | S01 | |
| 261 | U062 | 4,000 | P | S01 | |
| 262 | U063 | 4,000 | P | S01 | |
| 263 | U064 | 4,000 | P | S01 | |
| 264 | U066 | 4,000 | P | S01 | |
| 265 | U067 | 4,000 | P | S01 | |
| 266 | U068 | 4,000 | P | S01 | |
| 267 | U069 | 4,000 | P | S01 | |
| 268 | U070 | 4,000 | P | S01 | |
| 269 | U071 | 4,000 | P | S01 | |
| 270 | U072 | 4,000 | P | S01 | |
| 271 | U073 | 4,000 | P | S01 | |
| 272 | U074 | 4,000 | P | S01 | |
| 273 | U075 | 4,100 | P | S01 | |
| 274 | U076 | 4,000 | P | S01 | |
| 275 | U077 | 4,100 | P | S01 | |
| 276 | U078 | 4,000 | P | S01 | |
| 277 | U079 | 4,000 | P | S01 | |
| 278 | U080 | 12,000 | P | S01 | |
| 279 | U081 | 4,000 | P | S01 | |
| 280 | U082 | 4,000 | P | S01 | |
| 281 | U083 | 4,000 | P | S01 | |
| 282 | U084 | 4,000 | P | S01 | |
| 283 | U085 | 4,000 | P | S01 | |
| 284 | U086 | 4,000 | P | S01 | |
| 285 | U087 | 4,000 | P | S01 | |
| 286 | U088 | 4,000 | P | S01 | |
| 287 | U089 | 4,000 | P | S01 | |
| 288 | U090 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 289 | U091 | 4,000 | P | S01 | |
| 290 | U092 | 4,000 | P | S01 | |
| 291 | U093 | 4,000 | P | S01 | |
| 292 | U094 | 4,000 | P | S01 | |
| 293 | U095 | 4,000 | P | S01 | |
| 294 | U096 | 4,000 | P | S01 | |
| 295 | U097 | 4,000 | P | S01 | |
| 296 | U098 | 4,000 | P | S01 | |
| 297 | U099 | 4,000 | P | S01 | |
| 298 | U101 | 4,000 | P | S01 | |
| 299 | U102 | 4,000 | P | S01 | |
| 300 | U103 | 4,000 | P | S01 | |
| 301 | U105 | 4,000 | P | S01 | |
| 302 | U106 | 4,000 | P | S01 | |
| 303 | U107 | 4,000 | P | S01 | |
| 304 | U108 | 4,100 | P | S01 | |
| 305 | U109 | 4,000 | P | S01 | |
| 306 | U110 | 4,000 | P | S01 | |
| 307 | U111 | 4,000 | P | S01 | |
| 308 | U112 | 4,100 | P | S01 | |
| 309 | U113 | 4,000 | P | S01 | |
| 310 | U114 | 4,000 | P | S01 | |
| 311 | U115 | 4,100 | P | S01 | |
| 312 | U116 | 4,000 | P | S01 | |
| 313 | U117 | 4,100 | P | S01 | |
| 314 | U118 | 4,000 | P | S01 | |
| 315 | U119 | 4,000 | P | S01 | |
| 316 | U120 | 4,000 | P | S01 | |
| 317 | U121 | 4,100 | P | S01 | |
| 318 | U122 | 7,100 | P | S01 | |
| 319 | U123 | 4,100 | P | S01 | |
| 320 | U124 | 4,000 | P | S01 | |
| 321 | U125 | 4,000 | P | S01 | |
| 322 | U126 | 4,000 | P | S01 | |
| 323 | U127 | 4,000 | P | S01 | |
| 324 | U128 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 325 | U129 | 4,000 | P | S01 | |
| 326 | U130 | 4,000 | P | S01 | |
| 327 | U131 | 4,100 | P | S01 | |
| 328 | U132 | 4,000 | P | S01 | |
| 329 | U133 | 4,100 | P | S01 | |
| 330 | U134 | 12,100 | P | S01 | |
| 331 | U135 | 4,100 | P | S01 | |
| 332 | U136 | 4,000 | P | S01 | |
| 333 | U137 | 4,000 | P | S01 | |
| 334 | U138 | 4,000 | P | S01 | |
| 335 | U140 | 4,100 | P | S01 | |
| 336 | U141 | 4,000 | P | S01 | |
| 337 | U142 | 4,000 | P | S01 | |
| 338 | U143 | 4,000 | P | S01 | |
| 339 | U144 | 4,100 | P | S01 | |
| 340 | U145 | 4,000 | P | S01 | |
| 341 | U146 | 4,000 | P | S01 | |
| 342 | U147 | 4,000 | P | S01 | |
| 343 | U148 | 4,000 | P | S01 | |
| 344 | U149 | 4,000 | P | S01 | |
| 345 | U150 | 4,000 | P | S01 | |
| 346 | U151 | 7,100 | P | S01 | |
| 347 | U152 | 4,000 | P | S01 | |
| 348 | U153 | 4,000 | P | S01 | |
| 349 | U154 | 4,100 | P | S01 | |
| 350 | U155 | 4,000 | P | S01 | |
| 351 | U156 | 4,000 | P | S01 | |
| 352 | U157 | 4,000 | P | S01 | |
| 353 | U158 | 4,000 | P | S01 | |
| 354 | U159 | 4,100 | P | S01 | |
| 355 | U160 | 4,100 | P | S01 | |
| 356 | U161 | 4,100 | P | S01 | |
| 357 | U162 | 4,000 | P | S01 | |
| 358 | U163 | 4,000 | P | S01 | |
| 359 | U164 | 4,000 | P | S01 | |
| 360 | U165 | 4,100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 361 | U166 | 4,000 | P | S01 | |
| 362 | U167 | 4,000 | P | S01 | |
| 363 | U168 | 4,000 | P | S01 | |
| 364 | U169 | 4,100 | P | S01 | |
| 365 | U170 | 4,000 | P | S01 | |
| 366 | U171 | 4,000 | P | S01 | |
| 367 | U172 | 4,000 | P | S01 | |
| 368 | U173 | 4,000 | P | S01 | |
| 369 | U174 | 4,000 | P | S01 | |
| 370 | U176 | 4,000 | P | S01 | |
| 371 | U177 | 4,000 | P | S01 | |
| 372 | U178 | 4,000 | P | S01 | |
| 373 | U179 | 4,000 | P | S01 | |
| 374 | U180 | 4,000 | P | S01 | |
| 375 | U181 | 4,000 | P | S01 | |
| 376 | U182 | 4,000 | P | S01 | |
| 377 | U183 | 4,000 | P | S01 | |
| 378 | U184 | 4,000 | P | S01 | |
| 379 | U185 | 4,000 | P | S01 | |
| 380 | U186 | 4,000 | P | S01 | |
| 381 | U187 | 4,000 | P | S01 | |
| 382 | U188 | 4,100 | P | S01 | |
| 383 | U189 | 4,000 | P | S01 | |
| 384 | U190 | 4,100 | P | S01 | |
| 385 | U191 | 4,000 | P | S01 | |
| 386 | U192 | 4,000 | P | S01 | |
| 387 | U193 | 4,000 | P | S01 | |
| 388 | U194 | 4,000 | P | S01 | |
| 389 | U196 | 4,100 | P | S01 | |
| 390 | U197 | 4,000 | P | S01 | |
| 391 | U200 | 4,000 | P | S01 | |
| 392 | U201 | 4,000 | P | S01 | |
| 393 | U202 | 4,000 | P | S01 | |
| 394 | U203 | 4,000 | P | S01 | |
| 395 | U204 | 4,100 | P | S01 | |
| 396 | U205 | 4,000 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 397 | U206 | 4,000 | P | S01 | |
| 398 | U207 | 4,000 | P | S01 | |
| 399 | U208 | 4,000 | P | S01 | |
| 400 | U209 | 4,000 | P | S01 | |
| 401 | U210 | 4,100 | P | S01 | |
| 402 | U211 | 4,100 | P | S01 | |
| 403 | U213 | 4,100 | P | S01 | |
| 404 | U214 | 4,000 | P | S01 | |
| 405 | U215 | 4,000 | P | S01 | |
| 406 | U216 | 4,100 | P | S01 | |
| 407 | U217 | 4,000 | P | S01 | |
| 408 | U218 | 4,100 | P | S01 | |
| 409 | U219 | 4,100 | P | S01 | |
| 410 | U220 | 7,100 | P | S01 | |
| 411 | U221 | 4,000 | P | S01 | |
| 412 | U222 | 4,000 | P | S01 | |
| 413 | U223 | 4,000 | P | S01 | |
| 414 | U225 | 4,100 | P | S01 | |
| 415 | U226 | 7,100 | P | S01 | |
| 416 | U227 | 4,100 | P | S01 | |
| 417 | U228 | 7,100 | P | S01 | |
| 418 | U234 | 4,000 | P | S01 | |
| 419 | U235 | 4,000 | P | S01 | |
| 420 | U236 | 4,000 | P | S01 | |
| 421 | U237 | 4,000 | P | S01 | |
| 422 | U238 | 4,000 | P | S01 | |
| 423 | U239 | 7,100 | P | S01 | |
| 424 | U240 | 4,000 | P | S01 | |
| 425 | U243 | 4,000 | P | S01 | |
| 426 | U244 | 4,000 | P | S01 | |
| 427 | U246 | 4,100 | P | S01 | |
| 428 | U247 | 4,000 | P | S01 | |
| 429 | U248 | 4,000 | P | S01 | |
| 430 | U249 | 4,000 | P | S01 | |
| 431 | U271 | 4,000 | P | S01 | |
| 432 | U278 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Area G (continued)** | | | | | |
| 433 | U279 | 4,000 | P | S01 | |
| 434 | U280 | 4,000 | P | S01 | |
| 435 | U328 | 4,000 | P | S01 | |
| 436 | U353 | 4,000 | P | S01 | |
| 437 | U359 | 4,000 | P | S01 | |
| 438 | U364 | 4,000 | P | S01 | |
| 439 | U367 | 4,000 | P | S01 | |
| 440 | U372 | 4,000 | P | S01 | |
| 441 | U373 | 4,000 | P | S01 | |
| 442 | U387 | 4,000 | P | S01 | |
| 443 | U389 | 4,000 | P | S01 | |
| 444 | U394 | 4,000 | P | S01 | |
| 445 | U395 | 4,000 | P | S01 | |
| 446 | U404 | 4,000 | P | S01 | |
| 447 | U409 | 4,000 | P | S01 | |
| 448 | U410 | 4,000 | P | S01 | |
| 449 | U411 | 4,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Material Disposal Area G (Shaft 124 and Pit 29)** | | | | | |
| 1 | D004 | 850 | P | D80 | |
| 2 | D005 | 2,100 | P | D80 | |
| 3 | D006 | 4,250 | P | D80 | |
| 4 | D007 | 4,450 | P | D80 | |
| 5 | D008 | 507,100 | P | D80 | |
| 6 | D009 | 850 | P | D80 | |
| 7 | D010 | 15 | P | D80 | |
| 8 | D011 | 530 | P | D80 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West** | | | | | |
| 1 | D001 | 74,252 | P | S01 | |
| 2 | D002 | 38,448 | P | S01 | |
| 3 | D003 | 3,528 | P | S01 | |
| 4 | D004 | 24,692 | P | S01 T04 | |
| 5 | D005 | 22,576 | P | S01 T04 | |
| 6 | D006 | 3,627,220 | P | S01 T04 | |
| 7 | D007 | 3,784,544 | P | S01 T04 | |
| 8 | D008 | 8,589,208 | P | S01 T04 | |
| 9 | D009 | 261,732 | P | S01 T04 | |
| 10 | D010 | 27,160 | P | S01 T04 | |
| 11 | D011 | 30,336 | P | S01 T04 | |
| 12 | D012 | 36,000 | P | S01 | |
| 13 | D013 | 8,000 | P | S01 | |
| 14 | D014 | 8,000 | P | S01 | |
| 15 | D015 | 14,000 | P | S01 | |
| 16 | D016 | 8,000 | P | S01 | |
| 17 | D017 | 8,000 | P | S01 | |
| 18 | D018 | 1,412 | P | S01 T04 | |
| 19 | D019 | 28,220 | P | S01 T04 | |
| 20 | D020 | 60,000 | P | S01 T04 | |
| 21 | D021 | 4,880 | P | S01 T04 | |
| 22 | D022 | 6,704 | P | S01 T04 | |
| 23 | D023 | 8,000 | P | S01 T04 | |
| 24 | D024 | 8,000 | P | S01 T04 | |
| 25 | D025 | 8,000 | P | S01 T04 | |
| 26 | D026 | 8,000 | P | S01 T04 | |
| 27 | D027 | 4,056 | P | S01 T04 | |
| 28 | D028 | 1,158,400 | P | S01 T04 | |
| 29 | D029 | 1,152,576 | P | S01 T04 | |
| 30 | D030 | 26,100 | P | S01 T04 | |
| 31 | D031 | 352 | P | S01 T04 | |
| 32 | D032 | 16,580 | P | S01 T04 | |
| 33 | D033 | 11,112 | P | S01 T04 | |
| 34 | D034 | 5,820 | P | S01 T04 | |
| 35 | D035 | 528 | P | S01 T04 | |
| 36 | D036 | 1,764 | P | S01 T04 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | | | |
| 37 | D037 | 2,820 | P | S01 | T04 | | |
| 38 | D038 | 352 | P | S01 | T04 | | |
| 39 | D039 | 7,760 | P | S01 | T04 | | |
| 40 | D040 | 17,460 | P | S01 | T04 | | |
| 41 | D041 | 352 | P | S01 | T04 | | |
| 42 | D042 | 5,644 | P | S01 | T04 | | |
| 43 | D043 | 2,116 | P | S01 | T04 | | |
| 44 | F001 | 2,225,608 | P | S01 | T04 | | |
| 45 | F002 | 288,012 | P | S01 | T04 | | |
| 46 | F003 | 137,856 | P | S01 | | | |
| 47 | F004 | 8,640 | P | S01 | T04 | | |
| 48 | F005 | 1,296,844 | P | S01 | | | |
| 49 | F006 | 14,000 | P | S01 | | | |
| 50 | F007 | 36,000 | P | S01 | | | |
| 51 | F008 | 14,000 | P | S01 | | | |
| 52 | F009 | 8,000 | P | S01 | | | |
| 53 | F010 | 8,000 | P | S01 | | | |
| 54 | F011 | 8,000 | P | S01 | | | |
| 55 | F012 | 8,000 | P | S01 | | | |
| 56 | F019 | 8,000 | P | S01 | | | |
| 57 | F020 | 8,000 | P | S01 | | | |
| 58 | F021 | 8,000 | P | S01 | | | |
| 59 | F022 | 8,000 | P | S01 | | | |
| 60 | F023 | 8,000 | P | S01 | | | |
| 61 | F024 | 8,000 | P | S01 | | | |
| 62 | F025 | 8,000 | P | S01 | | | |
| 63 | F026 | 8,000 | P | S01 | | | |
| 64 | F027 | 8,000 | P | S01 | | | |
| 65 | F028 | 8,000 | P | S01 | | | |
| 66 | F032 | 8,000 | P | S01 | | | |
| 67 | F034 | 8,000 | P | S01 | | | |
| 68 | F035 | 8,000 | P | S01 | | | |
| 69 | F037 | 8,000 | P | S01 | | | |
| 70 | F038 | 8,000 | P | S01 | | | |
| 71 | F039 | 8,000 | P | S01 | | | |
| 72 | K044 | 4,000 | P | S01 | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 73 | K045 | 8,000 | P | S01 | |
| 74 | K046 | 8,000 | P | S01 | |
| 75 | K047 | 8,000 | P | S01 | |
| 76 | K084 | 1,000 | P | S01 | |
| 77 | K101 | 1,000 | P | S01 | |
| 78 | K102 | 1,000 | P | S01 | |
| 79 | P001 | 176 | P | S01 | |
| 80 | P002 | 176 | P | S01 | |
| 81 | P003 | 176 | P | S01 | |
| 82 | P004 | 176 | P | S01 | |
| 83 | P005 | 176 | P | S01 | |
| 84 | P006 | 176 | P | S01 | |
| 85 | P007 | 176 | P | S01 | |
| 86 | P008 | 176 | P | S01 | |
| 87 | P009 | 176 | P | S01 | |
| 88 | P010 | 176 | P | S01 | |
| 89 | P011 | 176 | P | S01 | |
| 90 | P012 | 176 | P | S01 | |
| 91 | P013 | 176 | P | S01 | |
| 92 | P014 | 176 | P | S01 | |
| 93 | P015 | 176 | P | S01 | |
| 94 | P016 | 176 | P | S01 | |
| 95 | P017 | 176 | P | S01 | |
| 96 | P018 | 176 | P | S01 | |
| 97 | P020 | 176 | P | S01 | |
| 98 | P021 | 176 | P | S01 | |
| 99 | P022 | 176 | P | S01 | |
| 100 | P023 | 176 | P | S01 | |
| 101 | P024 | 176 | P | S01 | |
| 102 | P026 | 176 | P | S01 | |
| 103 | P027 | 176 | P | S01 | |
| 104 | P028 | 176 | P | S01 | |
| 105 | P029 | 176 | P | S01 | |
| 106 | P030 | 176 | P | S01 | |
| 107 | P031 | 176 | P | S01 | |
| 108 | P033 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 109 | P034 | 176 | P | S01 | |
| 110 | P036 | 176 | P | S01 | |
| 111 | P037 | 176 | P | S01 | |
| 112 | P038 | 176 | P | S01 | |
| 113 | P039 | 176 | P | S01 | |
| 114 | P040 | 176 | P | S01 | |
| 115 | P041 | 176 | P | S01 | |
| 116 | P042 | 176 | P | S01 | |
| 117 | P043 | 176 | P | S01 | |
| 118 | P044 | 176 | P | S01 | |
| 119 | P045 | 176 | P | S01 | |
| 120 | P046 | 176 | P | S01 | |
| 121 | P047 | 176 | P | S01 | |
| 122 | P048 | 176 | P | S01 | |
| 123 | P049 | 176 | P | S01 | |
| 124 | P050 | 176 | P | S01 | |
| 125 | P051 | 176 | P | S01 | |
| 126 | P054 | 176 | P | S01 | |
| 127 | P056 | 176 | P | S01 | |
| 128 | P057 | 176 | P | S01 | |
| 129 | P058 | 176 | P | S01 | |
| 130 | P059 | 176 | P | S01 | |
| 131 | P060 | 176 | P | S01 | |
| 132 | P062 | 176 | P | S01 | |
| 133 | P063 | 176 | P | S01 | |
| 134 | P064 | 176 | P | S01 | |
| 135 | P065 | 176 | P | S01 | |
| 136 | P066 | 176 | P | S01 | |
| 137 | P067 | 176 | P | S01 | |
| 138 | P068 | 176 | P | S01 | |
| 139 | P069 | 176 | P | S01 | |
| 140 | P070 | 176 | P | S01 | |
| 141 | P071 | 176 | P | S01 | |
| 142 | P072 | 176 | P | S01 | |
| 143 | P073 | 176 | P | S01 | |
| 144 | P074 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 145 | P075 | 176 | P | S01 | |
| 146 | P076 | 176 | P | S01 | |
| 147 | P077 | 176 | P | S01 | |
| 148 | P078 | 176 | P | S01 | |
| 149 | P081 | 176 | P | S01 | |
| 150 | P082 | 176 | P | S01 | |
| 151 | P084 | 176 | P | S01 | |
| 152 | P085 | 176 | P | S01 | |
| 153 | P087 | 176 | P | S01 | |
| 154 | P088 | 176 | P | S01 | |
| 155 | P089 | 176 | P | S01 | |
| 156 | P092 | 176 | P | S01 | |
| 157 | P093 | 176 | P | S01 | |
| 158 | P094 | 176 | P | S01 | |
| 159 | P095 | 176 | P | S01 | |
| 160 | P096 | 176 | P | S01 | |
| 161 | P097 | 176 | P | S01 | |
| 162 | P098 | 176 | P | S01 | |
| 163 | P099 | 176 | P | S01 | |
| 164 | P101 | 176 | P | S01 | |
| 165 | P102 | 176 | P | S01 | |
| 166 | P103 | 176 | P | S01 | |
| 167 | P104 | 176 | P | S01 | |
| 168 | P105 | 176 | P | S01 | |
| 169 | P106 | 176 | P | S01 | |
| 170 | P108 | 176 | P | S01 | |
| 171 | P109 | 176 | P | S01 | |
| 172 | P110 | 176 | P | S01 | |
| 173 | P111 | 176 | P | S01 | |
| 174 | P112 | 176 | P | S01 | |
| 175 | P113 | 176 | P | S01 | |
| 176 | P114 | 176 | P | S01 | |
| 177 | P115 | 176 | P | S01 | |
| 178 | P116 | 176 | P | S01 | |
| 179 | P118 | 176 | P | S01 | |
| 180 | P119 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 181 | P120 | 176 | P | S01 | |
| 182 | P121 | 176 | P | S01 | |
| 183 | P122 | 176 | P | S01 | |
| 184 | P123 | 176 | P | S01 | |
| 185 | P127 | 176 | P | S01 | |
| 186 | P128 | 176 | P | S01 | |
| 187 | P185 | 176 | P | S01 | |
| 188 | P188 | 176 | P | S01 | |
| 189 | P189 | 176 | P | S01 | |
| 190 | P190 | 176 | P | S01 | |
| 191 | P191 | 176 | P | S01 | |
| 192 | P192 | 176 | P | S01 | |
| 193 | P194 | 176 | P | S01 | |
| 194 | P196 | 176 | P | S01 | |
| 195 | P197 | 176 | P | S01 | |
| 196 | P198 | 176 | P | S01 | |
| 197 | P199 | 176 | P | S01 | |
| 198 | P201 | 176 | P | S01 | |
| 199 | P202 | 176 | P | S01 | |
| 200 | P203 | 176 | P | S01 | |
| 201 | P204 | 176 | P | S01 | |
| 202 | P205 | 176 | P | S01 | |
| 203 | U001 | 176 | P | S01 | |
| 204 | U002 | 176 | P | S01 | |
| 205 | U003 | 176 | P | S01 | |
| 206 | U004 | 176 | P | S01 | |
| 207 | U005 | 176 | P | S01 | |
| 208 | U006 | 176 | P | S01 | |
| 209 | U007 | 176 | P | S01 | |
| 210 | U008 | 176 | P | S01 | |
| 211 | U009 | 176 | P | S01 | |
| 212 | U010 | 176 | P | S01 | |
| 213 | U011 | 176 | P | S01 | |
| 214 | U012 | 176 | P | S01 | |
| 215 | U014 | 176 | P | S01 | |
| 216 | U015 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 217 | U016 | 176 | P | S01 | |
| 218 | U017 | 176 | P | S01 | |
| 219 | U018 | 176 | P | S01 | |
| 220 | U019 | 176 | P | S01 | |
| 221 | U020 | 176 | P | S01 | |
| 222 | U021 | 176 | P | S01 | |
| 223 | U022 | 176 | P | S01 | |
| 224 | U023 | 176 | P | S01 | |
| 225 | U024 | 176 | P | S01 | |
| 226 | U025 | 176 | P | S01 | |
| 227 | U026 | 176 | P | S01 | |
| 228 | U027 | 176 | P | S01 | |
| 229 | U028 | 176 | P | S01 | |
| 230 | U029 | 176 | P | S01 | |
| 231 | U030 | 176 | P | S01 | |
| 232 | U031 | 176 | P | S01 | |
| 233 | U032 | 176 | P | S01 | |
| 234 | U033 | 176 | P | S01 | |
| 235 | U034 | 176 | P | S01 | |
| 236 | U035 | 176 | P | S01 | |
| 237 | U036 | 176 | P | S01 | |
| 238 | U037 | 176 | P | S01 | |
| 239 | U038 | 176 | P | S01 | |
| 240 | U039 | 176 | P | S01 | |
| 241 | U041 | 176 | P | S01 | |
| 242 | U042 | 176 | P | S01 | |
| 243 | U043 | 176 | P | S01 | |
| 244 | U044 | 176 | P | S01 | |
| 245 | U045 | 176 | P | S01 | |
| 246 | U046 | 176 | P | S01 | |
| 247 | U047 | 176 | P | S01 | |
| 248 | U048 | 176 | P | S01 | |
| 249 | U049 | 176 | P | S01 | |
| 250 | U050 | 176 | P | S01 | |
| 251 | U051 | 176 | P | S01 | |
| 252 | U052 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | | | | | | | | | | | | | |
| 2 5 | 3 | U | 0 | 5 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 4 | U | 0 | 5 | 5 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 5 | U | 0 | 5 | 6 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 6 | U | 0 | 5 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 7 | U | 0 | 5 | 8 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 8 | U | 0 | 5 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 5 | 9 | U | 0 | 6 | 0 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 0 | U | 0 | 6 | 1 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 1 | U | 0 | 6 | 2 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 2 | U | 0 | 6 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 3 | U | 0 | 6 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 4 | U | 0 | 6 | 6 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 5 | U | 0 | 6 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 6 | U | 0 | 6 | 8 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 7 | U | 0 | 6 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 8 | U | 0 | 7 | 0 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 6 | 9 | U | 0 | 7 | 1 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 0 | U | 0 | 7 | 2 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 1 | U | 0 | 7 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 2 | U | 0 | 7 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 3 | U | 0 | 7 | 5 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 4 | U | 0 | 7 | 6 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 5 | U | 0 | 7 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 6 | U | 0 | 7 | 8 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 7 | U | 0 | 7 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 8 | U | 0 | 8 | 0 | 528 | P | S | 0 | 1 | | | | | | | |
| 2 7 | 9 | U | 0 | 8 | 1 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 0 | U | 0 | 8 | 2 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 1 | U | 0 | 8 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 2 | U | 0 | 8 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 3 | U | 0 | 8 | 5 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 4 | U | 0 | 8 | 6 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 5 | U | 0 | 8 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 6 | U | 0 | 8 | 8 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 7 | U | 0 | 8 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 2 8 | 8 | U | 0 | 9 | 0 | 176 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 289 | U091 | 176 | P | S01 | |
| 290 | U092 | 176 | P | S01 | |
| 291 | U093 | 176 | P | S01 | |
| 292 | U094 | 176 | P | S01 | |
| 293 | U095 | 176 | P | S01 | |
| 294 | U096 | 176 | P | S01 | |
| 295 | U097 | 176 | P | S01 | |
| 296 | U098 | 176 | P | S01 | |
| 297 | U099 | 176 | P | S01 | |
| 298 | U101 | 176 | P | S01 | |
| 299 | U102 | 176 | P | S01 | |
| 300 | U103 | 176 | P | S01 | |
| 301 | U105 | 176 | P | S01 | |
| 302 | U106 | 176 | P | S01 | |
| 303 | U107 | 176 | P | S01 | |
| 304 | U108 | 176 | P | S01 | |
| 305 | U109 | 176 | P | S01 | |
| 306 | U110 | 176 | P | S01 | |
| 307 | U111 | 176 | P | S01 | |
| 308 | U112 | 176 | P | S01 | |
| 309 | U113 | 176 | P | S01 | |
| 310 | U114 | 176 | P | S01 | |
| 311 | U115 | 176 | P | S01 | |
| 312 | U116 | 176 | P | S01 | |
| 313 | U117 | 176 | P | S01 | |
| 314 | U118 | 176 | P | S01 | |
| 315 | U119 | 176 | P | S01 | |
| 316 | U120 | 176 | P | S01 | |
| 317 | U121 | 176 | P | S01 | |
| 318 | U122 | 176 | P | S01 | |
| 319 | U123 | 176 | P | S01 | |
| 320 | U124 | 176 | P | S01 | |
| 321 | U125 | 176 | P | S01 | |
| 322 | U126 | 176 | P | S01 | |
| 323 | U127 | 176 | P | S01 | |
| 324 | U128 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 325 | U129 | 176 | P | S01 | |
| 326 | U130 | 176 | P | S01 | |
| 327 | U131 | 176 | P | S01 | |
| 328 | U132 | 176 | P | S01 | |
| 329 | U133 | 176 | P | S01 | |
| 330 | U134 | 176 | P | S01 | |
| 331 | U135 | 176 | P | S01 | |
| 332 | U136 | 176 | P | S01 | |
| 333 | U137 | 176 | P | S01 | |
| 334 | U138 | 176 | P | S01 | |
| 335 | U140 | 176 | P | S01 | |
| 336 | U141 | 176 | P | S01 | |
| 337 | U142 | 176 | P | S01 | |
| 338 | U143 | 176 | P | S01 | |
| 339 | U144 | 176 | P | S01 | |
| 340 | U145 | 176 | P | S01 | |
| 341 | U146 | 176 | P | S01 | |
| 342 | U147 | 176 | P | S01 | |
| 343 | U148 | 176 | P | S01 | |
| 344 | U149 | 176 | P | S01 | |
| 345 | U150 | 176 | P | S01 | |
| 346 | U151 | 1,060 | P | S01 | |
| 347 | U152 | 176 | P | S01 | |
| 348 | U153 | 176 | P | S01 | |
| 349 | U154 | 176 | P | S01 | |
| 350 | U155 | 176 | P | S01 | |
| 351 | U156 | 176 | P | S01 | |
| 352 | U157 | 176 | P | S01 | |
| 353 | U158 | 176 | P | S01 | |
| 354 | U159 | 528 | P | S01 | |
| 355 | U160 | 176 | P | S01 | |
| 356 | U161 | 176 | P | S01 | |
| 357 | U162 | 176 | P | S01 | |
| 358 | U163 | 176 | P | S01 | |
| 359 | U164 | 176 | P | S01 | |
| 360 | U165 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 361 | U166 | 176 | P | S01 | |
| 362 | U167 | 176 | P | S01 | |
| 363 | U168 | 176 | P | S01 | |
| 364 | U169 | 176 | P | S01 | |
| 365 | U170 | 176 | P | S01 | |
| 366 | U171 | 176 | P | S01 | |
| 367 | U172 | 176 | P | S01 | |
| 368 | U173 | 176 | P | S01 | |
| 369 | U174 | 176 | P | S01 | |
| 370 | U176 | 176 | P | S01 | |
| 371 | U177 | 176 | P | S01 | |
| 372 | U178 | 176 | P | S01 | |
| 373 | U179 | 176 | P | S01 | |
| 374 | U180 | 176 | P | S01 | |
| 375 | U181 | 176 | P | S01 | |
| 376 | U182 | 176 | P | S01 | |
| 377 | U183 | 176 | P | S01 | |
| 378 | U184 | 176 | P | S01 | |
| 379 | U185 | 176 | P | S01 | |
| 380 | U186 | 176 | P | S01 | |
| 381 | U187 | 176 | P | S01 | |
| 382 | U188 | 176 | P | S01 | |
| 383 | U189 | 176 | P | S01 | |
| 384 | U190 | 176 | P | S01 | |
| 385 | U191 | 176 | P | S01 | |
| 386 | U192 | 176 | P | S01 | |
| 387 | U193 | 176 | P | S01 | |
| 388 | U194 | 176 | P | S01 | |
| 389 | U196 | 176 | P | S01 | |
| 390 | U197 | 176 | P | S01 | |
| 391 | U200 | 176 | P | S01 | |
| 392 | U201 | 176 | P | S01 | |
| 393 | U202 | 176 | P | S01 | |
| 394 | U203 | 176 | P | S01 | |
| 395 | U204 | 176 | P | S01 | |
| 396 | U205 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, West (continued)** | | | | | |
| 397 | U206 | 176 | P | S01 | |
| 398 | U207 | 176 | P | S01 | |
| 399 | U208 | 176 | P | S01 | |
| 400 | U209 | 176 | P | S01 | |
| 401 | U210 | 176 | P | S01 | |
| 402 | U211 | 176 | P | S01 | |
| 403 | U213 | 176 | P | S01 | |
| 404 | U214 | 176 | P | S01 | |
| 405 | U215 | 176 | P | S01 | |
| 406 | U216 | 176 | P | S01 | |
| 407 | U217 | 176 | P | S01 | |
| 408 | U218 | 176 | P | S01 | |
| 409 | U219 | 176 | P | S01 | |
| 410 | U220 | 176 | P | S01 | |
| 411 | U221 | 176 | P | S01 | |
| 412 | U222 | 176 | P | S01 | |
| 413 | U223 | 176 | P | S01 | |
| 414 | U225 | 176 | P | S01 | |
| 415 | U226 | 4,584 | P | S01 | |
| 416 | U227 | 176 | P | S01 | |
| 417 | U228 | 176 | P | S01 | |
| 418 | U234 | 176 | P | S01 | |
| 419 | U235 | 176 | P | S01 | |
| 420 | U236 | 176 | P | S01 | |
| 421 | U237 | 176 | P | S01 | |
| 422 | U238 | 176 | P | S01 | |
| 423 | U239 | 352 | P | S01 | |
| 424 | U240 | 176 | P | S01 | |
| 425 | U243 | 176 | P | S01 | |
| 426 | U244 | 176 | P | S01 | |
| 427 | U246 | 176 | P | S01 | |
| 428 | U247 | 176 | P | S01 | |
| 429 | U248 | 176 | P | S01 | |
| 430 | U249 | 176 | P | S01 | |
| 431 | U271 | 176 | P | S01 | |
| 432 | U278 | 176 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| Technical Area 54, West (continued) | | | | | | | | | | | | | | | | | |
| 4 3 | 3 | U | 2 | 7 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 4 | U | 2 | 8 | 0 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 5 | U | 3 | 2 | 8 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 6 | U | 3 | 5 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 7 | U | 3 | 5 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 8 | U | 3 | 6 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 3 | 9 | U | 3 | 6 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 0 | U | 3 | 7 | 2 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 1 | U | 3 | 7 | 3 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 2 | U | 3 | 8 | 7 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 3 | U | 3 | 8 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 4 | U | 3 | 9 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 5 | U | 3 | 9 | 5 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 6 | U | 4 | 0 | 4 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 7 | U | 4 | 0 | 9 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 8 | U | 4 | 1 | 0 | 176 | P | S | 0 | 1 | | | | | | | |
| 4 4 | 9 | U | 4 | 1 | 1 | 176 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 54, Material Disposal Area H (Shaft 9)** | | | | | |
| 1 | D003 | 15 | P | D80 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|
| **Technical Area 55** | | | | | | | |
| 1 | D001 | 75,000 | P | S01 | | | |
| 2 | D002 | 150,000 | P | S01 | S02 | T04 | |
| 3 | D003 | 42,000 | P | S01 | | | |
| 4 | D004 | 5,000 | P | S01 | S02 | T04 | |
| 5 | D005 | 11,000 | P | S01 | S02 | T04 | |
| 6 | D006 | 400,500 | P | S01 | S02 | T04 | |
| 7 | D007 | 605,000 | P | S01 | S02 | T04 | |
| 8 | D008 | 900,000 | P | S01 | S02 | T04 | |
| 9 | D009 | 26,000 | P | S01 | S02 | T04 | |
| 10 | D010 | 2,500 | P | S01 | S02 | T04 | |
| 11 | D011 | 11,000 | P | S01 | S02 | T04 | |
| 12 | D012 | 1,000 | P | S01 | | T04 | |
| 13 | D018 | 4,500 | P | S01 | | T04 | |
| 14 | D019 | 4,500 | P | S01 | | T04 | |
| 15 | D021 | 4,500 | P | S01 | | T04 | |
| 16 | D022 | 1,500 | P | S01 | | T04 | |
| 17 | D027 | 1,500 | P | S01 | | T04 | |
| 18 | D028 | 2,500 | P | S01 | | T04 | |
| 19 | D030 | 1,500 | P | S01 | | T04 | |
| 20 | D032 | 1,500 | P | S01 | | T04 | |
| 21 | D033 | 1,500 | P | S01 | | T04 | |
| 22 | D034 | 1,500 | P | S01 | | T04 | |
| 23 | D035 | 12,000 | P | S01 | | T04 | |
| 24 | D036 | 1,500 | P | S01 | | T04 | |
| 25 | D037 | 1,500 | P | S01 | | T04 | |
| 26 | D038 | 1,500 | P | S01 | | T04 | |
| 27 | D039 | 11,000 | P | S01 | | T04 | |
| 28 | D040 | 11,000 | P | S01 | | T04 | |
| 29 | D042 | 1,500 | P | S01 | | T04 | |
| 30 | D043 | 1,500 | P | S01 | | T04 | |
| 31 | F001 | 110,000 | P | S01 | | T04 | |
| 32 | F002 | 110,000 | P | S01 | | T04 | |
| 33 | F003 | 110,000 | P | S01 | | | |
| 34 | F005 | 110,000 | P | S01 | | | |
| 35 | F006 | 500 | P | S01 | | | |
| 36 | F007 | 500 | P | S01 | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 55 (continued)** | | | | | |
| 37 | F009 | 500 | P | S01 | |
| 38 | P003 | 1,500 | P | S01 | |
| 39 | P012 | 1,500 | P | S01 | |
| 40 | P015 | 6,000 | P | S01 | |
| 41 | P029 | 1,500 | P | S01 | |
| 42 | P030 | 1,500 | P | S01 | |
| 43 | P031 | 1,500 | P | S01 | |
| 44 | P038 | 1,500 | P | S01 | |
| 45 | P056 | 3,000 | P | S01 | |
| 46 | P063 | 1,500 | P | S01 | |
| 47 | P068 | 1,500 | P | S01 | |
| 48 | P073 | 1,500 | P | S01 | |
| 49 | P076 | 1,500 | P | S01 | |
| 50 | P078 | 1,500 | P | S01 | |
| 51 | P095 | 1,500 | P | S01 | |
| 52 | P096 | 1,500 | P | S01 | |
| 53 | P098 | 1,500 | P | S01 | |
| 54 | P099 | 500 | P | S01 | |
| 55 | P106 | 1,500 | P | S01 | |
| 56 | P113 | 1,500 | P | S01 | |
| 57 | P120 | 1,500 | P | S01 | |
| 58 | U001 | 3,000 | P | S01 | |
| 59 | U002 | 1,500 | P | S01 | |
| 60 | U003 | 1,500 | P | S01 | |
| 61 | U012 | 1,500 | P | S01 | |
| 62 | U019 | 3,000 | P | S01 | |
| 63 | U022 | 1,500 | P | S01 | |
| 64 | U029 | 1,500 | P | S01 | |
| 65 | U031 | 1,500 | P | S01 | |
| 66 | U037 | 1,500 | P | S01 | |
| 67 | U044 | 1,500 | P | S01 | |
| 68 | U045 | 1,500 | P | S01 | |
| 69 | U052 | 1,500 | P | S01 | |
| 70 | U056 | 1,500 | P | S01 | |
| 71 | U057 | 1,500 | P | S01 | |
| 72 | U075 | 1,500 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 55 (continued)** | | | | | |
| 73 | U077 | 1,500 | P | S01 | |
| 74 | U080 | 6,000 | P | S01 | |
| 75 | U103 | 500 | P | S01 | |
| 76 | U108 | 1,500 | P | S01 | |
| 77 | U112 | 1,500 | P | S01 | |
| 78 | U115 | 1,500 | P | S01 | |
| 79 | U117 | 1,500 | P | S01 | |
| 80 | U121 | 1,500 | P | S01 | |
| 81 | U122 | 1,500 | P | S01 | |
| 82 | U123 | 1,500 | P | S01 | |
| 83 | U131 | 1,500 | P | S01 | |
| 84 | U133 | 1,500 | P | S01 | |
| 85 | U134 | 6,000 | P | S01 | |
| 86 | U135 | 1,500 | P | S01 | |
| 87 | U140 | 1,500 | P | S01 | |
| 88 | U144 | 1,500 | P | S01 | |
| 89 | U151 | 6,000 | P | S01 | |
| 90 | U154 | 6,000 | P | S01 | |
| 91 | U159 | 6,000 | P | S01 | |
| 92 | U160 | 1,500 | P | S01 | |
| 93 | U161 | 1,500 | P | S01 | |
| 94 | U165 | 1,500 | P | S01 | |
| 95 | U169 | 1,500 | P | S01 | |
| 96 | U188 | 1,500 | P | S01 | |
| 97 | U190 | 1,500 | P | S01 | |
| 98 | U196 | 1,500 | P | S01 | |
| 99 | U204 | 1,500 | P | S01 | |
| 100 | U210 | 6,000 | P | S01 | |
| 101 | U211 | 6,000 | P | S01 | |
| 102 | U213 | 1,500 | P | S01 | |
| 103 | U216 | 1,500 | P | S01 | |
| 104 | U218 | 1,500 | P | S01 | |
| 105 | U219 | 1,500 | P | S01 | |
| 106 | U220 | 6,000 | P | S01 | |
| 107 | U225 | 1,500 | P | S01 | |
| 108 | U226 | 6,000 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 55 (continued)** | | | | | | | | | | | | | | | | | |
| 1 0 | 9 | U | 2 | 2 | 7 | 1,500 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 0 | U | 2 | 2 | 8 | 1,500 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 1 | U | 2 | 3 | 9 | 1,500 | P | S | 0 | 1 | | | | | | | |
| 1 1 | 2 | U | 2 | 4 | 6 | 1,500 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63** | | | | | |
| 1 | D001 | 3,300 | P | S01 | |
| 2 | D002 | 3,950 | P | S01 | |
| 3 | D003 | 1,850 | P | S01 | |
| 4 | D004 | 25,250 | P | S01 T04 | |
| 5 | D005 | 820 | P | S01 T04 | |
| 6 | D006 | 5,150 | P | S01 T04 | |
| 7 | D007 | 37,750 | P | S01 T04 | |
| 8 | D008 | 54,000 | P | S01 T04 | |
| 9 | D009 | 1,000 | P | S01 T04 | |
| 10 | D010 | 450 | P | S01 T04 | |
| 11 | D011 | 25,400 | P | S01 T04 | |
| 12 | D012 | 180 | P | S01 | |
| 13 | D013 | 40 | P | S01 | |
| 14 | D014 | 40 | P | S01 | |
| 15 | D015 | 70 | P | S01 | |
| 16 | D016 | 40 | P | S01 | |
| 17 | D017 | 40 | P | S01 | |
| 18 | D018 | 300 | P | S01 T04 | |
| 19 | D019 | 250 | P | S01 T04 | |
| 20 | D020 | 300 | P | S01 T04 | |
| 21 | D021 | 150 | P | S01 T04 | |
| 22 | D022 | 330 | P | S01 T04 | |
| 23 | D023 | 40 | P | S01 T04 | |
| 24 | D024 | 40 | P | S01 T04 | |
| 25 | D025 | 40 | P | S01 T04 | |
| 26 | D026 | 40 | P | S01 T04 | |
| 27 | D027 | 220 | P | S01 T04 | |
| 28 | D028 | 400 | P | S01 T04 | |
| 29 | D029 | 70 | P | S01 T04 | |
| 30 | D030 | 300 | P | S01 T04 | |
| 31 | D031 | 220 | P | S01 T04 | |
| 32 | D032 | 290 | P | S01 T04 | |
| 33 | D033 | 290 | P | S01 T04 | |
| 34 | D034 | 290 | P | S01 T04 | |
| 35 | D035 | 300 | P | S01 T04 | |
| 36 | D036 | 190 | P | S01 T04 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 37 | D037 | 70 | P | S01 T04 | |
| 38 | D038 | 140 | P | S01 T04 | |
| 39 | D039 | 200 | P | S01 T04 | |
| 40 | D040 | 250 | P | S01 T04 | |
| 41 | D041 | 170 | P | S01 T04 | |
| 42 | D042 | 220 | P | S01 T04 | |
| 43 | D043 | 250 | P | S01 T04 | |
| 44 | F001 | 64,100 | P | S01 T04 | |
| 45 | F002 | 34,500 | P | S01 T04 | |
| 46 | F003 | 28,500 | P | S01 | |
| 47 | F004 | 350 | P | S01 T04 | |
| 48 | F005 | 32,500 | P | S01 | |
| 49 | F006 | 70 | P | S01 | |
| 50 | F007 | 180 | P | S01 | |
| 51 | F008 | 70 | P | S01 | |
| 52 | F009 | 80 | P | S01 | |
| 53 | F010 | 40 | P | S01 | |
| 54 | F011 | 40 | P | S01 | |
| 55 | F012 | 40 | P | S01 | |
| 56 | F019 | 40 | P | S01 | |
| 57 | F020 | 40 | P | S01 | |
| 58 | F021 | 40 | P | S01 | |
| 59 | F022 | 40 | P | S01 | |
| 60 | F023 | 40 | P | S01 | |
| 61 | F024 | 40 | P | S01 | |
| 62 | F025 | 40 | P | S01 | |
| 63 | F026 | 40 | P | S01 | |
| 64 | F027 | 40 | P | S01 | |
| 65 | F028 | 40 | P | S01 | |
| 66 | F032 | 40 | P | S01 | |
| 67 | F034 | 40 | P | S01 | |
| 68 | F035 | 40 | P | S01 | |
| 69 | F037 | 40 | P | S01 | |
| 70 | F038 | 40 | P | S01 | |
| 71 | F039 | 40 | P | S01 | |
| 72 | K044 | 220 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 73 | K045 | 40 | P | S01 | |
| 74 | K046 | 40 | P | S01 | |
| 75 | K047 | 40 | P | S01 | |
| 76 | K084 | 50 | P | S01 | |
| 77 | K101 | 50 | P | S01 | |
| 78 | K102 | 50 | P | S01 | |
| 79 | P001 | 40 | P | S01 | |
| 80 | P002 | 40 | P | S01 | |
| 81 | P003 | 40 | P | S01 | |
| 82 | P004 | 40 | P | S01 | |
| 83 | P005 | 40 | P | S01 | |
| 84 | P006 | 40 | P | S01 | |
| 85 | P007 | 40 | P | S01 | |
| 86 | P008 | 40 | P | S01 | |
| 87 | P009 | 40 | P | S01 | |
| 88 | P010 | 40 | P | S01 | |
| 89 | P011 | 40 | P | S01 | |
| 90 | P012 | 40 | P | S01 | |
| 91 | P013 | 40 | P | S01 | |
| 92 | P014 | 40 | P | S01 | |
| 93 | P015 | 40 | P | S01 | |
| 94 | P016 | 40 | P | S01 | |
| 95 | P017 | 40 | P | S01 | |
| 96 | P018 | 40 | P | S01 | |
| 97 | P020 | 40 | P | S01 | |
| 98 | P021 | 40 | P | S01 | |
| 99 | P022 | 40 | P | S01 | |
| 100 | P023 | 40 | P | S01 | |
| 101 | P024 | 40 | P | S01 | |
| 102 | P026 | 40 | P | S01 | |
| 103 | P027 | 40 | P | S01 | |
| 104 | P028 | 40 | P | S01 | |
| 105 | P029 | 40 | P | S01 | |
| 106 | P030 | 40 | P | S01 | |
| 107 | P031 | 40 | P | S01 | |
| 108 | P033 | 40 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 109 | P034 | 40 | P | S01 | |
| 110 | P036 | 40 | P | S01 | |
| 111 | P037 | 40 | P | S01 | |
| 112 | P038 | 40 | P | S01 | |
| 113 | P039 | 40 | P | S01 | |
| 114 | P040 | 40 | P | S01 | |
| 115 | P041 | 40 | P | S01 | |
| 116 | P042 | 40 | P | S01 | |
| 117 | P043 | 40 | P | S01 | |
| 118 | P044 | 40 | P | S01 | |
| 119 | P045 | 40 | P | S01 | |
| 120 | P046 | 40 | P | S01 | |
| 121 | P047 | 40 | P | S01 | |
| 122 | P048 | 40 | P | S01 | |
| 123 | P049 | 40 | P | S01 | |
| 124 | P050 | 40 | P | S01 | |
| 125 | P051 | 40 | P | S01 | |
| 126 | P054 | 40 | P | S01 | |
| 127 | P056 | 40 | P | S01 | |
| 128 | P057 | 40 | P | S01 | |
| 129 | P058 | 40 | P | S01 | |
| 130 | P059 | 40 | P | S01 | |
| 131 | P060 | 40 | P | S01 | |
| 132 | P062 | 40 | P | S01 | |
| 133 | P063 | 40 | P | S01 | |
| 134 | P064 | 40 | P | S01 | |
| 135 | P065 | 40 | P | S01 | |
| 136 | P066 | 40 | P | S01 | |
| 137 | P067 | 40 | P | S01 | |
| 138 | P068 | 40 | P | S01 | |
| 139 | P069 | 40 | P | S01 | |
| 140 | P070 | 40 | P | S01 | |
| 141 | P071 | 40 | P | S01 | |
| 142 | P072 | 40 | P | S01 | |
| 143 | P073 | 40 | P | S01 | |
| 144 | P074 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 63 (continued)** | | | | | | | | | | | | | | | | | |
| 14 | 5 | P | 0 | 7 | 5 | 40 | P | S | 0 | 1 | | | | | | | |
| 14 | 6 | P | 0 | 7 | 6 | 40 | P | S | 0 | 1 | | | | | | | |
| 14 | 7 | P | 0 | 7 | 7 | 40 | P | S | 0 | 1 | | | | | | | |
| 14 | 8 | P | 0 | 7 | 8 | 40 | P | S | 0 | 1 | | | | | | | |
| 14 | 9 | P | 0 | 8 | 1 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 0 | P | 0 | 8 | 2 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 1 | P | 0 | 8 | 4 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 2 | P | 0 | 8 | 5 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 3 | P | 0 | 8 | 7 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 4 | P | 0 | 8 | 8 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 5 | P | 0 | 8 | 9 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 6 | P | 0 | 9 | 2 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 7 | P | 0 | 9 | 3 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 8 | P | 0 | 9 | 4 | 40 | P | S | 0 | 1 | | | | | | | |
| 15 | 9 | P | 0 | 9 | 5 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 0 | P | 0 | 9 | 6 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 1 | P | 0 | 9 | 7 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 2 | P | 0 | 9 | 8 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 3 | P | 0 | 9 | 9 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 4 | P | 1 | 0 | 1 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 5 | P | 1 | 0 | 2 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 6 | P | 1 | 0 | 3 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 7 | P | 1 | 0 | 4 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 8 | P | 1 | 0 | 5 | 40 | P | S | 0 | 1 | | | | | | | |
| 16 | 9 | P | 1 | 0 | 6 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 0 | P | 1 | 0 | 8 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 1 | P | 1 | 0 | 9 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 2 | P | 1 | 1 | 0 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 3 | P | 1 | 1 | 1 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 4 | P | 1 | 1 | 2 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 5 | P | 1 | 1 | 3 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 6 | P | 1 | 1 | 4 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 7 | P | 1 | 1 | 5 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 8 | P | 1 | 1 | 6 | 40 | P | S | 0 | 1 | | | | | | | |
| 17 | 9 | P | 1 | 1 | 8 | 40 | P | S | 0 | 1 | | | | | | | |
| 18 | 0 | P | 1 | 1 | 9 | 40 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 63 (continued)** | | | | | | | | | | | | | | | | |
| 1 8 | 1 | P | 1 | 2 | 0 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 2 | P | 1 | 2 | 1 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 3 | P | 1 | 2 | 2 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 4 | P | 1 | 2 | 3 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 5 | P | 1 | 2 | 7 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 6 | P | 1 | 2 | 8 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 7 | P | 1 | 8 | 5 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 8 | P | 1 | 8 | 8 | 40 | P | S | 0 | 1 | | | | | | |
| 1 8 | 9 | P | 1 | 8 | 9 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 0 | P | 1 | 9 | 0 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 1 | P | 1 | 9 | 1 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 2 | P | 1 | 9 | 2 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 3 | P | 1 | 9 | 4 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 4 | P | 1 | 9 | 6 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 5 | P | 1 | 9 | 7 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 6 | P | 1 | 9 | 8 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 7 | P | 1 | 9 | 9 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 8 | P | 2 | 0 | 1 | 40 | P | S | 0 | 1 | | | | | | |
| 1 9 | 9 | P | 2 | 0 | 2 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 0 | P | 2 | 0 | 3 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 1 | P | 2 | 0 | 4 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 2 | P | 2 | 0 | 5 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 3 | U | 0 | 0 | 1 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 4 | U | 0 | 0 | 2 | 70 | P | S | 0 | 1 | | | | | | |
| 2 0 | 5 | U | 0 | 0 | 3 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 6 | U | 0 | 0 | 4 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 7 | U | 0 | 0 | 5 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 8 | U | 0 | 0 | 6 | 40 | P | S | 0 | 1 | | | | | | |
| 2 0 | 9 | U | 0 | 0 | 7 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 0 | U | 0 | 0 | 8 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 1 | U | 0 | 0 | 9 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 2 | U | 0 | 1 | 0 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 3 | U | 0 | 1 | 1 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 4 | U | 0 | 1 | 2 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 5 | U | 0 | 1 | 4 | 40 | P | S | 0 | 1 | | | | | | |
| 2 1 | 6 | U | 0 | 1 | 5 | 40 | P | S | 0 | 1 | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 217 | U016 | 40 | P | S01 | |
| 218 | U017 | 40 | P | S01 | |
| 219 | U018 | 40 | P | S01 | |
| 220 | U019 | 40 | P | S01 | |
| 221 | U020 | 40 | P | S01 | |
| 222 | U021 | 40 | P | S01 | |
| 223 | U022 | 40 | P | S01 | |
| 224 | U023 | 40 | P | S01 | |
| 225 | U024 | 40 | P | S01 | |
| 226 | U025 | 40 | P | S01 | |
| 227 | U026 | 40 | P | S01 | |
| 228 | U027 | 40 | P | S01 | |
| 229 | U028 | 40 | P | S01 | |
| 230 | U029 | 40 | P | S01 | |
| 231 | U030 | 40 | P | S01 | |
| 232 | U031 | 40 | P | S01 | |
| 233 | U032 | 40 | P | S01 | |
| 234 | U033 | 40 | P | S01 | |
| 235 | U034 | 40 | P | S01 | |
| 236 | U035 | 40 | P | S01 | |
| 237 | U036 | 40 | P | S01 | |
| 238 | U037 | 40 | P | S01 | |
| 239 | U038 | 40 | P | S01 | |
| 240 | U039 | 40 | P | S01 | |
| 241 | U041 | 40 | P | S01 | |
| 242 | U042 | 40 | P | S01 | |
| 243 | U043 | 40 | P | S01 | |
| 244 | U044 | 40 | P | S01 | |
| 245 | U045 | 40 | P | S01 | |
| 246 | U046 | 40 | P | S01 | |
| 247 | U047 | 40 | P | S01 | |
| 248 | U048 | 40 | P | S01 | |
| 249 | U049 | 40 | P | S01 | |
| 250 | U050 | 40 | P | S01 | |
| 251 | U051 | 40 | P | S01 | |
| 252 | U052 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 253 | U053 | 40 | P | S01 | |
| 254 | U055 | 40 | P | S01 | |
| 255 | U056 | 40 | P | S01 | |
| 256 | U057 | 40 | P | S01 | |
| 257 | U058 | 40 | P | S01 | |
| 258 | U059 | 40 | P | S01 | |
| 259 | U060 | 40 | P | S01 | |
| 260 | U061 | 40 | P | S01 | |
| 261 | U062 | 40 | P | S01 | |
| 262 | U063 | 40 | P | S01 | |
| 263 | U064 | 40 | P | S01 | |
| 264 | U066 | 40 | P | S01 | |
| 265 | U067 | 40 | P | S01 | |
| 266 | U068 | 40 | P | S01 | |
| 267 | U069 | 40 | P | S01 | |
| 268 | U070 | 40 | P | S01 | |
| 269 | U071 | 40 | P | S01 | |
| 270 | U072 | 40 | P | S01 | |
| 271 | U073 | 40 | P | S01 | |
| 272 | U074 | 40 | P | S01 | |
| 273 | U075 | 40 | P | S01 | |
| 274 | U076 | 40 | P | S01 | |
| 275 | U077 | 40 | P | S01 | |
| 276 | U078 | 40 | P | S01 | |
| 277 | U079 | 40 | P | S01 | |
| 278 | U080 | 120 | P | S01 | |
| 279 | U081 | 40 | P | S01 | |
| 280 | U082 | 40 | P | S01 | |
| 281 | U083 | 40 | P | S01 | |
| 282 | U084 | 40 | P | S01 | |
| 283 | U085 | 40 | P | S01 | |
| 284 | U086 | 40 | P | S01 | |
| 285 | U087 | 40 | P | S01 | |
| 286 | U088 | 40 | P | S01 | |
| 287 | U089 | 40 | P | S01 | |
| 288 | U090 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 289 | U091 | 40 | P | S01 | |
| 290 | U092 | 40 | P | S01 | |
| 291 | U093 | 40 | P | S01 | |
| 292 | U094 | 40 | P | S01 | |
| 293 | U095 | 40 | P | S01 | |
| 294 | U096 | 40 | P | S01 | |
| 295 | U097 | 40 | P | S01 | |
| 296 | U098 | 40 | P | S01 | |
| 297 | U099 | 40 | P | S01 | |
| 298 | U101 | 40 | P | S01 | |
| 299 | U102 | 40 | P | S01 | |
| 300 | U103 | 40 | P | S01 | |
| 301 | U105 | 40 | P | S01 | |
| 302 | U106 | 40 | P | S01 | |
| 303 | U107 | 40 | P | S01 | |
| 304 | U108 | 40 | P | S01 | |
| 305 | U109 | 40 | P | S01 | |
| 306 | U110 | 40 | P | S01 | |
| 307 | U111 | 40 | P | S01 | |
| 308 | U112 | 40 | P | S01 | |
| 309 | U113 | 40 | P | S01 | |
| 310 | U114 | 40 | P | S01 | |
| 311 | U115 | 40 | P | S01 | |
| 312 | U116 | 40 | P | S01 | |
| 313 | U117 | 40 | P | S01 | |
| 314 | U118 | 40 | P | S01 | |
| 315 | U119 | 40 | P | S01 | |
| 316 | U120 | 40 | P | S01 | |
| 317 | U121 | 40 | P | S01 | |
| 318 | U122 | 70 | P | S01 | |
| 319 | U123 | 40 | P | S01 | |
| 320 | U124 | 40 | P | S01 | |
| 321 | U125 | 40 | P | S01 | |
| 322 | U126 | 40 | P | S01 | |
| 323 | U127 | 40 | P | S01 | |
| 324 | U128 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 325 | U129 | 40 | P | S01 | |
| 326 | U130 | 40 | P | S01 | |
| 327 | U131 | 40 | P | S01 | |
| 328 | U132 | 40 | P | S01 | |
| 329 | U133 | 40 | P | S01 | |
| 330 | U134 | 120 | P | S01 | |
| 331 | U135 | 40 | P | S01 | |
| 332 | U136 | 40 | P | S01 | |
| 333 | U137 | 40 | P | S01 | |
| 334 | U138 | 40 | P | S01 | |
| 335 | U140 | 40 | P | S01 | |
| 336 | U141 | 40 | P | S01 | |
| 337 | U142 | 40 | P | S01 | |
| 338 | U143 | 40 | P | S01 | |
| 339 | U144 | 40 | P | S01 | |
| 340 | U145 | 40 | P | S01 | |
| 341 | U146 | 40 | P | S01 | |
| 342 | U147 | 40 | P | S01 | |
| 343 | U148 | 40 | P | S01 | |
| 344 | U149 | 40 | P | S01 | |
| 345 | U150 | 40 | P | S01 | |
| 346 | U151 | 70 | P | S01 | |
| 347 | U152 | 40 | P | S01 | |
| 348 | U153 | 40 | P | S01 | |
| 349 | U154 | 40 | P | S01 | |
| 350 | U155 | 40 | P | S01 | |
| 351 | U156 | 40 | P | S01 | |
| 352 | U157 | 40 | P | S01 | |
| 353 | U158 | 40 | P | S01 | |
| 354 | U159 | 40 | P | S01 | |
| 355 | U160 | 40 | P | S01 | |
| 356 | U161 | 40 | P | S01 | |
| 357 | U162 | 40 | P | S01 | |
| 358 | U163 | 40 | P | S01 | |
| 359 | U164 | 40 | P | S01 | |
| 360 | U165 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 361 | U166 | 40 | P | S01 | |
| 362 | U167 | 40 | P | S01 | |
| 363 | U168 | 40 | P | S01 | |
| 364 | U169 | 40 | P | S01 | |
| 365 | U170 | 40 | P | S01 | |
| 366 | U171 | 40 | P | S01 | |
| 367 | U172 | 40 | P | S01 | |
| 368 | U173 | 40 | P | S01 | |
| 369 | U174 | 40 | P | S01 | |
| 370 | U176 | 40 | P | S01 | |
| 371 | U177 | 40 | P | S01 | |
| 372 | U178 | 40 | P | S01 | |
| 373 | U179 | 40 | P | S01 | |
| 374 | U180 | 40 | P | S01 | |
| 375 | U181 | 40 | P | S01 | |
| 376 | U182 | 40 | P | S01 | |
| 377 | U183 | 40 | P | S01 | |
| 378 | U184 | 40 | P | S01 | |
| 379 | U185 | 40 | P | S01 | |
| 380 | U186 | 40 | P | S01 | |
| 381 | U187 | 40 | P | S01 | |
| 382 | U188 | 40 | P | S01 | |
| 383 | U189 | 40 | P | S01 | |
| 384 | U190 | 40 | P | S01 | |
| 385 | U191 | 40 | P | S01 | |
| 386 | U192 | 40 | P | S01 | |
| 387 | U193 | 40 | P | S01 | |
| 388 | U194 | 40 | P | S01 | |
| 389 | U196 | 40 | P | S01 | |
| 390 | U197 | 40 | P | S01 | |
| 391 | U200 | 40 | P | S01 | |
| 392 | U201 | 40 | P | S01 | |
| 393 | U202 | 40 | P | S01 | |
| 394 | U203 | 40 | P | S01 | |
| 395 | U204 | 40 | P | S01 | |
| 396 | U205 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 397 | U206 | 40 | P | S01 | |
| 398 | U207 | 40 | P | S01 | |
| 399 | U208 | 40 | P | S01 | |
| 400 | U209 | 40 | P | S01 | |
| 401 | U210 | 40 | P | S01 | |
| 402 | U211 | 40 | P | S01 | |
| 403 | U213 | 40 | P | S01 | |
| 404 | U214 | 40 | P | S01 | |
| 405 | U215 | 40 | P | S01 | |
| 406 | U216 | 40 | P | S01 | |
| 407 | U217 | 40 | P | S01 | |
| 408 | U218 | 40 | P | S01 | |
| 409 | U219 | 40 | P | S01 | |
| 410 | U220 | 70 | P | S01 | |
| 411 | U221 | 40 | P | S01 | |
| 412 | U222 | 40 | P | S01 | |
| 413 | U223 | 40 | P | S01 | |
| 414 | U225 | 40 | P | S01 | |
| 415 | U226 | 70 | P | S01 | |
| 416 | U227 | 40 | P | S01 | |
| 417 | U228 | 70 | P | S01 | |
| 418 | U234 | 40 | P | S01 | |
| 419 | U235 | 40 | P | S01 | |
| 420 | U236 | 40 | P | S01 | |
| 421 | U237 | 40 | P | S01 | |
| 422 | U238 | 40 | P | S01 | |
| 423 | U239 | 70 | P | S01 | |
| 424 | U240 | 40 | P | S01 | |
| 425 | U243 | 40 | P | S01 | |
| 426 | U244 | 40 | P | S01 | |
| 427 | U246 | 40 | P | S01 | |
| 428 | U247 | 40 | P | S01 | |
| 429 | U248 | 40 | P | S01 | |
| 430 | U249 | 40 | P | S01 | |
| 431 | U271 | 40 | P | S01 | |
| 432 | U278 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 433 | U279 | 40 | P | S01 | |
| 434 | U280 | 40 | P | S01 | |
| 435 | U328 | 40 | P | S01 | |
| 436 | U353 | 40 | P | S01 | |
| 437 | U359 | 40 | P | S01 | |
| 438 | U364 | 40 | P | S01 | |
| 439 | U367 | 40 | P | S01 | |
| 440 | U372 | 40 | P | S01 | |
| 441 | U373 | 40 | P | S01 | |
| 442 | U387 | 40 | P | S01 | |
| 443 | U389 | 40 | P | S01 | |
| 444 | U394 | 40 | P | S01 | |
| 445 | U395 | 40 | P | S01 | |
| 446 | U404 | 40 | P | S01 | |
| 447 | U409 | 40 | P | S01 | |
| 448 | U410 | 40 | P | S01 | |
| 449 | U411 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60** | | | | | |
| 1 | D001 | 21,727 | P | S01 | |
| 2 | D002 | 13,931 | P | S01 | |
| 3 | D003 | 2,903 | P | S01 | |
| 4 | D004 | 6,508 | P | S01 T04 | |
| 5 | D005 | 2,382 | P | S01 T04 | |
| 6 | D006 | 5, 751 | P | S01 T04 | |
| 7 | D007 | 9, 060 | P | S01 T04 | |
| 8 | D008 | 15,914 | P | S01 T04 | |
| 9 | D009 | 2,433 | P | S01 T04 | |
| 10 | D010 | 4,850 | P | S01 T04 | |
| 11 | D011 | 8,799 | P | S01 T04 | |
| 12 | D012 | 100 | P | S01 | |
| 13 | D013 | 100 | P | S01 | |
| 14 | D014 | 100 | P | S01 | |
| 15 | D015 | 100 | P | S01 | |
| 16 | D016 | 44 | P | S01 | |
| 17 | D017 | 66 | P | S01 | |
| 18 | D018 | 1,283 | P | S01 T04 | |
| 19 | D019 | 2,949 | P | S01 T04 | |
| 20 | D020 | 100 | P | S01 T04 | |
| 21 | D021 | 1,909 | P | S01 T04 | |
| 22 | D022 | 6,156 | P | S01 T04 | |
| 23 | D023 | 100 | P | S01 T04 | |
| 24 | D024 | 100 | P | S01 T04 | |
| 25 | D025 | 100 | P | S01 T04 | |
| 26 | D026 | 518 | P | S01 T04 | |
| 27 | D027 | 55 | P | S01 T04 | |
| 28 | D028 | 3,053 | P | S01 T04 | |
| 29 | D029 | 293 | P | S01 T04 | |
| 30 | D030 | 5,491 | P | S01 T04 | |
| 31 | D031 | 293 | P | S01 T04 | |
| 32 | D032 | 3,135 | P | S01 T04 | |
| 33 | D033 | 48 | P | S01 T04 | |
| 34 | D034 | 1,228 | P | S01 T04 | |
| 35 | D035 | 1,979 | P | S01 T04 | |
| 36 | D036 | 549 | P | S01 T04 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 37 | D037 | 761 | P | S01 T04 | |
| 38 | D038 | 2,629 | P | S01 T04 | |
| 39 | D039 | 1,658 | P | S01 T04 | |
| 40 | D040 | 1,662 | P | S01 T04 | |
| 41 | D041 | 293 | P | S01 T04 | |
| 42 | D042 | 1,182 | P | S01 T04 | |
| 43 | D043 | 655 | P | S01 T04 | |
| 44 | F001 | 442,263 | P | S01 T04 | |
| 45 | F002 | 16,083 | P | S01 T04 | |
| 46 | F003 | 36,170 | P | S01 | |
| 47 | F004 | 925 | P | S01 T04 | |
| 48 | F005 | 27,196 | P | S01 | |
| 49 | F006 | 100 | P | S01 | |
| 50 | F007 | 74 | P | S01 | |
| 51 | F008 | 100 | P | S01 | |
| 52 | F009 | 165 | P | S01 | |
| 53 | F010 | 100 | P | S01 | |
| 54 | F011 | 100 | P | S01 | |
| 55 | F012 | 100 | P | S01 | |
| 56 | F019 | 100 | P | S01 | |
| 57 | F020 | 100 | P | S01 | |
| 58 | F021 | 100 | P | S01 | |
| 59 | F022 | 100 | P | S01 | |
| 60 | F023 | 100 | P | S01 | |
| 61 | F024 | 100 | P | S01 | |
| 62 | F025 | 100 | P | S01 | |
| 63 | F026 | 100 | P | S01 | |
| 64 | F027 | 165 | P | S01 | |
| 65 | F028 | 100 | P | S01 | |
| 66 | F032 | 100 | P | S01 | |
| 67 | F034 | 100 | P | S01 | |
| 68 | F035 | 100 | P | S01 | |
| 69 | F037 | 100 | P | S01 | |
| 70 | F038 | 100 | P | S01 | |
| 71 | F039 | 100 | P | S01 | |
| 72 | K044 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 73 | K045 | 100 | P | S01 | |
| 74 | K046 | 100 | P | S01 | |
| 75 | K047 | 100 | P | S01 | |
| 76 | K084 | 100 | P | S01 | |
| 77 | K101 | 100 | P | S01 | |
| 78 | K102 | 100 | P | S01 | |
| 79 | P001 | 100 | P | S01 | |
| 80 | P002 | 100 | P | S01 | |
| 81 | P003 | 293 | P | S01 | |
| 82 | P004 | 100 | P | S01 | |
| 83 | P005 | 100 | P | S01 | |
| 84 | P006 | 143 | P | S01 | |
| 85 | P007 | 100 | P | S01 | |
| 86 | P008 | 100 | P | S01 | |
| 87 | P009 | 100 | P | S01 | |
| 88 | P010 | 100 | P | S01 | |
| 89 | P011 | 143 | P | S01 | |
| 90 | P012 | 293 | P | S01 | |
| 91 | P013 | 100 | P | S01 | |
| 92 | P014 | 100 | P | S01 | |
| 93 | P015 | 293 | P | S01 | |
| 94 | P016 | 100 | P | S01 | |
| 95 | P017 | 100 | P | S01 | |
| 96 | P018 | 100 | P | S01 | |
| 97 | P020 | 100 | P | S01 | |
| 98 | P021 | 100 | P | S01 | |
| 99 | P022 | 17 | P | S01 | |
| 100 | P023 | 100 | P | S01 | |
| 101 | P024 | 100 | P | S01 | |
| 102 | P026 | 100 | P | S01 | |
| 103 | P027 | 100 | P | S01 | |
| 104 | P028 | 100 | P | S01 | |
| 105 | P029 | 293 | P | S01 | |
| 106 | P030 | 28 | P | S01 | |
| 107 | P031 | 485 | P | S01 | |
| 108 | P033 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 109 | P034 | 100 | P | S01 | |
| 110 | P036 | 100 | P | S01 | |
| 111 | P037 | 100 | P | S01 | |
| 112 | P038 | 227 | P | S01 | |
| 113 | P039 | 100 | P | S01 | |
| 114 | P040 | 100 | P | S01 | |
| 115 | P041 | 100 | P | S01 | |
| 116 | P042 | 100 | P | S01 | |
| 117 | P043 | 143 | P | S01 | |
| 118 | P044 | 100 | P | S01 | |
| 119 | P045 | 100 | P | S01 | |
| 120 | P046 | 100 | P | S01 | |
| 121 | P047 | 100 | P | S01 | |
| 122 | P048 | 143 | P | S01 | |
| 123 | P049 | 100 | P | S01 | |
| 124 | P050 | 100 | P | S01 | |
| 125 | P051 | 100 | P | S01 | |
| 126 | P054 | 100 | P | S01 | |
| 127 | P056 | 2,624 | P | S01 | |
| 128 | P057 | 100 | P | S01 | |
| 129 | P058 | 100 | P | S01 | |
| 130 | P059 | 100 | P | S01 | |
| 131 | P060 | 100 | P | S01 | |
| 132 | P062 | 100 | P | S01 | |
| 133 | P063 | 293 | P | S01 | |
| 134 | P064 | 100 | P | S01 | |
| 135 | P065 | 100 | P | S01 | |
| 136 | P066 | 100 | P | S01 | |
| 137 | P067 | 100 | P | S01 | |
| 138 | P068 | 293 | P | S01 | |
| 139 | P069 | 100 | P | S01 | |
| 140 | P070 | 100 | P | S01 | |
| 141 | P071 | 100 | P | S01 | |
| 142 | P072 | 100 | P | S01 | |
| 143 | P073 | 293 | P | S01 | |
| 144 | P074 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 145 | P075 | 100 | P | S01 | |
| 146 | P076 | 403 | P | S01 | |
| 147 | P077 | 100 | P | S01 | |
| 148 | P078 | 425 | P | S01 | |
| 149 | P081 | 100 | P | S01 | |
| 150 | P082 | 100 | P | S01 | |
| 151 | P084 | 100 | P | S01 | |
| 152 | P085 | 100 | P | S01 | |
| 153 | P087 | 5 | P | S01 | |
| 154 | P088 | 100 | P | S01 | |
| 155 | P089 | 100 | P | S01 | |
| 156 | P092 | 143 | P | S01 | |
| 157 | P093 | 100 | P | S01 | |
| 158 | P094 | 100 | P | S01 | |
| 159 | P095 | 293 | P | S01 | |
| 160 | P096 | 293 | P | S01 | |
| 161 | P097 | 100 | P | S01 | |
| 162 | P098 | 293 | P | S01 | |
| 163 | P099 | 100 | P | S01 | |
| 164 | P101 | 100 | P | S01 | |
| 165 | P102 | 100 | P | S01 | |
| 166 | P103 | 100 | P | S01 | |
| 167 | P104 | 143 | P | S01 | |
| 168 | P105 | 5 | P | S01 | |
| 169 | P106 | 293 | P | S01 | |
| 170 | P108 | 100 | P | S01 | |
| 171 | P109 | 100 | P | S01 | |
| 172 | P110 | 100 | P | S01 | |
| 173 | P111 | 100 | P | S01 | |
| 174 | P112 | 143 | P | S01 | |
| 175 | P113 | 293 | P | S01 | |
| 176 | P114 | 100 | P | S01 | |
| 177 | P115 | 100 | P | S01 | |
| 178 | P116 | 100 | P | S01 | |
| 179 | P118 | 100 | P | S01 | |
| 180 | P119 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | | | | | | | | | | | | | |
| 1 8 | 1 | P | 1 | 2 | 0 | 293 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 2 | P | 1 | 2 | 1 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 3 | P | 1 | 2 | 2 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 4 | P | 1 | 2 | 3 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 5 | P | 1 | 2 | 7 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 6 | P | 1 | 2 | 8 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 7 | P | 1 | 8 | 5 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 8 | P | 1 | 8 | 8 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 8 | 9 | P | 1 | 8 | 9 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 0 | P | 1 | 9 | 0 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 1 | P | 1 | 9 | 1 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 2 | P | 1 | 9 | 2 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 3 | P | 1 | 9 | 4 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 4 | P | 1 | 9 | 6 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 5 | P | 1 | 9 | 7 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 6 | P | 1 | 9 | 8 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 7 | P | 1 | 9 | 9 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 8 | P | 2 | 0 | 1 | 100 | P | S | 0 | 1 | | | | | | | |
| 1 9 | 9 | P | 2 | 0 | 2 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 0 | P | 2 | 0 | 3 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 1 | P | 2 | 0 | 4 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 2 | P | 2 | 0 | 5 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 3 | U | 0 | 0 | 1 | 15 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 4 | U | 0 | 0 | 2 | 45 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 5 | U | 0 | 0 | 3 | 485 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 6 | U | 0 | 0 | 4 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 7 | U | 0 | 0 | 5 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 8 | U | 0 | 0 | 6 | 7 | P | S | 0 | 1 | | | | | | | |
| 2 0 | 9 | U | 0 | 0 | 7 | 143 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 0 | U | 0 | 0 | 8 | 8 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 1 | U | 0 | 0 | 9 | 143 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 2 | U | 0 | 1 | 0 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 3 | U | 0 | 1 | 1 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 4 | U | 0 | 1 | 2 | 293 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 5 | U | 0 | 1 | 4 | 100 | P | S | 0 | 1 | | | | | | | |
| 2 1 | 6 | U | 0 | 1 | 5 | 100 | P | S | 0 | 1 | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | | | | | | | | | | | | | | |
| 2 1 | 7 | U | 0 | 1 | 6 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 1 | 8 | U | 0 | 1 | 7 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 1 | 9 | U | 0 | 1 | 8 | 143 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 0 | U | 0 | 1 | 9 | 20 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 1 | U | 0 | 2 | 0 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 2 | U | 0 | 2 | 1 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 3 | U | 0 | 2 | 2 | 293 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 4 | U | 0 | 2 | 3 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 5 | U | 0 | 2 | 4 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 6 | U | 0 | 2 | 5 | 3 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 7 | U | 0 | 2 | 6 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 8 | U | 0 | 2 | 7 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 2 | 9 | U | 0 | 2 | 8 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 0 | U | 0 | 2 | 9 | 293 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 1 | U | 0 | 3 | 0 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 2 | U | 0 | 3 | 1 | 26 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 3 | U | 0 | 3 | 2 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 4 | U | 0 | 3 | 3 | 143 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 5 | U | 0 | 3 | 4 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 6 | U | 0 | 3 | 5 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 7 | U | 0 | 3 | 6 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 8 | U | 0 | 3 | 7 | 143 | P | S | 0 | 1 | | | | | | | | |
| 2 3 | 9 | U | 0 | 3 | 8 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 0 | U | 0 | 3 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 1 | U | 0 | 4 | 1 | 143 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 2 | U | 0 | 4 | 2 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 3 | U | 0 | 4 | 3 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 4 | U | 0 | 4 | 4 | 152 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 5 | U | 0 | 4 | 5 | 293 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 6 | U | 0 | 4 | 6 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 7 | U | 0 | 4 | 7 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 8 | U | 0 | 4 | 8 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 4 | 9 | U | 0 | 4 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 5 | 0 | U | 0 | 5 | 0 | 100 | P | S | 0 | 1 | | | | | | | | |
| 2 5 | 1 | U | 0 | 5 | 1 | 100 | P | S | 0 | 1 | | | | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 252 | U052 | 18 | P | S01 | |
| 253 | U053 | 3 | P | S01 | |
| 254 | U055 | 143 | P | S01 | |
| 255 | U056 | 61 | P | S01 | |
| 256 | U057 | 293 | P | S01 | |
| 257 | U058 | 100 | P | S01 | |
| 258 | U059 | 100 | P | S01 | |
| 259 | U060 | 100 | P | S01 | |
| 260 | U061 | 100 | P | S01 | |
| 261 | U062 | 100 | P | S01 | |
| 262 | U063 | 100 | P | S01 | |
| 263 | U064 | 100 | P | S01 | |
| 264 | U066 | 100 | P | S01 | |
| 265 | U067 | 3 | P | S01 | |
| 266 | U068 | 12 | P | S01 | |
| 267 | U069 | 100 | P | S01 | |
| 268 | U070 | 165 | P | S01 | |
| 269 | U071 | 100 | P | S01 | |
| 270 | U072 | 100 | P | S01 | |
| 271 | U073 | 100 | P | S01 | |
| 272 | U074 | 100 | P | S01 | |
| 273 | U075 | 381 | P | S01 | |
| 274 | U076 | 100 | P | S01 | |
| 275 | U077 | 27 | P | S01 | |
| 276 | U078 | 100 | P | S01 | |
| 277 | U079 | 100 | P | S01 | |
| 278 | U080 | 4,129 | P | S01 | |
| 279 | U081 | 100 | P | S01 | |
| 280 | U082 | 100 | P | S01 | |
| 281 | U083 | 9 | P | S01 | |
| 282 | U084 | 100 | P | S01 | |
| 283 | U085 | 143 | P | S01 | |
| 284 | U086 | 100 | P | S01 | |
| 285 | U087 | 100 | P | S01 | |
| 286 | U088 | 100 | P | S01 | |
| 287 | U089 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 288 | U090 | 100 | P | S01 | |
| 289 | U091 | 518 | P | S01 | |
| 290 | U092 | 143 | P | S01 | |
| 291 | U093 | 100 | P | S01 | |
| 292 | U094 | 100 | P | S01 | |
| 293 | U095 | 100 | P | S01 | |
| 294 | U096 | 100 | P | S01 | |
| 295 | U097 | 100 | P | S01 | |
| 296 | U098 | 100 | P | S01 | |
| 297 | U099 | 100 | P | S01 | |
| 298 | U101 | 100 | P | S01 | |
| 299 | U102 | 100 | P | S01 | |
| 300 | U103 | 9 | P | S01 | |
| 301 | U105 | 100 | P | S01 | |
| 302 | U106 | 100 | P | S01 | |
| 303 | U107 | 100 | P | S01 | |
| 304 | U108 | 104 | P | S01 | |
| 305 | U109 | 143 | P | S01 | |
| 306 | U110 | 100 | P | S01 | |
| 307 | U111 | 100 | P | S01 | |
| 308 | U112 | 5 | P | S01 | |
| 309 | U113 | 100 | P | S01 | |
| 310 | U114 | 100 | P | S01 | |
| 311 | U115 | 3 | P | S01 | |
| 312 | U116 | 100 | P | S01 | |
| 313 | U117 | 18 | P | S01 | |
| 314 | U118 | 100 | P | S01 | |
| 315 | U119 | 100 | P | S01 | |
| 316 | U120 | 100 | P | S01 | |
| 317 | U121 | 293 | P | S01 | |
| 318 | U122 | 778 | P | S01 | |
| 319 | U123 | 8 | P | S01 | |
| 320 | U124 | 143 | P | S01 | |
| 321 | U125 | 3 | P | S01 | |
| 322 | U126 | 100 | P | S01 | |
| 323 | U127 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 324 | U128 | 100 | P | S01 | |
| 325 | U129 | 100 | P | S01 | |
| 326 | U130 | 100 | P | S01 | |
| 327 | U131 | 293 | P | S01 | |
| 328 | U132 | 100 | P | S01 | |
| 329 | U133 | 5 | P | S01 | |
| 330 | U134 | 38 | P | S01 | |
| 331 | U135 | 8 | P | S01 | |
| 332 | U136 | 143 | P | S01 | |
| 333 | U137 | 100 | P | S01 | |
| 334 | U138 | 100 | P | S01 | |
| 335 | U140 | 293 | P | S01 | |
| 336 | U141 | 100 | P | S01 | |
| 337 | U142 | 100 | P | S01 | |
| 338 | U143 | 100 | P | S01 | |
| 339 | U144 | 293 | P | S01 | |
| 340 | U145 | 293 | P | S01 | |
| 341 | U146 | 100 | P | S01 | |
| 342 | U147 | 100 | P | S01 | |
| 343 | U148 | 100 | P | S01 | |
| 344 | U149 | 100 | P | S01 | |
| 345 | U150 | 100 | P | S01 | |
| 346 | U151 | 13 | P | S01 | |
| 347 | U152 | 100 | P | S01 | |
| 348 | U153 | 143 | P | S01 | |
| 349 | U154 | 83 | P | S01 | |
| 350 | U155 | 100 | P | S01 | |
| 351 | U156 | 100 | P | S01 | |
| 352 | U157 | 100 | P | S01 | |
| 353 | U158 | 100 | P | S01 | |
| 354 | U159 | 10 | P | S01 | |
| 355 | U160 | 293 | P | S01 | |
| 356 | U161 | 15 | P | S01 | |
| 357 | U162 | 49 | P | S01 | |
| 358 | U163 | 143 | P | S01 | |
| 359 | U164 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 360 | U165 | 293 | P | S01 | |
| 361 | U166 | 100 | P | S01 | |
| 362 | U167 | 143 | P | S01 | |
| 363 | U168 | 143 | P | S01 | |
| 364 | U169 | 12 | P | S01 | |
| 365 | U170 | 12 | P | S01 | |
| 366 | U171 | 100 | P | S01 | |
| 367 | U172 | 100 | P | S01 | |
| 368 | U173 | 100 | P | S01 | |
| 369 | U174 | 100 | P | S01 | |
| 370 | U176 | 100 | P | S01 | |
| 371 | U177 | 100 | P | S01 | |
| 372 | U178 | 100 | P | S01 | |
| 373 | U179 | 100 | P | S01 | |
| 374 | U180 | 100 | P | S01 | |
| 375 | U181 | 100 | P | S01 | |
| 376 | U182 | 100 | P | S01 | |
| 377 | U183 | 100 | P | S01 | |
| 378 | U184 | 100 | P | S01 | |
| 379 | U185 | 100 | P | S01 | |
| 380 | U186 | 100 | P | S01 | |
| 381 | U187 | 100 | P | S01 | |
| 382 | U188 | 293 | P | S01 | |
| 383 | U189 | 100 | P | S01 | |
| 384 | U190 | 293 | P | S01 | |
| 385 | U191 | 100 | P | S01 | |
| 386 | U192 | 100 | P | S01 | |
| 387 | U193 | 100 | P | S01 | |
| 388 | U194 | 100 | P | S01 | |
| 389 | U196 | 293 | P | S01 | |
| 390 | U197 | 100 | P | S01 | |
| 391 | U200 | 100 | P | S01 | |
| 392 | U201 | 100 | P | S01 | |
| 393 | U202 | 100 | P | S01 | |
| 394 | U203 | 100 | P | S01 | |
| 395 | U204 | 293 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 396 | U205 | 100 | P | S01 | |
| 397 | U206 | 100 | P | S01 | |
| 398 | U207 | 100 | P | S01 | |
| 399 | U208 | 100 | P | S01 | |
| 400 | U209 | 100 | P | S01 | |
| 401 | U210 | 513 | P | S01 | |
| 402 | U211 | 30 | P | S01 | |
| 403 | U213 | 33 | P | S01 | |
| 404 | U214 | 100 | P | S01 | |
| 405 | U215 | 100 | P | S01 | |
| 406 | U216 | 293 | P | S01 | |
| 407 | U217 | 100 | P | S01 | |
| 408 | U218 | 293 | P | S01 | |
| 409 | U219 | 293 | P | S01 | |
| 410 | U220 | 20 | P | S01 | |
| 411 | U221 | 100 | P | S01 | |
| 412 | U222 | 100 | P | S01 | |
| 413 | U223 | 21 | P | S01 | |
| 414 | U225 | 12 | P | S01 | |
| 415 | U226 | 6,594 | P | S01 | |
| 416 | U227 | 293 | P | S01 | |
| 417 | U228 | 1,219 | P | S01 | |
| 418 | U234 | 100 | P | S01 | |
| 419 | U235 | 100 | P | S01 | |
| 420 | U236 | 100 | P | S01 | |
| 421 | U237 | 100 | P | S01 | |
| 422 | U238 | 100 | P | S01 | |
| 423 | U239 | 61 | P | S01 | |
| 424 | U240 | 143 | P | S01 | |
| 425 | U243 | 100 | P | S01 | |
| 426 | U244 | 100 | P | S01 | |
| 427 | U246 | 231 | P | S01 | |
| 428 | U247 | 100 | P | S01 | |
| 429 | U248 | 100 | P | S01 | |
| 430 | U249 | 100 | P | S01 | |
| 431 | U271 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | | | | | | | | | | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | | | | | | | | | | | | | | |
| 4 3 | 2 | U | 2 | 7 | 8 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 3 | U | 2 | 7 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 4 | U | 2 | 8 | 0 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 5 | U | 3 | 2 | 8 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 6 | U | 3 | 5 | 3 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 7 | U | 3 | 5 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 8 | U | 3 | 6 | 4 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 3 | 9 | U | 3 | 6 | 7 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 0 | U | 3 | 7 | 2 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 1 | U | 3 | 7 | 3 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 2 | U | 3 | 8 | 7 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 3 | U | 3 | 8 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 4 | U | 3 | 9 | 4 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 5 | U | 3 | 9 | 5 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 6 | U | 4 | 0 | 4 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 7 | U | 4 | 0 | 9 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 8 | U | 4 | 1 | 0 | 100 | P | S | 0 | 1 | | | | | | | | |
| 4 4 | 9 | U | 4 | 1 | 1 | 100 | P | S | 0 | 1 | | | | | | | | |

# Technical Area (TA) 60

## EXPLANATION OF PROCESS CODE LISTINGS AND DESIGN CAPACITIES AT TECHNICAL AREA (TA) 60, BUILDING 0017

| Description | Capacity (gallons) | Associated Structure No./Area | Co-Operator |
|---|---|---|---|
| **Item 6, Line 25 S01 Container Storage Unit** | | | |
| Container storage unit for RCRA[1] - regulated waste | 17,600 | TA-60-0017, Southern Portion of Building | DOE/Triad |
| **TOTAL S01** | **17,600** | | |

[1] RCRA is the Resource Conservation and Recovery Act.

## EXPLANATION OF PROCESS CODE LISTINGS AND DESIGN CAPACITIES AT TECHNICAL AREA (TA) 60, BUILDING 0017

| Description | Capacity (gallons) | Associated Structure No./Area | Co-Operator |
|---|---|---|---|
| **Item 6, Line 26 T04 Other Treatment (Macroencapsulation)** | | | |
| Other Treatment for RCRA[1] - regulated waste | 3,441 | TA-60-0017, Southern Portion of Building | DOE/Triad |
| **TOTAL T04** | **3,441** | | |

[1] RCRA is the Resource Conservation and Recovery Act.

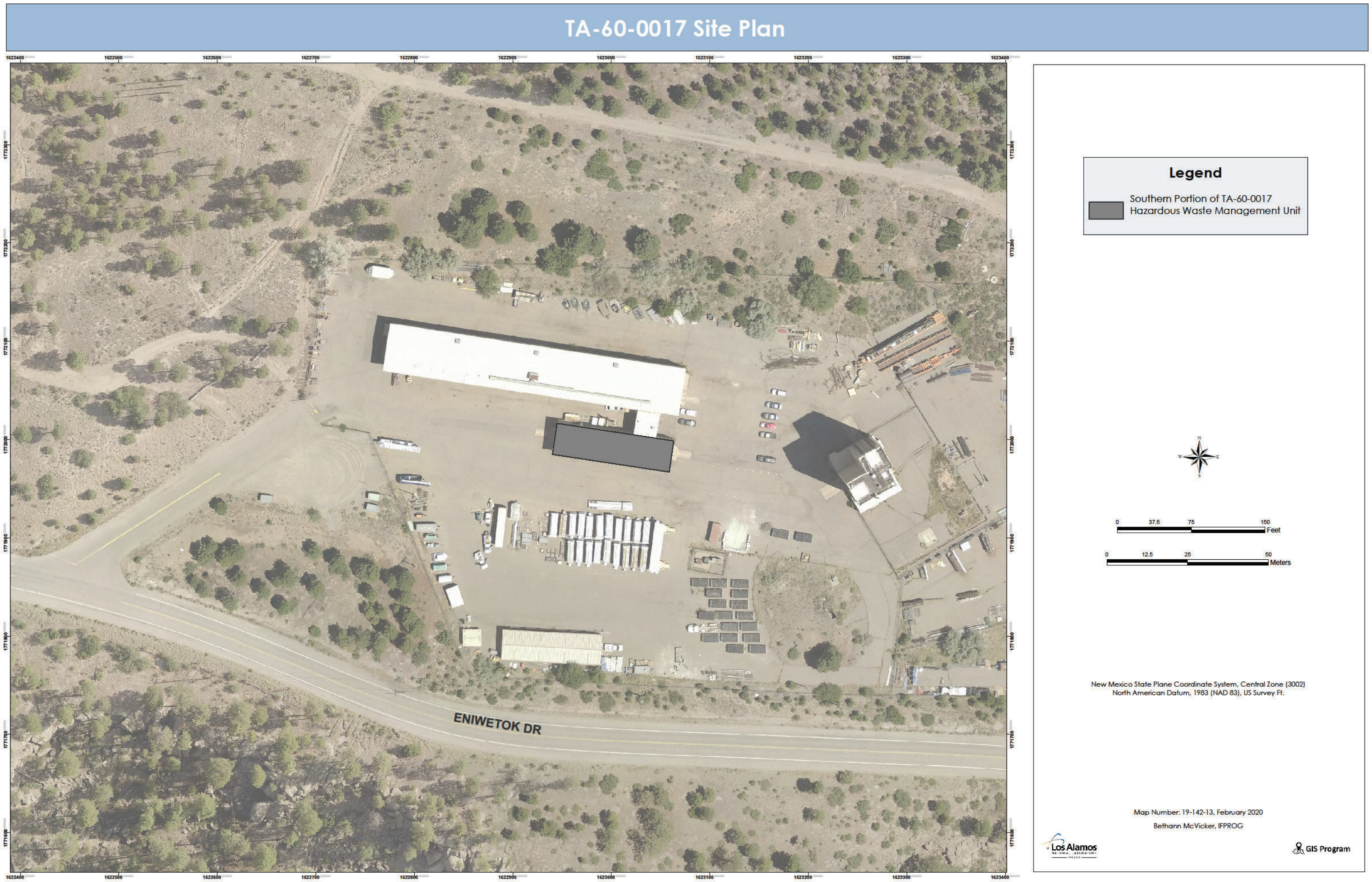
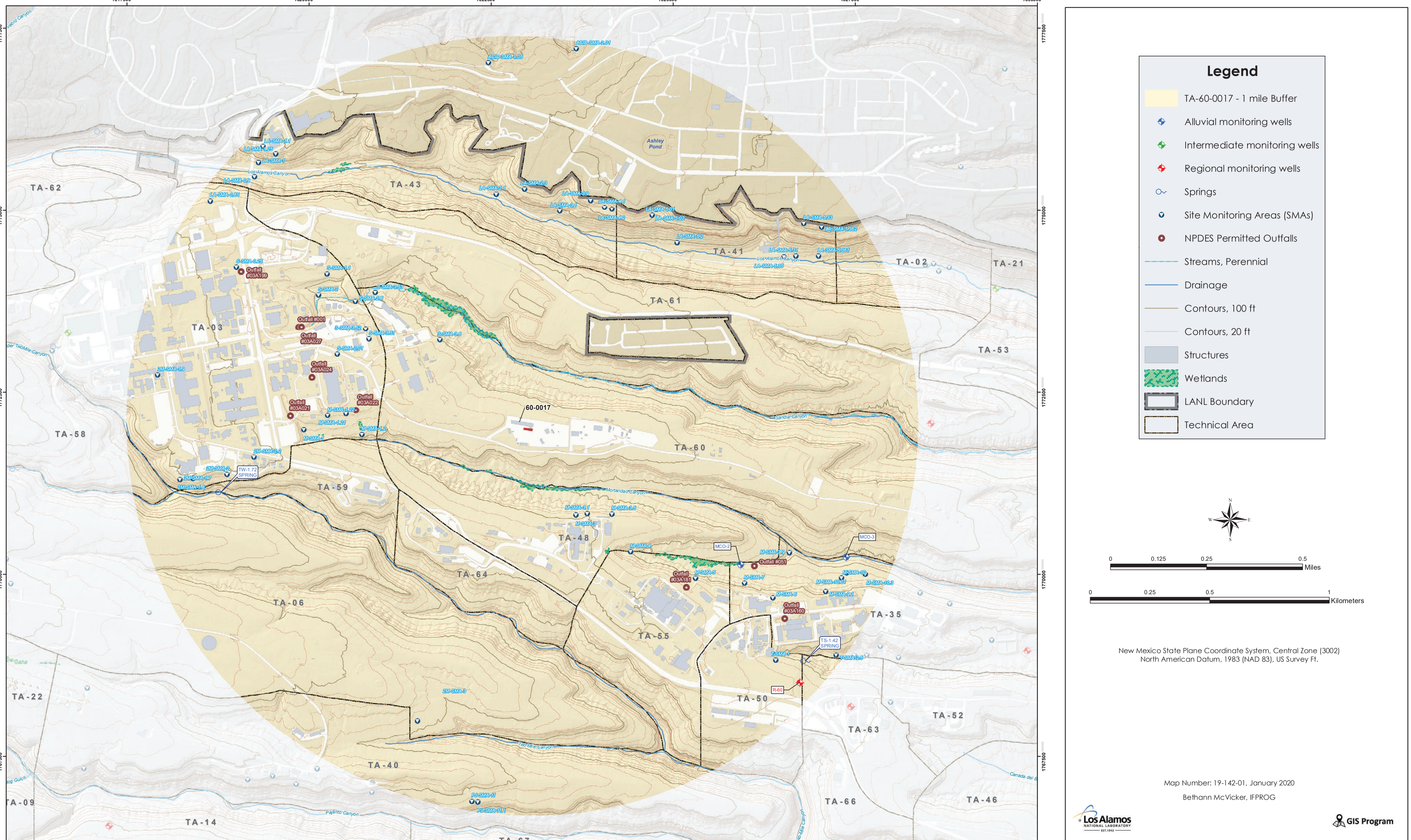



**Figure 60-1**
Technical Area (TA) 60, Building 0017, Site Plan

TA-60-0017
Process Code S01 and T04, Container Storage and Other Treatment


TA-60-0017
Process Code S01 and T04, Container Storage and Other Treatment

# Topographic Map Showing the Permitted Unit at Technical Area 60, Building 17



# Attachment 2 Seismic Report for the TA-60 Facility

memorandum

*Earth and Environmental Sciences Division*


*To:* Oral Saulters, EPC-WMP
Luciana Vigil-Holterman, EPC-WMP
Patrick Padilla, EPC-WMP
*From:* Elizabeth Miller, EES-14
Emily Schultz-Fellenz, EES-14
Anita Lavadie-Bulnes, EES-14
*Date:* August 27, 2019


# EVALUATION OF POTENTIAL SEISMIC HAZARDS FROM HOLOCENE-AGE SURFACE-RUPTURING FAULTS AT AND AROUND BUILDING 17, TECHNICAL AREA 60, LOS ALAMOS NATIONAL LABORATORY

## 1 Introduction

For purposes of addressing requirements within the forthcoming Resource Conservation and Recovery Act (RCRA) permit modification request, this memorandum summarizes geologic investigations at and around Building 17 at Technical Area 60 (TA-60-0017) of the Los Alamos National Laboratory (LANL or "the Laboratory") in Los Alamos County, New Mexico. TA-60-0017 (Figure 1) is the proposed location of a new permitted hazardous waste management unit. When selecting a site for a hazardous waste treatment, storage, and/or disposal facility, the owner/operator (in this case, Triad National Security, LLC and the National Nuclear Security Administration [NNSA]) must adhere to certain seismic location standards, as identified in the Code of Federal Regulations, Title 40 (40 CFR), Part 264.18, which requires that portions of new facilities where treatment, storage, or disposal of hazardous (including mixed) waste occur will not be located within 200 ft (61 m) of a fault that has experienced displacement in the Holocene epoch, i.e., within the last 11,700 years. The guidelines used to demonstrate compliance with the aforementioned location standard are presented in 40 CFR, Part 270.14(b)(11).

Previously operated as a support facility for underground testing activities (McGehee et al., 2007), TA-60 currently serves as a pesticide, topsoil, and material storage area. Historically, Building 17 was used as a paint shop, but since October 2018, the southern portion has been operated as a central accumulation area for temporary storage and consolidation of hazardous and mixed waste shipments from generators around the Laboratory. Site review is underway to determine the feasibility of including the location as a one-year permitted container storage unit under the LANL Hazardous Waste Facility Permit.

The building's association with Cold War-era Laboratory mission work prompted TA-60-0017 to be eligible for the National Register of Historic Places in 2006 (McGehee et al., 2007; Purtzer et al., 2019), and the building is currently listed on the Laboratory's internal *Candidates for Preservation* registry. As of the drafting of this memorandum, the building is considered "…a candidate for long-term preservation…and has been listed as one of a handful of 'signature' Cold War facilities at Los Alamos" and part of a potential Cold War period National Historic Landmark (NHL) District (L. Meyer, personal communication, August 1, 2007; Garcia, 2018). This historical information is provided as context only. Contact the LANL Cultural Resources Program Historic Buildings Technical Lead regarding compliance requirements for this building.

In this memorandum, we address whether TA-60-0017 adheres to the seismic location standard through presentation and summarization of published geologic data. We begin with a brief overview of the general geologic setting of the Laboratory and TA-60, including a Pajarito Plateau-scale map of faults and lineaments to provide context for TA-60's structural setting. Next, we summarize pertinent regional-scale geologic studies and lineament mapping from the mid-1980s to the early 1990s; these studies provided important control on the known extent of possible faults in the TA-60 area. Then we present regional- and local-scale geologic studies near TA-60 from the early 1990s to the present for purposes of evaluating Holocene seismic surface rupture at or near the facility; these studies leveraged earlier studies to confirm whether previously mapped lineaments were faults or fractures. We also include analyses of aerial photography covering a 5-mile (8 km), 3000 ft (915 m), and 200 ft (61 m) radius of the facility and conclude with a brief discussion of field reconnaissance at TA-60 and a summary of observations and geologic site characteristics.

## 1.1 Definitions

The following technical terms are used frequently throughout this document, and merit consistency in their definition and use. Definitions are taken from The Dictionary of Geological Terms (Bates and Jackson, eds., 1984).

**Displacement:** a general term for the relative movement of the two sides of a fault, measured in any chosen direction; also, the specific amount of such movement. Within this report, "displacement" and "offset" are interchangeable terms.

**Holocene:** an epoch of the Quaternary period, from the end of the Pleistocene, approximately 8 thousand years ago (*sic*; Ogg et al. (2008) have updated the beginning of the Holocene to 11.7 ka) to the present time.

**Fracture:** a crack, joint, fault, or other break in rocks.

**Fault:** a fracture or fracture zone along which there has been displacement of the sides relative to one another parallel to the fracture.

**Lineament:** a linear topographic feature of regional extent that is believed to reflect crustal structure. Examples are fault lines, aligned volcanoes, and straight stream courses.

Note that the definition of "lineament" does not imply that such an identified feature is actually a surficial manifestation of crustal structure with recent tectonic activity (e.g., a fault) until the local geology is carefully considered. Additionally, unless otherwise clarified through detailed field examination or other means, the definition of "fault" does not imply a tectonic mechanism for genesis and/or growth; the definition also does not imply that each "fault" is independently seismogenic.

Features defined as faults through geologic mapping must be considered in the context of the surrounding geology before their mechanism of formation is determined.

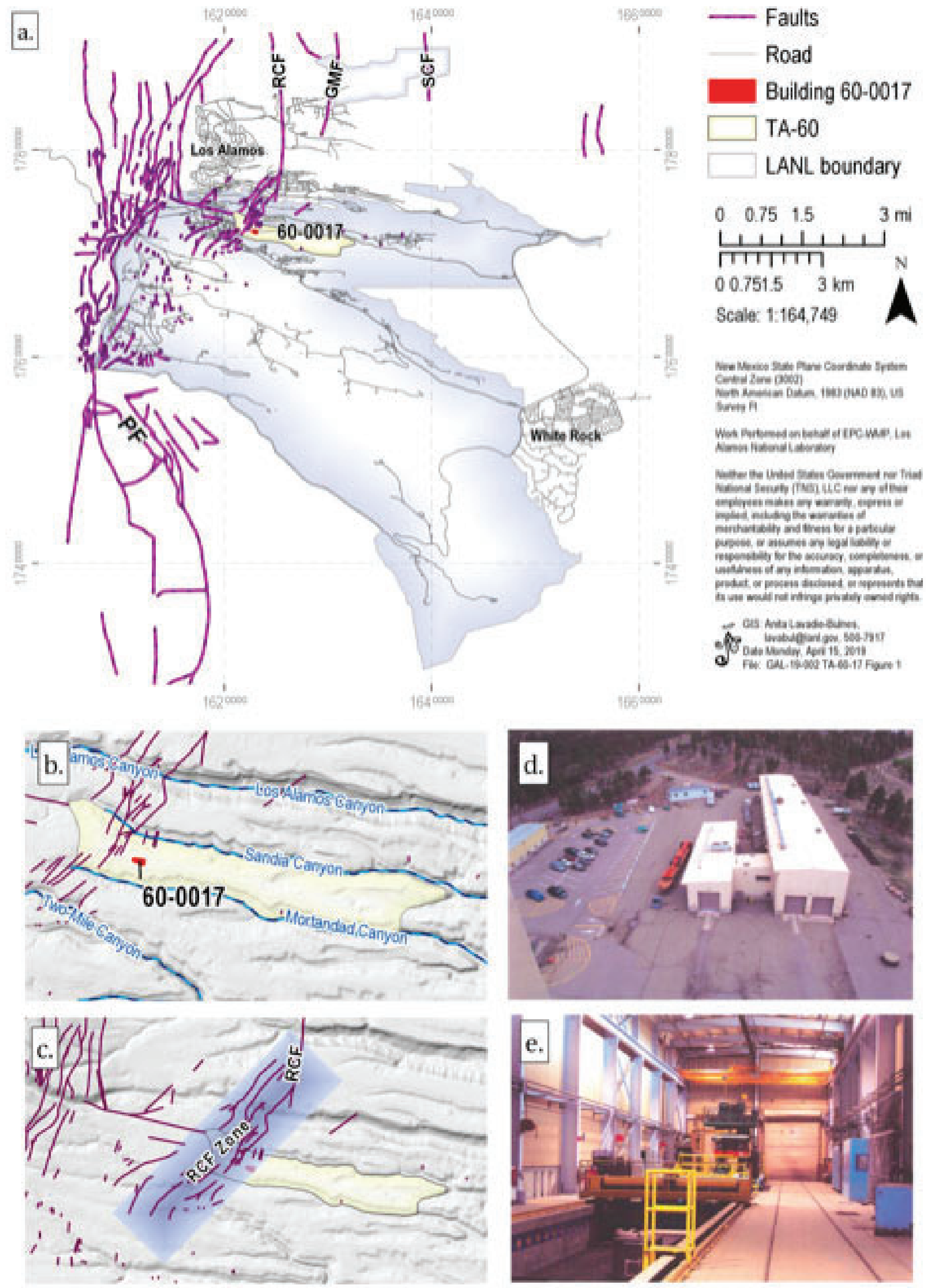



*Figure 1. (a) Overview of the Pajarito Fault System in the vicinity of LANL (gray outline). TA-60 (yellow polygon), Building 0017 (red polygon) is highlighted. PF = Pajarito fault; RCF = Rendija Canyon fault; GMF = Guaje Mountain fault; SCF = Sawyer Canyon fault. Structural mapping (bold purple lines) from Lewis et al. (2009). (b) Detailed view of TA-60 (yellow polygon), Building 0017 (red*

*polygon), and nearby fault structures (bold purple lines, Lewis et al., 2009). (c) Detailed view of the Rendija Canyon fault zone near TA-60-0017. (d) Exterior of TA-60-0017 and (e) interior of TA-60-0017 from McGehee et al., 2007.*

## 2 General Geologic Setting of the Laboratory & TA-60

The Pajarito Plateau is a high volcanic tableland bounded on its western edge by the Pajarito fault system (PFS). The PFS is a 30-mile-long (50-km-long) system of normal faults locally comprised of the down-to-the-east Pajarito fault (the master fault) and subsidiary down-to-the-west Rendija Canyon, Guaje Mountain, and Sawyer Canyon faults (Figure 1). This fault system forms the local active western margin of the Rio Grande rift near Los Alamos. Each of the three major faults of the PFS exhibit evidence of at least one earthquake (or probable movement) during the Holocene (Gardner et al., 1990; Wong et al. 1995; Kelson et al. 1996; McCalpin 1998, Wong et al., 2007; Lewis et al., 2009).

TA-60 sits atop Sigma Mesa between Sandia and Mortandad Canyons in the north-central part of LANL (Figure 1). The local bedrock is the Bandelier Tuff, which formed in two eruptive pulses from the Valles caldera, located approximately 10 miles (16 km) west of TA-60. The older member of the Bandelier Tuff, the Otowi Member (Qbo), has been dated at 1.61 million years (Ma) (age from Izett and Obradovich 1994). The younger member of the Bandelier Tuff, the Tshirege Member (Qbt), has been dated at 1.256 Ma (age from Phillips et al. 2007) and is widely exposed as the mesa-forming unit around Los Alamos. Tephras and volcaniclastic sediments of the Cerro Toledo interval (Qct) separate the two members of the Bandelier Tuff. Several discrete subunits comprise the Tshirege Member of the Bandelier Tuff (Figure 2); Broxton and Reneau (1995) and Lewis et al. (2009) describe in detail the commonly accepted stratigraphic nomenclature of the Bandelier Tuff. The subunits exposed in the TA-60 area are predominantly Qbt2, Qbt3, and Qbt4.

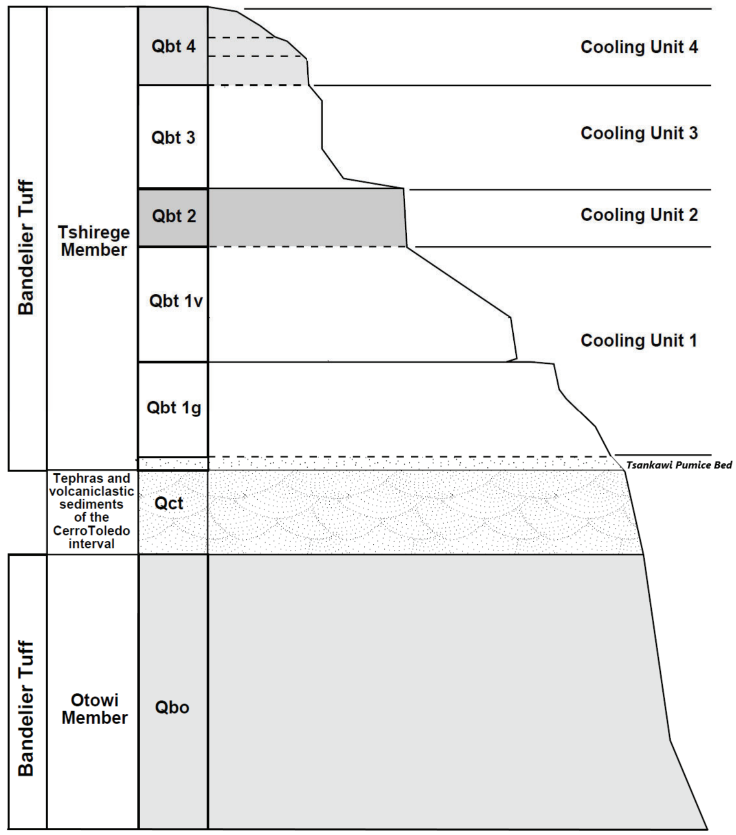



*Figure 2. Cross section of the Bandelier Tuff (modified from Broxton and Reneau 1995).*

# 3 Regional-Scale Geologic Studies, mid-1980s to early 1990s

This section reviews pertinent regional-scale geologic studies and lineament mapping that have been conducted on the Pajarito Plateau in order to provide context for the detailed site-specific studies discussed in the next section.

## 3.1 Geologic Quadrangle Mapping

Goff et al. (2001) completed geologic and structural mapping of the Frijoles quadrangle at 1:24,000 scale. This study identified one surficial geologic fault 800 ft (243 m) NNE of TA-60-0017 that disrupts the Bandelier Tuff units and displays down-to-the-west displacement. This fault was also identified by Gardner et al. (1999), which estimated approximately 2 ft (0.6 m) of offset.

## 3.2 Lineament Mapping via Aerial Photographs

Early geologic studies, performed before the fine detail of the Bandelier Tuff subunits were well-understood, inferred surface traces of the Rendija Canyon and Guaje Mountain faults to continue southward through TA-60 and TA-55 (Dransfield and Gardner, 1985; Vaniman and Wohletz 1990; Wong et al. 1995; Olig et al. 1996; Rogers et al. 1996). Additionally, Dransfield and Gardner (1985) noted prominent aerial photographic lineaments projecting southward from Pueblo Canyon; since both the Rendija Canyon and Guaje Mountain faults appear in seismic reflection transects south of their mapped surface traces, these lineaments were correlated with subsurface projections of the Rendija Canyon and

Guaje Mountain faults as far south as Water Canyon. The Dransfield and Gardner (1985) study attributes the lineaments to surficial manifestations of eroded fracture zones propagating upward from the subsurface trace of the faults. At the time of Dransfield and Gardner's publication, LANL had not yet undertaken a detailed surficial mapping campaign to verify the surface traces of these antithetic components of the Pajarito fault system.

While early geologic and lineament mapping was completed at a regional scale across much of the Pajarito Plateau, we emphasize that for determining the presence of Holocene faults, conventional field geologic mapping must be employed or consulted to confirm (1) that a lineament is truly a fault, and (2) that it displaces young geologic units. This validation of regionally-mapped or remotely-observed lineaments in finer scale mapping products is a writ large objective of field-based fault investigations, and is underscored locally by Olig et al. (1998) when discussing lineament mapping done by Wong et al. (1995): "The lineaments were identified on aerial photographs or observed during an aerial reconnaissance and field-checked at a reconnaissance level. However, this generalized map [by Wong et al, 1995] …should be considered preliminary in nature until a more comprehensive and detailed surficial mapping of LANL is completed."

## 4 Regional- and Local-Scale Geologic Studies, early 1990s to present

Site-specific geologic studies provide important constraint on the location, size, distribution, and implications of known faults located proximal to TA-60. However, with the change in Laboratory mission in 1992 and subsequent repurposing of TA-60 for low-level hazard storage and activities, the ongoing work performed at this location is not operationally sensitive and no mission-critical facilities are known to exist at the current time. As such, geologic investigations focused specifically at TA-60 are minimal; however, this technical area is within the envelope of a number of previous studies focused elsewhere, so geologic characterization of the site has been performed previously. This section summarizes key results from local geologic studies that are pertinent to TA-60. Given TA-60's proximal location to the southern-most mapped extent of the Rendija Canyon fault, the following summaries focus on rupture potential within this zone.

### 4.1 Kolbe et al. (1994): Evaluation of the Potential for Surface Faulting at the Proposed Mixed Waste Disposal Facility, TA-67

This study excavated numerous trenches on Pajarito Mesa across the southern extent of the Rendija Canyon fault near TA-67, 1.2 miles (1.9 km) south of TA-60. These trenches show evidence for several near vertical faults within a zone 100 ft (30 m) wide roughly coincident with an aerial photographic lineament along the strike of the easternmost trace of the southern Rendija Canyon fault; displacement is less than 2 ft (0.6 m) down-to-the-west and does not offset the most recent Valles caldera eruptive deposits (e.g. El Cajete pumice). Kolbe et al. (1994) concluded that active faulting on Pajarito Mesa near TA-67 has been absent for at least the last 50-60 ka.

### 4.2 Reneau et al. (1995): Surficial Materials and Structure at Pajarito Mesa

A proposed mixed waste disposal facility at Pajarito Mesa prompted geologic surface mapping, high-precision total station mapping, and exploratory trenching around TA-67. At the time of this study, it was postulated that young surface faulting associated with the Rendija Canyon fault might trend southward from the Los Alamos townsite, directly through TA-60, TA-48, and TA-64. Previous studies (including Dransfield and Gardner, 1985) had shown southern projections of the Rendija Canyon and Guaje Mountain faults through Pajarito Mesa. The geological mapping and trenching of Reneau et al. (1995) showed that faulting had affected Pajarito Mesa in the past, but the faulting is more complicated than previously inferred by Dransfield and Gardner (1985). Both down-to-the-east and down-to-the-west faulting is seen at Pajarito Mesa. These small faults were identified through conventional geologic mapping and mesa-edge investigations. Their lateral continuity could not be constrained, so these small faults are identified on maps as point-locations of offset on Tshirege Member subunits (cf. Plate 1). A full paleoseismic history was not determined through the trenching investigations of this study, but it was determined that faults did not affect geologic units younger than 50-60 ka. No increase in fracture density across the projections of the Rendija Canyon or Guaje Mountain faults was seen, and a detailed geodetic survey of pyroclastic surge beds showed no displacement of the Bandelier Tuff subunits along the Rendija Canyon fault projection.

### 4.3 Gardner et al. (1999): Structural Geology of the Northwestern Portion of Los Alamos National Laboratory, Rio Grande Rift, New Mexico: Implications for Seismic Surface Rupture Potential from TA-3 to TA-55

Gardner et al. (1999) gathered structural geologic data for a region of LANL stretching from TA-3 to TA-55 using high-precision geologic mapping, conventional geologic mapping, stratigraphic studies, drilling, petrologic studies, and stereographic aerial photograph analysis. This study found that in the northern part of the Los Alamos townsite, the Rendija Canyon fault is a fairly simple normal fault that may include several subparallel strands and exhibits evidence for approximately 120 ft (36 m) of displacement in the last 1.256 million years (Kelson et al. 1996).

South along strike of the Rendija Canyon fault and approximately 3500 ft (1066 m) northeast of TA-60-0017, the surface trace of the Rendija Canyon fault bends southwesterly into a broad zone of smaller faults and splays into TA-3 and the western edge of TA-60. This zone exhibits evidence of approximately 40 to 50 ft (12 to 15 m) of total structural displacement across all structures. Further south, at Twomile Canyon, there is less than 30 ft (9 m) of net down-to-the-west displacement; as such, this study concluded that the Rendija Canyon fault likely dies out just south of Twomile Canyon.

This study also examined exposures at the Los Alamos County landfill and found that the landfill is the last locality north of TA-60-0017 that displays displacements of greater than 10 ft (3 m) on individual faults.

### 4.4 Microseismic Monitoring and Analyses

The Los Alamos Seismic Network (LASN) maintains 14 seismic stations around Los Alamos County, covering roughly 9 miles (15 km) N-S by 9 miles (15 km) E-W (Figure 3). Most of the earthquakes identified in the LANL area via the LASN have magnitudes of 3 or less and appear to cluster in two zones: (1) the northern part of the Pajarito fault system and (2) east of Los Alamos through the Rio Grande Basin, likely associated with the Rio Grande Rift. No earthquake epicenters are mapped within 3000 ft (914 m) of the facility suite.

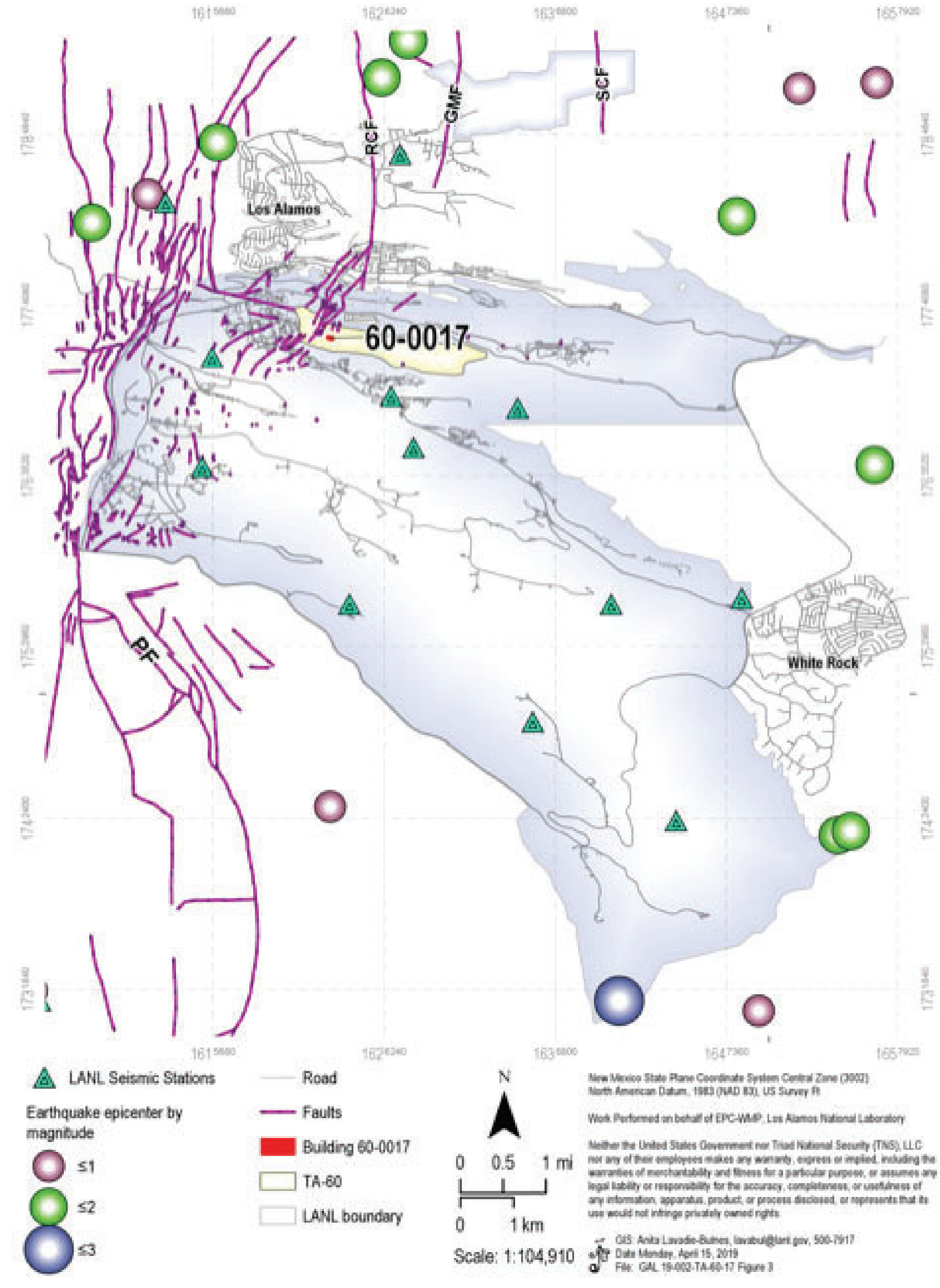



*Figure 3. Overview of the Los Alamos Seismic Network (green triangles) and local earthquakes (1973-2013). The vicinity of Los Alamos National Laboratory is represented by the gray outline. TA-60 (yellow polygon), Building 0017 (red polygon) is highlighted. PF = Pajarito fault; RCF = Rendija Canyon fault; GMF = Guaje Mountain fault; SCF = Sawyer Canyon fault. Structural mapping (bold purple lines) from Lewis et al. (2009).*

## 5 Local Field Reconnaissance at TA-60

Plate 1 shows TA-60-0017 with a 5-mile (8 km) and 3000 ft (914 m) buffer around the facility (as mandated by 40 CFR 270.14(b)(11)(A)(2)), mapped surficial faults (Lewis et al. 2009), mapped lineaments (Vaniman and Wohletz 1990; Wong et al. 1995), and identified offsets. The surficial faults shown on Plate 1 and mapped by Lewis et al. (2009) represent the most recent and detailed state of knowledge of the surficial expression of the Pajarito fault system near LANL. Mapping of the Pajarito fault system was done at 1:1,200 scale by personnel with a detailed knowledge of structural geology and Tshirege Member subunits, and represents a culmination of many years of work by the LANL Seismic Hazards Geology Team. Numerous faults and mapped lineaments fall within the 5-mile buffer shown on Plate 1, with many faults and lineaments mapped within 3000 ft (914 m) of TA-60-0017.

Plate 2 presents a local lineament map of the 3000 ft (914 m) and 200 ft (61 m) buffer area surrounding TA-60-0017 (as mandated by 40 CFR 270.14(b)(11)(A)(2)), mapped surficial faults (Lewis et al. 2009), mapped lineaments (Vaniman and Wohletz 1990; Wong et al. 1995), and identified offsets. Numerous faults, mapped lineaments, and offsets fall within the 3000 ft (914 m) buffer; no lineaments, faults, or offsets are mapped within the 200 ft (61 m) buffer.

For verification purposes, we performed a brief field reconnaissance for this report. The reconnaissance consisted of a site walk around the southern perimeter of TA-60-0017, outside of the security fence along Eniwetok Road (the northern perimeter was not accessible). A narrow outcrop (2-3 ft [0.6-1 m]) of Bandelier Tuff is present, but significant surficial modification and modern-day fill has stripped the location of post-Bandelier Tuff sediments that would be required to directly assess Holocene-age surface rupture. While fractures are present in the Bandelier Tuff, surface fill makes it impossible to trace these fractures to determine the lateral extent.

## 6 Discussion

Geologic investigations show numerous faults and lineaments within the 5-mile (8 km) and 3000 ft (914 m) buffer around TA-60-0017 (Reneau et al., 1995; Gardner et al., 1999; Lavine et al., 2003), and much of the southwestern splay zone of the Rendija Canyon fault is captured within the 3000 ft (914 m) buffer around TA-60-0017. While total displacement across all structures within this Rendija Canyon fault zone is approximately 40 – 50 ft (12 – 15 m), the maximum observed displacement at a discrete point-location within the 3000 ft (914 m) buffer is 20 ft (6 m) down-to-the-west at a point of offset 2480 ft (756 m) north of TA-60-0017. Displacements mapped as discrete point-locations are represented as such because they cannot be traced down or up through the stratigraphic section, the features are not visible as surficial offset, they cannot be traced across mesa-tops through conventional geologic mapping, and are not found to displace geologic units younger than the Bandelier Tuff. Additional mapped offsets within the 3000 ft buffer include (1) five locations in Sandia Canyon, 1000 ft (300 m) north of TA-60-0017, which show evidence for 1 – 7 ft displacement (0.3 – 2.1 m; Gardner et al., 1999), and (2) three locations 2000 ft (594 m) southwest of TA-60-0017, along the north side of Twomile Canyon, which exhibit displacements on the order of 1 – 4 ft (0.3 – 1.2 m; Gardner et al., 1999).

The closest mapped lineament (from Vaniman and Wohletz, 1990) is located to the east of the TA-60-0017 facility outside the 200 ft (61 m) buffer. This lineament was investigated through conventional geologic mapping and high-precision surveying by Gardner et al. (1999) and Lavine et al (2002) and was not found to exist as a discrete surface-rupturing fault. It is associated with only one point of offset, observed on the north side of Twomile Canyon.

No faults or offsets have been mapped within the 200 ft buffer; however, a walking reconnaissance of exposures reveals significant anthropogenic disturbance within the 200 ft buffer of the site. Most post-Bandelier Tuff sediments have been stripped from the mesa-top within the technical area. The absence of undisturbed post-Bandelier Tuff sediments makes it difficult to assess Holocene surface rupture at this location.

## 7 Conclusion

Geologic structures, including the main trace of the Rendija Canyon fault, have been identified near TA-60-0017 by previous geologic studies of the LANL site. Within the 3000 ft (914 m) buffer and northwest of the facility, the Rendija Canyon fault exhibits evidence of approximately 40 – 50 ft (12 – 15 m) of total down-to-the-west displacement; however, displacement decreases and the surface expression of the fault appears to terminate southwest of TA-60-0017 near Twomile Canyon.

North of the facility and within the 3000 ft (914 m) buffer, subunit offsets of 1 – 7 ft (0.3 – 2.4 m) were measured in Sandia Canyon by Gardner et al. (1999); at least one mapped offset in Sandia Canyon corresponds to the trace of the Rendija Canyon fault. Southwest of the facility, offsets in Twomile Canyon exhibit evidence of 1 – 4 ft (0.3 – 1.2 m) of down-to-the-west displacement (Gardner et al., 1999). This decrease in displacement in a southwesterly direction across individual fault traces indicates that TA-60-0017 is likely near the southern terminus of the Rendija Canyon fault zone.

Around Los Alamos where Holocene faulting has occurred and paleoearthquakes have been documented, individual faults are often several thousand feet long and often show tens to hundreds of feet of displacement. Additionally, detailed geologic mapping of the LANL campus, and paleoseismic trenching investigations show that the focus of potential Holocene faulting is concentrated along the main Pajarito fault, over 2.5 miles (4 km) west of the facility. While the Rendija Canyon fault zone is located proximal to TA-60-0017, Koning et al. (2013) conclude that the lack of gravity gradient across the Guaje Mountain and Rendija Canyon faults suggest only minor long-term offset compared to the Pajarito fault; as such, the faults near TA-60-0017 are likely not to be individually seismogenic and thus the seismic hazard to the location addressed in this report is low.

In conclusion, while evidence for Holocene faulting is difficult to determine at the TA-60-0017 facility due to infrastructure development and significant surficial disturbance, a detailed review of local and regional geologic studies as well as local field investigations indicate that no surface-rupturing faults exist near the proposed facility.

## 8 Plate Captions

Plate 1. Color orthophotography, mapped fault, and mapped lineaments within a 5-mile (8 km) and 3000 ft (914 m) buffer of the TA-60-0017 facility. Structural mapping (purple lines) from Lewis et al. (2009). Mapped lineaments from Vaniman and Wohletz (1990; pink lines) and Wong et al. (1995; blue lines). TA-60 is east of the main trace of the Pajarito fault system. See text for further discussion.

Plate 2. Orthophotography, mapped faults, and mapped lineaments in the area surrounding TA-60-0017 as well as a 3000 ft (914 m) and 200 ft (61 m) buffer. Lineaments from Vaniman and Wohletz (1990; pink lines) and Wong et al. (1995; blue lines). Three separate lineaments project into the 3000 ft (914 m) buffer around TA-60-0017. None project within 200 ft (61 m) of the facility suite. A portion of numerous fault segments fall within the 3000 ft (914 m) buffer, including the southern-most mapped extent of the Rendija Canyon fault. 19 locations of offset fall within the 3000 ft (914 m) buffer and were mapped by high-precision geodetic studies (Reneau et al. 1995; Gardner et al. 1998; Lavine et al., 2003). Three offset locations fall along mapped lineaments. See text for further discussion.

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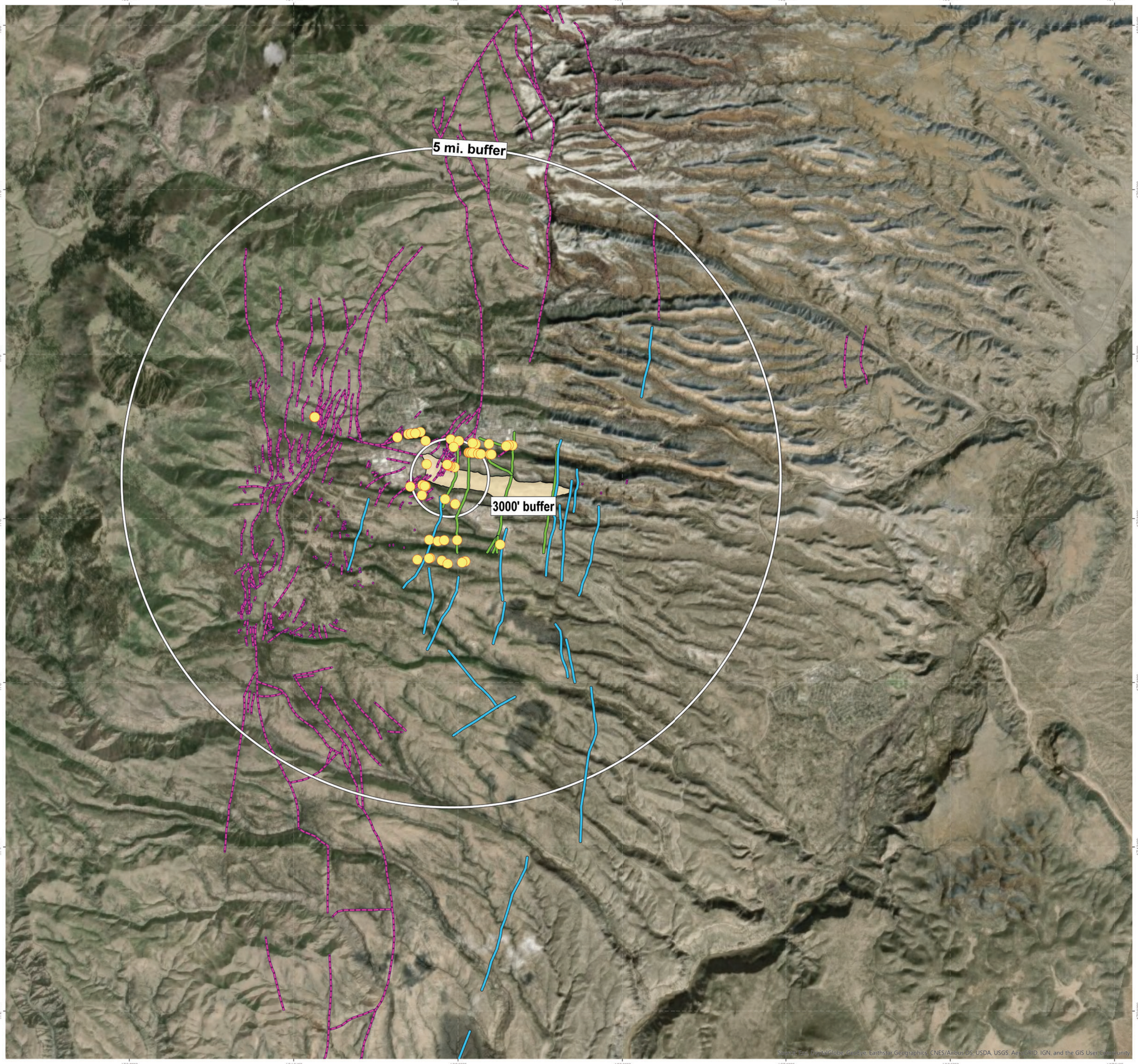
## Attachments

Plate 1
Plate 2

# Plate 1




- Identified offsets, Reneau et al.1995 & Gardner et al. 1998
- Faults, Lewis et al., 2009
- Buffer distance relative to TA-60-0017
- Lineaments, Vaniman & Wohletz, 1990
- Lineaments, Wong et al, 1995
- TA-60

0 0.5 1 2 mi
0 0.5 1 2 km

SCALE: 1:51,992

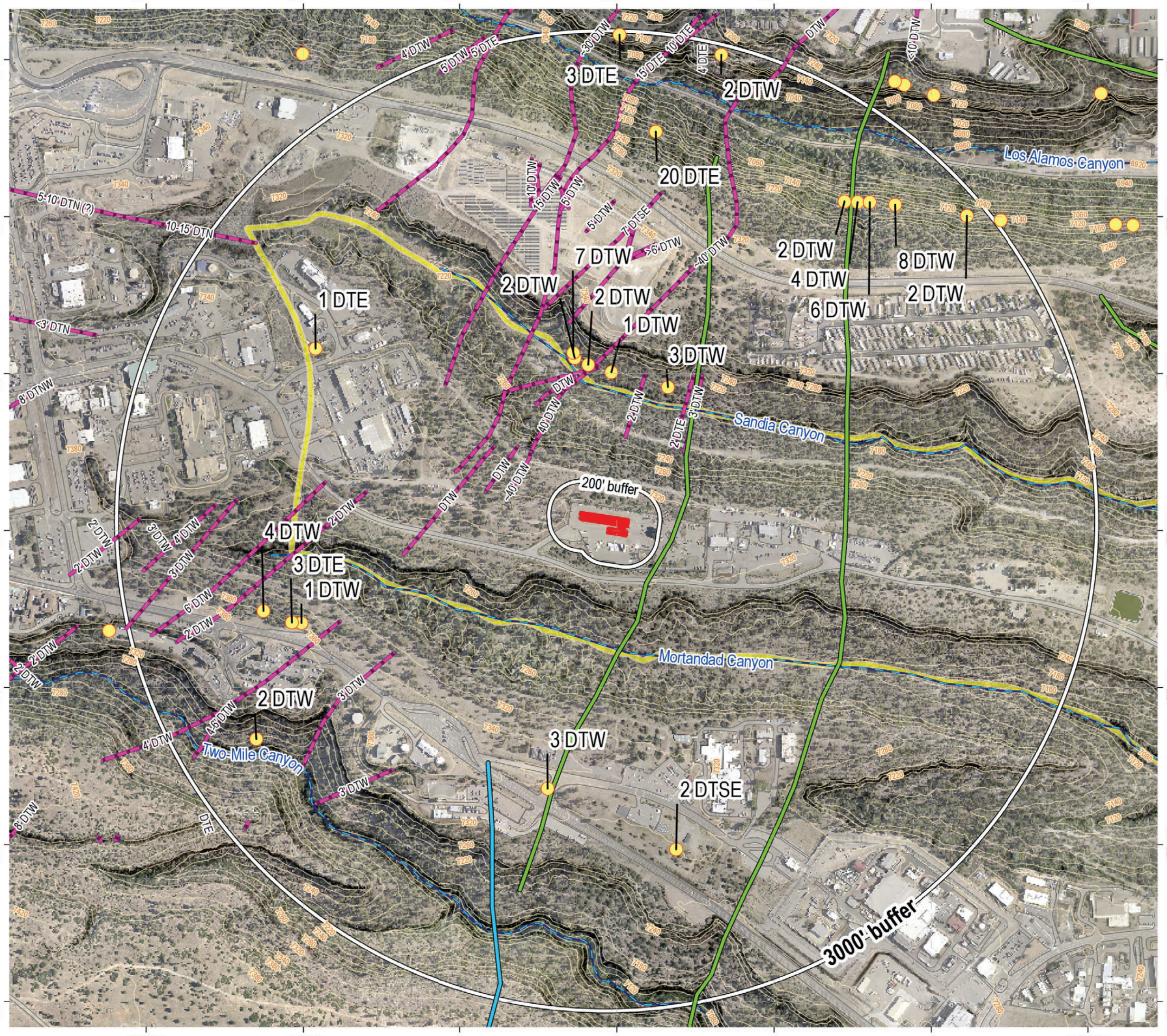
N

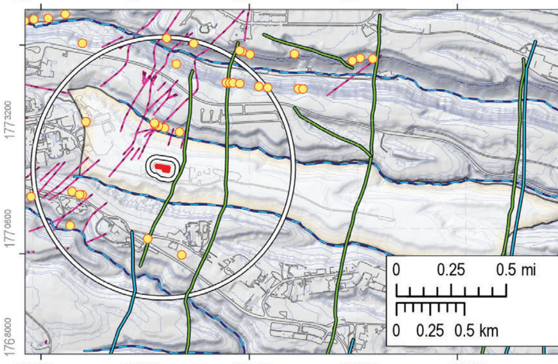
New Mexico State Plane Coordinate System Central Zone (3002)
North American Datum, 1983 (NAD 83), US Survey Ft

Work Performed on behalf of EPC-WMP, Los Alamos National Laboratory



GIS: Anita Lavadie-Bulnes, lavabul@lanl.gov, 500-7917
Date Friday, April 12, 2019
File: GAL-19-002 TA-60-17 Plate 1



# Plate 2

- Identified offsets, Reneau et al. 1995 & Gardner et al. 1998
- Drainages
- Lineaments, Vaniman & Wohletz, 1990
- Lineaments, Wong et al, 1995
- Road
- Faults, Lewis et al. 2009
- Buffer zones
- Contour, 20 ft interval
- TA-60 boundary
- Building 60-0017

0 0.25 0.5 mi

0 0.25 0.5 km

Scale: 1:9,026

N

New Mexico State Plane Coordinate System Central Zone (3002)
North American Datum, 1983 (NAD 83), US Survey Ft

Work Performed on behalf of EPC-WMP, Los Alamos National Laboratory



GIS: Anita Lavadie-Bulnes, lavabul@lanl.gov, 500-7917
Date Monday, April 15, 2019
File: GAL-19-002 TA-60-17 Plate 2

# Attachment 3 Proposed Modifications to the LANL Hazardous Waste Facility Permit – Red Line/Highlight

**TABLE OF CONTENTS**

Table 1.2.1. List of Hazardous Waste Management Units and Co-Operators

| Location | Type of Permitted Unit | Owner/Co-operator |
|---|---|---|
| TA-3 | Storage | DOE/Triad |
| TA-14 | Interim Status<br>Open Burning/Open Detonation | DOE/Triad |
| TA-16 | Interim Status<br>Open Burning | DOE/Triad |
| TA-36 | Interim Status<br>Open Denotation | DOE/Triad |
| TA-39 | Interim Status<br>Open Denotation | DOE/Triad |
| TA-50 | Storage and Treatment | DOE/Triad |
| TA-55 | Storage and Treatment | DOE/Triad |
| TA-63 | Storage | DOE/Triad |
| TA-54-38 West | Storage | DOE/Triad |
| TA-54<br>Areas G, H and L | Storage and Disposal (Including Units Undergoing Closure) | DOE/N3B |
| TA-60 | Storage and Treatment | DOE/Triad |

## 1.3 CITATIONS

Whenever this Permit incorporates by reference a provision of the 20.4.1 NMAC or Title 40 CFR, the Permit shall be deemed to incorporate the citation by reference, including all subordinate provisions of the cited provision, and make binding the full text of the cited provision.

Hazardous waste management regulations are cited throughout this Permit. The federal Hazardous Waste Management Regulations, 40 CFR Parts 260 through 273, are generally cited rather than the New Mexico Hazardous Waste Management Regulations, 20.4.1 NMAC. The federal regulations are cited because only the federal regulations set forth the detailed regulatory requirements; the State regulations incorporate by reference, with certain exceptions, the federal regulations in their entirety. Citing only the federal regulations also serves to avoid encumbering each citation with references to two sets of regulations. However, it is the State regulations that are legally applicable and enforceable. Therefore, for the purpose of this Permit, and enforcement of its terms and conditions, all references to provisions of federal regulations that have been incorporated into the State regulations shall be deemed to include the State incorporation of those provisions.

## 1.4 EFFECT OF PERMIT

As to those activities specifically authorized or otherwise specifically addressed under this Permit, compliance with this Permit during its term shall constitute compliance, for purposes of enforcement, with Subtitle C of RCRA and the HWA, and the implementing regulations at 40 CFR Parts 264, 266, and 268 except for those requirements that become effective by statute after the Permit has been issued (*see* 40 CFR § 270.4).

Compliance with this Permit shall not constitute a defense to any order issued or any action brought under: §§ 74-4-10, 74-4-10.1, or 74-4-13 of the HWA; §§ 3008(a), 3008(h), 3013, 7002(a)(1)(B), or 7003 of RCRA; §§ 104, 106(a), or 107, of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 to 9675; or any other federal, state or local law providing for protection of public health or the environment.

This Permit does not convey any property rights of any sort or any exclusive privilege, nor authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local laws or regulations. Compliance with this Permit does not relieve Permittees from the responsibility of complying with all applicable state or federal laws and regulations (*see* 40 CFR §§ 270.4, 270.30(g) and 270.32(b)(1)).

### 1.4.1 Effect of this Permit on Interim Status Units

For the interim status units listed in Table J-1 that the Permittees do not choose to operate, the Permittees shall submit to the Department within 180 days of the effective date of this Permit either a notice of intent to close in accordance with a current closure plan, or a revised closure plan. These documents shall indicate that the closure of these interim status units shall be initiated in accordance with 40 CFR § 265.113(a) no later than 270 days of the effective date of this Permit.

For the interim status units listed in Table J-1 that the Permittees propose to permit, the Permittees shall submit to the Department 180 days of the effective date of this Permit a permit modification request in accordance with 40 CFR § 270.42 that includes all applicable information required at 40 CFR §§ 270.10, 270.11, 270.14, and 270.23 for each unit.

## 1.5 EFFECT OF INACCURACIES IN PERMIT APPLICATION

This Permit is based on information submitted in the Permittees' Application. The Application has numerous iterations; however, this Permit is based on:

(1) the Part A Application dated August 2018;

(2) the General Part B Permit Application dated August 2003;

(3) the TA-3-29 CMR Part B Application dated September 1999;

(4) the TA-50 Part B Permit Application dated August 2002;

(5) the TA-54 Part B Permit Application dated June 2003;

(6) the TA-55 Part B Permit Application dated September 2003; ~~and~~

(7) the TA-63 Permit Modification Request dated August 2011; and

(8) the TA-60 Permit Modification Request dated March 2023.

Any inaccuracies found in the Application may be grounds for the termination, revocation and re-issuance, or modification of the Permit in accordance with 40 CFR §§ 270.41 through 270.43, which are incorporated herein by reference, and for enforcement action.

The Permittees shall inform the Department of any deviation from, or changes in, the information contained in the Application that would affect the Permittees' ability to comply with this Permit. Upon knowledge of such deviations, the Permittees shall, within 30 days, provide this information in writing to the Department in accordance with Permit Sections 1.9.14 and 1.9.15 and 40 CFR §§ 270.30(l)(11) and 270.43(a)(2), which are incorporated herein by reference.

## 1.6 PERMIT ACTIONS

### 1.6.1 Duration of Permit

This Permit shall be effective for a fixed term of ten years from its effective date. The effective date of this Permit shall be 30 days after notice of the Department's decision has been served on the Permittees or such later time as the Department may specify (*see* 40 CFR § 270.50(a)).

### 1.6.2 Permit Modification

This Permit may be modified for both routine and significant changes as specified in 40 CFR §§ 270.41 through 270.43, and any modification shall conform to the requirements specified in these regulations. The filing of a permit modification request by the Permittees, or the notification by the Permittees of planned changes or anticipated noncompliance, does not stay the applicability or enforceability of any permit condition (*see* 40 CFR § 270.30(f)).

### 1.6.3 Reserved

### 1.6.4 Permit Suspension, Termination, and Revocation and Re-Issuance

This Permit may be suspended, terminated, or revoked and re-issued for cause as specified in § 74-4-4.2 of the HWA and 40 CFR §§ 270.41 and 270.43.

## 3.15 TA-60 CONTAINER STORAGE REQUIREMENTS

The Permittees (DOE and Triad) co-operate hazardous waste management unit at TA-60 and have a duty to meet the additional permit requirements in this Section.

### 3.15.1 General Operating Conditions

The Permittees shall ensure that storage of hazardous or mixed waste in containers at TA-60 occurs only inside the permitted unit in the southern portion of Building 17 and as identified in Attachment A (*Technical Area Unit Descriptions*) and Attachment J (*Hazardous Waste Management Units*).

## 3.15 TA-60 CONTAINER STORAGE REQUIREMENTS

The Permittees (DOE and Triad) co-operate hazardous waste management unit at TA-60 and have a duty to meet the additional permit requirements in this Section.

### 3.15.1 General Operating Conditions

The Permittees shall ensure that storage of hazardous or mixed waste in containers at TA-60 occurs only inside the permitted unit in the southern portion of Building 17 and as identified in Attachment A (*Technical Area Unit Descriptions*) and Attachment J (*Hazardous Waste Management Units*).

# ATTACHMENT A

# TECHNICAL AREA (TA) - UNIT DESCRIPTIONS

## TABLE OF CONTENTS

on Figure 56. These five wells must be installed and operational within 90 days of completion of construction of the TWF buildings.

Vapor monitoring wells VMW-1, VMW-2, and VMW-3 shall be constructed with a single vapor monitoring port located in the center of a sampling interval between 5 ft and 10 ft below ground surface (bgs). Vapor monitoring wells VMW-4 and VMW-5 shall be constructed with two vapor monitoring ports located at 25 ft and 60 ft below ground surface (bgs). Boreholes will be advanced using hollow stem auger drilling methods. The vapor monitoring wells shall be constructed utilizing the same type of stainless steel (SS) tubing sampling system used at Vapor Monitoring Well 50-613183 at MDA C.

Well boreholes for VMW-1, VMW-2, and VMW-3 must be advanced to the design depth of 10 ft bgs. A continuous 0.25 inch stainless steel sampling tube with a screened end opening must then be placed in the borehole centered in the sampling interval (5 ft to 10 ft bgs) depth and clean sand filter pack added as the auger(s) are withdrawn to create a vapor permeable medium in the interval 5 ft to 10 ft bgs. The vapor monitoring wells must then be sealed with 2.5 ft of hydrated bentonite clay overlain by 2 ft of bentonite-cement grout.

Well boreholes for VMW-4 and VMW-5 must be advanced to the design depth of 67.5 ft bgs. A minimum 5 ft hydrated bentonite clay plug must be placed above and below each sampling interval. A continuous 0.25 inch stainless steel sampling tube with a screened end opening must be placed in the borehole centered in the 5-foot sampling intervals and clean sand filter pack added as the auger(s) are withdrawn to create a vapor permeable medium in the intervals from 62.5 ft to 57.5 ft bgs and 22.5 ft to 27.5 ft bgs. Bentonite chips shall fill the borehole between sampling interval hydrated bentonite plugs and from the top of the 25 ft sampling interval to 5.5 ft bgs and overlain by a 5 ft bentonite cement grout surface seal.

Final construction of the vapor monitoring wells requires the installation of above ground steel protective casings to protect the wells. The Permittees shall take measures to ensure that the surface monuments will not be damaged by snow removal or other maintenance equipment. The well surface seals must be allowed to cure for at least 24 hr before collecting vapor samples. Sampling will be performed by extracting formation air through the sand layer and into the SS tubing.

## A.7 TA-60

TA-60 sits atop Sigma Mesa between Sandia and Mortandad Canyons in the north-central part of LANL. Sandia and Mortandad Canyons head on the west margin of TA-60 forming steep cliffs at the top of canyon walls. TA-60-0017 is located approximately 0.8 miles east of the intersection of Diamond and Enewetak Drives adjacent to *Roads & Grounds* area.

### A.7.1 TA-60 Building 0017

The TA-60-0017 facility was constructed in 1986 to support atomic tests conducted at the Nevada Test Site. It is a unique pre-engineered steel-frame structure consisting of two wings connected by a small control room and stairwell enclosure. The building has concrete footings, slabs, and stem walls with the south portion (permitted area) being 120 ft. long by 29 ft. wide and 23 ft. high. The permitted unit stores containers of hazardous and mixed low level waste in solid and liquid form. Secondary containment is used for storage of liquid wastes. Raised pallets, wheeled drum dollies, and/or other appropriate methods are used to elevate 55-gallon drums off the floor. The containers may be stacked two (2) or three (3) high as determined appropriate (*see* Figure 60 in Permit Attachment N (*Figures*)).

### A.7.2 Security and Access

Security is maintained through LANL-wide physical and administratively-controlled barriers along with building restrictions. These barriers prevent unknowing entry and minimize the possibility for unauthorized entry of persons or livestock into the areas. Eight-foot-high chain-link industrial fences surround the entire perimeter of the area. Bilingual (*i.e.,* English and Spanish) warning signs are also posted at the entrances to each portion of the permitted unit within the building and can be seen from any approach to these locations. The legends on the signs indicate "Danger: Hazardous Waste Storage Area" and "Unauthorized Persons Keep Out." The signs are legible from a distance of at least 25 ft. There is an entry gate through the fence (*see* Figure 52 in Permit Attachment N (*Figures)*). Outside doors to the building include two electric roll up doors and 5 man doors all with locks. Roll up doors to the building can only be opened from inside the building; opening these doors must be coordinated with facility personnel. When the roll up doors are opened for shipments of material or waste, personnel are present to restrict the entry and exit of unauthorized persons. In addition to the fence and secure doors, cliffs and canyons surrounding TA 60 provide natural barriers to discourage unauthorized entry.

### A.7.3 Emergency Equipment

TA-60-0017 is equipped with a fire alarm system to alert personnel to evacuate the area. The evacuation alarm system may be activated by manual pull stations. The facility is also equipped with a sprinkler system. Personnel use cellular telephones in the event of an emergency.

Fire hydrants (TA-60-0909 and -0910) are installed according to National Fire Protection Association standards and located within required distance of TA-60-0017. Water is supplied to the fire hydrants by a municipal water system through a 6-in. line that in turn is fed from a 12-in. line coming off the main water line; at an adequate volume and pressure (*i.e.*, approximately 1000 gallons per minute and 120 pounds per square inch static pressure) in accord with NFPA guidelines to supply a water hose in the event of a fire. Spill kits, which contain sorbent pillows, safety glasses, and gloves, are located in facility. Trained personnel may use this equipment to mitigate small containable spills when they are certain their actions will not put themselves or others at risk. Available personnel decontamination equipment includes safety showers and emergency eyewashes.

The buddy system will always be employed when containers are actively managed to assure that safety showers and eyewashes can be reached in an emergency. Safety Data Sheets (SDS) (formerly Material Safety Data Sheets (MSDS)) provide useful exposure information and are available onsite.

# ATTACHMENT B

# PART A APPLICATION FORM

# United States Environmental Protection Agency
# RCRA SUBTITLE C SITE IDENTIFICATION FORM

**1. Reason for Submittal** (Select only one.)

| | |
|---|---|
| ☐ | Obtaining or updating an EPA ID number for on-going regulated activities (Items 10-17 below) that will continue for a period of time. |
| ☐ | Submitting as a component of the Hazardous Waste Report for __________ (Reporting Year) |
| | ☐ Site was a TSD facility, a reverse distributor, and/or generator of ≥ 1,000 kg of non-acute hazardous waste, > 1 kg of acute hazardous waste, or > 100 kg of acute hazardous waste spill cleanup in **one or more months of the reporting year** (or State equivalent LQG regulations) |
| ☐ | Notifying that regulated activity is no longer occurring at this Site |
| ☐ | Obtaining or updating an EPA ID number for conducting Electronic Manifest Broker activities |
| ☑ | Submitting a new or revised Part A (permit) Form |

**2. Site EPA ID Number**

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| N | M | 0 | 8 | 9 | 0 | 0 | 1 | 0 | 5 | 1 | 5 |

**3. Site Name**

Los Alamos National Laboratory

**4. Site Location Address**

| | | |
|---|---|---|
| Street Address: Bikini Atoll Road, SM-30 | | |
| City, Town, or Village: Los Alamos | | County: Los Alamos |
| State: New Mexico | Country: USA | Zip Code: 87545 |
| Latitude: 35.874074N | Longitude: -106.329337 | ☐ Use Lat/Long as Primary Address |

**5. Site Mailing Address** ☐ Same as Location Street Address

| | | |
|---|---|---|
| Street Address: PO Box 1663, MS A316 | | |
| City, Town, or Village: Los Alamos | | |
| State: New Mexico | Country: USA | Zip Code: 87545 |

**6. Site Land Type**

☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other

**7. North American Industry Classification System (NAICS) Code(s) for the Site (at least 5-digit codes)**

| | |
|---|---|
| A. (Primary) 928110 | C. 562211 |
| B. 54171 | D. 562910 |

**8. Site Contact Information**

☐ Same as Location Address

| | | |
|---|---|---|
| First Name Theodore | MI A | Last Name Wyka |
| Title Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy | | |
| Street Address 3747 West Jemez Road, MS A316 | | |
| City, Town, or Village Los Alamos | | |
| State New Mexico | Country USA | Zip Code 87544 |
| Email theodore.wyka@nnsa.doe.gov | | |
| Phone (505) 667-5105 | Ext | Fax (505) 606-5948 |

**9. Legal Owner and Operator of the Site**

**A. Name of Site's Legal Owner**

☐ Same as Location Address

| | | |
|---|---|---|
| Full Name U. S. Department of Energy | | Date Became Owner (mm/dd/yyyy) 1/1/1943 |
| Owner Type ☐ Private ☐ County ☐ District ☑ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other | | |
| Street Address 3747 West Jemez Road, MS A316 | | |
| City, Town, or Village Los Alamos | | |
| State New Mexico | Country USA | Zip Code 87544 |
| Email theodore.wyka@nnsa.doe.gov | | |
| Phone (505) 667-5105 | Ext | Fax (505) 606-5948 |
| Comments The U.S Department of Energy (DOE) owns and co-operates the facility. The DOE National Nuclear Security Administration, Los Alamos Field Office and Triad National Security, LLC (Triad) co-operate specified hazardous waste management units located at Technical Areas (TA) 3, 14, 16, 36, 39, 50, 55, 63, and 54 West. The DOE Environmental Management, Los Alamos Field Office and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) co-operate different hazardous waste management units located at TA 54, Areas G, H and L. | | |

**B. Name of Site's Legal Operator**

☐ Same as Location Address

| | | |
|---|---|---|
| Full Name Triad National Security, LLC | | Date Became Operator (mm/dd/yyyy) 11/1/2018 |
| Operator Type ☑ Private ☐ County ☐ District ☐ Federal ☐ Tribal ☐ Municipal ☐ State ☐ Other | | |
| Street Address Bikini Atoll Road, Bldg SM-30, MS A102 | | |
| City, Town, or Village Los Alamos | | |
| State New Mexico | Country USA | Zip Code 87545 |
| Email scoleman@lanl.gov | | |
| Phone (505) 606-0154 | Ext | Fax |
| Comments See Item 18, Comments, for additional Owner/Operator information | | |

**10. Type of Regulated Waste Activity (at your site)**
Mark "Yes" or "No" for all current activities (as of the date submitting the form); complete any additional boxes as instructed.

**A. Hazardous Waste Activities**

| | | |
|---|---|---|
| ☑ Y ☐ N | 1. Generator of Hazardous Waste—If "Yes", mark only one of the following—a, b, c | |
| ☑ | a. LQG | -Generates, in any calendar month, 1,000 kg/mo (2,200 lb/mo) or more of non-acute hazardous waste (includes quantities imported by importer site); or<br>- Generates, in any calendar month, or accumulates at any time, more than 1 kg/mo (2.2 lb/mo) of acute hazardous waste; or<br>- Generates, in any calendar month or accumulates at any time, more than 100 kg/mo (220 lb/mo) of acute hazardous spill cleanup material. |
| ☐ | b. SQG | 100 to 1,000 kg/mo (220-2,200 lb/mo) of non-acute hazardous waste and no more than 1 kg (2.2 lb) of acute hazardous waste and no more than 100 kg (220 lb) of any acute hazardous spill cleanup material. |
| ☐ | c. VSQG | Less than or equal to 100 kg/mo (220 lb/mo) of non-acute hazardous waste. |
| ☐ Y ☑ N | 2. Short-Term Generator (generates from a short-term or one-time event and not from on-going processes). If "Yes", provide an explanation in the Comments section. *Note: If "Yes", you MUST indicate that you are a Generator of Hazardous Waste in Item 10.A.1 above.* | |
| ☑ Y ☐ N | 3. Treater, Storer or Disposer of Hazardous Waste—Note: Part B of a hazardous waste permit is required for these activities. | |
| ☑ Y ☐ N | 4. Receives Hazardous Waste from Off-site | |
| ☐ Y ☑ N | 5 Recycler of Hazardous Waste | |
| ☐ | a. Recycler who stores prior to recycling | |
| ☐ | b. Recycler who does not store prior to recycling | |
| ☐ Y ☑ N | 6. Exempt Boiler and/or Industrial Furnace—If "Yes", mark all that apply. | |
| ☐ | a. Small Quantity On-site Burner Exemption | |
| ☐ | b. Smelting, Melting, and Refining Furnace Exemption | |

**B. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g. D001, D003, F007, U112). Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| See 3a and 3b | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

**C. Waste Codes for State Regulated (non-Federal) Hazardous Wastes.** Please list the waste codes of the State hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed.

| | | | | | | |
|---|---|---|---|---|---|---|
| None | | | | | | |
| | | | | | | |

**10. Type of Regulated Waste Activity (at your site)**

**B. Waste Codes for Federally Regulated Hazardous Wastes.**

| | | | | | | |
|---|---|---|---|---|---|---|
| D001 | D002 | D003 | D004 | D005 | D006 | D007 |
| D008 | D009 | D010 | D011 | D012 | D013 | D014 |
| D015 | D016 | D017 | D018 | D019 | D020 | D021 |
| D022 | D023 | D024 | D025 | D026 | D027 | D028 |
| D029 | D030 | D031 | D032 | D033 | D034 | D035 |
| D036 | D037 | D038 | D039 | D040 | D041 | D042 |
| D043 | F001 | F002 | F003 | F004 | F005 | F006 |
| F007 | F008 | F009 | F010 | F011 | F012 | F019 |
| F020 | F021 | F022 | F023 | F024 | F025 | F026 |
| F027 | F028 | F032 | F034 | F035 | F037 | F038 |
| F039 | K044 | K045 | K046 | K047 | K084 | K101 |
| K102 | P001 | P002 | P003 | P004 | P005 | P006 |
| P007 | P008 | P009 | P010 | P011 | P012 | P013 |
| P014 | P015 | P016 | P017 | P018 | P020 | P021 |
| P022 | P023 | P024 | P026 | P027 | P028 | P029 |
| P030 | P031 | P033 | P034 | P036 | P037 | P038 |
| P039 | P040 | P041 | P042 | P043 | P044 | P045 |
| P046 | P047 | P048 | P049 | P050 | P051 | P054 |
| P056 | P057 | P058 | P059 | P060 | P062 | P063 |
| P064 | P065 | P066 | P067 | P068 | P069 | P070 |
| P071 | P072 | P073 | P074 | P075 | P076 | P077 |
| P078 | P081 | P082 | P084 | P085 | P087 | P088 |
| P089 | P092 | P093 | P094 | P095 | P096 | P097 |
| P098 | P099 | P101 | P102 | P103 | P104 | P105 |
| P106 | P108 | P109 | P110 | P111 | P112 | P113 |
| P114 | P115 | P116 | P118 | P119 | P120 | P121 |
| P122 | P123 | P127 | P128 | P185 | P188 | P189 |
| P190 | P191 | P192 | P194 | P196 | P197 | P198 |
| P199 | P201 | P202 | P203 | P204 | P205 | U001 |
| U002 | U003 | U004 | U005 | U006 | U007 | U008 |
| U009 | U010 | U011 | U012 | U014 | U015 | U016 |
| U017 | U018 | U019 | U020 | U021 | U022 | U023 |
| U024 | U025 | U026 | U027 | U028 | U029 | U030 |
| U031 | U032 | U033 | U034 | U035 | U036 | U037 |
| U038 | U039 | U041 | U042 | U043 | U044 | U045 |
| U046 | U047 | U048 | U049 | U050 | U051 | U052 |
| U053 | U055 | U056 | U057 | U058 | U059 | U060 |
| U061 | U062 | U063 | U064 | U066 | U067 | U068 |
| U069 | U070 | U071 | U072 | U073 | U074 | U075 |

**10. Type of Regulated Waste Activity (at your site)**
**B. Waste Codes for Federally Regulated Hazardous Wastes. (Continued)**

| | | | | | | |
|---|---|---|---|---|---|---|
| U076 | U077 | U078 | U079 | U080 | U081 | U082 |
| U083 | U084 | U085 | U086 | U087 | U088 | U089 |
| U090 | U091 | U092 | U093 | U094 | U095 | U096 |
| U097 | U098 | U099 | U101 | U102 | U103 | U105 |
| U106 | U107 | U108 | U109 | U110 | U111 | U112 |
| U113 | U114 | U115 | U116 | U117 | U118 | U119 |
| U120 | U121 | U122 | U123 | U124 | U125 | U126 |
| U127 | U128 | U129 | U130 | U131 | U132 | U133 |
| U134 | U135 | U136 | U137 | U138 | U140 | U141 |
| U142 | U143 | U144 | U145 | U146 | U147 | U148 |
| U149 | U150 | U151 | U152 | U153 | U154 | U155 |
| U156 | U157 | U158 | U159 | U160 | U161 | U162 |
| U163 | U164 | U165 | U166 | U167 | U168 | U169 |
| U170 | U171 | U172 | U173 | U174 | U176 | U177 |
| U178 | U179 | U180 | U181 | U182 | U183 | U184 |
| U185 | U186 | U187 | U188 | U189 | U190 | U191 |
| U192 | U193 | U194 | U196 | U197 | U200 | U201 |
| U202 | U203 | U204 | U205 | U206 | U207 | U208 |
| U209 | U210 | U211 | U213 | U214 | U215 | U216 |
| U217 | U218 | U219 | U220 | U221 | U222 | U223 |
| U225 | U226 | U227 | U228 | U234 | U235 | U236 |
| U237 | U238 | U239 | U240 | U243 | U244 | U246 |
| U247 | U248 | U249 | U271 | U278 | U279 | U280 |
| U328 | U353 | U359 | U364 | U367 | U372 | U373 |
| U387 | U389 | U394 | U395 | U404 | U409 | U410 |
| U411 | | | | | | |

**11. Additional Regulated Waste Activities (NOTE: Refer to your State regulations to determine if a separate permit is required.)**

**A. Other Waste Activities**

| | | |
|---|---|---|
| ☑ Y ☐ N | | 1. Transporter of Hazardous Waste—If "Yes", mark all that apply. |
| | ☑ | a. Transporter |
| | ☑ | b. Transfer Facility (at your site) |
| ☐ Y ☑ N | | 2. Underground Injection Control |
| ☐ Y ☑ N | | 3. United States Importer of Hazardous Waste |
| ☐ Y ☑ N | | 4. Recognized Trader—If "Yes", mark all that apply. |
| | ☐ | a. Importer |
| | ☐ | b. Exporter |
| ☐ Y ☑ N | | 5. Importer/Exporter of Spent Lead-Acid Batteries (SLABs) under 40 CFR 266 Subpart G—If "Yes", mark all that apply. |
| | ☐ | a. Importer |
| | ☐ | b. Exporter |

**B. Universal Waste Activities**

| | | |
|---|---|---|
| ☑ Y ☐ N | | 1. Large Quantity Handler of Universal Waste (you accumulate 5,000 kg or more) - If "Yes" mark all that apply. Note: Refer to your State regulations to determine what is regulated. |
| | ☑ | a. Batteries |
| | ☑ | b. Pesticides |
| | ☑ | c. Mercury containing equipment |
| | ☑ | d. Lamps |
| | ☑ | e. Aerosol Cans |
| | ☐ | f. Other (specify) ___ |
| | ☐ | g. Other (specify) ___ |
| ☐ Y ☑ N | | 2. Destination Facility for Universal Waste Note: A hazardous waste permit may be required for this activity. |

**C. Used Oil Activities**

| | | |
|---|---|---|
| ☐ Y ☑ N | | 1. Used Oil Transporter—If "Yes", mark all that apply. |
| | ☐ | a. Transporter |
| | ☐ | b. Transfer Facility (at your site) |
| ☐ Y ☑ N | | 2. Used Oil Processor and/or Re-refiner—If "Yes", mark all that apply. |
| | ☐ | a. Processor |
| | ☐ | b. Re-refiner |
| ☐ Y ☑ N | | 3. Off-Specification Used Oil Burner |
| ☐ Y ☑ N | | 4. Used Oil Fuel Marketer—If "Yes", mark all that apply. |
| | ☐ | a. Marketer Who Directs Shipment of Off-Specification Used Oil to Off-Specification Used Oil Burner |
| | ☐ | b. Marketer Who First Claims the Used Oil Meets the Specifications |

**D. Pharmaceutical Activities**

| | | |
|---|---|---|
| ☐ Y ☑ N | | 1. Operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals—if "Yes", mark only one. Note: See the item-by-item instructions for definitions of healthcare facility and reverse distributor. |
| | ☐ | a. Healthcare Facility |
| | ☐ | b. Reverse Distributor |
| ☐ Y ☑ N | | 2. Withdrawing from operating under 40 CFR Part 266, Subpart P for the management of hazardous waste pharmaceuticals. Note: You may only withdraw if you are a healthcare facility that is a VSQG for all of your hazardous waste, including hazardous waste pharmaceuticals. |

**12. Eligible Academic Entities with Laboratories**—Notification for opting into or withdrawing from managing laboratory hazardous wastes pursuant to 40 CFR Part 262, Subpart K.

| | | |
|---|---|---|
| ☐ Y ☑ N | | A. Opting into or currently operating under 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories— If "Yes", mark all that apply. Note: See the item-by-item instructions for definitions of types of eligible academic entities. |
| | ☐ | 1. College or University |
| | ☐ | 2. Teaching Hospital that is owned by or has a formal written affiliation with a college or university |
| | ☐ | 3. Non-profit Institute that is owned by or has a formal written affiliation with a college or university |
| ☐ Y ☑ N | | B. Withdrawing from 40 CFR Part 262, Subpart K for the management of hazardous wastes in laboratories. |

**13. Episodic Generation**

| | |
|---|---|
| ☐ Y ☑ N | Are you an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more than 60 days, that moves you to a higher generator category. If "Yes", you must fill out the Addendum for Episodic Generator. |

**14. LQG Consolidation of VSQG Hazardous Waste**

| | |
|---|---|
| ☐ Y ☑ N | Are you an LQG notifying of consolidating VSQG Hazardous Waste Under the Control of the Same Person pursuant to 40 CFR 262.17(f)? If "Yes", you must fill out the Addendum for LQG Consolidation of VSQG hazardous waste. |

**15. Notification of LQG Site Closure for a Central Accumulation Area (CAA) (optional) OR Entire Facility (required)**

| | |
|---|---|
| ☐ Y ☑ N | LQG Site Closure of a Central Accumulation Area (CAA) or Entire Facility. |
| | A. ☐ Central Accumulation Area (CAA) or ☐ Entire Facility |
| | B. Expected closure date: ____________ mm/dd/yyyy |
| | C. Requesting new closure date: ____________ mm/dd/yyyy |
| | D. Date closed : ____________ mm/dd/yyyy<br>☐ 1. In compliance with the closure performance standards 40 CFR 262.17(a)(8)<br>☐ 2. Not in compliance with the closure performance standards 40 CFR 262.17(a)(8) |

**16. Notification of Hazardous Secondary Material (HSM) Activity**

| | |
|---|---|
| ☑ Y ☐ N | Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material. |

**17. Electronic Manifest Broker**

| | |
|---|---|
| ☐ Y ☑ N | Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator? |

**18. Comments** (include item number for each comment)

**8. Site Contact Information (Continued)**
**First Name: Michael MI: A Last Name: Mikolanis**
**Title: Manager, Environmental Management, Los Alamos Field Office, U. S. Department of Energy**
**Street Address: 1200 Trinity Drive, Suite 400P City, Town, or Village: Los Alamos**
**State: NM Country: USA Zip Code: 87544**
**Email: michael.mikolanis@em.doe.gov**
**Phone: (240) 562-1122 Ext: Fax:**

**9.B. Name of Site Legal Operator (Continued)**
**Newport News Nuclear BWXT-Los Alamos, LLC (N3B) Date Became an Operator: 04/30/2018**
**Operator Type: Private**
**Street Address: 1200 Trinity Drive, Suite 150 City, Town, or Village: Los Alamos**
**State: NM Country: USA Zip Code: 87544**
**Email: kim.lebak@em-la.doe.gov Phone: (505) 257-7690**

**10.B. Waste Codes for Federally Regulated Hazardous Wastes. See pages 3a and 3b.**
**19. Certification (Continued). See pages 6 and 6a.**

**19. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11)**.

| | |
|---|---|
| Signature of legal owner, operator or authorized representative | Date (mm/dd/yyyy) |
| Printed Name (First, Middle Initial Last)<br>**Karen E. Armijo** | Title **Permitting and Compliance Program Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy** |
| Email<br>**karen.armijo@nnsa.doe.gov** | |

| | |
|---|---|
| Signature of legal owner, operator or authorized representative | Date (mm/dd/yyyy) |
| Printed Name (First, Middle Initial Last)<br>**Jennifer E. Payne** | Title **Division Leader, Environmental Protection and Compliance Division, Triad National Security, LLC** |
| Email<br>**jpayne@lanl.gov** | |

**16. Notification of Hazardous Secondary Material (HSM) Activity**

| | |
|---|---|
| ☐ Y ☐ N | Are you notifying under 40 CFR 260.42 that you will begin managing, are managing, or will stop managing hazardous secondary material under 40 CFR 260.30, 40 CFR 261.4(a)(23), (24), (25), or (27)? If "Yes", you must fill out the Addendum to the Site Identification Form for Managing Hazardous Secondary Material. |

**17. Electronic Manifest Broker**

| | |
|---|---|
| ☐ Y ☐ N | Are you notifying as a person, as defined in 40 CFR 260.10, electing to use the EPA electronic manifest system to obtain, complete, and transmit an electronic manifest under a contractual relationship with a hazardous waste generator? |

**18. Comments** (include item number for each comment)

**19. Certification** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. **Note: For the RCRA Hazardous Waste Part A permit Application, all owners and operators must sign (see 40 CFR 270.10(b) and 270.11)**.

| Signature of legal owner, operator or authorized representative | Date (mm/dd/yyyy) |
|---|---|
| Printed Name (First, Middle Initial Last) M. Lee Bishop | Title Director, Office of Quality and Regulatory Compliance, Environmental Management, Los Alamos Field Office, U.S. Department of Energy |
| Email lee.bishop@em.doe.gov | |

| Signature of legal owner, operator or authorized representative | Date (mm/dd/yyyy) |
|---|---|
| Printed Name (First, Middle Initial Last) Robert Macfarlane | Title Program Manager, Environment, Safety, Health and Quality, Newport News Nuclear BWXT-Los Alamos, LLC (N3B) |
| Email robert.macfarlane@em-la.doe.gov | |

# ADDENDUM TO THE SITE IDENTIFICATION FORM:
# NOTIFICATION OF HAZARDOUS SECONDARY MATERIAL ACTIVITY

**ONLY fill out this form if:**

- You are located in a State that allows you to manage excluded hazardous secondary material (HSM) under 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent; See https://www.epa.gov/hw/where-2018-definition-solid-waste-rule-effect for a list of eligible states; AND
- You are or will be managing excluded HSM in compliance with 40 CFR 260.30, 261.4(a)(23), (24), (25), or (27) (or state equivalent) or have stopped managing excluded HSM in compliance with the exclusion(s) and do not expect to manage any amount of excluded HSM under the exclusion(s) for at least one year. Do not include any information regarding your hazardous waste activities in this section. Note: If your facility was granted a solid waste variance under 40 CFR 260.30 prior to July 13, 2015, your management of HSM under 40 CFR 260.30 is grandfathered under the previous regulations and you are not required to notify for the HSM management activity excluded under 40 CFR 260.30.

**1. Reason for Notification** (Include dates where requested)

☐ Facility will begin managing excluded HSM as of _______________ (mm/dd/yyyy).

☑ Facility is still managing excluded HSM/re-notifying as required by March 1 of each even-numbered year.

☐ Facility has stopped managing excluded HSM as of _______________ (mm/dd/yyyy) and is notifying as required.

**2. Description of Excluded HSM Activity**. Please list the appropriate codes (see Code List section of the instructions) and quantities, in short tons, to describe your excluded HSM activity ONLY (do not include any information regarding your hazardous wastes). Use additional pages if more space is needed.

| A. Facility Code | B. Waste Code(s) for HSM | C. Estimate Short Tons of excluded HSM to be managed annually | D. Actual Short Tons of excluded HSM that was managed during the most recent odd-numbered year | E. Land-based Unit Code |
|---|---|---|---|---|
| 01 | D001, D002, D003, F003 | 1 | LT 1 | NA |
| | | | | |
| | | | | |
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# ADDENDUM TO THE SITE IDENTIFICATION FORM: EPISODIC GENERATOR

**ONLY fill out this form if:**

- You are an SQG or VSQG generating hazardous waste from a planned or unplanned episodic event, lasting no more then 60 days, that moves the generator to a higher generator category pursuant to 40 CFR 262 Subpart L. Note: Only one planned and one unplanned episodic event are allowed within one year; otherwise, you must follow the requirements of the higher generator category. Use additional pages if more space is needed.

**Episodic Event**

| 1. Planned | 2. Unplanned |
|---|---|
| ☐ Excess chemical inventory removal | ☐ Accidental spills |
| ☐ Tank cleanouts | ☐ Production process upsets |
| ☐ Short-term construction or demolition | ☐ Product recalls |
| ☐ Equipment maintenance during plant shutdowns | ☐ "Acts of nature" (Tornado, hurricane, flood, etc.) |
| ☐ Other ____________________ | ☐ Other ____________________ |

| 3. Emergency Contact Phone | 4. Emergency Contact Name |
|---|---|
| | |

| 5. Beginning Date ________ (mm/dd/yyyy) | 6. End Date ________ (mm/dd/yyyy) |
|---|---|

**Waste 1**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**Waste 2**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

**Waste 3**

| 7. Waste Description | 8. Estimated Quantity (in pounds) |
|---|---|
| | |

9. Federal and/or State Hazardous Waste Codes

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

# ADDENDUM TO THE SITE IDENTIFICATION FORM:
# LQG CONSOLIDATION OF VSQG HAZARDOUS WASTE

**ONLY fill out this form if:**

- You are an LQG receiving hazardous waste from VSQGs under the control of the same person. Use additional pages if more space is needed.

| **VSQG 1** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

| **VSQG 2** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

| **VSQG 3** | | |
|---|---|---|
| 1. EPA ID Number (if assigned) | 2. Name | |
| 3. Street Address | | |
| 4. City, Town, or Village | 5. State | 6. Zip Code |
| 7. Contact Phone Number | 8. Contact Name | |
| 9. Email | | |

| EPA ID Number | N | M | 0 | 8 | 9 | 0 | 0 | 1 | 0 | 5 | 1 | 5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

OMB# 2050-0024; Expires 04/30/2024

# United States Environmental Protection Agency

# HAZARDOUS WASTE PERMIT PART A FORM

**1. Facility Permit Contact**

| | | |
|---|---|---|
| First Name **Theodore** | MI **A** | Last Name **Wyka** |
| Title **Manager, National Nuclear Security Administration, Los Alamos Field Office, U.S. Department of Energy** | | |
| Email **theodore.wyka@nnsa.doe.gov** | | |
| Phone **(505) 667-5105** | Ext | Fax **(505) 667-5948** |

**2. Facility Permit Contact Mailing Address**

| | | |
|---|---|---|
| Street Address **3747 West Jemez Road, MS A316** | | |
| City, Town, or Village **Los Alamos** | | |
| State **NM** | Country **USA** | Zip Code **87544** |

**3. Facility Existence Date (mm/dd/yyyy)**

| |
|---|
| **1/1/1943** |

**4. Other Environmental Permits**

| A. Permit Type | B. Permit Number | C. Description |
|---|---|---|
| **See Page 10a** | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**5. Nature of Business**

**The central mission of Los Alamos National Laboratory is the reduction of global nuclear danger supported by research that also contributes to conventional defense, civilian, and industrial needs. This includes programs in nuclear, medium energy, and space physics; hydrodynamics; conventional explosives; chemistry; metallurgy; radiochemistry; space nuclear systems; controlled thermonuclear fusion; laser research; environmental technology; geothermal, solar, and fossil energy research; nuclear safeguards; biomedicine; health and biotechnology; and industrial partnerships.**

**4. Other Environmental Permits (continued)**

| A. Permit Type | B. Permit Number | | | | | | | | | | | | | C. Description |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | N | M | R | 1 | 0 | 0 | - | - | - | | | | | NPDES Construction General Permit coverage for various individual construction projects: NMR100xxx |
| N | N | M | 0 | 0 | 2 | 8 | 3 | 5 | 5 | | | | | NPDES Industrial and Sanitary Point Source Discharges |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 1 | | | | | NPDES Storm Water Multi-Sector General Permit (MSGP) |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 2 | | | | | NPDES MSGP |
| N | N | M | R | 0 | 5 | 0 | 0 | 1 | 3 | | | | | NPDES MSGP |
| N | N | M | 0 | 0 | 3 | 0 | 7 | 5 | 9 | | | | | NPDES LANL Storm Water Individual Permit |
| N | N | M | G | 8 | 7 | 0 | 0 | 0 | 2 | | | | | NPDES Pesticides General Permit (PGP) for discharges from the application of pesticides |
| R | N | M | 0 | 8 | 9 | 0 | 0 | 1 | 0 | 5 | 1 | 5 | | RCRA Hazardous Waste Facility Permit |
| E | D | P | - | 8 | 5 | 7 | | | | | | | | TA-46 SWWS Plant and TA-3 Sanitary Effluent Reclamation Facility (SERF) Discharge Permit |
| E | D | P | - | 1 | 1 | 3 | 2 | | | | | | | TA-50 Radioactive Liquid Waste Treatment Facility, Discharge Permit |
| E | D | P | - | 1 | 5 | 8 | 9 | | | | | | | Six (6) Domestic Septic Tank/Leachfield Systems, Discharge Permit |
| E | D | P | - | 1 | 7 | 9 | 3 | | | | | | | On-Site Treatment and Land Application of Groundwater, Discharge Permit |
| E | D | P | - | 1 | 8 | 3 | 5 | | | | | | | Injection of Treated Groundwater into Class V Underground Injection Control (UIC) Wells, Discharge |
| F | N | W | P | - | 4 | 3 | | | | | | | | Water Canyon West Jemez road Storm Drain Controls |
| F | N | W | P | - | 3 | 8 | | | | | | | | Sandia Canyon TA-72 Storm Water Controls |
| F | N | W | P | - | 2 | 7 | | | | | | | | Habitat Restoration- Mortandad Wetland Enhancement |
| F | N | W | P | - | 4 | 3 | | | | | | | | Sandia Canyon (Lower) Area 1 Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | Sandia Canyon (Lower) Area 2 Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | Upper Ancho Canyon Structure Storm Water Controls |
| F | N | W | P | - | 4 | 3 | | | | | | | | North Ancho Canyon Lower Structure Storm Water Controls |
| F | N | W | P | - | 1 | 8 | | | | | | | | North Ancho Canyon Aggregate Area Phase II Project |
| F | N | W | P | - | 5 | | | | | | | | | Lower LA Canyon Gaging Station E110.7 Installation and E109.9 Gage Structure Removal |
| E | P | 1 | 0 | 0 | - | R | 2 | - | M | 4 | | | | LANL Air Emissions Title V Operating Permit |
| E | 2 | 1 | 9 | 5 | - | R | 1 | - | R | 9 | 0 | | | Various 20 NMAC 2.72.202 Exemptions |
| E | 2 | 1 | 9 | 5 | B | - | M | 3 | R | 1 | | | | TA-3 Power Plant |
| E | 2 | 1 | 9 | 5 | F | - | R | 4 | | | | | | TA-33 Large Generator |
| E | G | C | P | 3 | - | 2 | 1 | 9 | 5 | G | - | R | 1 | TA-60 Asphalt Plant |
| E | 2 | 1 | 9 | 5 | H | - | R | 1 | | | | | | Data disintegrator |
| E | 2 | 1 | 9 | 5 | N | - | R | 2 | | | | | | Chemistry and Metallurgy Research Replacement Facility |
| E | 2 | 1 | 9 | 5 | P | - | R | 1 | | | | | | TA-33 Small Generators |
| E | 6 | 3 | 4 | - | M | 2 | - | R | 1 | | | | | TA-3-141 Beryllium Operations |
| E | 6 | 3 | 2 | - | R | 1 | | | | | | | | TA-35-213 Beryllium Operations |
| E | 1 | 0 | 8 | 1 | M | 1 | - | R | 7 | | | | | TA-55-4 Beryllium Operations |

**6. Process Codes and Design Capacities**

| Line Number | A. Process Code | B. Process Design Capacity | | C. Process Total Number of Units | D. Unit Name |
|---|---|---|---|---|---|
| | | (1) Amount | (2) Unit of Measure | | |
| | | | | | **See Page 11a** |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) )

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | |
|---|---|---|---|---|---|
| | | | | (1) Process Codes | (2) Process Description (if code is not entered in 7.D1)) |
| | | | | | **See Pages 11b-11pppp** |
| | | | | | |
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**8. Map**

Attach to this application a topographical map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all spring, rivers, and other surface water bodies in this map area. See instructions for precise requirements.

**9. Facility Drawing**

All existing facilities must include a scale drawing of the facility. See instructions for more detail.

**10. Photographs**

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment, and disposal areas; and sites of future storage, treatment, or disposal areas. See instructions for more detail.

**11. Comments**

**Items 4, 6, and 7 have supplemental pages added in this document as referenced at each applicable item. All documentation is arranged by individual Technical Areas (TAs) at the Los Alamos National Laboratory.**

**6. Process Codes and Design Capacities (continued)**

| Line Number | | A. Process Code | | | B. Process Design Capacity (1) Amount | B. Process Design Capacity (2) Unit of Measure | C. Process Total Number of Units | D. Unit Name |
|---|---|---|---|---|---|---|---|---|
| X | 1 | S | 0 | 1 | 18,500 | G | 001 | Technical Area 3 |
| X | 2 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 3 |
| X | 3 | X | 0 | 1 | 20 or 50 | J* | 002 | Technical Area 14 *Total indicates per day not per hour |
| X | 4 | X | 0 | 1 | 1,200 or 50 | J* or U | 002 | Technical Area 16 *Total indicates per day not per hour |
| X | 5 | X | 0 | 1 | 2,000 | J* | 001 | Technical Area 36 *Total indicates per day not per hour |
| X | 6 | X | 0 | 1 | 2,000 | J* | 002 | Technical Area 39 *Total indicates per day not per hour |
| X | 7 | S | 0 | 1 | 31,500 | G | 002 | Technical Area 50 |
| X | 8 | T | 0 | 4 | 3,716 | U | 002 | Technical Area 50 |
| X | 9 | S | 0 | 1 | 407,880 | G | 001 | Technical Area 54, Area L |
| 1 | 0 | T | 0 | 4 | 23,160 | U | 001 | Technical Area 54, Area L |
| 1 | 1 | D | 8 | 0 | 1,200 | Y | 001 | Technical Area 54, Area L |
| 1 | 2 | S | 9 | 9 | 600 | G | 001 | Technical Area 54, Area L |
| 1 | 3 | S | 0 | 1 | 4,346,590 | G | 009 | Technical Area 54, Area G |
| 1 | 4 | T | 0 | 4 | 185,280 | U | 008 | Technical Area 54, Area G |
| 1 | 5 | S | 9 | 9 | 4,950 | G | 001 | Technical Area 54, Area G |
| 1 | 6 | D | 8 | 0 | 14 | Y | 001 | Technical Area 54, Area G |
| 1 | 7 | S | 0 | 1 | 34,110 + 13,410+ | G | 002 | Technical Area 54, West +Total includes excess storage capacity |
| 1 | 8 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 54, West |
| 1 | 9 | D | 8 | 0 | 63 | Y | 001 | Technical Area 54, Area H |
| 2 | 0 | S | 0 | 1 | 272,145 | G | 009 | Technical Area 55 |
| 2 | 1 | S | 0 | 2 | 137 | G | 001 | Technical Area 55 |
| 2 | 2 | T | 0 | 4 | 13,914 | U | 005 | Technical Area 55 |
| 2 | 3 | S | 0 | 1 | 105,875 | G | 001 | Technical Area 63 |
| 2 | 4 | T | 0 | 4 | 23,160 | U | 001 | Technical Area 63 |
| 2 | 5 | S | 0 | 1 | 17,600 | G | 001 | Technical Area 60 |
| 2 | 6 | T | 0 | 4 | 3,441 | U | 001 | Technical Area 60 |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 63 (continued)** | | | | | |
| 361 | U166 | 40 | P | S01 | |
| 362 | U167 | 40 | P | S01 | |
| 363 | U168 | 40 | P | S01 | |
| 364 | U169 | 40 | P | S01 | |
| 365 | U170 | 40 | P | S01 | |
| 366 | U171 | 40 | P | S01 | |
| 367 | U172 | 40 | P | S01 | |
| 368 | U173 | 40 | P | S01 | |
| 369 | U174 | 40 | P | S01 | |
| 370 | U176 | 40 | P | S01 | |
| 371 | U177 | 40 | P | S01 | |
| 372 | U178 | 40 | P | S01 | |
| 373 | U179 | 40 | P | S01 | |
| 374 | U180 | 40 | P | S01 | |
| 375 | U181 | 40 | P | S01 | |
| 376 | U182 | 40 | P | S01 | |
| 377 | U183 | 40 | P | S01 | |
| 378 | U184 | 40 | P | S01 | |
| 379 | U185 | 40 | P | S01 | |
| 380 | U186 | 40 | P | S01 | |
| 381 | U187 | 40 | P | S01 | |
| 382 | U188 | 40 | P | S01 | |
| 383 | U189 | 40 | P | S01 | |
| 384 | U190 | 40 | P | S01 | |
| 385 | U191 | 40 | P | S01 | |
| 386 | U192 | 40 | P | S01 | |
| 387 | U193 | 40 | P | S01 | |
| 388 | U194 | 40 | P | S01 | |
| 389 | U196 | 40 | P | S01 | |
| 390 | U197 | 40 | P | S01 | |
| 391 | U200 | 40 | P | S01 | |
| 392 | U201 | 40 | P | S01 | |
| 393 | U202 | 40 | P | S01 | |
| 394 | U203 | 40 | P | S01 | |
| 395 | U204 | 40 | P | S01 | |
| 396 | U205 | 40 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60** | | | | | |
| 1 | D001 | 21,727 | P | S01 | |
| 2 | D002 | 13,931 | P | S01 | |
| 3 | D003 | 2,903 | P | S01 | |
| 4 | D004 | 6,508 | P | S01 T04 | |
| 5 | D005 | 2,382 | P | S01 T04 | |
| 6 | D006 | 5, 751 | P | S01 T04 | |
| 7 | D007 | 9, 060 | P | S01 T04 | |
| 8 | D008 | 15,914 | P | S01 T04 | |
| 9 | D009 | 2,433 | P | S01 T04 | |
| 10 | D010 | 4,850 | P | S01 T04 | |
| 11 | D011 | 8,799 | P | S01 T04 | |
| 12 | D012 | 100 | P | S01 | |
| 13 | D013 | 100 | P | S01 | |
| 14 | D014 | 100 | P | S01 | |
| 15 | D015 | 100 | P | S01 | |
| 16 | D016 | 44 | P | S01 | |
| 17 | D017 | 66 | P | S01 | |
| 18 | D018 | 1,283 | P | S01 T04 | |
| 19 | D019 | 2,949 | P | S01 T04 | |
| 20 | D020 | 100 | P | S01 T04 | |
| 21 | D021 | 1,909 | P | S01 T04 | |
| 22 | D022 | 6,156 | P | S01 T04 | |
| 23 | D023 | 100 | P | S01 T04 | |
| 24 | D024 | 100 | P | S01 T04 | |
| 25 | D025 | 100 | P | S01 T04 | |
| 26 | D026 | 518 | P | S01 T04 | |
| 27 | D027 | 55 | P | S01 T04 | |
| 28 | D028 | 3,053 | P | S01 T04 | |
| 29 | D029 | 293 | P | S01 T04 | |
| 30 | D030 | 5,491 | P | S01 T04 | |
| 31 | D031 | 293 | P | S01 T04 | |
| 32 | D032 | 3,135 | P | S01 T04 | |
| 33 | D033 | 48 | P | S01 T04 | |
| 34 | D034 | 1,228 | P | S01 T04 | |
| 35 | D035 | 1,979 | P | S01 T04 | |
| 36 | D036 | 549 | P | S01 T04 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 37 | D037 | 761 | P | S01 T04 | |
| 38 | D038 | 2,629 | P | S01 T04 | |
| 39 | D039 | 1,658 | P | S01 T04 | |
| 40 | D040 | 1,662 | P | S01 T04 | |
| 41 | D041 | 293 | P | S01 T04 | |
| 42 | D042 | 1,182 | P | S01 T04 | |
| 43 | D043 | 655 | P | S01 T04 | |
| 44 | F001 | 442,263 | P | S01 T04 | |
| 45 | F002 | 16,083 | P | S01 T04 | |
| 46 | F003 | 36,170 | P | S01 | |
| 47 | F004 | 925 | P | S01 T04 | |
| 48 | F005 | 27,196 | P | S01 | |
| 49 | F006 | 100 | P | S01 | |
| 50 | F007 | 74 | P | S01 | |
| 51 | F008 | 100 | P | S01 | |
| 52 | F009 | 165 | P | S01 | |
| 53 | F010 | 100 | P | S01 | |
| 54 | F011 | 100 | P | S01 | |
| 55 | F012 | 100 | P | S01 | |
| 56 | F019 | 100 | P | S01 | |
| 57 | F020 | 100 | P | S01 | |
| 58 | F021 | 100 | P | S01 | |
| 59 | F022 | 100 | P | S01 | |
| 60 | F023 | 100 | P | S01 | |
| 61 | F024 | 100 | P | S01 | |
| 62 | F025 | 100 | P | S01 | |
| 63 | F026 | 100 | P | S01 | |
| 64 | F027 | 165 | P | S01 | |
| 65 | F028 | 100 | P | S01 | |
| 66 | F032 | 100 | P | S01 | |
| 67 | F034 | 100 | P | S01 | |
| 68 | F035 | 100 | P | S01 | |
| 69 | F037 | 100 | P | S01 | |
| 70 | F038 | 100 | P | S01 | |
| 71 | F039 | 100 | P | S01 | |
| 72 | K044 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 73 | K045 | 100 | P | S01 | |
| 74 | K046 | 100 | P | S01 | |
| 75 | K047 | 100 | P | S01 | |
| 76 | K084 | 100 | P | S01 | |
| 77 | K101 | 100 | P | S01 | |
| 78 | K102 | 100 | P | S01 | |
| 79 | P001 | 100 | P | S01 | |
| 80 | P002 | 100 | P | S01 | |
| 81 | P003 | 293 | P | S01 | |
| 82 | P004 | 100 | P | S01 | |
| 83 | P005 | 100 | P | S01 | |
| 84 | P006 | 143 | P | S01 | |
| 85 | P007 | 100 | P | S01 | |
| 86 | P008 | 100 | P | S01 | |
| 87 | P009 | 100 | P | S01 | |
| 88 | P010 | 100 | P | S01 | |
| 89 | P011 | 143 | P | S01 | |
| 90 | P012 | 293 | P | S01 | |
| 91 | P013 | 100 | P | S01 | |
| 92 | P014 | 100 | P | S01 | |
| 93 | P015 | 293 | P | S01 | |
| 94 | P016 | 100 | P | S01 | |
| 95 | P017 | 100 | P | S01 | |
| 96 | P018 | 100 | P | S01 | |
| 97 | P020 | 100 | P | S01 | |
| 98 | P021 | 100 | P | S01 | |
| 99 | P022 | 17 | P | S01 | |
| 100 | P023 | 100 | P | S01 | |
| 101 | P024 | 100 | P | S01 | |
| 102 | P026 | 100 | P | S01 | |
| 103 | P027 | 100 | P | S01 | |
| 104 | P028 | 100 | P | S01 | |
| 105 | P029 | 293 | P | S01 | |
| 106 | P030 | 28 | P | S01 | |
| 107 | P031 | 485 | P | S01 | |
| 108 | P033 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 109 | P034 | 100 | P | S01 | |
| 110 | P036 | 100 | P | S01 | |
| 111 | P037 | 100 | P | S01 | |
| 112 | P038 | 227 | P | S01 | |
| 113 | P039 | 100 | P | S01 | |
| 114 | P040 | 100 | P | S01 | |
| 115 | P041 | 100 | P | S01 | |
| 116 | P042 | 100 | P | S01 | |
| 117 | P043 | 143 | P | S01 | |
| 118 | P044 | 100 | P | S01 | |
| 119 | P045 | 100 | P | S01 | |
| 120 | P046 | 100 | P | S01 | |
| 121 | P047 | 100 | P | S01 | |
| 122 | P048 | 143 | P | S01 | |
| 123 | P049 | 100 | P | S01 | |
| 124 | P050 | 100 | P | S01 | |
| 125 | P051 | 100 | P | S01 | |
| 126 | P054 | 100 | P | S01 | |
| 127 | P056 | 2,624 | P | S01 | |
| 128 | P057 | 100 | P | S01 | |
| 129 | P058 | 100 | P | S01 | |
| 130 | P059 | 100 | P | S01 | |
| 131 | P060 | 100 | P | S01 | |
| 132 | P062 | 100 | P | S01 | |
| 133 | P063 | 293 | P | S01 | |
| 134 | P064 | 100 | P | S01 | |
| 135 | P065 | 100 | P | S01 | |
| 136 | P066 | 100 | P | S01 | |
| 137 | P067 | 100 | P | S01 | |
| 138 | P068 | 293 | P | S01 | |
| 139 | P069 | 100 | P | S01 | |
| 140 | P070 | 100 | P | S01 | |
| 141 | P071 | 100 | P | S01 | |
| 142 | P072 | 100 | P | S01 | |
| 143 | P073 | 293 | P | S01 | |
| 144 | P074 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 145 | P075 | 100 | P | S01 | |
| 146 | P076 | 403 | P | S01 | |
| 147 | P077 | 100 | P | S01 | |
| 148 | P078 | 425 | P | S01 | |
| 149 | P081 | 100 | P | S01 | |
| 150 | P082 | 100 | P | S01 | |
| 151 | P084 | 100 | P | S01 | |
| 152 | P085 | 100 | P | S01 | |
| 153 | P087 | 5 | P | S01 | |
| 154 | P088 | 100 | P | S01 | |
| 155 | P089 | 100 | P | S01 | |
| 156 | P092 | 143 | P | S01 | |
| 157 | P093 | 100 | P | S01 | |
| 158 | P094 | 100 | P | S01 | |
| 159 | P095 | 293 | P | S01 | |
| 160 | P096 | 293 | P | S01 | |
| 161 | P097 | 100 | P | S01 | |
| 162 | P098 | 293 | P | S01 | |
| 163 | P099 | 100 | P | S01 | |
| 164 | P101 | 100 | P | S01 | |
| 165 | P102 | 100 | P | S01 | |
| 166 | P103 | 100 | P | S01 | |
| 167 | P104 | 143 | P | S01 | |
| 168 | P105 | 5 | P | S01 | |
| 169 | P106 | 293 | P | S01 | |
| 170 | P108 | 100 | P | S01 | |
| 171 | P109 | 100 | P | S01 | |
| 172 | P110 | 100 | P | S01 | |
| 173 | P111 | 100 | P | S01 | |
| 174 | P112 | 143 | P | S01 | |
| 175 | P113 | 293 | P | S01 | |
| 176 | P114 | 100 | P | S01 | |
| 177 | P115 | 100 | P | S01 | |
| 178 | P116 | 100 | P | S01 | |
| 179 | P118 | 100 | P | S01 | |
| 180 | P119 | 143 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 181 | P120 | 293 | P | S01 | |
| 182 | P121 | 100 | P | S01 | |
| 183 | P122 | 100 | P | S01 | |
| 184 | P123 | 100 | P | S01 | |
| 185 | P127 | 100 | P | S01 | |
| 186 | P128 | 100 | P | S01 | |
| 187 | P185 | 100 | P | S01 | |
| 188 | P188 | 100 | P | S01 | |
| 189 | P189 | 100 | P | S01 | |
| 190 | P190 | 100 | P | S01 | |
| 191 | P191 | 100 | P | S01 | |
| 192 | P192 | 100 | P | S01 | |
| 193 | P194 | 100 | P | S01 | |
| 194 | P196 | 100 | P | S01 | |
| 195 | P197 | 100 | P | S01 | |
| 196 | P198 | 100 | P | S01 | |
| 197 | P199 | 100 | P | S01 | |
| 198 | P201 | 100 | P | S01 | |
| 199 | P202 | 100 | P | S01 | |
| 200 | P203 | 100 | P | S01 | |
| 201 | P204 | 100 | P | S01 | |
| 202 | P205 | 100 | P | S01 | |
| 203 | U001 | 15 | P | S01 | |
| 204 | U002 | 45 | P | S01 | |
| 205 | U003 | 485 | P | S01 | |
| 206 | U004 | 100 | P | S01 | |
| 207 | U005 | 100 | P | S01 | |
| 208 | U006 | 7 | P | S01 | |
| 209 | U007 | 143 | P | S01 | |
| 210 | U008 | 8 | P | S01 | |
| 211 | U009 | 143 | P | S01 | |
| 212 | U010 | 100 | P | S01 | |
| 213 | U011 | 100 | P | S01 | |
| 214 | U012 | 293 | P | S01 | |
| 215 | U014 | 100 | P | S01 | |
| 216 | U015 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 217 | U016 | 100 | P | S01 | |
| 218 | U017 | 100 | P | S01 | |
| 219 | U018 | 143 | P | S01 | |
| 220 | U019 | 20 | P | S01 | |
| 221 | U020 | 100 | P | S01 | |
| 222 | U021 | 100 | P | S01 | |
| 223 | U022 | 293 | P | S01 | |
| 224 | U023 | 100 | P | S01 | |
| 225 | U024 | 100 | P | S01 | |
| 226 | U025 | 3 | P | S01 | |
| 227 | U026 | 100 | P | S01 | |
| 228 | U027 | 100 | P | S01 | |
| 229 | U028 | 100 | P | S01 | |
| 230 | U029 | 293 | P | S01 | |
| 231 | U030 | 100 | P | S01 | |
| 232 | U031 | 26 | P | S01 | |
| 233 | U032 | 100 | P | S01 | |
| 234 | U033 | 143 | P | S01 | |
| 235 | U034 | 100 | P | S01 | |
| 236 | U035 | 100 | P | S01 | |
| 237 | U036 | 100 | P | S01 | |
| 238 | U037 | 143 | P | S01 | |
| 239 | U038 | 100 | P | S01 | |
| 240 | U039 | 100 | P | S01 | |
| 241 | U041 | 143 | P | S01 | |
| 242 | U042 | 100 | P | S01 | |
| 243 | U043 | 100 | P | S01 | |
| 244 | U044 | 152 | P | S01 | |
| 245 | U045 | 293 | P | S01 | |
| 246 | U046 | 100 | P | S01 | |
| 247 | U047 | 100 | P | S01 | |
| 248 | U048 | 100 | P | S01 | |
| 249 | U049 | 100 | P | S01 | |
| 250 | U050 | 100 | P | S01 | |
| 251 | U051 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | | A. EPA Hazardous Waste No. | | | | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | (1) Process Codes | | | (2) Process Description (if code is not entered in 7.D1)) |
| **Technical Area 60 (continued)** | | | | | | | | | | | |
| 25 | 2 | U | 0 | 5 | 2 | 18 | P | S | 0 | 1 | |
| 25 | 3 | U | 0 | 5 | 3 | 3 | P | S | 0 | 1 | |
| 25 | 4 | U | 0 | 5 | 5 | 143 | P | S | 0 | 1 | |
| 25 | 5 | U | 0 | 5 | 6 | 61 | P | S | 0 | 1 | |
| 25 | 6 | U | 0 | 5 | 7 | 293 | P | S | 0 | 1 | |
| 25 | 7 | U | 0 | 5 | 8 | 100 | P | S | 0 | 1 | |
| 25 | 8 | U | 0 | 5 | 9 | 100 | P | S | 0 | 1 | |
| 25 | 9 | U | 0 | 6 | 0 | 100 | P | S | 0 | 1 | |
| 26 | 0 | U | 0 | 6 | 1 | 100 | P | S | 0 | 1 | |
| 26 | 1 | U | 0 | 6 | 2 | 100 | P | S | 0 | 1 | |
| 26 | 2 | U | 0 | 6 | 3 | 100 | P | S | 0 | 1 | |
| 26 | 3 | U | 0 | 6 | 4 | 100 | P | S | 0 | 1 | |
| 26 | 4 | U | 0 | 6 | 6 | 100 | P | S | 0 | 1 | |
| 26 | 5 | U | 0 | 6 | 7 | 3 | P | S | 0 | 1 | |
| 26 | 6 | U | 0 | 6 | 8 | 12 | P | S | 0 | 1 | |
| 26 | 7 | U | 0 | 6 | 9 | 100 | P | S | 0 | 1 | |
| 26 | 8 | U | 0 | 7 | 0 | 165 | P | S | 0 | 1 | |
| 26 | 9 | U | 0 | 7 | 1 | 100 | P | S | 0 | 1 | |
| 27 | 0 | U | 0 | 7 | 2 | 100 | P | S | 0 | 1 | |
| 27 | 1 | U | 0 | 7 | 3 | 100 | P | S | 0 | 1 | |
| 27 | 2 | U | 0 | 7 | 4 | 100 | P | S | 0 | 1 | |
| 27 | 3 | U | 0 | 7 | 5 | 381 | P | S | 0 | 1 | |
| 27 | 4 | U | 0 | 7 | 6 | 100 | P | S | 0 | 1 | |
| 27 | 5 | U | 0 | 7 | 7 | 27 | P | S | 0 | 1 | |
| 27 | 6 | U | 0 | 7 | 8 | 100 | P | S | 0 | 1 | |
| 27 | 7 | U | 0 | 7 | 9 | 100 | P | S | 0 | 1 | |
| 27 | 8 | U | 0 | 8 | 0 | 4,129 | P | S | 0 | 1 | |
| 27 | 9 | U | 0 | 8 | 1 | 100 | P | S | 0 | 1 | |
| 28 | 0 | U | 0 | 8 | 2 | 100 | P | S | 0 | 1 | |
| 28 | 1 | U | 0 | 8 | 3 | 9 | P | S | 0 | 1 | |
| 28 | 2 | U | 0 | 8 | 4 | 100 | P | S | 0 | 1 | |
| 28 | 3 | U | 0 | 8 | 5 | 143 | P | S | 0 | 1 | |
| 28 | 4 | U | 0 | 8 | 6 | 100 | P | S | 0 | 1 | |
| 28 | 5 | U | 0 | 8 | 7 | 100 | P | S | 0 | 1 | |
| 28 | 6 | U | 0 | 8 | 8 | 100 | P | S | 0 | 1 | |
| 28 | 7 | U | 0 | 8 | 9 | 100 | P | S | 0 | 1 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 288 | U090 | 100 | P | S01 | |
| 289 | U091 | 518 | P | S01 | |
| 290 | U092 | 143 | P | S01 | |
| 291 | U093 | 100 | P | S01 | |
| 292 | U094 | 100 | P | S01 | |
| 293 | U095 | 100 | P | S01 | |
| 294 | U096 | 100 | P | S01 | |
| 295 | U097 | 100 | P | S01 | |
| 296 | U098 | 100 | P | S01 | |
| 297 | U099 | 100 | P | S01 | |
| 298 | U101 | 100 | P | S01 | |
| 299 | U102 | 100 | P | S01 | |
| 300 | U103 | 9 | P | S01 | |
| 301 | U105 | 100 | P | S01 | |
| 302 | U106 | 100 | P | S01 | |
| 303 | U107 | 100 | P | S01 | |
| 304 | U108 | 104 | P | S01 | |
| 305 | U109 | 143 | P | S01 | |
| 306 | U110 | 100 | P | S01 | |
| 307 | U111 | 100 | P | S01 | |
| 308 | U112 | 5 | P | S01 | |
| 309 | U113 | 100 | P | S01 | |
| 310 | U114 | 100 | P | S01 | |
| 311 | U115 | 3 | P | S01 | |
| 312 | U116 | 100 | P | S01 | |
| 313 | U117 | 18 | P | S01 | |
| 314 | U118 | 100 | P | S01 | |
| 315 | U119 | 100 | P | S01 | |
| 316 | U120 | 100 | P | S01 | |
| 317 | U121 | 293 | P | S01 | |
| 318 | U122 | 778 | P | S01 | |
| 319 | U123 | 8 | P | S01 | |
| 320 | U124 | 143 | P | S01 | |
| 321 | U125 | 3 | P | S01 | |
| 322 | U126 | 100 | P | S01 | |
| 323 | U127 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 324 | U128 | 100 | P | S01 | |
| 325 | U129 | 100 | P | S01 | |
| 326 | U130 | 100 | P | S01 | |
| 327 | U131 | 293 | P | S01 | |
| 328 | U132 | 100 | P | S01 | |
| 329 | U133 | 5 | P | S01 | |
| 330 | U134 | 38 | P | S01 | |
| 331 | U135 | 8 | P | S01 | |
| 332 | U136 | 143 | P | S01 | |
| 333 | U137 | 100 | P | S01 | |
| 334 | U138 | 100 | P | S01 | |
| 335 | U140 | 293 | P | S01 | |
| 336 | U141 | 100 | P | S01 | |
| 337 | U142 | 100 | P | S01 | |
| 338 | U143 | 100 | P | S01 | |
| 339 | U144 | 293 | P | S01 | |
| 340 | U145 | 293 | P | S01 | |
| 341 | U146 | 100 | P | S01 | |
| 342 | U147 | 100 | P | S01 | |
| 343 | U148 | 100 | P | S01 | |
| 344 | U149 | 100 | P | S01 | |
| 345 | U150 | 100 | P | S01 | |
| 346 | U151 | 13 | P | S01 | |
| 347 | U152 | 100 | P | S01 | |
| 348 | U153 | 143 | P | S01 | |
| 349 | U154 | 83 | P | S01 | |
| 350 | U155 | 100 | P | S01 | |
| 351 | U156 | 100 | P | S01 | |
| 352 | U157 | 100 | P | S01 | |
| 353 | U158 | 100 | P | S01 | |
| 354 | U159 | 10 | P | S01 | |
| 355 | U160 | 293 | P | S01 | |
| 356 | U161 | 15 | P | S01 | |
| 357 | U162 | 49 | P | S01 | |
| 358 | U163 | 143 | P | S01 | |
| 359 | U164 | 100 | P | S01 | |

7. **Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 360 | U165 | 293 | P | S01 | |
| 361 | U166 | 100 | P | S01 | |
| 362 | U167 | 143 | P | S01 | |
| 363 | U168 | 143 | P | S01 | |
| 364 | U169 | 12 | P | S01 | |
| 365 | U170 | 12 | P | S01 | |
| 366 | U171 | 100 | P | S01 | |
| 367 | U172 | 100 | P | S01 | |
| 368 | U173 | 100 | P | S01 | |
| 369 | U174 | 100 | P | S01 | |
| 370 | U176 | 100 | P | S01 | |
| 371 | U177 | 100 | P | S01 | |
| 372 | U178 | 100 | P | S01 | |
| 373 | U179 | 100 | P | S01 | |
| 374 | U180 | 100 | P | S01 | |
| 375 | U181 | 100 | P | S01 | |
| 376 | U182 | 100 | P | S01 | |
| 377 | U183 | 100 | P | S01 | |
| 378 | U184 | 100 | P | S01 | |
| 379 | U185 | 100 | P | S01 | |
| 380 | U186 | 100 | P | S01 | |
| 381 | U187 | 100 | P | S01 | |
| 382 | U188 | 293 | P | S01 | |
| 383 | U189 | 100 | P | S01 | |
| 384 | U190 | 293 | P | S01 | |
| 385 | U191 | 100 | P | S01 | |
| 386 | U192 | 100 | P | S01 | |
| 387 | U193 | 100 | P | S01 | |
| 388 | U194 | 100 | P | S01 | |
| 389 | U196 | 293 | P | S01 | |
| 390 | U197 | 100 | P | S01 | |
| 391 | U200 | 100 | P | S01 | |
| 392 | U201 | 100 | P | S01 | |
| 393 | U202 | 100 | P | S01 | |
| 394 | U203 | 100 | P | S01 | |
| 395 | U204 | 293 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 396 | U205 | 100 | P | S01 | |
| 397 | U206 | 100 | P | S01 | |
| 398 | U207 | 100 | P | S01 | |
| 399 | U208 | 100 | P | S01 | |
| 400 | U209 | 100 | P | S01 | |
| 401 | U210 | 513 | P | S01 | |
| 402 | U211 | 30 | P | S01 | |
| 403 | U213 | 33 | P | S01 | |
| 404 | U214 | 100 | P | S01 | |
| 405 | U215 | 100 | P | S01 | |
| 406 | U216 | 293 | P | S01 | |
| 407 | U217 | 100 | P | S01 | |
| 408 | U218 | 293 | P | S01 | |
| 409 | U219 | 293 | P | S01 | |
| 410 | U220 | 20 | P | S01 | |
| 411 | U221 | 100 | P | S01 | |
| 412 | U222 | 100 | P | S01 | |
| 413 | U223 | 21 | P | S01 | |
| 414 | U225 | 12 | P | S01 | |
| 415 | U226 | 6,594 | P | S01 | |
| 416 | U227 | 293 | P | S01 | |
| 417 | U228 | 1,219 | P | S01 | |
| 418 | U234 | 100 | P | S01 | |
| 419 | U235 | 100 | P | S01 | |
| 420 | U236 | 100 | P | S01 | |
| 421 | U237 | 100 | P | S01 | |
| 422 | U238 | 100 | P | S01 | |
| 423 | U239 | 61 | P | S01 | |
| 424 | U240 | 143 | P | S01 | |
| 425 | U243 | 100 | P | S01 | |
| 426 | U244 | 100 | P | S01 | |
| 427 | U246 | 231 | P | S01 | |
| 428 | U247 | 100 | P | S01 | |
| 429 | U248 | 100 | P | S01 | |
| 430 | U249 | 100 | P | S01 | |
| 431 | U271 | 100 | P | S01 | |

**7. Description of Hazardous Wastes** (Enter codes for Items 7.A, 7.C and 7.D(1) ) **(continued)**

| Line No. | A. EPA Hazardous Waste No. | B. Estimated Annual Qty of Waste | C. Unit of Measure | D. Processes (1) Process Codes | D. Processes (2) Process Description (if code is not entered in 7.D1)) |
|---|---|---|---|---|---|
| **Technical Area 60 (continued)** | | | | | |
| 432 | U278 | 100 | P | S01 | |
| 433 | U279 | 100 | P | S01 | |
| 434 | U280 | 100 | P | S01 | |
| 435 | U328 | 100 | P | S01 | |
| 436 | U353 | 100 | P | S01 | |
| 437 | U359 | 100 | P | S01 | |
| 438 | U364 | 100 | P | S01 | |
| 439 | U367 | 100 | P | S01 | |
| 440 | U372 | 100 | P | S01 | |
| 441 | U373 | 100 | P | S01 | |
| 442 | U387 | 100 | P | S01 | |
| 443 | U389 | 100 | P | S01 | |
| 444 | U394 | 100 | P | S01 | |
| 445 | U395 | 100 | P | S01 | |
| 446 | U404 | 100 | P | S01 | |
| 447 | U409 | 100 | P | S01 | |
| 448 | U410 | 100 | P | S01 | |
| 449 | U411 | 100 | P | S01 | |

# ATTACHMENT D

# CONTINGENCY PLAN

# TABLE OF CONTENTS

**LIST OF TABLES**

additional Facility resources is provided, as necessary. Assistance is coordinated through emergency management personnel.

## D.2 EMERGENCY EQUIPMENT AND COMMUNICATIONS

### D.2.1 Emergency Equipment

The Permittees shall make available the lists of emergency equipment listed in Table D-1 for use at any of Permittees' hazardous or mixed waste management units. The list includes emergency equipment available in the HAZMAT vehicles and trailers as well as supplemental emergency equipment maintained by the LAFD, MSS, and occupational medicine personnel. A list of emergency equipment available for use at specific hazardous and/or mixed waste management units is identified in Attachment Tables TA-3, D-1; TA-50, D-1; TA-54, Area L, D-1; TA-54, Area G, D-2; TA-54 West, D-3; TA-55 Building 4 First Floor, D-1; TA-55 Building 4 Basement, D-2; TA-55 Container Storage Pad, D-3; TA-55-0355 Pad, D-4; TA-60 Building 17, D-1 and TA-63 Transuranic Waste Facility, D-1. Emergency equipment listed in these tables may be replaced and/or upgraded with functionally equivalent components and equipment, as necessary, for routine maintenance and repair.

### D.2.2 Emergency Communications

The initial phase of an emergency may involve a small number of individuals at the affected area and that requires notification of the Incident Response Commander, utilizing local communication equipment and/or systems. When responding to hazardous and/or mixed waste emergencies, the Permittees shall ensure that emergency management personnel can provide communications between response units and emergency organizations.

#### D.2.2.1 Fire Alarms

Fire alarms are monitored 24 hours per day by trained personnel in the EOSC. Both the primary and backup buildings where the monitoring takes place have emergency power systems. The Incident Response Commander is notified when there is confirmed fire or smoke by the EOSC.

#### D.2.2.2 Power Dispatch

The Permittees shall maintain the Power Dispatch facility 24 hours a day. Alarms at this facility are connected to Facility experiments, equipment, and/or buildings to record outages and hazardous conditions. Any conditions that activate these alarms shall be reported immediately to the building management or to the EOSC operator for notification and response.

#### D.2.2.3 Additional Communication Systems

Internal communication systems at the Facility include:

1. Preprogrammed telephone system
2. Private telephone lines

jurisdictions, agencies will work together through the designated member of the unified command to establish a common set of objectives and strategies and single incident Action Plan.

3. If a fire results from an explosion, the LAFD Senior Officer will, upon arrival at the scene, evaluate all available information and determine the appropriate firefighting methods and tactics. The LAFD Senior Officer will direct firefighting operations under a unified command.

## D.6 FIRE

1. Fires and resultant releases of hazardous or mixed waste may result in a significant threat to human health or the environment. Implementation of this Plan is required whenever there is a fire at a permitted unit.

2. Fire alarms will be sounded automatically or manually to alert personnel that a fire hazard exists and to evacuate the area immediately if in the vicinity. Information related to the various fire alarms at the specific units is included in Attachment Tables TA-3, D-1; TA-50, D-1; TA-54, Area L, D-1; TA-54, Area G, D-2; TA-54 West, D-3; TA-55 Building 4 First Floor, D-1; TA-55 Building 4 Basement, D-2; TA-55 Container Storage Pad, D-3; TA-55-0355 Pad, D-4; TA-60 Building 17, D-1; and TA-63 Transuranic Waste Facility, D-1.

3. Depending on the size of the fire and the fuel source, portable fire extinguishers may be used. However, Facility policy does not encourage the use of portable fire extinguishers by employees unless they are properly trained. Instead, Facility policy encourages immediate evacuation of the area and notification of the Los Alamos County Dispatch Center by dialing 911. For any fire, including a fire that involves hazardous or mixed waste, the responsible Line Manager and emergency management personnel must be contacted immediately. The Incident Response Commander will alert the LAFD and all other necessary emergency response personnel. If the fire spreads or increases in intensity, all personnel must follow protective actions as designated by the Incident Response Commander. The Incident Response Commander assumes incident command or enters unified command and will remain near the scene to advise personnel responding to the fire of the known hazards.

4. Upon arrival at the scene, the LAFD Senior Officer will evaluate all available information and determine the appropriate firefighting methods and tactics. The LAFD Senior Officer will direct firefighting operations under a unified command.

## D.7 UNPLANNED NONSUDDEN RELEASES

Nonsudden releases include those incidents that, if uncontrolled, impact the environment over a long period of time. Such incidents include minor leaks from containers and loss of secondary containment integrity.

### D.7.1 Responsibility

Appropriate Facility personnel are responsible for correction of a nonsudden release from a hazardous or mixed waste unit if the correction can be performed safely with normal

# TA-60

# ATTACHMENT D

# CONTINGENCY PLAN

# TA-60

# ATTACHMENT D

# CONTINGENCY PLAN

Specific information on emergency response resources and release prevention/mitigation at TA-60 is provided below.

Listings of emergency equipment currently available for use at TA-60 Building 17 are presented in Table D-1 below.

# TABLE D-1

## TA-60 Building 17, Container Storage Facility

## Emergency Equipment

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### FIRE CONTROL EQUIPMENT

The structure is equipped with a wet pipe sprinkler system, an alarm system (pull-stations, horn, and strobe units), and a partial smoke detection system. The smoke detection is located over the fire alarm control panel (FACP) and is required for the FACP. Also, exit signage, emergency lights and ABC and/or BC rated fire extinguishers are located and spaced accordingly in the structure. An ABC and/or BC rated fire extinguisher is located in each vehicle used to transport waste containers to the facility.

Description of General Capabilities:
In the event of a small fire, portable and manually operated fire extinguishers may be used by any qualified employee. For larger fires, the Emergency Operations and Support Center (EOSC) and the Los Alamos Fire Department (LAFD) is alerted and requested to respond.

The EOSC and LAFD are also notified upon activation of the flame or smoke detectors.

Fire hydrant located near TA-60-0017.

Description of General Capabilities: Fire hydrant supplies water at an adequate volume and pressure to satisfy the requirements of 40 CFR 264.32(d).

### SPILL CONTROL EQUIPMENT

Spill control stations and/or portable spill kits are located at TA-60-0017. Each spill kit generally includes bags of absorbent and an inventory of tools and supplies.

### COMMUNICATION EQUIPMENT

Telephone system located inside the container storage unit of building. Facility personnel use cell phones for communications.

Description of General Capabilities:

Telephone and portable two-way radios for internal and external communication are available for use by any employee. Employees can be notified of an emergency situation and appropriate response action through the LANL Alert notification system.

Fire alarm pull station located in the storage building and adjacent area. In case of a fire, notification will be made via telephone.

Description of General Capabilities:
In the event of a fire, manually operated fire alarms may be activated by any employee to alert TA-60-0017 site personnel, the EOSC, and the LAFD.

Fire and public address system alarms are located throughout the facility.

Description of General Capabilities:
The fire and public address system are activated or used to provide a sound signal to alert personnel of fires or the need to clear the area.

**DECONTAMINATION EQUIPMENT**

Eyewash/emergency shower stations are available at TA-60-0017. Safety Data Sheets (SDSs) are available. SDS information is maintained where appropriate for personnel accessibility and are used for chemicals that will be needed to support operations or emergency activities.

Description of General Capabilities:
Eyewashes and emergency showers may be used by personnel who receive a chemical splash to the eyes or body. Specific SDSs should be reviewed prior to working with chemicals.

**PERSONAL PROTECTIVE EQUIPMENT**

Personnel at TA-60-0017 are required to use appropriate personal protective equipment (PPE) to protect themselves from hazards found under normal conditions. This PPE may include gloves, steel toe shoes, and eye protection, additional PPE may be required during unusual hazardous situations. First aid kits and hearing protection are also available.

Description of General Capabilities:
To prevent undue exposure of personnel to hazardous waste, PPE appropriate for the waste containers being managed will be worn by all on-site personnel at TA-60-0017. First aid kits are available and may be used by personnel who sustain minor injuries at the unit in the course of operations. Hearing protection may be used by operations personnel to mitigate noise impacts.

# ATTACHMENT J

# HAZARDOUS WASTE MANAGEMENT UNITS

| Unit Identifier | Process Codes | Operating Capacity | General Information | Type of Unit |
|---|---|---|---|---|
| | | | Characterization Trailers, and Outside Storage Pad<br>Includes treatment process for macroencapsulation<br>Total square footage—79,239 | |
| TA-60,<br>Building 17 | S01<br>T04 | 17,600 gal<br>3,441 gal/day | Located in the southern wing of Building 17 (TA-60-0017)<br>Includes treatment process for macroencapsulation<br>Total square footage – 3,480 | Indoor |

# ATTACHMENT N

# FIGURES

**List of Figures for Permit**

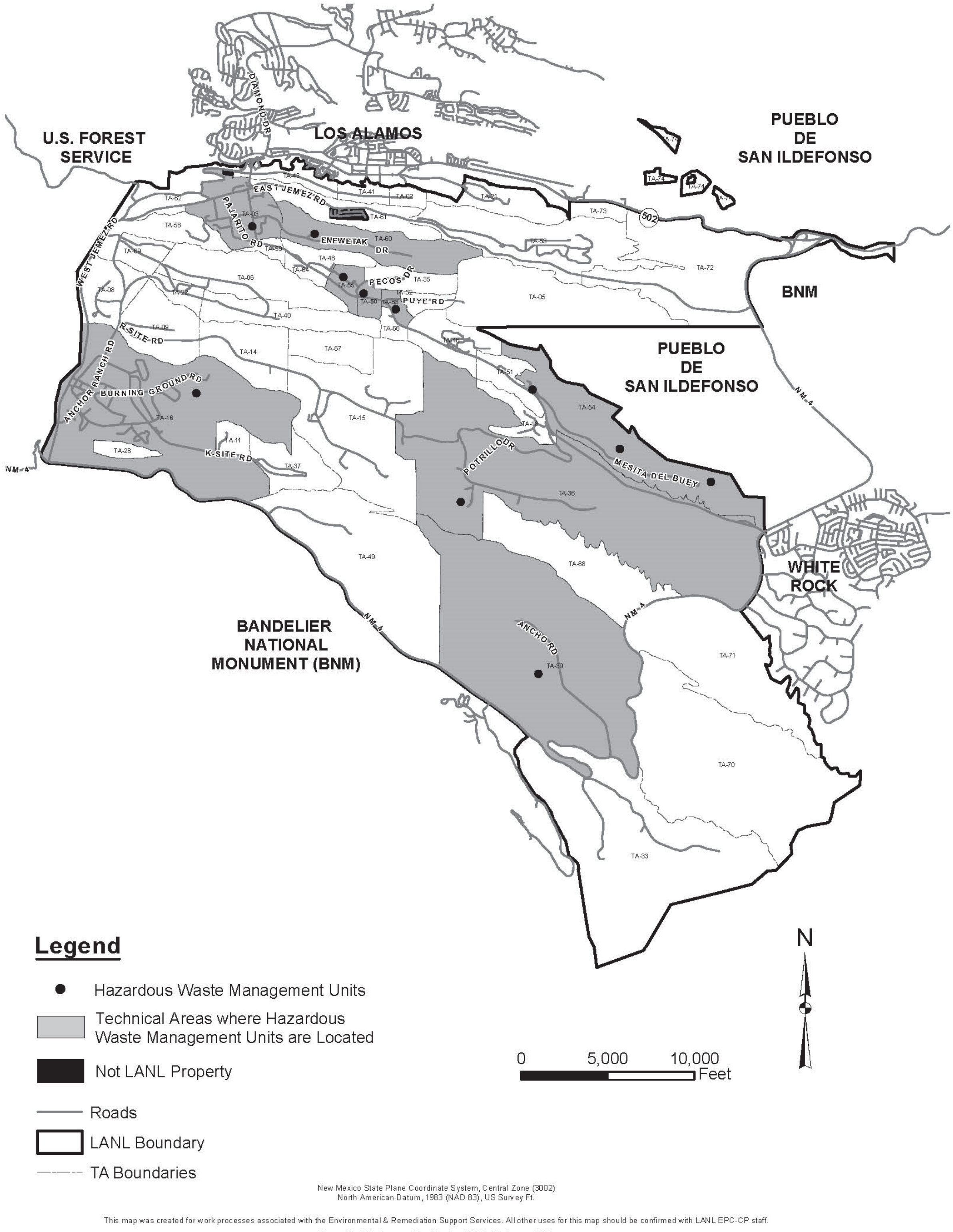


Figure 2: LANL Facility Boundary and Technical Area (TA)-Specific Map

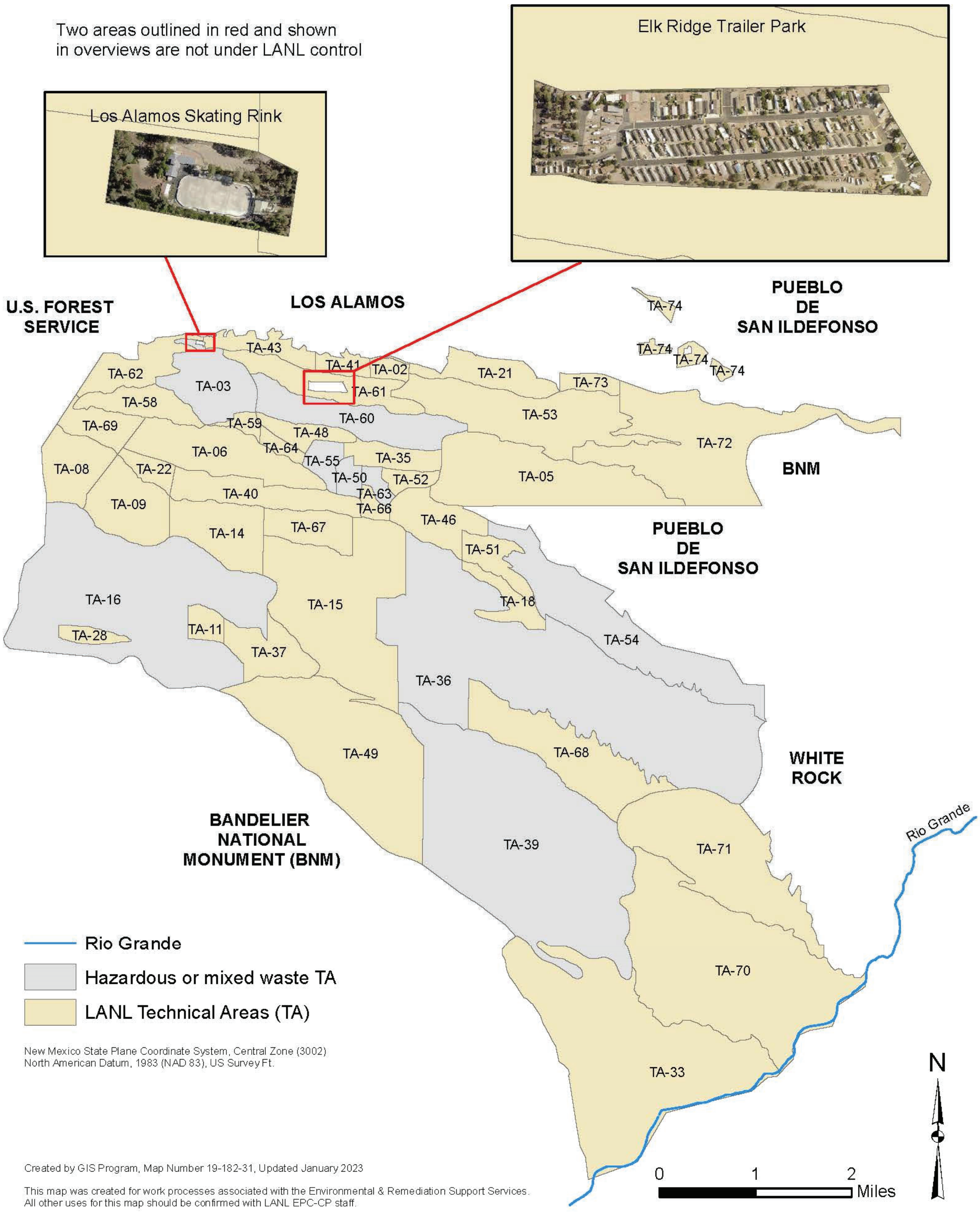


Figure 3: LANL Facility Boundary with Detail of Non-LANL Areas

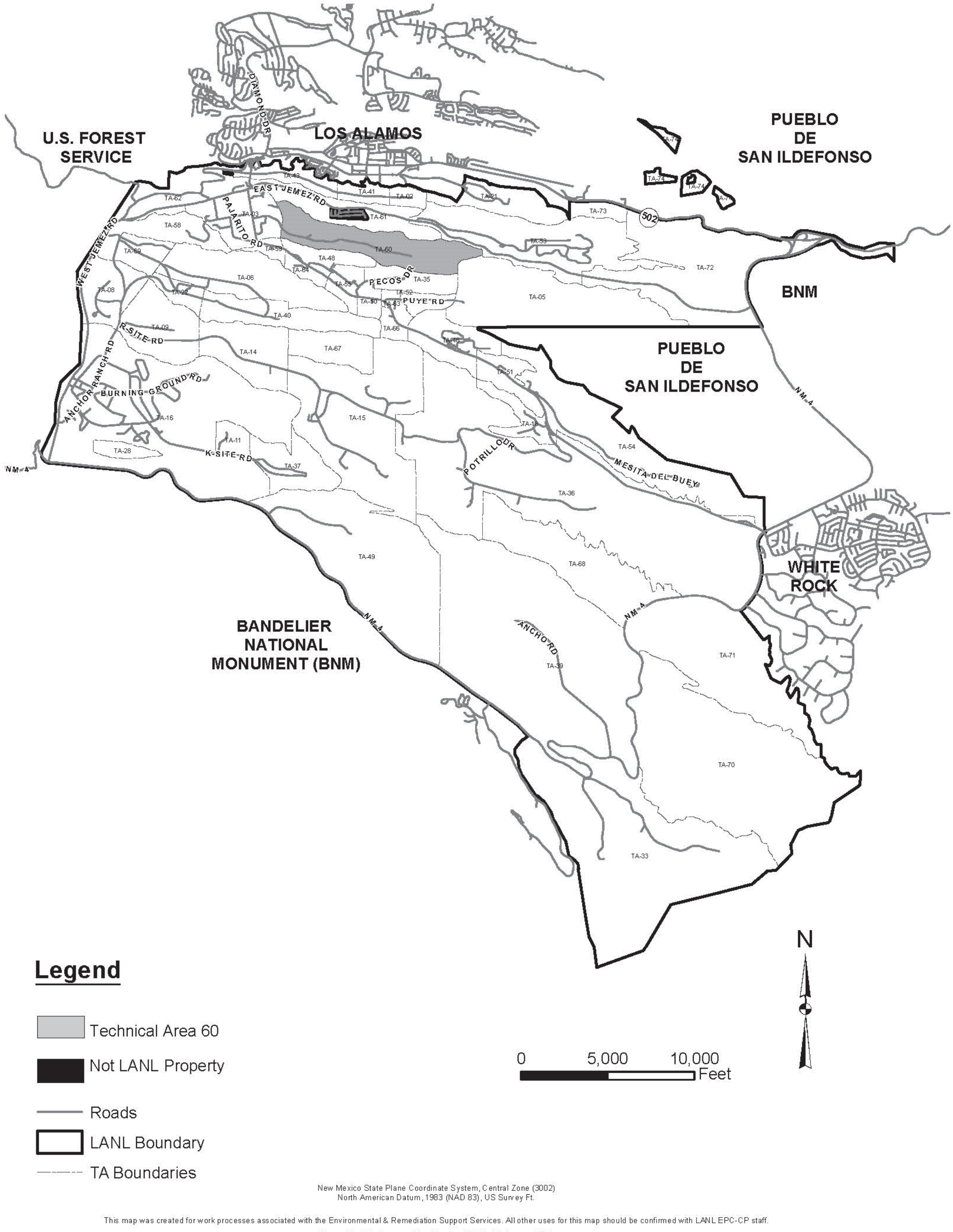


Figure 51: TA-60 Location Map

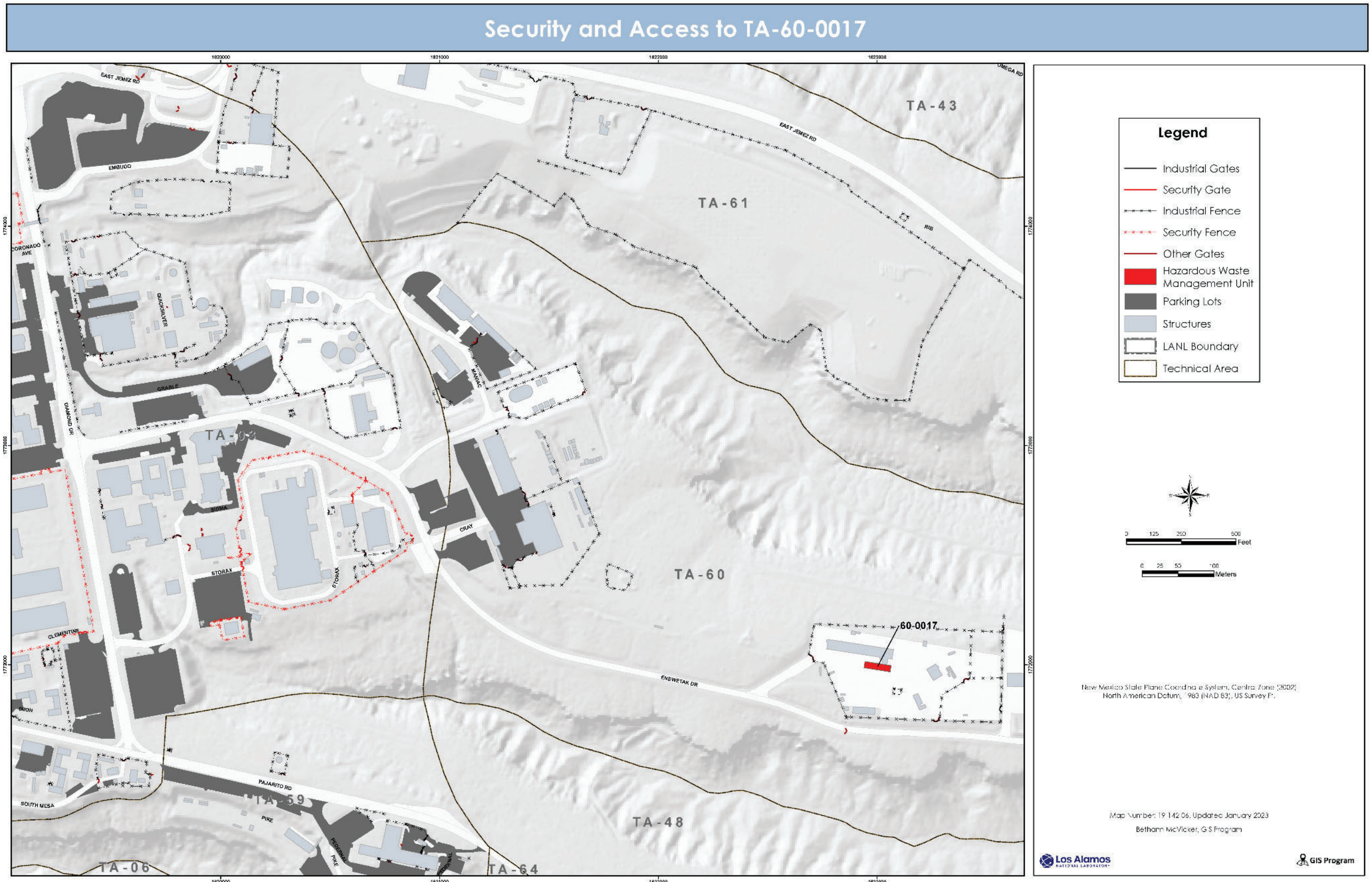


Figure 52: Security and Access to TA-60-0017

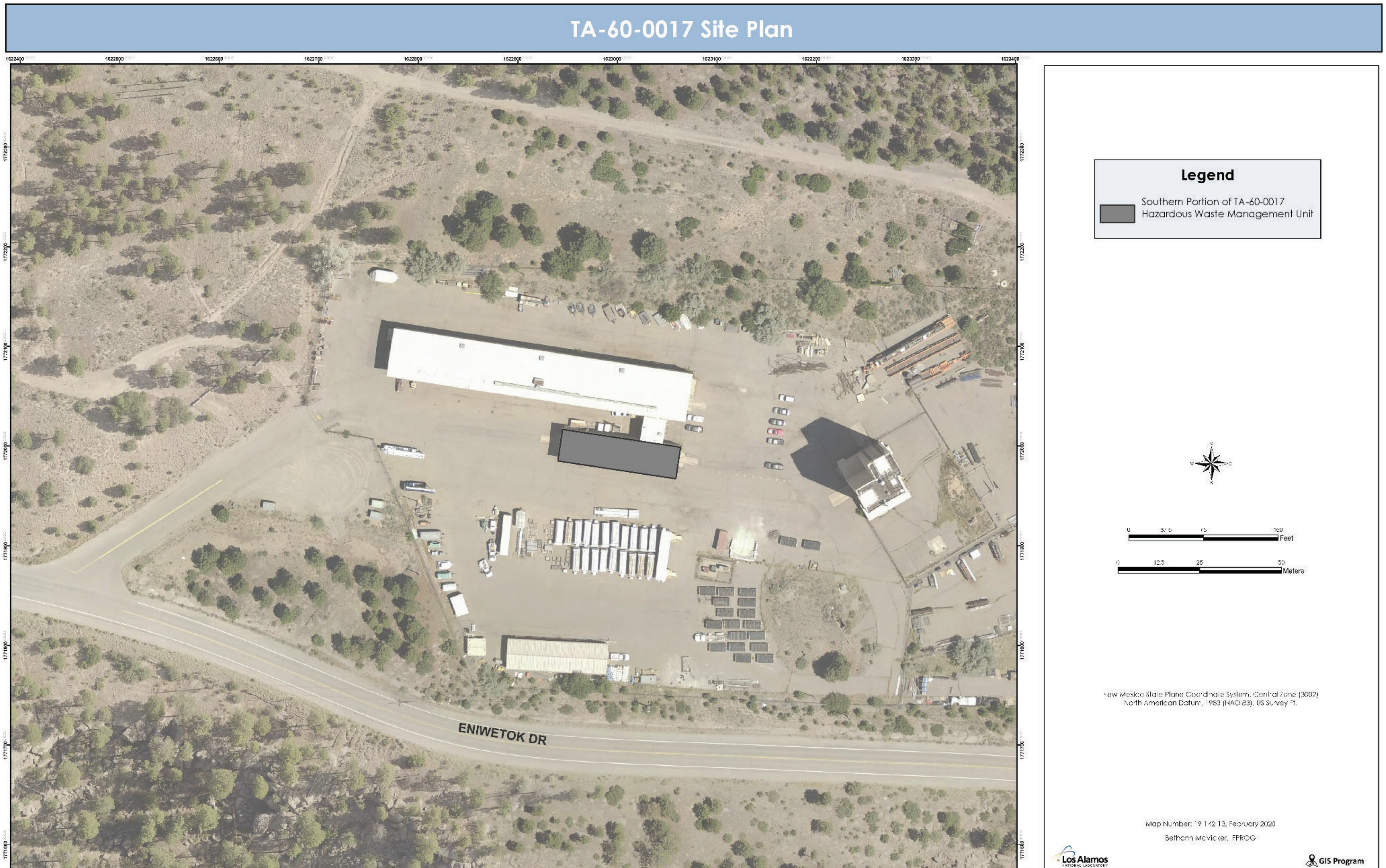


Figure 53: TA-60-0017 Site Plan

# Attachment 4 TA-60-0017 Closure Plan, Indoor Container Storage Unit

G.1 - TECHNICAL AREA 3, BUILDING 29 INDOOR CONTAINER STORAGE UNIT

G.4 - TECHNICAL AREA 50, BUILDING 69, INDOOR CONTAINER STORAGE UNIT

G.5 - TECHNICAL AREA 50, BUILDING 69, OUTDOOR CONTAINER STORAGE UNIT

G.6 - TECHNICAL AREA 54, AREA G, PAD 1, OUTDOOR CONTAINER STORAGE UNIT

G.7 - TECHNICAL AREA 54, AREA G, PAD 3, OUTDOOR CONTAINER STORAGE UNIT

G.8 - TECHNICAL AREA 54, AREA G, PAD 5, OUTDOOR CONTAINER STORAGE UNIT

G.9 - TECHNICAL AREA 54, AREA G, PAD 6, OUTDOOR CONTAINER STORAGE UNIT

G.10 - TECHNICAL AREA 54, AREA G, PAD 9, OUTDOOR CONTAINER STORAGE UNIT

G.11 - TECHNICAL AREA 54, AREA G, PAD 10, OUTDOOR CONTAINER STORAGE UNIT

G.12 - TECHNICAL AREA 54, AREA G, PAD 11, OUTDOOR CONTAINER STORAGE UNIT

G.13 - TECHNICAL AREA 54, AREA G, STORAGE SHED 8, INDOOR CONTAINER STORAGE UNIT

G.14 - TECHNICAL AREA 54, AREA G, BUILDING 33, INDOOR CONTAINER STORAGE UNIT

G.15 - TECHNICAL AREA 54, AREA L, OUTDOOR CONTAINER STORAGE UNIT

G.16 - TECHNICAL AREA 54 WEST, BUILDING 38, INDOOR CONTAINER STORAGE UNIT

G.17 - TECHNICAL AREA 54, WEST, OUTDOOR CONTAINER STORAGE UNIT

G.18 - TECHNICAL AREA 55, BUILDING 4 ROOM B40, INDOOR CONTAINER STORAGE UNIT

G.19 - TECHNICAL AREA 55, BUILDING 4 ROOM K13, INDOOR CONTAINER STORAGE UNIT

G.20 - TECHNICAL AREA 55, BUILDING 4, ROOM B05, INDOOR CONTAINER STORAGE UNIT

G.21 - TECHNICAL AREA 55, BUILDING 4, ROOM B45, INDOOR CONTAINER STORAGE UNIT

G.22 - TECHNICAL AREA 55, BUILDING 4, VAULT, INDOOR CONTAINER STORAGE UNIT

G.23 - TECHNICAL AREA 55, BUILDING 4, ROOM 401, INDOOR STORAGE TANK UNIT

G.24 - TECHNICAL AREA 55, BUILDING 4, ROOM 401, INDOOR MIXED WASTE STABILIZATION TREATMENT UNIT

G.25 - TECHNICAL AREA 55, 0355 PAD

G.26 - TECHNICAL AREA 55, OUTDOOR STORAGE PAD

G.27 - TECHNICAL AREA 63, TRANSURANIC WASTE FACILITY

G.29 – TECHNICAL AREA 55, BUILDING 4 ROOM B13 INDOOR CONTAINER STORAGE UNIT

G.30 – TECHNICAL AREA 55, BUILDING 4 ROOM G12 INDOOR CONTAINER STORAGE UNIT

G.31 – TECHNICAL AREA 60, BUILDING 17 INDOOR CONTAINER STORAGE UNIT

**ATTACHMENT G.31**

**TECHNICAL AREA 60, BUILDING 17**

**INDOOR CONTAINER STORAGE UNIT**

**CLOSURE PLAN**

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## 1.0 INTRODUCTION

This closure plan describes the activities necessary to close the indoor hazardous waste container storage unit which is located in the southern portion of Technical Area (TA) 60, Building 17 (TA-60-0017) at the Los Alamos National Laboratory (Facility), hereinafter referred to as the permitted unit. The information provided in this closure plan addresses the closure requirements specified in Permit Part 9 and the Code of Federal Regulations (CFR), Title 40, Part 264, Subparts G and I for hazardous waste management units operated at the Facility under the Resource Conservation and Recovery Act (RCRA) and the New Mexico Hazardous Waste Act.

Until closure is complete and has been certified in accordance with Permit Section 9.5, a copy of the approved closure plan or the hazardous waste facility permit containing the plan, any approved revisions to the plan, and closure activity documentation associated with the closure will be on file with hazardous waste compliance personnel at the Facility and at the U.S. Department of Energy (DOE) Los Alamos Site Office. Prior to closure of the permitted unit, this closure plan may be amended in accordance with Permit Section 9.4.8, as necessary and appropriate, to provide updated sampling and analysis plans and to incorporate updated decontamination technologies. Amended closure plans shall be submitted to the New Mexico Environment Department (Department) for approval prior to implementing closure activities.

## 2.0 DESCRIPTION OF UNIT TO BE CLOSED

A specific description of the permitted unit can be found in Permit Attachment A (*Technical Area Unit Descriptions*). Additional features and equipment located at the permitted unit and not discussed within the Permit are described below.

The floor of the permitted unit has been used for staging and storage of hazardous waste. The permitted unit is located in the southern part of TA-60-0017. This storage area is rectangularly shaped (approximately 3480 $ft.^2$) as shown in Figure 3-3. The maximum storage capacity of this unit is approximately 17,600 gal. or the equivalent of 320 55-gal drums. The types of waste containers holding hazardous or mixed waste that are stored include various small containers, 30-, 55-, 85-gal drums and solid waste boxes. Containers with free liquids are stored in the unit, so secondary containment is utilized appropriately.

The structure where permitted unit resides was constructed in 1986. The unit is used to store hazardous and mixed waste. Permit Part 3 (*Storage in Containers*), Permit Attachment A (*Technical Area Unit Descriptions*), Permit Attachment B (*Part A Application*), and Permit Attachment C (*Waste Analysis Plan*) include information regarding waste management procedures and hazardous waste constituents stored at the permitted unit.

## 3.0 ESTIMATE OF MAXIMUM WASTE STORED

To date, hazardous waste has been stored at the permitted unit only in a temporary central accumulation area capacity. Throughout the life of this Permit, it is estimated that 2,000 cubic meters of waste will be stored in the permitted unit.

## 4.0 GENERAL CLOSURE REQUIREMENTS

### 4.1 Closure Performance Standard

As required by Permit Section 9.2, the permitted unit will be closed to meet the following performance standards:

a. remove all hazardous waste residues and hazardous constituents; and

b. ensure contaminated media do not contain concentrations of hazardous constituents greater than the clean-up levels established in accordance with Permit Sections 11.4 and 11.5. For soils, the cleanup levels shall be established based on residential use. The Permittees must also demonstrate that there is no potential to contaminate groundwater.

If the Permittees are unable to achieve either of the clean closure standards above, they must:

c. control hazardous waste residues, hazardous constituents, and, as applicable, contaminated media such that they do not exceed a total excess cancer risk of $10^{-5}$ for carcinogenic substances and, for non-carcinogenic substances, a target Hazard Index of 1.0 for human receptors, and meet Ecological Screening Levels established under Permit Section 11.5;

d. minimize the need for further maintenance;

e. control, minimize, or eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, groundwater, surface waters, or to the atmosphere; and

f. comply with the closure requirements of Permit Part 9 (*Closure*) and 40 CFR Part 264 Subparts G and I for container storage units.

Closure of the permitted unit will be deemed complete when: 1) all structures, surfaces, and equipment have been decontaminated, or otherwise properly disposed of; 2) closure has been certified by an independent, professional engineer licensed in the State of New Mexico; and 3) closure certification has been submitted to, and approved by, the Department.

### 4.2 Closure Schedule

This closure plan schedule is intended to address the closure requirements for the permitted unit within the authorized timeframe of the current Hazardous Waste Facility Permit (*see* Permit Section 9.4). The following section provides the schedule of closure activities (*see also* Table G.31-1 in this closure plan).

Notification of closure will occur at least 45 days before the Permittees expect to begin closure (*see* 40 CFR § 264.112(d)(1)) and closure activities will begin according to the requirements of 40 CFR § 264.112(d)(2). However, pursuant to 40 CFR § 264.112(e), removing hazardous wastes and decontaminating or dismantling equipment in accordance with an approved closure plan may be conducted at any time before or after notification of closure. Notification of the structural assessment (assessment), as described in Section 5.2 of this closure plan, shall occur in accordance with Permit Section 9.4.6.2.

Within 90 days after the final receipt of hazardous waste, the permitted unit will be emptied of all stored waste. Within ten days of completing hazardous waste removal or within 100 days of the final receipt of hazardous waste, the Permittees will complete the records review (review) and assessment and submit an amended closure plan, if necessary, to the Department for review and approval as a permit modification in accordance with Permit Section 9.4.8. Upon approval of the modified closure plan, if applicable, the Permittees will decontaminate unit surfaces and related equipment.

Decontamination verification, and soil sampling if applicable, will be conducted to demonstrate surfaces, related equipment, and media if applicable, at the permitted unit meet the closure performance standards in Permit Section 9.2.

All closure activities, including submittal of a final closure certification report to the Department for review and approval, will be completed within 180 days after the final receipt of waste. In the event that closure of the permitted unit cannot proceed according to schedule, the Permittees will notify the Department in accordance with the extension request requirements in Permit Section 9.4.1.1.

## 5.0 CLOSURE PROCEDURES

Closure activities at the permitted unit will include: removal of hazardous wastes; proper management and disposal of hazardous waste residues and contaminated equipment associated with the permitted unit; verification that the closure performance standards have been achieved; and submittal of a final closure certification report. The following sections describe the procedures to be used for closure of the permitted unit.

### 5.1 Removal of Waste

In accordance with Permit Section 9.4.2, all stored hazardous waste will be removed from the permitted unit scheduled for closure. Depending upon their size, containers will be removed with forklifts, container dollies, air pallets or manually. Containers will be placed on flatbed trucks, trailers, or other appropriate vehicles for transport. Appropriate shipping documentation will accompany the wastes during transport. Containers holding hazardous waste will be moved to a permitted on-site storage unit or a permitted off-site treatment, storage, or disposal facility.

### 5.2 Records Review and Structural Assessment

After waste removal and before starting decontamination and sampling activities, the Facility Operating and Inspection Records for the permitted unit will be reviewed and an assessment will be conducted to determine any finding(s) or action(s) that may influence closure activities or additional sampling locations.

#### 5.2.1 Records Review

The Facility Operating and Inspection Records shall be reviewed as outlined in Permit Section 9.4.6.1. The goals of the review will be to:

a. confirm the specific hazardous waste constituents of concern; and

b. confirm additional sampling locations (*e.g.*, locations of any spills or chronic conditions identified in the Operating and Inspection Records).

### 5.2.2 Structural Assessment

An assessment of the permitted unit's physical condition will be conducted in accordance with Permit Section 9.4.6.2. The assessment will include inspecting the floor and walls of the permitted unit for any existing cracks or conditions that indicate a potential for, or an actual, release of constituents. If a crack, gap, or stained area is present, the Permittees will amend this closure plan in order to update the sampling and analysis plan (SAP) (*see* Section 6.0 of this closure plan) to add these sampling locations and the applicable sampling methods and procedures. This inspection will be documented with photographs and drawings, as necessary.

## 5.3 Decontamination and Removal of Equipment and Structures

In accordance with procedures in Permit Section 9.4.3, all remaining hazardous waste residues and hazardous constituents will be removed from the permitted unit. The permitted unit's structures and equipment will be decontaminated, removed, or both and managed appropriately. All waste material will be controlled, handled, characterized, and disposed of in accordance with Permit Attachment C (*Waste Analysis Plan*) and Facility waste management procedures. Decontamination activities will ensure the removal of all hazardous waste residues and hazardous constituents from the permitted unit to meet the closure performance standards outlined in Permit Section 9.2.

### 5.3.1 Removal of Structures and Related Equipment

All structures and related equipment that are removed will not require decontamination, will be considered solid and potentially hazardous waste (as defined by this Permit) when removed, and disposed of in accordance with Permit Section 9.4.5 and Section 7.0 of this closure plan. Table G.31-2 outlines the potential waste materials, waste types, and disposal options.

### 5.3.2 Decontamination of Structures and Related Equipment

All structures and equipment that will be reused by the Facility will be decontaminated in accordance with Permit Section 9.4.3.1. There is currently no equipment located at the permitted unit that is expected to be left in place; however, if equipment identified during the assessment is expected to be left in place, it will be decontaminated in accordance with this section.

Decontamination of the permitted unit will be conducted by first removing loose material (*e.g.,* dust dirt) through sweeping followed by washing using a manual wipe down method with a solution consisting of a surfactant detergent (*e.g.*, Alconox®) and water mixed in accordance with the manufacture's recommendations.

Wipe-down washing will be utilized because of the need to minimize the potential for exposure to workers and the mitigation of cleaning solution to other areas of the adjacent building outside the Permitted unit's boundary. While unlikely, migration of the wash solution (in the form of splashing, condensation, or drainage) from steam cleaning or pressure washing may potentially contaminate or otherwise negatively affect ongoing operations within the adjacent building. Migration can potentially be mitigated using plastic barriers taped to surfaces to enclose the area. However, areas enclosed in this manner will require workers to use additional personal protective equipment (PPE). This PPE will include fully enclosed protective wear and supplied air because of the increased risk of exposure to personnel due to a potential release of radiological materials and organic compounds and concentrations within the enclosure. Enclosure of the area increases the risk of personnel exhaustion, because of the additional PPE, and the potential for worker to reach radiological work exposure limits. Therefore, wipe-down washing, rather than steam cleaning for pressure washing will be utilized because of the need to minimize the potential for exposure to workers and the migration of cleaning solution to other areas of the adjacent building outside of the permitted unit's boundary.

The entirety of the unit's floor will be decontaminated. To ensure that decontamination of the walls is conducted to a sufficient height, all walls in the permitted unit will be decontaminated to an appropriate height of 8 feet.

The ceiling and areas outside of the permitted unit will be presumed to be free of contamination unless: there is some physical indication of contamination (*e.g.,* staining), the records review reveals waste management outside of designated area, or a spill or release occurred within the permitted unit that could have affected the surrounding areas.

Cloths, or other absorbent cleaning devices, will not be reused to wipe-down the surfaces after being wetted in the wash solution or after spraying solution onto surfaces. Only one cloth or absorbent cleaning device will be used at a time in a single area to prevent cross-contamination. To minimize the amount of liquid waste generated as a result of decontamination activities, the wash solution will be dispersed from buckets, spray bottles, or other types of small containers.

Portable berms or other such devices (*e.g.*, absorbent socks, plastic sheeting, wading pools, existing secondary containment) will collect excess wash water and provide containment during the decontamination process.

### 5.4 Equipment Used During Decontamination Activities

Reusable protective clothing, tools, and equipment used during closure activities will be cleaned with a wash water solution. Residue, disposable equipment, and equipment that cannot be decontaminated will be containerized and managed as waste as summarized in Table G.31-2 and in accordance Permit Section 9.4.5 and Section 7.0 of this closure plan.

## 6.0 SAMPLING AND ANALYSIS PLAN

This SAP addresses the specific closure sampling and analysis requirements in Permit Section 9.4.7 and describes the sampling, analysis, and quality assurance and quality control (QA/QC) methods that will be used to demonstrate that the Permittees have met the closure performance standards outlined in Permit Section 9.2.

### 6.1 Decontamination Verification Sampling Activities

Decontamination verification sampling activities will be conducted at the Permitted unit in order to verify that surfaces and related equipment at the permitted unit meet the closure performance standards in Permit Section 9.2. All samples will be collected and analyzed in accordance with the procedures in Section 6.2, 6.3, and 6.4 of this closure plan.

One wipe sample will be collected from each piece of decontaminated equipment at the permitted unit. In compliance with Permit Section 9.4.7.1.i, this closure plan will ensure the collection of at least one wipe sample from the floor and from each wall (up to 11 ft.) of the permitted unit. Verification wipe samples will be collected from random locations within each of the sample areas indicated on Figure G.31-1 of this closure plan. A total of one wipe sample, from the floor, and four wipe samples from the walls. Solid chip samples may be collected and analyzed to determine if residual hazardous constituents remain in the concrete floor at the permitted unit.

### 6.2 Sample Collection Procedures

Samples will be collected in accordance with the Permit Section 9.4.7.1 and procedures identified in this SAP which incorporates guidance from the United States Environmental Protection Agency (US EPA) (EPA, 1986 and EPA, 2002), DOE (DOE, 1995), and other Department-approved procedures.

#### 6.2.1 Wipe Sampling

Surface wipe samples will be collected and analyzed used to determine if residual hazardous constituents remain on surfaces, structures, or equipment at the permitted unit. Samples will be collected in accordance with the National Institute of Occupational Safety and Health (NIOSH) *Manual of Analytical Methods* (NIOSH, 1994). The appropriate wipe sample method will consider the type of surface being sampled, the type of constituent being sampled for, the solution used, and the desired constituent concentration detection limit.

The NIOSH method includes wiping a 100-square centimeter area at each discrete location with a gauze wipe wetted with a liquid solution appropriate for the desired analysis (*e.g.*, deionized water for lead). For wipe sampling, guidance from the analytical laboratory must be obtained prior to wipe verification sampling to confirm that the solution chosen for each analysis is appropriate for the analysis to be conducted and that wipe sampling is a proper technique for the analysis.

#### 6.2.2 Solid Chip Sampling

Solid chip samples may be collected and analyzed to determine if residual hazardous constituents remain in the concrete floor at the permitted unit. Any non-porous inclusions from the sampling location will be removed by brushing or wiping. Using a chisel, drill, hole saw, or similar too, a minimum of 100 grams of the sample will be collected to a depth of 2 cm, or to and alternate depth specified in the assessment and transferred to and an appropriate sampling container. The holding time and preservation techniques to be used for each analysis will be determined form Table G.31-3.

#### 6.2.3 Cleaning of Sampling Equipment

Reusable sampling equipment will be cleaned and rinsed prior to use. Sampling equipment rinsate blanks will be collected and analyzed only if reusable sampling equipment is used. Reusable decontamination equipment, including protective clothing and tools, used during closure activities will be scraped as necessary to remove residue and cleaned with a wash water solution. Sampling equipment will be cleaned prior to each use with a wash solution, rinsed several times with tap water, and air-dried to prevent cross contamination of samples. A disposable sampler is considered clean if still in a factory-sealed wrapper.

### 6.3 Sample Management Procedures

The following sections provide a description of sample documentation, handling, preservation, storage, packaging, and transportation requirements that will be followed during the sampling activities associated with the closure.

#### 6.3.1 Sample Documentation

Sampling personnel will complete and maintain records to document sampling and analysis activities. Sample documentation will include sample identification numbers, chain-of-custody forms, analysis requested, sample logbooks detailing sample collection activities, and shipping forms (if necessary).

##### 6.3.1.1 Chain-of-Custody

Chain-of-custody forms will be maintained by sampling personnel until the samples are relinquished to the analytical laboratory. This will ensure the integrity of the samples and provide for an accurate and defensible written record of the sampling possession and handling from the time of collection until laboratory analysis. One chain-of-custody form may be used to document all of the samples collected from a single sampling event. The sample collector will be responsible for the integrity of the samples collected until properly transferred to another person. The EPA considers a sample to be in a person's custody if it is:

a. in a person's physical possession;

b. in view of the person in possession; or

c. secured by that person in a restricted access area to prevent tampering.

The sample collector will document all pertinent sample collection data. Individuals relinquishing or receiving custody of the samples will sign, date, and note the time on the analysis request and chain-of-custody form. A chain-of-custody form must accompany all samples from collection through laboratory analysis. The analytical laboratory will return the completed chain-of-custody form to the Facility and it will become a part of the permanent record documenting the sampling efforts.

##### 6.3.1.2 Sample Labels and Custody Seals

A sample label will be affixed to each sample container. The sample label will include the following information:

a. a unique sample identification number;

b. name of the sample collector;

c. date and time of collection;

d. type of preservatives used, if any; and

e. location from which the sample was collected.

A custody seal will be placed on each sample container to detect unauthorized tampering with the samples. These labels must be initialed, dated, and affixed by the sample collector in such a manner that it is necessary to break the seal to open the container.

#### 6.3.1.3 Sample Logbook

All pertinent information on the sampling effort must be recorded in a bound logbook. Information must be recorded in ink and any cross outs must be made with a single line with the change initialed and dated by the author. The sample logbook will include the following information:

a. the sample location;
b. suspected composition;
c. sample identification number;
d. volume/mass of sample taken;
e. purpose of sampling;
f. description of sample point and sampling methodology;
g. date and time of collection;
h. name of the sample collector;
i. sample destination and how it will be transported;
j. observations;
k. name(s) of personnel responsible for the observations; and
l. any deviations and supporting information.

### 6.3.2 Sample Handling, Preservation, and Storage

Samples will be collected and containerized in appropriate pre-cleaned sample containers. Table G.31-3 presents the requirements in *SW-846* (EPA, 1986) for sample containers, preservation techniques, and holding times. Samples that require cooling to 4 degrees Celsius will be placed in a cooler with ice or ice gel or in a refrigerator immediately upon collection.

### 6.3.3 Packaging and Transportation of Samples

All packaging and transportation activities will meet safety expectations, QA requirements, DOE Orders, and relevant local, state, and federal laws (including 10 CFR and 49 CFR). Appropriate Facility documents establish these requirements for packaging design, testing, acquisition, acceptance, use, maintenance, and decommissioning and for on-site, intra-site, and off-site shipment preparation and transportation of general commodities, hazardous materials, substances, waste, and defense program materials.

Off-site transportation of samples will occur via private, contract, or common motor carrier, air carrier, or freight. All off-site transportation will be processed through the Facility packaging and transportation organization, unless the shipper is specifically authorized through formal documentation by that organization to independently tender shipments to common motor or air carriers.

### 6.4 Sample Analysis Requirements

Samples will be analyzed for all hazardous constituents listed in 40 CFR Part 261 Appendix VIII and in Appendix IX of 40 CFR Part 264 that have been stored at the permitted unit over its operational history. Samples will be analyzed by an independent laboratory using the methods outlined in Table G.31-4. Analytes, test methods and instrumentation, target detection limits, and rationale for metals and organic analyses are presented in Table G.31-4. If any of the information from these tables has changed at the time of closure, the Permittees will amend this closure plan to update all methods in this SAP.

#### 6.4.1 Analytical Laboratory Requirements

The analytical laboratory will perform the detailed qualitative and quantitative chemical analyses specified in Section 6.4.2. The analytical laboratory will have:

a. a documented comprehensive QA/ QC program;

b. technical analytical expertise;

c. a document control and records management plan; and

d. the capability to perform data reduction, validation, and reporting.

The selection of the analytical testing methods identified in Table G.31-4 was based on the following considerations:

e. the physical form of the waste;

f. constituents of concern;

g. required detection limits (*e.g.*, regulatory thresholds); and

h. information requirements (*e.g.*, waste classification).

#### 6.4.2 Quality Assurance/Quality Control

All sampling and analysis will be conducted in accordance with QA/QC procedures defined by the latest revision of “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods” (*SW-846*) (EPA, 1986), or other Department-approved procedures. Field sampling procedures and laboratory analyses will be evaluated through the use of QA/QC samples to assess the overall quality of the data produced. QC samples evaluate precision, accuracy, and potential sample constituents associated with the sampling and analysis process and are described in the following sections, along with information on calculations necessary to evaluate the QC results.

#### 6.4.2.1 Field Quality Control

The field QC samples that will be collected are trip blanks, field blanks, field duplicates, and equipment rinsate blanks. Table G.31-5 presents a summary of QC sample types, applicable analyses, frequency, and acceptance criteria. QC samples will be given a unique sample identification number and submitted to the analytical laboratory as blind samples. QC samples will be identified on the applicable forms so that the results can be applied to the associated sample.

#### 6.4.2.2 Analytical Laboratory QC Samples

QA/QC considerations are an integral part of analytical laboratory operations. Laboratory QA ensures that analytical methods generate data that are technically sound, statistically valid, and that can be documented. QC procedures are the tools employed to measure the degree to which these QA objectives are met.

### 6.4.3 Data Reduction, Verification, Validation, and Reporting

Analytical data generated by the activities described in this closure plan will be verified and validated. Data reduction is the conversion of raw data to reportable units, transfer of data between recording media, and computation of summary statistics, standard errors, confidence intervals, and statistical tests.

### 6.4.4 Data Reporting Requirements

Analytical results will include all pertinent information about the condition and appearance of the sample-as-received. Analytical reports will include:

a. a summary of analytical results for each sample;

b. results from QC samples such as blanks, spikes, and calibrations;

c. reference to standard methods or a detailed description of analytical procedures; and

d. raw data printouts for comparison with summaries.

The laboratory will describe the analysis in sufficient detail so that the data user can understand how the sample was analyzed.

## 7.0 WASTE MANAGEMENT

All waste generated during closure will be controlled, handled, characterized, and disposed of in accordance with Permit Section 9.4.5, Permit Attachment C (*Waste Analysis Plan*), and Facility waste management procedures. Closure activities may generate different types of waste materials: these wastes are listed with potential disposal options in Table G.31-2 of this closure plan. Subsequent disposition options for the decontaminated structures and equipment include reuse, recycling, or disposal. Reusable protective clothing, tools, and equipment used during decontamination will be cleaned with a wash water solution. Disposable equipment and other small equipment that cannot be decontaminated, as summarized in Table G.31-3, will be containerized and managed as waste.

## 8.0 CLOSURE CERTIFICATION REPORT

Upon completion of the closure activities at the permitted unit, a closure certification report will be prepared and submitted to the Department for review and approval in accordance with Permit Section 9.5.

## 9.0 REFERENCES

DOE, 1995. "DOE Methods for Evaluating Environmental and Waste Management Samples," DOE/EM-0089T, Rev. 2. Prepared for the U.S. Department of Energy by Pacific Northwest Laboratory, Richland, Washington.

EPA, 1986 and all approved updates. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA-*SW-846*, U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, U.S. Government Printing Office, Washington, D.C.

EPA, 2002. "RCRA Waste Sampling Draft Technical Guidance Planning, Implementation, and Assessment," EPA530-D-02-002, August 2002, Office of Solid Waste, U.S. Environmental Protection Agency, Washington, D.C.

LANL, 1999. "Screening Level Ecological Risk Assessment Methods," LA-UR-99-1406, Los Alamos National Laboratory, Los Alamos, New Mexico.

NIOSH, 1994. The National Institute for Occupational Health and Safety (NIOSH) *Manual of Analytical Methods*, 4th ed. Issue 1. 1994.

NMED, 2006. "Technical Background Document for Development of Soil Screening Levels," Rev. 4.0, June 2006, New Mexico Environment Department, Santa Fe, New Mexico.

**Table G.31-1**

**Closure Schedule for the Technical Area 60, Building 17, Container Storage Unit**

| Activity | Maximum Time Required |
|---|---|
| Notify the Department of intent to close. | -45 days |
| Final receipt of waste. | Day 0 |
| Complete waste removal. | Day 90 |
| Complete records review and structural assessment. | 10 days after completed waste removal or 100 days after final receipt of waste |
| Complete all closure activities and submit final closure certification report to the Department. | Day 180 |

**Table G.31-2**
**Potential Waste Materials, Waste Types, and Disposal Options**

| | | |
|---|---|---|
| Personal protective equipment (PPE) | Non-regulated solid waste | Subtitle D landfill |
| | Hazardous waste | The PPE will be treated to meet Land Disposal Restriction (LDR) treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |
| | Low-level radioactive solid waste | Either an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA or its state analog, or an authorized off-site radioactive waste disposal facility. |

| | | |
|---|---|---|
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |
| Decontamination wash water | Non-regulated solid waste | Sanitary sewer |
| | Hazardous waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |
| | Radioactive liquid waste | Radioactive Liquid Water Treatment Facility (RLWTF). |
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |
| Metal | Non-regulated solid waste | Subtitle D landfill or recycled |
| | Hazardous waste | The waste will be treated to meet Land Disposal Restriction (LDR) treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |
| | Low-level radioactive solid waste | Either an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA or its state analog, or an authorized off-site radioactive waste disposal facility. |

| | | |
|---|---|---|
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |
| Discarded Concrete | Non-regulated solid waste | Subtitle D landfill, recycled or reused. |
| | Hazardous waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |
| | Low-level radioactive solid waste | Either an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA or its state analog, or an authorized off-site radioactive waste disposal facility. |
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |
| Discarded waste management equipment | Non-regulated solid waste | Subtitle D landfill |
| | Hazardous waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |

| | | |
|---|---|---|
| | Low-level radioactive solid waste | Either an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA or its state analog, or an authorized off-site radioactive waste disposal facility. |
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |
| Sampling equipment | Non-regulated solid waste | Subtitle D landfill |
| | Hazardous waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill, as appropriate. |
| | Low-level radioactive solid waste | Either an authorized on-site radioactive waste disposal area that is not undergoing closure under RCRA or its state analog, or an authorized off-site radioactive waste disposal facility. |
| | Mixed waste | Waste will be treated to meet LDR treatment standards, if necessary, and disposed in a Subtitle C or D landfill or WIPP, as appropriate. |

**Table G.31-3**
**Sample Containers[a], Preservation Techniques, and Holding Times[b]**

| Analyte Class and Sample Type | Container Type and Materials | Preservation | Holding Time |
|---|---|---|---|
| | ***Metals*** | | |
| TCLP/ Total Metals: Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver | Aqueous Media: 500-mL Wide-Mouth-Polyethylene or Glass with Teflon Liner | Aqueous Media: $HNO_3$ to pH <2 Cool to 4°C | 180 Days |
| | Solid Media: 125-mL Glass | Solid Media: Cool to 4°C | |
| Total Mercury | Aqueous Media: 500-mL Wide-Mouth-Polyethylene or Glass with Teflon Liner | Aqueous Media: $HNO_3$ to pH <2 Cool to 4 °C | 28 Days |
| | Solid Media: 125-mL Glass | Solid Media: Cool to 4°C | |
| | ***Volatile Organic Compounds*** | | |
| Target Compound Volatile Organic Compounds | Aqueous Media: Two 40-mL Amber Glass Vials with Teflon-Lined Septa | Aqueous Media: HCl to pH<2 Cool to 4 °C | 14 days |

| | | | |
|---|---|---|---|
| | Solid Media:<br>125-mL Glass or Two 40-mL Amber Glass Vials with Teflon-Lined Septa | Solid Media:<br>Cool to 4°C<br>Add 5 mL Methanol or Other Water Miscible Organic Solvent to 40-mL Glass Vials | |
| ***Semi-Volatile Organic Compounds*** | | | |
| Target Compound Semi-volatile Organic Compounds | Aqueous Media:<br>Four 1-L Amber Glass with Teflon-Lined Lid | Aqueous Media:<br>Cool to 4 °C | Seven days from field collection to extraction. 40 days from extraction to determinative analysis. |
| | Solid Media:<br>250-mL Glass | Solid Media:<br>Cool to 4°C | |

[a] Smaller sample containers may be required due to health and safety concerns associated with potential radiation exposure, transportation requirements, and waste management considerations.

[b] Information obtained from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, U.S. Environmental Protection Agency, 1986 and all approved updates.

°C = degrees Celsius $HNO_3$ = nitric acid L = Liter mL = milliliter HCl = hydrochloric acid TCLP = Toxicity Characteristic Leaching Procedure

**Table G.31-4**

**Summary of Analytical Methods**

| Analyte | EPA *SW-846* Analytical Method [a] | Test Methods/ Instrumentation | Target Detection Limit [b] | Rationale |
|---|---|---|---|---|
| | | ***Metal Analysis*** | | |
| Arsenic | 7060A [c], 7061A | FLAA, GFAA | 10 ug/L | Determine the metal concentration in the samples. |
| Barium | 7080A [d], 7081 [c] | FLAA, GFAA | 200 ug/L | |
| Cadmium | 7130 [d], 7131A [c] | FLAA, GFAA | 2 ug/L | |
| Chromium | 7190 [d], 7191 [c] | FLAA, GFAA | 10 ug/L | |
| Lead | 7420 [d], 7421 [c] | FLAA, GFAA | 5 ug/L | |
| Mercury | 7470A, 7471A [e] | CVAA | 0.2 ug/L | |
| Selenium | 7740[c], 7741A | FLAA, GFAA | 5 ug/L | |
| Silver | 7760A[d], 7761 [c] | FLAA, GFAA | 10 ug/L | |
| | | ***Organic Analysis*** | | |

| | | | | |
|---|---|---|---|---|
| Target compound list VOCs plus ten tentatively identified compounds (TIC) | 8260B | GC/MS | 10 mg/L | Determine the VOCs concentration in the samples. |
| Target compound list SVOCs plus 20 TICs | 8270D [c] | GC/MS | 10 mg/L | Determine the SVOCs concentration in the samples. |

[a] U.S. Environmental Protection Agency (EPA), 1986 and all approved updates, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," *SW-846*.

[b] Detection limits listed for metals are for clean water. Detection limits for organics are expressed as practical quantitation limits. Actual detection limits may be higher depending on sample composition and matrix type.

[c] Method being integrated into Method 7010, per the May 1998 *SW-846* Draft Update IVA.

[d] Method being integrated into Method 7000B, per the May 1998 *SW-846* Draft Update IVA.

[e] Method being revised to 7471B per the May 1998 *SW-846* Draft Update IVA.

CVAA = Cold-vapor atomic absorption spectroscopy; GFAA= Graphite furnace atomic absorption spectroscopy;
FLAA = Flame atomic absorption spectroscopy; mg/L = milligrams per liter;
GC/MS = Gas chromatography/mass spectrometry; ug/L = micrograms per liter.

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**Table G.31-5**

**Quality Control Sample Types, Applicable Analyses, Frequency, and Acceptance Criteria**

| QC Sample Type | Applicable Analysis [a] | Frequency | Acceptance Criteria |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Trip Blank | VOC | One set per shipping cooler containing samples to be analyzed for VOCs | Not Applicable |
| Field Blank | VOC/SVOC, metals | One sample daily per analysis | Not Applicable |
| Field Duplicate | Chemical | One for each sampling sequence | Relative percent difference less than or equal to 20 percent |
| Equipment Rinsate Blank[b] | VOC/SVOC, metals | One sample daily | Not Applicable |

[a] For VOC and SVOC analysis, if blank shows detectable levels of any common laboratory contaminant (*e.g.*, methylene chloride, acetone, 2-butanone, toluene, and/or any phthalate ester), sample must exhibit that contaminant at a level 10 times the quantitation limit to be considered detectable. For all other contaminants, sample must exhibit the contaminant at a level 5 times the quantitation level to be considered detectable.

[b] Collected only if reusable sampling equipment used.

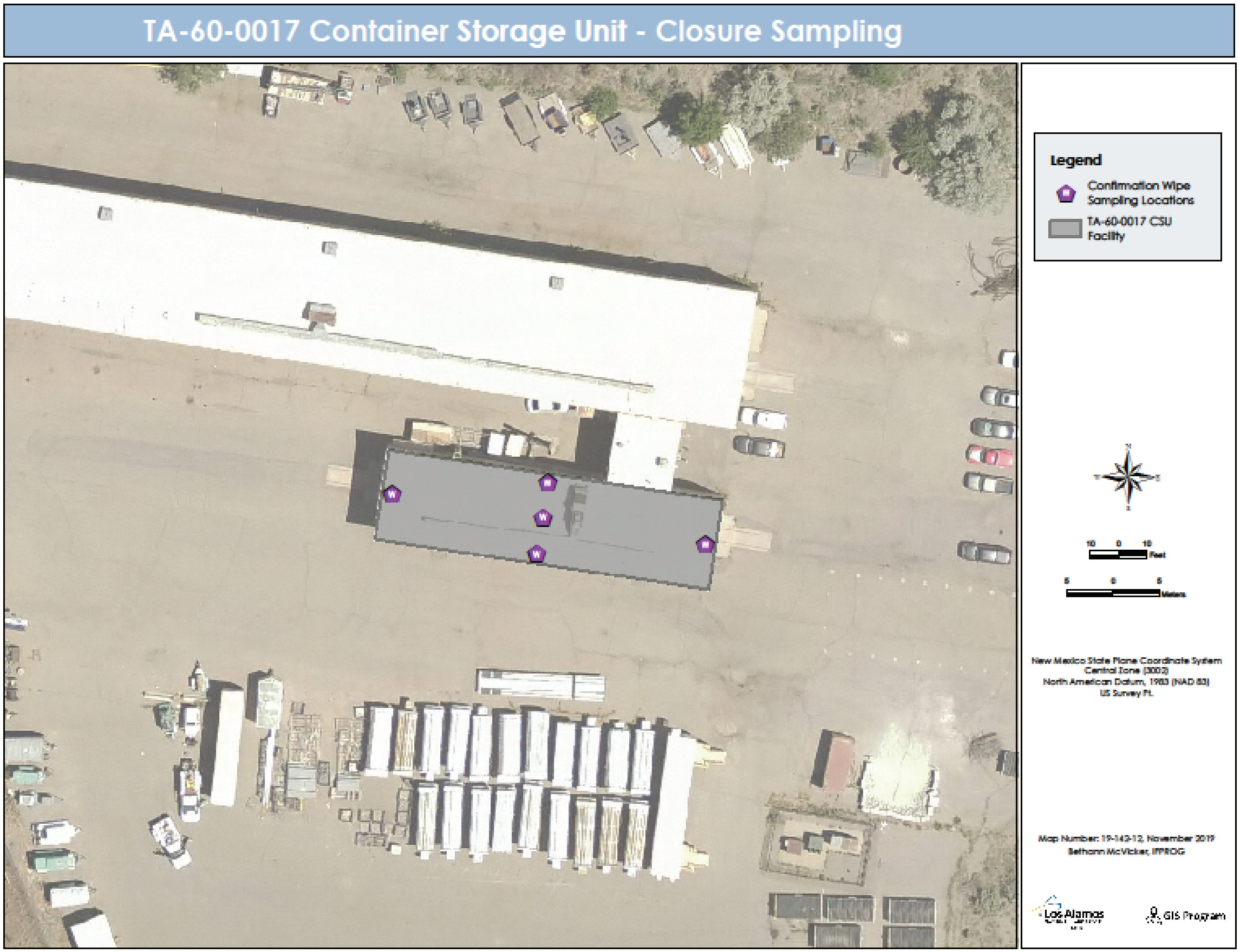


Figure G.31-1. TA 60, Building 17 Indoor Container Storage Unit

## Attachment 5 LANL Traffic Study and TA-60 Traffic Data

# LOS ALAMOS NATIONAL LABORATORY DIAMOND DRIVE BETWEEN WEST JEMEZ ROAD AND PAJARITO ROAD

# COMPREHENSIVE TRAFFIC STUDY

# LOS ALAMOS, NEW MEXICO

# FINAL REPORT

**SEPTEMBER 30, 2018**

**Prepared for:**

Los Alamos
NATIONAL LABORATORY
EST.1943

**Prepared by:**

3AEGREEN
A Joint Venture

# LOS ALAMOS NATIONAL LABORATORY
# DIAMOND DRIVE BETWEEN WEST JEMEZ ROAD AND PAJARITO ROAD

## COMPREHENSIVE TRAFFIC STUDY

## LOS ALAMOS, NEW MEXICO

**SEPTEMBER 30, 2018**

**REVISED FINAL REPORT**

**Prepared by:**
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**7500 JEFFERSON ST NE**
**ALBUQUERQUE, NM 87109**

**Prepared for:**

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**P.O. BOX 1663, MS-D442**
**LOS ALAMOS, NM 87544**

**PREPARED BY:**

Eric J Wrage 9/30/18

**ERIC J. WRAGE, P.E., PTOE** **SEPTEMBER 30, 2018**

3AEGREEN
A Joint Venture

# LOS ALAMOS NATIONAL LABORATORY
# DIAMOND DRIVE BETWEEN WEST JEMEZ ROAD AND PAJARITO ROAD

# COMPREHENSIVE TRAFFIC STUDY

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## FIGURES



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## APPENDICES

# I. INTRODUCTION AND SUMMARY

Los Alamos National Security, LLC (LANS) is evaluating the Diamond Drive corridor between West Jemez Road and Pajarito Road to determine if improvements are needed to accommodate expected future traffic volumes and to improve the pedestrian and bicycle user experience. This study will consider the vehicular traffic needs and evaluate alternates for improving traffic operations.

## A. STUDY PURPOSE

The purpose of the traffic study is to determine the impacts on the roadway network from background growth and present options for improving traffic operations. A vicinity map that shows the study intersections is shown in Figure 1.

## B. EXECUTIVE SUMMARY

### 1. SITE LOCATION AND STUDY AREA

The site is located on Los Alamos National Laboratory.

The study area consists of the following intersections:

- Diamond Drive and Pajarito Road (existing minor street Two-Way Stop Controlled unsignalized T-intersection)
- Diamond Drive and Sigma Road (full access signalized intersection)
- Diamond Drive and Eniwetok Drive (full access signalized intersection)
- Diamond Drive and South Driveway (existing minor street Stop Controlled unsignalized T-intersection west of Diamond that serves parking areas and Mercury Road)
- Diamond Drive and Grable (existing minor street Stop Controlled unsignalized T-intersection east of Diamond that serves the power plant)
- Diamond Drive and Coronado (existing minor street Stop Controlled unsignalized T-intersection)
- Diamond Drive and Embudo Avenue (existing signalized T-intersection)
- Diamond Drive and West Jemez Road (existing signalized T-intersection)

The intersection evaluations include analysis for the AM and PM peak hours for the following traffic conditions:

- Existing traffic (2018)
- Existing traffic (2018) with roadway and intersection improvements

- 2038 Horizon Year with growth allowed with roadway and intersection improvements identified that accommodate 2018 existing traffic levels
- 2038 Horizon Year with 50% increase in background traffic growth assumed based on input from LANS

## 2. PRINCIPAL FINDINGS

The traffic analysis found that the existing operations have queue spillover issues due to lane utilization, close intersection spacing, and high peak hour demand. This is due to the heavy directional nature of the traffic flows (large inflow in the AM and large outflow in the PM) resulting in large peaks desiring to go in the same direction (westbound-to-westbound on West Jemez and westbound-to-southbound on Diamond in the AM peak hour, and, eastbound-to-eastbound on West Jemez and northbound-to-eastbound on Diamond in the PM peak hour). Lane utilization impacts Diamond Drive as the majority of exiting traffic is destined to the east from Diamond Drive and there is only one lane on Diamond. Although the traffic analysis procedures suggest the intersections could operate at an acceptable level of service as an isolated intersection under existing geometry, the proximity of the intersections, inadequate queue storage, and the large peaking of traffic result in poor operations in the field under actual traffic conditions. The addition of a second northbound lane, beginning at Eniwetok, combined with aligning the two northbound lanes with the two northbound right turn lanes at West Jemez Road, would allow drivers to feel comfortable using either lane while driving north on Diamond Drive to their desired destination. The northbound left turn lanes at West Jemez Road would be the lanes that drivers would have to change lanes to enter, as the northbound left turn lane volume is less than 5% of the total northbound traffic, during the PM peak hour, and work acceptable with just a single northbound left turn lane.

By making the improvements described above to address existing traffic volumes, it will also provide sufficient capacity to accommodate ad addition 33% in traffic growth.

Another growth scenario that was evaluated was to increase the traffic by 50%, which would support 2% growth per year for 20 years. Based on input from LANS this could be a possible growth scenario for the potential land uses and mission changes over the next 20 years.

With the addition of the high growth scenario of a 50% increase in traffic, this additional traffic results in overcapacity issues with the proposed laneage and intersection improvements, particularly at the West Jemez Road and Diamond Drive intersection. To improve level of service and eliminate queue spillover of traffic into upstream intersections an additional eastbound through is required on West Jemez Road, as well as a triple westbound left turn from West Jemez onto Diamond. These improvements will prevent queue spillover of the westbound left turn into the Vehicle Access Portal (VAP) in the AM peak hour, as well as prevent eastbound through queue spillover into the Casa Grande and Pajarito intersections with West Jemez Road in the PM peak hour.

Please note that with the 50% growth scenario, the intersections along West Jemez Road will also likely require improvements to accommodate this level of growth. Evaluation of impacts to West Jemez Road intersections, West Jemez and East Jemez intersection, and interactions with vehicles exiting the VAP were beyond the scope of this study.

This third westbound left turn lane requires an additional southbound lane on Diamond Drive. In the high growth scenario, this additional southbound lane would terminate at Eniwetok Drive as the southbound right turn lane.

Bicycle lanes are present on only a short stretch on Diamond on the approaches to Eniwetok Drive. In the rest of the corridor the bicyclists must share the road with vehicular traffic or use the sidewalk and share with pedestrians. To improve the safety of bicyclists, a 6-foot bike lane, plus a foot and a half buffer, should be added to the length of Diamond Drive.

Sidewalks are present, along the corridor, however much of the sidewalk is substandard in width for a pleasant pedestrian experience, lack a buffer from traffic, is in poor condition, and have no aesthetic treatments. A full 6-foot sidewalk, with landscape buffer should be constructed to improve the pedestrian perception of safety.

## 3. RECOMMENDED IMPROVEMENTS

The corridor would benefit from upgraded traffic signal equipment and retiming the traffic signals to optimize the timings and to interconnect the signals with a master controller at West Jemez Road, so each traffic signal can communicate with each other. This controller could also control the traffic signals along West Jemez Road at Casa Grande, Bikini Atoll and Pajarito.

Emergency response could be improved by adding emergency vehicle traffic signal pre-emption equipment to allow the emergency vehicles to change the traffic signal indications to green as they approach the signal.

Construct a second northbound lane from the westbound-to-northbound right turn lane at Eniwetok to where the second northbound through lane begins at the Coronado driveway south of Embudo Avenue.

Align the two northbound lanes with the two northbound right turn lanes at West Jemez Road.

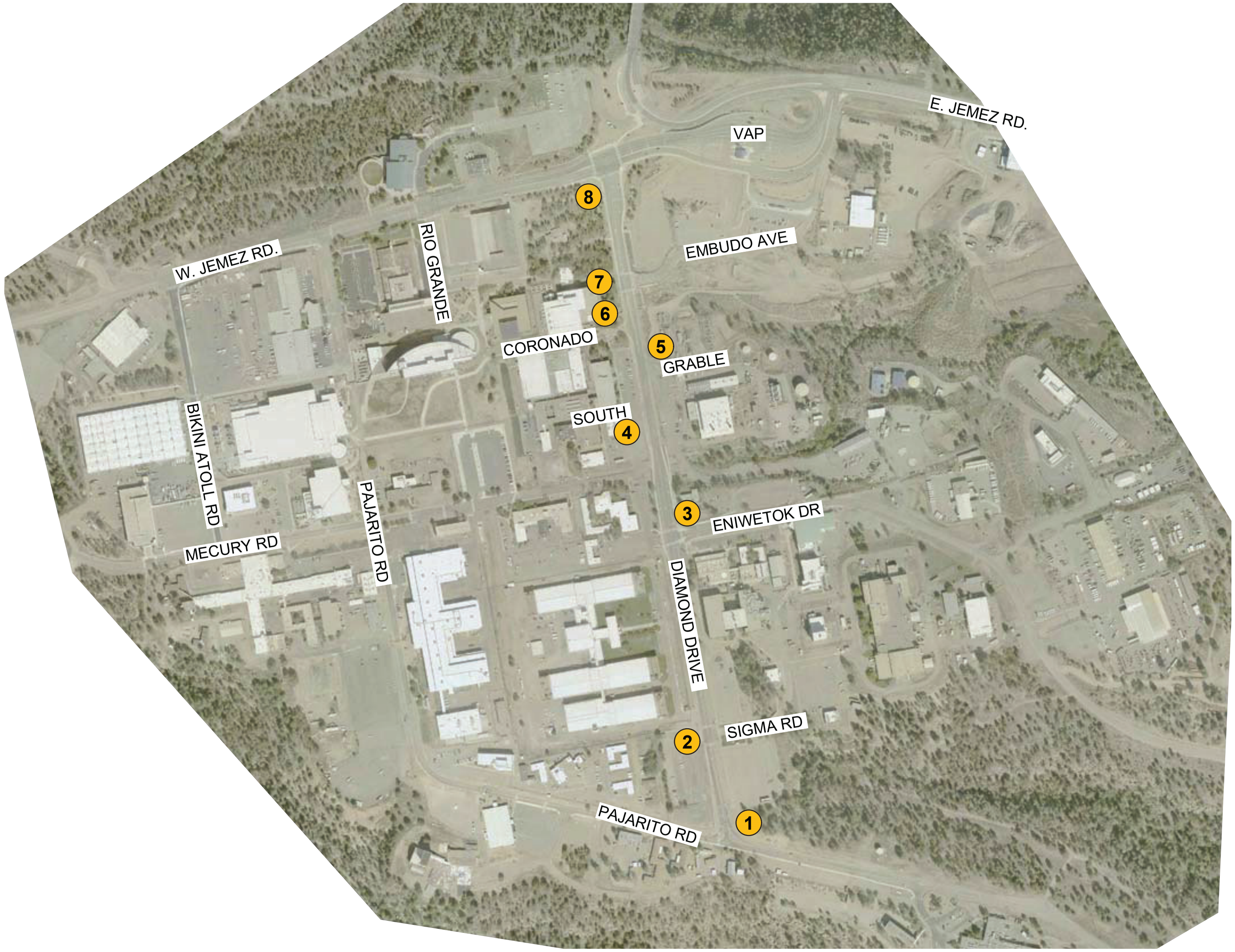
Extend the westbound-to-northbound right turn lane merge from Pajarito onto Diamond to past Sigma Road to allow for additional queue storage for northbound traffic at Sigma Road.

Intersection improvements at the Pajarito and Diamond intersection by adding either a traffic signal or roundabout. The specific improvement at this intersection will be further evaluated during future design studies and after internal LANL planning reviews are completed.

Add a second southbound lane from West Jemez Road to south of Coronado Road.

Construct 6-foot sidewalks along the corridor to improve pedestrian accommodations.

Add a 6-foot (minimum) bike lane, plus 1.5-foot buffer, on both sides of Diamond Drive from Pajarito Road to West Jemez Road. This additional widening will improve both bicycle and pedestrian safety.

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Diamond Drive Between West Jemez Road and Pajarito Road
Los Alamos National Laboratory
Comprehensive Traffic Study

Figure 1
Overall Vicinity Map

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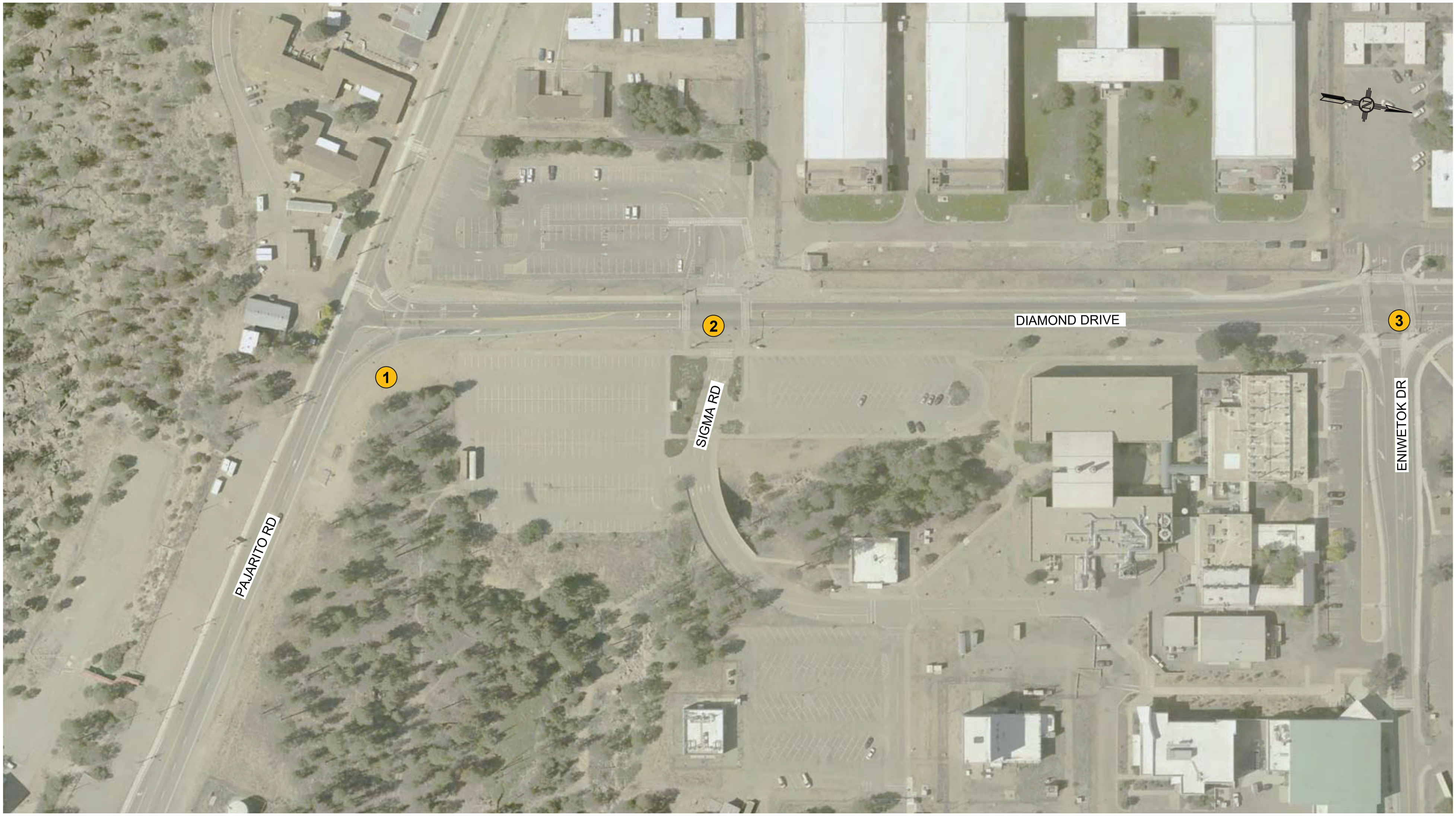


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**Diamond Drive Between West Jemez Road and Pajarito Road**
**Los Alamos National Laboratory**
**Comprehensive Traffic Study**

**Figure 2**
**South Portion of Corridor**

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Diamond Drive Between West Jemez Road and Pajarito Road
Los Alamos National Laboratory
Comprehensive Traffic Study

Figure 3
North Portion of Corridor

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# II. STUDY AREA CONDITIONS

## A. STUDY AREA

The site is located on Los Alamos National Laboratory.

The study area consists of the following intersections:

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- Existing traffic (2018) with roadway and intersection improvements
- 2038 Horizon Year with growth allowed with roadway and intersection improvements identified that accommodate 2018 existing traffic levels
- 2038 Horizon Year with 50% increase in background traffic growth assumed based on input from LANS

## B. EXISTING ROADWAY AND MULTIMODAL FACILITY DESCRIPTION

### 1. ROADWAY

See Figure 1 through Figure 5 for a graphic that is described below.

Except for north of Embudo Avenue, Diamond Drive has one vehicular travel lane in each direction, with left turn lanes at all intersections except for the Coronado Driveway. Dedicated right turn lanes are present on Diamond Drive at Eniwetok Drive. All minor streets have exiting shared left/through and right turn lanes. All minor streets have a single-entry lane, although the northbound right turn lane at Eniwetok has a large radius with a merge onto Eniwetok, as does the eastbound right from Eniwetok onto Diamond, with a merge onto Diamond.

At Pajarito Road, there is a dedicated southbound left and right turn lane at the T-intersection from Diamond Drive onto Pajarito Road. Westbound on Pajarito Road, there is a dedicated, yield condition right turn lane with a large radius, that merges onto Diamond Drive. A single eastbound and westbound through lane are present on Pajarito and must stop at the stop sign at Diamond. The eastbound lane is a shared through/left turn lane.

At the West Jemez Road and Diamond Drive T-intersection, there is dual northbound left and dual northbound right turn lanes from Diamond onto West Jemez Road. Dual westbound left turn lanes and two westbound through lanes carry traffic west on West Jemez Road. A single eastbound right turn lane and two eastbound through lanes are available for traffic proceeding eastbound on West Jemez Road. This intersection is also used extensively by bicyclists and pedestrians from the townsite of Los Alamos, as they can bypass the Vehicle Access Portal by continuing straight across the Omega bridge and cross West Jemez Road on their way into LANL property.

At Embudo Avenue, one of the westbound-to-southbound left turn lanes from West Jemez Road dual left turn lanes converts to a southbound left turn lane, and all traffic continuing south on Diamond Drive must merge into the single southbound through lane. The westbound approach of Embudo has a dedicated left and dedicated right turn lane onto Diamond Drive. This intersection also sees large amounts of pedestrian traffic due to the Transit Center to the east. A significant number of pedestrians use the intersection crosswalk and a comparable number also use the pedestrian underpass just south of the intersection. At approximately the Coronado Driveway, Diamond Drive expands to two northbound lanes, with one a dedicated through lane, and the other a shared through/right turn lane at Embudo Avenue.

Each driveway, except the North driveway, has two exit lanes, one for right turns and one for left turns. Similarly, each driveway, except the North, has entering left turn lanes. No driveway has a dedicated entering right turn lane. Each driveway has a single-entry lane.

## 2. MULTI-MODAL

Sidewalks are present along the entire length of the Diamond Drive corridor between West Jemez Road and Pajarito Road, except for a short portion on the east side north of

Pajarito Road, where a dirt trail is present, suggesting pedestrian use. The sidewalks are typically 6-feet in width. Also, a portion of the distance between Eniwetok and Sigma on the west there are two sidewalks, one that appears to be generally used by bicyclists and the other, farther from the road, used by pedestrians.

Marked crosswalks are present on all four legs at all signalized intersections, and all driveways also have marked crosswalks parallel to Diamond Drive. None of the driveways have crosswalk markings to allow pedestrians to cross east-west across Diamond. Many of the markings have substantial deterioration due to vehicular traffic use.

All intersection crosswalks have Americans with Disability Act ramps and tactile detectable warning surfaces, although it does not appear they are all to current standards.

There is only a short portion of Diamond Drive that has an on-street bicycle lane (north and south of Eniwetok). The balance of the corridor has sharrows, which indicate to drivers they should share the road with bicyclists. During the site visits a relatively small proportion of bicyclists used the road surface and most appeared to use the sidewalks.

## C. DATA SOURCES

The data used in this report consist of the traffic counts described below, aerial photography and mapping from Google Earth®, information provided by LANS, and site visits.

# III. ANALYSIS OF EXISTING CONDITIONS

## A. TRAFFIC COUNTS

Per contract, the traffic counts were collected by LANS Staff, using manual counters and training provided by Bohannan Huston, Inc.

Traffic count data collected was compared to previous counts and found to match closely to historical counts provided by LANS Traffic.

The first day of counts was June 28, 2018, with the rest of the counts July 9 through July 11 due to the July 4th holiday the previous week. There were no counts the week of July 4th, as that is a holiday week when traffic patterns are not at normal levels due to the holiday and likely Staff vacations.

Although the vehicular counts matched closely the previous counts provided by LANS, the counting of pedestrians, bicycles and heavy vehicles require additional steps in the manual counting process, and it appears the data collection for pedestrians and bikes was not applied as consistently as is was for collection of vehicle traffic counts. However, Bohannan Huston, Inc. attempted to rectify this to some degree based on discussions and information provided by LANS Staff.

## B. EXISTING TRAFFIC CONDITIONS

Figure 5 is a summary of the existing peak hour traffic volumes, existing laneage, turning movements, and intersection level of service. Existing traffic counts are included in Appendix A.

The traffic counts included counts for heavy vehicles, pedestrians, and bicyclists. The tables below are a summary of the bicycle and pedestrian counts for the AM and PM peak hour, along with a tally of the number of jaywalkers during the entire count period.

**Table 1 – Bicycle and Pedestrian Count Summary**

| | Pajarito | | Sigma | | Eniwetok | | South Drive | |
|---|---|---|---|---|---|---|---|---|
| **Mode** | **AM** | **PM** | **AM** | **PM** | **AM** | **PM** | **AM** | **PM** |
| Bikes | 36 | 33 | 23 | 11 | 19 | 15 | 18 | 10 |
| Ped | 5 | 6 | 20 | 10 | 45 | 39 | 31 | 38 |
| Entire Count Jaywalkers | - | - | - | - | - | - | 1 | 0 |

**Table 1 – Bicycle and Pedestrian Count Summary (cont.)**

| | Grable | | Coronado | | Embudo | | West Jemez | |
|---|---|---|---|---|---|---|---|---|
| **Mode** | **AM** | **PM** | **AM** | **PM** | **AM** | **PM** | **AM** | **PM** |
| Bikes | 15 | 3 | 11 | 14 | 36 | 29 | 27 | 8 |
| Ped | 24 | 25 | 68 | 122 | 202 | 171 | 90 | 51 |
| Entire Count Jaywalkers | 0 | 4 | 7 | 15 | - | - | - | - |

In addition to the above, 350 pedestrians were observed during the peak hours using the pedestrian tunnel south of Embudo.

## C. EXISTING LEVELS OF SERVICE

The Sixth Edition of the *Highway Capacity Manual*[1] (HCM) defines Level of Service (LOS) for signalized and unsignalized intersections as follows:

**Table 2 – LOS Definitions**

| Level of Service | Definition | Signalized (sec/veh) | Unsignalized (sec/veh) |
|---|---|---|---|
| A | Most vehicles do not stop. | <10 | <10 |
| B | Some vehicles stop. | >10 and <20 | >10 and <15 |
| C | Significant numbers of vehicles stop. | >20 and <35 | >15 and <25 |
| D | Many vehicles stop. | >35 and <55 | >25 and <35 |
| E | Limit of acceptable delay. | >55 and <80 | >35 and <50 |
| F | Unacceptable delay. | >80 | >50 |

Level of Service D is the generally acceptable level of service in urban areas and when intersections operate below this level, improvements are generally considered, where feasible.

### 1. SYNCHRO

Existing intersection traffic volumes and lane geometry were analyzed using the Synchro version 10 software that uses the signalized intersection, unsignalized intersection, and arterial analysis methodology from the Sixth Edition of the HCM. The Synchro model uses internal, iterative, proprietary optimization methods based on HCM calculated total

[1] Highway Capacity Manual 6th Edition, A Guide for Multimodal Mobility Analysis, Transportation Research Board, The National Academies of Sciences, Washington, DC, 2016

delays and the calculated number of stops to evaluate multiple traffic signal cycle lengths, green times provided for each movement of phase of traffic using the intersection, and traffic signal offsets (the time when each signal indication turns green as vehicles progress through the corridor) to determine a best overall signal timing plan for a corridor under the inputs given for the evaluation period. These timing plans are then evaluated using the HCM procedures to estimate the average delay for a typical peak hour operation. Please keep in mind it is an average delay for the entire peak hour, indicating some vehicles throughout the peak hour will have higher delay and some will have lower delay. Synchro estimates the expected precision of the calculated delays by the HCM methodology is 10% to 29%[2].

Individual intersection output for the existing conditions analysis is included in Appendix B.

Appendix B also includes a description of the data inputs and assumptions used in creating the Synchro model, as well as a certificate from the Synchro software indicating conformance with Highway Capacity Manual procedures.

## D. EXISTING RESULTS DISCUSSION

Table 3 shows the results for the signalized analysis for the existing 2018 traffic volumes. This data is located on the individual intersection summary output for each intersection included in Appendix B, generally shown at the bottom of each page. The listed results are the average delay in seconds per vehicle, which is a weighted average of the delay for every vehicle that passes through the intersection in the peak hour evaluated.

The table also lists the volume-to-capacity ratio (v/c) for the movement with the highest v/c ratio at the intersection. The v/c ratio is also shown on the summary output pages in the Appendix, approximately in the middle for the signalized intersections, and in the bottom third for the unsignalized intersections. The v/c ratio is a ratio of the actual volume passing through the intersection (by movement – through, left, right, etc.) compared to the calculated capacity available to serve that movement. Volume-to-capacity ratios above 0.85 – 0.90 indicate that there are likely congestion problems beginning to occur at the intersection.

The last column in the table is the level of service, or LOS, which is derived from the computed delay for the intersection discussed above and the thresholds listed in Table 2, and is a letter grade that assesses the motorist's perception of delay. This information is

[2] Synchro Studio 10 User Guide, Trafficware, LLC, Sugarland, TX, October 2017, page 19-36

also on the summary output pages in the Appendix, near the bottom of the page near the reported delay. Signalized intersections have higher delay thresholds for each letter grade than do unsignalized intersections, as the assumption is that drivers will tolerate a longer delay knowing they will get to proceed within a relatively short period of time.

The output in the Appendix also report a lane group and approach delay. The lane group is the delay for each lane group, which may be a single movement if there is just a single lane (left, through, or right), or a shared movement (through/right, through/left, left/right, two throughs, or 2 throughs shared with a right or left). This is because the methodology cannot distinguish the delay for shared lanes.

The approach delay is the weighted average of an individual approach lane groups for a particular direction: westbound, eastbound, northbound, or southbound.

The results reported below were evaluated as semi-actuated, uncoordinated traffic signals, with a cycle length of 90 seconds, as complete, current signal timing plans were not made available, as well as any indication if the signals were interconnected. The results below are based on interpretation of the data provide by LANS and site observations.

From the tables it appears the signalized intersections currently operate at reasonable levels of service, with no individual movements LOS E or F, however a few movements do have high v/c ratios, indicating areas of further evaluation. As the reported delay do not agree with visual observations during the PM peak hour, a further review was conducted, particularly in the PM peak hour. During the AM peak period when the author was present, the results reported above seem indicative of the level of congestion observed.

**Table 3 – 2018 Existing Signalized Intersection Capacity Analysis Results**

| Signalized Intersections | 2018 AM Peak | | | 2018 PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay (sec.) | Max V/C | LOS | Delay (sec.) | Max V/C | LOS |
| Diamond and Sigma | 7.6 | 0.54 | A | 15.4 | 0.60 | B |
| Diamond and Eniwetok | 7.5 | 0.58 | A | 9.1 | 0.52 | A |
| Diamond and Embudo | 6.5 | 0.67 | A | 38.8 | 0.95 | D |
| Diamond and West Jemez | 15.7 | 0.85 | B | 23.7 | 0.92 | C |
| No movements LOS E or F | | | | | | |

**Table 4 – 2018 Existing Unsignalized Intersection Results**

| Intersection/Movement | 2018 AM Peak | | | | 2018 PM Peak | | | |
|---|---|---|---|---|---|---|---|---|
| | Delay | v/c | Queue* (ft) | LOS | Delay | v/c | Queue* (ft) | LOS |
| Pajarito & Diamond - TWSC | Err** | | | F | 59.7 | | | F |
| EB Left | Err** | Err** | Err** | F | 224 | 1.33 | 400 | F |
| WB Through | 231 | 1.30 | 325 | F | 26.0 | 0.52 | 75 | D |
| WB Right | 9.8 | 0.31 | 50 | A | 10.9 | 0.43 | 75 | B |
| SB Left | 8.1 | 0.30 | 50 | A | 7.7 | 0.17 | 25 | A |
| SB Right | 0 | 0.06 | 0 | A | 0.0 | 0.03 | 0 | A |
| Pajarito & Diamond – if RAB | 5.8 | | | A | 5.8 | | | A |
| EB Approach | 5.8 | 0.14 | 0 | A | 6.2 | 0.27 | 25 | A |
| WB Through | 4.1 | 0.16 | 25 | A | 4.2 | 0.15 | 25 | A |
| WB Right | 5.0 | 0.26 | 25 | A | 6.7 | 0.38 | 50 | A |
| SB Left | 7.4 | 0.42 | 50 | A | 5.1 | 0.23 | 25 | A |
| SB Right | 3.8 | 0.08 | 0 | A | 3.4 | 0.04 | 0 | A |
| Diamond & South Dr – TWSC | 0.6 | | | E | 1.9 | | | D |
| NB Left | 11.6 | 0.02 | 25 | B | 8.1 | 0.01 | 0 | A |
| EB Left | 37.2 | 0.13 | 25 | E | 30.4 | 0.34 | 50 | D |
| EB Right | 20.6 | 0.02 | 25 | C | 10.4 | 0.02 | 25 | B |
| Diamond & Grable – TWSC | 0.5 | | | D | 2.3 | | | F |
| WB Left | 33.6 | 0.02 | 25 | D | 51.1 | 0.07 | 25 | F |
| WB Right | 10.3 | 0.01 | 0 | B | 32.6 | 0.38 | 50 | D |
| SB Left | 8.1 | 0.05 | 25 | A | 12.3 | 0.14 | 25 | B |
| Diamond & Coronado – TWSC | 0.1 | | | C | 0.1 | | | E |
| NB Left | 10.7 | 0.01 | 0 | B | 0 | 0 | 0 | A |
| EB Left/Right | 21.3 | 0.02 | 25 | C | 37.1 | 0.03 | 25 | E |

TWSC – Two-way Stop controlled intersection
RAB – roundabout
* - HCM 95th percentile queue rounded to next 25-foot increment
** - volume exceeds capacity and delay. v/c and queue cannot be calculated

The poor performance in the PM peak hour is considered to be due to the lack of northbound capacity on Diamond Drive. The conflicting movements with exiting traffic at the West Jemez intersection, and the lane alignment at the West Jemez Road intersection, which result in long queues throughout the entire corridor during the peak hour. A queue diagram, showing the HCM calculated 95th - percentile queue, is shown in Figure 4.

At West Jemez Road, the northbound lanes align with the northbound left turn lanes, which have very low volume in the PM peak hour. The northbound right turn lanes at West Jemez Road are added on the right of Diamond Drive, so all drivers wanting to turn right (virtually all of the traffic in the PM peak hour) are stacked in the single right turn lane from West Jemez Road back to Pajarito Road. A second lane is added just south of Embudo; however, drivers tend to use only the right lane on Diamond north of Coronado as they approach the intersection of West Jemez, in order to ensure they can get into the northbound right turn lanes at West Jemez. This poor lane utilization significantly degrades actual LOS as it essentially reduces Diamond to one northbound through lane as drivers are afraid they will not be able to turn right if they use the inside lane, and try to merge into the right turn lane, once it is present. This results in queue spillover into downstream intersections, and the lack of capacity (a second northbound lane) results in the backups observed towards Pajarito. The analysis presented above includes a lane utilization adjustment, which did affect the queue, but did not have much of an impact on LOS.

Another key factor leading to the large queues experienced on Diamond Drive is the large peak of exiting traffic and the desired destination for exiting vehicles. In the AM peak hour, entering traffic is primarily westbound from the VAP through the Diamond and West Jemez intersection. This traffic either turns left, onto southbound Diamond, or proceeds west to Casa Grande, Bikini Atoll or Pajarito. This traffic shares the same green time at the Diamond intersection.

In the PM peak hour, the drivers reverse their commute, and exit eastbound on West Jemez past Diamond, or northbound-to-eastbound from Diamond Drive onto West Jemez. This results in the exiting eastbound traffic on West Jemez Road having to share the green time with the northbound Diamond exiting traffic at the Diamond and West Jemez intersection, as they are conflicting movements in the PM peak hour. They cannot proceed simultaneously through the intersection as they do in the AM peak hour. This competition for intersection space and green time increases the congestion and queue on both Diamond Drive and West Jemez Road.

Highway Capacity Manual procedures assume the traffic signals operate in isolated conditions, meaning the procedures assume there is sufficient spacing between traffic signals to accommodate queue between intersections, as well as sufficient turn bay queue storage, so there is no queue spillover from intersection to intersection or beyond a turn bay. A review of the 95th-percentile queue results in Appendix B (approximately two-thirds down the page with the column heading “%ile BackOfQ(95%), veh/ln”) show the northbound queues in the PM peak hour at the Embudo intersection have substantial back up past available storage: 16 vehicles for the northbound through queue and 25 vehicles for the northbound through/right queue. As there are actually not two lanes through the intersection, these two queues are added together to estimate the actual queue at the intersection. This combined 41-vehicle queue is 1,025 feet (using 25-feet as an estimate of the typical distance for vehicles and the gap between vehicles). This 1,025-foot queue is


Diamond Drive Between West Jemez Road and Pajarito
Los Alamos National Laboratory
Comprehensive Study

**Figure 4**
**Existing Conditions**
**HCM Calculated 95th Percentile**
**AM(PM) Queue Lengths**

L:\Projects\20190126\TRANS\Study\References\Existing\20190126_QL.dwg Oct 04, 2018 – 11:50am approximately the distance between Embudo and Eniwetok. As vehicles are continually added to the queue from the westbound-to-northbound merge lane at Eniwetok, as well as from the driveways at Coronado, Grable and the South driveway, this spillover is continually added to and exacerbated, and impacts the rest of the network by spilling over into Sigma and back towards Pajarito. This spillover is not considered in the HCM methodology or results, which assumes adequate spacing and capacity that prevents queue spillover. This spillover results in a noticeable effect on actual delays and queues experienced by drivers in the field, that is not reflected in the analysis results.

The results in Appendix B also indicate the PM peak hour northbound queue at the Sigma intersection has a queue of 12 vehicles, or approximately 300 feet, which will back up past the location where the westbound-to-northbound right turn lane merges with the northbound through traffic (approximately 225 feet south of Sigma). Therefore, the northbound queue at Sigma backs up toward the Pajarito intersection as westbound-to-northbound right turning vehicles are added to the queue.

The factors described above are considered to be the cause of the poor operations experienced along Diamond Drive in the PM peak hour.

The unsignalized intersection results shown in Table 4, show that the intersection of Pajarito Road and Diamond Drive currently operates at LOS F in both the AM and PM peak hours under the existing unsignalized control, with very high delay for the eastbound approach on Pajarito. Additional analysis reported later in this document will evaluate this intersection with both a traffic signal and roundabout alternatives, but the table does show the intersection will operate at acceptable levels of service as a roundabout under existing volumes. The future results presented in Table 5 on page 22, and discussed in Section IV.A.3.a), will show that it will also operate at acceptable levels of service if signalized.

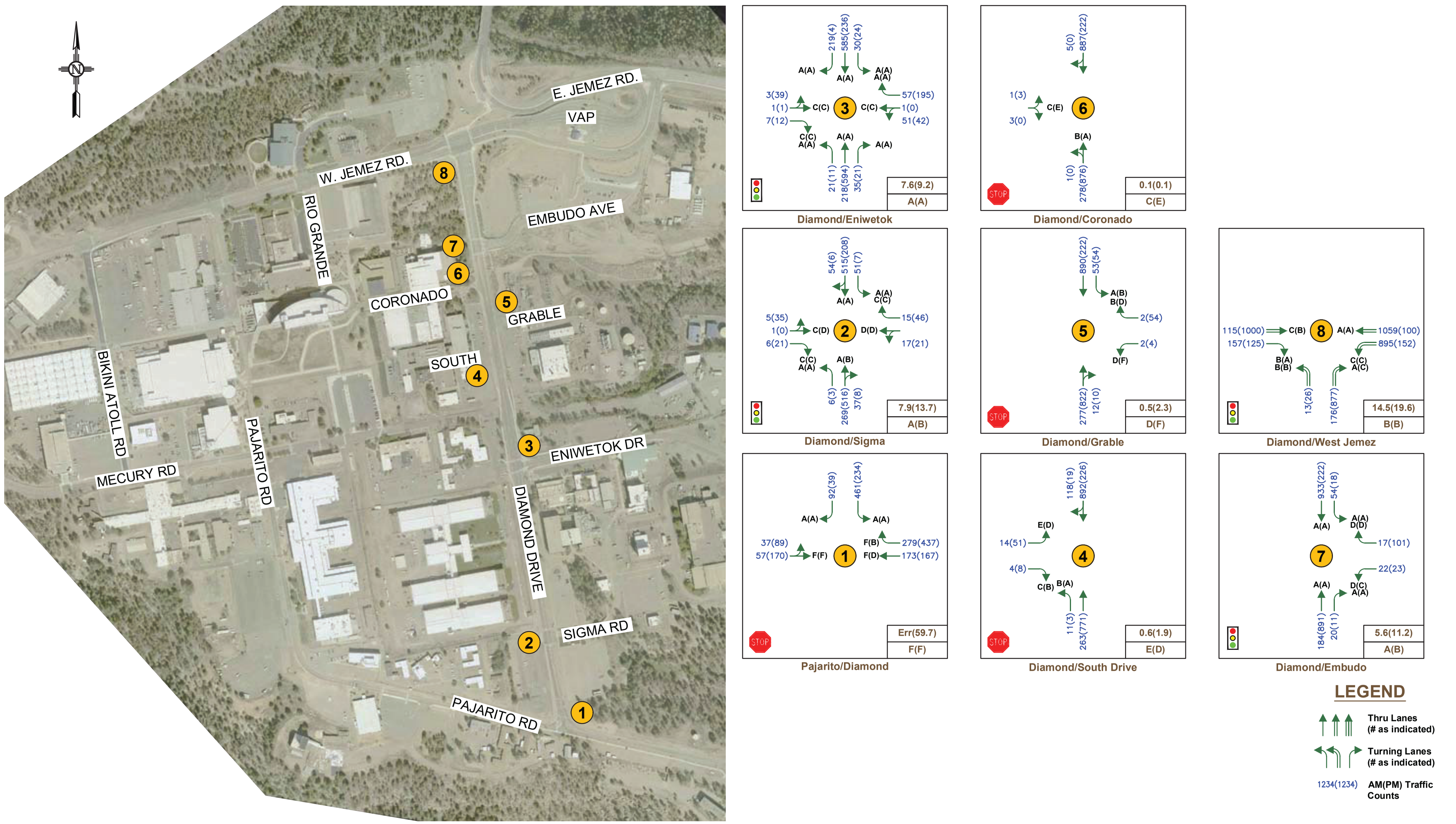
Anecdotal observations of the traffic counters also indicated several near-miss crashes were observed during the traffic count periods at the Diamond and Pajarito intersection.

The unsignalized results in Table 4 show the driveways have poor level of service and high delay during the peak hour, particularly for the exiting left turn movements. This is not a surprise, as many unsignalized minor streets and driveways operate with poor levels of service when intersecting a high-volume arterial. A future consideration could be to realign the Grable driveway with the South driveway, and this new intersection would be approximately 550 feet from Eniwetok and Embudo, approximately midway between the two intersections. However, it is expected that these driveways operate at acceptable delays outside of the peak hour, thereby negating the need for the expense of the realignment if willing to accept poor LOS during peak hours for minor street movements. Realignment of this intersection will be discussed further in Section IV.B.2, Grable Re-Alignment, on page 34.

Please note this report references the level of service of the unsignalized intersection the same as the worst movement level of service at that intersection. This is done to ensure visibility and discussion of the poor level of service of the movement, and not necessarily as an indication of the overall performance of the intersection, nor to indicate improvements are needed. There are situations similar to this corridor, where high delays are accepted during the peak hours for minor street intersections that do not have appropriate spacing, or low volumes opposing a high volume major street, and operate acceptably during non-peak hours.

Also, in general, if this report reports a queue length, it is the 95$^{th}$ percentile queue length, unless otherwise specified.

Figure 5 shows the number of lanes, movement LOS, traffic volumes, and overall intersection level of service for each intersection.

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Diamond Drive Between West Jemez Road and Pajarito Road
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Figure 5
2018 AM (PM) Peak Hour Traffic Volumes

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# IV. TRAFFIC AND IMPROVEMENT ANALYSIS

## A. IMPROVEMENTS REQUIRED FOR EXISTING CONDITIONS

### 1. ROADWAY IMPROVEMENTS

The above existing conditions analysis indicates improvements are necessary to improve traffic operations under existing traffic volumes. As it is impossible to lengthen the corridor to allow additional queue storage length, it is necessary to widen the corridor to increase available storage length.

As the existing queues back up from Embudo south to Eniwetok, and then from Sigma back to Pajarito, these locations are the focus of the proposed improvements. Additionally, there is concern of the southbound queue in the AM peak hour at Embudo backing up into the West Jemez intersection, so improvements will be considered at this location as well.

These improvements consist of:

- A traffic signal or roundabout at Diamond and Pajarito.

This intersection should retain its current lane configuration of a dedicated westbound right turn and separate westbound through lane and dedicated southbound right and left turn lanes. An eastbound left turn lane is added to reduce the queue length for the eastbound approach. The westbound right turn lane radius could be reduced to improve bicyclists perception of safety. The southbound right turn lane radii could also be reduced for the same reason.

For the roundabout scenario, a westbound and southbound right turn bypass lane is added to remove the right turn traffic from these approaches from circulating through the roundabout. Two eastbound circulating lanes are also included so the southbound-to-eastbound left turn and the eastbound through movements can move simultaneously and avoid conflict with the southbound-to-eastbound left turn circulating volume. This would require widening of Pajarito Road east of the intersection to allow these two movements to merge back into a single lane Pajarito Road.

- Extend the westbound-to-northbound merge from Pajarito Road to north of Sigma Road.

This is to allow sufficient length for the merge to occur and to provide sufficient queue storage length to limit spillover to the Pajarito intersection.

- Add a second northbound lane from the Eniwetok Drive westbound-to-northbound right turn merge lane to connect to the second northbound lane that begins at Coronado Drive.

This second lane added from Eniwetok north to Embudo will provide additional capacity and queue storage for northbound traffic as it approaches West Jemez Road.

- Interconnect the traffic signals with upgraded traffic signal equipment so they communicate with each other and coordinate the traffic signal timing to improve progression along the Diamond corridor.

Figure 6 shows the above improvements.

The HCM results for the improved condition is shown in Table 5, with the Synchro summary output sheets included in Appendix C. The results indicate the intersections will operate at acceptable levels of service, however, as was shown in the existing conditions analysis above, it is necessary to review the queue lengths along the corridor, particularly at Embudo and Sigma.

**Table 5 – 2018 Build Signalized Intersection Capacity Analysis Results Improved**

| Signalized Intersections | 2018 Build 1 AM Peak | | | 2018 Build 1 PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay (sec.) | Max V/C | LOS | Delay (sec.) | Max V/C | LOS |
| Diamond and Sigma | 5.7 | 0.52 | A | 14.6 | 0.50 | B |
| Diamond and Eniwetok | 4.5 | 0.70 | A | 4.9 | 0.46 | A |
| Diamond and Embudo | 5.4 | 0.66 | A | 10.9 | 0.78 | B |
| Diamond and West Jemez | 20.8 | 0.87 | C | 24.9 | 0.85 | C |
| Diamond and Pajarito | 14.8 | 0.65 | B | 11.9 | 0.44 | B |
| no movements LOS E or F | | | | | | |

The PM northbound queue, taken from Appendix C, at Embudo for the improved scenario is 5 vehicles, or 125 feet, well short of the Eniwetok intersection. At Sigma, the northbound queue is 7 vehicles, or 175 feet, providing sufficient length for vehicles to queue without backing into the Pajarito intersection.

A review of queues from Appendix C shows that vehicle queues were also acceptable and did not result in queue spillover into adjacent intersections.


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| Diamond Drive Between Wst Jemez Road and Pajarito Road<br>Los Alamos National Laboratory<br>Comprehensive Traffic Study | Figure 6<br>Improvements to Accommodate<br>Existing Conditions |
|---|---|

**Table 6 – 2018 Build Unsignalized Intersection Results Improved**

| Intersection/Movement | 2018 Build 1 AM Peak | | | | 2018 Build 1 PM Peak | | | |
|---|---|---|---|---|---|---|---|---|
| | Delay | v/c | Queue* (ft) | LOS | Delay | v/c | Queue* (ft) | LOS |
| Diamond & South Dr – TWSC | 0.5 | | | D | 1.1 | | | C |
| NB Left | 11.6 | 0.02 | 25 | B | 8.1 | 0.01 | 0 | A |
| EB Left | 32.6 | 0.11 | 25 | D | 17.9 | 0.21 | 25 | C |
| EB Right | 2.07 | 0.02 | 25 | C | 10.4 | 0.02 | 25 | B |
| Diamond & Grable – TWSC | 0.5 | | | E | 1.5 | | | F |
| WB Left | 36.4 | 0.02 | 25 | E | 55.6 | 0.08 | 25 | F |
| WB Right | 9.5 | 0.01 | 0 | A | 15.8 | 0.19 | 25 | C |
| SB Left | 8.1 | 0.05 | 25 | A | 12.4 | 0.14 | 25 | B |
| Diamond & Coronado – TWSC | 0.1 | | | C | 0.1 | | | C |
| NB Left | 10.7 | 0.01 | 0 | B | 0 | 0.0 | 0 | A |
| EB Left/Right | 20.5 | 0.02 | 25 | C | 20.8 | 0.02 | 0 | C |

* - HCM 95th percentile queue rounded to next 25-foot increment
** - volume exceeds capacity and delay. v/c and queue cannot be calculated

The unsignalized results in Table 6 show the driveways will again have poor level of service and high delay, particularly for the exiting left turn movements. This is not a surprise, as many unsignalized minor streets and driveways operate with poor levels of service when intersecting a high-volume arterial. However, it is expected that these driveways operate at acceptable delays outside of the peak hour.

## 2. BICYCLE AND PEDESTRIAN IMPROVEMENTS

As discussed in Section II.B.2, Existing Roadway and Multimodal Facility Description on page 8, the bicycle infrastructure is limited and the pedestrian facilities are inconsistent. The bicycle and pedestrian counts in Table 1 indicate high bicycle use along the corridor, with significant pedestrian volumes, particularly at West Jemez and Diamond, and Embudo and Diamond.

Multi-modal level of service is based on the user's satisfaction with available accommodations[3], i.e., the availability of on-street bike lanes, consistent sidewalks, bike buffer, and landscape buffers between traffic and pedestrians, adjacent roadway volume and vehicle speeds, to name the major considerations.

[3] National Cooperative Highway Research Program (NCHRP) Report 616, Multimodal Level of Service Analysis for Urban Streets, National Academies of Sciences Transportation Research Board, Washington, DC, 2008, page 92

As many of these factors are not present on the existing roadway, improvements to add them will be recommended, such as on-street bike lanes with a bike buffer, continuous sidewalks and a landscape buffer between the travel lane and the pedestrians, These improvements will increase separation between vehicular traffic and bicyclists and pedestrians, thereby improving their experience and likely increasing their satisfaction with the accommodations.

### 3. PAJARITO INTERSECTION OPTIONS

Three options were evaluated for the intersection of Pajarito and Diamond Drive: 1) traffic signalization, 2) a roundabout, and, 3) realignment. Each will be discussed below, with Table 7 showing the comparison of the intersection level of service.

### a) *Traffic Signal – Option A*

The first option signalizes the intersection, along with the addition of an eastbound left turn lane to minimize queues on the eastbound approach. A figure showing this option is shown in Figure 7. Results are shown in Table 5, and indicate it will operate at acceptable levels of service if signalized.

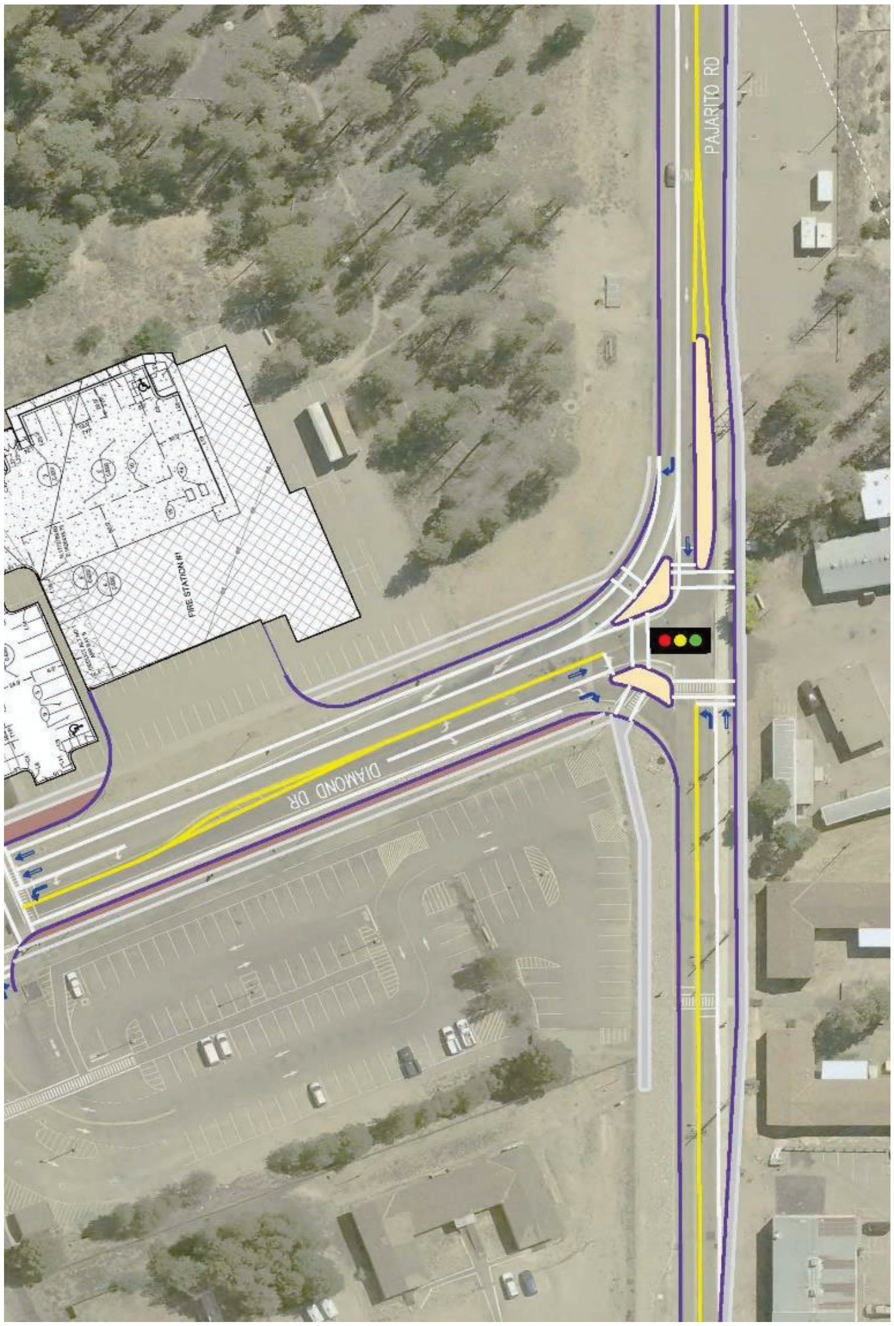



**Figure 7 – Signalized Pajarito Intersection**

### b) *Roundabout – Option B*

A roundabout was also considered for the intersection. To accommodate the TRU-PAC vehicles, a two-lane roundabout is necessary to provide sufficient vehicle tracking through the intersection. The roundabout is shown in Figure 8 with results shown in Table 4.

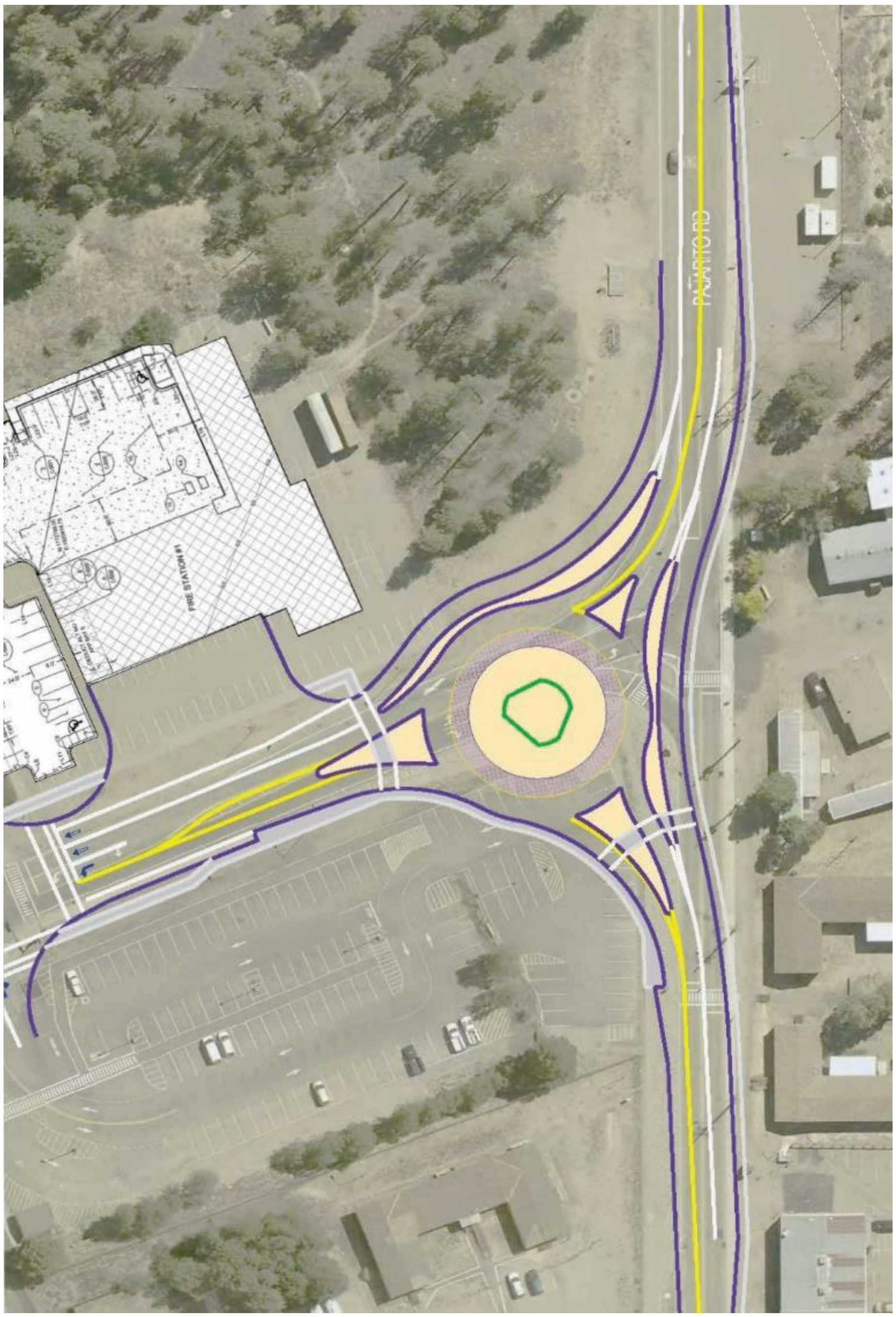



**Figure 8 – Roundabout Pajarito Intersection**

c) *Realignment – Option C*

The westbound-to-northbound traffic on Pajarito to Diamond, and the southbound-to-eastbound movements on Diamond to Pajarito, currently have the highest volumes at the intersection. The realigned option realigns the intersection, so these movements are the "main" street, and the west leg of Pajarito tees into them as shown in Figure 9, with results summarized in Table 7.

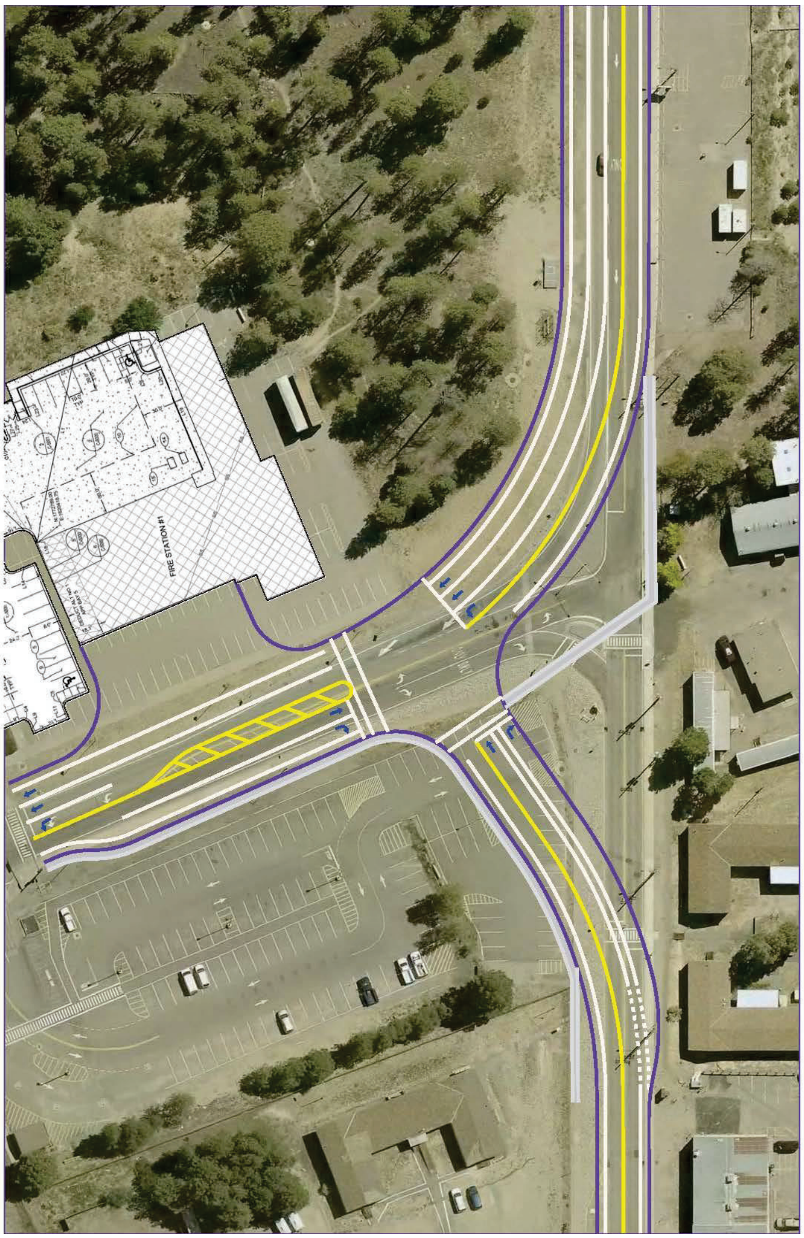


**Figure 9 – Realigned Pajarito Intersection**

### d) *Discussion of Pajarito Options Traffic Operations*

The HCM results for the three options for Pajarito are shown in Table 7. It can be seen from the table the intersection in its current alignment has the highest overall delay, and the second highest delay for the movement with the highest, or worst, delay. The realigned intersection also has low overall delay, but due to the corridor timing preferring the "main" street, to improve vehicular progression along the main street corridor, the realigned intersection has the highest delay for the movement that has the worst delay. As the roundabout is designed to keep traffic flowing, albeit at a slower speed, it has the lowest delay of the options evaluated.

A study of the table shows the roundabout option has the lowest delay overall and for the movement with the highest delay, and the other alternatives have higher overall delay, and higher delay for the movement with the highest, or worst, delay.

**Table 7 – Delay Comparisons (sec) for Pajarito Options**

| Peak Hour | Signal w/EB Left | | Roundabout | | Realigned with Signal | |
|---|---|---|---|---|---|---|
| | Overall Intersection | Worst Movement | Overall Intersection | Worst Movement | Overall Intersection | Worst Movement |
| AM | 14.8 | 37.1 | 5.4 | 7.3 | 7.4 | 49.4 |
| PM | 11.9 | 18.7 | 4.6 | 6.7 | 7.0 | 21.4 |

## B. GROWTH AVAILABLE FROM ROADWAY IMPROVEMENTS

As the level of service and queue discussed in Section IV.A, Improvements Required for Existing Conditions, provided acceptable levels of service with vehicle queues that could be accommodated within the storage available, a sensitivity analysis was performed to determine the additional growth in traffic volumes that could occur and still operate at an acceptable level of service and queue.

Using the capabilities of the Synchro software to input growth rates, the corridor was evaluated until queue spillover was reached. The controlling intersection was found to be the intersection of West Jemez Road and Diamond Drive, due to the PM conflict of the eastbound through traffic and northbound right turn traffic competing for the same green time at the traffic signal. This intersection does not control in the AM peak hour as the movements in the AM peak hour are both westbound movements, the westbound through and westbound through, and share the green time.

The available traffic growth was found to be 33%, or 1.43% a year compounded over a 20-year period. The traffic volume for this scenario is shown in Figure 10.

A quirk of the Synchro output sheets is that when the input growth rate feature of Synchro is used, it does not adjust the Traffic Volume (veh/h) on the summary report (second line of the report). Instead it increases the Adj Flow Rate, veh/h (adjusted flow rate, vehicles/hour), the value used in the calculation. Reviewing the Synchro summary report in Appendix D for the Diamond and West Jemez intersection (page 12 of Appendix D) for the eastbound through movement (as it is 1,000 vehicles in the PM peak hour and makes the math easier) illustrates the adjustments made. The input volume is 1,000 vehicles per hour. The growth rate (not shown anywhere on the summary sheet, another quirk of the report) is 33%, or 1.33. The peak hour factor (one line below the Adj Flow Rate in the report), is used to adjust the hourly volume to the 15-minute volume actually used in the analysis, is 0.97 (consider it to be a safety factor in the analysis).

The volume used in the analysis for this example, the eastbound through at West Jemez in the PM peak hour is: 1,000 vehicles per hour (the 2018 volumes) multiplied by the growth rate of 1.33, which equals 1,333 vehicles per hour. This number is then divided by the peak hour factor of 0.97 (to represent the traffic volume of the peak 15 minutes if it were to occur during an hour) is 1,333 divided by 0.97 equals 1,371 vehicles per hour. This is the value shown in the Adj Flow Rate row for the eastbound through movement and used in the analysis of the intersection.

The HCM results for the improved condition with the 33% growth scenario is shown in Table 5, with the Synchro summary output sheets included in Appendix D. The results indicate the intersections will operate at acceptable levels of service, however, again it will be necessary to review the queue lengths.

**Table 8 – 2038 Build Signalized Intersection Capacity Analysis Results 33% Growth Scenario – Improved**

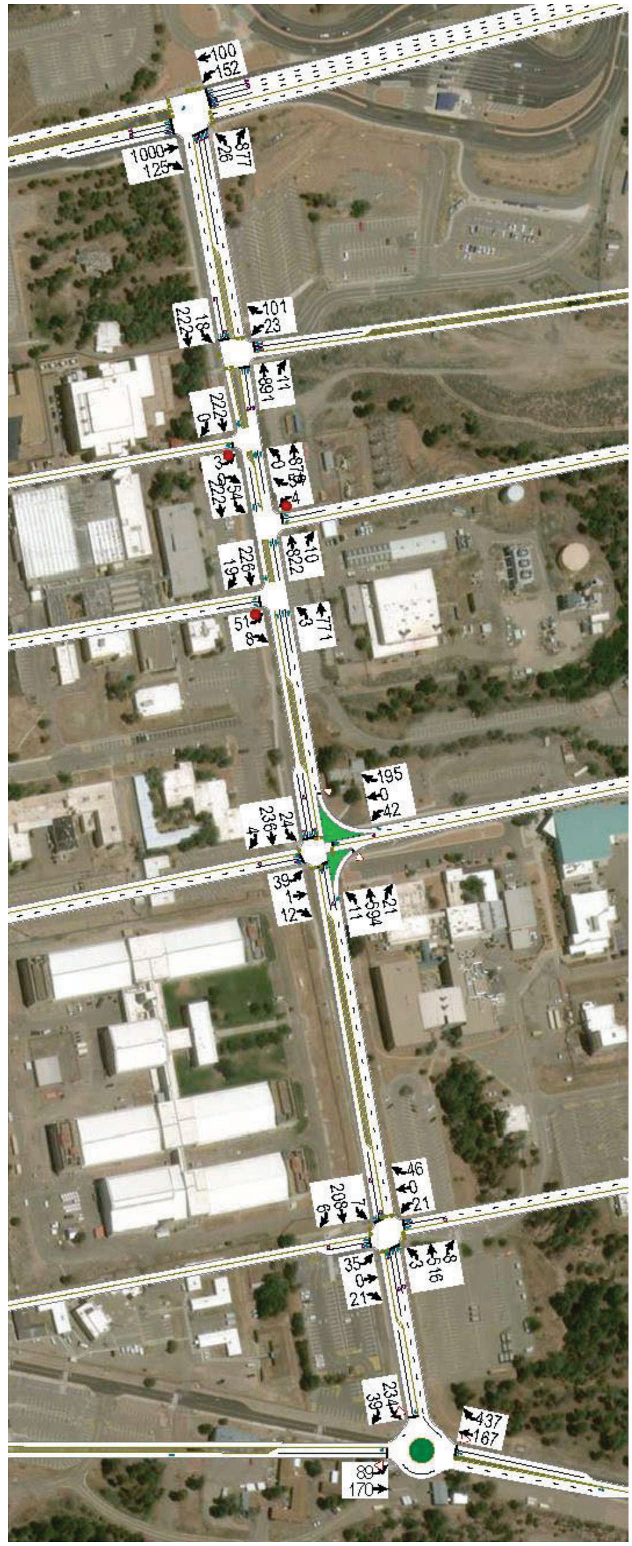
| Signalized Intersections | 2038 Build 1 AM Peak | | | 2038 Build 1 PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay (sec.) | Max V/C | LOS | Delay (sec.) | Max V/C | LOS |
| Diamond and Sigma | 6.6 | 0.73 | A | 13.6 | 0.74 | B |
| Diamond and Eniwetok | 10.9 | 0.93 | B | 6.5 | 0.70 | A |
| Diamond and Embudo | 12.2 | 0.88 | B | 13.7 | 0.87 | B |
| Diamond and West Jemez | 22.6 | 0.95 | C | 37.0 | 0.96 | D |
| no movements LOS E or F | | | | | | |

The PM northbound queue, taken from Appendix D, at Embudo for the improved scenario is now 6 vehicles, or 150 feet, well short of the Eniwetok intersection. At Sigma, the northbound queue is now 8 vehicles, or 200 feet, providing sufficient length for vehicles to queue without backing into the Pajarito intersection.

With the 33% growth, the northbound right turn lane queue from West Jemez is 16 vehicles, or approximately 400 feet, would come close to spilling over into the Embudo intersection, which would then lead to additional operational difficulties for the corridor. This condition that limits the growth on the corridor.

The 33% growth also resulted in a 25-vehicle, 650-foot queue for the PM peak hour for eastbound through traffic at West Jemez Road, which is almost the distance back to the Casa Grande intersection. Above 33% growth the eastbound queue would begin to spillover into the Casa Grande intersection, and again begin to affect traffic operations, but this time on West Jemez Road. As will be shown later, this would require widening of West Jemez Road to achieve satisfactory levels of service on Diamond Drive. This level of improvements was beyond the scope of this project.

AM Peak Hour



PM Peak Hour

**Figure 10 – Future Growth Traffic Volumes (33%)**

| Table 9 – 2038 Build Unsignalized Intersection Results<br>33% Growth Scenario Improved | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2038 Build 1 AM Peak | | | | 2038 Build 1 PM Peak | | | |
| Intersection/Movement | Delay | v/c | Queue* (ft) | LOS | Delay | v/c | Queue* (ft) | LOS |
| Diamond & South Dr – TWSC | 1.0 | | | F | 1.8 | | | D |
| NB Left | 14.6 | 0.04 | 25 | B | 8.4 | 0.01 | 0 | A |
| EB Left | 69.4 | 0.28 | 25 | F | 28.3 | 0.38 | 50 | D |
| EB Right | 31.5 | 0.04 | 25 | D | 11.3 | 0.03 | 25 | B |
| Diamond & Grable – TWSC | 0.5 | | | F | 2.5 | | | F |
| WB Left | 74.3 | 0.06 | 25 | F | 186 | 0.29 | 25 | F |
| WB Right | 9.8 | 0.01 | 0 | A | 23.1 | 0.35 | 50 | C |
| SB Left | 8.5 | 0.07 | 25 | A | 17.3 | 0.27 | 50 | C |
| Diamond & Coronado – TWSC | 0.1 | | | D | 0.1 | | | D |
| NB Left | 12.6 | 0.01 | 0 | B | 0.0 | 0.0 | 0 | A |
| EB Left/Right | 30.5 | 0.04 | 25 | D | 28.7 | 0.03 | 25 | D |
| * - HCM 95$^{th}$ percentile queue rounded to next 25-foot increment<br>** - volume exceeds capacity and delay. v/c and queue cannot be calculated | | | | | | | | |

The unsignalized results in Table 9 show the driveways will again have poor level of service and high delay, particularly for the exiting left turn movements. This is not a surprise, as many unsignalized minor streets and driveways operate with poor levels of service when intersecting a high-volume arterial. However, it is expected that these driveways operate at acceptable delays outside of the peak hour.

## 1. PAJARITO INTERSECTION OPTIONS

Three options were again evaluated for the intersection of Pajarito and Diamond Drive: 1) traffic signalization, 2) a roundabout, and, 3) realignment. Each will be discussed below, with Table 10 showing the comparison of the intersection level of service.

### a) *Traffic Signal – Option A*

The first option is the signalized intersection with the addition of the eastbound left turn lane as discussed earlier, and shown in Figure 7 on page 26.

### b) *Roundabout – Option B*

A roundabout was again evaluated as discussed earlier and is shown in Figure 8 on page 27.

### c) *Realignment – Option C*

The westbound-to-northbound and southbound-to-eastbound movements currently have the highest volumes. The realigned option realigns the intersection, so these movements are the "main" street, and the west leg of Pajarito tees into them as shown in Figure 9 on page 28.

### d) *Discussion*

The HCM results for the three options for Pajarito are shown in Table 10. As under existing traffic volumes, the intersection in its current alignment has the highest overall delay, and the second highest delay for the movement with the highest, or worst, delay. The realigned intersection also has low overall delay, but due to the corridor timing preferring the "main" street, in order to improve vehicular progression along the corridor, the realigned intersection has the highest delay for the movement that has the worst delay. As the roundabout is designed to keep traffic flowing, albeit at a slower speed, it has the lowest delay of the options evaluated.

**Table 10 – Delay Comparisons (sec) for Pajarito Options – 33% Growth Scenario**

| Peak Hour | Signal w/EB Left | | Roundabout | | Realigned with Signal | |
|---|---|---|---|---|---|---|
| | Overall Intersection | Worst Movement | Overall Intersection | Worst Movement | Overall Intersection | Worst Movement |
| AM | 15.8 | 36.7 | 7.1 | 10.6 | 8.4 | 42.6 |
| PM | 12.8 | 20.1 | 5.9 | 9.0 | 8.4 | 22.8 |

Please note the results above have different traffic volumes and a different traffic signal timing plan than that evaluated in Table 7, and therefore a direct comparison of the results in not meaningful due to those changes in traffic volumes and signal timing.

## 2. GRABLE RE-ALIGNMENT

As part of the scope, it was requested to evaluate the possibility of combining driveways along Diamond Drive. The best candidate for this, due to intersection spacing, is to realign the Grable driveway with the South driveway, as shown in Figure 11.

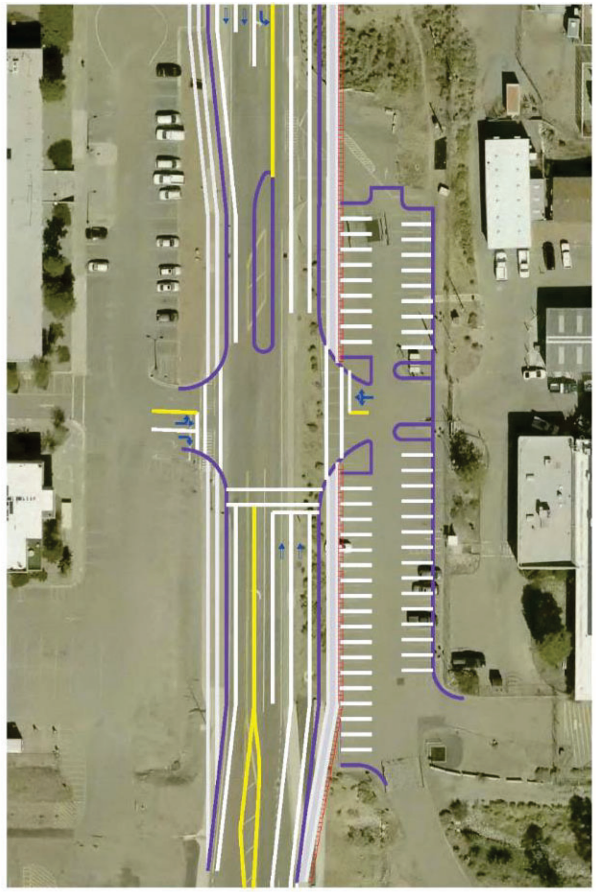


**Figure 11 – Realigned Grable Intersection**

| **Table 11 – 33% Growth Scenario Build Unsignalized Intersection Results<br>Realigned Grable Intersection with Improvements** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Intersection/Movement** | **2038 Build 1 AM Peak** | | | | **2038 Build 1 PM Peak** | | | |
| | **Delay** | **v/c** | **Queue* (ft)** | **LOS** | **Delay** | **v/c** | **Queue* (ft)** | **LOS** |
| Diamond & Grable – TWSC | 0.5 | | | E | 1.5 | | | F |
| WB Left | 36.4 | 0.02 | 25 | E | 55.6 | 0.08 | 25 | F |
| WB Right | 9.5 | 0.01 | 0 | A | 15.8 | 0.19 | 25 | C |
| SB Left | 8.1 | 0.05 | 25 | A | 12.4 | 0.14 | 25 | B |
| * - HCM 95th percentile queue rounded to next 25-foot increment<br>** - volume exceeds capacity and delay. v/c and queue cannot be calculated | | | | | | | | |

The unsignalized results in Table 11 show the realigned driveways will also have poor level of service and high delay, particularly for the exiting left turn movements as do the intersections in their current configuration. As they have poor performance as separate intersections, it is no surprise they have poor performance when combined. However, it is expected that these driveways operate at acceptable delays outside of the peak hour, thereby negating the need for the expense of the realignment.

It is not recommended the realigned intersection, if implemented, be signalized. This is because of the proximity of the Eniwetok signalized intersection, and the concern over queue spillover into it and the impact from the free-flow westbound-to-northbound right turn volume from Eniwetok onto Diamond.

A further concern would be the likelihood of driver confusion for drivers leaving the parking lots on Grable and the South driveway. As the current configuration has parking on both the north and south sides of the intersection, the short throat distance (space for vehicles to stack when waiting at the intersection) could cause confusion as to who has the right-of-way when the traffic signal indication for the driveway is green. The concern would be as the signal is nearing the end of the green cycle for the driveways, drivers would accelerate from both directions, potentially dealing to an increase in crashes as drivers try to make the light.

## C. HIGH GROWTH SCENARIO EVALUATION

As was mentioned in the previous section, the proposed improvements to improve traffic operations for existing traffic levels also resulted in acceptable traffic operations for 33% more traffic, or 1.43% a year over 20 years. A potential growth scenario of 2% a year over 20 years, or a total growth of 150% (50% more traffic) was also evaluated to determine the levels of improvement required to accommodate this high growth scenario.

This second set of improvements will include All improvements identified in the previous improvements plus:

- The addition of a third lane on West Jemez Road through the intersection with Diamond Drive. This includes widening of West Jemez both west and east of the intersection.

On the east this widening would extend to where three lanes begin on the approach to the West Jemez and East Jemez Road intersection. On the west this will extend back 500 feet towards Casa Grande to ensure there is sufficient length to accommodate predicted queues. It is likely this widening of West Jemez would extend farther west than this, as the West Jemez intersections of Casa Grande, Bikini Atoll, and Pajarito are analyzed with this additional traffic growth.

- Add a third westbound-to-southbound left turn lane on West Jemez Road at the Diamond Drive intersection.

This additional left turn lane is required so that the vehicle queue does extend back into the VAP.

- A third southbound lane would be constructed on Diamond Drive to accept the third westbound-to-southbound left turn lane from West Jemez Road to Diamond Drive.

This additional lane would extend to Eniwetok Drive. One of the southbound lanes would convert to a left turn lane at Embudo as it does today. The other would continue south to Eniwetok and drop as the southbound right turn lane.

- Extend the westbound-to-northbound right turn lane from Pajarito in the previous improvements through the Sigma intersection to Eniwetok where it will drop as the right turn lane. Also construct a dedicated northbound right turn lane at Sigma.

This is in order to provide two (2) northbound through lanes through the Sigma intersection in order to prevent the northbound queue from spilling back into the Pajarito intersection with Diamond.

Figure 12 shows the traffic volumes along the Diamond Drive corridor for this high growth scenario.

Table 12 shows the results for the signalized analysis for the high growth traffic volumes with the second set of mitigation improvements discussed above.

| Table 12 – 2038 Build Signalized Intersection Capacity Analysis Results 50% Growth Scenario | | | | | | |
|---|---|---|---|---|---|---|
| Signalized Intersections | 2038 Build 2 AM Peak | | | 2038 Build 2 PM Peak | | |
| | Delay (sec.) | V/C | LOS | Delay (sec.) | V/C | LOS |
| Diamond and Sigma | 6.4 | 0.71 | A | 15.6 | 0.75 | B* |
| Diamond and Eniwetok | 6.3 | 0.81 | A | 11.9 | 0.83 | B |
| Diamond and Embudo | 3.4 | 0.48 | A | 7.9 | 0.83 | A |
| Diamond and West Jemez | 21.4 | 0.83 | C | 32.2 | 0.93 | C |
| Diamond and Pajarito | 17.5 | 0.66 | B | 22.3 | 0.80 | C |
| * - movements LOS E or F | | | | | | |

The results indicate the intersections operate at acceptable levels of service, with no movements LOS F.

The only movement with LOS E is at Sigma, the eastbound left. This is a relatively low volume movement (60 in the PM peak hour), so typically it would be appropriate to accept a higher level of service. It is also likely this result is an artifact of the analysis methodology and would not actually be present with actuated signal timing implementation.

The queue for the northbound through movement at Sigma is alleviated with extending the through lane to Eniwetok. The 95$^{th}$-percentile queue at Sigma in the PM peak hour is 200-feet. A dedicated right turn lane is also required, in addition to the second through lane to prevent queue spillover into the Pajarito intersection. The eastbound left turn queue is 100-feet in the PM peak hour.

In this second growth scenario, the northbound PM queue at Eniwetok is 100-feet, with the distance between Eniwetok and Sigma approximately 830 feet. A dedicated right turn lane, continued from the second northbound through lane from the Sigma intersection, is required to have acceptable northbound queues at Eniwetok, as the combined through and right queues extend past the length of the existing northbound right turn lane.

In this scenario, with the second northbound lane added at Eniwetok from the westbound right turn lane all the way to West Jemez, there are no queue spillover concerns on Diamond at the Embudo intersection.

The westbound right turn queue on Embudo is 200 feet.

With these additional improvements, the northbound right turn queue from West Jemez Road is now 400 feet in the peak hour, with the distance between Embudo and West Jemez approximately 425 feet. As this scenario has three eastbound through lanes on West Jemez Road, a third northbound right turn lane could be constructed, and would reduce the northbound right turn queue to 225 feet. As these proposed improvements already have significant impact to the surrounding area, the decision to construct this improvement should be evaluated once this impact is more thoroughly evaluated in the future.

The calculated 95$^{th}$ percentile queue for the westbound through at the West Jemez and Diamond intersection in the AM peak hour is 475 feet, again approaching the exit of the VAP.

In the PM peak hour, the queue for the eastbound through movement on West Jemez Road is reduced to 450 feet, and would not spillover into upstream intersections, however it would extend past the (gated) eastern driveway near the parking garage.

The signalized intersection results in Table 12 show the Diamond and Pajarito intersection will operate at acceptable level of service in the growth scenario as a signalized intersection, however the eastbound queue with existing geometry would be 350-feet. Table 13 also shows this intersection would operate acceptable as a roundabout.

**Table 13 – 2038 Build Unsignalized Intersection Results**
**50% Growth Scenario**

| Intersection/Movement | 2038 Build 2 AM Peak | | | | 2030 Build 2 PM Peak | | | |
|---|---|---|---|---|---|---|---|---|
| | Delay | v/c | Queue* (ft) | LOS | Delay | v/c | Queue* (ft) | LOS |
| Pajarito & Diamond – RAB | 8.7 | | | A | 8.4 | | | A |
| EB Approach | 8.6 | 0.24 | 25 | A | 9.5 | 0.47 | 75 | A |
| WB Through | 4.6 | 0.21 | 25 | A | 5.1 | 0.22 | 25 | A |
| WB Right | 6.0 | 0.34 | 50 | A | 10.3 | 0.58 | 100 | B |
| SB Left | 12.7 | 0.66 | 125 | B | 6.5 | 0.33 | 25 | A |
| SB Right | 4.5 | 0.13 | 0 | A | 3.7 | 0.06 | 0 | A |
| Diamond & South Dr – TWSC | 1.1 | | | F | 1.6 | | | D |
| NB Left | 14.4 | 0.04 | 25 | B | 8.2 | 0.01 | 0 | A |
| EB Left | 78.8 | 0.33 | 50 | F | 29.2 | 0.38 | 50 | D |
| EB Right | 16.7 | 0.02 | 25 | C | 9.7 | 0.02 | 25 | A |
| Diamond & Grable – TWSC | 0.5 | | | D | 1.7 | | | F |
| WB Left | 31.0 | 0.02 | 25 | D | 56.4 | 0.09 | 25 | F |
| WB Right | 9.8 | 0.01 | 0 | A | 17.1 | 0.24 | 25 | C |
| SB Left | 8.5 | 0.07 | 25 | A | 12.9 | 0.16 | 25 | B |
| Diamond & Coronado – TWSC | 0.1 | | | D | 0.1 | | | D |
| NB Left | 13.2 | 0.01 | 0 | B | 0.0 | 0.0 | 0 | A |
| EB Left/Right | 25.4 | 0.04 | 25 | D | 28.1 | 0.03 | 25 | D |

* - HCM 95$^{th}$ percentile queue rounded to next 25-foot increment
** - volume exceeds capacity and delay. v/c and queue cannot be calculated

The unsignalized results in Table 13 are similar to the previous results in that the minor street left turn operate at poor levels of service in the peak hours.

AM Peak Hour PM Peak Hour

**Figure 12 – High Growth Scenario (50% Growth) Traffic Volumes**

# V. CONCLUSIONS AND RECOMMENDATIONS

## A. CONCLUSIONS

The traffic analysis found that the existing operations have queue spillover issues due to lane utilization, close intersection spacing, and high peak hour demand. This is due to the heavy directional nature of the traffic flows (large inflow in the AM and large outflow in the PM) resulting in large peaks desiring to go in the same direction (westbound-to-westbound on West Jemez and westbound-to-southbound on Diamond in the AM peak hour, and, eastbound-to-eastbound on West Jemez and northbound-to-eastbound on Diamond in the PM peak hour). Lane utilization impacts Diamond Drive as the majority of exiting traffic is destined to the east from Diamond Drive and there is only one lane on Diamond. Although the traffic analysis procedures suggest the intersections could operate at an acceptable level of service as an isolated intersection under existing geometry, the proximity of the intersections, inadequate queue storage, and the large peaking of traffic result in poor operations in the field under actual traffic conditions. The addition of a second northbound lane, beginning at Eniwetok, combined with aligning the two northbound lanes with the two northbound right turn lanes at West Jemez Road, would allow drivers to feel comfortable using either lane while driving north on Diamond Drive to their desired destination. The northbound left turn lanes at West Jemez Road would be the lanes that drivers would have to change lanes to enter, as the northbound left turn lane volume is less than 5% of the total northbound traffic, during the PM peak hour, and work acceptable with just a single northbound left turn lane.

By making the improvements described above to address existing traffic volumes, it will also provide sufficient capacity to accommodate ad addition 33% in traffic growth.

Another growth scenario that was evaluated was to increase the traffic by 50%, which would support 2% growth per year for 20 years. Based on input from LANS this could be a possible growth scenario for the potential land uses and mission changes over the next 20 years.

With the addition of the high growth scenario of a 50% increase in traffic, this additional traffic results in overcapacity issues with the proposed laneage and intersection improvements, particularly at the West Jemez Road and Diamond Drive intersection. To improve level of service and eliminate queue spillover of traffic into upstream intersections an additional eastbound through is required on West Jemez Road, as well as a triple westbound left turn from West Jemez onto Diamond. These improvements will prevent queue spillover of the westbound left turn into the Vehicle Access Portal (VAP) in the AM peak hour, as well as prevent eastbound through queue spillover into the Casa Grande and Pajarito intersections with West Jemez Road in the PM peak hour.

Please note that with the 50% growth scenario, the intersections along West Jemez Road will also likely require improvements to accommodate this level of growth. Evaluation of impacts to West Jemez Road intersections, West Jemez and East Jemez intersection, and interactions with vehicles exiting the VAP were beyond the scope of this study.

This third westbound left turn lane requires an additional southbound lane on Diamond Drive. In the high growth scenario, this additional southbound lane would terminate at Eniwetok Drive as the southbound right turn lane.

Bicycle lanes are present on only a short stretch on Diamond on the approaches to Eniwetok Drive. In the rest of the corridor the bicyclists must share the road with vehicular traffic or use the sidewalk and share with pedestrians. To improve the safety of bicyclists, a 6-foot bike lane, plus a foot and a half buffer, should be added to the length of Diamond Drive.

Sidewalks are present, along the corridor, however much of the sidewalk is substandard in width for a pleasant pedestrian experience, lack a buffer from traffic, is in poor condition, and have no aesthetic treatments. A full 6-foot sidewalk, with landscape buffer should be constructed to improve the pedestrian perception of safety.

## B. RECOMMENDED IMPROVEMENTS

The corridor would benefit from upgraded traffic signal equipment and retiming the traffic signals to optimize the timings and to interconnect the signals with a master controller at West Jemez Road, so each traffic signal can communicate with each other. This controller could also control the traffic signals along West Jemez Road at Casa Grande, Bikini Atoll and Pajarito.

Emergency response could be improved by adding emergency vehicle traffic signal pre-emption equipment to allow the emergency vehicles to change the traffic signal indications to green as they approach the signal.

Construct a second northbound lane from the westbound-to-northbound right turn lane at Eniwetok to where the second northbound through lane begins at the Coronado driveway south of Embudo Avenue.

Align the two northbound lanes with the two northbound right turn lanes at West Jemez Road.

Extend the westbound-to-northbound right turn lane merge from Pajarito onto Diamond to past Sigma Road to allow for additional queue storage for northbound traffic at Sigma Road.

Intersection improvements at the Pajarito and Diamond intersection by adding either a traffic signal or roundabout. The specific improvement at this intersection will be further evaluated during future design studies and after internal LANL planning reviews are completed.

Add a second southbound lane from West Jemez Road to south of Coronado Road.

Construct 6-foot sidewalks along the corridor to improve pedestrian accommodations.

Add a 6-foot (minimum) bike lane, plus 1.5-foot buffer, on both sides of Diamond Drive from Pajarito Road to West Jemez Road. This additional widening will improve both bicycle and pedestrian safety.

# APPENDIX A
# EXISTING TRAFFIC COUNTS

Appendix A Listing – Existing Traffic Counts

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 1A

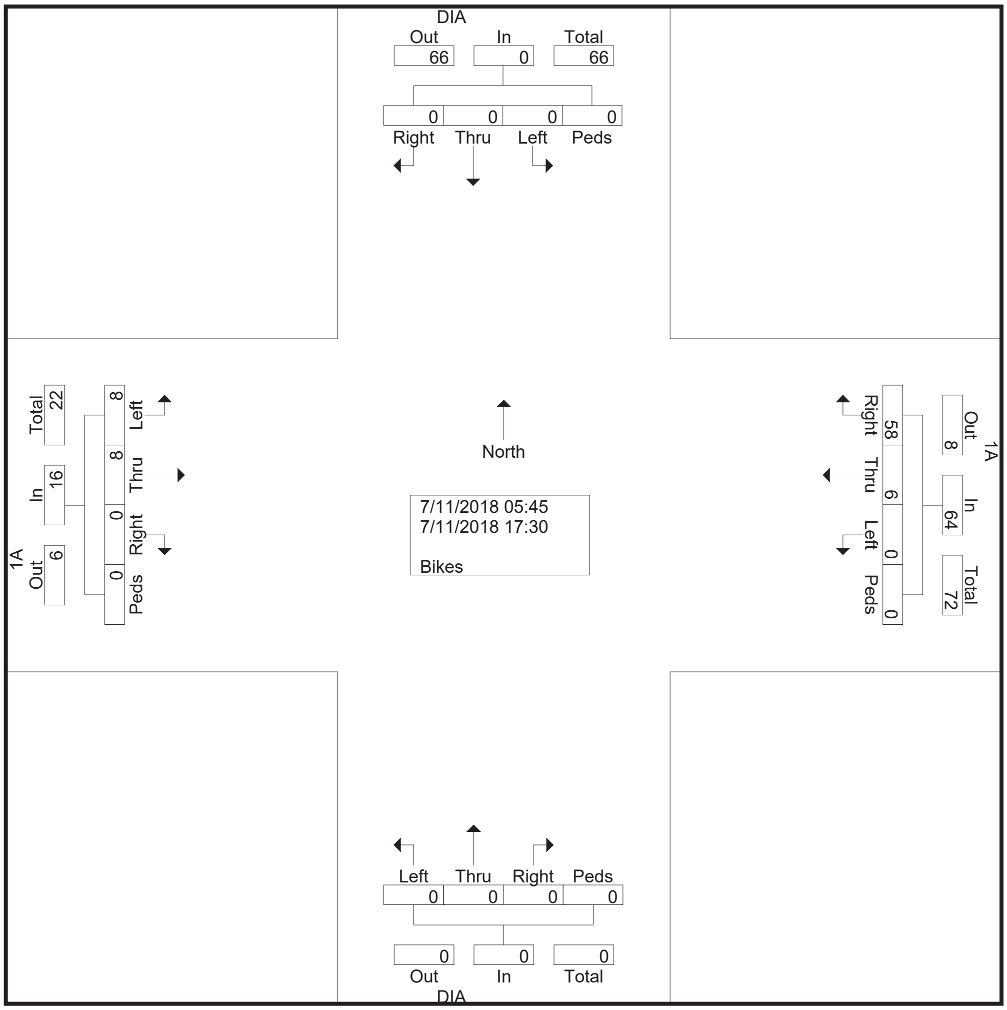
File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 4 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 3 | 7 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 6 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | 8 |
| Total | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 0 | 7 | 18 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 6 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 7 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 8 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 15 | 2 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 21 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 20 | 3 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 25 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 58 | 6 | 0 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 16 | 80 |
| Apprch % | 0 | 0 | 0 | 0 | | 90.6 | 9.4 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 50 | 50 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 72.5 | 7.5 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 0 | 20 | |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

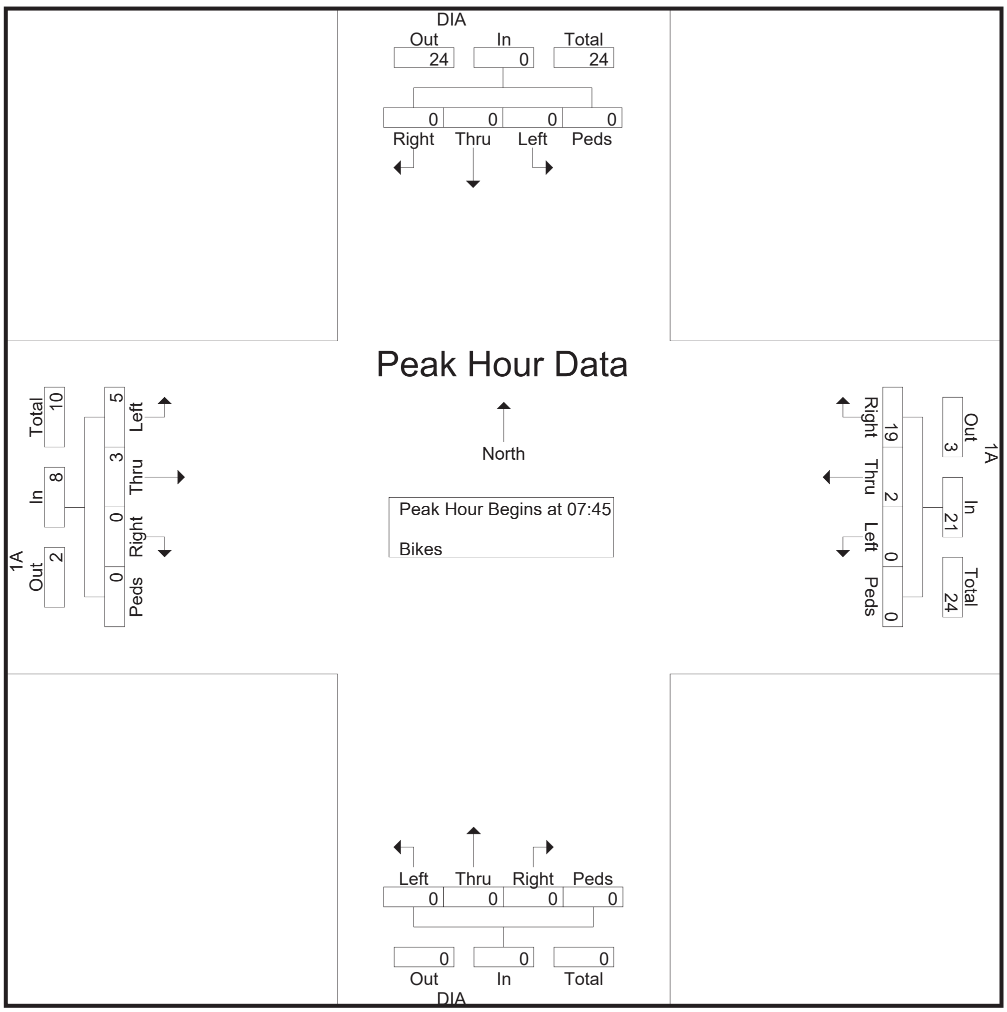
File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018

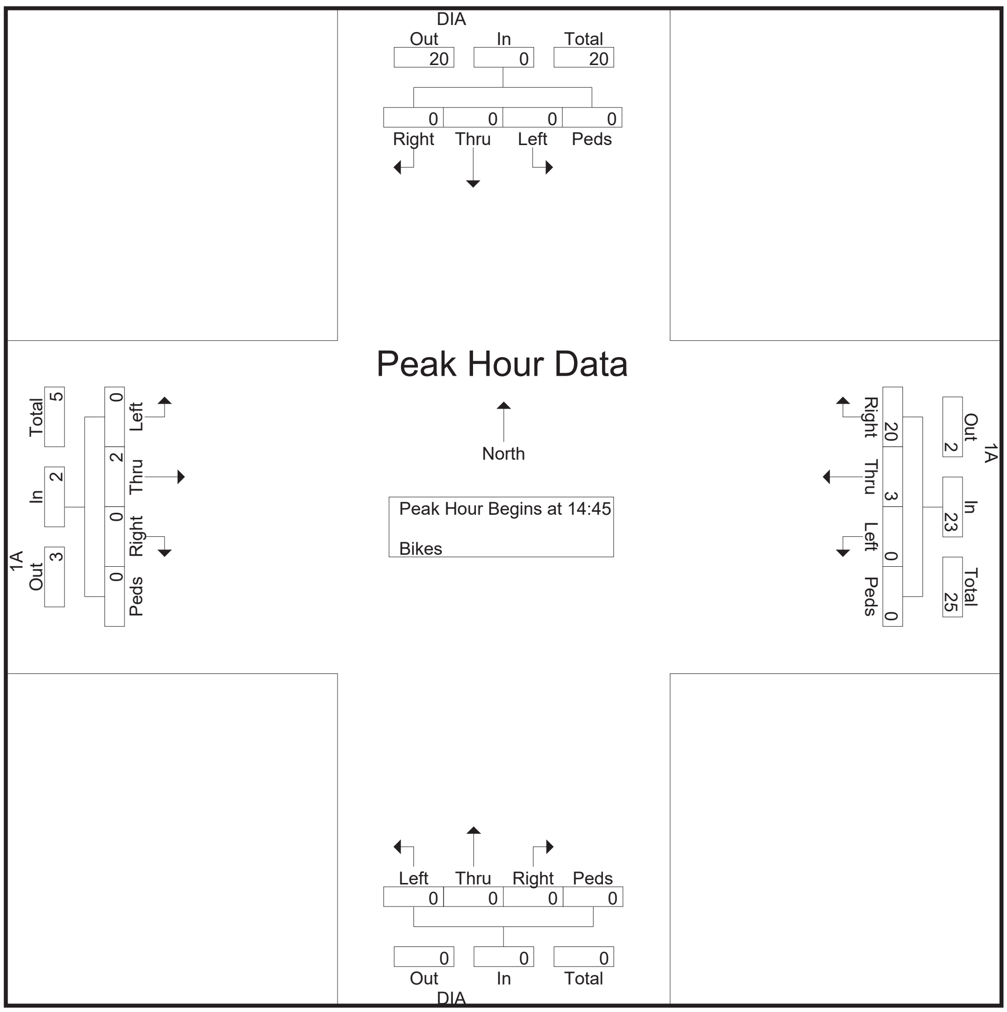

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 | | | | | | | | | | | | | | | | | | | | | |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | **2** | 0 | **4** | **8** |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 4 | **1** | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 6 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 7 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 8 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 19 | 2 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 0 | 8 | 29 |
| % App. Total | 0 | 0 | 0 | 0 | | 90.5 | 9.5 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 37.5 | 62.5 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .792 | .500 | .000 | .000 | .875 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .625 | .000 | .500 | .906 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **1** | 6 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | **9** | 1 | 0 | 0 | **10** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **10** |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 5 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 20 | 3 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 25 |
| % App. Total | 0 | 0 | 0 | 0 | | 87 | 13 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .556 | .750 | .000 | .000 | .575 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .500 | .625 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 1A

File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

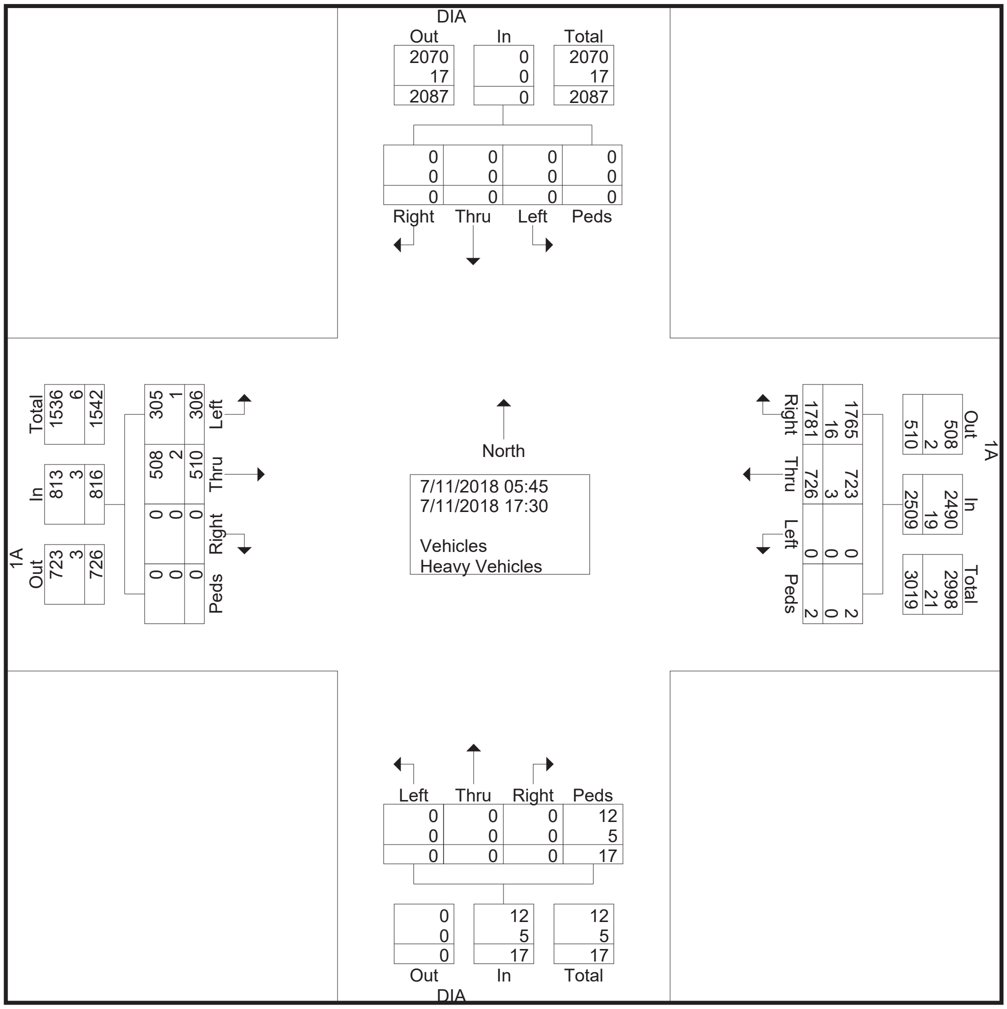
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:45 | 0 | 0 | 0 | 0 | 0 | 19 | 10 | 0 | 0 | 29 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | 0 | 0 | 4 | 35 |
| Total | 0 | 0 | 0 | 0 | 0 | 19 | 10 | 0 | 0 | 29 | 0 | 0 | 0 | 2 | 2 | 0 | 4 | 0 | 0 | 4 | 35 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 25 | 20 | 0 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 9 | 54 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 28 | 30 | 0 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 67 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 46 | 40 | 0 | 0 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 3 | 0 | 17 | 103 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 54 | 47 | 0 | 0 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 6 | 0 | 24 | 125 |
| Total | 0 | 0 | 0 | 0 | 0 | 153 | 137 | 0 | 0 | 290 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 10 | 0 | 59 | 349 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 58 | 34 | 0 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 4 | 0 | 12 | 104 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 57 | 52 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 9 | 0 | 24 | 133 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 90 | 49 | 0 | 0 | 139 | 0 | 0 | 0 | 1 | 1 | 0 | 15 | 8 | 0 | 23 | 163 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 68 | 46 | 0 | 0 | 114 | 0 | 0 | 0 | 1 | 1 | 0 | 13 | 10 | 0 | 23 | 138 |
| Total | 0 | 0 | 0 | 0 | 0 | 273 | 181 | 0 | 0 | 454 | 0 | 0 | 0 | 2 | 2 | 0 | 51 | 31 | 0 | 82 | 538 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 64 | 26 | 0 | 0 | 90 | 0 | 0 | 0 | 1 | 1 | 0 | 14 | 10 | 0 | 24 | 115 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 57 | 26 | 0 | 0 | 83 | 0 | 0 | 0 | 1 | 1 | 0 | 10 | 11 | 0 | 21 | 105 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 77 | 20 | 0 | 0 | 97 | 0 | 0 | 0 | 1 | 1 | 0 | 14 | 14 | 0 | 28 | 126 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 198 | 72 | 0 | 0 | 270 | 0 | 0 | 0 | 3 | 3 | 0 | 38 | 35 | 0 | 73 | 346 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 51 | 24 | 0 | 0 | 75 | 0 | 0 | 0 | 3 | 3 | 0 | 29 | 18 | 0 | 47 | 125 |
| Total | 0 | 0 | 0 | 0 | 0 | 51 | 24 | 0 | 0 | 75 | 0 | 0 | 0 | 3 | 3 | 0 | 29 | 18 | 0 | 47 | 125 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 68 | 19 | 0 | 0 | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 13 | 0 | 30 | 117 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 88 | 24 | 0 | 0 | 112 | 0 | 0 | 0 | 3 | 3 | 0 | 24 | 22 | 0 | 46 | 161 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 76 | 21 | 0 | 0 | 97 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 20 | 0 | 49 | 146 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 88 | 32 | 0 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 29 | 0 | 57 | 177 |
| Total | 0 | 0 | 0 | 0 | 0 | 320 | 96 | 0 | 0 | 416 | 0 | 0 | 0 | 3 | 3 | 0 | 98 | 84 | 0 | 182 | 601 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 134 | 28 | 0 | 1 | 163 | 0 | 0 | 0 | 0 | 0 | 0 | 28 | 15 | 0 | 43 | 206 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 108 | 54 | 0 | 0 | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 22 | 0 | 66 | 228 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 115 | 26 | 0 | 0 | 141 | 0 | 0 | 0 | 1 | 1 | 0 | 39 | 17 | 0 | 56 | 198 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 102 | 33 | 0 | 0 | 135 | 0 | 0 | 0 | 1 | 1 | 0 | 42 | 30 | 0 | 72 | 208 |
| Total | 0 | 0 | 0 | 0 | 0 | 459 | 141 | 0 | 1 | 601 | 0 | 0 | 0 | 2 | 2 | 0 | 153 | 84 | 0 | 237 | 840 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 112 | 54 | 0 | 1 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 20 | 0 | 65 | 232 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 112 | 7 | 0 | 0 | 119 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 15 | 0 | 40 | 159 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 84 | 4 | 0 | 0 | 88 | 0 | 0 | 0 | 2 | 2 | 0 | 18 | 9 | 0 | 27 | 117 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 1781 | 726 | 0 | 2 | 2509 | 0 | 0 | 0 | 17 | 17 | 0 | 510 | 306 | 0 | 816 | 3342 |
| Apprch % | 0 | 0 | 0 | 0 | | 71 | 28.9 | 0 | 0.1 | | 0 | 0 | 0 | 100 | | 0 | 62.5 | 37.5 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 53.3 | 21.7 | 0 | 0.1 | 75.1 | 0 | 0 | 0 | 0.5 | 0.5 | 0 | 15.3 | 9.2 | 0 | 24.4 | |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 1765 | 723 | 0 | 2 | 2490 | 0 | 0 | 0 | 12 | 12 | 0 | 508 | 305 | 0 | 813 | 3315 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 99.1 | 99.6 | 0 | 100 | 99.2 | 0 | 0 | 0 | 70.6 | 70.6 | 0 | 99.6 | 99.7 | 0 | 99.6 | 99.2 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 16 | 3 | 0 | 0 | 19 | 0 | 0 | 0 | 5 | 5 | 0 | 2 | 1 | 0 | 3 | 27 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0.9 | 0.4 | 0 | 0 | 0.8 | 0 | 0 | 0 | 29.4 | 29.4 | 0 | 0.4 | 0.3 | 0 | 0.4 | 0.8 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2

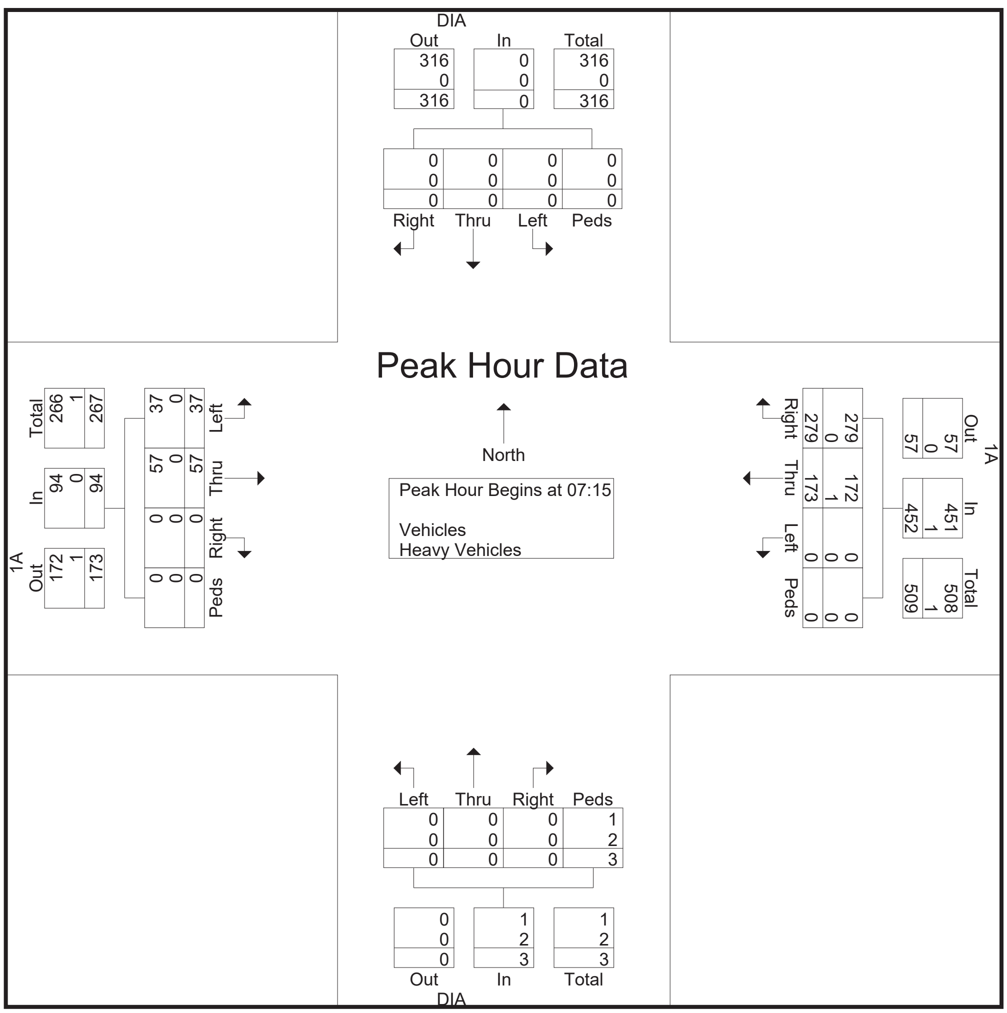


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 57 | **52** | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | **15** | 9 | 0 | **24** | 133 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | **90** | 49 | 0 | 0 | **139** | 0 | 0 | 0 | **1** | **1** | 0 | 15 | 8 | 0 | 23 | **163** |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 68 | 46 | 0 | 0 | 114 | 0 | 0 | 0 | 1 | 1 | 0 | 13 | **10** | 0 | 23 | 138 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 64 | 26 | 0 | 0 | 90 | 0 | 0 | 0 | 1 | 1 | 0 | 14 | 10 | 0 | 24 | 115 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 279 | 173 | 0 | 0 | 452 | 0 | 0 | 0 | 3 | 3 | 0 | 57 | 37 | 0 | 94 | 549 |
| % App. Total | 0 | 0 | 0 | 0 | | 61.7 | 38.3 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 60.6 | 39.4 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .775 | .832 | .000 | .000 | .813 | .000 | .000 | .000 | .750 | .750 | .000 | .950 | .925 | .000 | .979 | .842 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 279 | 172 | 0 | 0 | 451 | 0 | 0 | 0 | 1 | 1 | 0 | 57 | 37 | 0 | 94 | 546 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 99.4 | 0 | 0 | 99.8 | 0 | 0 | 0 | 33.3 | 33.3 | 0 | 100 | 100 | 0 | 100 | 99.5 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 0.2 | 0 | 0 | 0 | 66.7 | 66.7 | 0 | 0 | 0 | 0 | 0 | 0.5 |

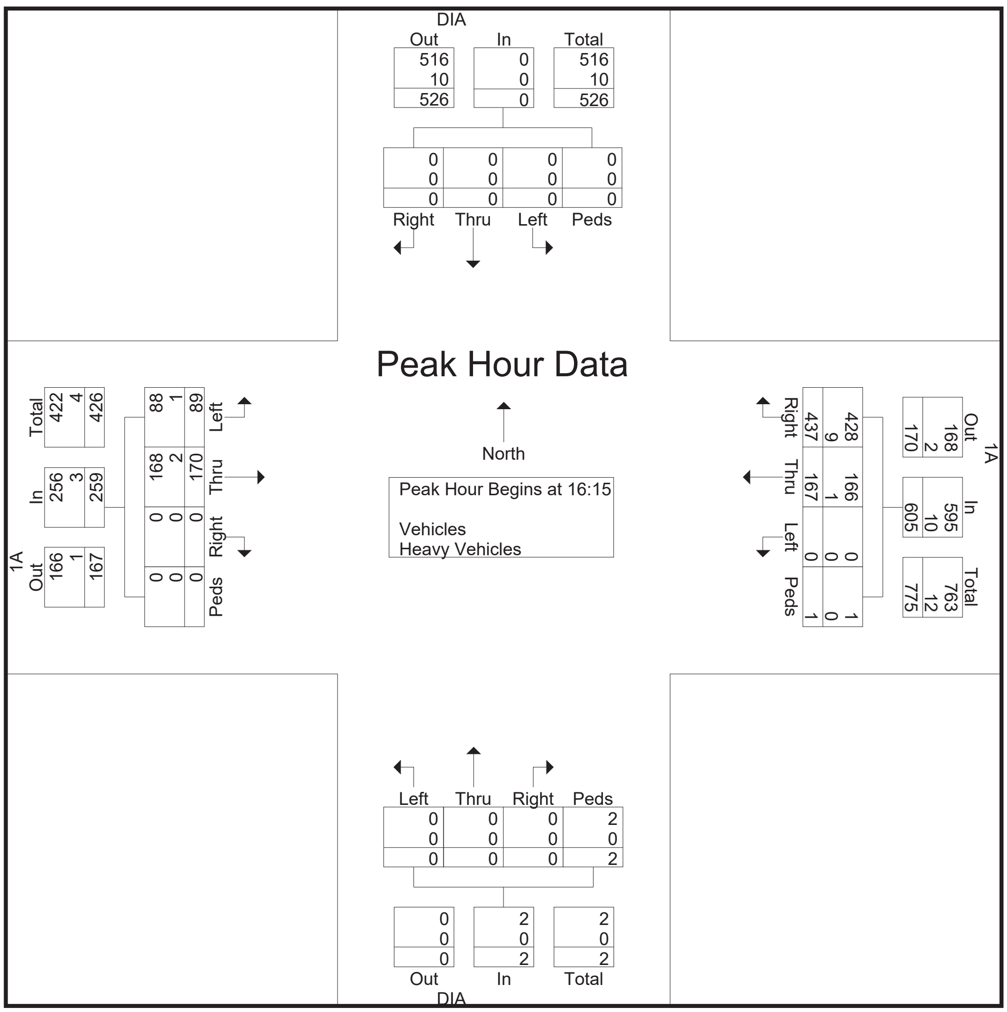


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1A_SAVANNA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 1A From East | | | | | DIA From South | | | | | 1A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:15 | | | | | | | | | | | | | | | | | | | | | |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 108 | **54** | 0 | 0 | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 44 | 22 | 0 | 66 | 228 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | **115** | 26 | 0 | 0 | 141 | 0 | 0 | 0 | **1** | **1** | 0 | 39 | 17 | 0 | 56 | 198 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 102 | 33 | 0 | 0 | 135 | 0 | 0 | 0 | 1 | 1 | 0 | 42 | **30** | 0 | **72** | 208 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 112 | 54 | 0 | **1** | **167** | 0 | 0 | 0 | 0 | 0 | 0 | **45** | 20 | 0 | 65 | **232** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 437 | 167 | 0 | 1 | 605 | 0 | 0 | 0 | 2 | 2 | 0 | 170 | 89 | 0 | 259 | 866 |
| % App. Total | 0 | 0 | 0 | 0 | | 72.2 | 27.6 | 0 | 0.2 | | 0 | 0 | 0 | 100 | | 0 | 65.6 | 34.4 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .950 | .773 | .000 | .250 | .906 | .000 | .000 | .000 | .500 | .500 | .000 | .944 | .742 | .000 | .899 | .933 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 428 | 166 | 0 | 1 | 595 | 0 | 0 | 0 | 2 | 2 | 0 | 168 | 88 | 0 | 256 | 853 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 97.9 | 99.4 | 0 | 100 | 98.3 | 0 | 0 | 0 | 100 | 100 | 0 | 98.8 | 98.9 | 0 | 98.8 | 98.5 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 13 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 2.1 | 0.6 | 0 | 0 | 1.7 | 0 | 0 | 0 | 0 | 0 | 0 | 1.2 | 1.1 | 0 | 1.2 | 1.5 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 1B

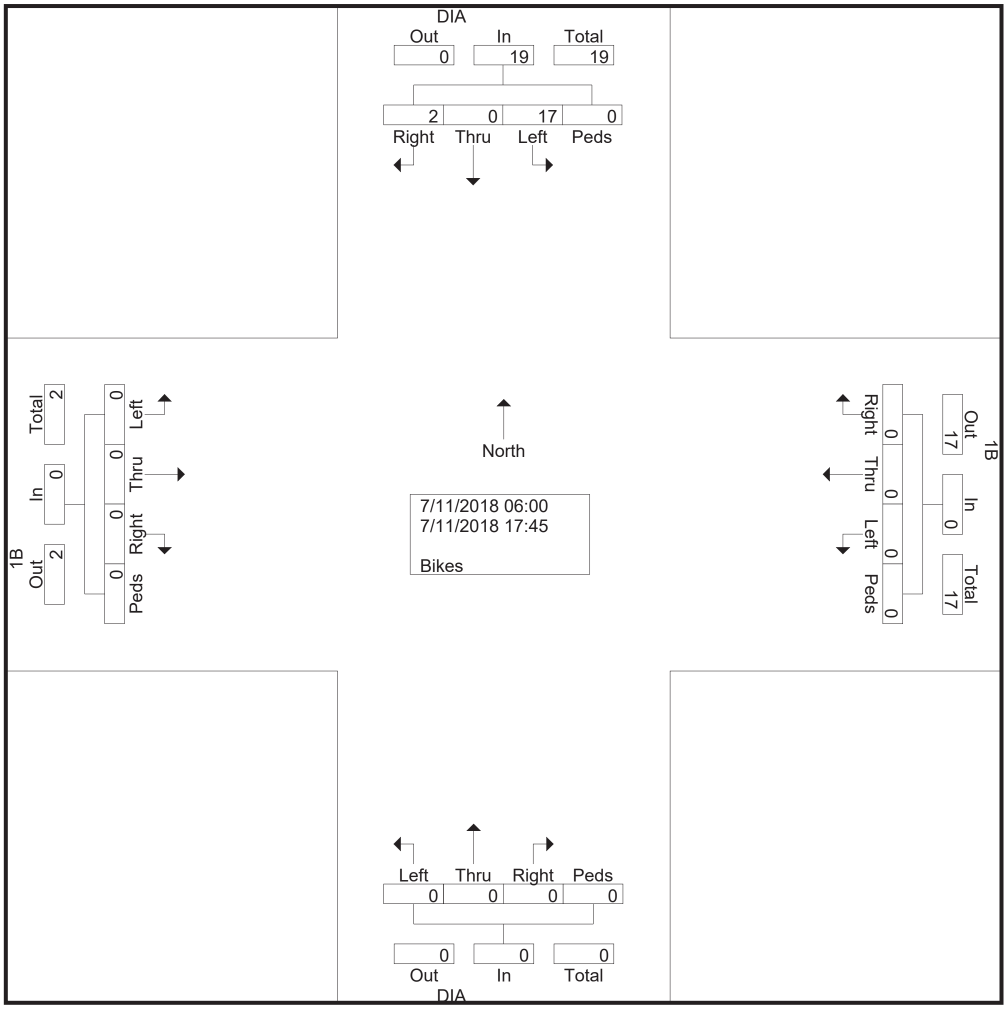
File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:30 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:45 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:00 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:15 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 2 | 0 | 5 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15:15 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15:30 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 2 | 0 | 17 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Apprch % | 10.5 | 0 | 89.5 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 10.5 | 0 | 89.5 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2

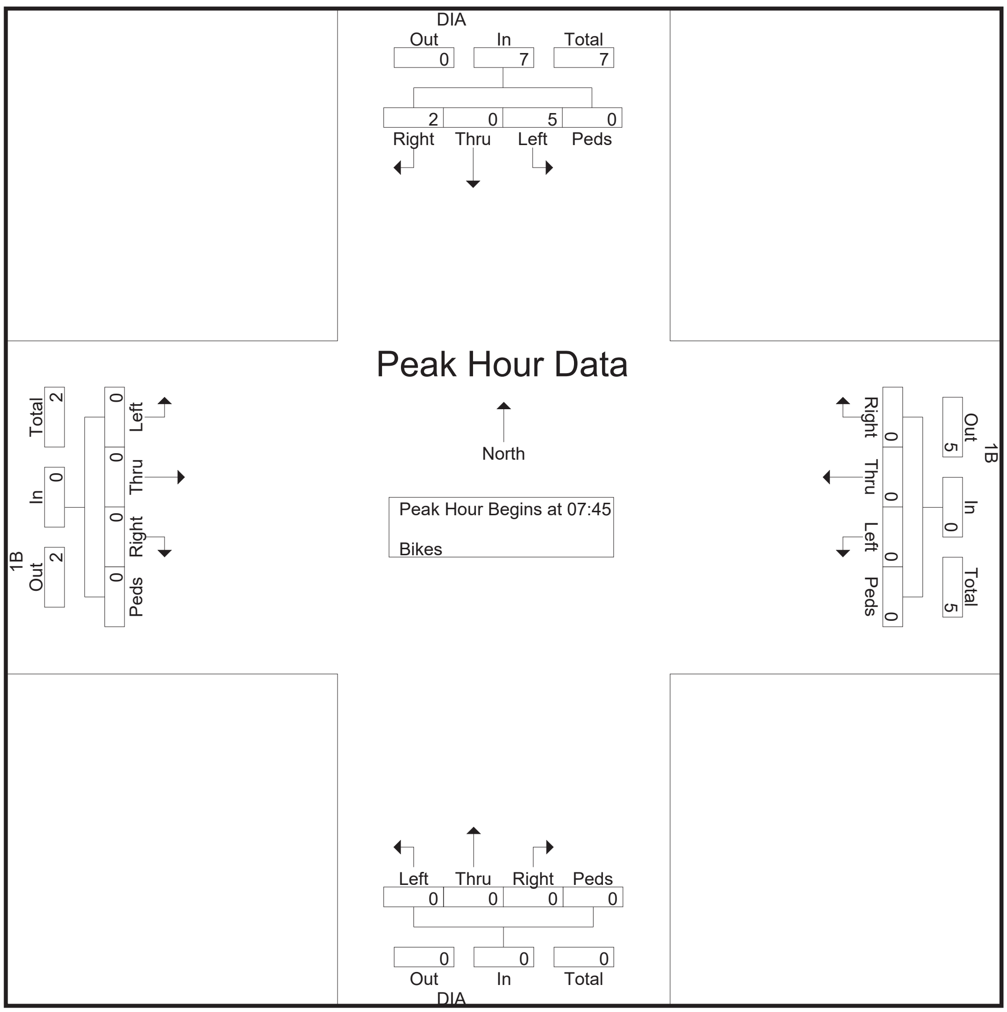


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

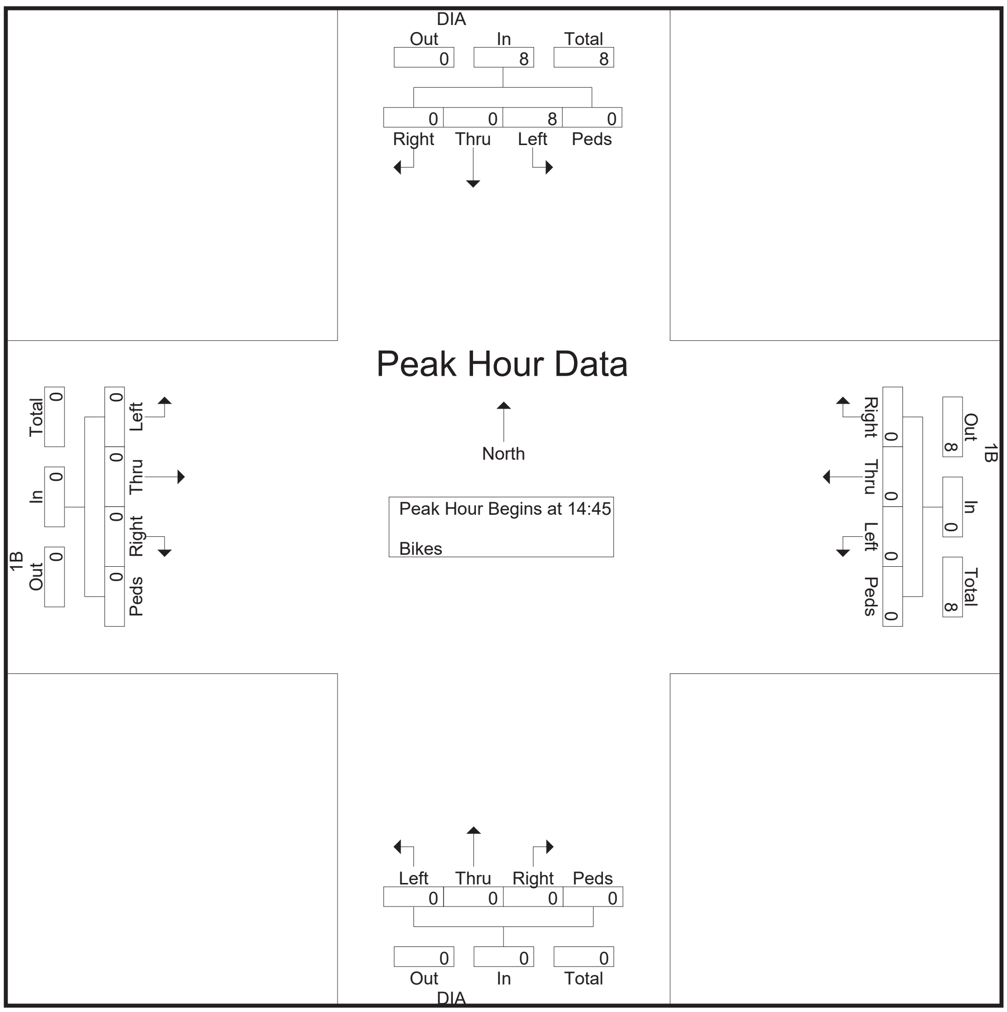
| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 | | | | | | | | | | | | | | | | | | | | | |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | **1** | 0 | **2** | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** |
| 08:15 | 1 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 2 | 0 | 5 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| % App. Total | 28.6 | 0 | 71.4 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .500 | .000 | .625 | .000 | .583 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .583 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15:15 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15:30 | 0 | 0 | **4** | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** |
| Total Volume | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| % App. Total | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .500 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 1B

File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

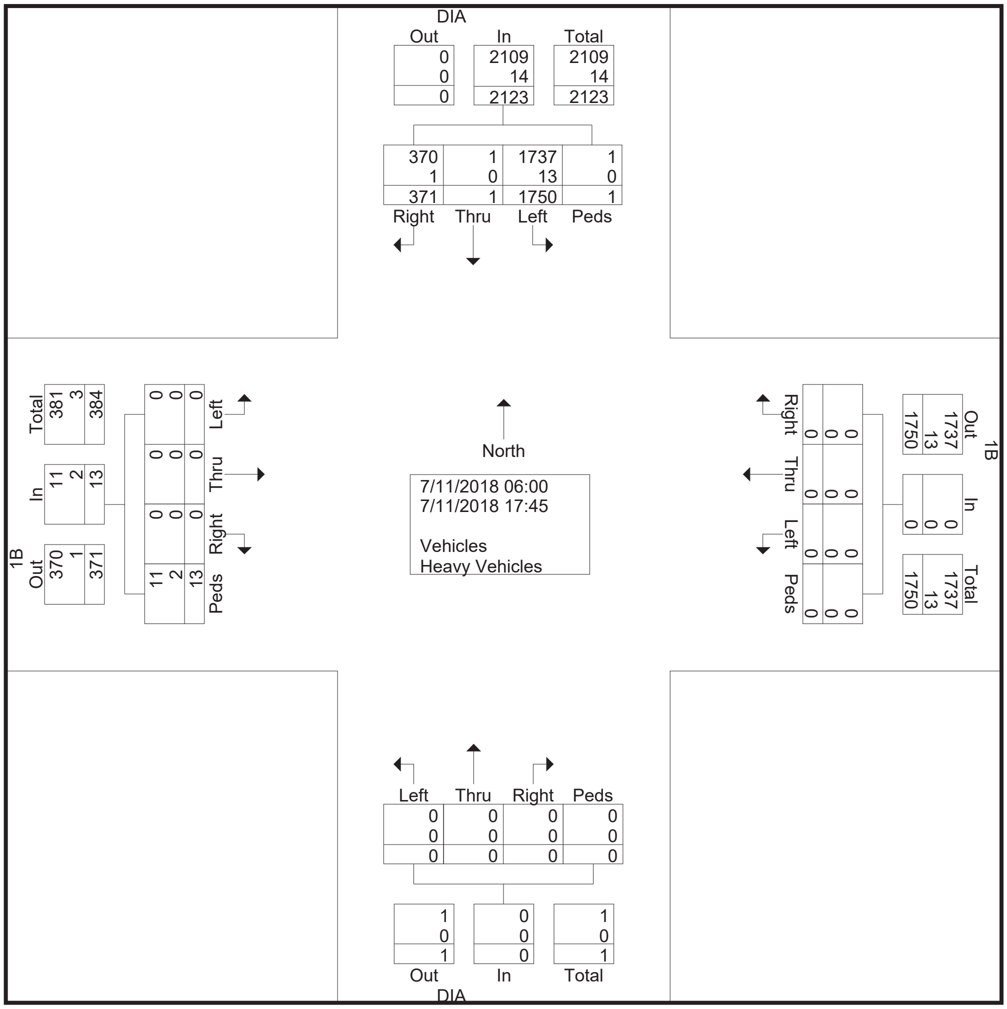
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 8 | 0 | 69 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77 |
| 06:15 | 11 | 0 | 94 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| 06:30 | 11 | 0 | 109 | 0 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 |
| 06:45 | 22 | 0 | 131 | 0 | 153 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 154 |
| Total | 52 | 0 | 403 | 0 | 455 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 456 |
| 07:00 | 31 | 0 | 97 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 128 |
| 07:15 | 32 | 0 | 100 | 0 | 132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| 07:30 | 21 | 0 | 116 | 0 | 137 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| 07:45 | 18 | 0 | 122 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 141 |
| Total | 102 | 0 | 435 | 0 | 537 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 538 |
| 08:00 | 21 | 0 | 123 | 0 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 145 |
| 08:15 | 21 | 0 | 79 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 102 |
| 08:30 | 24 | 0 | 67 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 91 |
| 08:45 | 22 | 0 | 81 | 0 | 103 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 103 |
| Total | 88 | 0 | 350 | 0 | 438 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 441 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 16 | 0 | 48 | 1 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 68 |
| 15:15 | 24 | 0 | 51 | 0 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 15:30 | 16 | 0 | 24 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 15:45 | 12 | 0 | 34 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| Total | 68 | 0 | 157 | 1 | 226 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 229 |
| 16:00 | 14 | 0 | 57 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 16:15 | 7 | 0 | 40 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| 16:30 | 9 | 0 | 64 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 16:45 | 10 | 0 | 62 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 73 |
| Total | 40 | 0 | 223 | 0 | 263 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 264 |
| 17:00 | 8 | 1 | 68 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 79 |
| 17:15 | 8 | 0 | 38 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| 17:30 | 2 | 0 | 48 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 17:45 | 3 | 0 | 28 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 33 |
| Total | 21 | 1 | 182 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 208 |
| Grand Total | 371 | 1 | 1750 | 1 | 2123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 | 2136 |
| Apprch % | 17.5 | 0 | 82.4 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | |
| Total % | 17.4 | 0 | 81.9 | 0 | 99.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0.6 | |
| Vehicles | 370 | 1 | 1737 | 1 | 2109 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 2120 |
| % Vehicles | 99.7 | 100 | 99.3 | 100 | 99.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84.6 | 84.6 | 99.3 |
| Heavy Vehicles | 1 | 0 | 13 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 16 |
| % Heavy Vehicles | 0.3 | 0 | 0.7 | 0 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15.4 | 15.4 | 0.7 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2

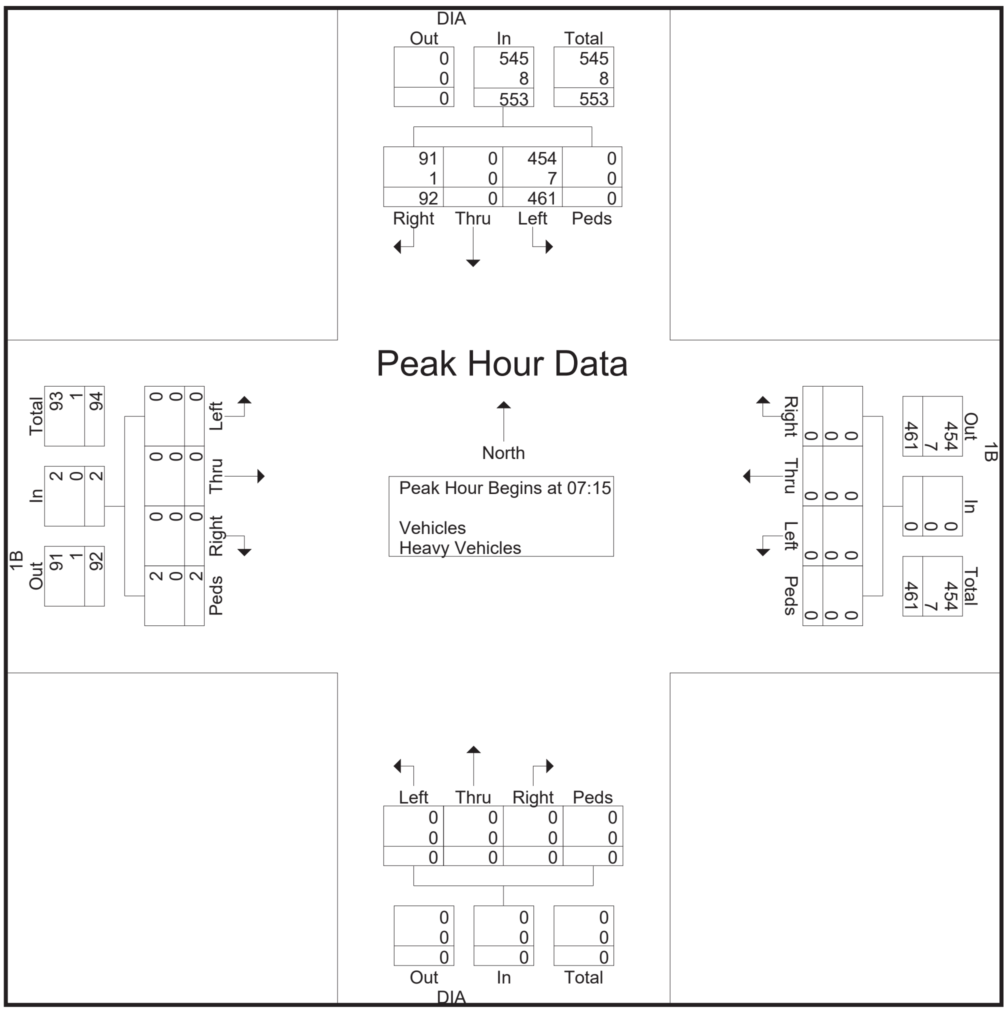


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | **32** | 0 | 100 | 0 | 132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 |
| 07:30 | 21 | 0 | 116 | 0 | 137 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 |
| 07:45 | 18 | 0 | 122 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 141 |
| 08:00 | 21 | 0 | **123** | 0 | **144** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | **145** |
| Total Volume | 92 | 0 | 461 | 0 | 553 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 555 |
| % App. Total | 16.6 | 0 | 83.4 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | |
| PHF | .719 | .000 | .937 | .000 | .960 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .500 | .957 |
| Vehicles | 91 | 0 | 454 | 0 | 545 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 547 |
| % Vehicles | 98.9 | 0 | 98.5 | 0 | 98.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 98.6 |
| Heavy Vehicles | 1 | 0 | 7 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| % Heavy Vehicles | 1.1 | 0 | 1.5 | 0 | 1.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 |

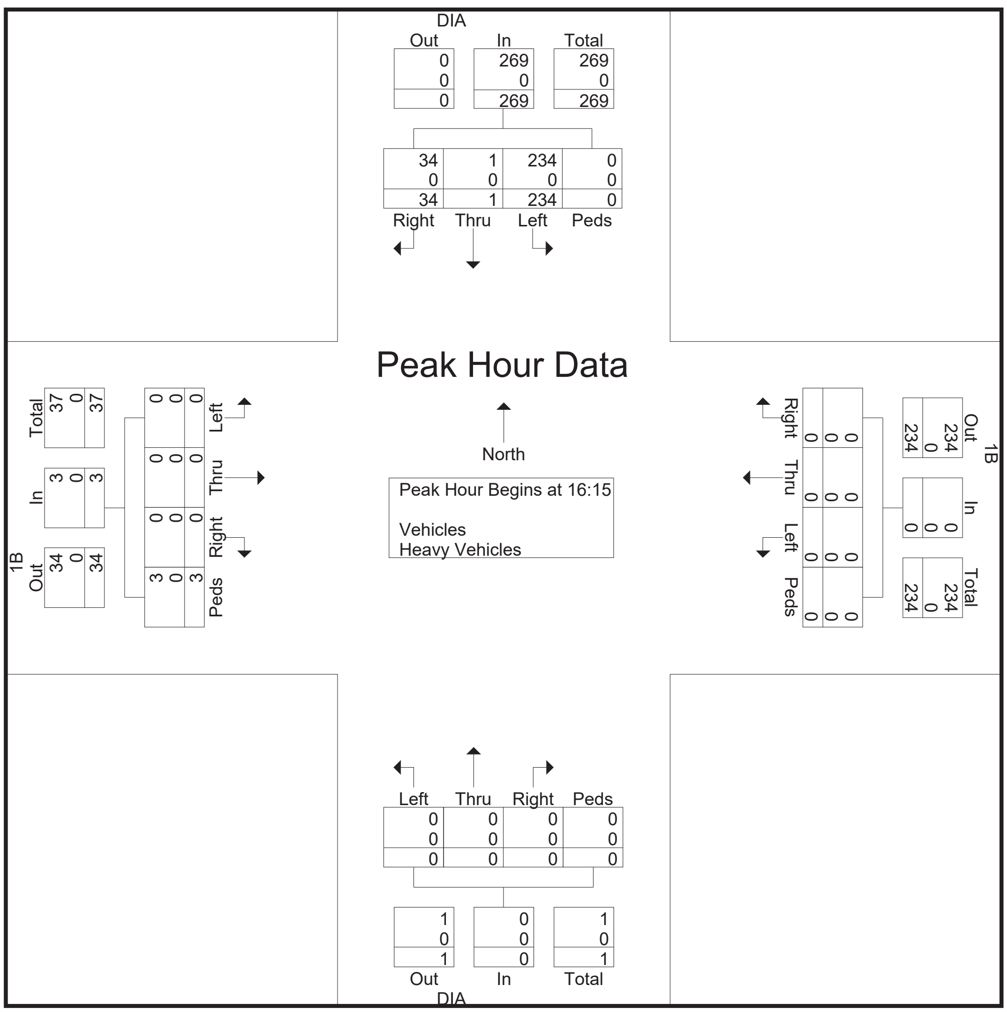


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 1B_TAMIA
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 1B From East | | | | | DIA From South | | | | | 1B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:15 | | | | | | | | | | | | | | | | | | | | | |
| 16:15 | 7 | 0 | 40 | 0 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 47 |
| 16:30 | 9 | 0 | 64 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73 |
| 16:45 | **10** | 0 | 62 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 73 |
| 17:00 | 8 | **1** | **68** | 0 | **77** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | **2** | **79** |
| Total Volume | 34 | 1 | 234 | 0 | 269 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 272 |
| % App. Total | 12.6 | 0.4 | 87 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | |
| PHF | .850 | .250 | .860 | .000 | .873 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .375 | .861 |
| Vehicles | 34 | 1 | 234 | 0 | 269 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 272 |
| % Vehicles | 100 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 2A
Start Date: 06/28/2018

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

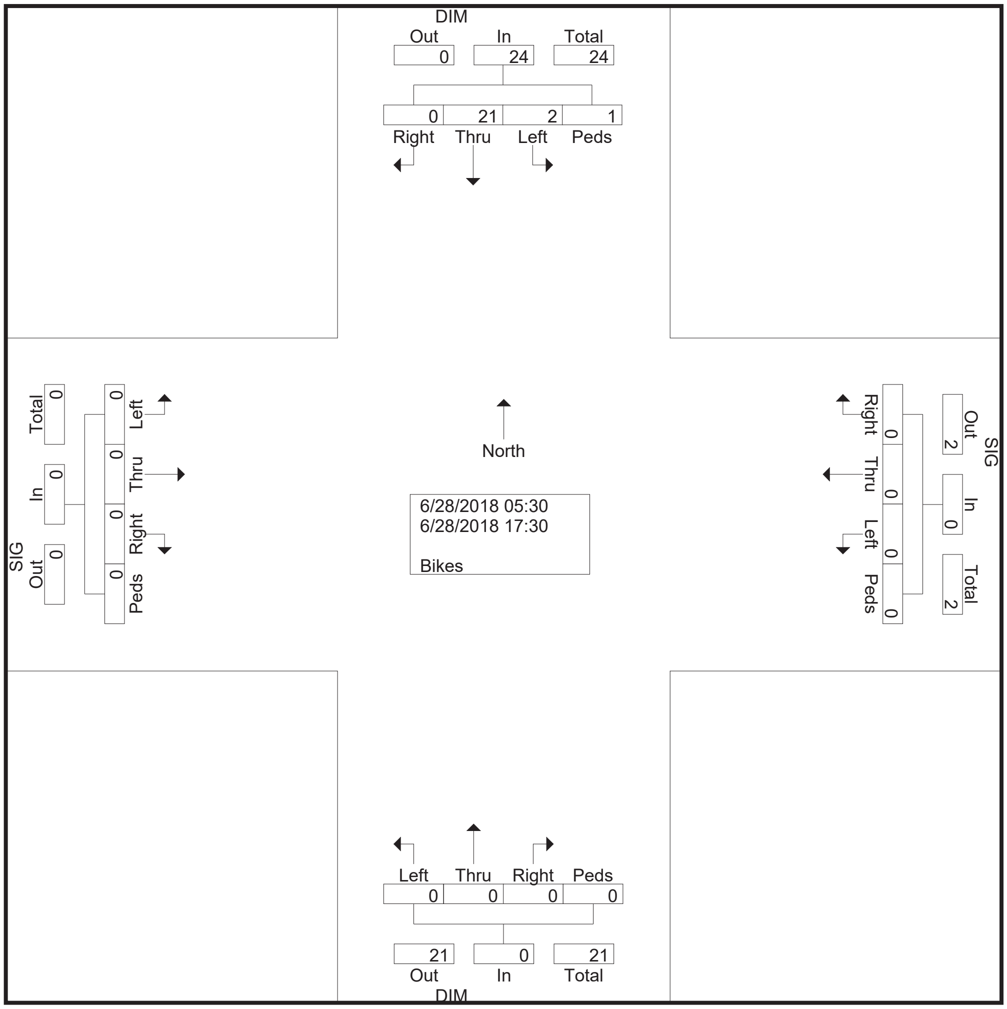
**Groups Printed- Bikes**

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:30 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 07:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 | 0 | 3 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 07:45 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 6 | 2 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 08:00 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 08:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 15:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 21 | 2 | 1 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| Apprch % | 0 | 87.5 | 8.3 | 4.2 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 87.5 | 8.3 | 4.2 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

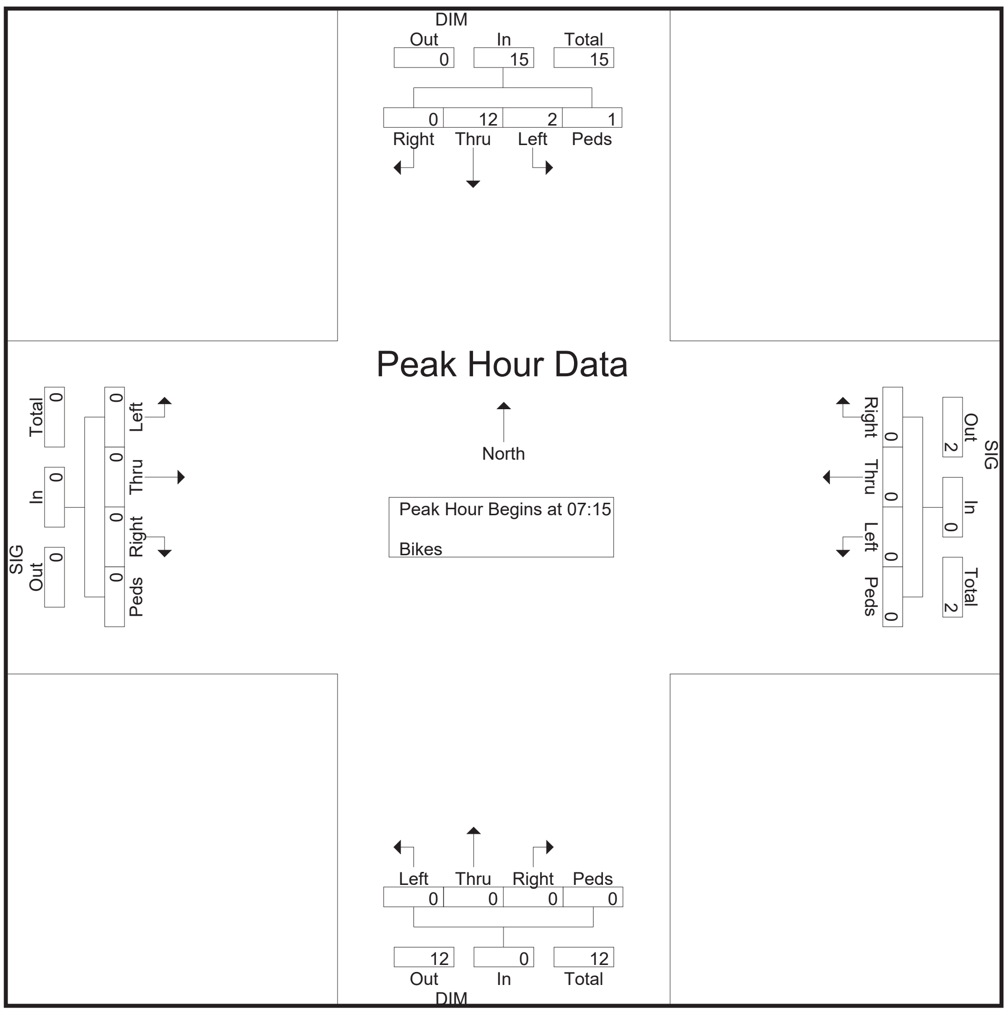


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:30 to 11:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 | 0 | 3 | 1 | **1** | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 07:45 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:00 | 0 | **7** | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **7** |
| Total Volume | 0 | 12 | 2 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| % App. Total | 0 | 80 | 13.3 | 6.7 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .429 | .500 | .250 | .536 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .536 |

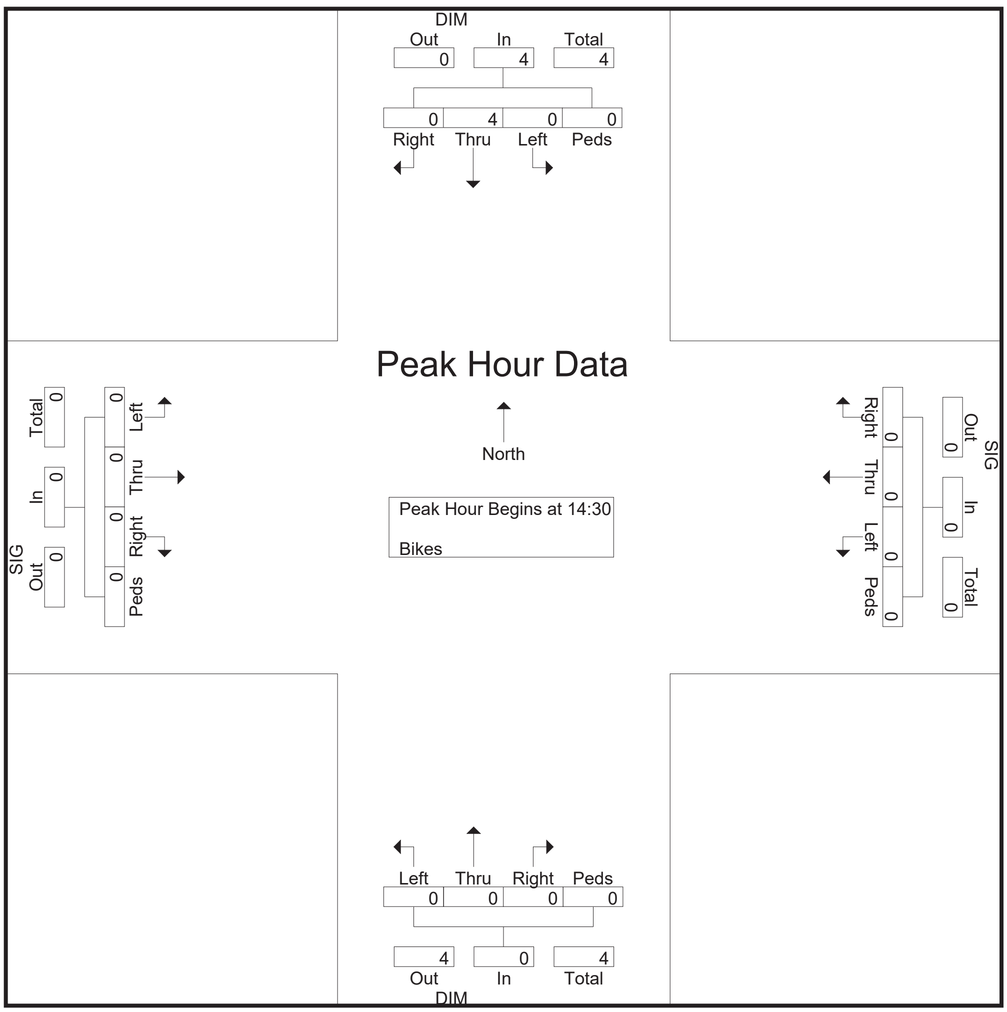


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 4

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 11:45 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:30 | | | | | | | | | | | | | | | | | | | | | |
| 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 0 | **3** | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** |
| 15:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .333 | .000 | .000 | .333 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .333 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 2A
Start Date: 06/28/2018

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

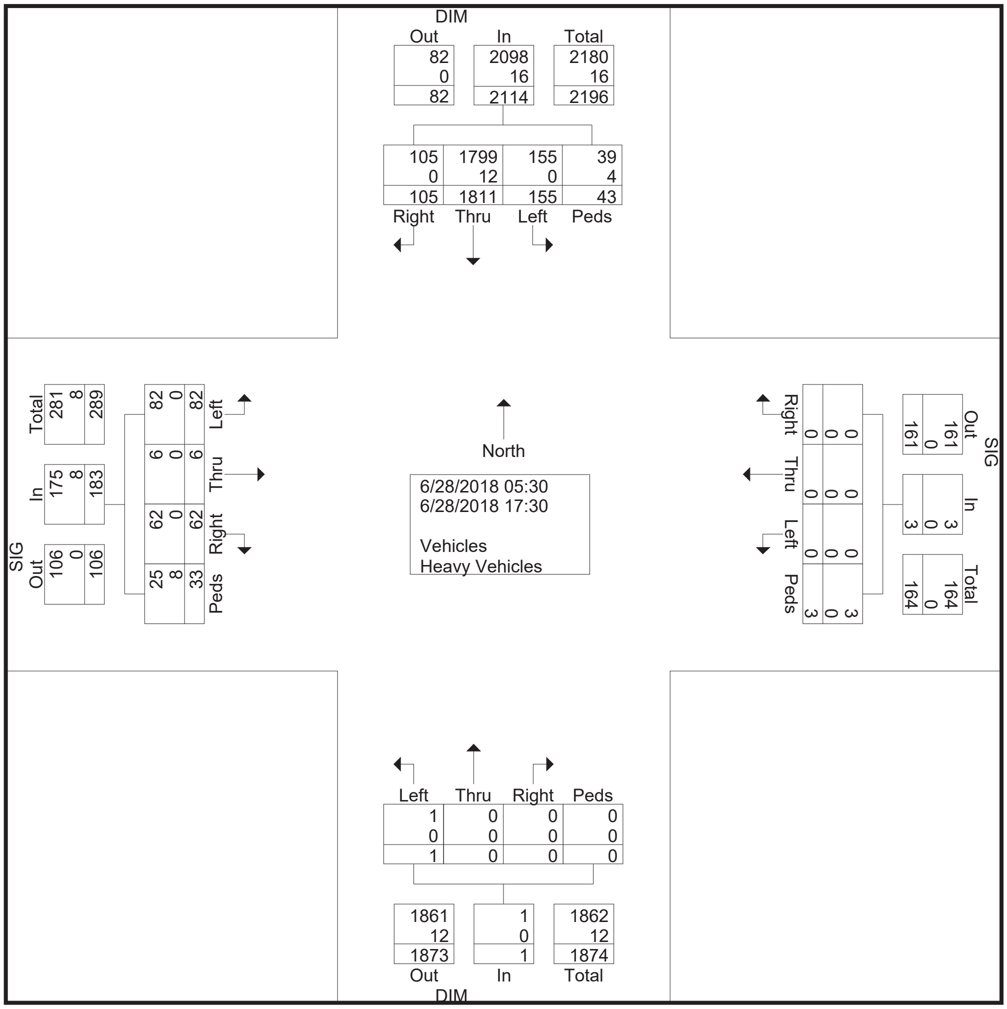
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:30 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:45 | 4 | 46 | 2 | 0 | 52 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 55 |
| Total | 5 | 46 | 2 | 0 | 53 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 56 |
| 06:00 | 9 | 114 | 6 | 1 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 | 134 |
| 06:15 | 16 | 107 | 7 | 1 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 | 5 | 136 |
| 06:30 | 14 | 157 | 10 | 0 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 2 | 5 | 11 | 192 |
| 06:45 | 10 | 136 | 19 | 2 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 5 | 172 |
| Total | 49 | 514 | 42 | 4 | 609 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 5 | 12 | 25 | 634 |
| 07:00 | 11 | 115 | 18 | 5 | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 151 |
| 07:15 | 4 | 107 | 16 | 3 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 5 | 135 |
| 07:30 | 5 | 137 | 17 | 0 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 1 | 6 | 165 |
| 07:45 | 8 | 124 | 17 | 8 | 157 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 159 |
| Total | 28 | 483 | 68 | 16 | 595 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 5 | 15 | 610 |
| 08:00 | 4 | 141 | 14 | 0 | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 4 | 163 |
| 08:15 | 3 | 99 | 6 | 3 | 111 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 3 | 114 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 7 | 240 | 20 | 3 | 270 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 2 | 7 | 277 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 2 | 48 | 5 | 5 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 5 | 11 | 71 |
| Total | 2 | 48 | 5 | 5 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 5 | 11 | 71 |
| 15:00 | 2 | 34 | 3 | 1 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 4 | 2 | 12 | 52 |
| 15:15 | 2 | 48 | 5 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 0 | 9 | 64 |
| 15:30 | 2 | 37 | 2 | 2 | 43 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 0 | 9 | 53 |
| 15:45 | 3 | 63 | 4 | 0 | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 1 | 11 | 81 |
| Total | 9 | 182 | 14 | 3 | 208 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 24 | 3 | 41 | 250 |
| 16:00 | 1 | 51 | 2 | 4 | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 14 | 0 | 18 | 76 |
| 16:15 | 1 | 51 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 11 | 0 | 19 | 71 |
| 16:30 | 1 | 43 | 1 | 3 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 0 | 9 | 57 |
| 16:45 | 1 | 46 | 1 | 2 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 5 | 6 | 3 | 22 | 72 |
| Total | 4 | 191 | 4 | 9 | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 5 | 35 | 3 | 68 | 276 |
| 17:00 | 1 | 57 | 0 | 3 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 4 | 2 | 8 | 70 |
| 17:15 | 0 | 29 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 4 | 33 |
| 17:30 | 0 | 21 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 24 |
| Grand Total | 105 | 1811 | 155 | 43 | 2114 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 1 | 0 | 1 | 62 | 6 | 82 | 33 | 183 | 2301 |
| Apprch % | 5 | 85.7 | 7.3 | 2 | | 0 | 0 | 0 | 100 | | 0 | 0 | 100 | 0 | | 33.9 | 3.3 | 44.8 | 18 | | |
| Total % | 4.6 | 78.7 | 6.7 | 1.9 | 91.9 | 0 | 0 | 0 | 0.1 | 0.1 | 0 | 0 | 0 | 0 | 0 | 2.7 | 0.3 | 3.6 | 1.4 | 8 | |
| Vehicles | 105 | 1799 | 155 | 39 | 2098 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 1 | 0 | 1 | 62 | 6 | 82 | 25 | 175 | 2277 |
| % Vehicles | 100 | 99.3 | 100 | 90.7 | 99.2 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 100 | 100 | 100 | 100 | 75.8 | 95.6 | 99 |
| Heavy Vehicles | 0 | 12 | 0 | 4 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 24 |
| % Heavy Vehicles | 0 | 0.7 | 0 | 9.3 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24.2 | 4.4 | 1 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

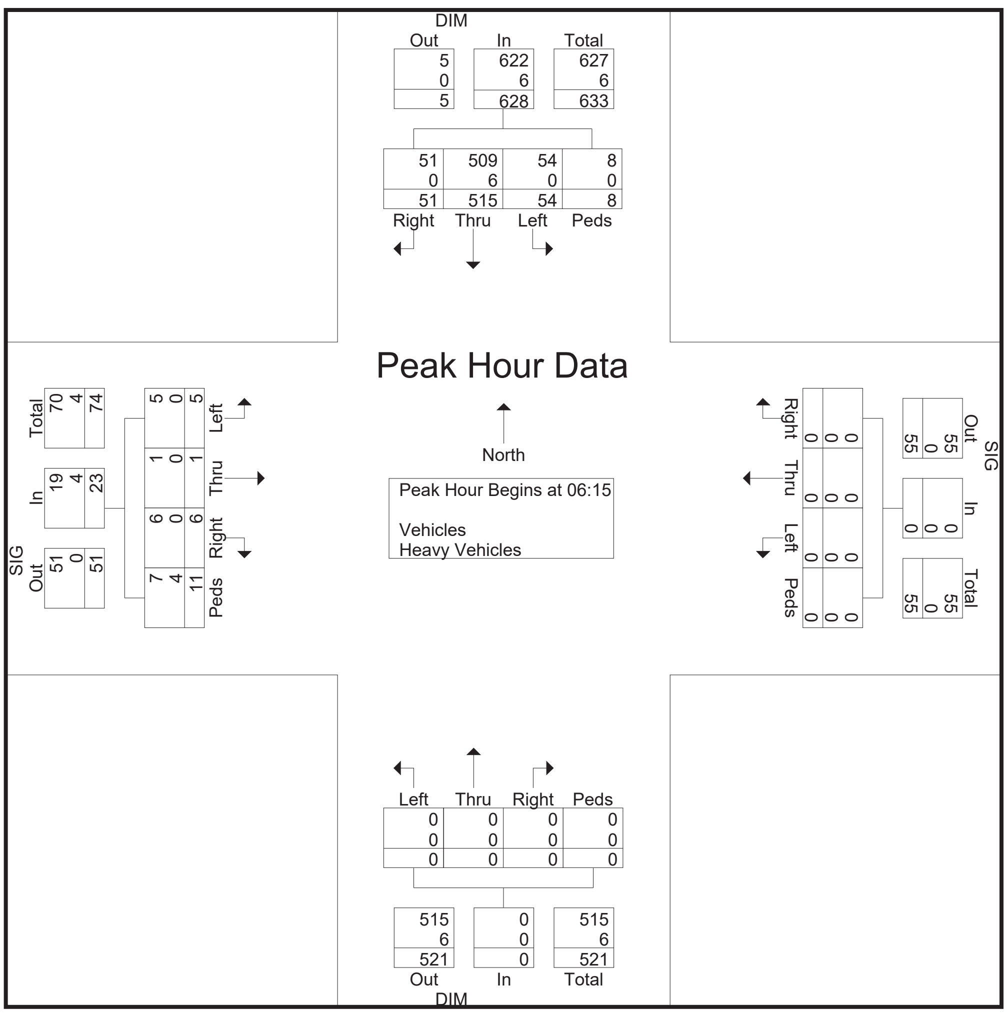


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:30 to 11:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:15 | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | **16** | 107 | 7 | 1 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **2** | 2 | 5 | 136 |
| 06:30 | 14 | **157** | 10 | 0 | **181** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | **1** | 2 | **5** | **11** | **192** |
| 06:45 | 10 | 136 | **19** | 2 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 | 5 | 172 |
| 07:00 | 11 | 115 | 18 | **5** | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 151 |
| Total Volume | 51 | 515 | 54 | 8 | 628 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 5 | 11 | 23 | 651 |
| % App. Total | 8.1 | 82 | 8.6 | 1.3 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 26.1 | 4.3 | 21.7 | 47.8 | | |
| PHF | .797 | .820 | .711 | .400 | .867 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .250 | .625 | .550 | .523 | .848 |
| Vehicles | 51 | 509 | 54 | 8 | 622 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 5 | 7 | 19 | 641 |
| % Vehicles | 100 | 98.8 | 100 | 100 | 99.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 63.6 | 82.6 | 98.5 |
| Heavy Vehicles | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 10 |
| % Heavy Vehicles | 0 | 1.2 | 0 | 0 | 1.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36.4 | 17.4 | 1.5 |

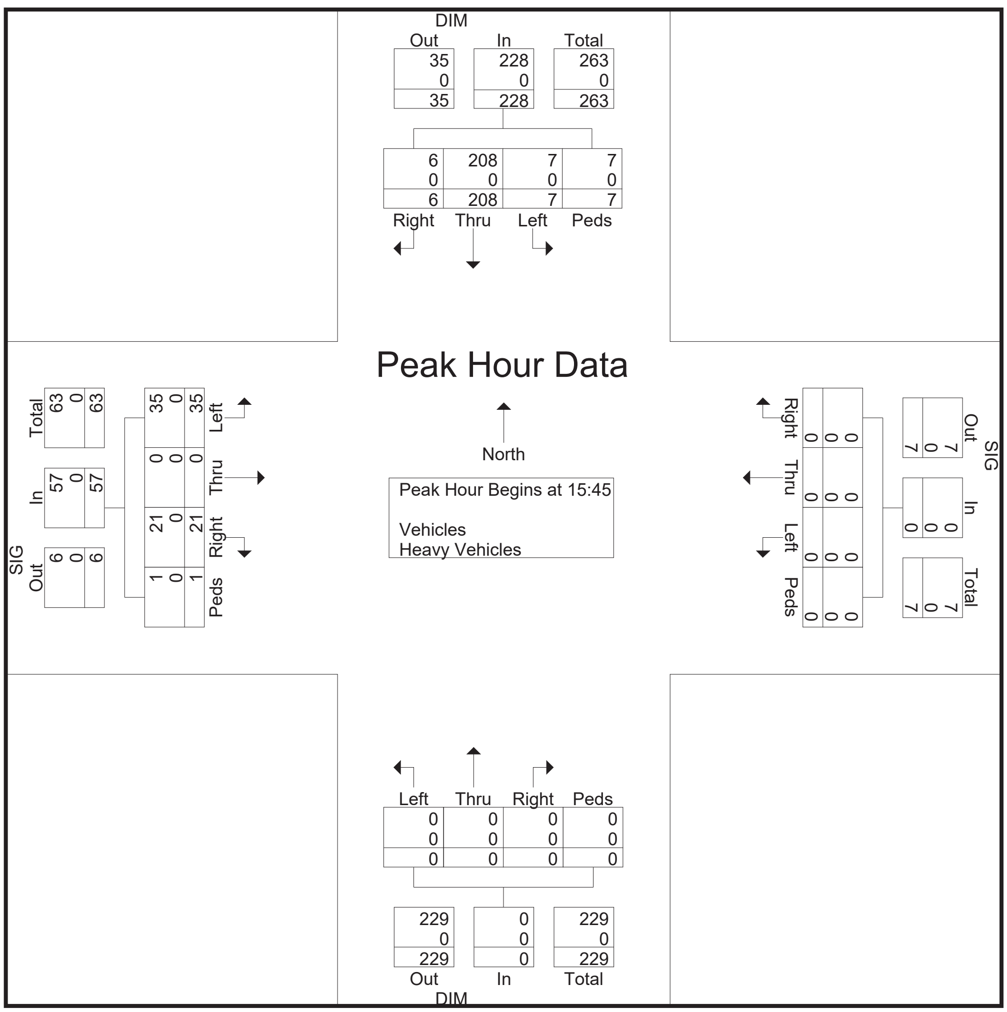


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 4

| | DIM From North | | | | | SIG From East | | | | | DIM From South | | | | | SIG From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 11:45 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:45 | | | | | | | | | | | | | | | | | | | | | |
| 15:45 | **3** | **63** | **4** | 0 | **70** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 6 | **1** | 11 | **81** |
| 16:00 | 1 | 51 | 2 | **4** | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | **14** | 0 | 18 | 76 |
| 16:15 | 1 | 51 | 0 | 0 | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 11 | 0 | **19** | 71 |
| 16:30 | 1 | 43 | 1 | 3 | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 0 | 9 | 57 |
| Total Volume | 6 | 208 | 7 | 7 | 228 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 35 | 1 | 57 | 285 |
| % App. Total | 2.6 | 91.2 | 3.1 | 3.1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 36.8 | 0 | 61.4 | 1.8 | | |
| PHF | .500 | .825 | .438 | .438 | .814 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .656 | .000 | .625 | .250 | .750 | .880 |
| Vehicles | 6 | 208 | 7 | 7 | 228 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 35 | 1 | 57 | 285 |
| % Vehicles | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 100 | 100 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 2B
Start Date: 06/28/2018

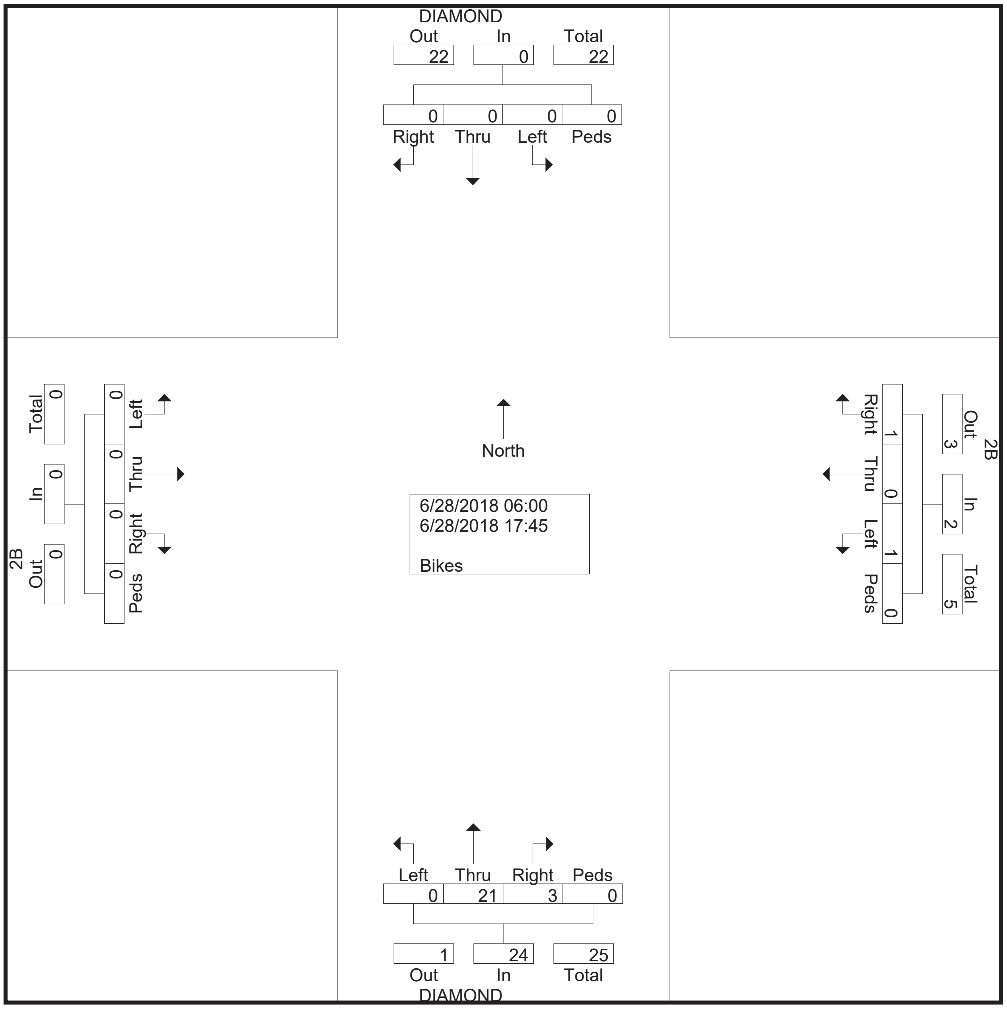
File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

**Groups Printed- Bikes**

| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 7 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 8 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 3 | 21 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 26 |
| Apprch % | 0 | 0 | 0 | 0 | | 50 | 0 | 50 | 0 | | 12.5 | 87.5 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 3.8 | 0 | 3.8 | 0 | 7.7 | 11.5 | 80.8 | 0 | 0 | 92.3 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

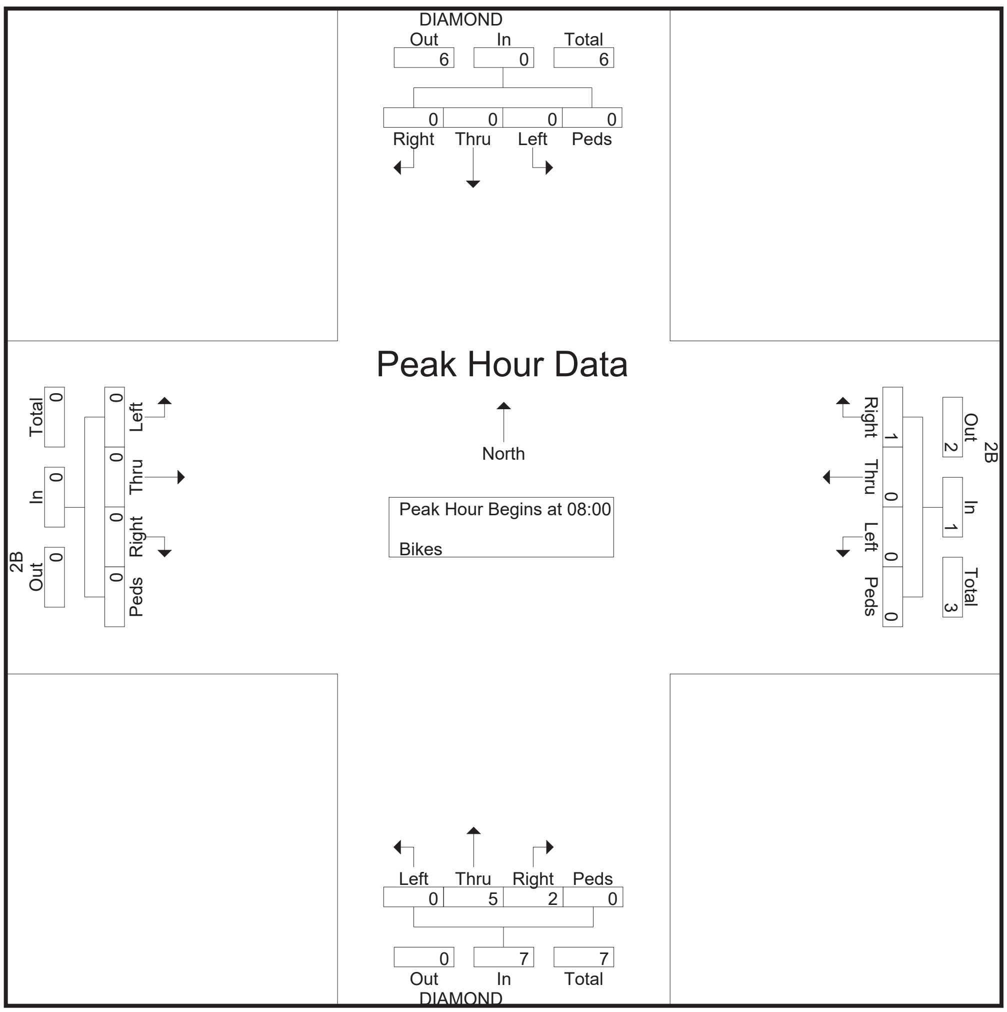


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

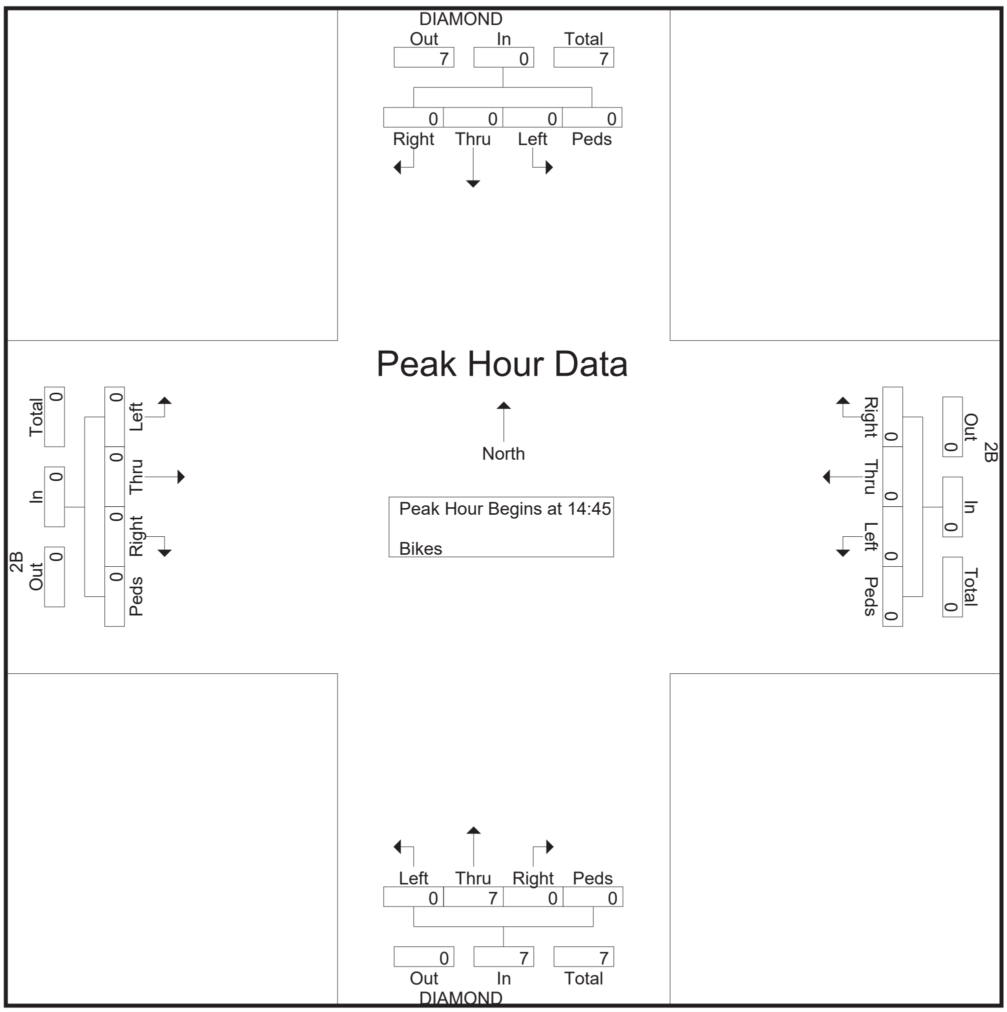
| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 2 | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | **4** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 8 |
| % App. Total | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 28.6 | 71.4 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .250 | .417 | .000 | .000 | .438 | .000 | .000 | .000 | .000 | .000 | .500 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 4

| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | **4** |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .438 | .000 | .000 | .438 | .000 | .000 | .000 | .000 | .000 | .438 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 2B
Start Date: 06/28/2018

File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

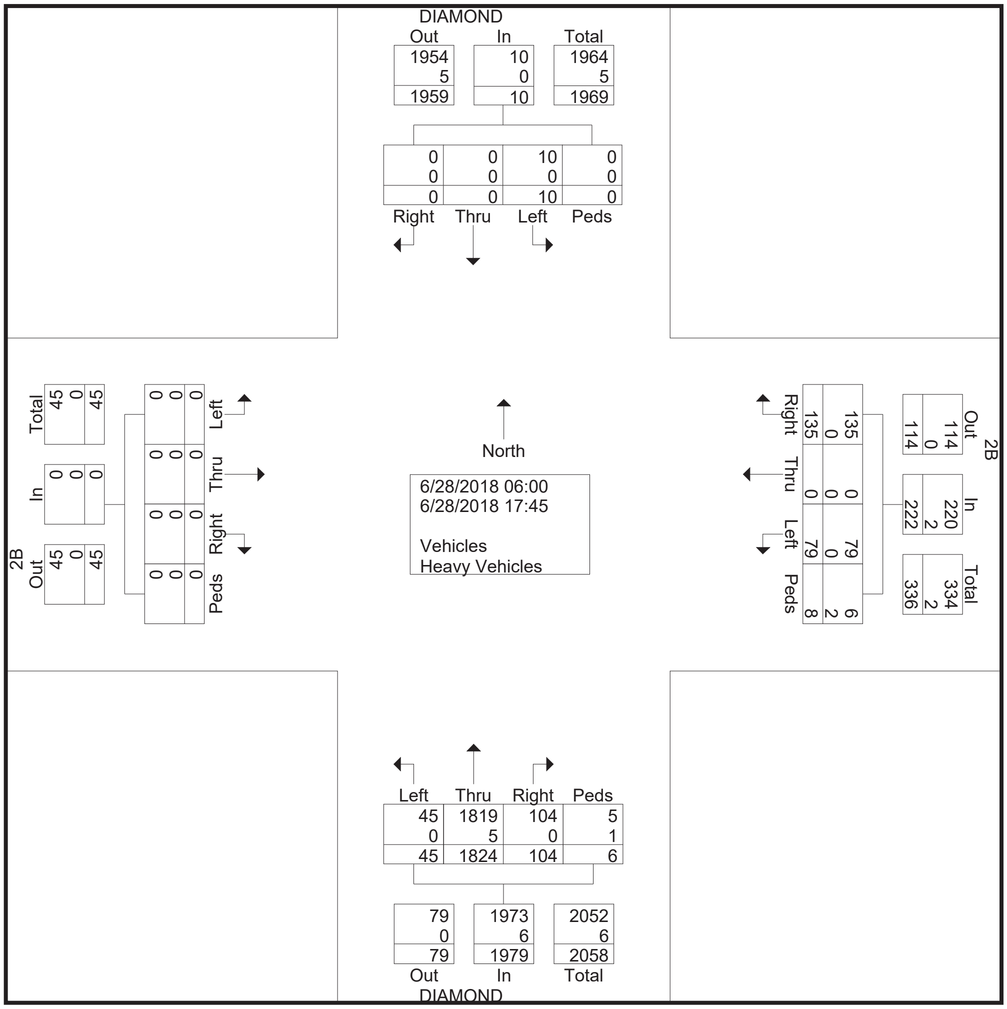
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 19 |
| 06:15 | 0 | 0 | 6 | 0 | 6 | 2 | 0 | 0 | 0 | 2 | 4 | 14 | 5 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 31 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 3 | 0 | 24 | 6 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 33 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 61 | 8 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 72 |
| Total | 0 | 0 | 10 | 0 | 10 | 3 | 0 | 1 | 2 | 6 | 6 | 114 | 19 | 0 | 139 | 0 | 0 | 0 | 0 | 0 | 155 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 3 | 8 | 61 | 5 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 77 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 55 | 1 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 59 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 7 | 9 | 69 | 2 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 87 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 5 | 0 | 12 | 11 | 73 | 3 | 1 | 88 | 0 | 0 | 0 | 0 | 0 | 100 |
| Total | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 11 | 0 | 23 | 30 | 258 | 11 | 1 | 300 | 0 | 0 | 0 | 0 | 0 | 323 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 7 | 66 | 0 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 77 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 9 | 10 | 61 | 1 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 81 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 1 | 6 | 9 | 41 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 56 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 0 | 5 | 8 | 56 | 2 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 71 |
| Total | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 14 | 1 | 24 | 34 | 224 | 3 | 0 | 261 | 0 | 0 | 0 | 0 | 0 | 285 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 3 | 0 | 12 | 4 | 73 | 1 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 90 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 4 | 4 | 65 | 2 | 1 | 72 | 0 | 0 | 0 | 0 | 0 | 76 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 5 | 0 | 13 | 3 | 77 | 1 | 0 | 81 | 0 | 0 | 0 | 0 | 0 | 94 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 7 | 0 | 17 | 3 | 80 | 0 | 0 | 83 | 0 | 0 | 0 | 0 | 0 | 100 |
| Total | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 16 | 1 | 46 | 14 | 295 | 4 | 1 | 314 | 0 | 0 | 0 | 0 | 0 | 360 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 4 | 0 | 11 | 3 | 95 | 1 | 0 | 99 | 0 | 0 | 0 | 0 | 0 | 110 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 2 | 0 | 10 | 0 | 124 | 2 | 0 | 126 | 0 | 0 | 0 | 0 | 0 | 136 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 6 | 0 | 18 | 6 | 117 | 2 | 2 | 127 | 0 | 0 | 0 | 0 | 0 | 145 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 12 | 1 | 26 | 3 | 141 | 2 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 172 |
| Total | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 24 | 1 | 65 | 12 | 477 | 7 | 2 | 498 | 0 | 0 | 0 | 0 | 0 | 563 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 3 | 0 | 17 | 3 | 108 | 0 | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 128 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 1 | 12 | 1 | 126 | 1 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 140 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 0 | 14 | 1 | 141 | 0 | 0 | 142 | 0 | 0 | 0 | 0 | 0 | 156 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 4 | 2 | 15 | 3 | 81 | 0 | 2 | 86 | 0 | 0 | 0 | 0 | 0 | 101 |
| Total | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 13 | 3 | 58 | 8 | 456 | 1 | 2 | 467 | 0 | 0 | 0 | 0 | 0 | 525 |
| Grand Total | 0 | 0 | 10 | 0 | 10 | 135 | 0 | 79 | 8 | 222 | 104 | 1824 | 45 | 6 | 1979 | 0 | 0 | 0 | 0 | 0 | 2211 |
| Apprch % | 0 | 0 | 100 | 0 | | 60.8 | 0 | 35.6 | 3.6 | | 5.3 | 92.2 | 2.3 | 0.3 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0.5 | 0 | 0.5 | 6.1 | 0 | 3.6 | 0.4 | 10 | 4.7 | 82.5 | 2 | 0.3 | 89.5 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 0 | 0 | 10 | 0 | 10 | 135 | 0 | 79 | 6 | 220 | 104 | 1819 | 45 | 5 | 1973 | 0 | 0 | 0 | 0 | 0 | 2203 |
| % Vehicles | 0 | 0 | 100 | 0 | 100 | 100 | 0 | 100 | 75 | 99.1 | 100 | 99.7 | 100 | 83.3 | 99.7 | 0 | 0 | 0 | 0 | 0 | 99.6 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 5 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 8 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 0.9 | 0 | 0.3 | 0 | 16.7 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0.4 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

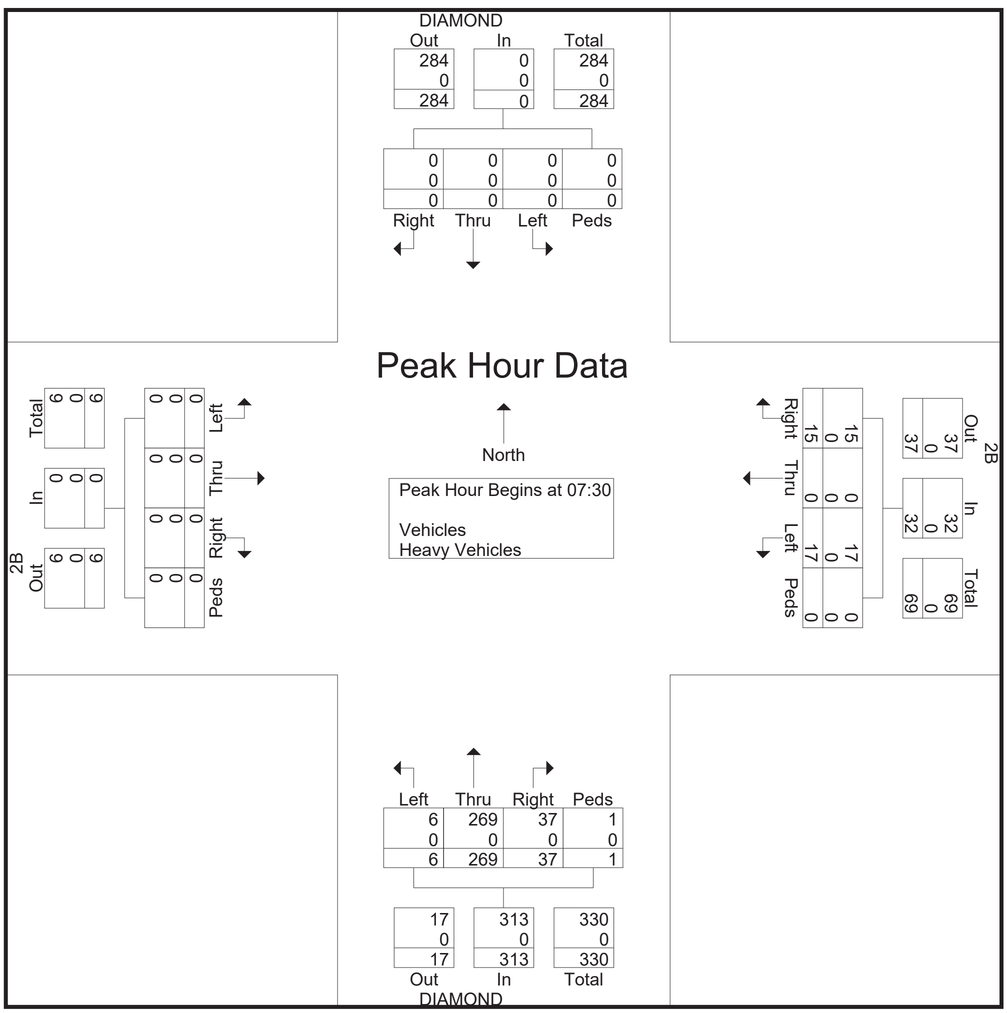
File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 7 | 9 | 69 | 2 | 0 | 80 | 0 | 0 | 0 | 0 | 0 | 87 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | **5** | 0 | **12** | **11** | **73** | **3** | **1** | **88** | 0 | 0 | 0 | 0 | 0 | **100** |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 4 | 7 | 66 | 0 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 77 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 9 | 10 | 61 | 1 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 81 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 17 | 0 | 32 | 37 | 269 | 6 | 1 | 313 | 0 | 0 | 0 | 0 | 0 | 345 |
| % App. Total | 0 | 0 | 0 | 0 | | 46.9 | 0 | 53.1 | 0 | | 11.8 | 85.9 | 1.9 | 0.3 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .536 | .000 | .850 | .000 | .667 | .841 | .921 | .500 | .250 | .889 | .000 | .000 | .000 | .000 | .000 | .863 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 17 | 0 | 32 | 37 | 269 | 6 | 1 | 313 | 0 | 0 | 0 | 0 | 0 | 345 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

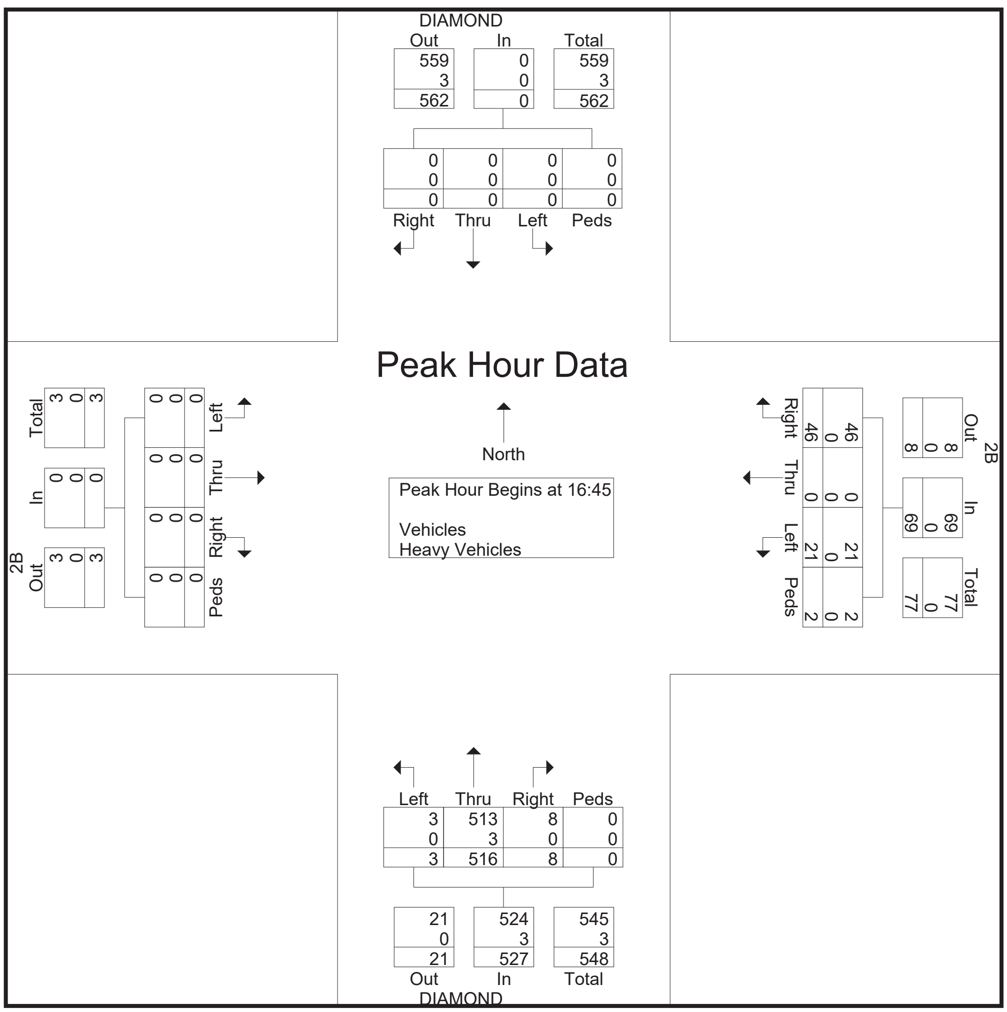


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 2B
Site Code : 00000000
Start Date : 6/28/2018


| | DIAMOND From North | | | | | 2B From East | | | | | DIAMOND From South | | | | | 2B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | **12** | **1** | **26** | **3** | **141** | **2** | 0 | **146** | 0 | 0 | 0 | 0 | 0 | **172** |
| 17:00 | 0 | 0 | 0 | 0 | 0 | **14** | 0 | 3 | 0 | 17 | 3 | 108 | 0 | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 128 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 1 | 12 | 1 | 126 | 1 | 0 | 128 | 0 | 0 | 0 | 0 | 0 | 140 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 0 | 14 | 1 | 141 | 0 | 0 | 142 | 0 | 0 | 0 | 0 | 0 | 156 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 21 | 2 | 69 | 8 | 516 | 3 | 0 | 527 | 0 | 0 | 0 | 0 | 0 | 596 |
| % App. Total | 0 | 0 | 0 | 0 | | 66.7 | 0 | 30.4 | 2.9 | | 1.5 | 97.9 | 0.6 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .821 | .000 | .438 | .500 | .663 | .667 | .915 | .375 | .000 | .902 | .000 | .000 | .000 | .000 | .000 | .866 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 46 | 0 | 21 | 2 | 69 | 8 | 513 | 3 | 0 | 524 | 0 | 0 | 0 | 0 | 0 | 593 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 100 | 100 | 100 | 99.4 | 100 | 0 | 99.4 | 0 | 0 | 0 | 0 | 0 | 99.5 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.6 | 0 | 0 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0.5 |



# Bohannon Huston, Inc.

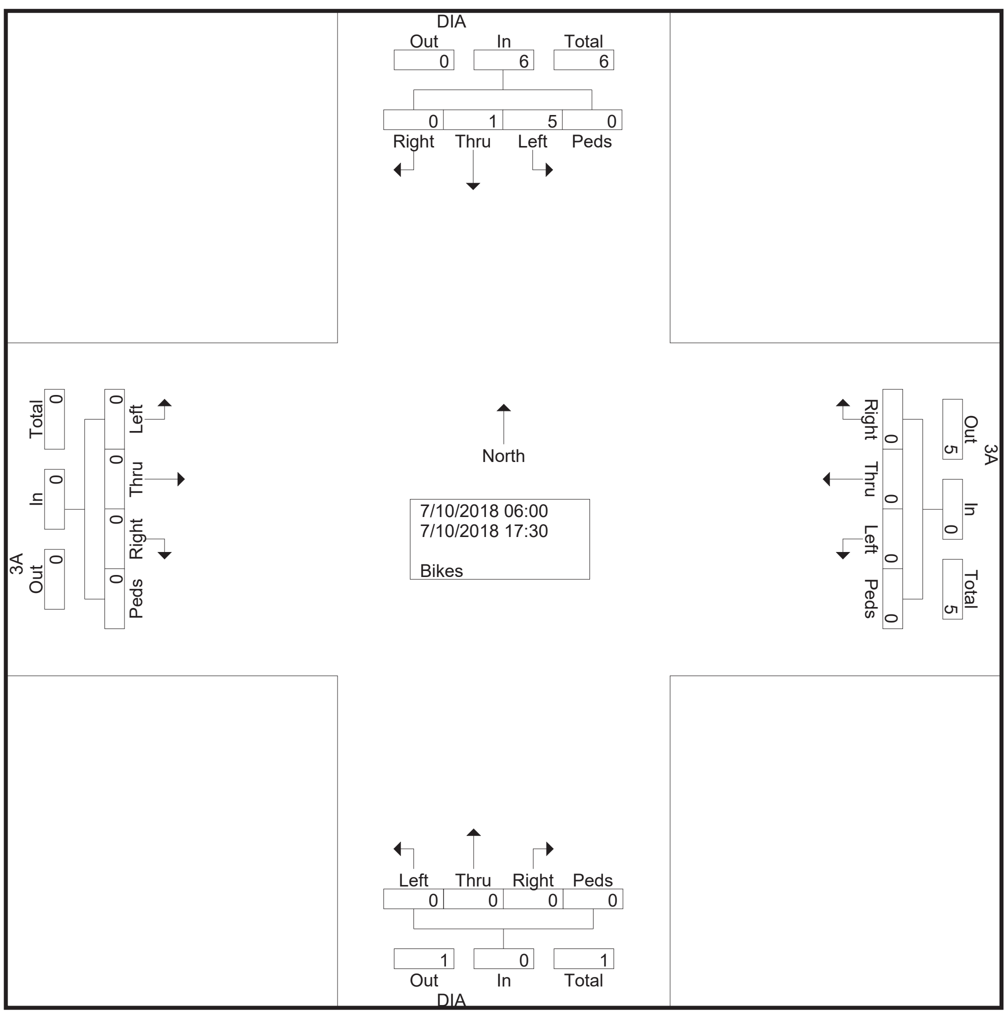
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 3A

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:30 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 1 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 1 | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Apprch % | 0 | 16.7 | 83.3 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 16.7 | 83.3 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

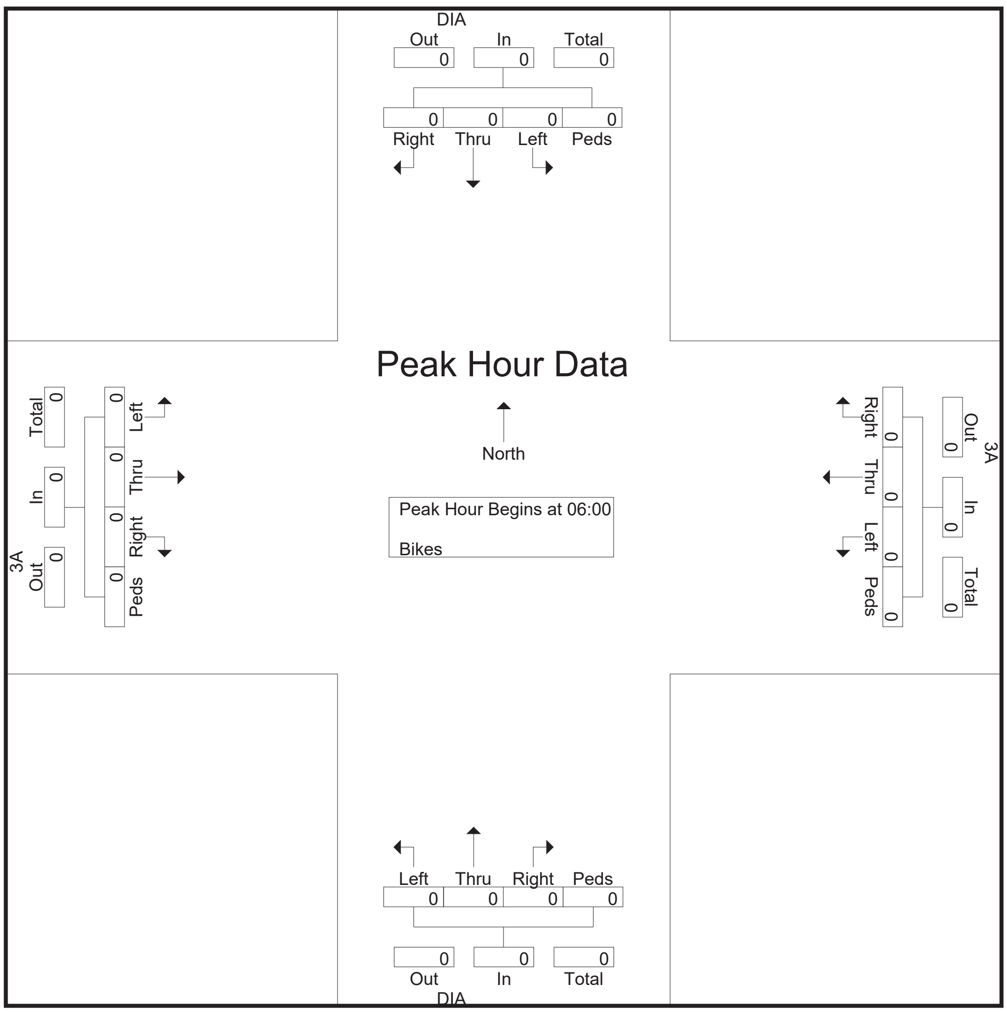


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:00 | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

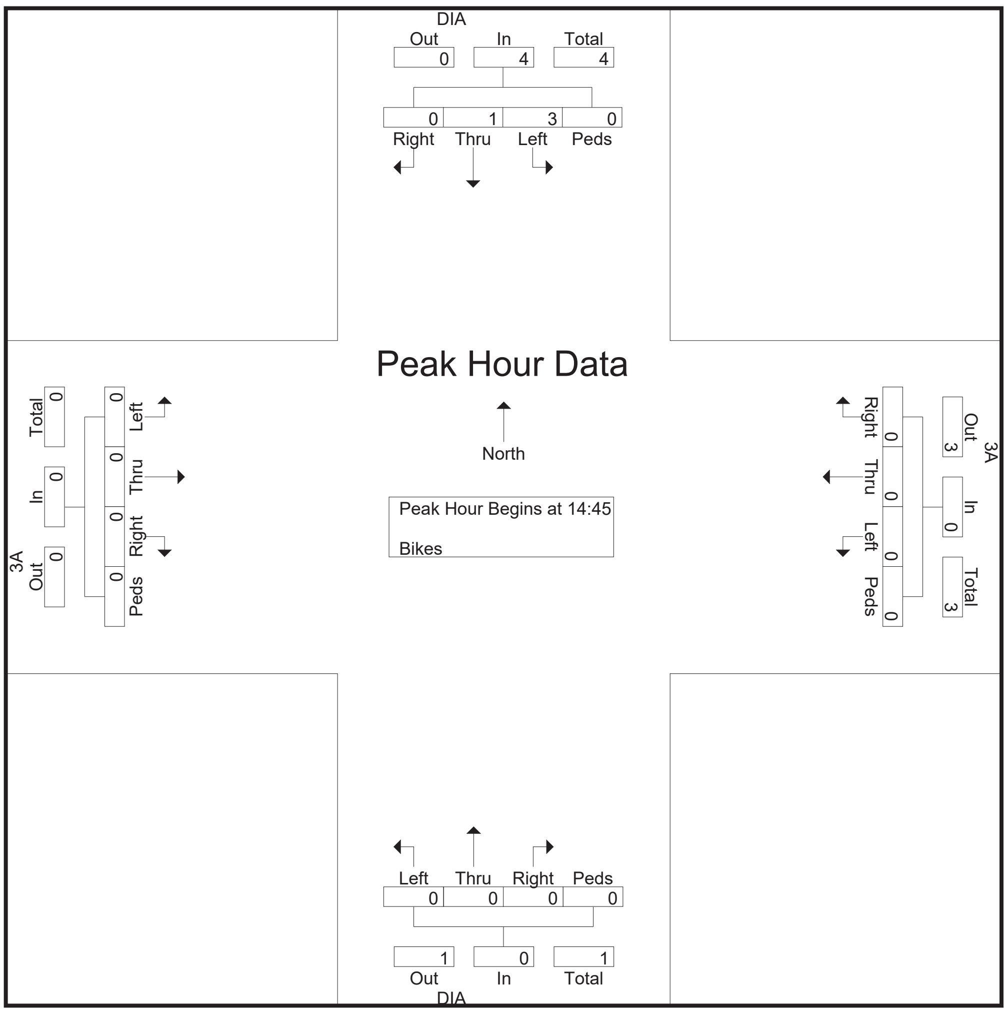


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 0 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:30 | 0 | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** |
| Total Volume | 0 | 1 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| % App. Total | 0 | 25 | 75 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .250 | .375 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 3A

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

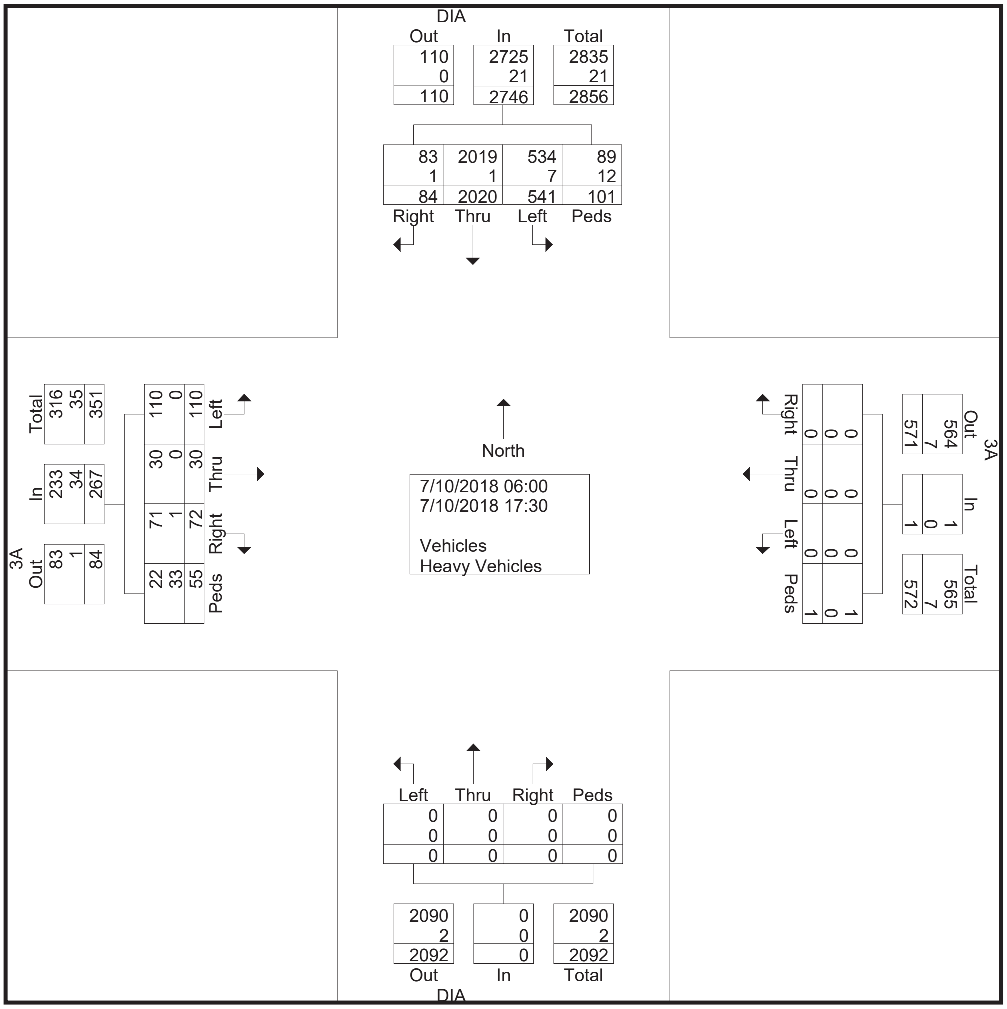
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 2 | 98 | 15 | 0 | 115 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 115 |
| 06:15 | 0 | 121 | 32 | 4 | 157 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 158 |
| 06:30 | 1 | 137 | 24 | 2 | 164 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 | 168 |
| 06:45 | 6 | 199 | 49 | 5 | 259 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 4 | 264 |
| Total | 9 | 555 | 120 | 11 | 695 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 5 | 9 | 705 |
| | | | | | | | | | | | | | | | | | | | | | |
| 07:00 | 6 | 137 | 68 | 0 | 211 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 215 |
| 07:15 | 6 | 127 | 57 | 1 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 6 | 10 | 201 |
| 07:30 | 12 | 122 | 45 | 2 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 3 | 8 | 189 |
| 07:45 | 7 | 150 | 24 | 0 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 10 | 191 |
| Total | 31 | 536 | 194 | 3 | 764 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 1 | 3 | 17 | 32 | 796 |
| | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 7 | 141 | 31 | 1 | 180 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 0 | 3 | 12 | 192 |
| 08:15 | 15 | 105 | 35 | 6 | 161 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 3 | 2 | 17 | 178 |
| 08:30 | 6 | 72 | 36 | 11 | 125 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 7 | 6 | 3 | 20 | 145 |
| 08:45 | 4 | 82 | 27 | 15 | 128 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 2 | 3 | 1 | 13 | 141 |
| Total | 32 | 400 | 129 | 33 | 594 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 18 | 12 | 9 | 62 | 656 |
| | | | | | | | | | | | | | | | | | | | | | |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 2 | 53 | 15 | 11 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 6 | 4 | 19 | 100 |
| 15:15 | 1 | 39 | 20 | 2 | 62 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 8 | 3 | 14 | 76 |
| 15:30 | 1 | 47 | 11 | 4 | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 4 | 12 | 75 |
| 15:45 | 2 | 32 | 8 | 8 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 7 | 6 | 18 | 68 |
| Total | 6 | 171 | 54 | 25 | 256 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 8 | 24 | 17 | 63 | 319 |
| | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 1 | 30 | 6 | 3 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 16 | 1 | 22 | 62 |
| 16:15 | 0 | 44 | 11 | 2 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 2 | 2 | 7 | 64 |
| 16:30 | 1 | 59 | 7 | 1 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 11 | 0 | 14 | 82 |
| 16:45 | 2 | 58 | 9 | 5 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 7 | 0 | 10 | 84 |
| Total | 4 | 191 | 33 | 11 | 239 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 3 | 36 | 3 | 53 | 292 |
| | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 1 | 56 | 4 | 6 | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 12 | 1 | 17 | 84 |
| 17:15 | 0 | 63 | 4 | 5 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 9 | 3 | 15 | 87 |
| 17:30 | 1 | 48 | 3 | 7 | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 14 | 0 | 16 | 75 |
| Grand Total | 84 | 2020 | 541 | 101 | 2746 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 72 | 30 | 110 | 55 | 267 | 3014 |
| Apprch % | 3.1 | 73.6 | 19.7 | 3.7 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 27 | 11.2 | 41.2 | 20.6 | | |
| Total % | 2.8 | 67 | 17.9 | 3.4 | 91.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.4 | 1 | 3.6 | 1.8 | 8.9 | |
| Vehicles | 83 | 2019 | 534 | 89 | 2725 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 71 | 30 | 110 | 22 | 233 | 2959 |
| % Vehicles | 98.8 | 100 | 98.7 | 88.1 | 99.2 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 98.6 | 100 | 100 | 40 | 87.3 | 98.2 |
| Heavy Vehicles | 1 | 1 | 7 | 12 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 33 | 34 | 55 |
| % Heavy Vehicles | 1.2 | 0 | 1.3 | 11.9 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1.4 | 0 | 0 | 60 | 12.7 | 1.8 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2

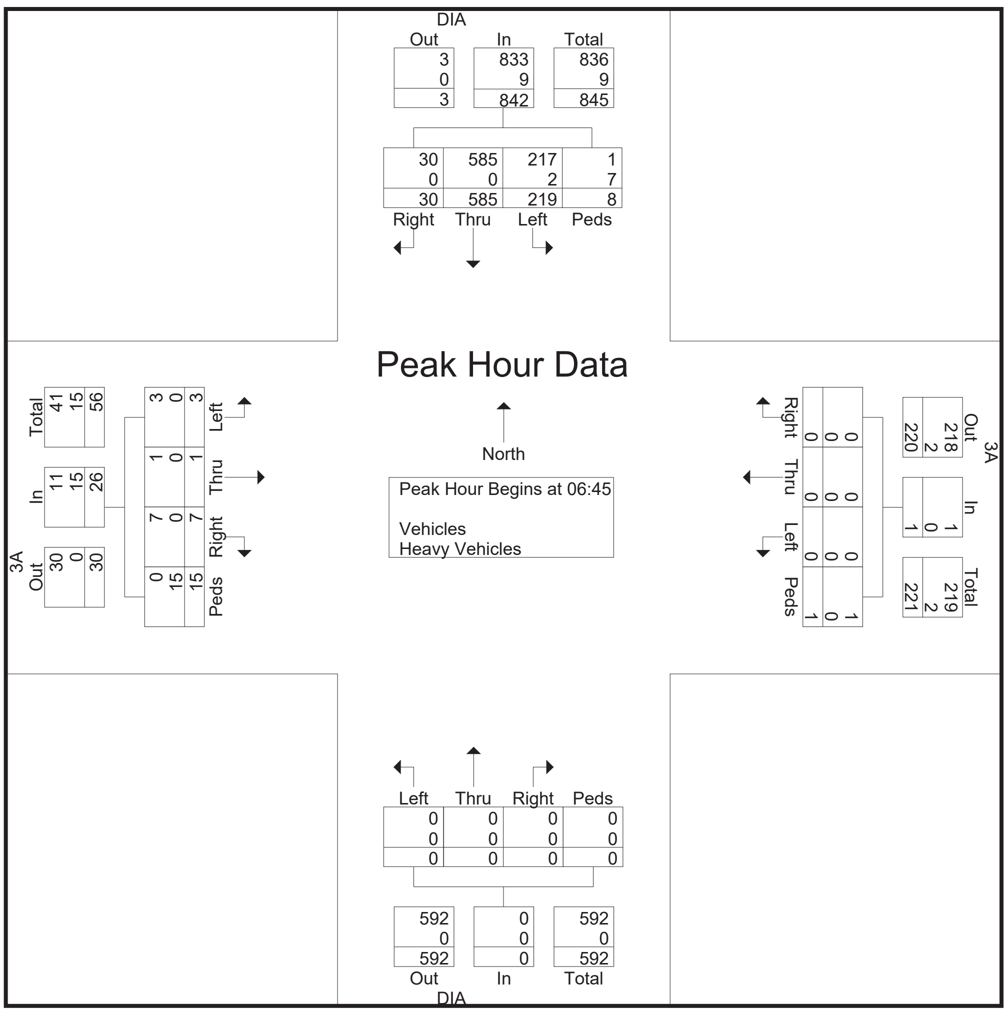


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:45 | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 6 | **199** | 49 | **5** | **259** | 0 | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 4 | **264** |
| 07:00 | 6 | 137 | **68** | 0 | 211 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 215 |
| 07:15 | 6 | 127 | 57 | 1 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | **1** | **2** | **6** | **10** | 201 |
| 07:30 | **12** | 122 | 45 | 2 | 181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | 0 | 3 | 8 | 189 |
| Total Volume | 30 | 585 | 219 | 8 | 842 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 3 | 15 | 26 | 869 |
| % App. Total | 3.6 | 69.5 | 26 | 1 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 26.9 | 3.8 | 11.5 | 57.7 | | |
| PHF | .625 | .735 | .805 | .400 | .813 | .000 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .000 | .350 | .250 | .375 | .625 | .650 | .823 |
| Vehicles | 30 | 585 | 217 | 1 | 833 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 7 | 1 | 3 | 0 | 11 | 845 |
| % Vehicles | 100 | 100 | 99.1 | 12.5 | 98.9 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 0 | 42.3 | 97.2 |
| Heavy Vehicles | 0 | 0 | 2 | 7 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 24 |
| % Heavy Vehicles | 0 | 0 | 0.9 | 87.5 | 1.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 57.7 | 2.8 |

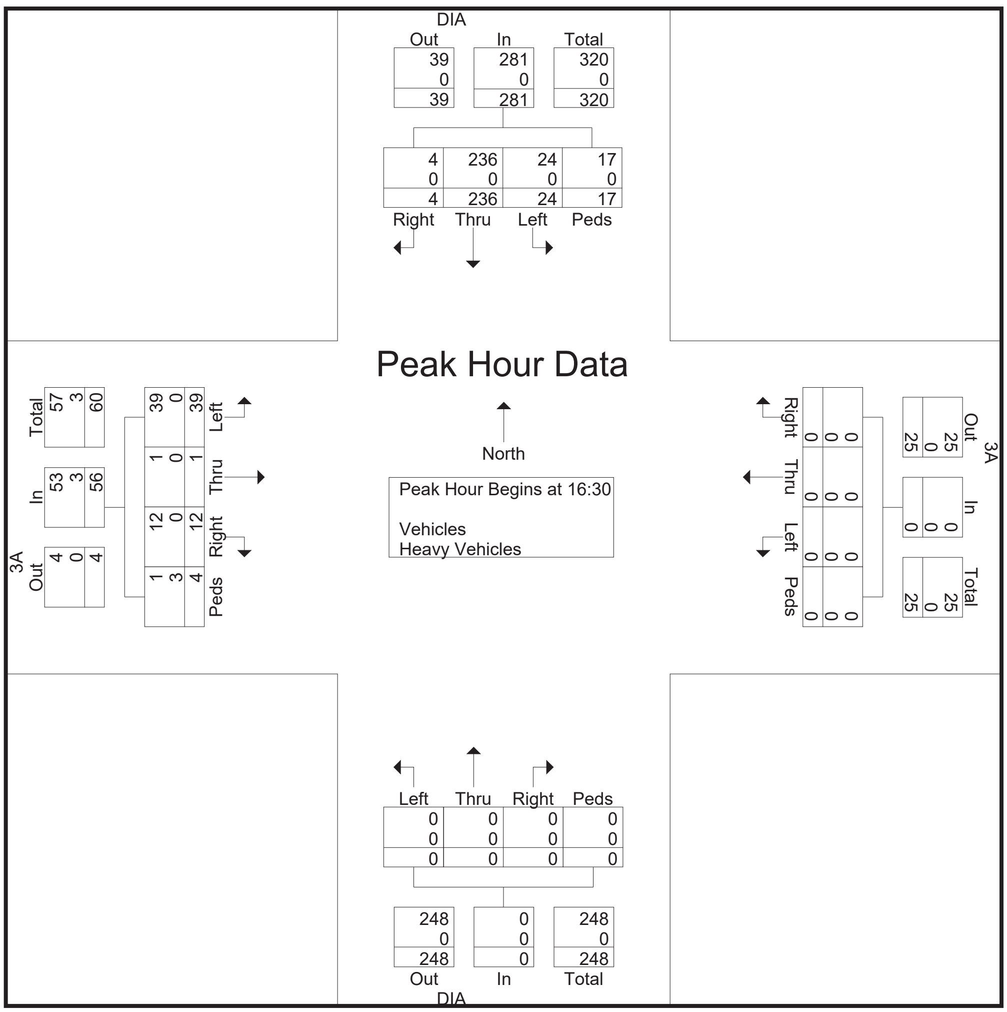


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3A_JAMES
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 3A From East | | | | | DIA From South | | | | | 3A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:30 | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | 1 | 59 | 7 | 1 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 11 | 0 | 14 | 82 |
| 16:45 | **2** | 58 | **9** | 5 | **74** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | **1** | 7 | 0 | 10 | 84 |
| 17:00 | 1 | 56 | 4 | **6** | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **12** | 1 | **17** | 84 |
| 17:15 | 0 | **63** | 4 | 5 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 9 | **3** | 15 | **87** |
| Total Volume | 4 | 236 | 24 | 17 | 281 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 39 | 4 | 56 | 337 |
| % App. Total | 1.4 | 84 | 8.5 | 6 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 21.4 | 1.8 | 69.6 | 7.1 | | |
| PHF | .500 | .937 | .667 | .708 | .949 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .750 | .250 | .813 | .333 | .824 | .968 |
| Vehicles | 4 | 236 | 24 | 17 | 281 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 39 | 1 | 53 | 334 |
| % Vehicles | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 25.0 | 94.6 | 99.1 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75.0 | 5.4 | 0.9 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 3B

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

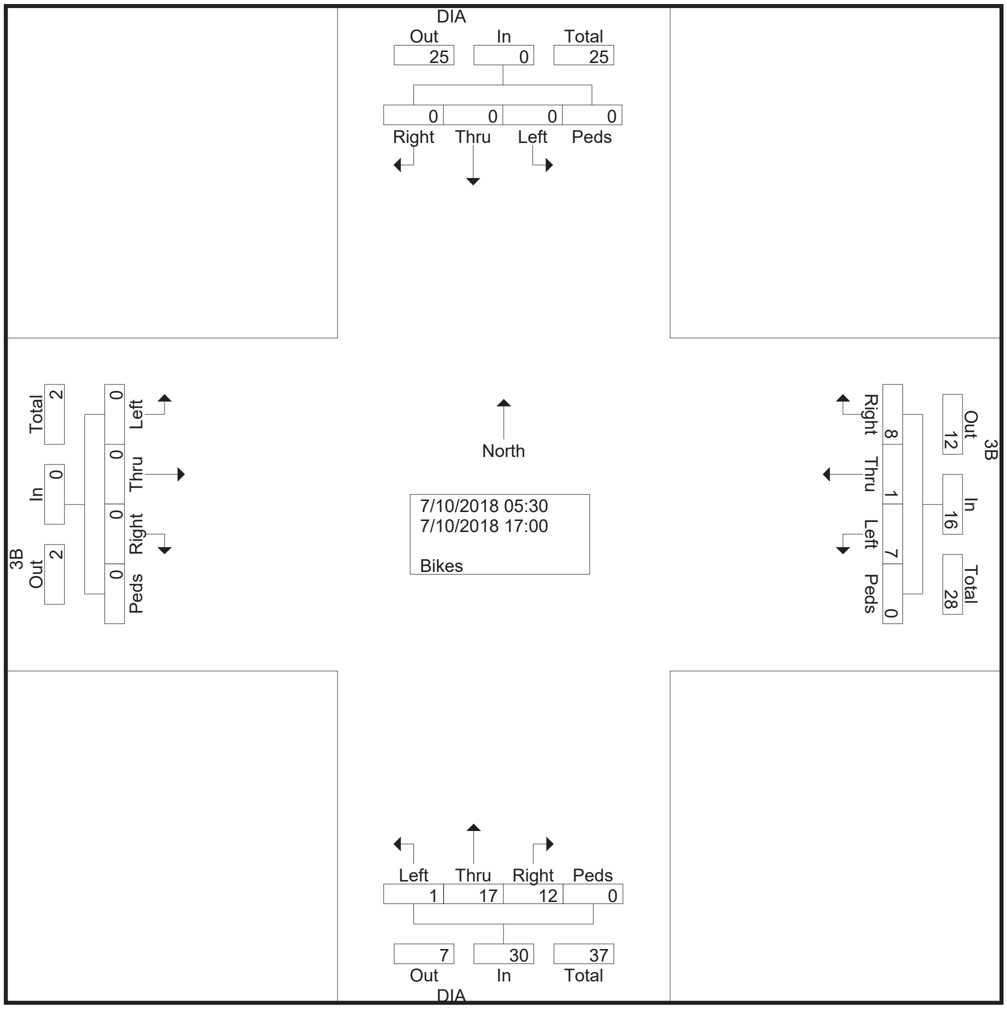
**Groups Printed- Bikes**

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:30 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 6 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 5 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 10 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 6 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 13 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 6 | 1 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 13 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 7 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 6 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 7 | 0 | 16 | 12 | 17 | 1 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 46 |
| Apprch % | 0 | 0 | 0 | 0 | | 50 | 6.2 | 43.8 | 0 | | 40 | 56.7 | 3.3 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 17.4 | 2.2 | 15.2 | 0 | 34.8 | 26.1 | 37 | 2.2 | 0 | 65.2 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2

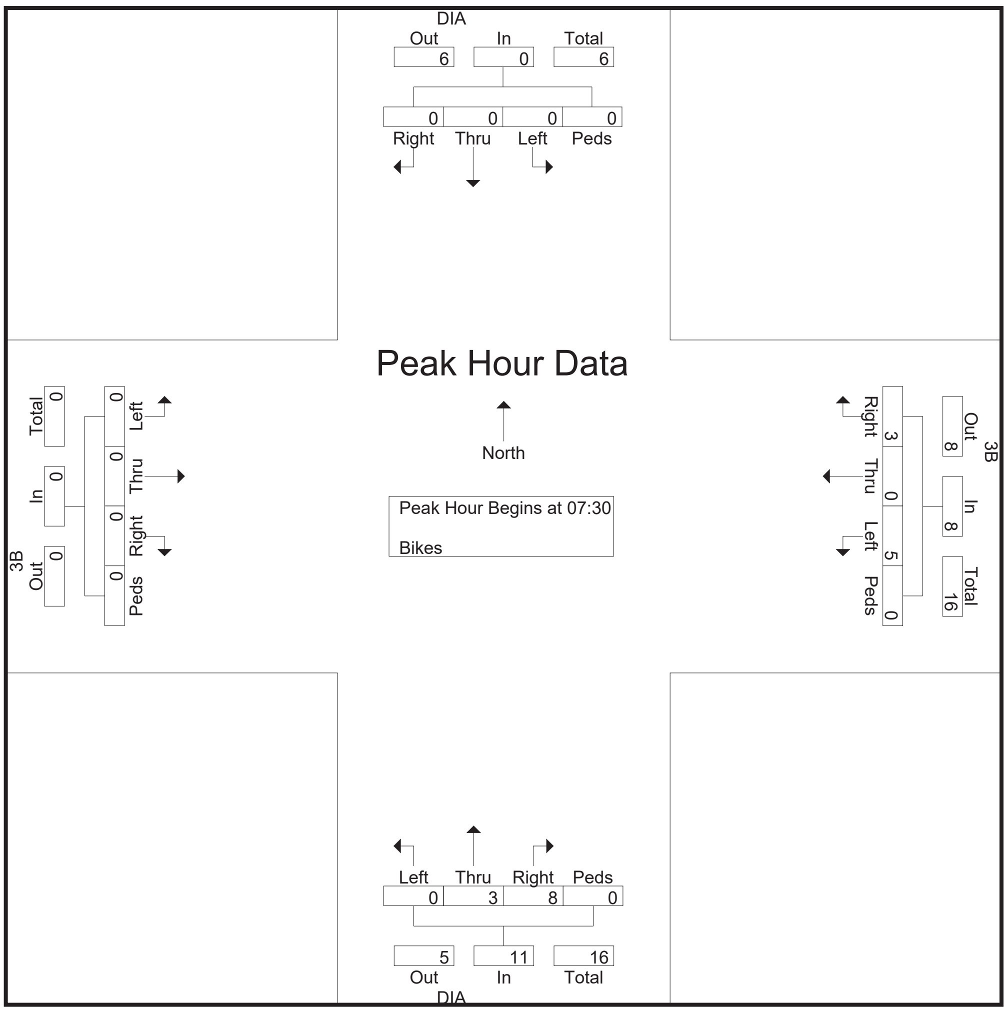


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:30 to 11:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | **2** | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 6 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** | 0 | **6** | **6** | 1 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | **13** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 0 | 8 | 8 | 3 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 19 |
| % App. Total | 0 | 0 | 0 | 0 | | 37.5 | 0 | 62.5 | 0 | | 72.7 | 27.3 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .833 | .000 | .667 | .667 | .750 | .000 | .000 | .786 | .000 | .000 | .000 | .000 | .000 | .731 |

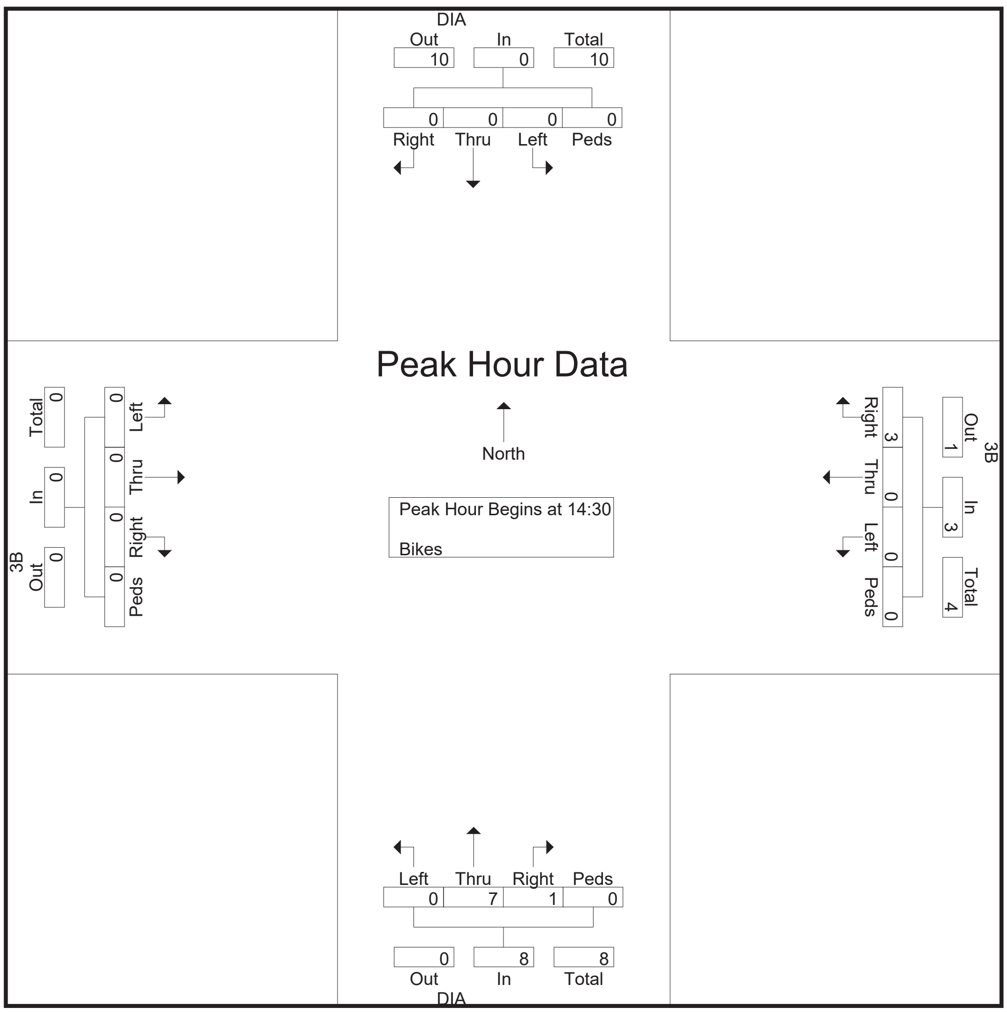


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:00 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:30 | | | | | | | | | | | | | | | | | | | | | |
| 14:30 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | **2** | **1** | **4** | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | **7** |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 1 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 11 |
| % App. Total | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 12.5 | 87.5 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .750 | .000 | .000 | .000 | .750 | .500 | .875 | .000 | .000 | .800 | .000 | .000 | .000 | .000 | .000 | .786 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 3B

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:30 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 1 | 0 | 16 | 7 | 25 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 48 |
| Total | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 1 | 0 | 16 | 7 | 25 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 48 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 6 | 3 | 19 | 14 | 57 | 8 | 0 | 79 | 0 | 0 | 0 | 0 | 0 | 98 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 13 | 2 | 32 | 17 | 93 | 12 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 154 |
| Total | 0 | 0 | 0 | 0 | 0 | 27 | 0 | 19 | 5 | 51 | 31 | 150 | 20 | 0 | 201 | 0 | 0 | 0 | 0 | 0 | 252 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 20 | 3 | 11 | 0 | 34 | 20 | 92 | 3 | 1 | 116 | 0 | 0 | 0 | 0 | 0 | 150 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 30 | 1 | 30 | 6 | 67 | 15 | 134 | 18 | 4 | 171 | 0 | 0 | 0 | 0 | 0 | 238 |
| Total | 0 | 0 | 0 | 0 | 0 | 50 | 4 | 41 | 6 | 101 | 35 | 226 | 21 | 5 | 287 | 0 | 0 | 0 | 0 | 0 | 388 |
| 08:00 | 0 | 3 | 0 | 1 | 4 | 27 | 0 | 21 | 4 | 52 | 20 | 84 | 3 | 6 | 113 | 0 | 0 | 0 | 0 | 0 | 169 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 3 | 0 | 1 | 4 | 27 | 0 | 21 | 4 | 52 | 20 | 84 | 3 | 6 | 113 | 0 | 0 | 0 | 0 | 0 | 169 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:30 | 0 | 0 | 0 | 0 | 0 | 61 | 1 | 19 | 2 | 83 | 22 | 154 | 4 | 3 | 183 | 0 | 0 | 0 | 0 | 0 | 266 |
| Total | 0 | 0 | 0 | 0 | 0 | 61 | 1 | 19 | 2 | 83 | 22 | 154 | 4 | 3 | 183 | 0 | 0 | 0 | 0 | 0 | 266 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 58 | 3 | 16 | 3 | 80 | 21 | 223 | 2 | 10 | 256 | 0 | 0 | 0 | 0 | 0 | 336 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 132 | 0 | 24 | 4 | 160 | 15 | 290 | 4 | 3 | 312 | 0 | 0 | 0 | 0 | 0 | 472 |
| Total | 0 | 0 | 0 | 0 | 0 | 190 | 3 | 40 | 7 | 240 | 36 | 513 | 6 | 13 | 568 | 0 | 0 | 0 | 0 | 0 | 808 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 18 | 3 | 84 | 6 | 307 | 7 | 8 | 328 | 0 | 0 | 0 | 0 | 0 | 412 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 18 | 8 | 71 | 1 | 312 | 0 | 6 | 319 | 0 | 0 | 0 | 0 | 0 | 390 |
| Total | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 36 | 11 | 155 | 7 | 619 | 7 | 14 | 647 | 0 | 0 | 0 | 0 | 0 | 802 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 44 | 0 | 7 | 3 | 54 | 1 | 243 | 1 | 5 | 250 | 0 | 0 | 0 | 0 | 0 | 304 |
| Grand Total | 0 | 3 | 0 | 1 | 4 | 522 | 8 | 184 | 38 | 752 | 159 | 2014 | 62 | 46 | 2281 | 0 | 0 | 0 | 0 | 0 | 3037 |
| Apprch % | 0 | 75 | 0 | 25 | | 69.4 | 1.1 | 24.5 | 5.1 | | 7 | 88.3 | 2.7 | 2 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0.1 | 0 | 0 | 0.1 | 17.2 | 0.3 | 6.1 | 1.3 | 24.8 | 5.2 | 66.3 | 2 | 1.5 | 75.1 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 0 | 3 | 0 | 1 | 4 | 522 | 8 | 184 | 36 | 750 | 159 | 1999 | 62 | 45 | 2265 | 0 | 0 | 0 | 0 | 0 | 3019 |
| % Vehicles | 0 | 100 | 0 | 100 | 100 | 100 | 100 | 100 | 94.7 | 99.7 | 100 | 99.3 | 100 | 97.8 | 99.3 | 0 | 0 | 0 | 0 | 0 | 99.4 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 15 | 0 | 1 | 16 | 0 | 0 | 0 | 0 | 0 | 18 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.3 | 0.3 | 0 | 0.7 | 0 | 2.2 | 0.7 | 0 | 0 | 0 | 0 | 0 | 0.6 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
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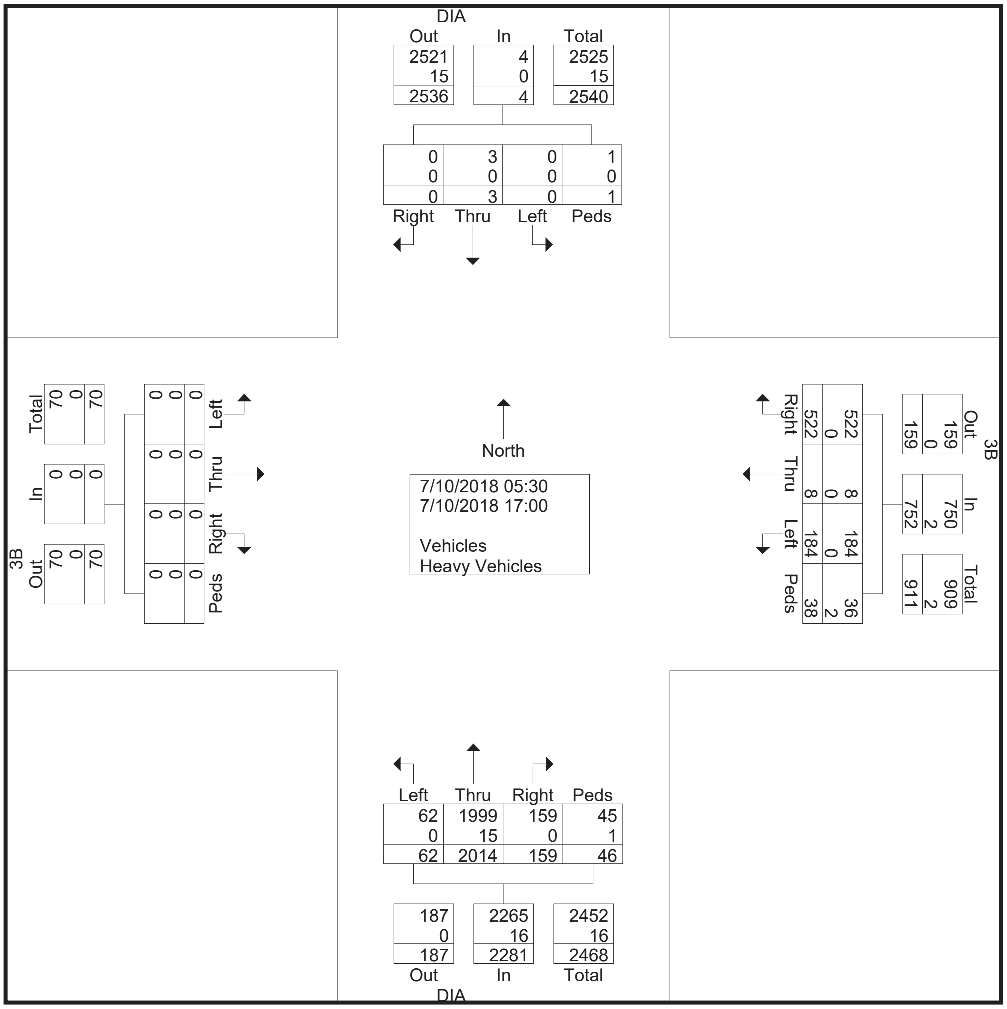
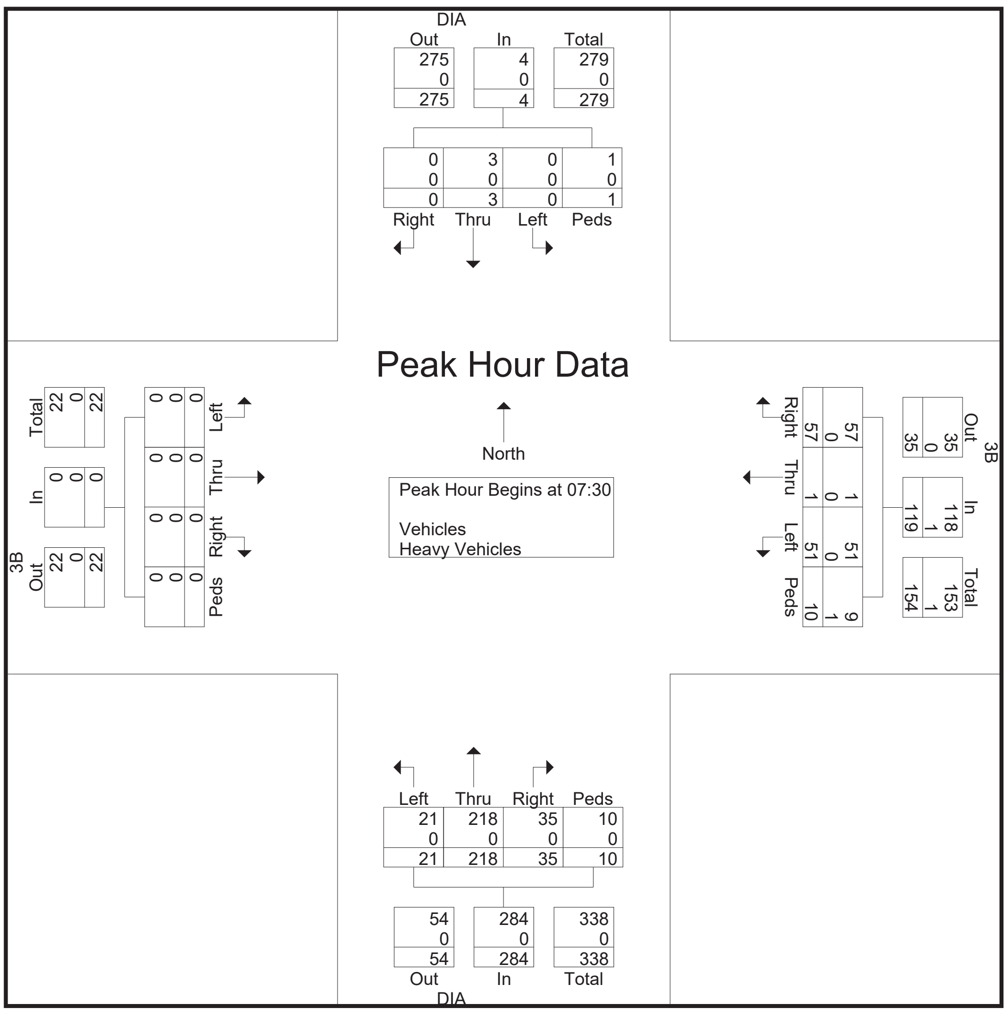


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:30 to 11:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | **30** | **1** | **30** | **6** | **67** | 15 | **134** | **18** | 4 | **171** | 0 | 0 | 0 | 0 | 0 | **238** |
| 08:00 | 0 | **3** | 0 | **1** | **4** | 27 | 0 | 21 | 4 | 52 | **20** | 84 | 3 | **6** | 113 | 0 | 0 | 0 | 0 | 0 | 169 |
| Total Volume | 0 | 3 | 0 | 1 | 4 | 57 | 1 | 51 | 10 | 119 | 35 | 218 | 21 | 10 | 284 | 0 | 0 | 0 | 0 | 0 | 407 |
| % App. Total | 0 | 75 | 0 | 25 | | 47.9 | 0.8 | 42.9 | 8.4 | | 12.3 | 76.8 | 7.4 | 3.5 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .500 | .950 | .500 | .850 | .833 | .888 | .875 | .813 | .583 | .833 | .830 | .000 | .000 | .000 | .000 | .000 | .855 |
| Vehicles | 0 | 3 | 0 | 1 | 4 | 57 | 1 | 51 | 9 | 118 | 35 | 218 | 21 | 10 | 284 | 0 | 0 | 0 | 0 | 0 | 406 |
| % Vehicles | 0 | 100 | 0 | 100 | 100 | 100 | 100 | 100 | 90.0 | 99.2 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 99.8 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10.0 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 |

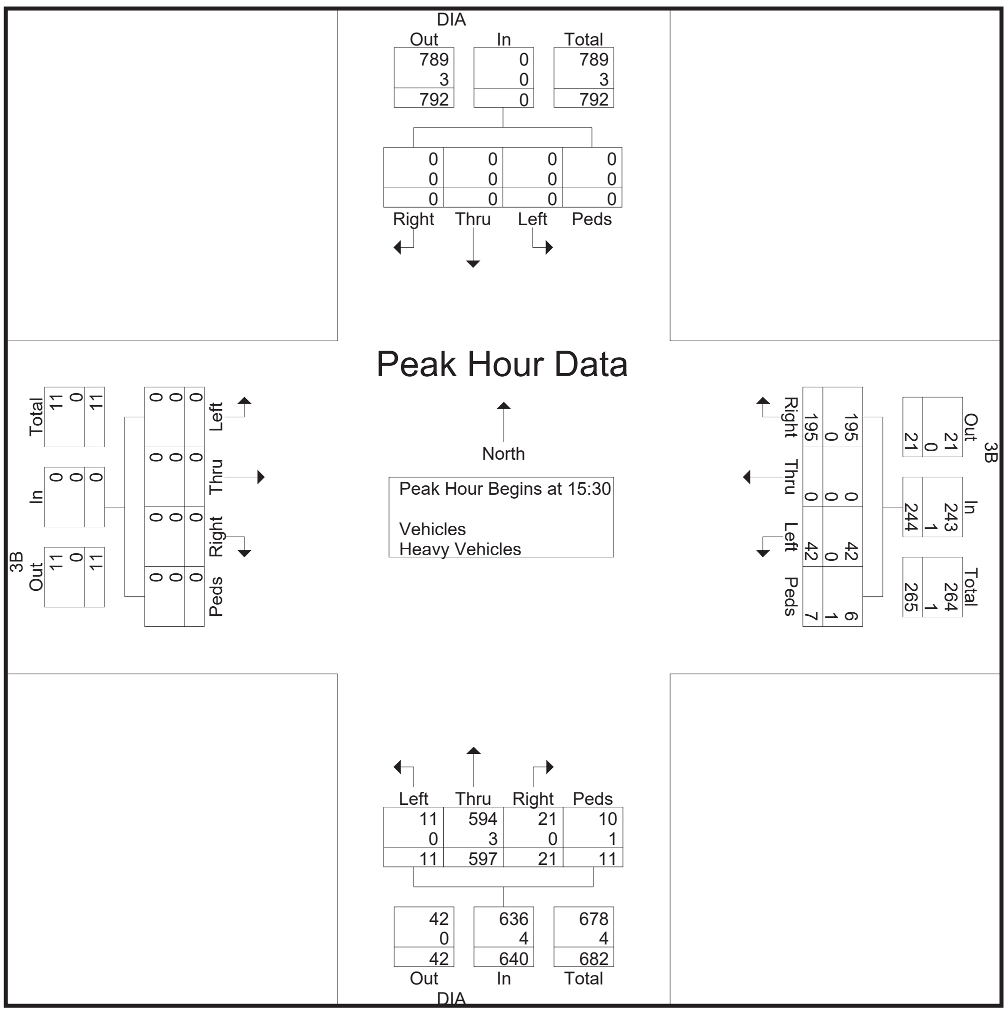


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 3B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 3B From East | | | | | DIA From South | | | | | 3B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:00 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:30 | | | | | | | | | | | | | | | | | | | | | |
| 15:30 | 0 | 0 | 0 | 0 | 0 | **132** | 0 | **24** | **4** | **160** | **15** | 290 | 4 | 3 | 312 | 0 | 0 | 0 | 0 | 0 | **472** |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 63 | 0 | 18 | 3 | 84 | 6 | **307** | **7** | **8** | **328** | 0 | 0 | 0 | 0 | 0 | 412 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 195 | 0 | 42 | 7 | 244 | 21 | 597 | 11 | 11 | 640 | 0 | 0 | 0 | 0 | 0 | 884 |
| % App. Total | 0 | 0 | 0 | 0 | | 79.9 | 0 | 17.2 | 2.9 | | 3.3 | 93.3 | 1.7 | 1.7 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .739 | .000 | .875 | .875 | .763 | .700 | .972 | .786 | .688 | .976 | .000 | .000 | .000 | .000 | .000 | .936 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 195 | 0 | 42 | 6 | 243 | 21 | 594 | 11 | 10 | 636 | 0 | 0 | 0 | 0 | 0 | 879 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 85.7 | 99.6 | 100 | 99.5 | 100 | 90.9 | 99.4 | 0 | 0 | 0 | 0 | 0 | 99.4 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 5 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14.3 | 0.4 | 0 | 0.5 | 0 | 9.1 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0.6 |



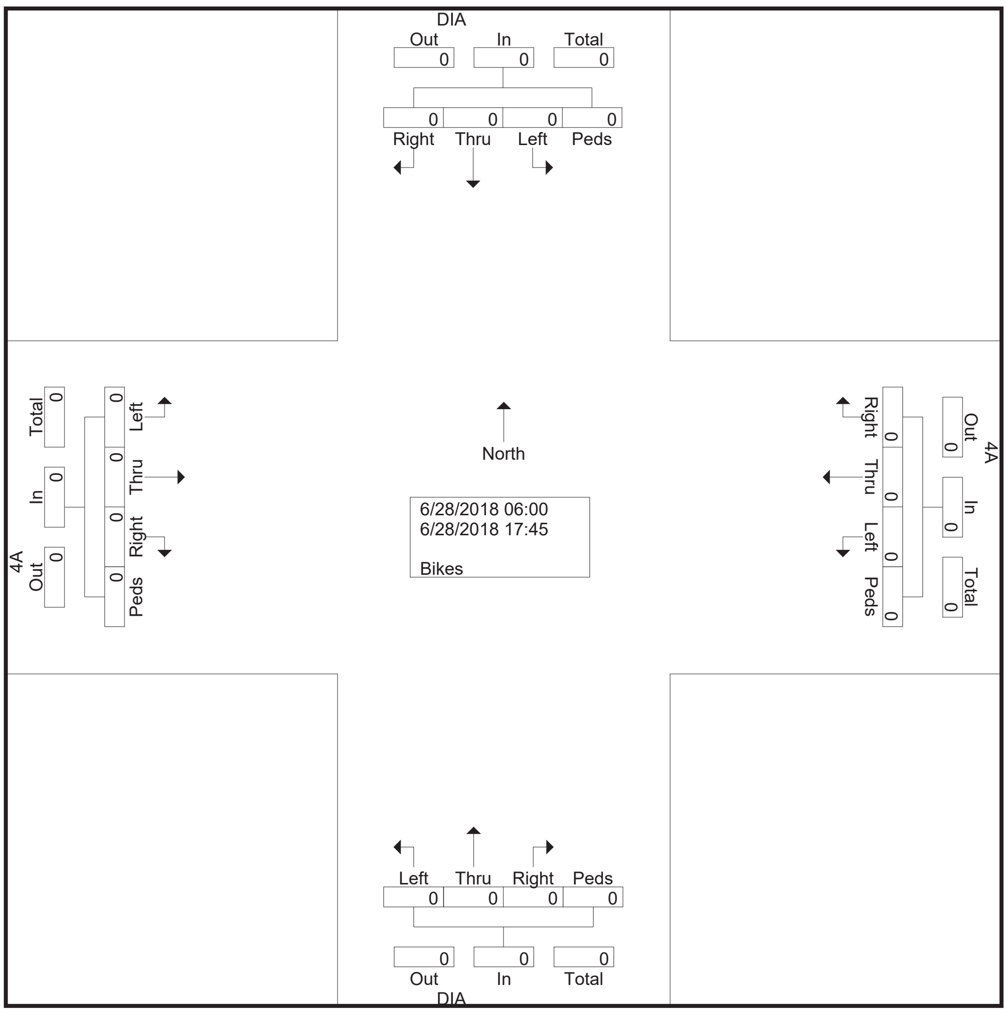
# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 4A
Start Date: 06/28/2018

File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | | | | | | | | | | | | | | | | | | | | | |

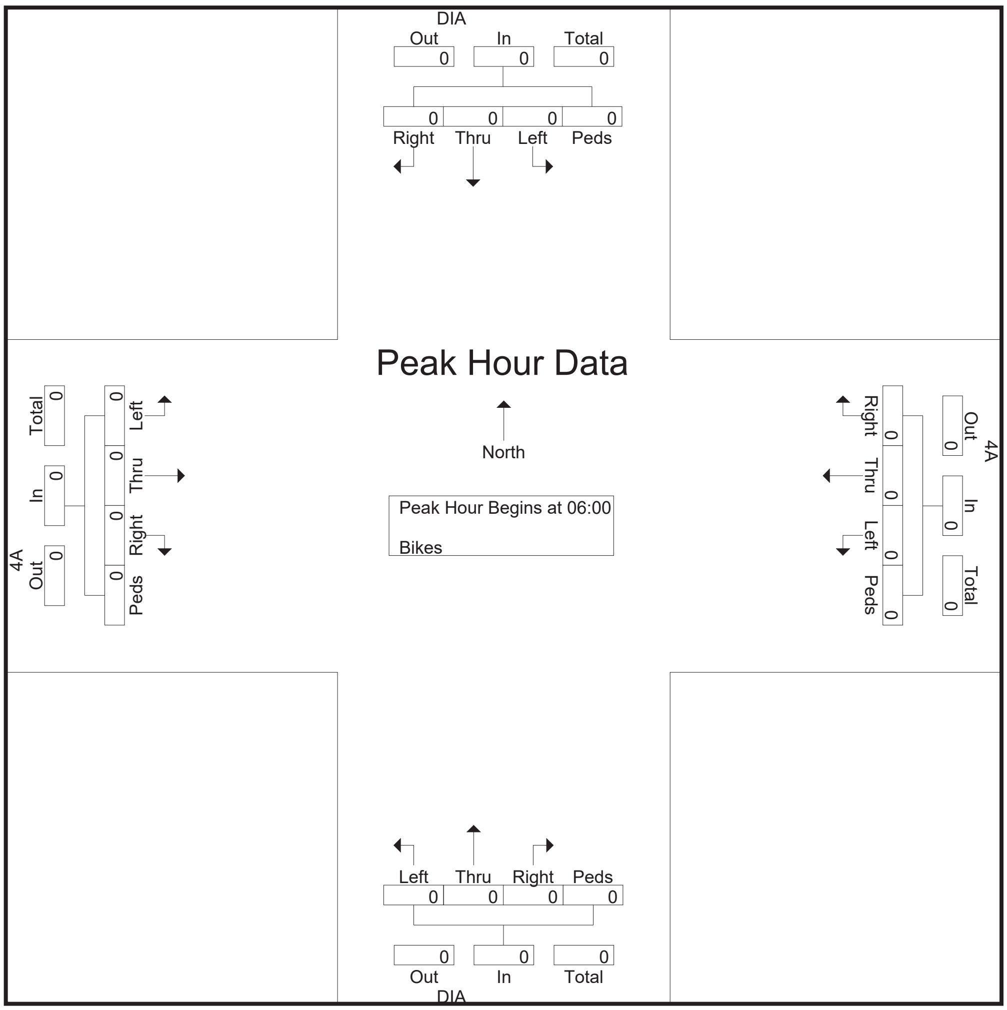


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:00 | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

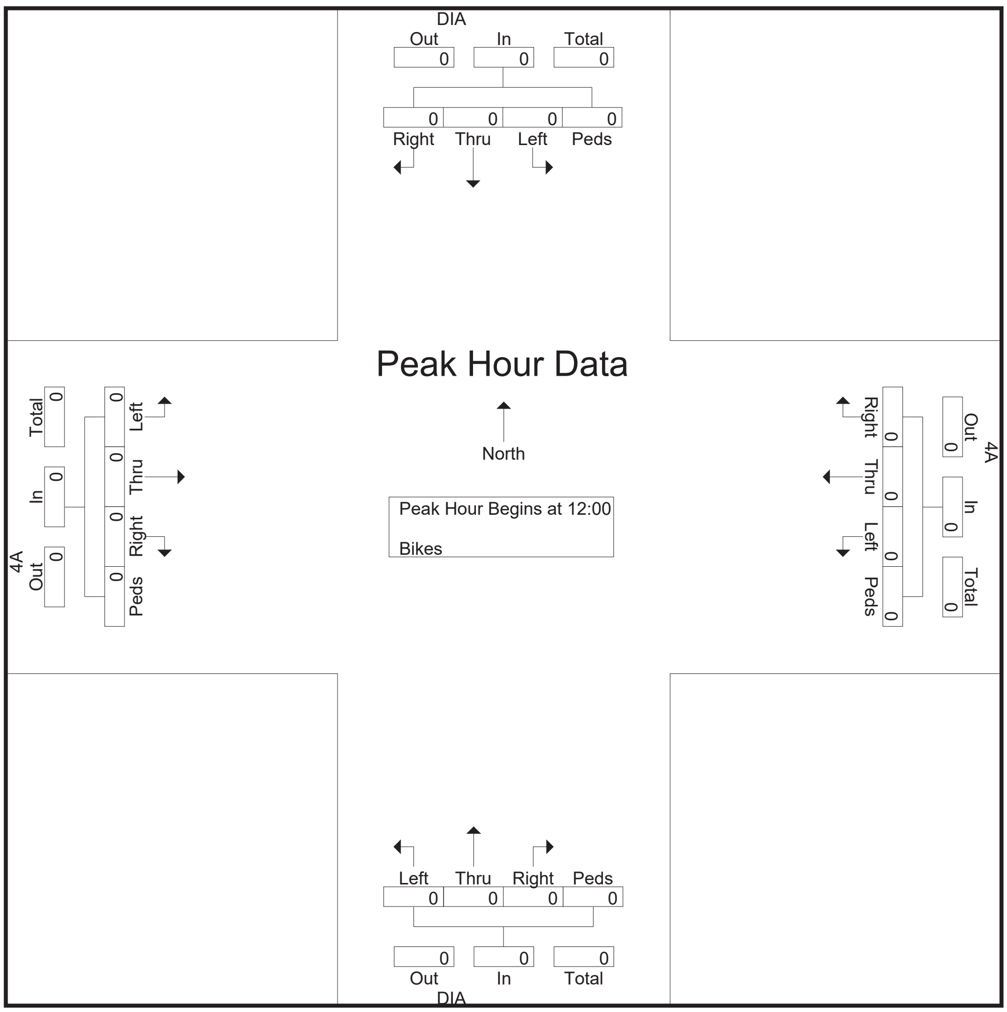


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 | | | | | | | | | | | | | | | | | | | | | |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 4A
Start Date: 06/28/2018

File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

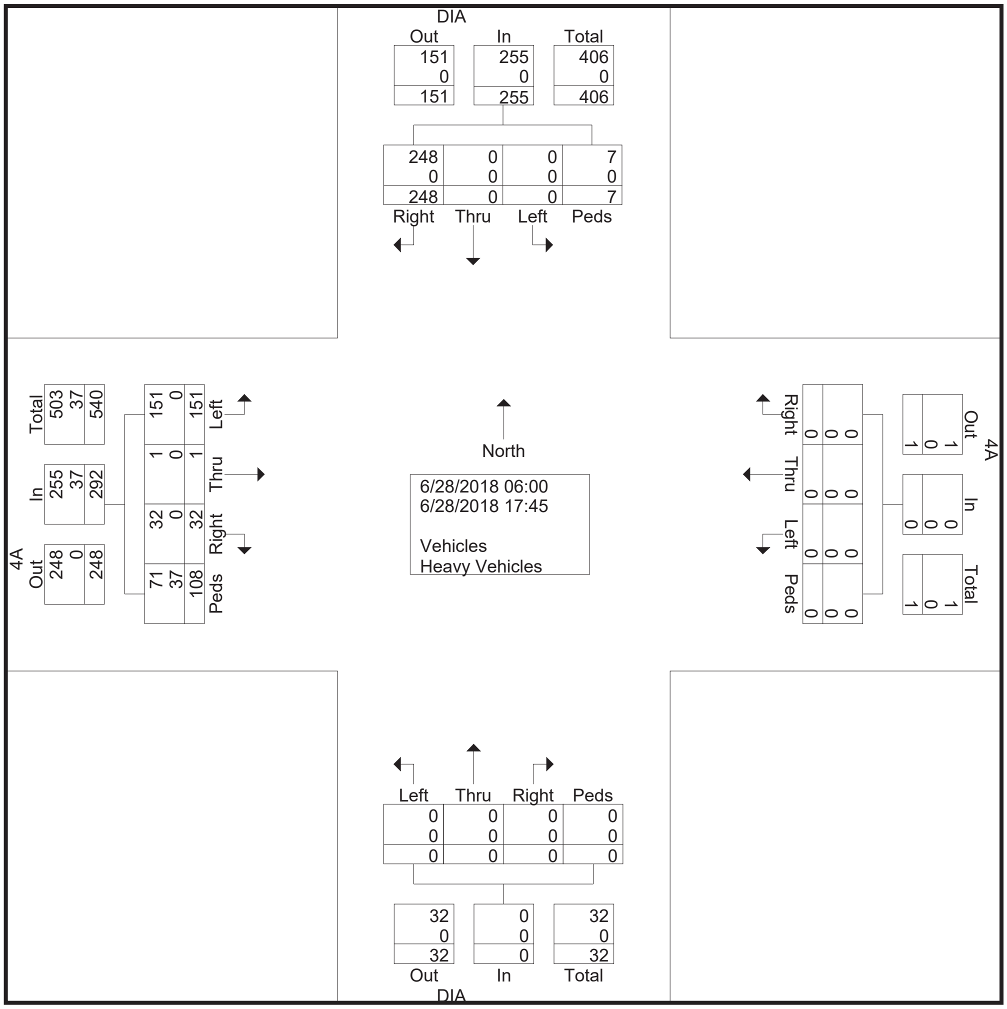
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 7 |
| 06:15 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 8 |
| 06:30 | 8 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 6 | 8 | 16 |
| 06:45 | 15 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 5 | 8 | 23 |
| Total | 32 | 0 | 0 | 0 | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 15 | 22 | 54 |
| 07:00 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 3 | 22 |
| 07:15 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 6 | 33 |
| 07:30 | 24 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 7 | 12 | 36 |
| 07:45 | 39 | 0 | 0 | 0 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 5 | 9 | 48 |
| Total | 109 | 0 | 0 | 0 | 109 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 7 | 19 | 30 | 139 |
| 08:00 | 28 | 0 | 0 | 1 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 12 | 20 | 49 |
| 08:15 | 13 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 2 | 9 | 22 |
| 08:30 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 14 |
| 08:45 | 16 | 0 | 0 | 1 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 10 | 19 | 36 |
| Total | 67 | 0 | 0 | 2 | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 19 | 24 | 52 | 121 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 8 | 15 | 20 |
| 15:15 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 10 | 12 | 23 | 25 |
| 15:30 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 8 | 2 | 11 | 12 |
| 15:45 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 11 | 16 |
| Total | 12 | 0 | 0 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 30 | 26 | 60 | 73 |
| 16:00 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 4 | 9 | 10 |
| 16:15 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 10 | 14 |
| 16:30 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 21 | 4 | 26 | 33 |
| 16:45 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 4 | 14 | 18 |
| Total | 14 | 0 | 0 | 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 45 | 12 | 59 | 75 |
| 17:00 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 12 | 2 | 18 | 23 |
| 17:15 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 | 5 | 16 | 20 |
| 17:30 | 4 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 12 | 2 | 19 | 24 |
| 17:45 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 3 | 16 | 18 |
| Total | 14 | 0 | 0 | 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 1 | 46 | 12 | 69 | 85 |
| Grand Total | 248 | 0 | 0 | 7 | 255 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 1 | 151 | 108 | 292 | 547 |
| Apprch % | 97.3 | 0 | 0 | 2.7 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 11 | 0.3 | 51.7 | 37 | | |
| Total % | 45.3 | 0 | 0 | 1.3 | 46.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.9 | 0.2 | 27.6 | 19.7 | 53.4 | |
| Vehicles | 248 | 0 | 0 | 7 | 255 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 1 | 151 | 71 | 255 | 510 |
| % Vehicles | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 65.7 | 87.3 | 93.2 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 37 | 37 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34.3 | 12.7 | 6.8 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

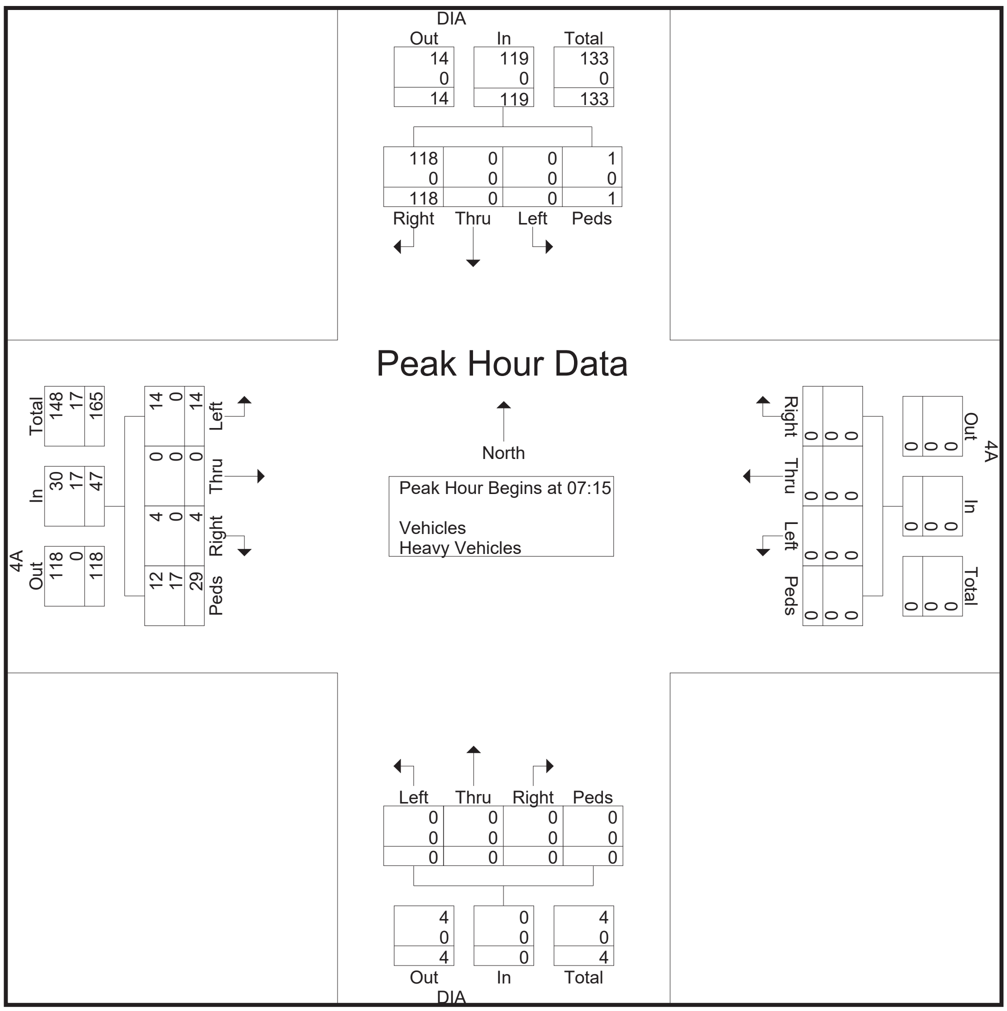
File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018


| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 27 | 0 | 0 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 6 | 33 |
| 07:30 | 24 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 7 | 12 | 36 |
| 07:45 | **39** | 0 | 0 | 0 | **39** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 2 | 5 | 9 | 48 |
| 08:00 | 28 | 0 | 0 | **1** | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **7** | **12** | **20** | **49** |
| Total Volume | 118 | 0 | 0 | 1 | 119 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 14 | 29 | 47 | 166 |
| % App. Total | 99.2 | 0 | 0 | 0.8 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 8.5 | 0 | 29.8 | 61.7 | | |
| PHF | .756 | .000 | .000 | .250 | .763 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .500 | .604 | .588 | .847 |
| Vehicles | 118 | 0 | 0 | 1 | 119 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 14 | 12 | 30 | 149 |
| % Vehicles | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 41.4 | 63.8 | 89.8 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 17 | 17 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58.6 | 36.2 | 10.2 |

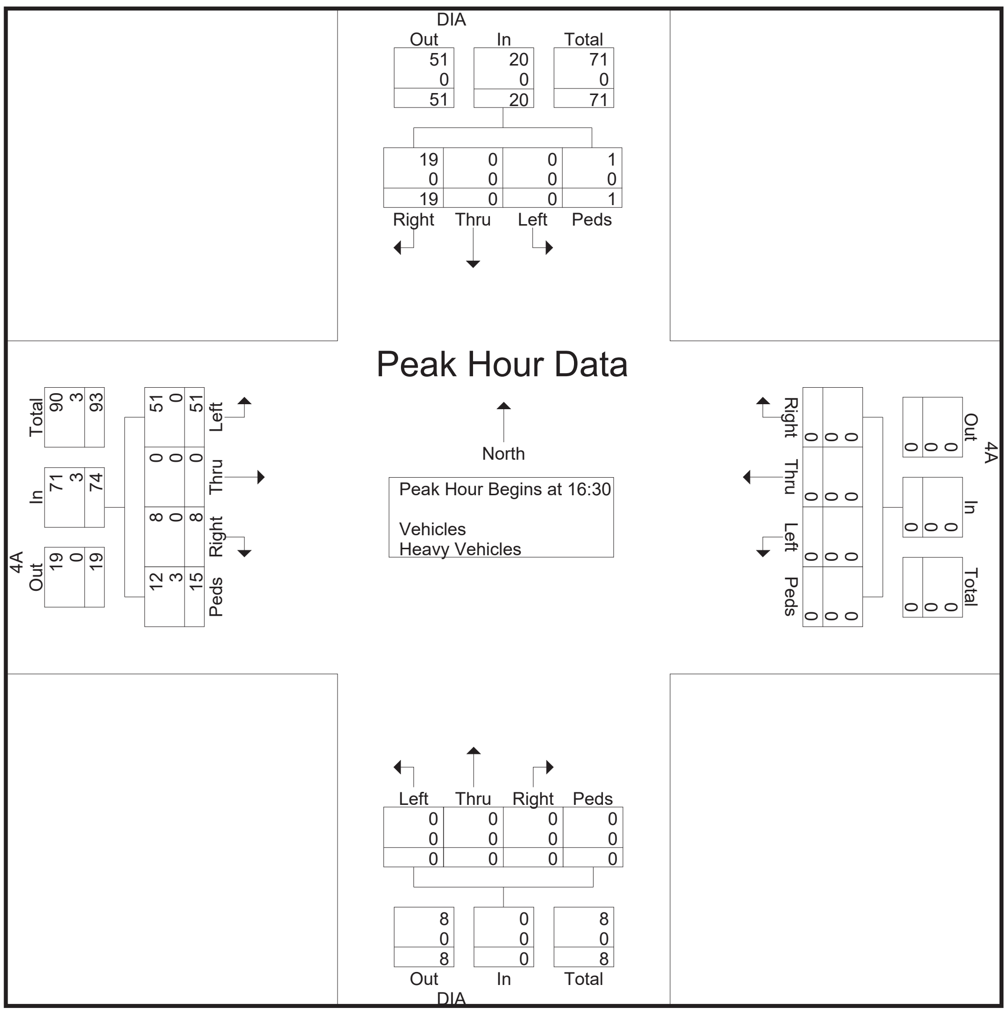


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4A
Site Code : 00000000
Start Date : 6/28/2018
Page No : 4

| | DIA From North | | | | | 4A From East | | | | | DIA From South | | | | | 4A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:30 | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | **7** | 0 | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **21** | 4 | **26** | **33** |
| 16:45 | 3 | 0 | 0 | **1** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 4 | 14 | 18 |
| 17:00 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 12 | 2 | 18 | 23 |
| 17:15 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 9 | **5** | 16 | 20 |
| Total Volume | 19 | 0 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 51 | 15 | 74 | 94 |
| % App. Total | 95 | 0 | 0 | 5 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 10.8 | 0 | 68.9 | 20.3 | | |
| PHF | .679 | .000 | .000 | .250 | .714 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .607 | .750 | .712 | .712 |
| Vehicles | 19 | 0 | 0 | 1 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 51 | 12 | 71 | 91 |
| % Vehicles | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 80.0 | 95.9 | 96.8 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20.0 | 4.1 | 3.2 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 4B
Start Date: 06/28/2018

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

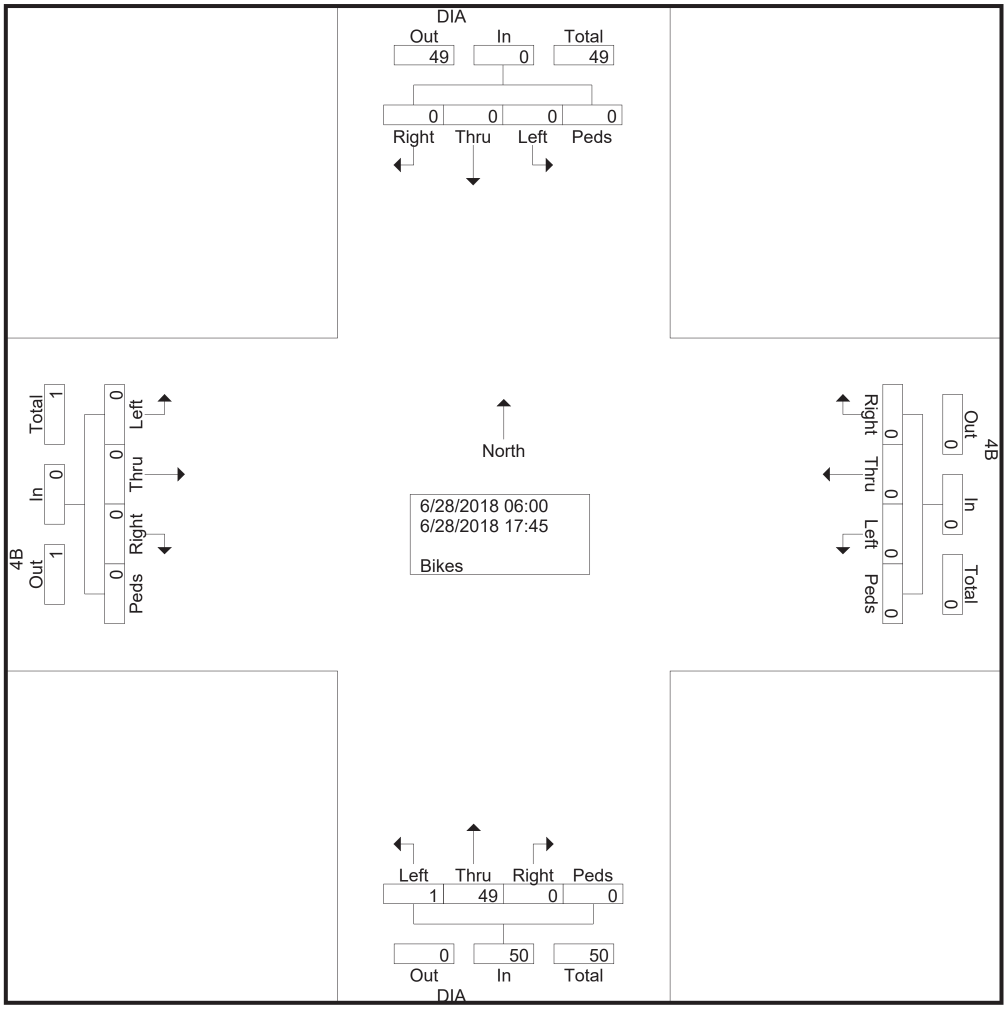
**Groups Printed- Bikes**

| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 17 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 1 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 50 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 98 | 2 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 98 | 2 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

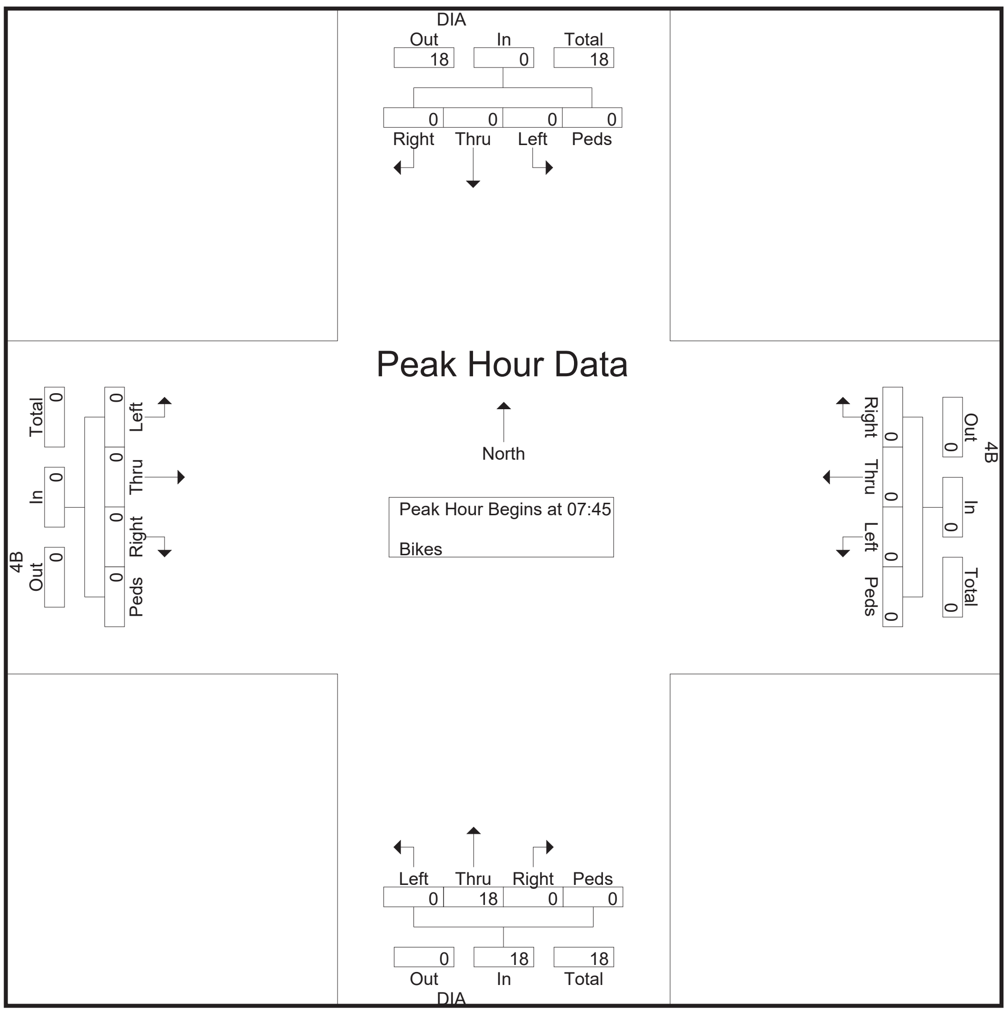


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 3

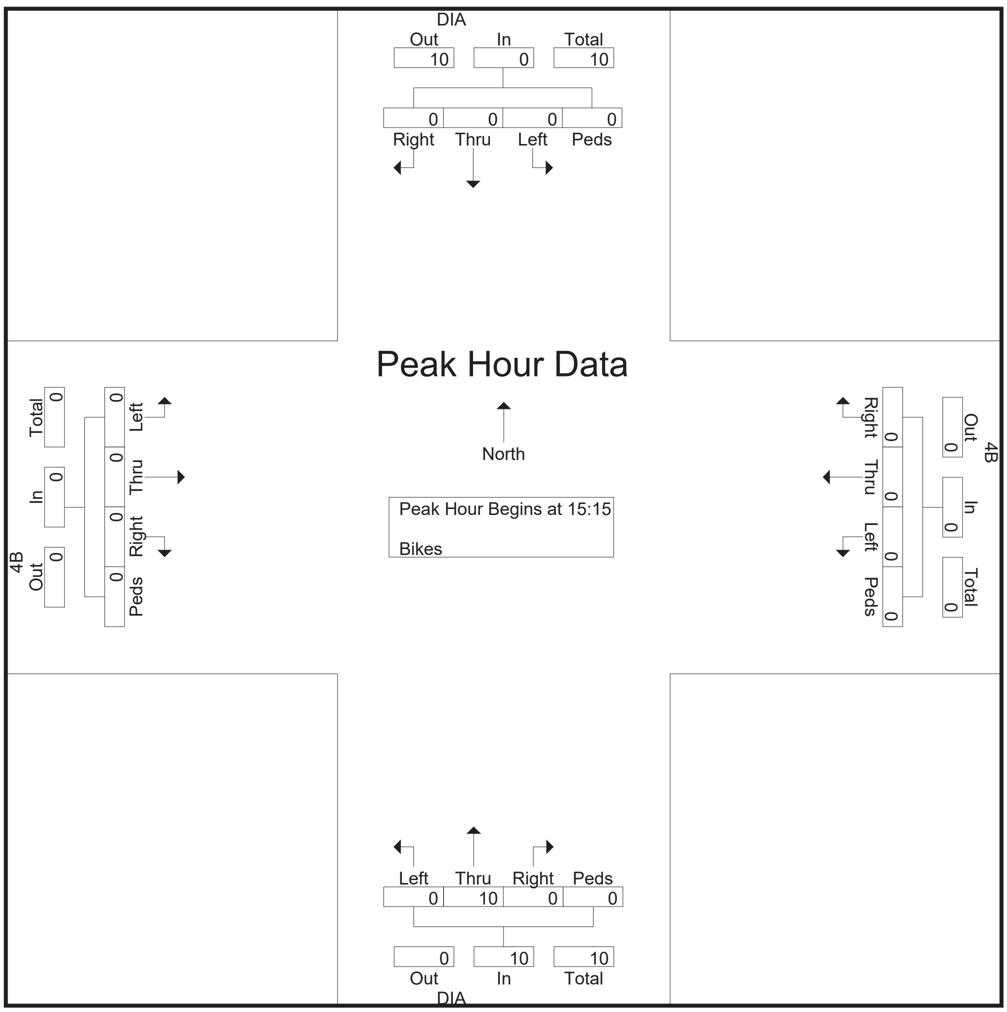
| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 | | | | | | | | | | | | | | | | | | | | | |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | **6** |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 18 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .750 | .000 | .000 | .750 | .000 | .000 | .000 | .000 | .000 | .750 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018


| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:15 | | | | | | | | | | | | | | | | | | | | | |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | **4** |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 10 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .625 | .000 | .000 | .625 | .000 | .000 | .000 | .000 | .000 | .625 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 4B
Start Date: 06/28/2018

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 1

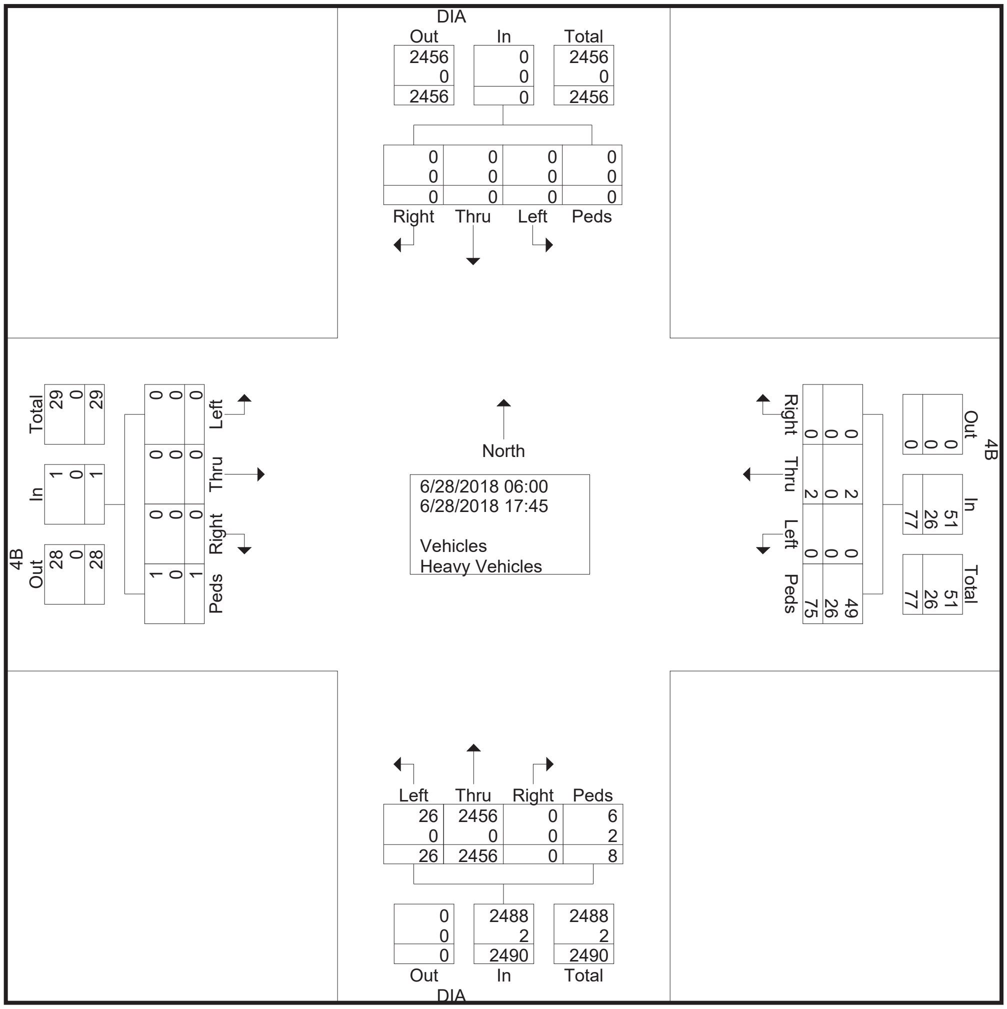
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 4 | 0 | 18 | 1 | 2 | 21 | 0 | 0 | 0 | 0 | 0 | 25 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 1 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 16 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 21 | 1 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 26 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 56 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 12 | 13 | 0 | 105 | 3 | 2 | 110 | 0 | 0 | 0 | 0 | 0 | 123 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 46 | 0 | 0 | 46 | 0 | 0 | 0 | 0 | 0 | 47 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 2 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 60 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 53 | 2 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 56 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 | 2 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 74 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 229 | 6 | 0 | 235 | 0 | 0 | 0 | 0 | 0 | 237 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 71 | 2 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | 81 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 67 | 5 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 73 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 46 | 2 | 1 | 49 | 0 | 0 | 0 | 1 | 1 | 56 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 2 | 0 | 64 | 0 | 0 | 0 | 0 | 0 | 64 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 246 | 11 | 1 | 258 | 0 | 0 | 0 | 1 | 1 | 274 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 4 | 0 | 90 | 1 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 95 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 103 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 107 | 0 | 0 | 107 | 0 | 0 | 0 | 0 | 0 | 109 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 145 | 1 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 147 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 | 10 | 0 | 442 | 2 | 0 | 444 | 0 | 0 | 0 | 0 | 0 | 454 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 170 | 0 | 0 | 170 | 0 | 0 | 0 | 0 | 0 | 175 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 199 | 1 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 205 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 165 | 0 | 0 | 165 | 0 | 0 | 0 | 0 | 0 | 167 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 187 | 1 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 192 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 0 | 721 | 2 | 0 | 723 | 0 | 0 | 0 | 0 | 0 | 739 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 187 | 1 | 2 | 190 | 0 | 0 | 0 | 0 | 0 | 193 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 199 | 1 | 2 | 202 | 0 | 0 | 0 | 0 | 0 | 206 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 0 | 198 | 0 | 0 | 198 | 0 | 0 | 0 | 0 | 0 | 205 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 0 | 129 | 0 | 1 | 130 | 0 | 0 | 0 | 0 | 0 | 137 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 21 | 0 | 713 | 2 | 5 | 720 | 0 | 0 | 0 | 0 | 0 | 741 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 75 | 77 | 0 | 2456 | 26 | 8 | 2490 | 0 | 0 | 0 | 1 | 1 | 2568 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 2.6 | 0 | 97.4 | | 0 | 98.6 | 1 | 0.3 | | 0 | 0 | 0 | 100 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 2.9 | 3 | 0 | 95.6 | 1 | 0.3 | 97 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 49 | 51 | 0 | 2456 | 26 | 6 | 2488 | 0 | 0 | 0 | 1 | 1 | 2540 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 65.3 | 66.2 | 0 | 100 | 100 | 75 | 99.9 | 0 | 0 | 0 | 100 | 100 | 98.9 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 28 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34.7 | 33.8 | 0 | 0 | 0 | 25 | 0.1 | 0 | 0 | 0 | 0 | 0 | 1.1 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018
Page No : 2

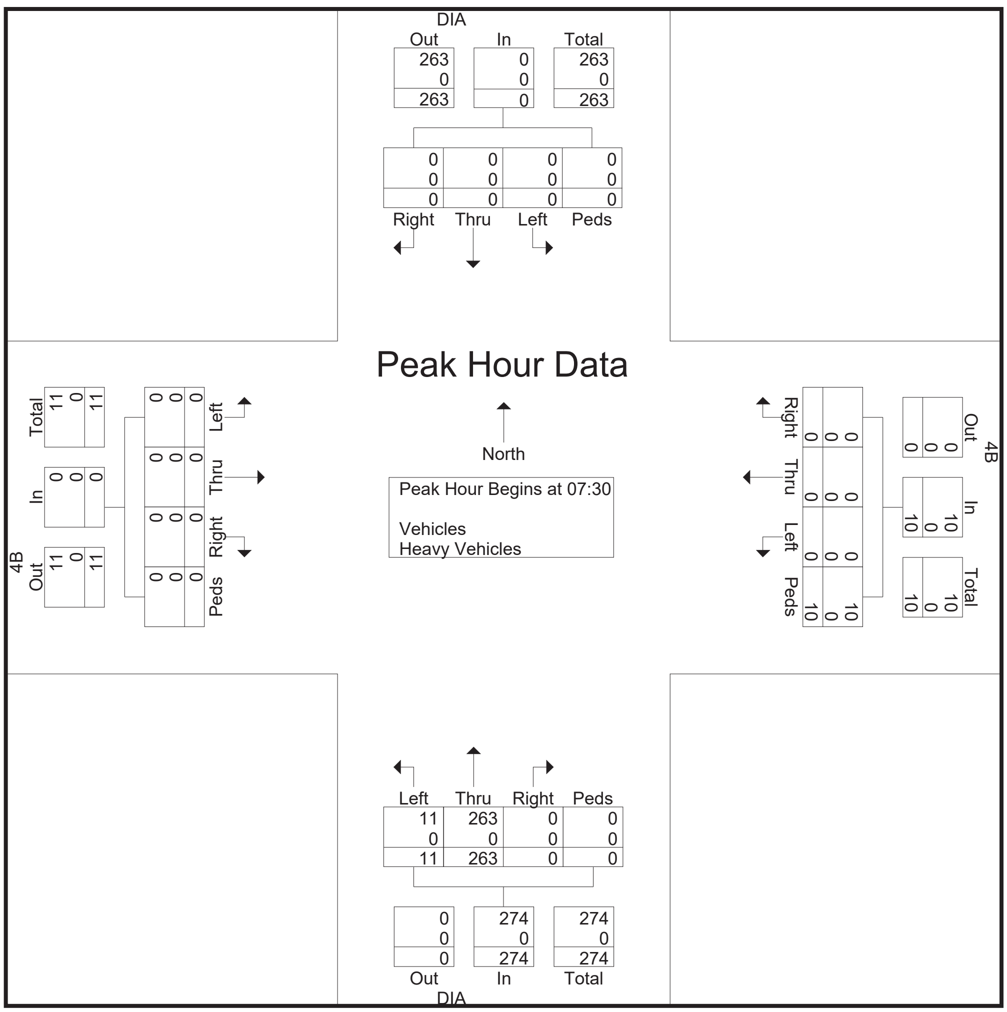


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018


| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 53 | 2 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 56 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **72** | 2 | 0 | **74** | 0 | 0 | 0 | 0 | 0 | 74 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **8** | **8** | 0 | 71 | 2 | 0 | 73 | 0 | 0 | 0 | 0 | 0 | **81** |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 67 | **5** | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 73 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 0 | 263 | 11 | 0 | 274 | 0 | 0 | 0 | 0 | 0 | 284 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 96 | 4 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .313 | .313 | .000 | .913 | .550 | .000 | .926 | .000 | .000 | .000 | .000 | .000 | .877 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 0 | 263 | 11 | 0 | 274 | 0 | 0 | 0 | 0 | 0 | 284 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

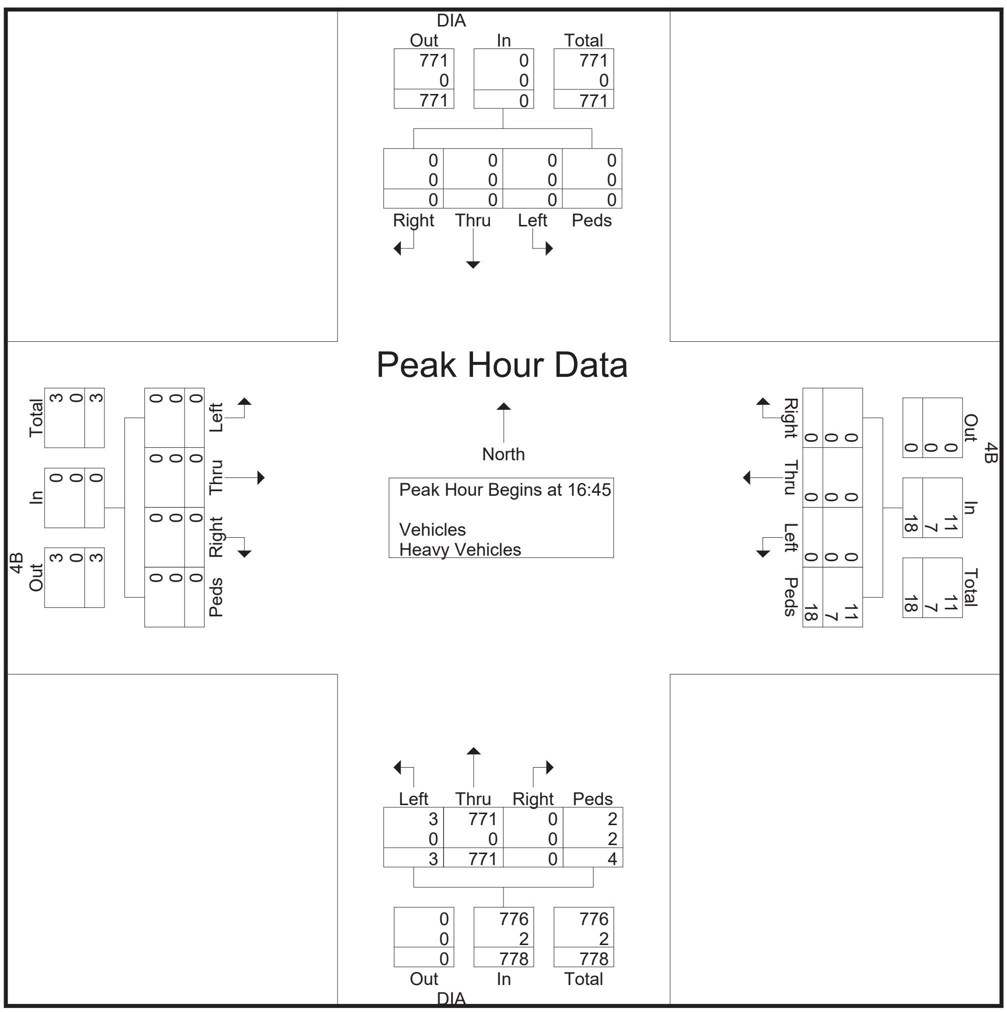


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 4B
Site Code : 00000000
Start Date : 6/28/2018


| | DIA From North | | | | | 4B From East | | | | | DIA From South | | | | | 4B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 187 | **1** | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 192 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 187 | 1 | **2** | 190 | 0 | 0 | 0 | 0 | 0 | 193 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | **199** | 1 | 2 | **202** | 0 | 0 | 0 | 0 | 0 | **206** |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **7** | **7** | 0 | 198 | 0 | 0 | 198 | 0 | 0 | 0 | 0 | 0 | 205 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 18 | 0 | 771 | 3 | 4 | 778 | 0 | 0 | 0 | 0 | 0 | 796 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 99.1 | 0.4 | 0.5 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .643 | .643 | .000 | .969 | .750 | .500 | .963 | .000 | .000 | .000 | .000 | .000 | .966 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 771 | 3 | 2 | 776 | 0 | 0 | 0 | 0 | 0 | 787 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61.1 | 61.1 | 0 | 100 | 100 | 50.0 | 99.7 | 0 | 0 | 0 | 0 | 0 | 98.9 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 9 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38.9 | 38.9 | 0 | 0 | 0 | 50.0 | 0.3 | 0 | 0 | 0 | 0 | 0 | 1.1 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 5 (AM)
Start Date: 06/28/2018

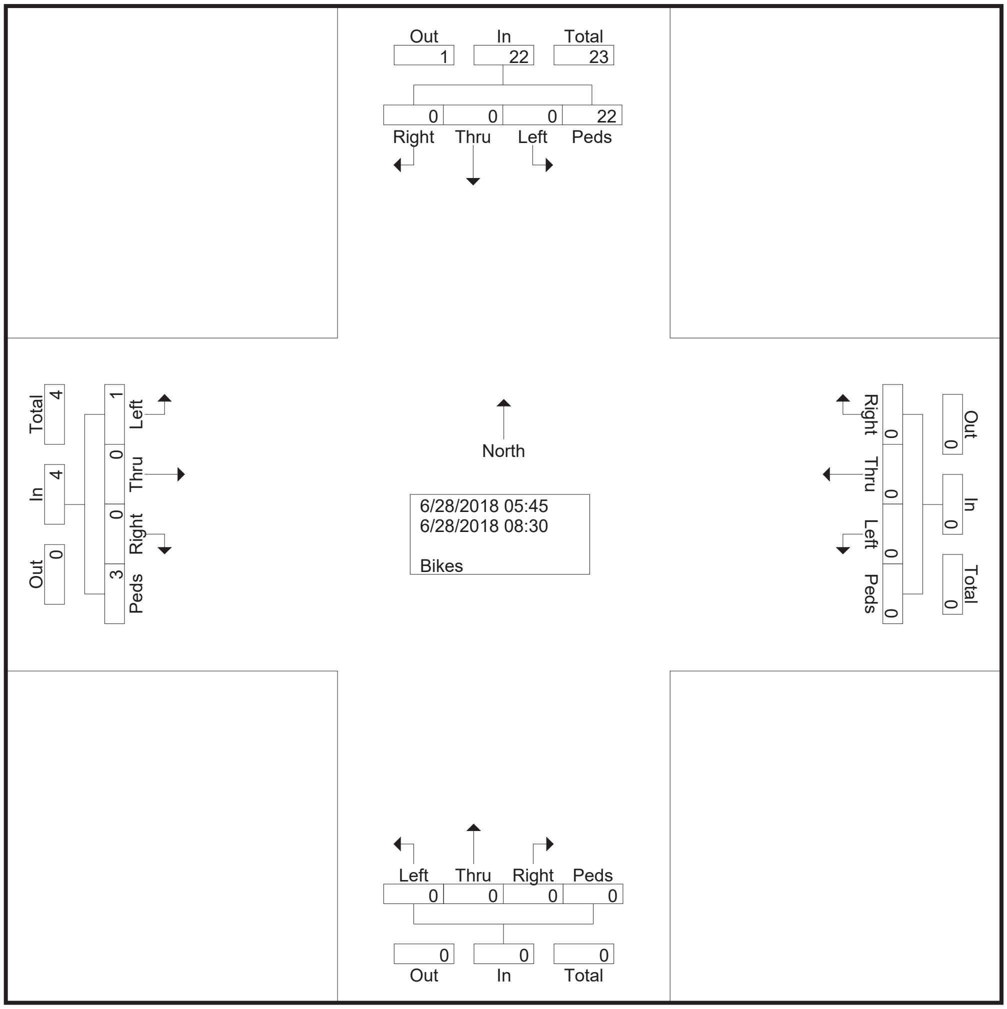
File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018
Page No : 1

**Groups Printed- Bikes**

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 4 |
| 06:45 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 7 |
| 07:00 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:15 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 07:45 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 08:00 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:30 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 26 |
| Apprch % | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 25 | 75 | | |
| Total % | 0 | 0 | 0 | 84.6 | 84.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.8 | 11.5 | 15.4 | |

## Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018
Page No : 2

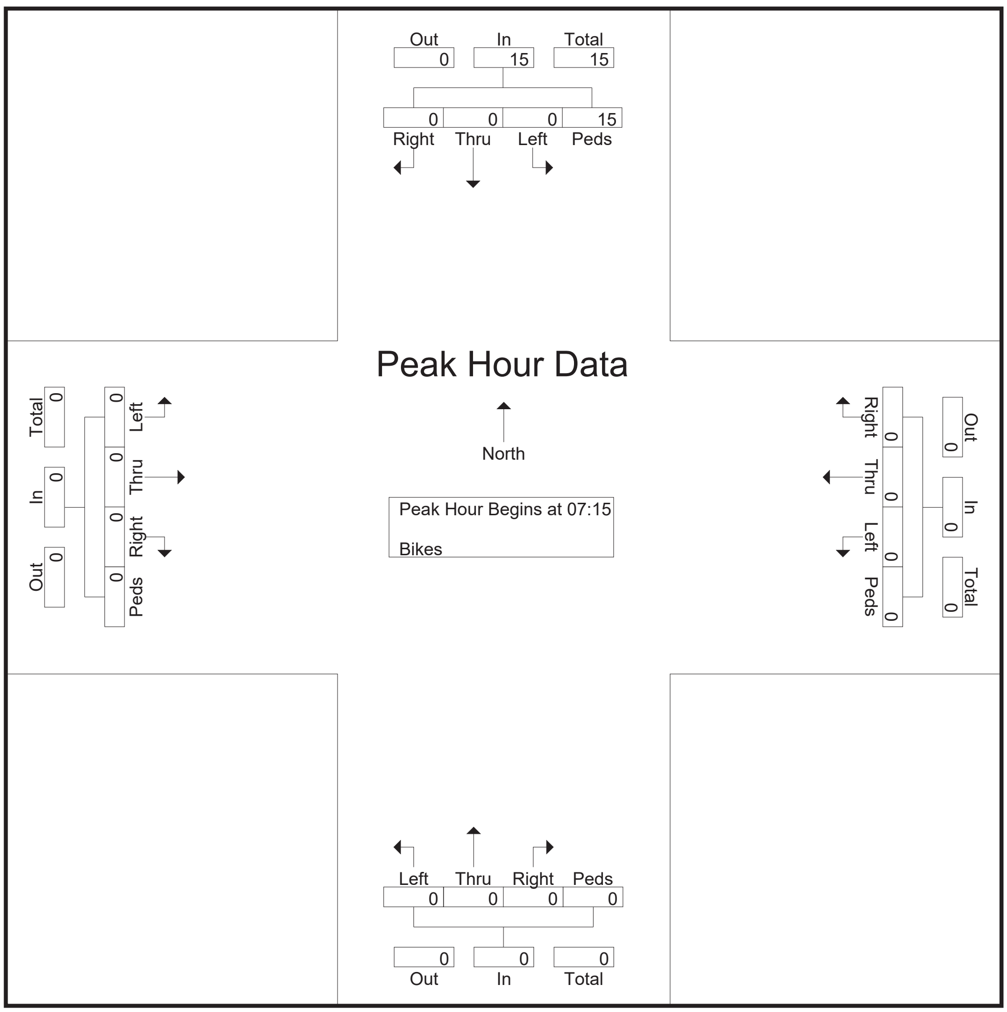


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018
Page No : 3

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 08:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | **6** | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **6** |
| 07:45 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:00 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total Volume | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| % App. Total | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .625 | .625 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .625 |



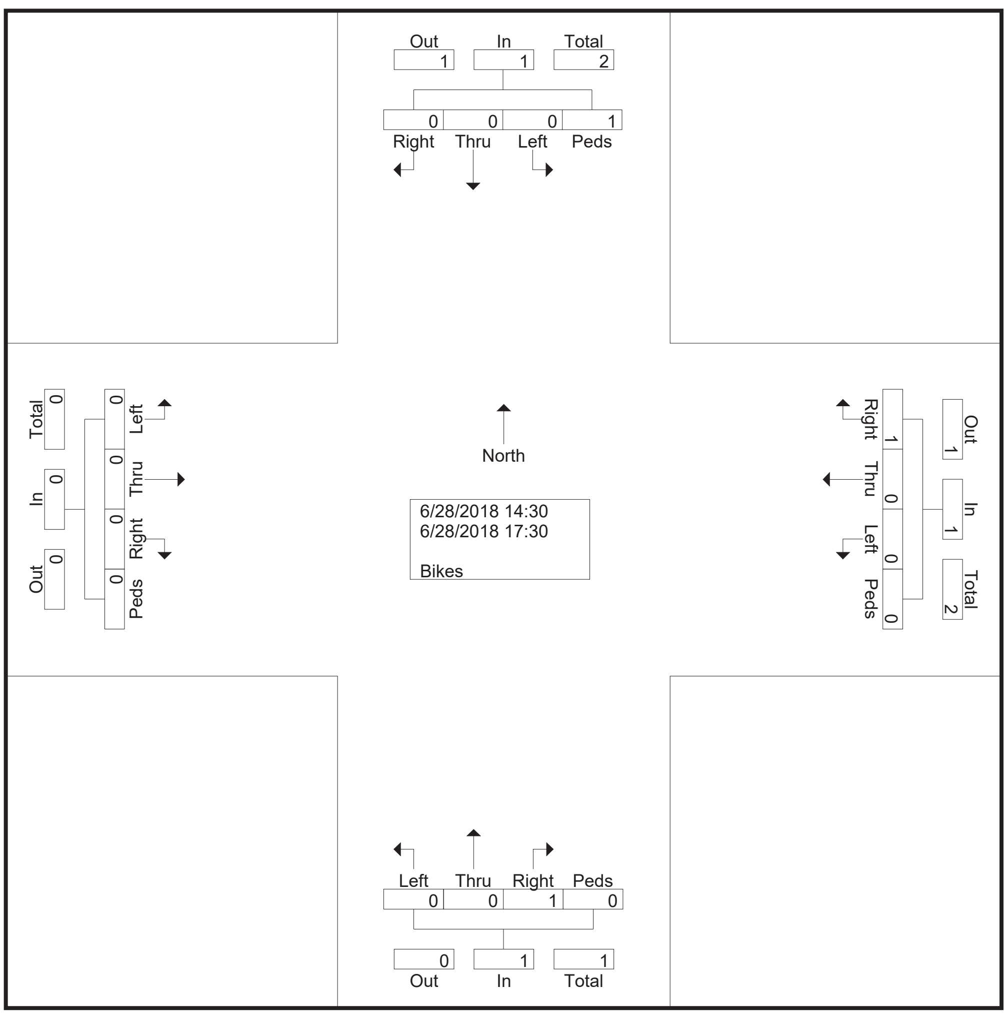
# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 5 (PM)
Start Date: 06/28/2018

File Name : 5_PM
Site Code : 00000005
Start Date : 6/28/2018
Page No : 1

**Groups Printed- Bikes**

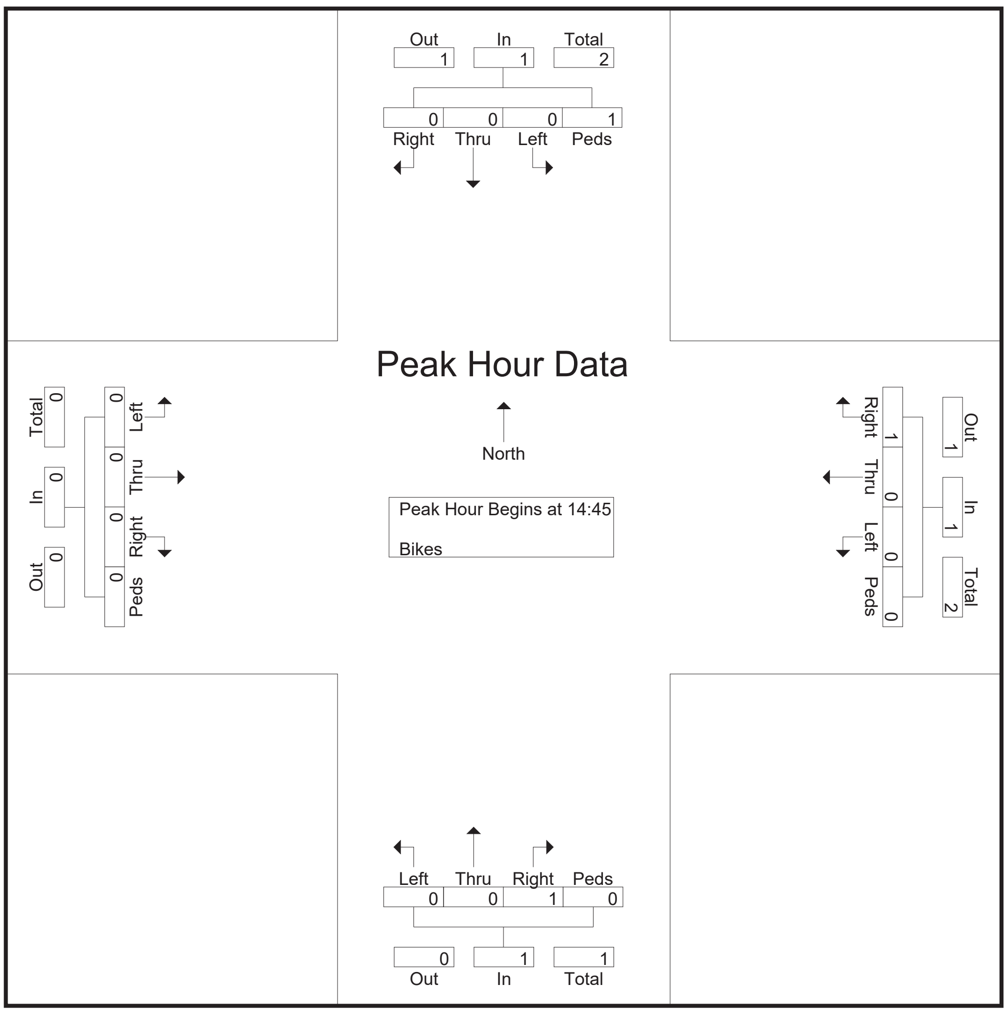
| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| Apprch % | 0 | 0 | 0 | 100 | | 100 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 33.3 | 33.3 | 33.3 | 0 | 0 | 0 | 33.3 | 33.3 | 0 | 0 | 0 | 33.3 | 0 | 0 | 0 | 0 | 0 | |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 5_PM
Site Code : 00000005
Start Date : 6/28/2018
Page No : 2

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 14:30 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:45 | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | **2** |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| % App. Total | 0 | 0 | 0 | 100 | | 100 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .250 | .250 | .250 | .000 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .375 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 5 (AM)
Start Date: 06/28/2018

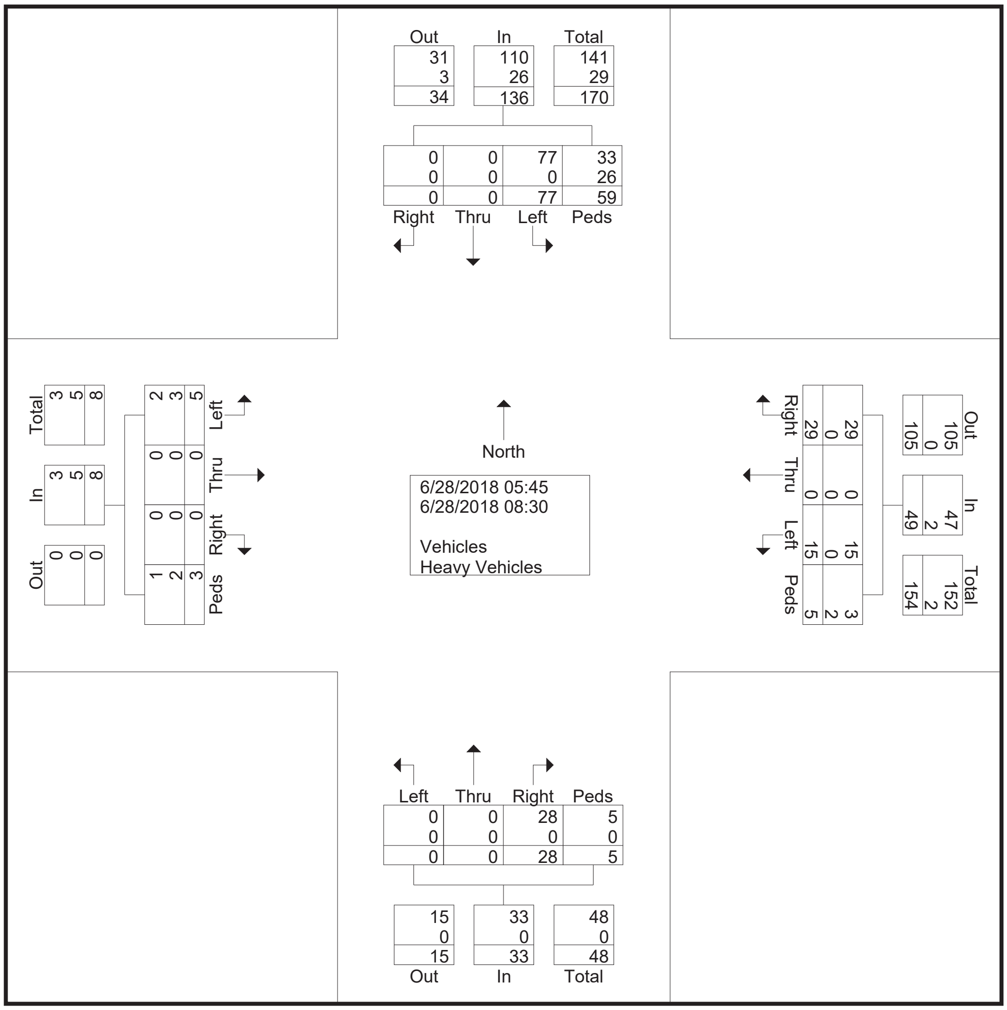
File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018
Page No : 1

**Groups Printed- Vehicles - Heavy Vehicles**

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:45 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 06:00 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 7 |
| 06:15 | 0 | 0 | 8 | 0 | 8 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 11 |
| 06:30 | 0 | 0 | 10 | 1 | 11 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 2 | 3 | 0 | 0 | 2 | 3 | 5 | 21 |
| 06:45 | 0 | 0 | 16 | 3 | 19 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 24 |
| Total | 0 | 0 | 36 | 4 | 40 | 1 | 0 | 1 | 4 | 6 | 4 | 0 | 0 | 5 | 9 | 0 | 0 | 5 | 3 | 8 | 63 |
| 07:00 | 0 | 0 | 17 | 5 | 22 | 0 | 0 | 1 | 0 | 1 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 28 |
| 07:15 | 0 | 0 | 10 | 6 | 16 | 3 | 0 | 1 | 0 | 4 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 23 |
| 07:30 | 0 | 0 | 2 | 5 | 7 | 1 | 0 | 3 | 0 | 4 | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 15 |
| 07:45 | 0 | 0 | 3 | 11 | 14 | 6 | 0 | 2 | 0 | 8 | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 29 |
| Total | 0 | 0 | 32 | 27 | 59 | 10 | 0 | 7 | 0 | 17 | 19 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 95 |
| 08:00 | 0 | 0 | 1 | 4 | 5 | 4 | 0 | 3 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 13 |
| 08:15 | 0 | 0 | 5 | 13 | 18 | 8 | 0 | 2 | 0 | 10 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 31 |
| 08:30 | 0 | 0 | 1 | 11 | 12 | 5 | 0 | 2 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 20 |
| Grand Total | 0 | 0 | 77 | 59 | 136 | 29 | 0 | 15 | 5 | 49 | 28 | 0 | 0 | 5 | 33 | 0 | 0 | 5 | 3 | 8 | 226 |
| Apprch % | 0 | 0 | 56.6 | 43.4 | | 59.2 | 0 | 30.6 | 10.2 | | 84.8 | 0 | 0 | 15.2 | | 0 | 0 | 62.5 | 37.5 | | |
| Total % | 0 | 0 | 34.1 | 26.1 | 60.2 | 12.8 | 0 | 6.6 | 2.2 | 21.7 | 12.4 | 0 | 0 | 2.2 | 14.6 | 0 | 0 | 2.2 | 1.3 | 3.5 | |
| Vehicles | 0 | 0 | 77 | 33 | 110 | 29 | 0 | 15 | 3 | 47 | 28 | 0 | 0 | 5 | 33 | 0 | 0 | 2 | 1 | 3 | 193 |
| % Vehicles | 0 | 0 | 100 | 55.9 | 80.9 | 100 | 0 | 100 | 60 | 95.9 | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 40 | 33.3 | 37.5 | 85.4 |
| Heavy Vehicles | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 5 | 33 |
| % Heavy Vehicles | 0 | 0 | 0 | 44.1 | 19.1 | 0 | 0 | 0 | 40 | 4.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 66.7 | 62.5 | 14.6 |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018

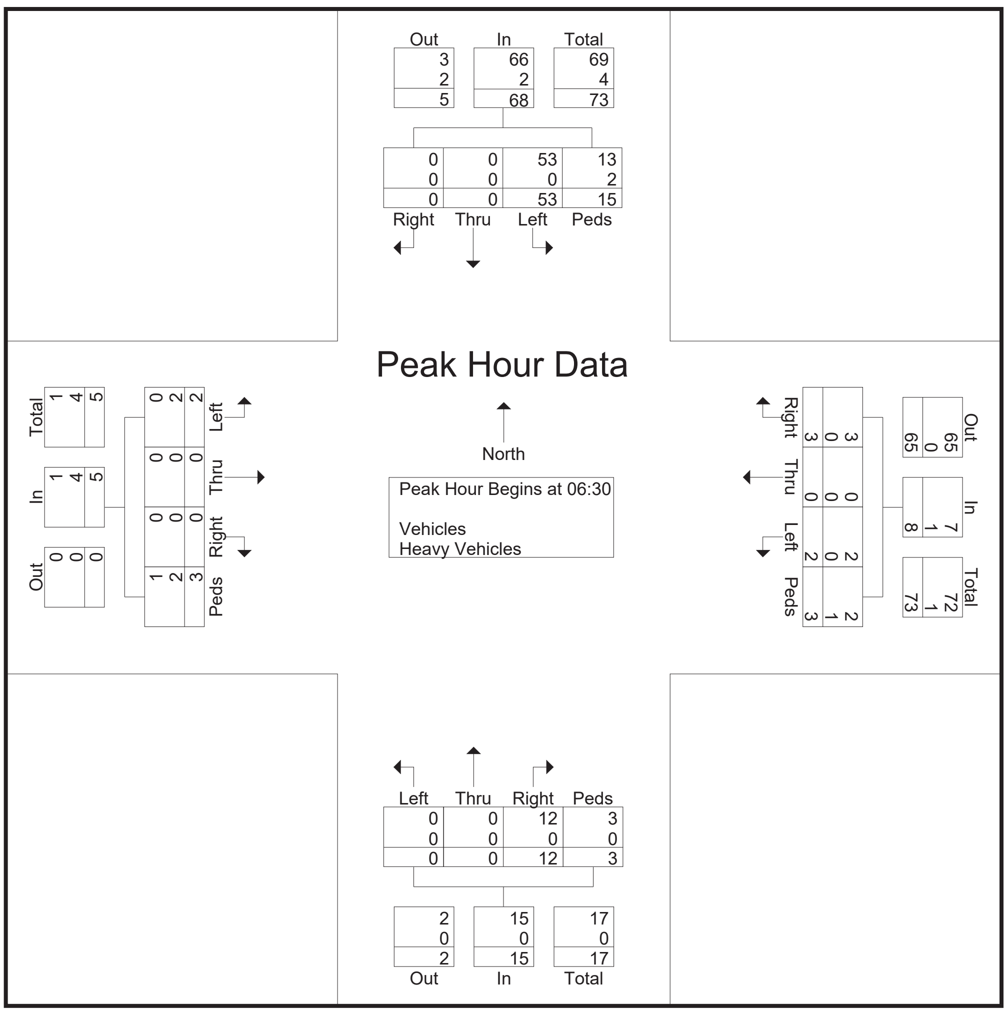



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_am
Site Code : 00000005
Start Date : 6/28/2018


| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 08:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:30 | | | | | | | | | | | | | | | | | | | | | |
| 06:30 | 0 | 0 | 10 | 1 | 11 | 0 | 0 | 0 | **2** | 2 | 1 | 0 | 0 | **2** | 3 | 0 | 0 | **2** | **3** | **5** | 21 |
| 06:45 | 0 | 0 | 16 | 3 | 19 | 0 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 24 |
| 07:00 | 0 | 0 | **17** | 5 | **22** | 0 | 0 | **1** | 0 | 1 | **5** | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | **28** |
| 07:15 | 0 | 0 | 10 | **6** | 16 | **3** | 0 | 1 | 0 | **4** | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 23 |
| Total Volume | 0 | 0 | 53 | 15 | 68 | 3 | 0 | 2 | 3 | 8 | 12 | 0 | 0 | 3 | 15 | 0 | 0 | 2 | 3 | 5 | 96 |
| % App. Total | 0 | 0 | 77.9 | 22.1 | | 37.5 | 0 | 25 | 37.5 | | 80 | 0 | 0 | 20 | | 0 | 0 | 40 | 60 | | |
| PHF | .000 | .000 | .779 | .625 | .773 | .250 | .000 | .500 | .375 | .500 | .600 | .000 | .000 | .375 | .750 | .000 | .000 | .250 | .250 | .250 | .857 |
| Vehicles | 0 | 0 | 53 | 13 | 66 | 3 | 0 | 2 | 2 | 7 | 12 | 0 | 0 | 3 | 15 | 0 | 0 | 0 | 1 | 1 | 89 |
| % Vehicles | 0 | 0 | 100 | 86.7 | 97.1 | 100 | 0 | 100 | 66.7 | 87.5 | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 33.3 | 20.0 | 92.7 |
| Heavy Vehicles | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 | 7 |
| % Heavy Vehicles | 0 | 0 | 0 | 13.3 | 2.9 | 0 | 0 | 0 | 33.3 | 12.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 66.7 | 80.0 | 7.3 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 5 (PM)
Start Date: 06/28/2018

File Name : 5_PM
Site Code : 00000005
Start Date : 6/28/2018
Page No : 1

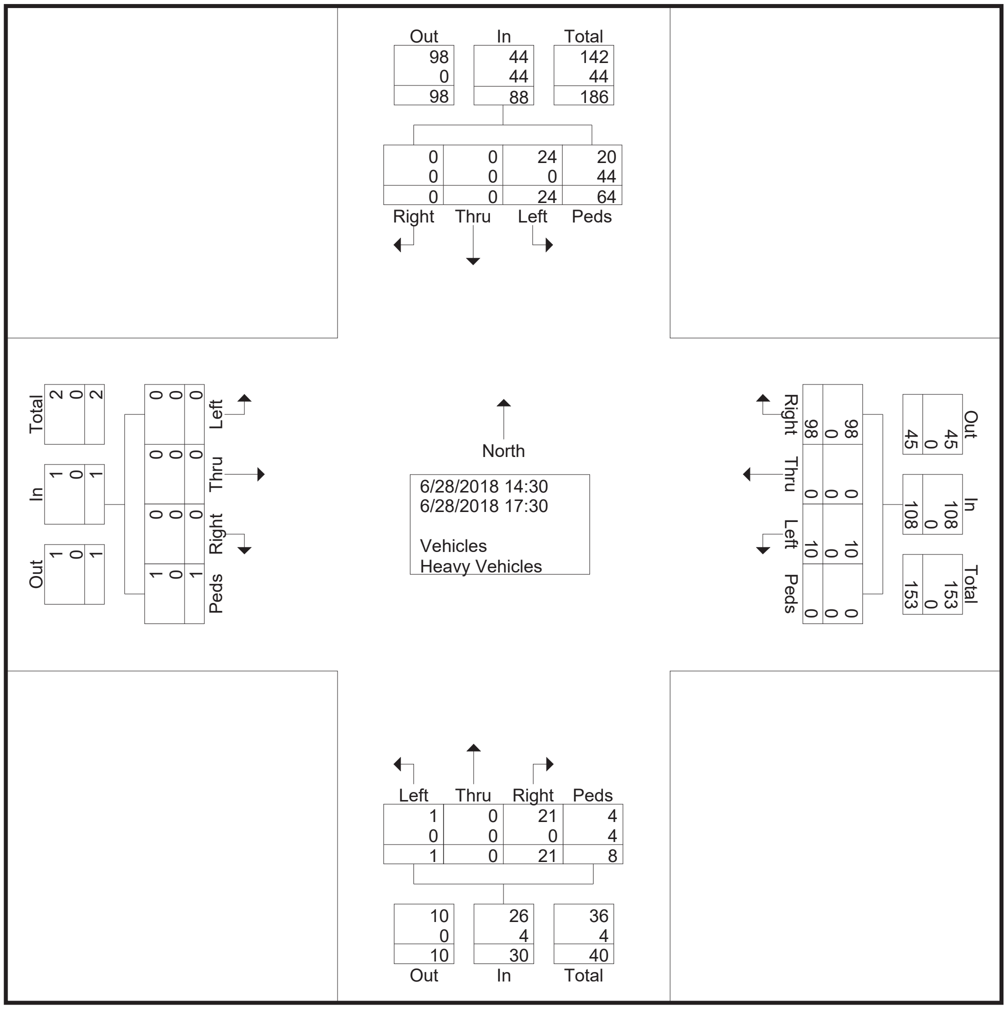
**Groups Printed- Vehicles - Heavy Vehicles**

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 14:30 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 14:45 | 0 | 0 | 2 | 1 | 3 | 2 | 0 | 1 | 0 | 3 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 12 |
| Total | 0 | 0 | 6 | 1 | 7 | 2 | 0 | 1 | 0 | 3 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 16 |
| | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 5 | 9 | 14 | 6 | 0 | 1 | 0 | 7 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 26 |
| 15:15 | 0 | 0 | 6 | 3 | 9 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 15:30 | 0 | 0 | 3 | 9 | 12 | 9 | 0 | 1 | 0 | 10 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 27 |
| 15:45 | 0 | 0 | 1 | 4 | 5 | 33 | 0 | 2 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| Total | 0 | 0 | 15 | 25 | 40 | 54 | 0 | 4 | 0 | 58 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 108 |
| | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 0 | 0 | 1 | 7 | 8 | 8 | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 17 |
| 16:15 | 0 | 0 | 0 | 2 | 2 | 16 | 0 | 4 | 0 | 20 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 23 |
| 16:30 | 0 | 0 | 0 | 5 | 5 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 16:45 | 0 | 0 | 0 | 3 | 3 | 1 | 0 | 1 | 0 | 2 | 2 | 0 | 1 | 8 | 11 | 0 | 0 | 0 | 1 | 1 | 17 |
| Total | 0 | 0 | 1 | 17 | 18 | 28 | 0 | 5 | 0 | 33 | 4 | 0 | 1 | 8 | 13 | 0 | 0 | 0 | 1 | 1 | 65 |
| | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| 17:15 | 0 | 0 | 0 | 8 | 8 | 9 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 17:30 | 0 | 0 | 2 | 10 | 12 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| Grand Total | 0 | 0 | 24 | 64 | 88 | 98 | 0 | 10 | 0 | 108 | 21 | 0 | 1 | 8 | 30 | 0 | 0 | 0 | 1 | 1 | 227 |
| Apprch % | 0 | 0 | 27.3 | 72.7 | | 90.7 | 0 | 9.3 | 0 | | 70 | 0 | 3.3 | 26.7 | | 0 | 0 | 0 | 100 | | |
| Total % | 0 | 0 | 10.6 | 28.2 | 38.8 | 43.2 | 0 | 4.4 | 0 | 47.6 | 9.3 | 0 | 0.4 | 3.5 | 13.2 | 0 | 0 | 0 | 0.4 | 0.4 | |
| Vehicles | 0 | 0 | 24 | 20 | 44 | 98 | 0 | 10 | 0 | 108 | 21 | 0 | 1 | 4 | 26 | 0 | 0 | 0 | 1 | 1 | 179 |
| % Vehicles | 0 | 0 | 100 | 31.2 | 50 | 100 | 0 | 100 | 0 | 100 | 100 | 0 | 100 | 50 | 86.7 | 0 | 0 | 0 | 100 | 100 | 78.9 |
| Heavy Vehicles | 0 | 0 | 0 | 44 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 48 |
| % Heavy Vehicles | 0 | 0 | 0 | 68.8 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 13.3 | 0 | 0 | 0 | 0 | 0 | 21.1 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_PM
Site Code : 00000005
Start Date : 6/28/2018
Page No : 2

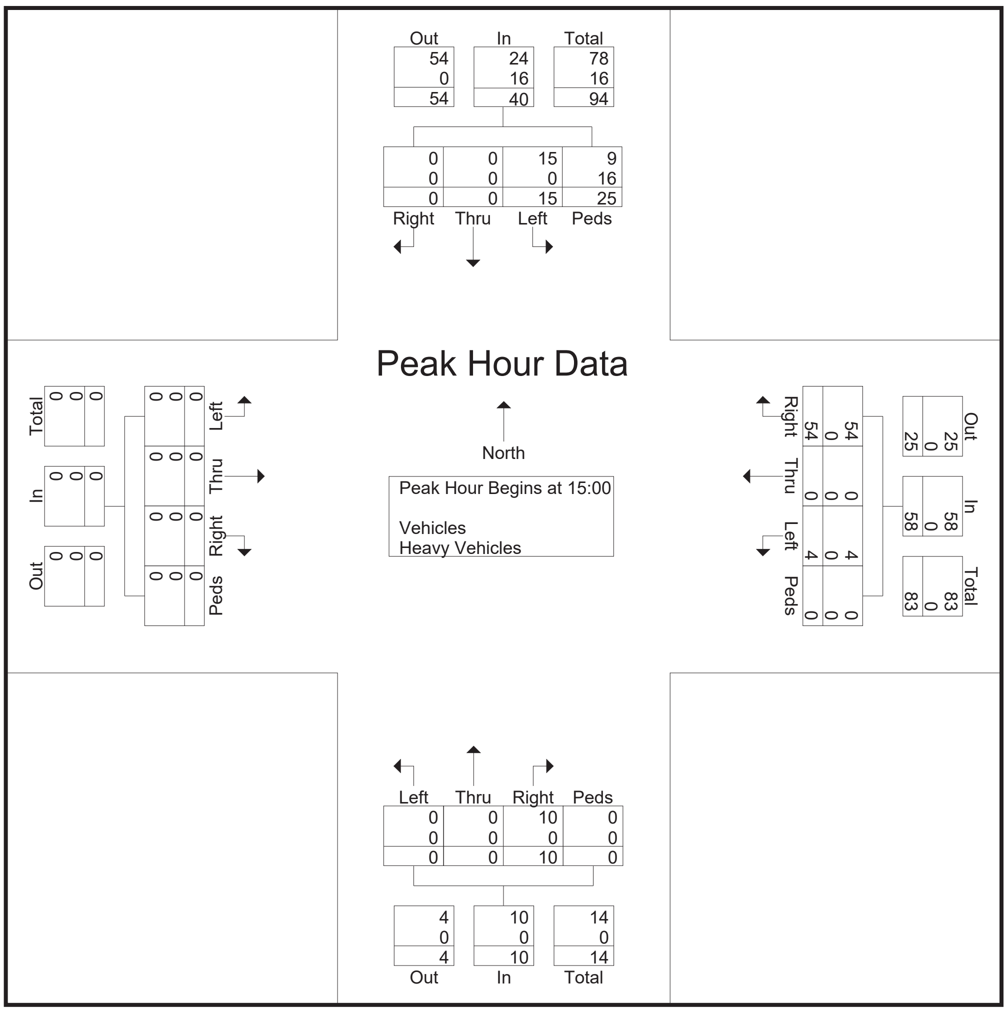


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 5_PM
Site Code : 00000005
Start Date : 6/28/2018
Page No : 3

| | From North | | | | | From East | | | | | From South | | | | | From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 14:30 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 5 | **9** | **14** | 6 | 0 | 1 | 0 | 7 | **5** | 0 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 26 |
| 15:15 | 0 | 0 | **6** | 3 | 9 | 6 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| 15:30 | 0 | 0 | 3 | 9 | 12 | 9 | 0 | 1 | 0 | 10 | 5 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 27 |
| 15:45 | 0 | 0 | 1 | 4 | 5 | **33** | 0 | **2** | 0 | **35** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **40** |
| Total Volume | 0 | 0 | 15 | 25 | 40 | 54 | 0 | 4 | 0 | 58 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 108 |
| % App. Total | 0 | 0 | 37.5 | 62.5 | | 93.1 | 0 | 6.9 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .625 | .694 | .714 | .409 | .000 | .500 | .000 | .414 | .500 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .675 |
| Vehicles | 0 | 0 | 15 | 9 | 24 | 54 | 0 | 4 | 0 | 58 | 10 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 92 |
| % Vehicles | 0 | 0 | 100 | 36.0 | 60.0 | 100 | 0 | 100 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 85.2 |
| Heavy Vehicles | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| % Heavy Vehicles | 0 | 0 | 0 | 64.0 | 40.0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14.8 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 6
Start Date: 06/27/2018

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 1

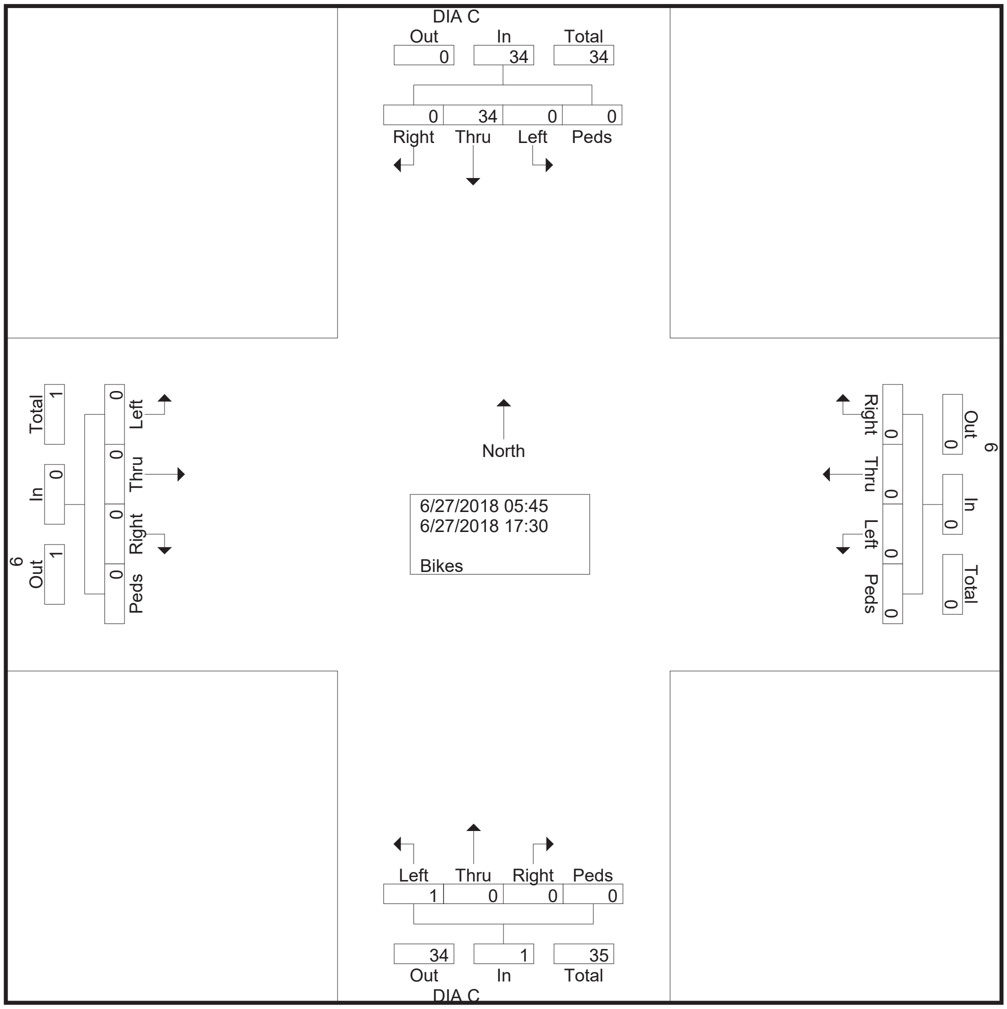
**Groups Printed- Bikes**

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 07:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 08:00 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 08:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 15:00 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15:15 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:45 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 0 | 13 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 17:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 34 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 35 |
| Apprch % | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 97.1 | 0 | 0 | 97.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 0 | 2.9 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

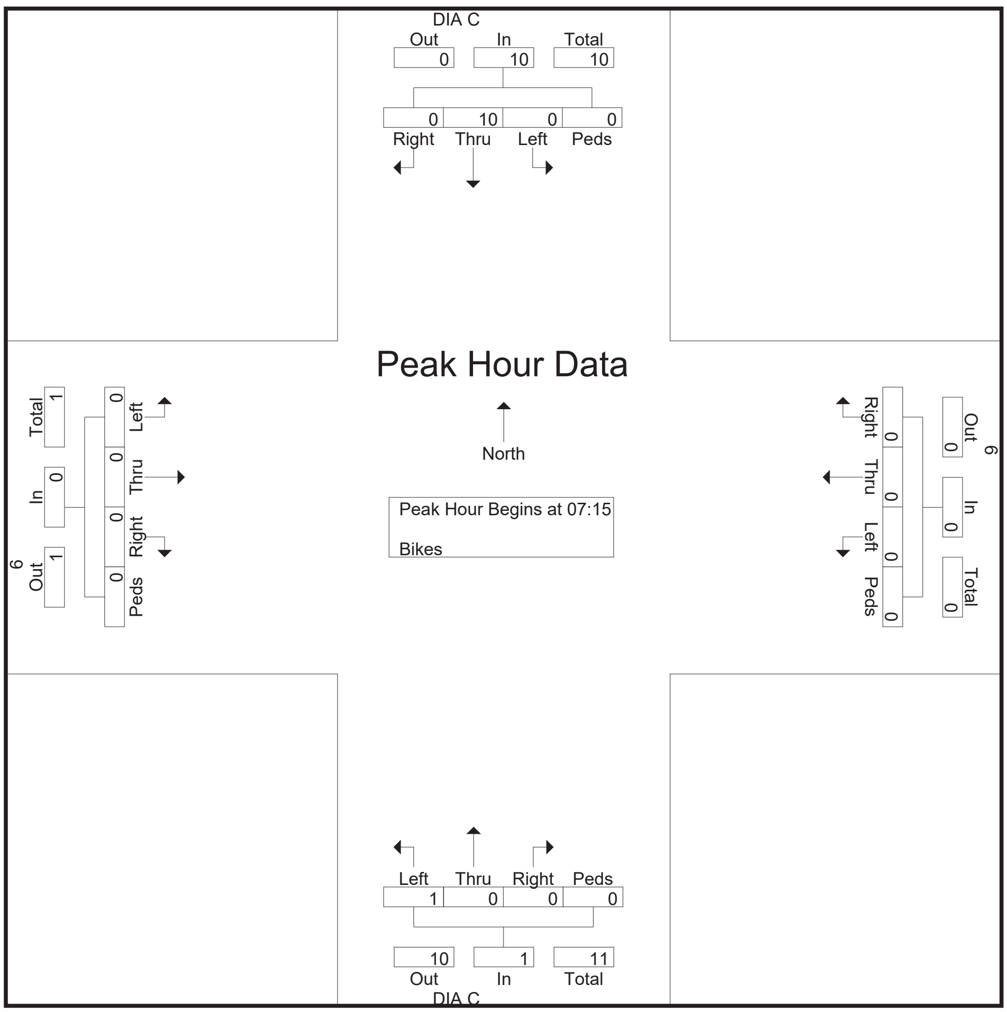
File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 3

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 | 0 | **6** | 0 | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **6** |
| 07:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:00 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 11 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .417 | .000 | .000 | .417 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .458 |

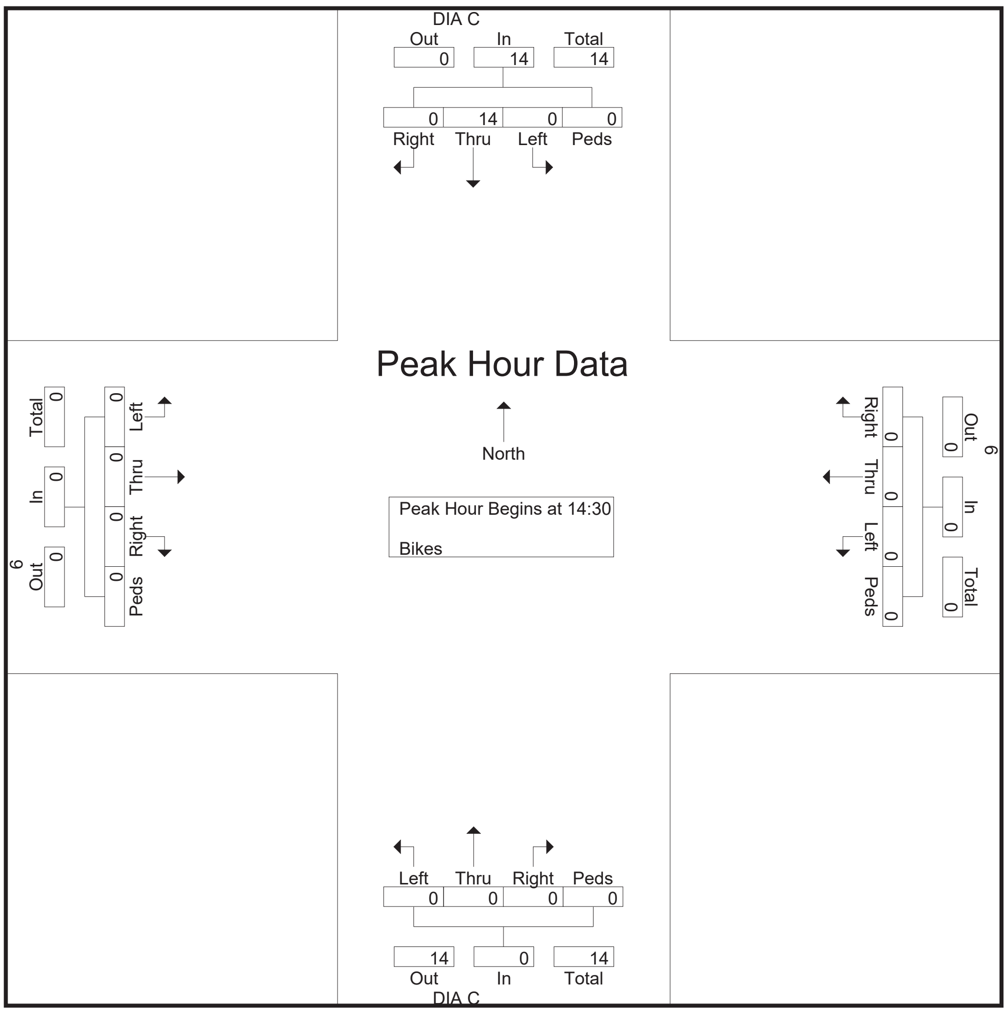


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 4

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 14:30 | | | | | | | | | | | | | | | | | | | | | |
| 14:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14:45 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 15:00 | 0 | **8** | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **8** |
| 15:15 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 14 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .438 | .000 | .000 | .438 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .438 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 6
Start Date: 06/27/2018

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 1

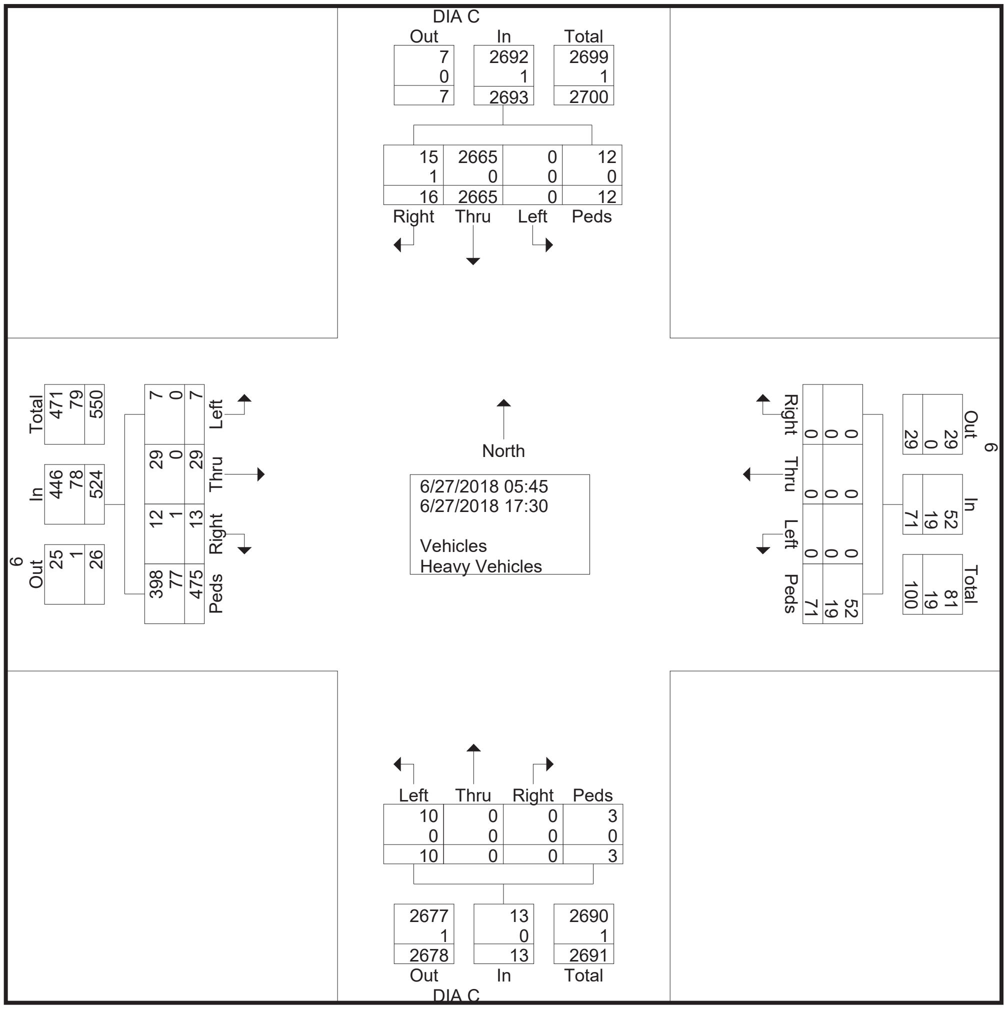
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:45 | 1 | 115 | 0 | 0 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 117 |
| Total | 1 | 115 | 0 | 0 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 117 |
| 06:00 | 0 | 157 | 0 | 4 | 161 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 167 |
| 06:15 | 3 | 173 | 0 | 0 | 176 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 0 | 10 | 12 | 193 |
| 06:30 | 2 | 244 | 0 | 0 | 246 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 12 | 13 | 262 |
| 06:45 | 0 | 224 | 0 | 0 | 224 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 11 | 236 |
| Total | 5 | 798 | 0 | 4 | 807 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 4 | 0 | 0 | 36 | 40 | 858 |
| 07:00 | 1 | 228 | 0 | 0 | 229 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 245 |
| 07:15 | 2 | 191 | 0 | 0 | 193 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 24 | 26 | 222 |
| 07:30 | 0 | 213 | 0 | 0 | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 23 | 23 | 237 |
| 07:45 | 2 | 193 | 0 | 0 | 195 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 2 | 0 | 2 | 4 | 0 | 1 | 33 | 38 | 238 |
| Total | 5 | 825 | 0 | 0 | 830 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 4 | 0 | 4 | 5 | 0 | 2 | 95 | 102 | 942 |
| 08:00 | 0 | 162 | 0 | 0 | 162 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 1 | 16 | 46 | 208 |
| 08:15 | 2 | 116 | 0 | 0 | 118 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 38 | 38 | 162 |
| 08:30 | 0 | 128 | 0 | 1 | 129 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 31 | 33 | 168 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 2 | 406 | 0 | 1 | 409 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 2 | 1 | 3 | 2 | 29 | 1 | 85 | 117 | 538 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 49 | 0 | 0 | 49 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 19 | 71 |
| Total | 0 | 49 | 0 | 0 | 49 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 19 | 71 |
| 15:00 | 0 | 47 | 0 | 1 | 48 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 33 | 35 | 91 |
| 15:15 | 0 | 64 | 0 | 0 | 64 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 14 | 79 |
| 15:30 | 0 | 46 | 0 | 3 | 49 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 18 | 71 |
| 15:45 | 1 | 65 | 0 | 0 | 66 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 39 | 107 |
| Total | 1 | 222 | 0 | 4 | 227 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 103 | 106 | 348 |
| 16:00 | 0 | 47 | 0 | 0 | 47 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 26 | 26 | 78 |
| 16:15 | 0 | 51 | 0 | 0 | 51 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 21 | 21 | 74 |
| 16:30 | 0 | 26 | 0 | 1 | 27 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 18 | 49 |
| 16:45 | 1 | 36 | 0 | 2 | 39 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 19 | 63 |
| Total | 1 | 160 | 0 | 3 | 164 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 84 | 84 | 264 |
| 17:00 | 1 | 42 | 0 | 0 | 43 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 24 | 25 | 69 |
| 17:15 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 15 | 16 | 46 |
| 17:30 | 0 | 24 | 0 | 0 | 24 | 0 | 0 | 0 | 9 | 9 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 14 | 14 | 48 |
| Grand Total | 16 | 2665 | 0 | 12 | 2693 | 0 | 0 | 0 | 71 | 71 | 0 | 0 | 10 | 3 | 13 | 13 | 29 | 7 | 475 | 524 | 3301 |
| Apprch % | 0.6 | 99 | 0 | 0.4 | | 0 | 0 | 0 | 100 | | 0 | 0 | 76.9 | 23.1 | | 2.5 | 5.5 | 1.3 | 90.6 | | |
| Total % | 0.5 | 80.7 | 0 | 0.4 | 81.6 | 0 | 0 | 0 | 2.2 | 2.2 | 0 | 0 | 0.3 | 0.1 | 0.4 | 0.4 | 0.9 | 0.2 | 14.4 | 15.9 | |
| Vehicles | 15 | 2665 | 0 | 12 | 2692 | 0 | 0 | 0 | 52 | 52 | 0 | 0 | 10 | 3 | 13 | 12 | 29 | 7 | 398 | 446 | 3203 |
| % Vehicles | 93.8 | 100 | 0 | 100 | 100 | 0 | 0 | 0 | 73.2 | 73.2 | 0 | 0 | 100 | 100 | 100 | 92.3 | 100 | 100 | 83.8 | 85.1 | 97 |
| Heavy Vehicles | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 19 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 77 | 78 | 98 |
| % Heavy Vehicles | 6.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26.8 | 26.8 | 0 | 0 | 0 | 0 | 0 | 7.7 | 0 | 0 | 16.2 | 14.9 | 3 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 2

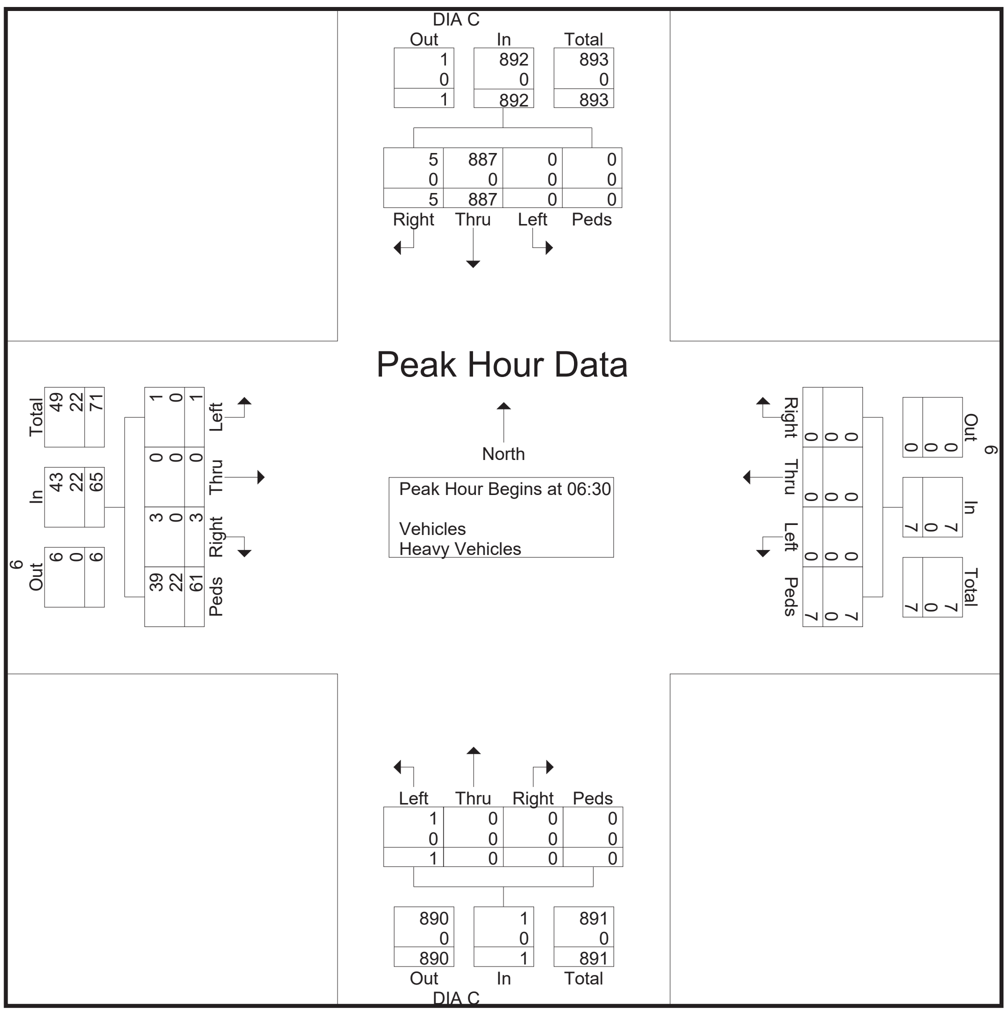


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 3

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:30 | | | | | | | | | | | | | | | | | | | | | |
| 06:30 | **2** | **244** | 0 | 0 | **246** | 0 | 0 | 0 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 12 | 13 | **262** |
| 06:45 | 0 | 224 | 0 | 0 | 224 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 10 | 11 | 236 |
| 07:00 | 1 | 228 | 0 | 0 | 229 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 245 |
| 07:15 | 2 | 191 | 0 | 0 | 193 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | **1** | 0 | **1** | 1 | 0 | **1** | **24** | **26** | 222 |
| Total Volume | 5 | 887 | 0 | 0 | 892 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 61 | 65 | 965 |
| % App. Total | 0.6 | 99.4 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 0 | 100 | 0 | | 4.6 | 0 | 1.5 | 93.8 | | |
| PHF | .625 | .909 | .000 | .000 | .907 | .000 | .000 | .000 | .583 | .583 | .000 | .000 | .250 | .000 | .250 | .750 | .000 | .250 | .635 | .625 | .921 |
| Vehicles | 5 | 887 | 0 | 0 | 892 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 1 | 39 | 43 | 943 |
| % Vehicles | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 100 | 100 | 0 | 100 | 63.9 | 66.2 | 97.7 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 22 | 22 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36.1 | 33.8 | 2.3 |

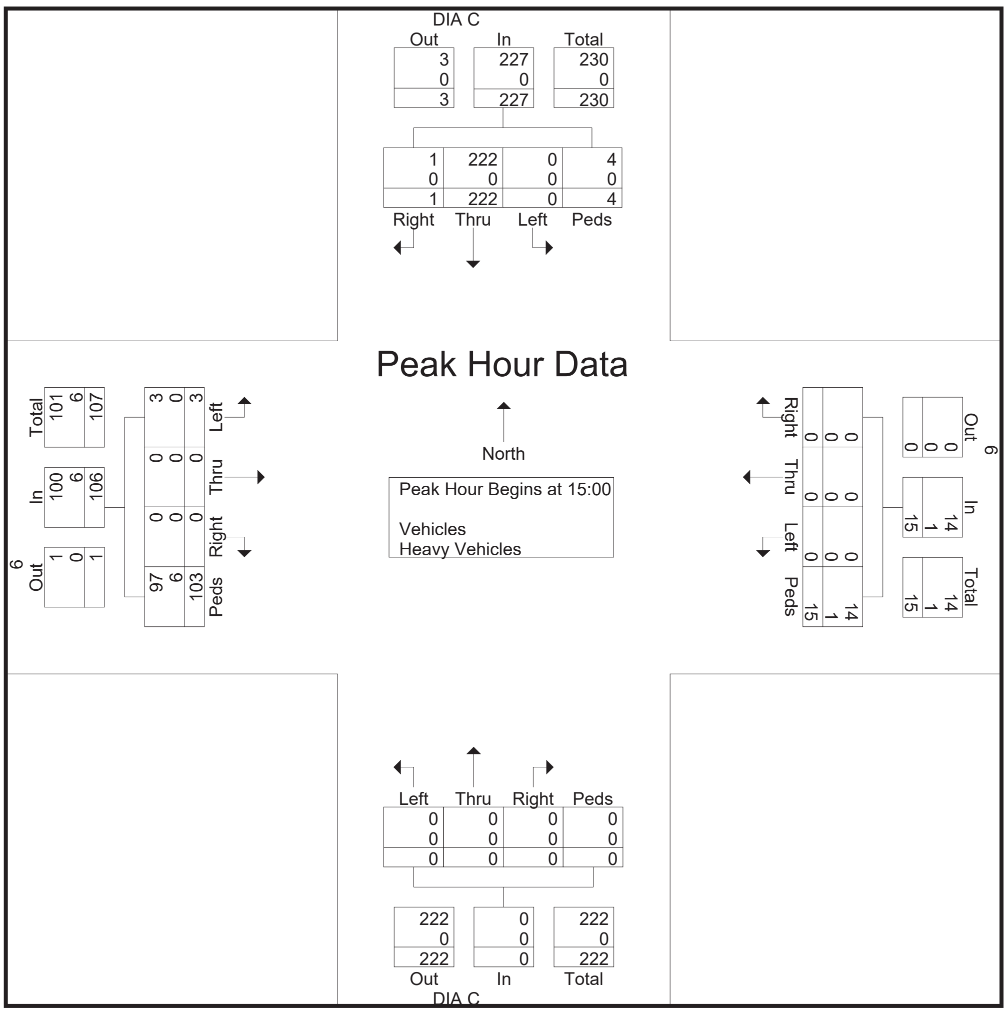


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 6
Site Code : 00000000
Start Date : 6/27/2018
Page No : 4

| | DIA C From North | | | | | 6 From East | | | | | DIA C From South | | | | | 6 From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:30 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 47 | 0 | 1 | 48 | 0 | 0 | 0 | **8** | **8** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 33 | 35 | 91 |
| 15:15 | 0 | 64 | 0 | 0 | 64 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 14 | 79 |
| 15:30 | 0 | 46 | 0 | **3** | 49 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 18 | 71 |
| 15:45 | **1** | **65** | 0 | 0 | **66** | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **39** | **39** | **107** |
| Total Volume | 1 | 222 | 0 | 4 | 227 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 103 | 106 | 348 |
| % App. Total | 0.4 | 97.8 | 0 | 1.8 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 0 | 0 | 2.8 | 97.2 | | |
| PHF | .250 | .854 | .000 | .333 | .860 | .000 | .000 | .000 | .469 | .469 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .375 | .660 | .679 | .813 |
| Vehicles | 1 | 222 | 0 | 4 | 227 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 97 | 100 | 341 |
| % Vehicles | 100 | 100 | 0 | 100 | 100 | 0 | 0 | 0 | 93.3 | 93.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 94.2 | 94.3 | 98.0 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 7 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6.7 | 6.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.8 | 5.7 | 2.0 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7A

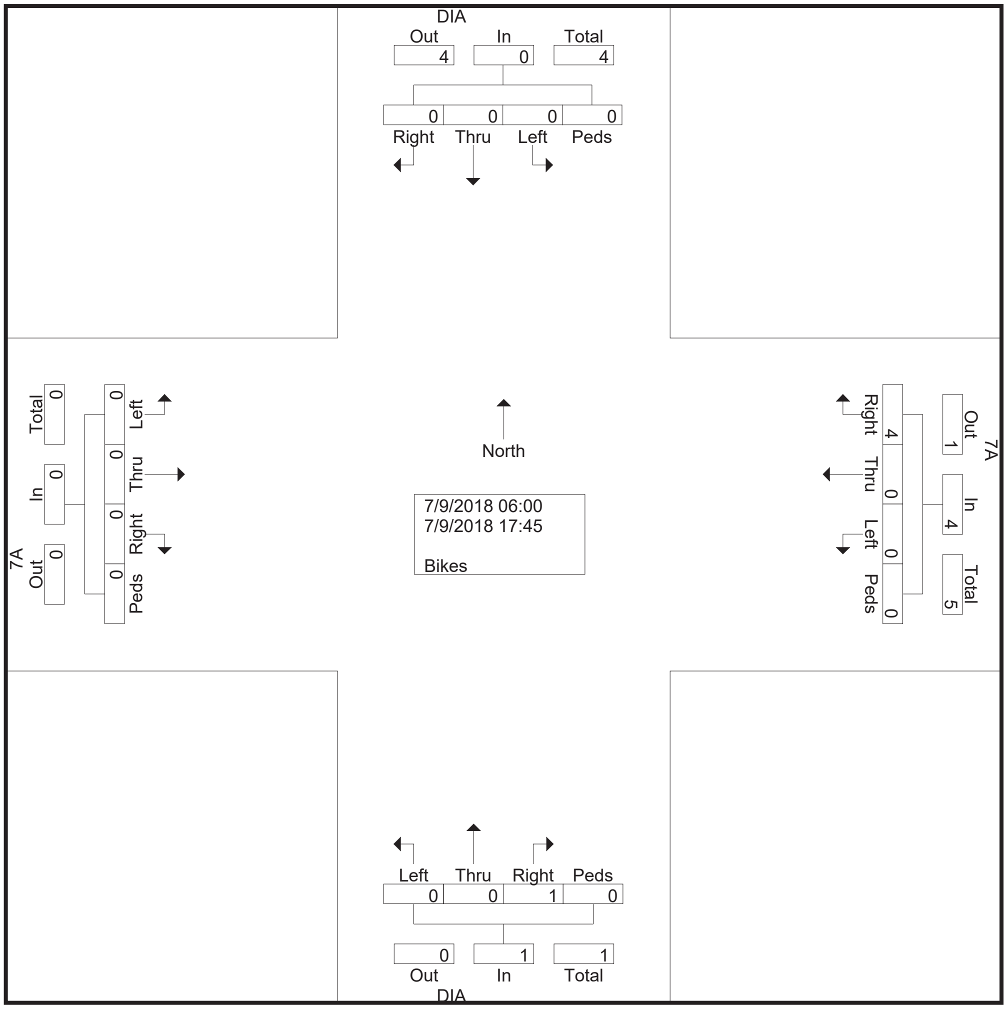
File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| Apprch % | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 80 | 0 | 0 | 0 | 80 | 20 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | |

## Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

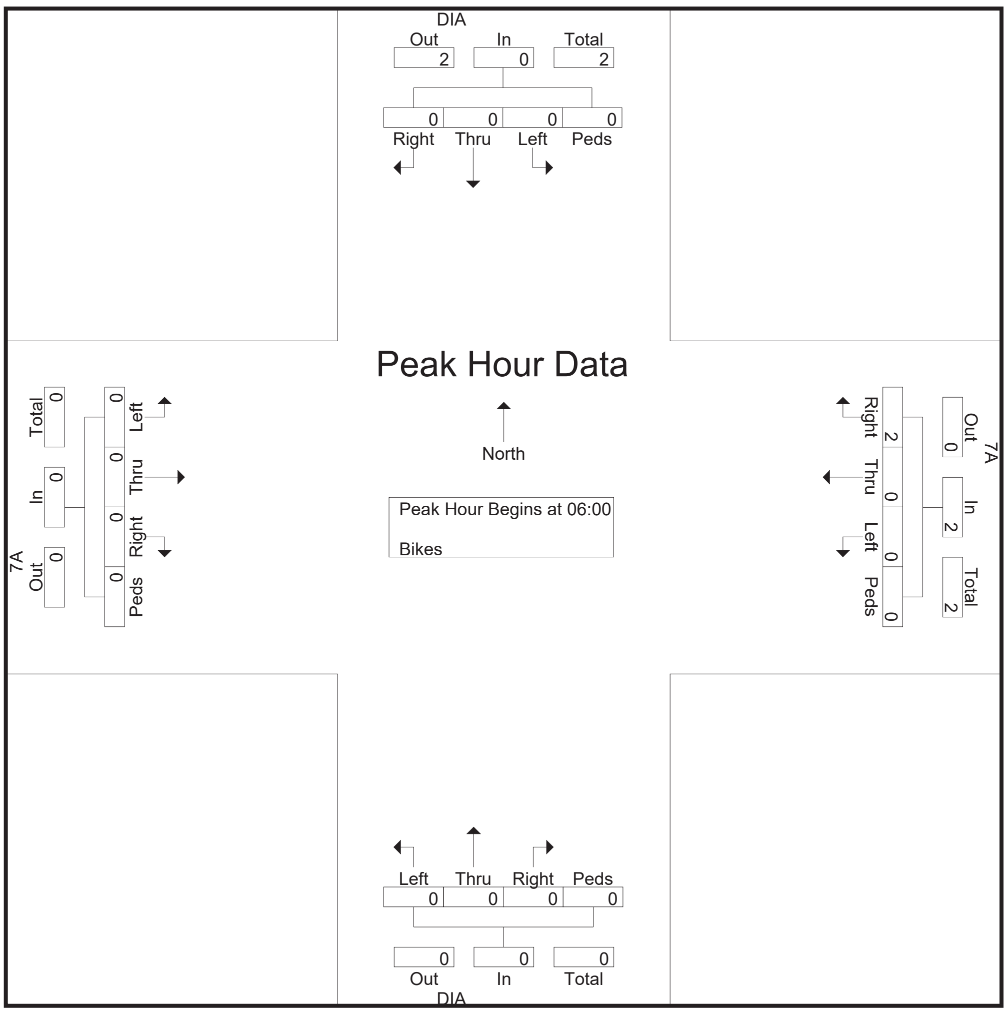
File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 3

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:00 | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 0 | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| % App. Total | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 |

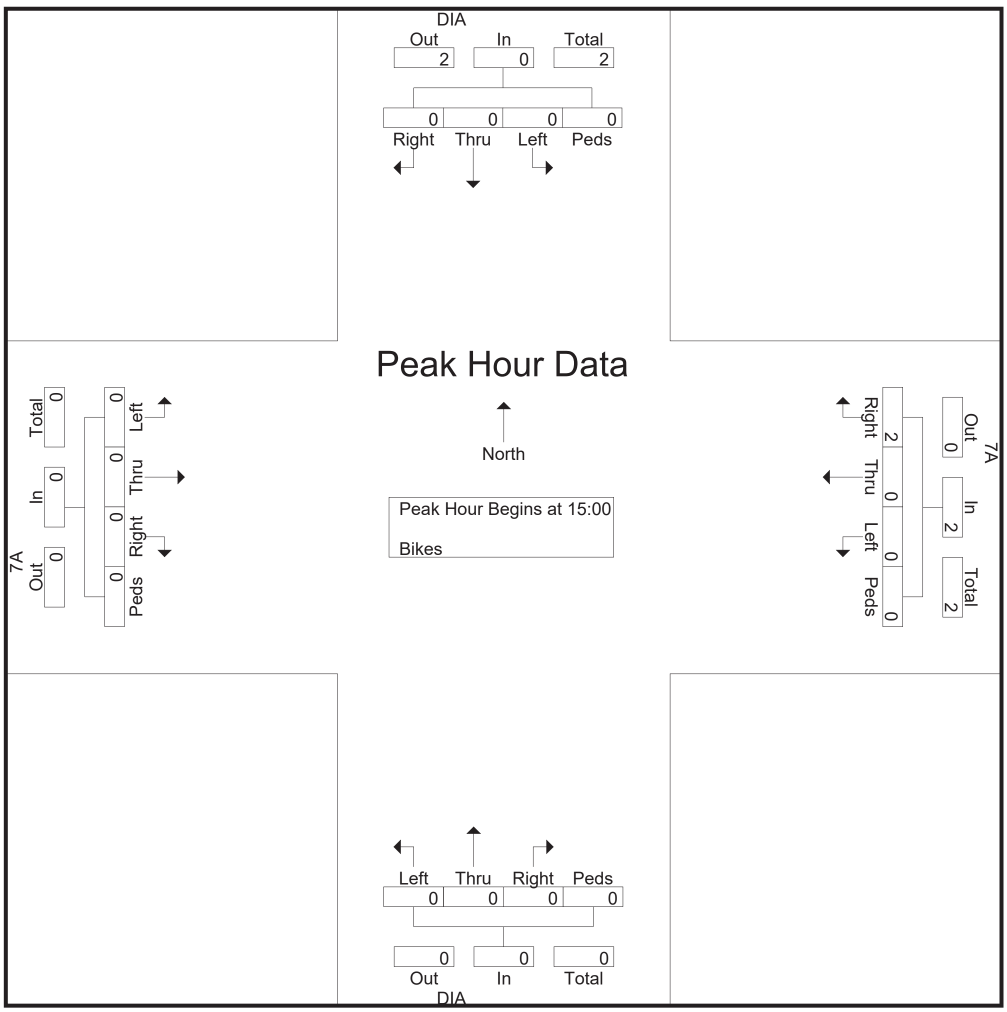


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 4

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| % App. Total | 0 | 0 | 0 | 0 | | 100 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .500 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7A

File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 1

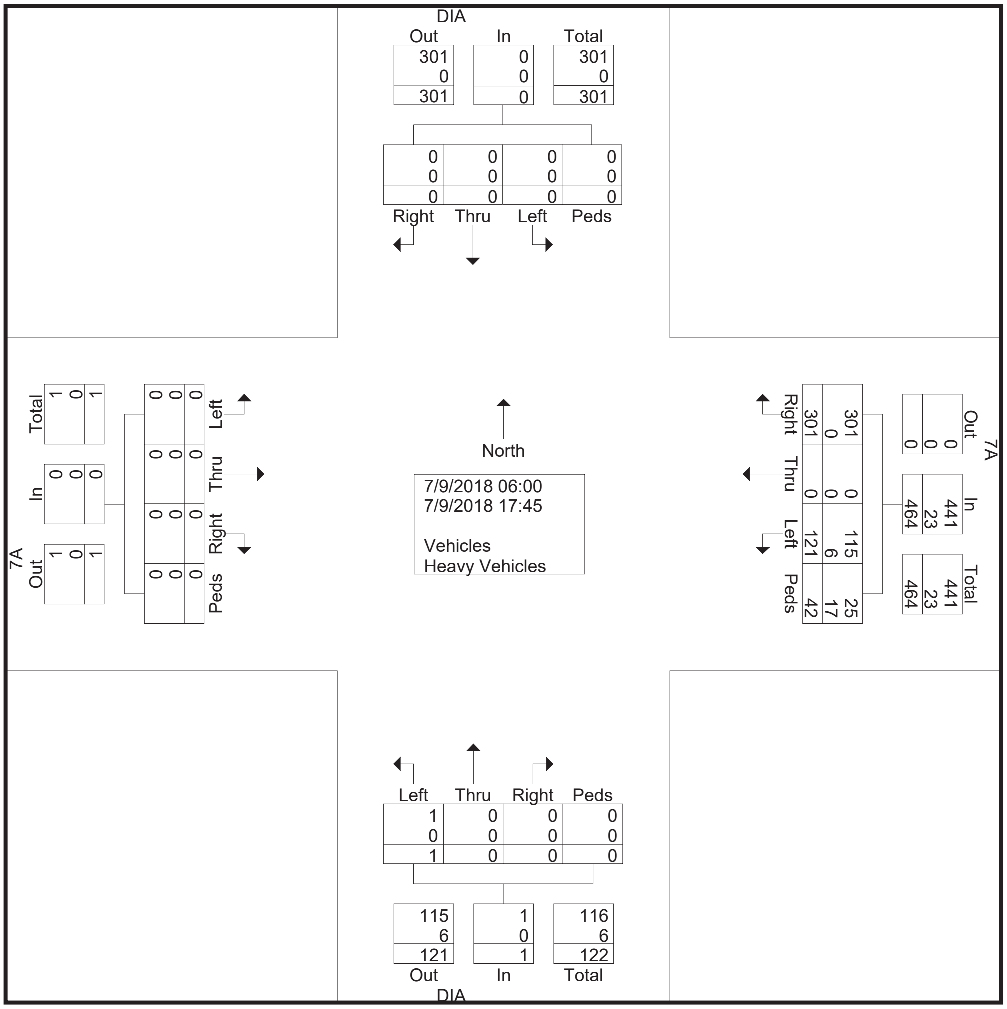
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 6 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 7 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| Total | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 22 | 2 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 5 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 4 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 9 | 1 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| Total | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 24 | 2 | 49 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 4 | 6 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| Total | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 11 | 9 | 36 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 37 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 8 | 0 | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 4 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 4 | 1 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 3 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 |
| Total | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 19 | 1 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 90 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 5 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 4 | 3 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 9 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 44 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 3 | 7 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| Total | 0 | 0 | 0 | 0 | 0 | 90 | 0 | 21 | 10 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 7 | 5 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 8 | 4 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 20 | 0 | 7 | 3 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 2 | 6 | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| Total | 0 | 0 | 0 | 0 | 0 | 88 | 0 | 24 | 18 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 130 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 301 | 0 | 121 | 42 | 464 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 465 |
| Apprch % | 0 | 0 | 0 | 0 | | 64.9 | 0 | 26.1 | 9.1 | | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 64.7 | 0 | 26 | 9 | 99.8 | 0 | 0 | 0.2 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 301 | 0 | 115 | 25 | 441 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 442 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 95 | 59.5 | 95 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 95.1 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 17 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 40.5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.9 |

## Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

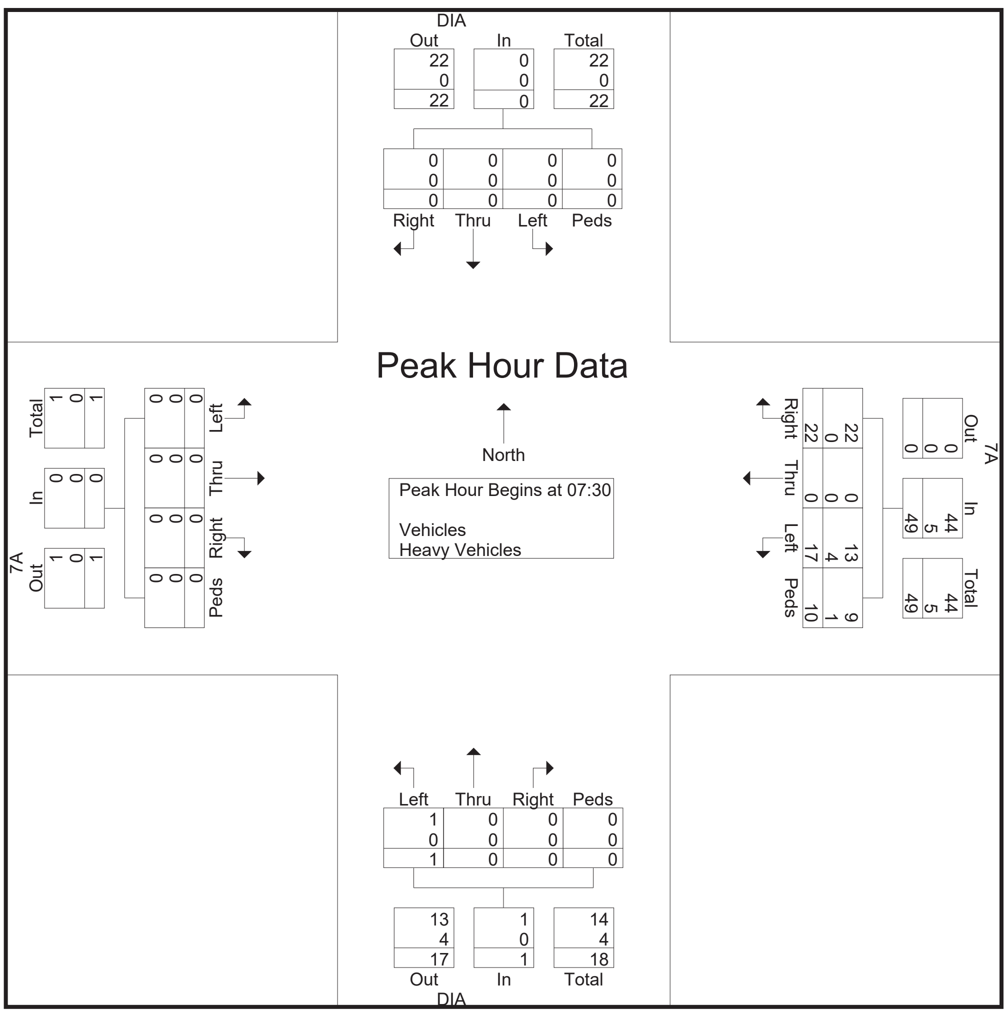
File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 3

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 4 | 1 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | **9** | 1 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 4 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 4 | **6** | **17** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **17** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 17 | 10 | 49 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 50 |
| % App. Total | 0 | 0 | 0 | 0 | | 44.9 | 0 | 34.7 | 20.4 | | 0 | 0 | 100 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .786 | .000 | .472 | .417 | .721 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .000 | .000 | .735 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 13 | 9 | 44 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 45 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 76.5 | 90.0 | 89.8 | 0 | 0 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 90.0 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23.5 | 10.0 | 10.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10.0 |

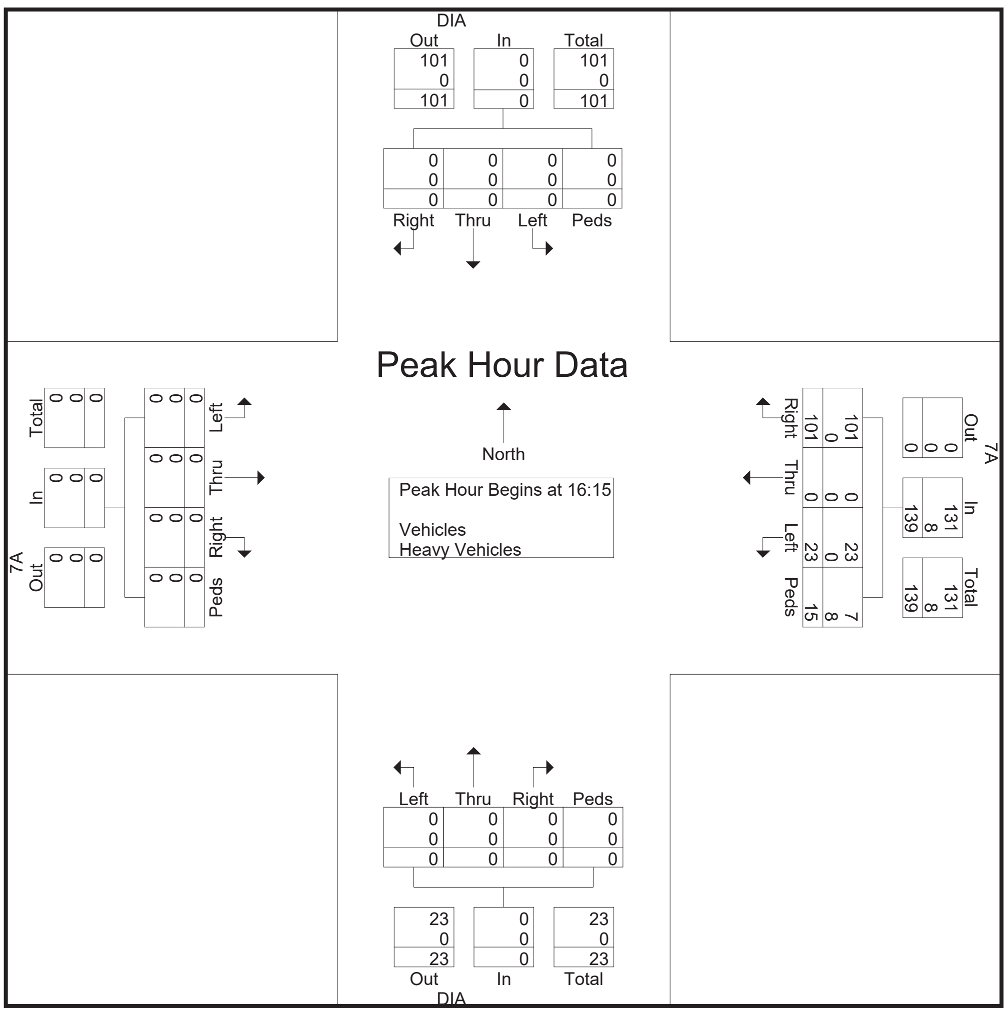


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7A
Site Code : 00000000
Start Date : 7/9/2018
Page No : 4

| | DIA From North | | | | | 7A From East | | | | | DIA From South | | | | | 7A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:15 | | | | | | | | | | | | | | | | | | | | | |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 4 | 3 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | **35** | 0 | **9** | 0 | **44** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **44** |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 3 | **7** | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 7 | 5 | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 101 | 0 | 23 | 15 | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| % App. Total | 0 | 0 | 0 | 0 | | 72.7 | 0 | 16.5 | 10.8 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .721 | .000 | .639 | .536 | .790 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .790 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 101 | 0 | 23 | 7 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 131 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | 46.7 | 94.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 94.2 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 53.3 | 5.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.8 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7B

File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

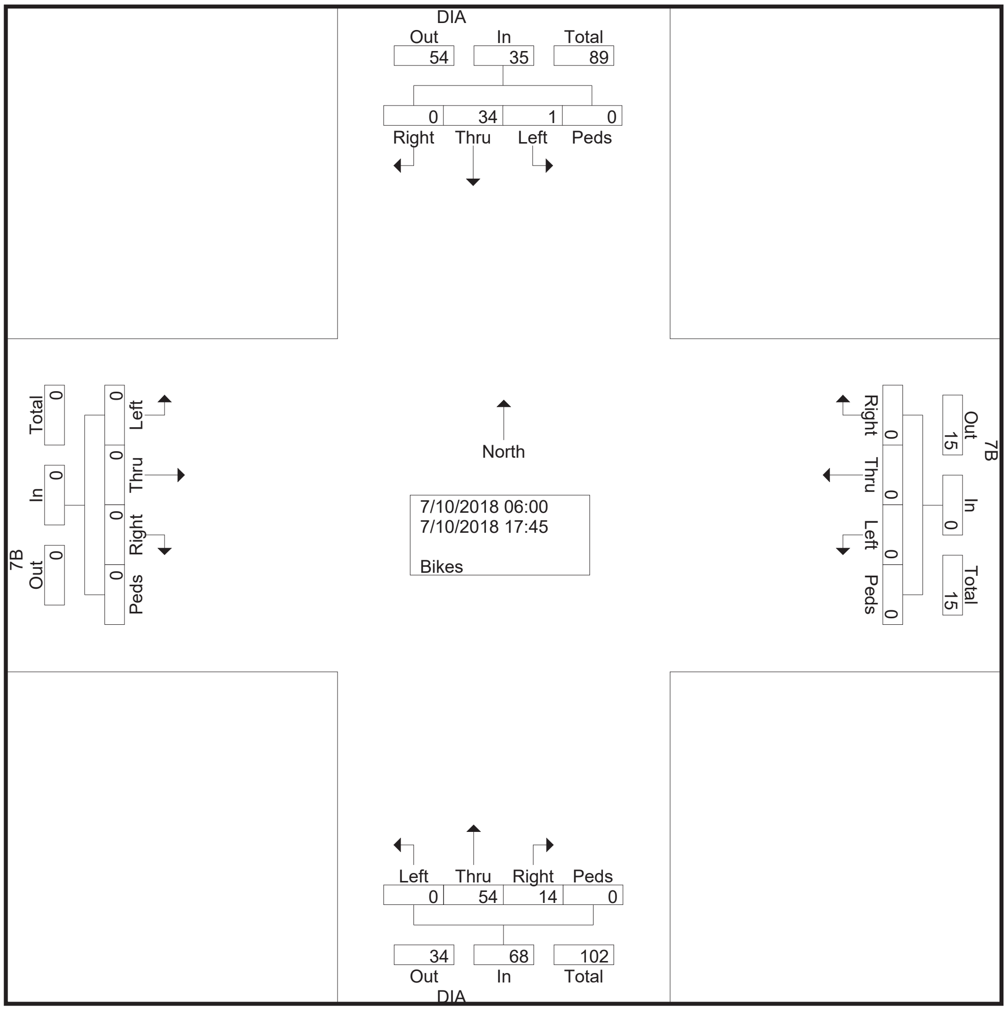
**Groups Printed- Bikes**

| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 06:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 7 |
| 07:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 07:15 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 7 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 14 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 17 |
| 08:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 11 |
| 08:30 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| 08:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 9 |
| Total | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 34 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 10 |
| 15:15 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15:30 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 4 | 14 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 27 |
| 16:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 16:15 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 16:45 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 12 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17:30 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 17:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 6 |
| Grand Total | 0 | 34 | 1 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 14 | 54 | 0 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 103 |
| Apprch % | 0 | 97.1 | 2.9 | 0 | | 0 | 0 | 0 | 0 | | 20.6 | 79.4 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 33 | 1 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 13.6 | 52.4 | 0 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

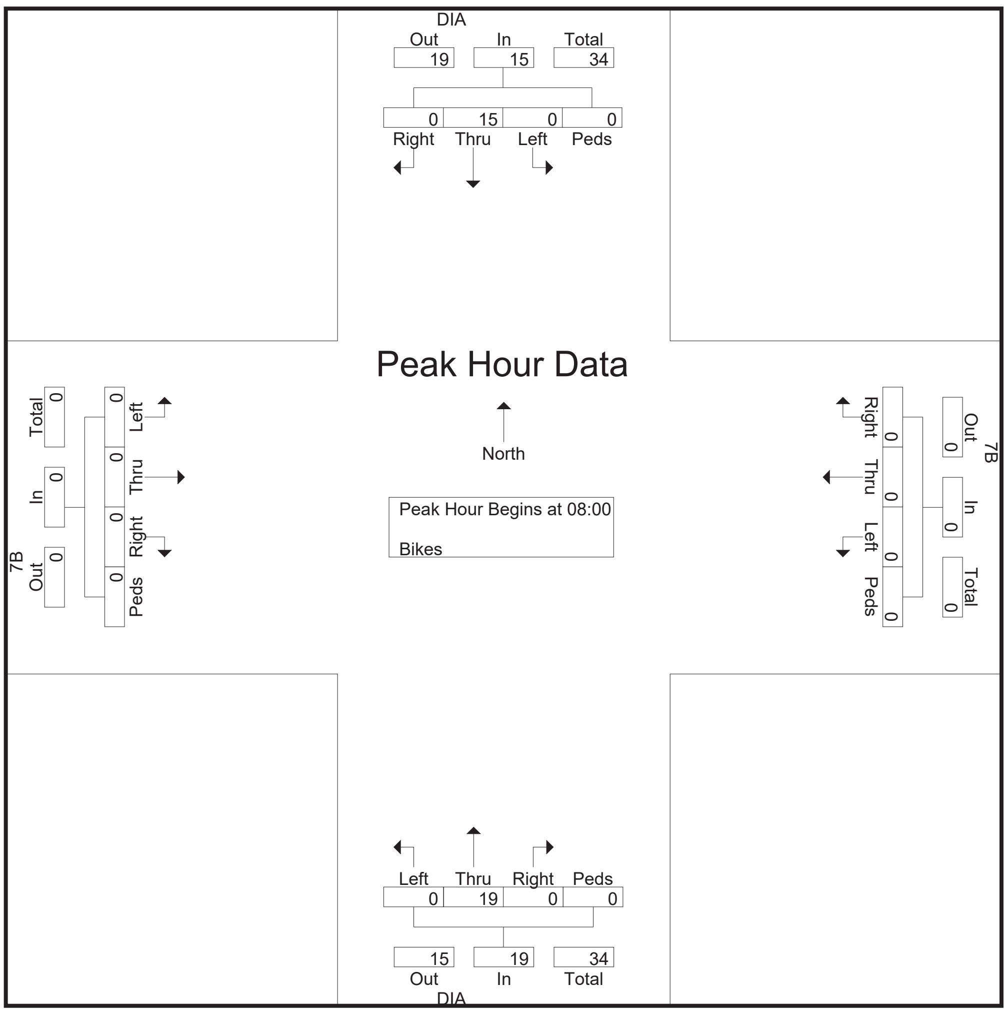
File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

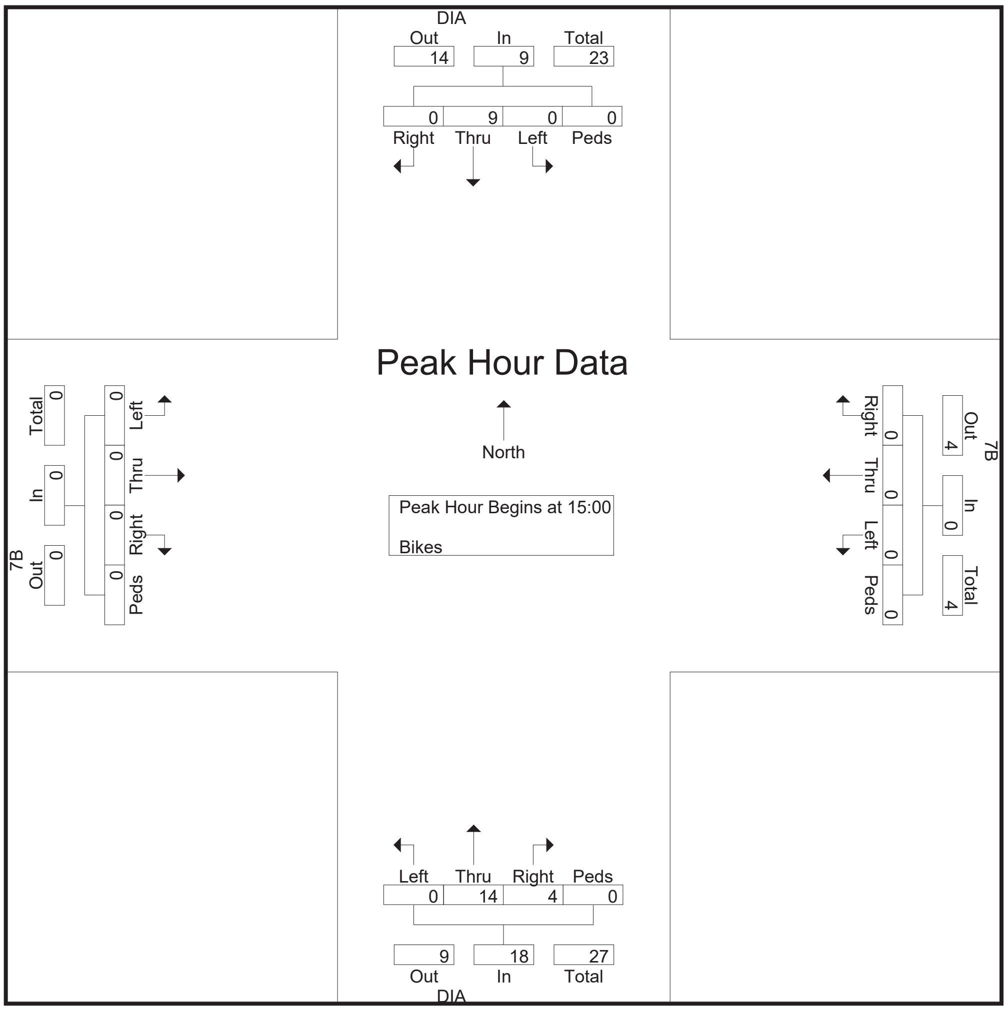
| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:15 | 0 | **7** | 0 | 0 | **7** | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | **11** |
| 08:30 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| 08:45 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **8** | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | 9 |
| Total Volume | 0 | 15 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 34 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .536 | .000 | .000 | .536 | .000 | .000 | .000 | .000 | .000 | .000 | .594 | .000 | .000 | .594 | .000 | .000 | .000 | .000 | .000 | .773 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | **7** | 0 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **10** |
| 15:15 | 0 | **4** | 0 | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15:30 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | **2** | 3 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 8 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 4 | 14 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 27 |
| % App. Total | 0 | 100 | 0 | 0 | | 0 | 0 | 0 | 0 | | 22.2 | 77.8 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .563 | .000 | .000 | .563 | .000 | .000 | .000 | .000 | .000 | .500 | .500 | .000 | .000 | .563 | .000 | .000 | .000 | .000 | .000 | .675 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7B

File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

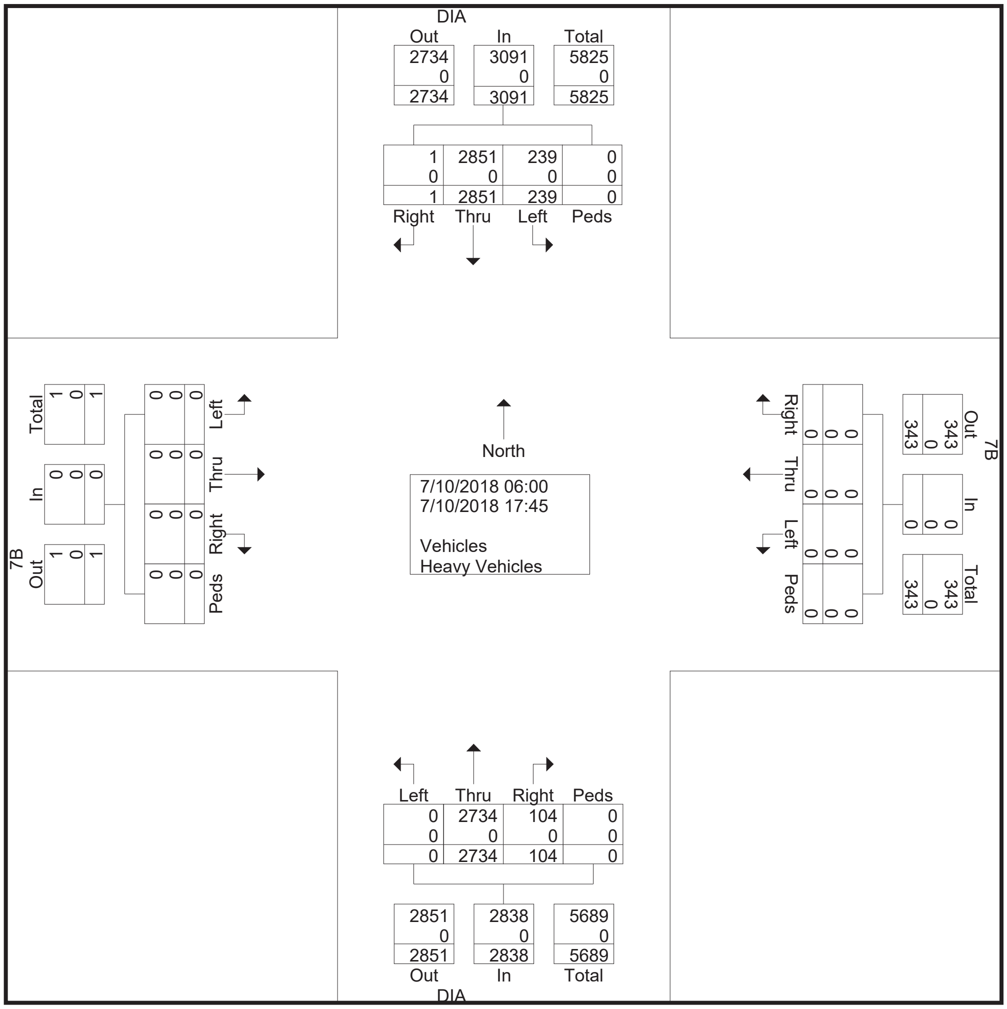
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 133 | 1 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 7 | 18 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 159 |
| 06:15 | 0 | 157 | 6 | 0 | 163 | 0 | 0 | 0 | 0 | 0 | 3 | 16 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 182 |
| 06:30 | 0 | 186 | 7 | 0 | 193 | 0 | 0 | 0 | 0 | 0 | 2 | 22 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 217 |
| 06:45 | 0 | 276 | 12 | 0 | 288 | 0 | 0 | 0 | 0 | 0 | 6 | 37 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 331 |
| Total | 0 | 752 | 26 | 0 | 778 | 0 | 0 | 0 | 0 | 0 | 18 | 93 | 0 | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 889 |
| 07:00 | 0 | 242 | 13 | 0 | 255 | 0 | 0 | 0 | 0 | 0 | 2 | 47 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 304 |
| 07:15 | 0 | 209 | 14 | 0 | 223 | 0 | 0 | 0 | 0 | 0 | 7 | 56 | 0 | 0 | 63 | 0 | 0 | 0 | 0 | 0 | 286 |
| 07:30 | 0 | 206 | 15 | 0 | 221 | 0 | 0 | 0 | 0 | 0 | 5 | 44 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 270 |
| 07:45 | 0 | 224 | 20 | 0 | 244 | 0 | 0 | 0 | 0 | 0 | 4 | 64 | 0 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 312 |
| Total | 0 | 881 | 62 | 0 | 943 | 0 | 0 | 0 | 0 | 0 | 18 | 211 | 0 | 0 | 229 | 0 | 0 | 0 | 0 | 0 | 1172 |
| 08:00 | 0 | 193 | 13 | 0 | 206 | 0 | 0 | 0 | 0 | 0 | 12 | 73 | 0 | 0 | 85 | 0 | 0 | 0 | 0 | 0 | 291 |
| 08:15 | 0 | 165 | 27 | 0 | 192 | 0 | 0 | 0 | 0 | 0 | 10 | 64 | 0 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 266 |
| 08:30 | 0 | 111 | 27 | 0 | 138 | 0 | 0 | 0 | 0 | 0 | 9 | 53 | 0 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 200 |
| 08:45 | 0 | 115 | 34 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 4 | 47 | 0 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 200 |
| Total | 0 | 584 | 101 | 0 | 685 | 0 | 0 | 0 | 0 | 0 | 35 | 237 | 0 | 0 | 272 | 0 | 0 | 0 | 0 | 0 | 957 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 1 | 61 | 3 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 1 | 122 | 0 | 0 | 123 | 0 | 0 | 0 | 0 | 0 | 188 |
| 15:15 | 0 | 56 | 6 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 4 | 110 | 0 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 176 |
| 15:30 | 0 | 61 | 4 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 6 | 154 | 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 225 |
| 15:45 | 0 | 43 | 6 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 2 | 181 | 0 | 0 | 183 | 0 | 0 | 0 | 0 | 0 | 232 |
| Total | 1 | 221 | 19 | 0 | 241 | 0 | 0 | 0 | 0 | 0 | 13 | 567 | 0 | 0 | 580 | 0 | 0 | 0 | 0 | 0 | 821 |
| 16:00 | 0 | 40 | 4 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 5 | 246 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 295 |
| 16:15 | 0 | 54 | 8 | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 5 | 215 | 0 | 0 | 220 | 0 | 0 | 0 | 0 | 0 | 282 |
| 16:30 | 0 | 63 | 3 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 1 | 213 | 0 | 0 | 214 | 0 | 0 | 0 | 0 | 0 | 280 |
| 16:45 | 0 | 65 | 3 | 0 | 68 | 0 | 0 | 0 | 0 | 0 | 0 | 217 | 0 | 0 | 217 | 0 | 0 | 0 | 0 | 0 | 285 |
| Total | 0 | 222 | 18 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 11 | 891 | 0 | 0 | 902 | 0 | 0 | 0 | 0 | 0 | 1142 |
| 17:00 | 0 | 57 | 6 | 0 | 63 | 0 | 0 | 0 | 0 | 0 | 4 | 208 | 0 | 0 | 212 | 0 | 0 | 0 | 0 | 0 | 275 |
| 17:15 | 0 | 59 | 4 | 0 | 63 | 0 | 0 | 0 | 0 | 0 | 2 | 221 | 0 | 0 | 223 | 0 | 0 | 0 | 0 | 0 | 286 |
| 17:30 | 0 | 41 | 2 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | 3 | 185 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 231 |
| 17:45 | 0 | 34 | 1 | 0 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 121 | 0 | 0 | 121 | 0 | 0 | 0 | 0 | 0 | 156 |
| Total | 0 | 191 | 13 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 9 | 735 | 0 | 0 | 744 | 0 | 0 | 0 | 0 | 0 | 948 |
| Grand Total | 1 | 2851 | 239 | 0 | 3091 | 0 | 0 | 0 | 0 | 0 | 104 | 2734 | 0 | 0 | 2838 | 0 | 0 | 0 | 0 | 0 | 5929 |
| Apprch % | 0 | 92.2 | 7.7 | 0 | | 0 | 0 | 0 | 0 | | 3.7 | 96.3 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 48.1 | 4 | 0 | 52.1 | 0 | 0 | 0 | 0 | 0 | 1.8 | 46.1 | 0 | 0 | 47.9 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 1 | 2851 | 239 | 0 | 3091 | 0 | 0 | 0 | 0 | 0 | 104 | 2734 | 0 | 0 | 2838 | 0 | 0 | 0 | 0 | 0 | 5929 |
| % Vehicles | 100 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

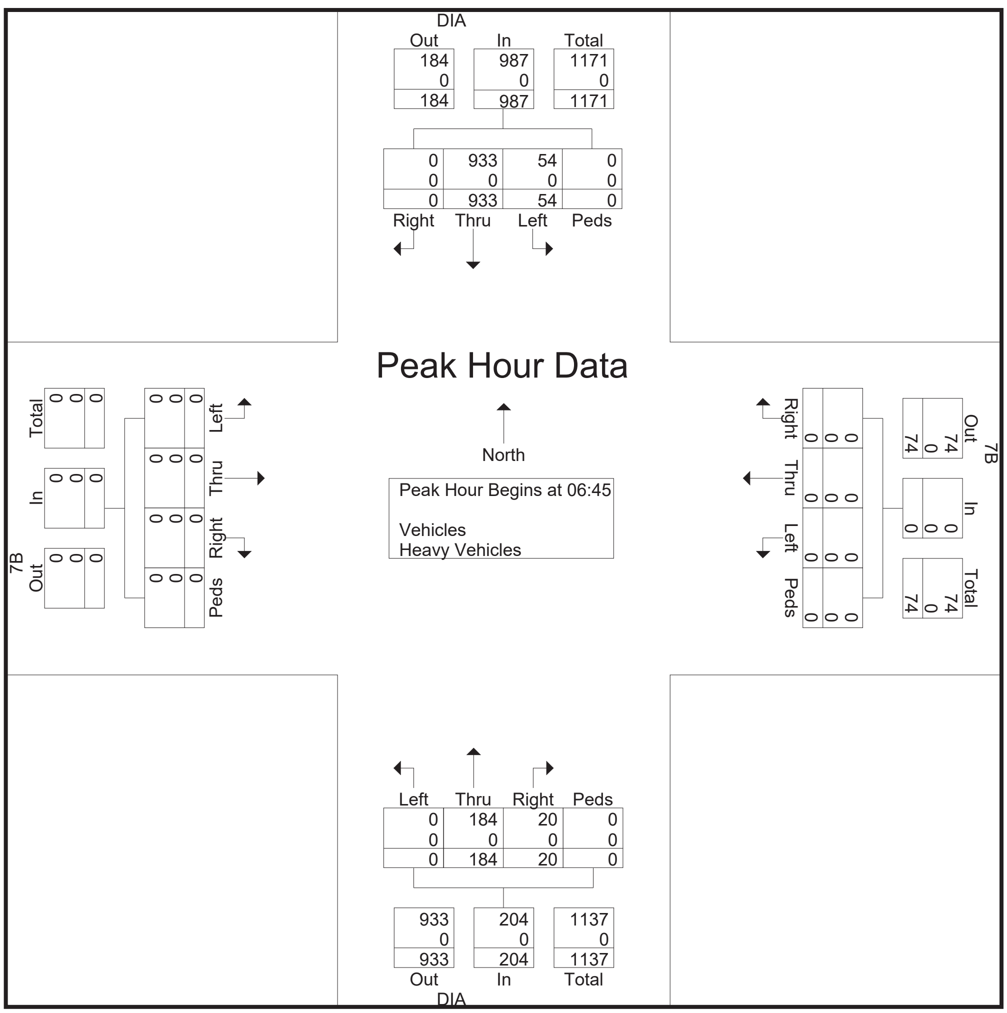
File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:45 | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 0 | **276** | 12 | 0 | **288** | 0 | 0 | 0 | 0 | 0 | 6 | 37 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 0 | **331** |
| 07:00 | 0 | 242 | 13 | 0 | 255 | 0 | 0 | 0 | 0 | 0 | 2 | 47 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 304 |
| 07:15 | 0 | 209 | 14 | 0 | 223 | 0 | 0 | 0 | 0 | 0 | **7** | **56** | 0 | 0 | **63** | 0 | 0 | 0 | 0 | 0 | 286 |
| 07:30 | 0 | 206 | **15** | 0 | 221 | 0 | 0 | 0 | 0 | 0 | 5 | 44 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 270 |
| Total Volume | 0 | 933 | 54 | 0 | 987 | 0 | 0 | 0 | 0 | 0 | 20 | 184 | 0 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 1191 |
| % App. Total | 0 | 94.5 | 5.5 | 0 | | 0 | 0 | 0 | 0 | | 9.8 | 90.2 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .845 | .900 | .000 | .857 | .000 | .000 | .000 | .000 | .000 | .714 | .821 | .000 | .000 | .810 | .000 | .000 | .000 | .000 | .000 | .900 |
| Vehicles | 0 | 933 | 54 | 0 | 987 | 0 | 0 | 0 | 0 | 0 | 20 | 184 | 0 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 1191 |
| % Vehicles | 0 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

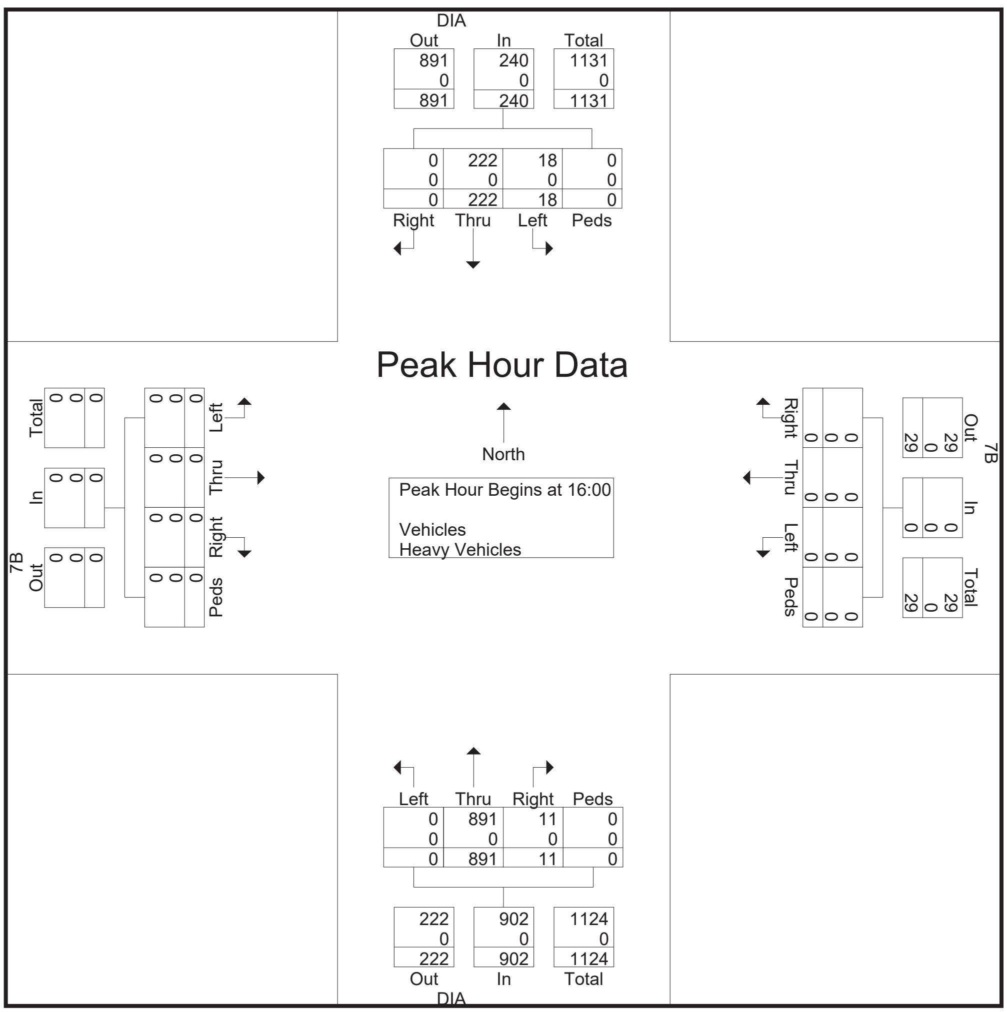


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7B_SAVANNA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 7B From East | | | | | DIA From South | | | | | 7B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:00 | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 0 | 40 | 4 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | **5** | **246** | 0 | 0 | **251** | 0 | 0 | 0 | 0 | 0 | **295** |
| 16:15 | 0 | 54 | **8** | 0 | 62 | 0 | 0 | 0 | 0 | 0 | 5 | 215 | 0 | 0 | 220 | 0 | 0 | 0 | 0 | 0 | 282 |
| 16:30 | 0 | 63 | 3 | 0 | 66 | 0 | 0 | 0 | 0 | 0 | 1 | 213 | 0 | 0 | 214 | 0 | 0 | 0 | 0 | 0 | 280 |
| 16:45 | 0 | **65** | 3 | 0 | **68** | 0 | 0 | 0 | 0 | 0 | 0 | 217 | 0 | 0 | 217 | 0 | 0 | 0 | 0 | 0 | 285 |
| Total Volume | 0 | 222 | 18 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 11 | 891 | 0 | 0 | 902 | 0 | 0 | 0 | 0 | 0 | 1142 |
| % App. Total | 0 | 92.5 | 7.5 | 0 | | 0 | 0 | 0 | 0 | | 1.2 | 98.8 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .854 | .563 | .000 | .882 | .000 | .000 | .000 | .000 | .000 | .550 | .905 | .000 | .000 | .898 | .000 | .000 | .000 | .000 | .000 | .968 |
| Vehicles | 0 | 222 | 18 | 0 | 240 | 0 | 0 | 0 | 0 | 0 | 11 | 891 | 0 | 0 | 902 | 0 | 0 | 0 | 0 | 0 | 1142 |
| % Vehicles | 0 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



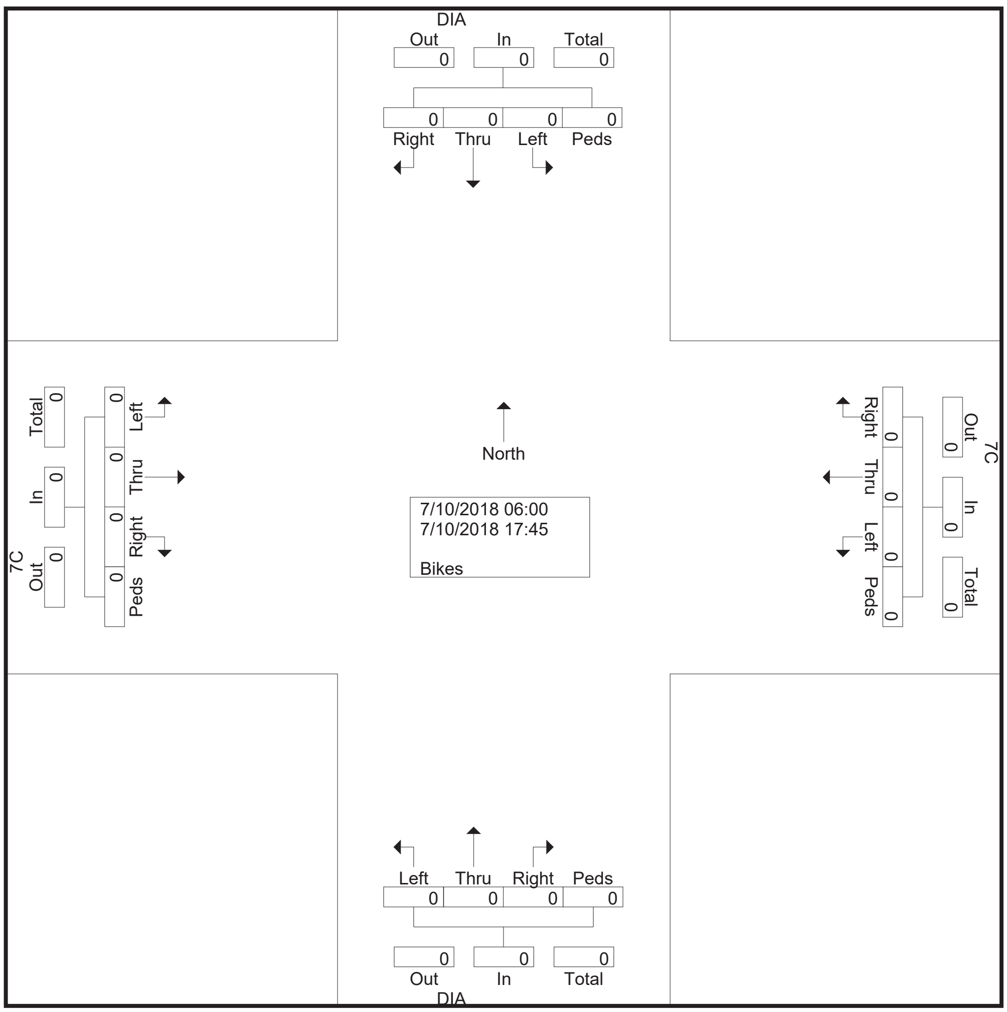
# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7C

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | | | | | | | | | | | | | | | | | | | | | |

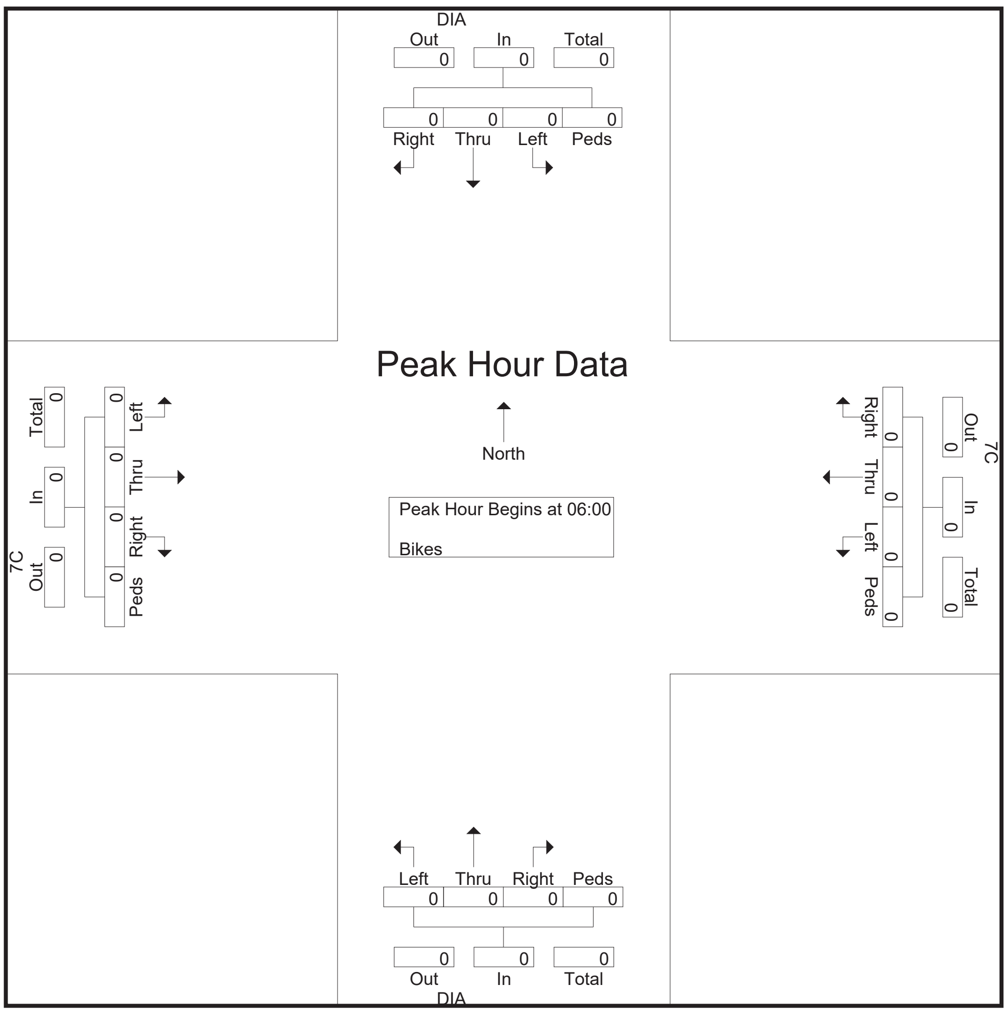


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018


| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:00 | | | | | | | | | | | | | | | | | | | | | |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

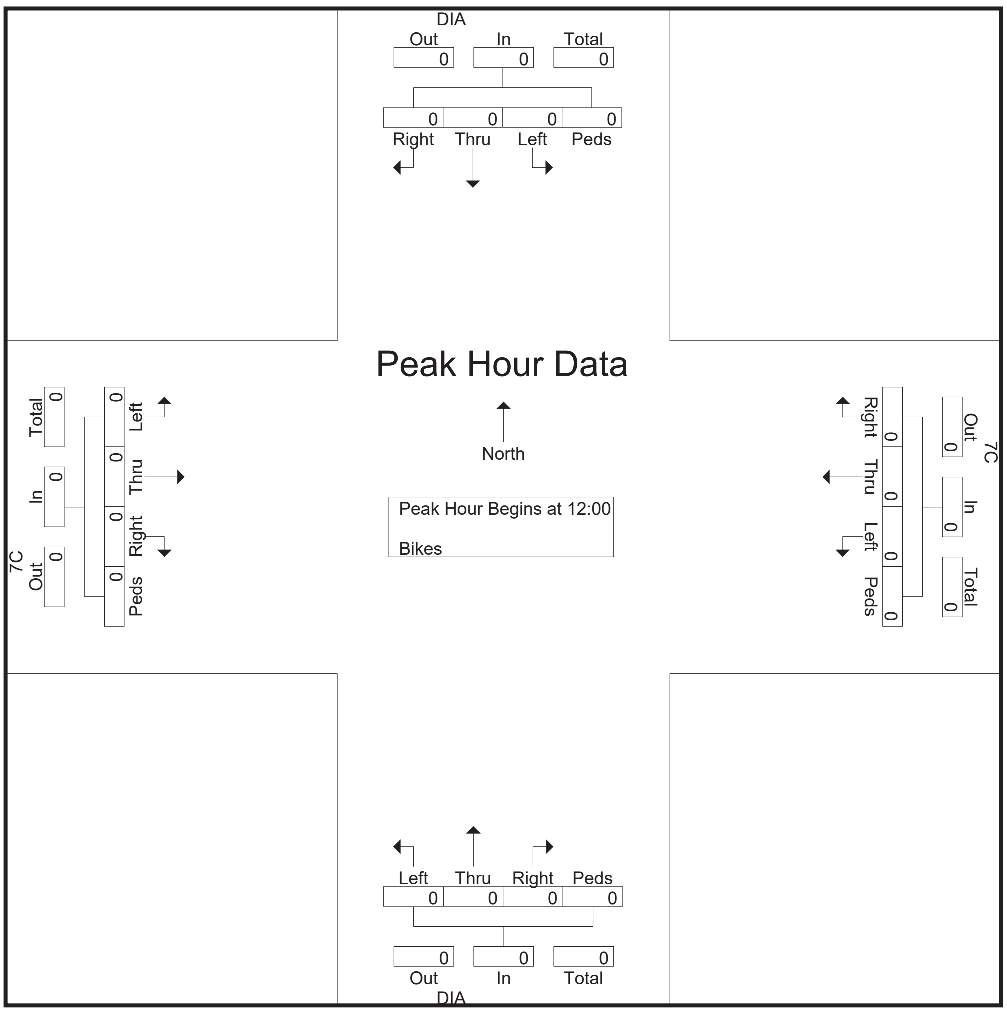


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 | | | | | | | | | | | | | | | | | | | | | |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 7C

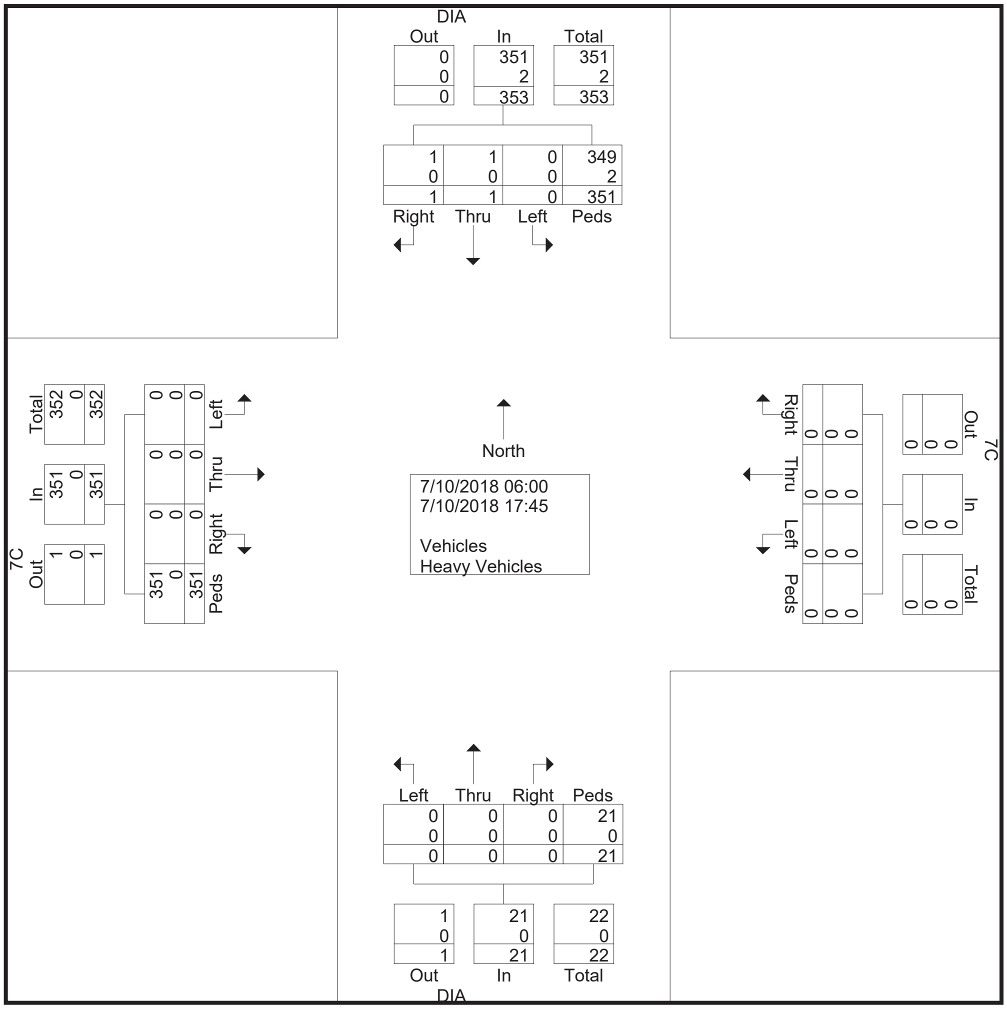
File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 06:15 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 13 |
| 06:30 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 11 |
| 06:45 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 10 |
| Total | 0 | 1 | 0 | 13 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 24 | 38 |
| 07:00 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 16 | 31 |
| 07:15 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 15 |
| 07:30 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 19 | 25 |
| 07:45 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 24 |
| Total | 0 | 0 | 0 | 40 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | 55 | 95 |
| 08:00 | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 29 | 51 |
| 08:15 | 0 | 0 | 0 | 17 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 8 | 8 | 28 |
| 08:30 | 0 | 0 | 0 | 39 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 24 | 24 | 66 |
| 08:45 | 1 | 0 | 0 | 25 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 26 | 26 | 57 |
| Total | 1 | 0 | 0 | 103 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 87 | 87 | 202 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 17 |
| 15:15 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 17 | 25 |
| 15:30 | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 11 | 11 | 26 |
| 15:45 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 | 23 |
| Total | 0 | 0 | 0 | 45 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 44 | 44 | 91 |
| 16:00 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 22 |
| 16:15 | 0 | 0 | 0 | 20 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 36 | 36 | 57 |
| 16:30 | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 14 | 28 |
| 16:45 | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 18 | 18 | 35 |
| Total | 0 | 0 | 0 | 61 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 79 | 79 | 142 |
| 17:00 | 0 | 0 | 0 | 28 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 20 | 20 | 50 |
| 17:15 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 19 | 19 | 46 |
| 17:30 | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 17 | 17 | 40 |
| 17:45 | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 6 | 6 | 21 |
| Total | 0 | 0 | 0 | 89 | 89 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 | 0 | 0 | 0 | 62 | 62 | 157 |
| Grand Total | 1 | 1 | 0 | 351 | 353 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 21 | 0 | 0 | 0 | 351 | 351 | 725 |
| Apprch % | 0.3 | 0.3 | 0 | 99.4 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 100 | | |
| Total % | 0.1 | 0.1 | 0 | 48.4 | 48.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2.9 | 2.9 | 0 | 0 | 0 | 48.4 | 48.4 | |
| Vehicles | 1 | 1 | 0 | 349 | 351 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 21 | 0 | 0 | 0 | 351 | 351 | 723 |
| % Vehicles | 100 | 100 | 0 | 99.4 | 99.4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 100 | 99.7 |
| Heavy Vehicles | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| % Heavy Vehicles | 0 | 0 | 0 | 0.6 | 0.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2

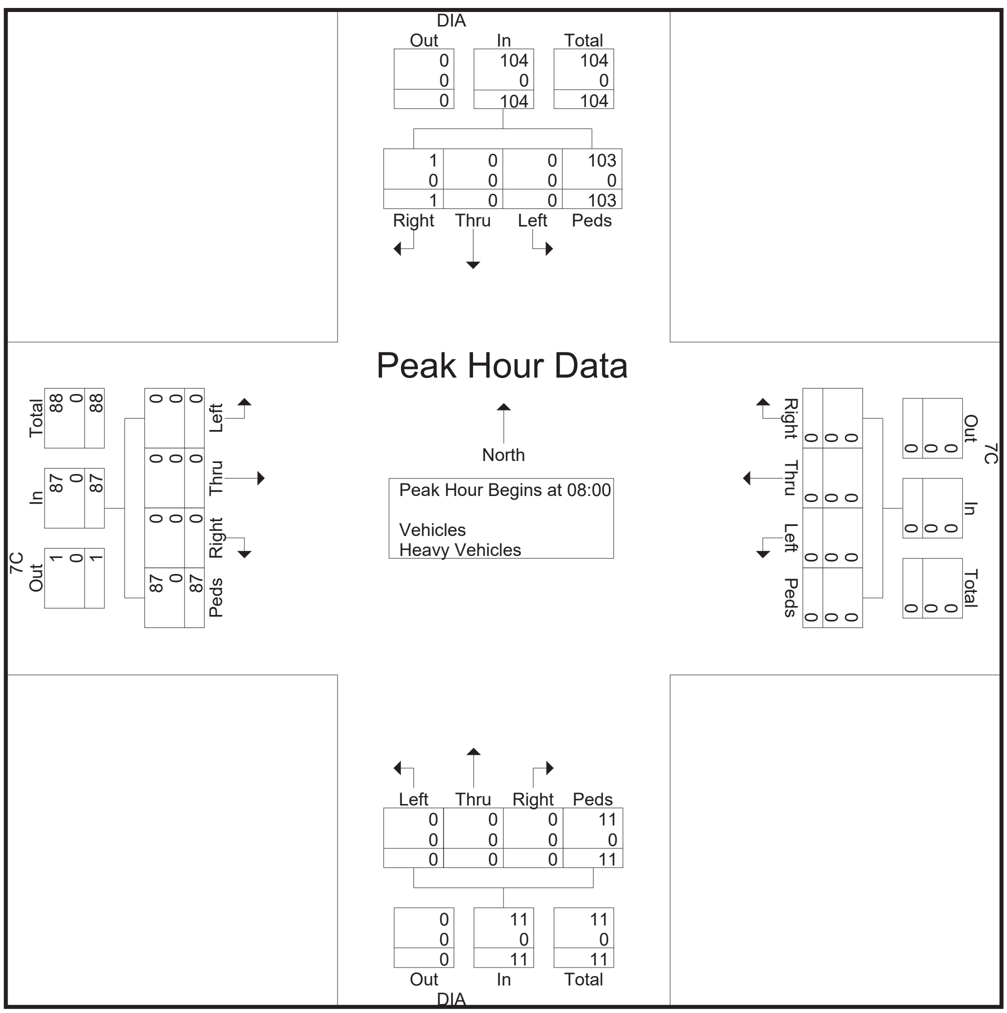


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **29** | **29** | 51 |
| 08:15 | 0 | 0 | 0 | 17 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 8 | 8 | 28 |
| 08:30 | 0 | 0 | 0 | **39** | **39** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 24 | 24 | **66** |
| 08:45 | **1** | 0 | 0 | 25 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **5** | **5** | 0 | 0 | 0 | 26 | 26 | 57 |
| Total Volume | 1 | 0 | 0 | 103 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 87 | 87 | 202 |
| % App. Total | 1 | 0 | 0 | 99 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 100 | | |
| PHF | .250 | .000 | .000 | .660 | .667 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .550 | .550 | .000 | .000 | .000 | .750 | .750 | .765 |
| Vehicles | 1 | 0 | 0 | 103 | 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 0 | 0 | 0 | 87 | 87 | 202 |
| % Vehicles | 100 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 100 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

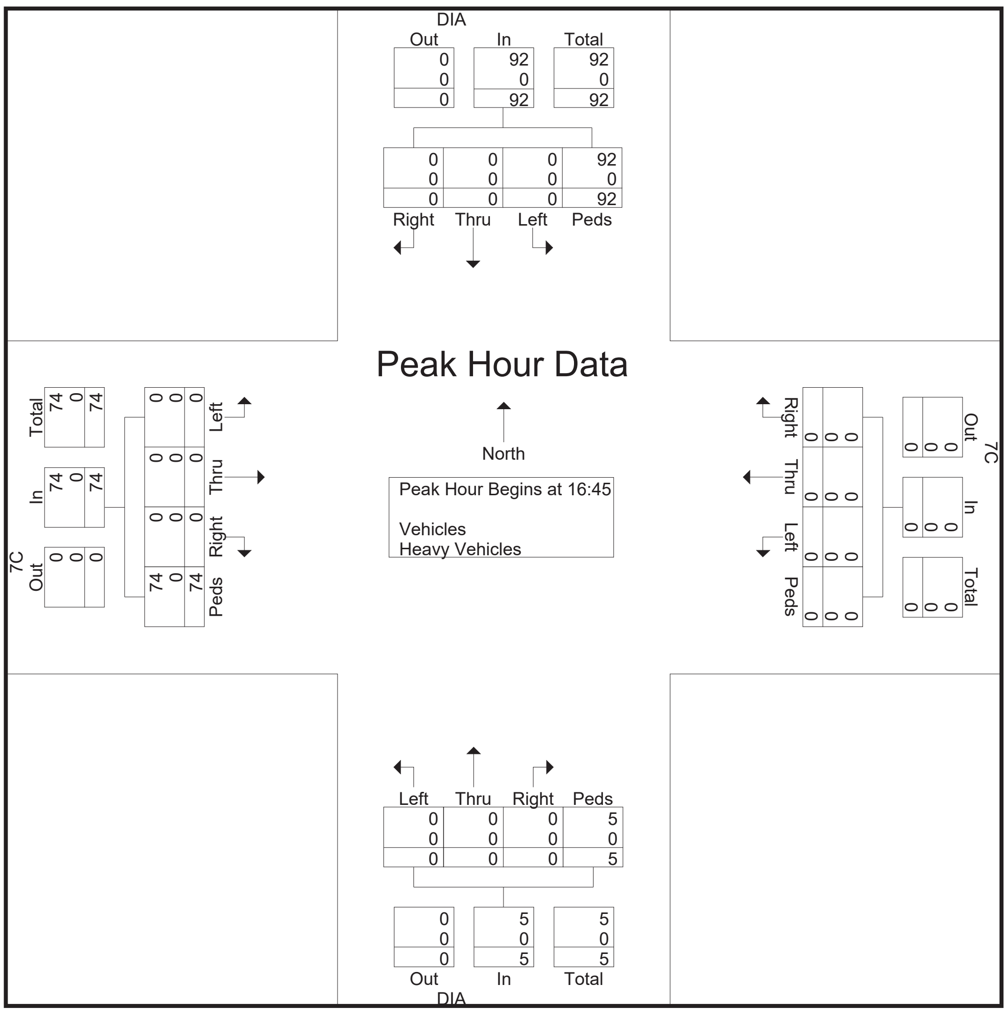


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 7C_TAMIA
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 7C From East | | | | | DIA From South | | | | | 7C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 18 | 18 | 35 |
| 17:00 | 0 | 0 | 0 | **28** | **28** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | **2** | 0 | 0 | 0 | **20** | **20** | **50** |
| 17:15 | 0 | 0 | 0 | 26 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 19 | 19 | 46 |
| 17:30 | 0 | 0 | 0 | 22 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 17 | 17 | 40 |
| Total Volume | 0 | 0 | 0 | 92 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 74 | 74 | 171 |
| % App. Total | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 100 | | |
| PHF | .000 | .000 | .000 | .821 | .821 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .625 | .625 | .000 | .000 | .000 | .925 | .925 | .855 |
| Vehicles | 0 | 0 | 0 | 92 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 74 | 74 | 171 |
| % Vehicles | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 100 | 100 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 8A

File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

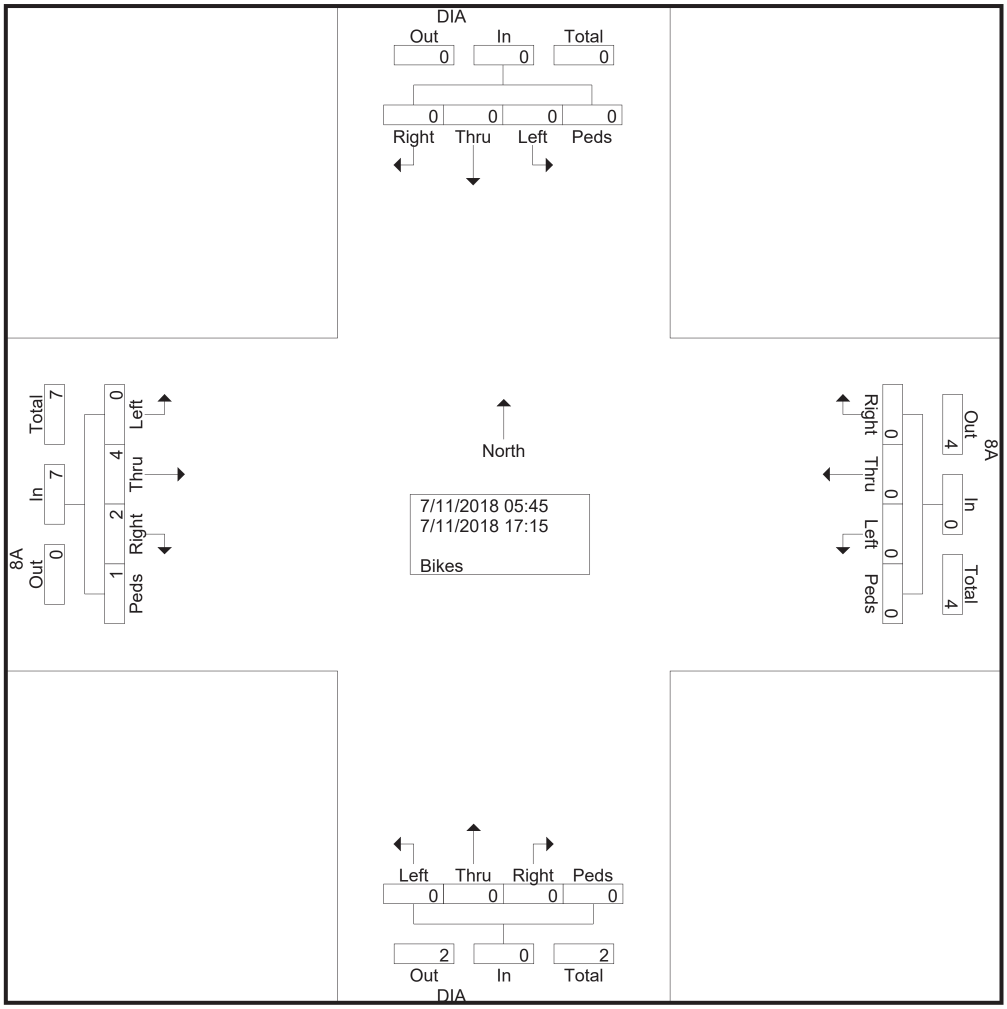
**Groups Printed- Bikes**

| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 0 | 1 | 7 | 7 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 28.6 | 57.1 | 0 | 14.3 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28.6 | 57.1 | 0 | 14.3 | 100 | |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

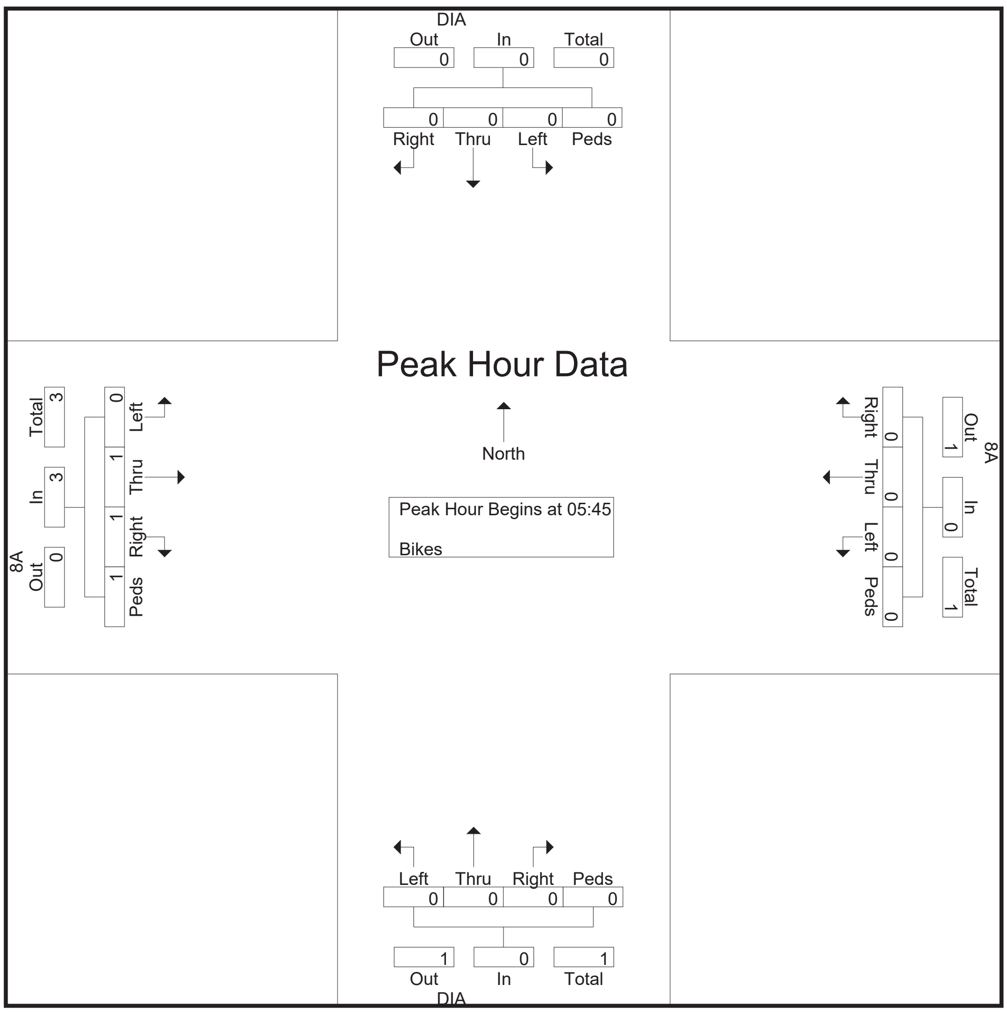
File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

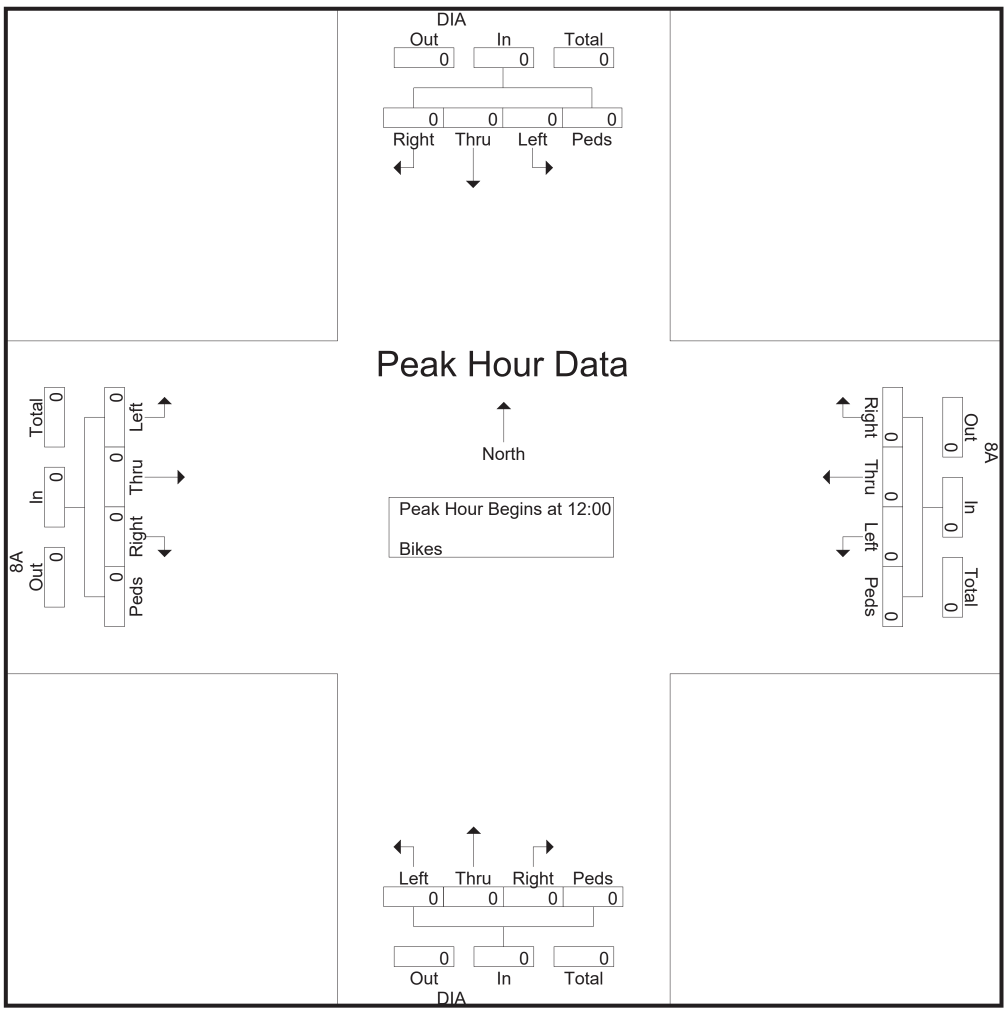
| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 05:45 | | | | | | | | | | | | | | | | | | | | | |
| 05:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 0 | 1 | 1 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **2** | **2** |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 3 | 3 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 33.3 | 33.3 | 0 | 33.3 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .250 | .375 | .375 |



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109


File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018


| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:15 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 12:00 | | | | | | | | | | | | | | | | | | | | | |
| 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

Location: 8A

File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

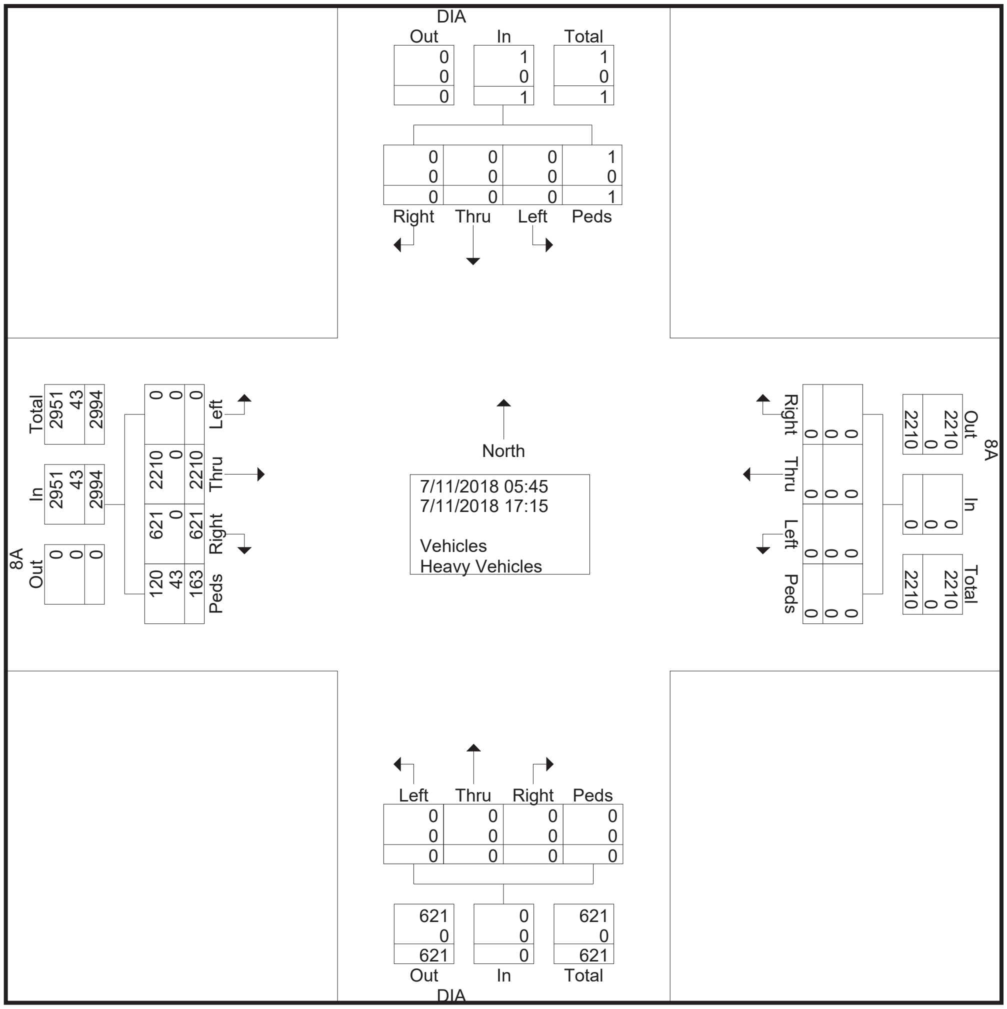
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 05:45 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 6 | 0 | 0 | 17 | 18 |
| Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 6 | 0 | 0 | 17 | 18 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 10 | 0 | 4 | 34 | 34 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 10 | 0 | 6 | 39 | 39 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 12 | 0 | 6 | 44 | 44 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 11 | 0 | 4 | 42 | 42 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 96 | 43 | 0 | 20 | 159 | 159 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 23 | 0 | 8 | 56 | 56 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 27 | 0 | 9 | 72 | 72 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 26 | 0 | 11 | 78 | 78 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 27 | 0 | 21 | 85 | 85 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139 | 103 | 0 | 49 | 291 | 291 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 35 | 0 | 11 | 89 | 89 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 25 | 0 | 8 | 71 | 71 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 81 | 60 | 0 | 19 | 160 | 160 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 14:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 78 | 0 | 4 | 116 | 116 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 34 | 78 | 0 | 4 | 116 | 116 |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 75 | 0 | 4 | 110 | 110 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 142 | 0 | 9 | 169 | 169 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 131 | 0 | 2 | 153 | 153 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 209 | 0 | 5 | 237 | 237 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 557 | 0 | 20 | 669 | 669 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 197 | 0 | 1 | 223 | 223 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 230 | 0 | 5 | 273 | 273 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 251 | 0 | 12 | 294 | 294 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 258 | 0 | 8 | 299 | 299 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 936 | 0 | 26 | 1089 | 1089 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 261 | 0 | 10 | 294 | 294 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 166 | 0 | 15 | 199 | 199 |
| Grand Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 621 | 2210 | 0 | 163 | 2994 | 2995 |
| Apprch % | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 20.7 | 73.8 | 0 | 5.4 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20.7 | 73.8 | 0 | 5.4 | 100 | |
| Vehicles | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 621 | 2210 | 0 | 120 | 2951 | 2952 |
| % Vehicles | 0 | 0 | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 73.6 | 98.6 | 98.6 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 43 | 43 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26.4 | 1.4 | 1.4 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

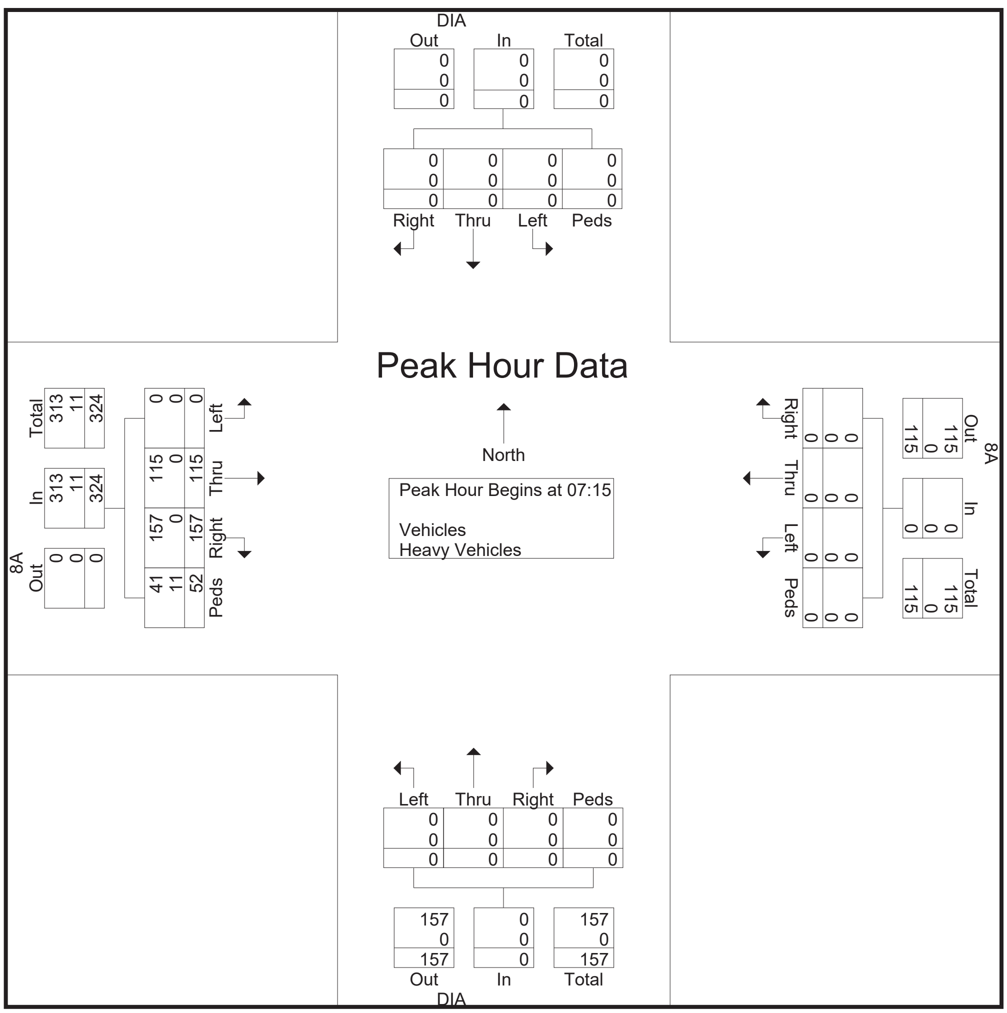
File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018


| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 05:45 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:15 | | | | | | | | | | | | | | | | | | | | | |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 | 27 | 0 | 9 | 72 | 72 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 41 | 26 | 0 | 11 | 78 | 78 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 27 | 0 | **21** | 85 | 85 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **43** | **35** | 0 | 11 | **89** | **89** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 115 | 0 | 52 | 324 | 324 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 48.5 | 35.5 | 0 | 16 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .913 | .821 | .000 | .619 | .910 | .910 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 157 | 115 | 0 | 41 | 313 | 313 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 78.8 | 96.6 | 96.6 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 | 11 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21.2 | 3.4 | 3.4 |



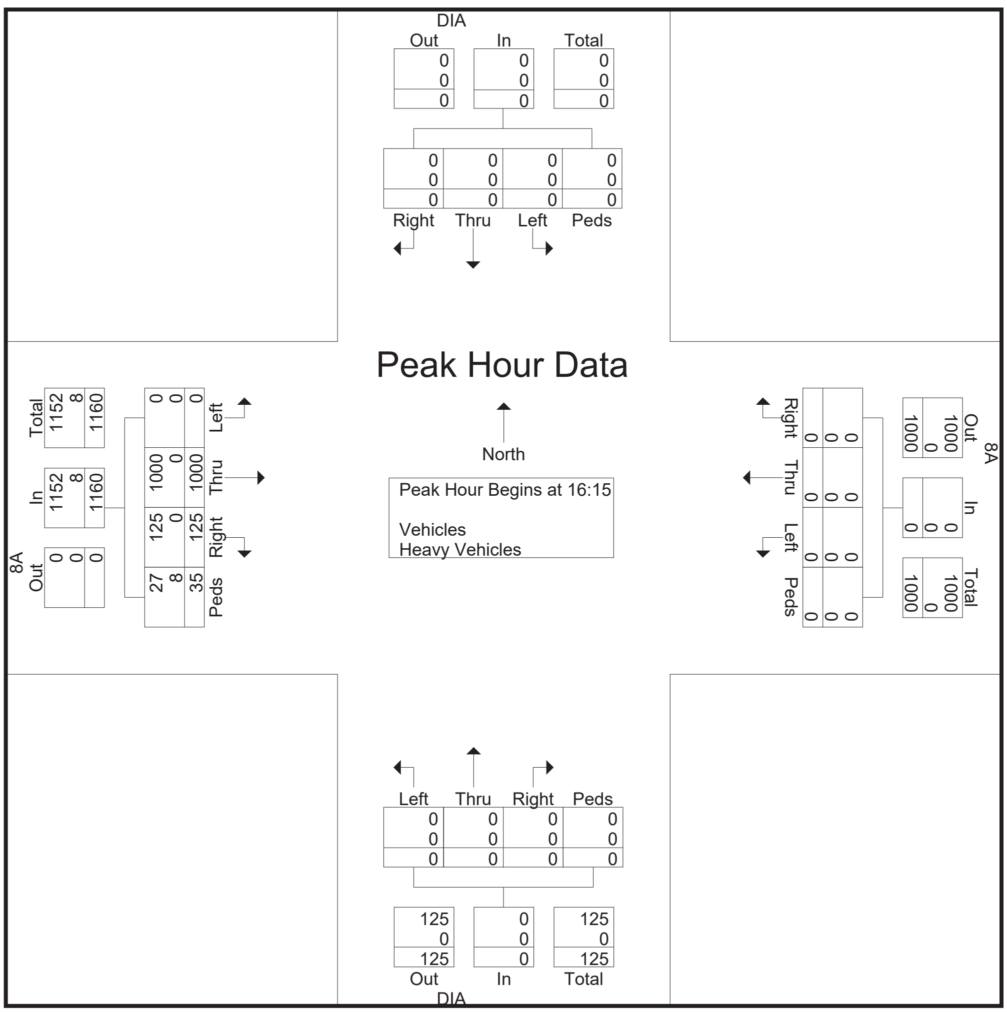
# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8A
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

Peak Hour Analysis From 12:00 to 17:15 - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 16:15

| | DIA From North | | | | | 8A From East | | | | | DIA From South | | | | | 8A From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **38** | 230 | 0 | 5 | 273 | 273 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 251 | 0 | **12** | 294 | 294 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 258 | 0 | 8 | **299** | **299** |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | **261** | 0 | 10 | 294 | 294 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 1000 | 0 | 35 | 1160 | 1160 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 10.8 | 86.2 | 0 | 3 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .822 | .958 | .000 | .729 | .970 | .970 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 125 | 1000 | 0 | 27 | 1152 | 1152 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 77.1 | 99.3 | 99.3 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 22.9 | 0.7 | 0.7 |



**Bohannon Huston, Inc.**
7500 Jefferson Street NE
Albuquerque, NM 87109

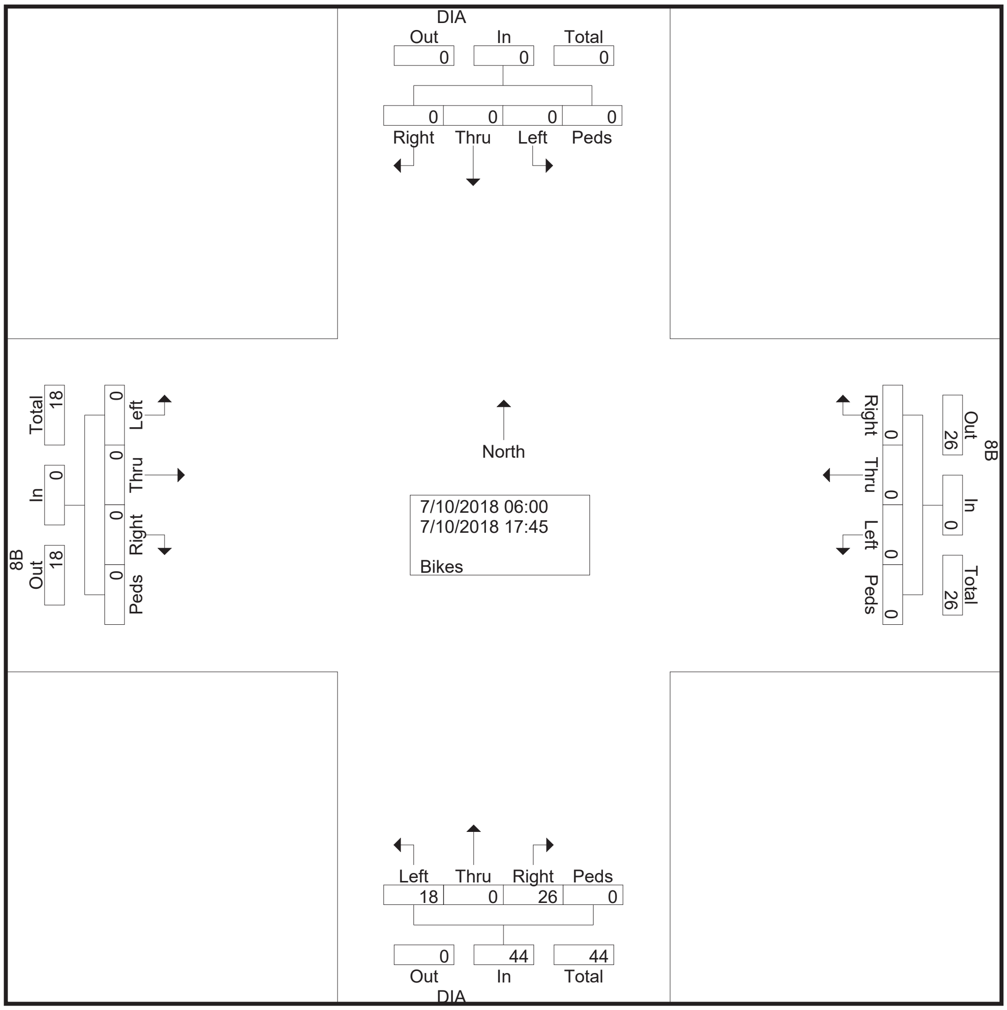
File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 4 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 9 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 11 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 24 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0 | 18 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 44 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 59.1 | 0 | 40.9 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 59.1 | 0 | 40.9 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | |

# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2

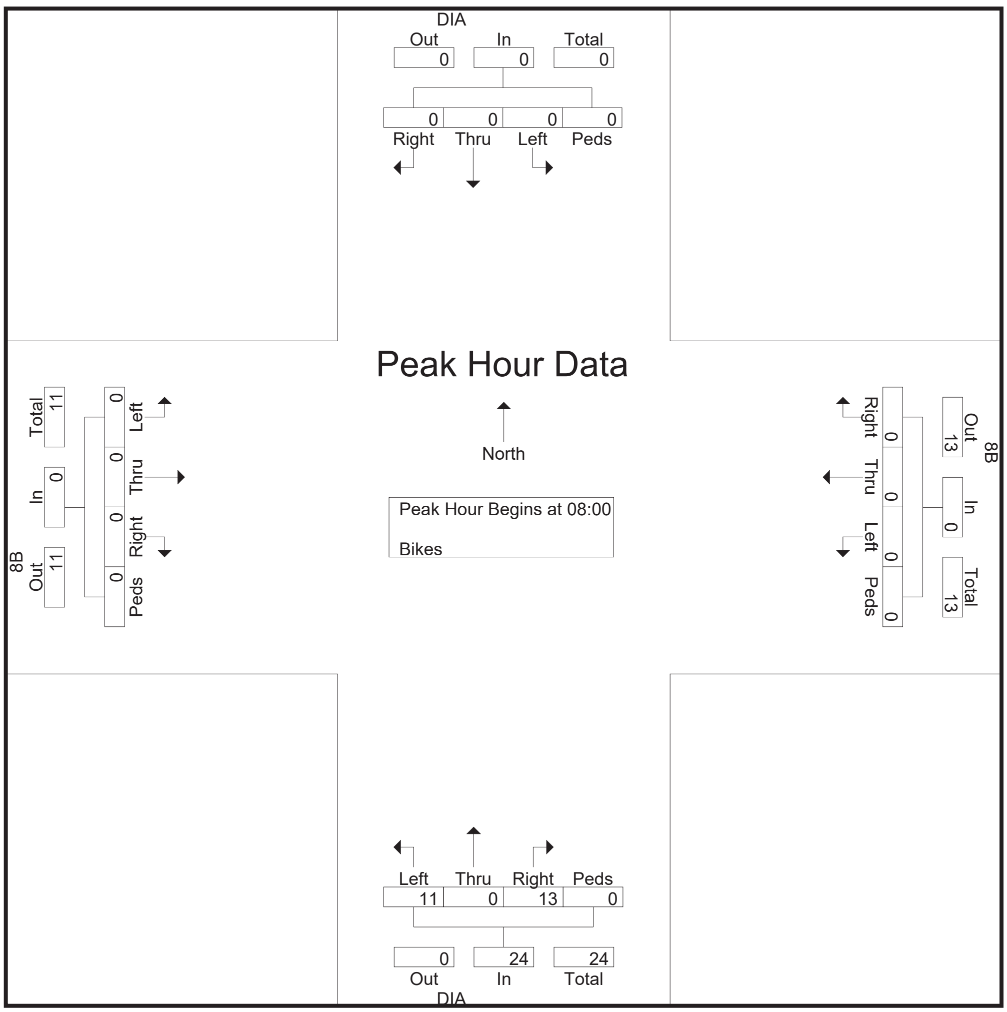


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | **5** | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 5 | 0 | **8** | 0 | 0 | 0 | 0 | 0 | **8** |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **6** | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 11 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 24 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 54.2 | 0 | 45.8 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .542 | .000 | .550 | .000 | .750 | .000 | .000 | .000 | .000 | .000 | .750 |

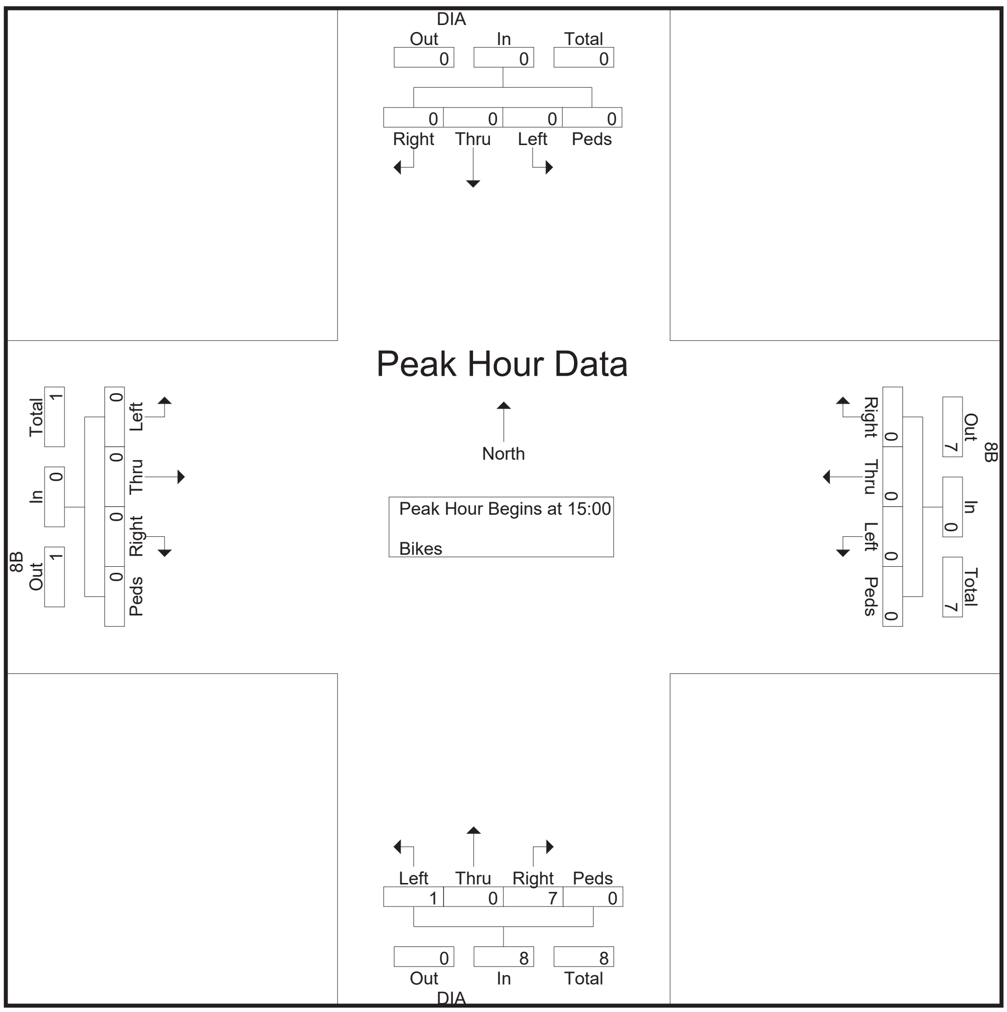


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

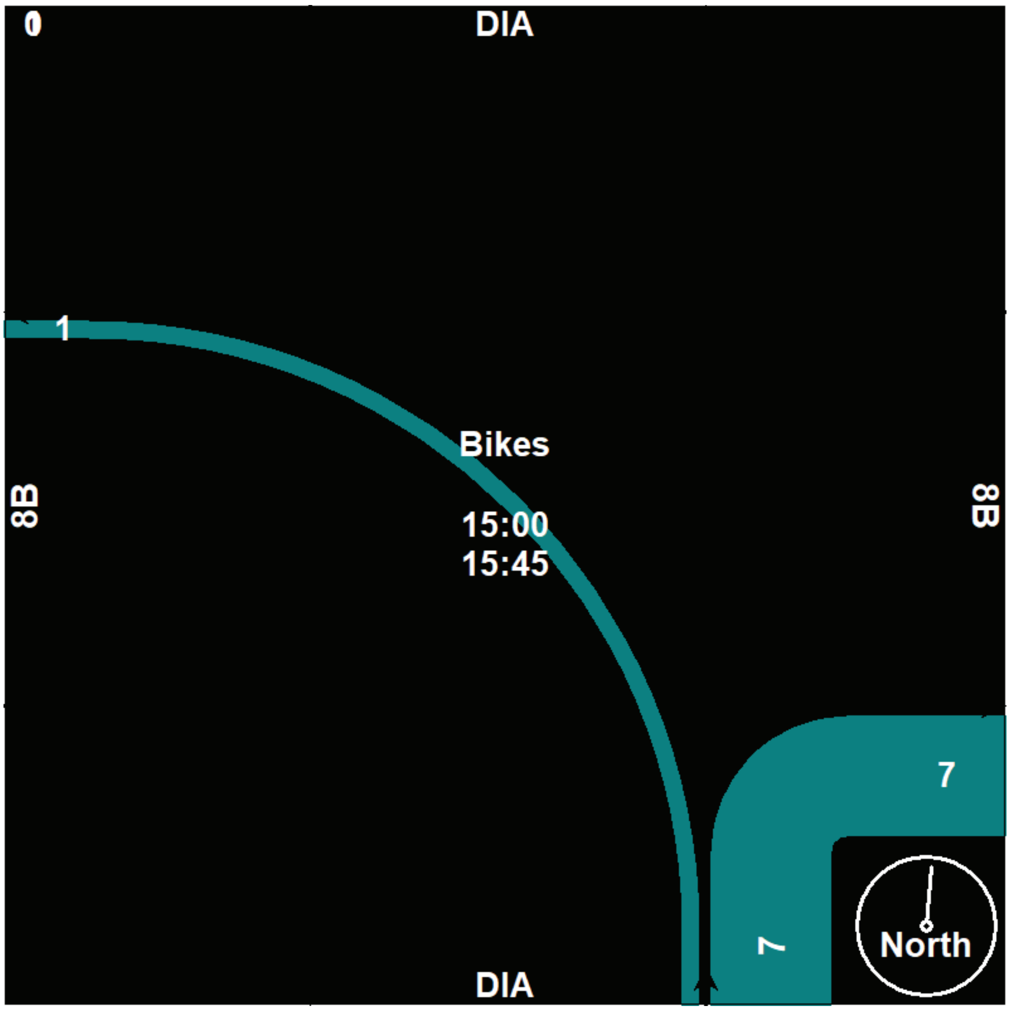

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | 0 | **3** | 0 | 0 | 0 | 0 | 0 | **3** |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | **1** | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 8 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 87.5 | 0 | 12.5 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .583 | .000 | .250 | .000 | .667 | .000 | .000 | .000 | .000 | .000 | .667 |



**Bohannon Huston, Inc.**
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 5



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 1

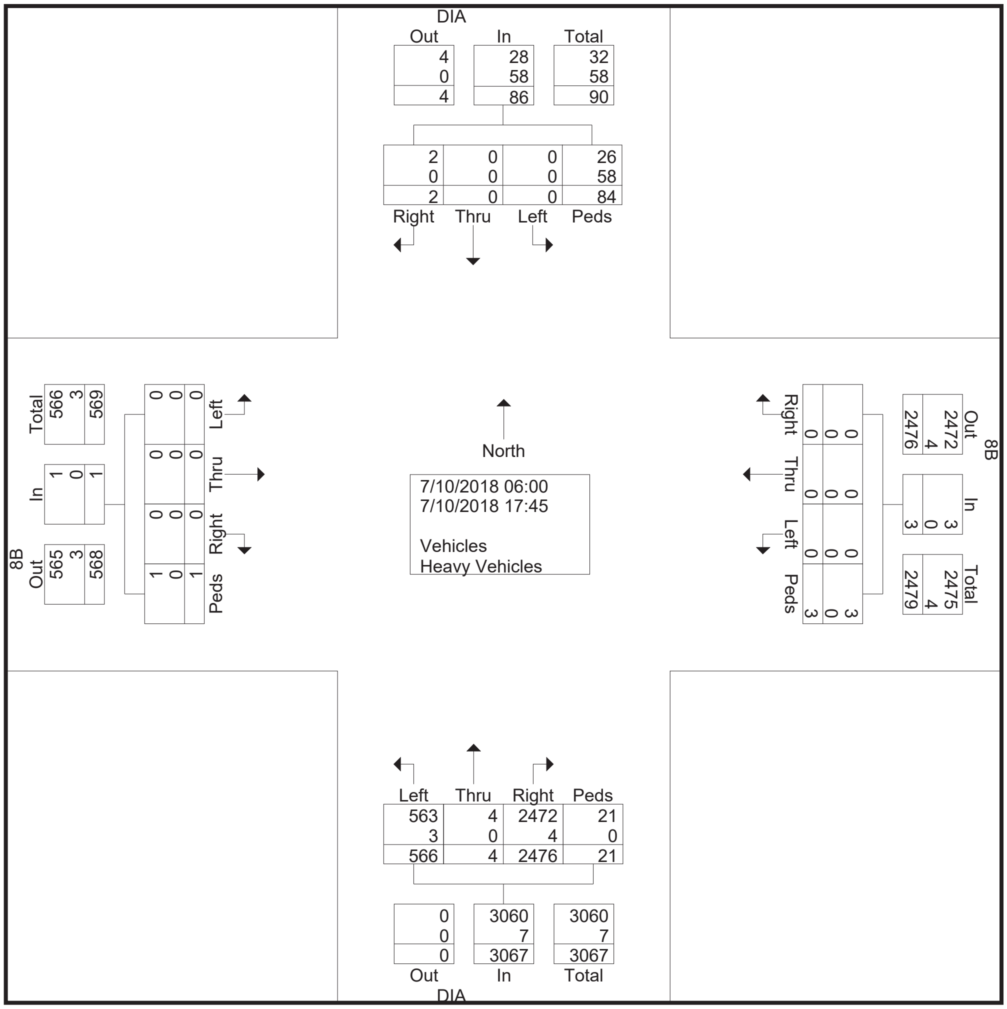
**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 14 | 3 | 29 | 0 | 0 | 0 | 1 | 1 | 31 |
| 06:15 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 14 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 25 |
| 06:30 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 1 | 1 | 12 | 0 | 19 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 37 |
| 06:45 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 27 | 0 | 45 | 0 | 0 | 0 | 0 | 0 | 50 |
| Total | 0 | 0 | 0 | 14 | 14 | 0 | 0 | 0 | 1 | 1 | 50 | 0 | 74 | 3 | 127 | 0 | 0 | 0 | 1 | 1 | 143 |
| | | | | | | | | | | | | | | | | | | | | | |
| 07:00 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 25 | 0 | 41 | 0 | 0 | 0 | 0 | 0 | 44 |
| 07:15 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 15 | 1 | 34 | 1 | 51 | 0 | 0 | 0 | 0 | 0 | 54 |
| 07:30 | 0 | 0 | 0 | 7 | 7 | 0 | 0 | 0 | 1 | 1 | 27 | 0 | 31 | 0 | 58 | 0 | 0 | 0 | 0 | 0 | 66 |
| 07:45 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 0 | 61 | 0 | 94 | 0 | 0 | 0 | 0 | 0 | 96 |
| Total | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 1 | 1 | 91 | 1 | 151 | 1 | 244 | 0 | 0 | 0 | 0 | 0 | 260 |
| | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 0 | 0 | 31 | 0 | 42 | 2 | 75 | 0 | 0 | 0 | 0 | 0 | 87 |
| 08:15 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 24 | 2 | 75 | 0 | 0 | 0 | 0 | 0 | 80 |
| 08:30 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 35 | 2 | 79 | 0 | 0 | 0 | 0 | 0 | 87 |
| 08:45 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 54 | 3 | 35 | 3 | 95 | 0 | 0 | 0 | 0 | 0 | 99 |
| Total | 0 | 0 | 0 | 29 | 29 | 0 | 0 | 0 | 0 | 0 | 176 | 3 | 136 | 9 | 324 | 0 | 0 | 0 | 0 | 0 | 353 |
| | | | | | | | | | | | | | | | | | | | | | |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 2 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 81 | 0 | 33 | 1 | 115 | 0 | 0 | 0 | 0 | 0 | 119 |
| 15:15 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 82 | 0 | 40 | 0 | 122 | 0 | 0 | 0 | 0 | 0 | 123 |
| 15:30 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 129 | 0 | 23 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 154 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 26 | 1 | 183 | 0 | 0 | 0 | 0 | 0 | 183 |
| Total | 2 | 0 | 0 | 5 | 7 | 0 | 0 | 0 | 0 | 0 | 448 | 0 | 122 | 2 | 572 | 0 | 0 | 0 | 0 | 0 | 579 |
| | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 29 | 0 | 243 | 0 | 0 | 0 | 0 | 0 | 245 |
| 16:15 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 202 | 0 | 15 | 1 | 218 | 0 | 0 | 0 | 0 | 0 | 222 |
| 16:30 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 220 | 0 | 11 | 1 | 232 | 0 | 0 | 0 | 0 | 0 | 233 |
| 16:45 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 206 | 0 | 4 | 3 | 213 | 0 | 0 | 0 | 0 | 0 | 214 |
| Total | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 842 | 0 | 59 | 5 | 906 | 0 | 0 | 0 | 0 | 0 | 914 |
| | | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 229 | 0 | 7 | 0 | 236 | 0 | 0 | 0 | 0 | 0 | 236 |
| 17:15 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 1 | 1 | 218 | 0 | 7 | 0 | 225 | 0 | 0 | 0 | 0 | 0 | 234 |
| 17:30 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 224 | 0 | 8 | 0 | 232 | 0 | 0 | 0 | 0 | 0 | 235 |
| 17:45 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 198 | 0 | 2 | 1 | 201 | 0 | 0 | 0 | 0 | 0 | 203 |
| Total | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 1 | 1 | 869 | 0 | 24 | 1 | 894 | 0 | 0 | 0 | 0 | 0 | 908 |
| | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 2 | 0 | 0 | 84 | 86 | 0 | 0 | 0 | 3 | 3 | 2476 | 4 | 566 | 21 | 3067 | 0 | 0 | 0 | 1 | 1 | 3157 |
| Apprch % | 2.3 | 0 | 0 | 97.7 | | 0 | 0 | 0 | 100 | | 80.7 | 0.1 | 18.5 | 0.7 | | 0 | 0 | 0 | 100 | | |
| Total % | 0.1 | 0 | 0 | 2.7 | 2.7 | 0 | 0 | 0 | 0.1 | 0.1 | 78.4 | 0.1 | 17.9 | 0.7 | 97.1 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 2 | 0 | 0 | 26 | 28 | 0 | 0 | 0 | 3 | 3 | 2472 | 4 | 563 | 21 | 3060 | 0 | 0 | 0 | 1 | 1 | 3092 |
| % Vehicles | 100 | 0 | 0 | 31 | 32.6 | 0 | 0 | 0 | 100 | 100 | 99.8 | 100 | 99.5 | 100 | 99.8 | 0 | 0 | 0 | 100 | 100 | 97.9 |
| Heavy Vehicles | 0 | 0 | 0 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 65 |
| % Heavy Vehicles | 0 | 0 | 0 | 69 | 67.4 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0.5 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 2.1 |

# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

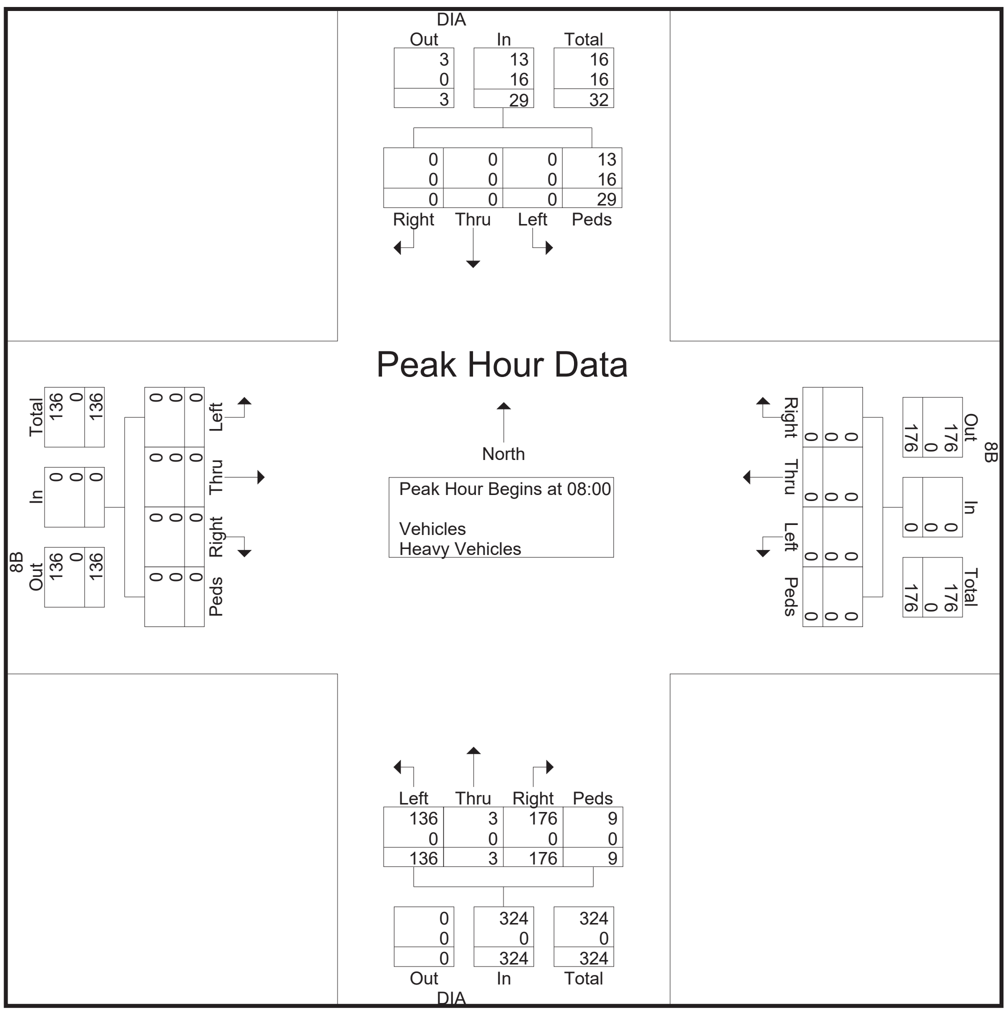
File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 2



# Bohannon Huston, Inc.
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 3

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | **12** | **12** | 0 | 0 | 0 | 0 | 0 | 31 | 0 | **42** | 2 | 75 | 0 | 0 | 0 | 0 | 0 | 87 |
| 08:15 | 0 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 49 | 0 | 24 | 2 | 75 | 0 | 0 | 0 | 0 | 0 | 80 |
| 08:30 | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 42 | 0 | 35 | 2 | 79 | 0 | 0 | 0 | 0 | 0 | 87 |
| 08:45 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | **54** | **3** | 35 | **3** | **95** | 0 | 0 | 0 | 0 | 0 | **99** |
| Total Volume | 0 | 0 | 0 | 29 | 29 | 0 | 0 | 0 | 0 | 0 | 176 | 3 | 136 | 9 | 324 | 0 | 0 | 0 | 0 | 0 | 353 |
| % App. Total | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 0 | | 54.3 | 0.9 | 42 | 2.8 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .604 | .604 | .000 | .000 | .000 | .000 | .000 | .815 | .250 | .810 | .750 | .853 | .000 | .000 | .000 | .000 | .000 | .891 |
| Vehicles | 0 | 0 | 0 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 176 | 3 | 136 | 9 | 324 | 0 | 0 | 0 | 0 | 0 | 337 |
| % Vehicles | 0 | 0 | 0 | 44.8 | 44.8 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 95.5 |
| Heavy Vehicles | 0 | 0 | 0 | 16 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| % Heavy Vehicles | 0 | 0 | 0 | 55.2 | 55.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4.5 |

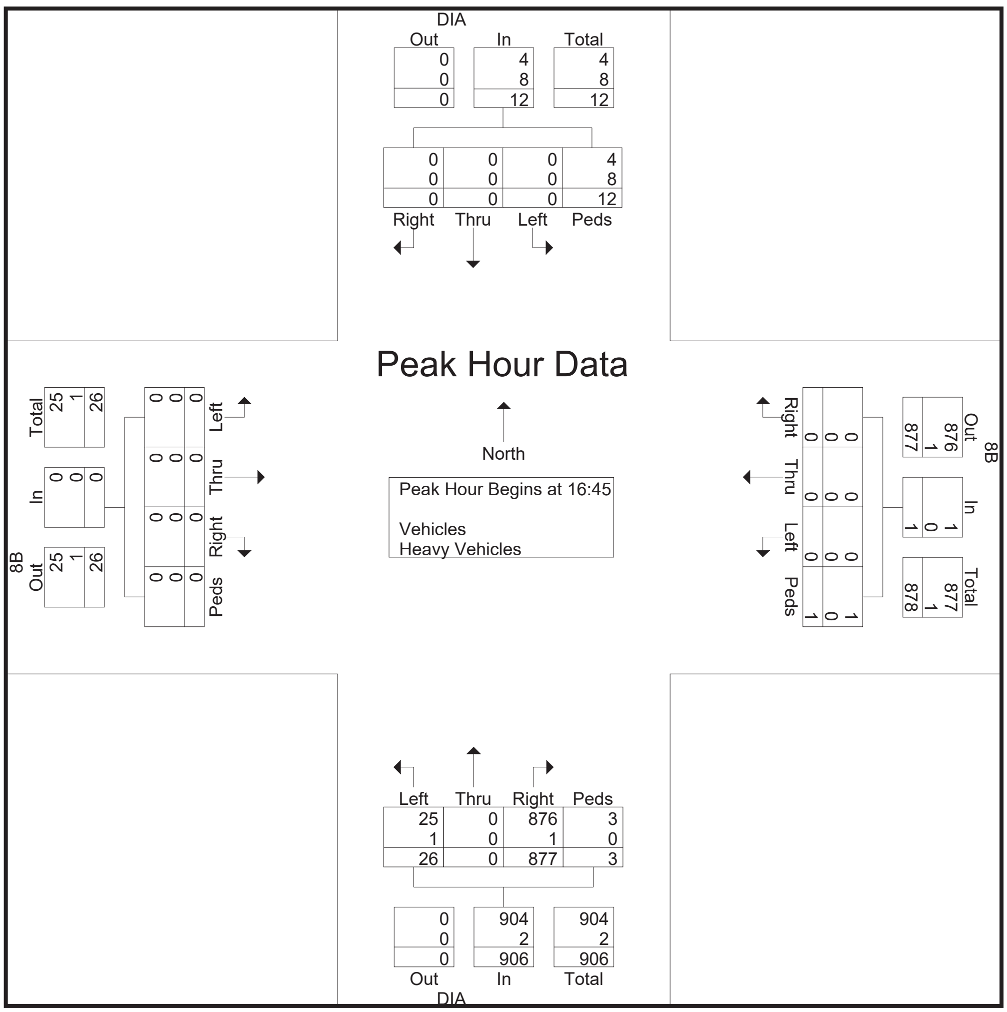


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

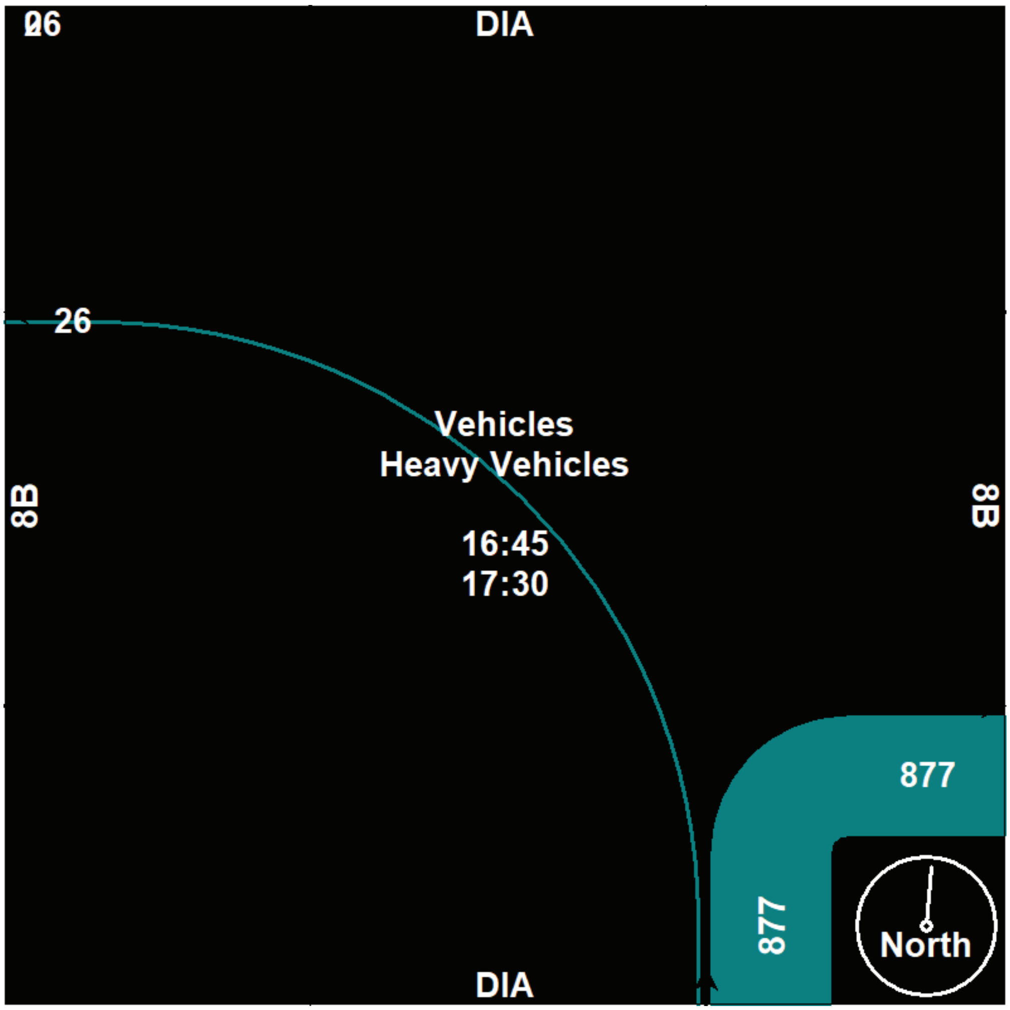
File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 4

| | DIA From North | | | | | 8B From East | | | | | DIA From South | | | | | 8B From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:45 | | | | | | | | | | | | | | | | | | | | | |
| 16:45 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 206 | 0 | 4 | **3** | 213 | 0 | 0 | 0 | 0 | 0 | 214 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **229** | 0 | 7 | 0 | **236** | 0 | 0 | 0 | 0 | 0 | **236** |
| 17:15 | 0 | 0 | 0 | **8** | **8** | 0 | 0 | 0 | **1** | **1** | 218 | 0 | 7 | 0 | 225 | 0 | 0 | 0 | 0 | 0 | 234 |
| 17:30 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 224 | 0 | **8** | 0 | 232 | 0 | 0 | 0 | 0 | 0 | 235 |
| Total Volume | 0 | 0 | 0 | 12 | 12 | 0 | 0 | 0 | 1 | 1 | 877 | 0 | 26 | 3 | 906 | 0 | 0 | 0 | 0 | 0 | 919 |
| % App. Total | 0 | 0 | 0 | 100 | | 0 | 0 | 0 | 100 | | 96.8 | 0 | 2.9 | 0.3 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .375 | .375 | .000 | .000 | .000 | .250 | .250 | .957 | .000 | .813 | .250 | .960 | .000 | .000 | .000 | .000 | .000 | .974 |
| Vehicles | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 1 | 1 | 876 | 0 | 25 | 3 | 904 | 0 | 0 | 0 | 0 | 0 | 909 |
| % Vehicles | 0 | 0 | 0 | 33.3 | 33.3 | 0 | 0 | 0 | 100 | 100 | 99.9 | 0 | 96.2 | 100 | 99.8 | 0 | 0 | 0 | 0 | 0 | 98.9 |
| Heavy Vehicles | 0 | 0 | 0 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| % Heavy Vehicles | 0 | 0 | 0 | 66.7 | 66.7 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 3.8 | 0 | 0.2 | 0 | 0 | 0 | 0 | 0 | 1.1 |



**Bohannon Huston, Inc.**
7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8B
Site Code : 00000000
Start Date : 7/10/2018
Page No : 5



# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

**Groups Printed- Bikes**

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 7 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 19 | 10 | 1 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| Apprch % | 0 | 0 | 0 | 0 | | 0 | 63.3 | 33.3 | 3.3 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 63.3 | 33.3 | 3.3 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

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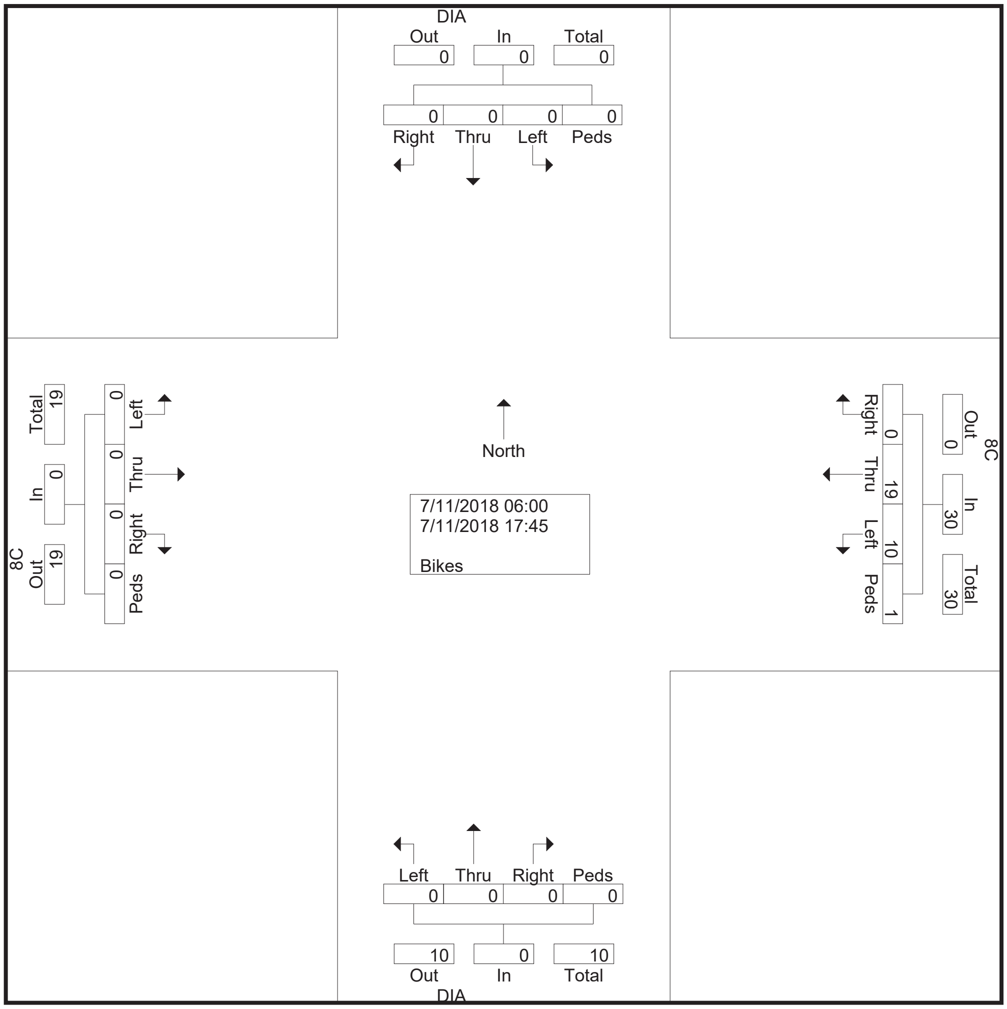
File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2



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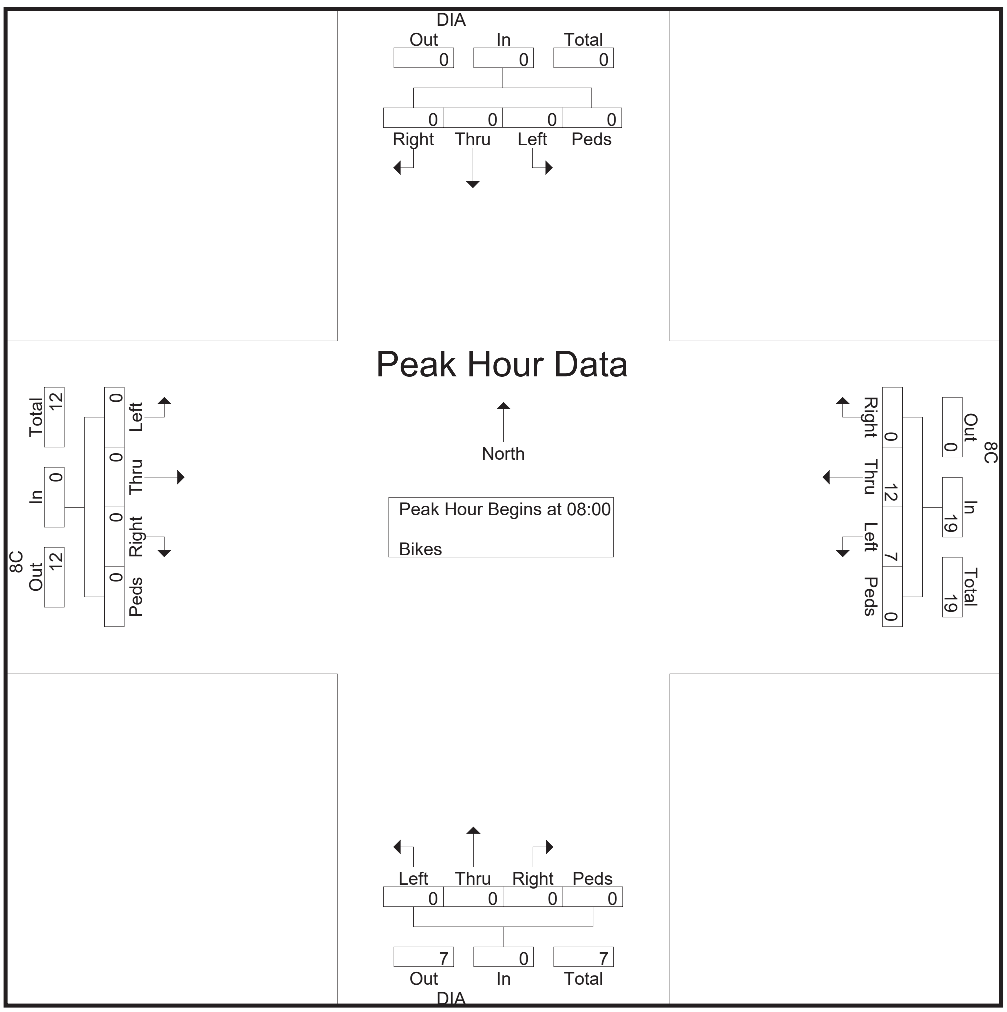
Albuquerque, NM 87109

File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 08:00 | | | | | | | | | | | | | | | | | | | | | |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | **6** | **3** | 0 | **9** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **9** |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 7 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 63.2 | 36.8 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .500 | .583 | .000 | .528 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .528 |



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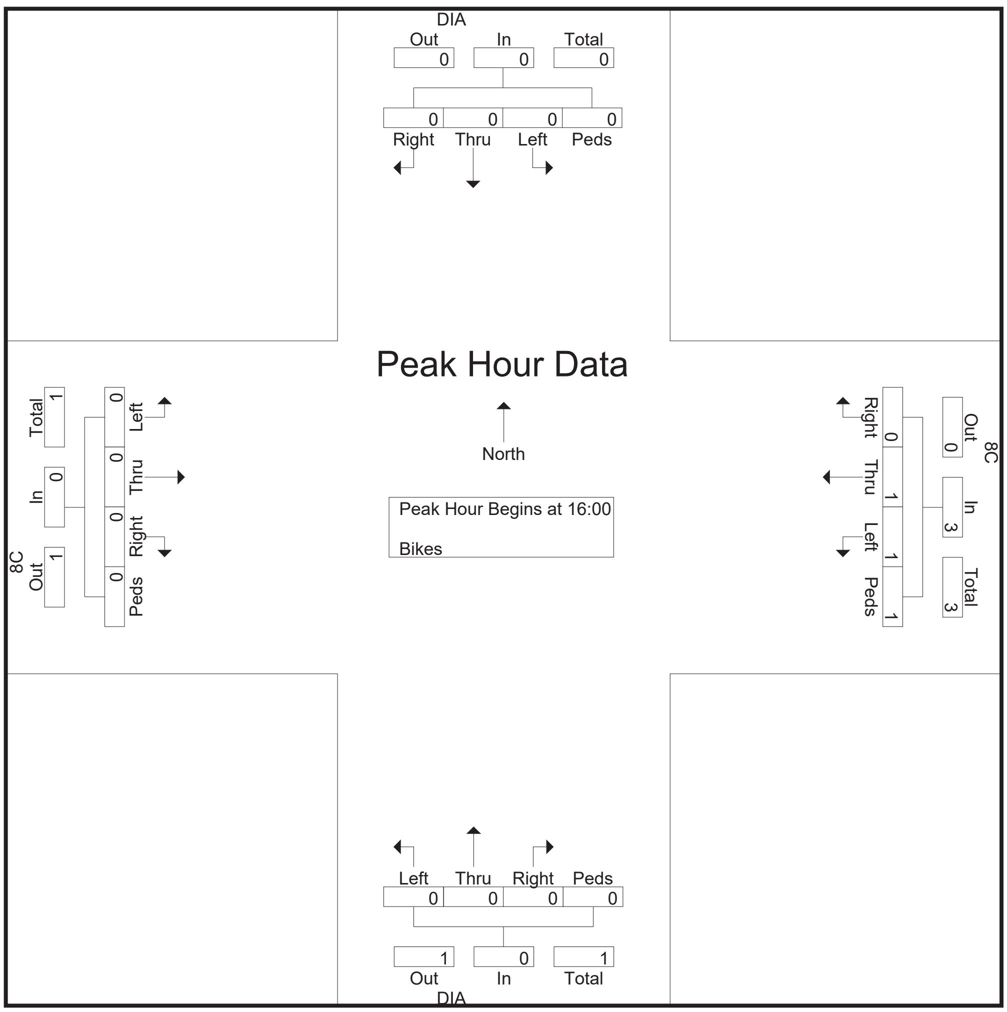
File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 16:00 | | | | | | | | | | | | | | | | | | | | | |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 33.3 | 33.3 | 33.3 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .250 | .250 | .750 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .750 |



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Albuquerque, NM 87109

File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 1

**Groups Printed- Vehicles - Heavy Vehicles**

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 1 | 96 | 115 | 0 | 212 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 212 |
| 06:15 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 148 | 2 | 297 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 297 |
| 06:30 | 0 | 0 | 0 | 0 | 0 | 0 | 237 | 170 | 1 | 408 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 408 |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | 286 | 235 | 0 | 521 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 521 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 766 | 668 | 3 | 1438 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1438 |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | 246 | 1 | 519 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 519 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | 28 | 236 | 185 | 2 | 451 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 451 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 229 | 3 | 497 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 497 |
| 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 232 | 204 | 3 | 439 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 439 |
| Total | 0 | 0 | 0 | 0 | 0 | 28 | 1005 | 864 | 9 | 1906 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1906 |
| 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 163 | 191 | 1 | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 355 |
| 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 130 | 147 | 2 | 279 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 279 |
| 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 112 | 133 | 4 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 249 |
| 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 110 | 4 | 215 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 215 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 506 | 581 | 11 | 1098 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1098 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 39 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 46 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 72 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 34 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 27 | 33 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 152 | 0 | 252 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 252 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 29 | 0 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 17 | 23 | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 21 | 1 | 43 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 1 | 22 | 30 | 8 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 61 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 82 | 103 | 9 | 195 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 24 | 2 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 14 | 13 | 12 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 26 | 3 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 42 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 14 | 1 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 77 | 18 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 160 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 30 | 2524 | 2445 | 50 | 5049 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5049 |
| Apprch % | 0 | 0 | 0 | 0 | | 0.6 | 50 | 48.4 | 1 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0.6 | 50 | 48.4 | 1 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 30 | 2524 | 2444 | 37 | 5035 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5035 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 74 | 99.7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99.7 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.3 |

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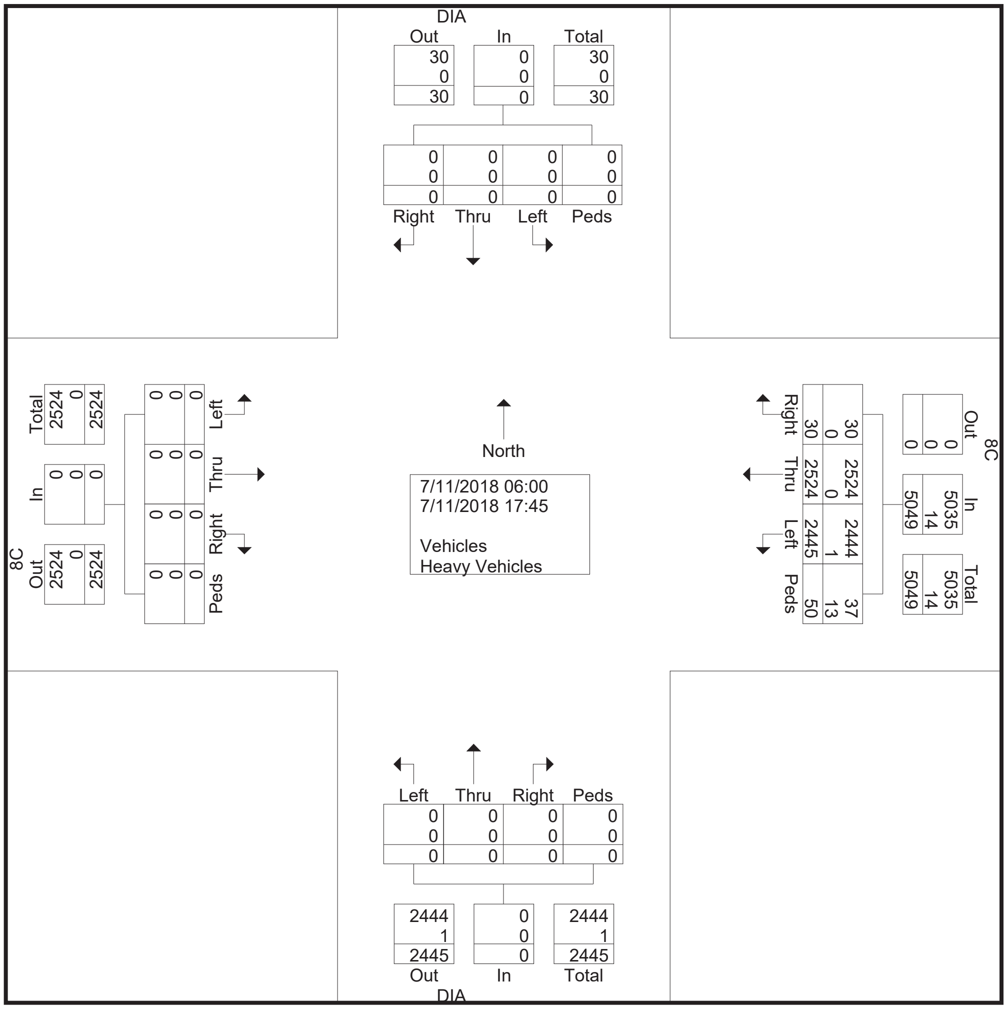
Albuquerque, NM 87109

File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 2



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7500 Jefferson Street NE
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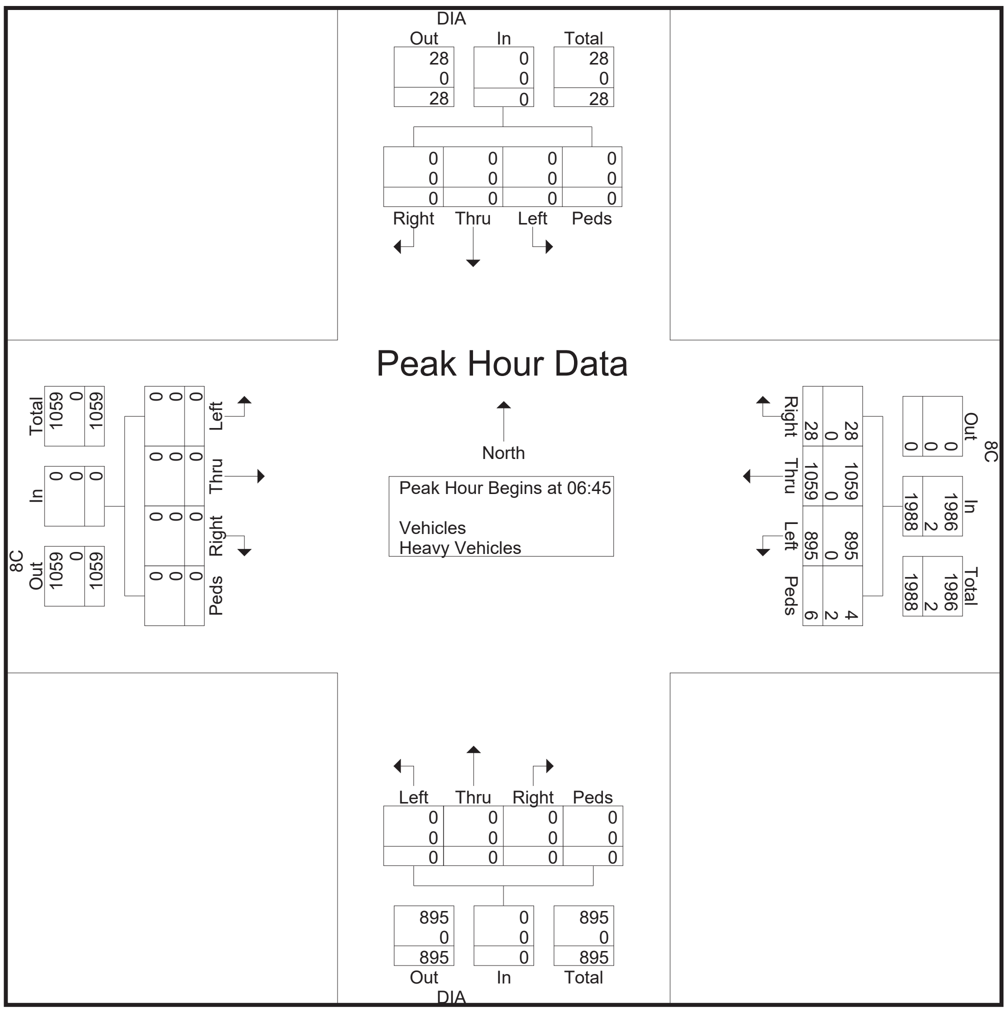
File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 3

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 06:00 to 11:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 06:45 | | | | | | | | | | | | | | | | | | | | | |
| 06:45 | 0 | 0 | 0 | 0 | 0 | 0 | **286** | 235 | 0 | **521** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **521** |
| 07:00 | 0 | 0 | 0 | 0 | 0 | 0 | 272 | **246** | 1 | 519 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 519 |
| 07:15 | 0 | 0 | 0 | 0 | 0 | **28** | 236 | 185 | 2 | 451 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 451 |
| 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 265 | 229 | **3** | 497 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 497 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 28 | 1059 | 895 | 6 | 1988 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1988 |
| % App. Total | 0 | 0 | 0 | 0 | | 1.4 | 53.3 | 45 | 0.3 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .250 | .926 | .910 | .500 | .954 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .954 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 28 | 1059 | 895 | 4 | 1986 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1986 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 66.7 | 99.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99.9 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33.3 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 |

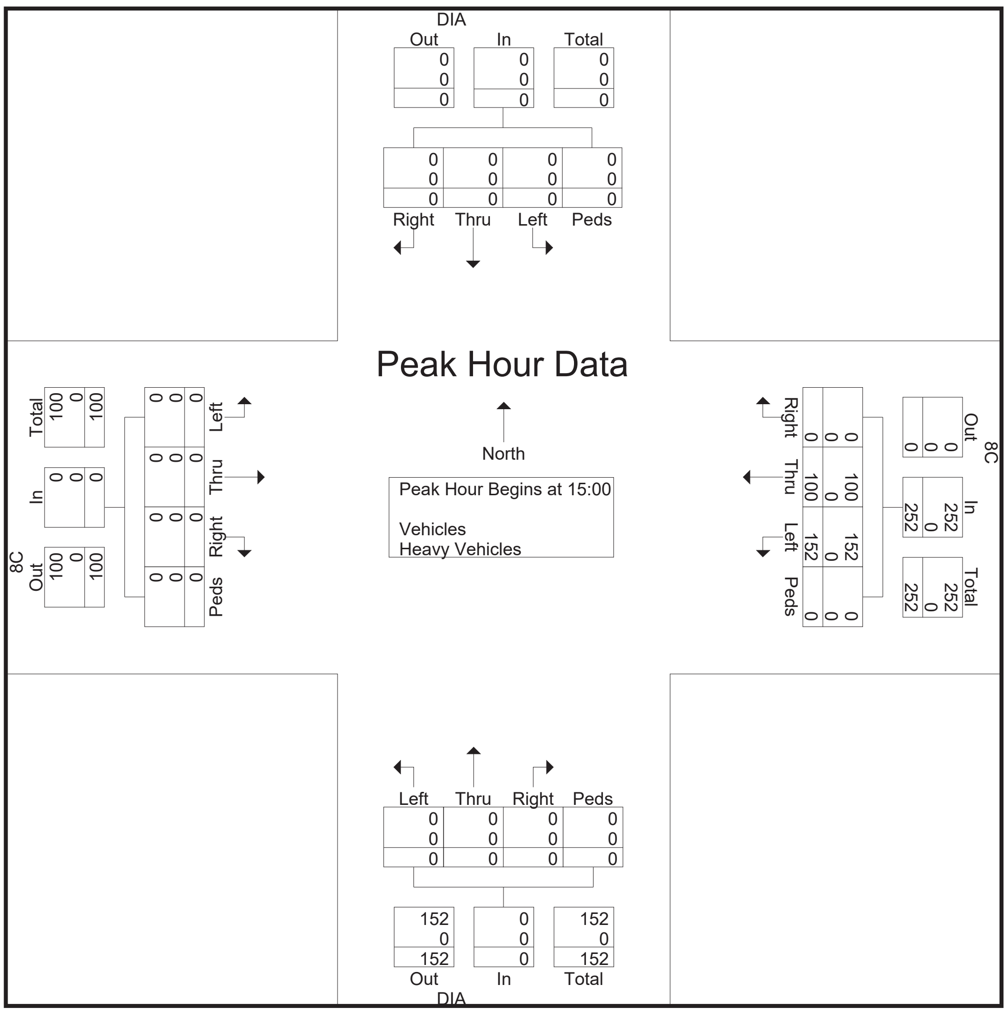


# Bohannon Huston, Inc.

7500 Jefferson Street NE
Albuquerque, NM 87109

File Name : 8C_JAMES
Site Code : 00000000
Start Date : 7/11/2018
Page No : 4

| | DIA From North | | | | | 8C From East | | | | | DIA From South | | | | | 8C From West | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Int. Total |
| Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 15:00 | | | | | | | | | | | | | | | | | | | | | |
| 15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | 39 | 0 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 26 | **46** | 0 | **72** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **72** |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 34 | 0 | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | **27** | 33 | 0 | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 152 | 0 | 252 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 252 |
| % App. Total | 0 | 0 | 0 | 0 | | 0 | 39.7 | 60.3 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .926 | .826 | .000 | .875 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .875 |
| Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 152 | 0 | 252 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 252 |
| % Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 0 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Heavy Vehicles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



# APPENDIX B
# 2018 EXISTING INTERSECTION CAPACITY ANALYSIS

Appendix B Listing – 2018 Existing Intersection Capacity Analysis

Synchro Certification Statement
Required HCM Data, Potential Data Sources and Default Values listing
Diamond & Sigma AM
Diamond & Eniwetok AM
Diamond & Embudo AM
Diamond & West Jemez AM
Diamond & Sigma PM
Diamond & Eniwetok PM
Diamond & Embudo PM
Diamond & West Jemez PM
Diamond & Pajarito Roundabout AM
Diamond & Pajarito Roundabout PM
Diamond & Pajarito Unsignalized AM
Diamond & South Drive AM
Diamond & Grable AM
Diamond & Coronado AM
Diamond & Pajarito Unsignalized PM
Diamond & South Drive PM
Diamond & Grable PM
Diamond & Coronado PM

Trafficware®

# Certificate of Validation

Traffic Signal Timing, Capacity Analysis, and Simulation

## Synchro

**Synchro** is a macroscopic analysis and optimization software application used by engineers to assess the traffic and environmental effects of transportation projects.

Synchro supports the Highway Capacity Manual's methodology (2000, 2010, and 6th Ed. methods) published by the Transportation Research Board (TRB) of the National Academies of Science in the United States for signalized intersections and roundabouts. Synchro incorporates the concepts, guidelines and computational procedures of the Highway Capacity Manual.

All Synchro application results are verified via a technical reference library of formulas provided by the TRB. This includes validation and accuracy of the data, content of all displays, and verification of system outputs through QA/QC.

X ______________________________

Jeff Cornelius, Director of Software Development

| Required Input Data, Potential Data Sources, and Default Values for Motorized Vehicle Analysis<br>Exhibit 19-11 Sixth Edition of the Highway Capacity Manual, pps. 19-23 and 19-24 | | | | |
|---|---|---|---|---|
| **Required Data and Units** | **Basis** | **Potential Data Source(s)** | **Suggested Default Value** | **Notes** |
| *Traffic Characteristics* | | | | |
| Demand flow rate (veh/h) | M | Field data, past counts | Must be provided | Actual traffic counts plus growth factors for future year analyses |
| Right-turn-on-red flow rate (veh/h) | A | Field data, past counts | 0 veh/h | 0 |
| Percentage heavy vehicles (%) | MG | Field data, past counts | 3% | Actual traffic counts, no adjustments for traffic growth to be conservative |
| Peak hour factor (decimal) | I | Field data, analyst judgement | Hourly data and 0.25-h analysis period:<br>Total entering volume greater than 1,000 veh/h, 0.92<br>Total entering volume less than 1,000 veh/h 0.90,<br>Otherwise 1.00 | Actual traffic counts, no adjustments for traffic growth to be conservative |
| Platoon ratio (decimal) | MG | Field data, analyst judgement | See discussion | Calculated by Synchro based on signal timing inputs and cycle length per HCM procedures |
| Upstream filtering adjustment factor (decimal) | MG | Field data, analyst judgement | 1.0 | Calculated by Synchro per HCM procedures |
| Initial queue (veh) | MG | Field data, analyst judgement | Must be provided | Set a zero, as at the beginning of the peak hour it was assumed there was no queue, though it does build througout the peak hour to be substantial |
| Base saturation flow rate (pc/h/ln) | MG | Field data, analyst judgement | Metro pop. greater than 250,000: 1,900 pc/h/ln,<br>Otherwise 1,750 pc/h/ln | 1,900 veh/h was used as it was considered that drivers are commuter who are familiar with the area and who all have experience in larger metro areas (like Albuquerque) |
| Lane utilization adjustment factor (decimal) | MG | Field data, analyst judgement | See discussion | Calculated by Synchro using HCM procedures, except at Embudo where it was modified to reflect that most drivers were in the outside right turn lane to be able to access the right turn lanes at the West Jemez road intersection |
| Pedestrian flow rate (p/h) | A | Field data, past counts | Must be provided | From actual counts |
| Bicycle flow rate (bicycles/h) | A | Field data, past counts | Must be provided | From actual counts |
| On-street parking maneuver rate (veh/h) | MG | Field data, analyst judgement | See discussion | n/a |
| Local bus stopping rate (buses/h) | A | Field data, analyst judgement | CBD bus stop: 12 buses/h<br>Non-CBD bus stop: 2 buses/h | n/a |
| Unsignalized movement delay (s) | M | Field data | See discussion | No unsignalized movements at signalized intersections |
| *Geometric Design* | | | | |
| Number of lanes (ln) | M | Field data, aerial photo | Must be provided | Determined from aerial |
| Average lane width (ft) | MG | Field data, aerial photo | 12 ft | Estimated from aerial |
| Number of receiving lanes (ln) | A | Field data, aerial photo | Must be provided | Determined from aerial |
| Turn bay length (ft) | MG | Field data, aerial photo | Must be provided | Determined from aerial |
| Presence of on-street parking | MG | Field data, aerial photo | Must be provided | n/a |
| Approach grade (%) | A | Field data | Flat approach: 0%<br>Moderate grade on approach: 3%<br>Steep grade on approach: 6% | Flat approach based on site visit |
| *Signal Control* | | | | |
| Type of signal control | I | Field data | Must be provided | Based on site visit |
| Phase sequence | A | Field data | Must be provided | Based on site visit |

| Required Data and Units | Basis | Potential Data Source(s) | Suggested Default Value | Notes |
|---|---|---|---|---|
| Left-turn operational mode | A | Field data | Must be provided | Based on site visit |
| Dallas left-turn phasing option | A | Field data | Dictated by local use | n/a |
| Passage time (s) (if actuated) | P | Field data | 2.0 s (presence detection) | 3.0 s, Synchro default |
| Maximum green (s) (if actuated) | P | Field data | Major-street through movement: 50 s<br>Minor-street thorugh movement: 30 s<br>Left-turn movement: 20 s | Based on Synchro optimization procedures |
| Green duration (s) (if pretimed) | P | Field data | Major-street through movement: 50 s<br>Minor-street thorugh movement: 30 s<br>Left-turn movement: 20 s | Based on Synchro optimization procedures |
| Minimum green (s) | P | Field data | Major-street through movement: 10 s<br>Minor-street thorugh movement: 8 sLeft-turn movement: 6 s | Based on Synchro optimization procedures |
| Yellow change + red clearance (s)* | P | Field data | 4.0 s | 4.5 s, Synchro default |
| Walk (s) | P | Field data | Actuated: 7.0 s<br>Pretimed: green interval minuse pedestrian clear | 7.0 s, Synchro default |
| Pedestrian clear (s) | P | Field data | Based on 3.5-ft/s walking speed | Based on Synchro defaults based on HCM procedures |
| Phase recall (if actuated) | P | Field data | No recall | None |
| Dual entry (if actuated) | P | Field data | Not enabled (i.e., use single entry) | Synchro defaults per HCM procedures |
| Simultaneous gap-out (if actuated) | A | Field data | Enabled | Synchro defaults per HCM procedures |
| Cycle length (if pretimed) | I | Field data | See discussion | Used 90 seconds for existing, allowed Synchro to optimize for growth scenarios |
| *Other Data* | | | | |
| Analysis period duration (h) | I | Set by analyst | 0.25 h | 0.25 h |
| Speed limit (mi/h) | A | Field data, road inventory | Must be provided | 30 MPH |
| Stop-line detector length (ft) and detection mode (if actuated) | MG | Field data | 40 ft, presence detection mode | 40 ft |
| Area type (CBD, non-CBD) | I | Analyst judgment | Must be provided | non-CBD |

Notes: M - movement: one value for each left-turn, through, and right-turn movement.
A = approach: one value or condition for the intersection approach.
MG = movement group: one value for each turn movement with exclusive turn lanes and one value for the through movement (inclusive of any turn movements in a shared lane).
I = intersection: one value or condition for the intersection.
P = phase: one value or condition for each signal phase.
CBD = central business district; val. = volume; pop. = population.
* Specific values of yellow change and red clearance should be determined by local guidelin

## Required Additional Input Data, Potential Data Sources, and Default Values for Motorized Vehicle Analysis with Coordinated Signal Control

### Exhibit 19-12 Sixth Edition of the Highway Capacity Manual, p. 19-24

| | | Potential Data | | |
|---|---|---|---|---|
| **Required Data and Units** | **Basis** | **Source(s)** | **Suggested Default Value** | **Notes** |
| Cycle length (s) | I | Field Data | See discussion | Used 90 seconds for existing, allowed Synchro to optimize for growth scenarios |
| Phase splits (s) (if actuated) | P | Field Data | See discussion | Synchro optimiziation |
| Offset (s) | I | Field Data | Equal to travel time in Phase 2 direction** | Synchro optimiziation |
| Offset reference point (s) | I | Field Data | End of green fpor Phase 2** | Synchro default for N/S coordination |
| Force mode (if actuated) | I | Field Data | Fixed | Fixed |

Notes: I = intersection: one value or condition for the intersection.
P = phase: one value or condition for each signal phase.
** Assumes Phase 2 is the reference phase. Substitute 6 if Phase 6 is the reference phase.

## Required Input Data, Potential Data Sources, and Default Values for Roundabout Motorized Vehicle Analysis

### Exhibit 22-9 Sixth Edition of the Highway Capacity Manual, p. 22-14

| Potential Data | | | |
|---|---|---|---|
| **Required Data and Units** | **Potential Data Source(s)** | **Suggested Default Value** | **Notes** |
| | | *Geometric Data* | |
| Number and configuration of lanes on each approach | Design plans, road inventory | Must be provided | Used aerial to determine |
| | | *Demand Data* | |
| Hourly turning movement demand volume (veh/h) AND peak hour factor<br>OR<br>Hourly turning movement demand flow rate (veh/h) | Field data, modeling | Must be provided | Actual traffic counts plus growth factors for future year analyses |
| Analysis period length (min) | Set by analyst | 15 min (0.25 h) | 15 min |
| Peak hour factor (decimal) | Field data | 0.92 | Actual from traffic counts, no adjustments for traffic growth to be conservative |
| Heavy vehicle percentage (%) | Field data | 3% | Actual from traffic counts, no adjustments for traffic growth to be conservative |
| Lane Utilization | Field data | Left-through + through-right: % traffic in left lane: 0.47* % traffic in right lane: 0.53*<br><br>Left-through-right + right: % traffic in left lane: 0.47* % traffic in right lane: 0.53*<br><br>Left + left-through-right: % traffic in left lane: 0.53* % traffic in right lane: 0.47* | Used 1.0 as each movement has their own lane, no need to use more than one lane |

Note: *These values are generally consistent with observed values for through movements at signalized intersections. These values should be applied with care, particularly under conditions estimated to be near capacity

Required Input Data, Potential Data Sources, and Default Values for Two-Way Stop Controlled Motorized Vehicle Analysis

Exhibit 20-5 Sixth Edition of the Highway Capacity Manual, p. 20-10

| Potential Data | | | |
|---|---|---|---|
| **Required Data and Units** | **Potential Data Source(s)** | **Suggested Default Value** | **Notes** |
| *Geometric Data* | | | |
| Number and configuration of lanes on each approach | Design plans, road inventory | Must be provided | Used aerial to determine |
| Approach grades | Design plans, road inventory | 0% | Site visit, 0% |
| Special geometric factors such as:<br>Unique channelization aspects<br>Existence of two-way left-turn lane or raised or striped median storage (or both)<br>Existence of upstream signals | Design plans, road inventory | Must be provided | Used aerial to determine |
| *Demand Data* | | | |
| Hourly turning movement demand volume (veh/h) AND peak hour factor<br>OR<br>Hourly turning movement demand flow rate (veh/h) | Field data, modeling | Must be provided | Actual traffic counts plus growth factors for future year analyses |
| Analysis period length (min) | Set by analyst | 15 min (0.25 h) | 15 min |
| Peak hour factor (decimal) | Field data | 0.92 | Actual from traffic counts, no adjustments for traffic growth to be conservative |
| Heavy vehicle percentage (%) | Field data | 3% | Actual from traffic counts, no adjustments for traffic growth to be conservative |
| Saturation flow rate for major-street through movement (for analysis of shared or short major-street , left-turn lanes) | Field data | 1,800 veh/h | 1,900 veh/h as drivers were considered to be familiar with area due to daily use |
| Saturation flow rate for major-street right-turn movement (for analysis of shared or short major-street , left-turn lanes) | Field data | 1,500 veh/h | 1,900 veh/h as drivers were considered to be familiar with area due to daily use |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Future Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.98 | | 0.96 | 0.98 | | 0.94 | 1.00 | | 0.97 | 1.00 | | 0.96 |
| 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 | 1648 | 1648 | 1648 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 6 | 1 | 7 | 20 | 0 | 17 | 7 | 313 | 43 | 60 | 606 | 64 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 17 | 17 | 17 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 106 | 9 | 147 | 117 | 0 | 163 | 499 | 1009 | 139 | 755 | 1112 | 117 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.11 | 0.01 | 0.63 | 0.63 | 0.05 | 0.67 | 0.67 |
| Sat Flow, veh/h | 15 | 81 | 1346 | 48 | 0 | 1491 | 1781 | 1602 | 220 | 1781 | 1656 | 175 |
| Grp Volume(v), veh/h | 7 | 0 | 7 | 20 | 0 | 17 | 7 | 0 | 356 | 60 | 0 | 670 |
| Grp Sat Flow(s),veh/h/ln | 95 | 0 | 1346 | 48 | 0 | 1491 | 1781 | 0 | 1822 | 1781 | 0 | 1831 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.3 | 0.2 | 0.0 | 0.7 | 0.1 | 0.0 | 5.8 | 0.7 | 0.0 | 12.2 |
| Cycle Q Clear(g_c), s | 7.0 | 0.0 | 0.3 | 7.0 | 0.0 | 0.7 | 0.1 | 0.0 | 5.8 | 0.7 | 0.0 | 12.2 |
| Prop In Lane | 0.86 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.12 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 114 | 0 | 147 | 117 | 0 | 163 | 499 | 0 | 1147 | 755 | 0 | 1230 |
| V/C Ratio(X) | 0.06 | 0.00 | 0.05 | 0.17 | 0.00 | 0.10 | 0.01 | 0.00 | 0.31 | 0.08 | 0.00 | 0.54 |
| Avail Cap(c_a), veh/h | 377 | 0 | 429 | 406 | 0 | 475 | 912 | 0 | 1147 | 1094 | 0 | 1230 |
| 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 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.0 | 0.0 | 25.6 | 32.1 | 0.0 | 25.8 | 4.9 | 0.0 | 5.5 | 3.6 | 0.0 | 5.5 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.1 | 0.7 | 0.0 | 0.3 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | 1.7 |
| 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 | 0.2 | 0.0 | 0.2 | 0.6 | 0.0 | 0.4 | 0.0 | 0.0 | 3.4 | 0.3 | 0.0 | 6.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.2 | 0.0 | 25.8 | 32.8 | 0.0 | 26.1 | 4.9 | 0.0 | 6.2 | 3.7 | 0.0 | 7.2 |
| LnGrp LOS | C | A | C | C | A | C | A | A | A | A | A | A |
| Approach Vol, veh/h | | 14 | | | 37 | | | 363 | | | 730 | |
| Approach Delay, s/veh | | 26.0 | | | 29.7 | | | 6.2 | | | 6.9 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.8 | 45.0 | | 11.6 | 5.1 | 47.7 | | 11.6 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 15.5 | 40.5 | | 20.5 | 15.5 | 40.5 | | 20.5 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 7.8 | | 9.0 | 2.1 | 14.2 | | 9.0 |
| Green Ext Time (p_c), s | 0.1 | 2.4 | | 0.0 | 0.0 | 5.2 | | 0.1 |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 7.6 |
| HCM 6th LOS | | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Future Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.96 | | 0.91 | 0.95 | | 1.00 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 1 | 8 | 59 | 1 | 0 | 26 | 266 | 0 | 37 | 713 | 267 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 200 | 53 | 136 | 237 | 3 | | 425 | 1217 | | 839 | 1233 | 1033 |
| Arrive On Green | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.03 | 0.65 | 0.00 | 0.04 | 0.66 | 0.66 |
| Sat Flow, veh/h | 1048 | 557 | 1436 | 1291 | 33 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1567 |
| Grp Volume(v), veh/h | 4 | 0 | 8 | 60 | 0 | 0 | 26 | 266 | 0 | 37 | 713 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1605 | 0 | 1436 | 1323 | 0 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1567 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.3 | 2.6 | 0.0 | 0.0 | 0.3 | 3.6 | 0.0 | 0.4 | 13.1 | 4.4 |
| Cycle Q Clear(g_c), s | 0.1 | 0.0 | 0.3 | 2.7 | 0.0 | 0.0 | 0.3 | 3.6 | 0.0 | 0.4 | 13.1 | 4.4 |
| Prop In Lane | 0.75 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 253 | 0 | 136 | 240 | 0 | | 425 | 1217 | | 839 | 1233 | 1033 |
| V/C Ratio(X) | 0.02 | 0.00 | 0.06 | 0.25 | 0.00 | | 0.06 | 0.22 | | 0.04 | 0.58 | 0.26 |
| Avail Cap(c_a), veh/h | 595 | 0 | 473 | 554 | 0 | | 817 | 1217 | | 1215 | 1233 | 1033 |
| 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 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.6 | 0.0 | 25.7 | 26.8 | 0.0 | 0.0 | 4.6 | 4.4 | 0.0 | 3.2 | 5.8 | 4.4 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 0.5 | 0.0 | 0.0 | 0.1 | 0.4 | 0.0 | 0.0 | 2.0 | 0.6 |
| 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 | 0.1 | 0.0 | 0.2 | 1.5 | 0.0 | 0.0 | 0.1 | 2.0 | 0.0 | 0.2 | 7.5 | 2.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.6 | 0.0 | 25.8 | 27.3 | 0.0 | 0.0 | 4.6 | 4.8 | 0.0 | 3.2 | 7.8 | 5.0 |
| LnGrp LOS | C | A | C | C | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 12 | | | 60 | A | | 292 | A | | 1017 | |
| Approach Delay, s/veh | | 25.8 | | | 27.3 | | | 4.8 | | | 6.9 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.9 | 45.0 | | 10.4 | 6.3 | 45.6 | | 10.4 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.5 | 40.5 | | 20.5 | 15.5 | 40.5 | | 20.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.6 | | 2.3 | 2.3 | 15.1 | | 4.7 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.7 | | 0.0 | 0.0 | 6.6 | | 0.2 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 7.5 |
| HCM 6th LOS | | | A |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 |
| Future Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 30 | 23 | 204 | 22 | 60 | 1037 |
| Peak Hour Factor | 0.74 | 0.74 | 0.90 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 81 | 72 | 1357 | 145 | 1049 | 1554 |
| Arrive On Green | 0.05 | 0.05 | 0.54 | 0.54 | 0.23 | 0.83 |
| Sat Flow, veh/h | 1781 | 1585 | 3414 | 267 | 1781 | 1870 |
| Grp Volume(v), veh/h | 30 | 23 | 77 | 149 | 60 | 1037 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 954 | 1811 | 1781 | 1870 |
| Q Serve(g_s), s | 1.2 | 1.0 | 2.9 | 3.0 | 0.0 | 15.3 |
| Cycle Q Clear(g_c), s | 1.2 | 1.0 | 2.9 | 3.0 | 0.0 | 15.3 |
| Prop In Lane | 1.00 | 1.00 | | 0.15 | 1.00 | |
| Lane Grp Cap(c), veh/h | 81 | 72 | 518 | 984 | 1049 | 1554 |
| V/C Ratio(X) | 0.37 | 0.32 | 0.15 | 0.15 | 0.06 | 0.67 |
| Avail Cap(c_a), veh/h | 505 | 449 | 518 | 984 | 1049 | 1554 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.7 | 33.6 | 8.2 | 8.3 | 3.4 | 2.3 |
| Incr Delay (d2), s/veh | 2.8 | 2.5 | 0.6 | 0.3 | 0.0 | 2.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.0 | 0.8 | 1.1 | 2.0 | 0.4 | 4.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.5 | 36.2 | 8.8 | 8.6 | 3.5 | 4.6 |
| LnGrp LOS | D | D | A | A | A | A |
| Approach Vol, veh/h | 53 | | 226 | | | 1097 |
| Approach Delay, s/veh | 36.4 | | 8.7 | | | 4.6 |
| Approach LOS | D | | A | | | A |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 20.9 | 44.0 | | | | 64.9 | | 7.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 16.4 | 39.5 | | | | 60.4 | | 20.6 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 5.0 | | | | 17.3 | | 3.2 |
| Green Ext Time (p_c), s | 0.1 | 1.4 | | | | 12.0 | | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 6.5 |
| HCM 6th LOS | A |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Future Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.94 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 126 | 173 | 942 | 1115 | 15 | 210 |
| Peak Hour Factor | 0.91 | 0.91 | 0.95 | 0.95 | 0.84 | 0.84 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 521 | 725 | 1114 | 1916 | 1107 | 1793 |
| Arrive On Green | 0.15 | 0.15 | 0.32 | 0.54 | 0.32 | 0.32 |
| Sat Flow, veh/h | 3647 | 1482 | 3456 | 3647 | 3456 | 2790 |
| Grp Volume(v), veh/h | 126 | 173 | 942 | 1115 | 15 | 210 |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1482 | 1728 | 1777 | 1728 | 1395 |
| Q Serve(g_s), s | 2.0 | 4.5 | 16.3 | 13.5 | 0.2 | 0.0 |
| Cycle Q Clear(g_c), s | 2.0 | 4.5 | 16.3 | 13.5 | 0.2 | 0.0 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 521 | 725 | 1114 | 1916 | 1107 | 1793 |
| V/C Ratio(X) | 0.24 | 0.24 | 0.85 | 0.58 | 0.01 | 0.12 |
| Avail Cap(c_a), veh/h | 1694 | 1214 | 1377 | 3359 | 1107 | 1793 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.2 | 10.3 | 20.2 | 9.9 | 14.8 | 4.4 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 4.2 | 0.3 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.4 | 4.3 | 10.6 | 7.5 | 0.1 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 24.4 | 10.5 | 24.4 | 10.2 | 14.9 | 4.6 |
| LnGrp LOS | C | B | C | B | B | A |
| Approach Vol, veh/h | 299 | | | 2057 | 225 | |
| Approach Delay, s/veh | 16.3 | | | 16.7 | 5.2 | |
| Approach LOS | B | | | B | A | |

| Timer - Assigned Phs | 2 | 3 | 4 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 25.0 | 25.1 | 13.9 | 39.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 20.5 | 25.5 | 30.5 | 60.5 |
| Max Q Clear Time (g_c+I1), s | 2.2 | 18.3 | 6.5 | 15.5 |
| Green Ext Time (p_c), s | 0.8 | 2.4 | 1.3 | 10.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 15.7 |
| HCM 6th LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Future Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.97 | 1.00 | | 0.98 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 40 | 0 | 24 | 24 | 0 | 53 | 3 | 593 | 9 | 8 | 236 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 97 | 0 | 426 | 97 | 0 | 426 | 639 | 981 | 15 | 373 | 983 | 29 |
| Arrive On Green | 0.27 | 0.00 | 0.27 | 0.27 | 0.00 | 0.27 | 0.00 | 0.54 | 0.54 | 0.01 | 0.54 | 0.54 |
| Sat Flow, veh/h | 5 | 0 | 1565 | 5 | 0 | 1565 | 1767 | 1822 | 28 | 1781 | 1806 | 54 |
| Grp Volume(v), veh/h | 40 | 0 | 24 | 24 | 0 | 53 | 3 | 0 | 602 | 8 | 0 | 243 |
| Grp Sat Flow(s),veh/h/ln | 5 | 0 | 1565 | 5 | 0 | 1565 | 1767 | 0 | 1850 | 1781 | 0 | 1859 |
| Q Serve(g_s), s | 0.1 | 0.0 | 0.9 | 0.1 | 0.0 | 1.9 | 0.1 | 0.0 | 16.8 | 0.2 | 0.0 | 5.2 |
| Cycle Q Clear(g_c), s | 20.5 | 0.0 | 0.9 | 20.5 | 0.0 | 1.9 | 0.1 | 0.0 | 16.8 | 0.2 | 0.0 | 5.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 97 | 0 | 426 | 97 | 0 | 426 | 639 | 0 | 996 | 373 | 0 | 1012 |
| V/C Ratio(X) | 0.41 | 0.00 | 0.06 | 0.25 | 0.00 | 0.12 | 0.00 | 0.00 | 0.60 | 0.02 | 0.00 | 0.24 |
| Avail Cap(c_a), veh/h | 98 | 0 | 426 | 98 | 0 | 426 | 996 | 0 | 996 | 721 | 0 | 1012 |
| 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 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 37.6 | 0.0 | 20.2 | 37.6 | 0.0 | 20.6 | 8.0 | 0.0 | 11.9 | 9.6 | 0.0 | 9.0 |
| Incr Delay (d2), s/veh | 2.8 | 0.0 | 0.1 | 1.3 | 0.0 | 0.1 | 0.0 | 0.0 | 2.7 | 0.0 | 0.0 | 0.6 |
| 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 | 1.4 | 0.0 | 0.6 | 0.8 | 0.0 | 1.2 | 0.0 | 0.0 | 11.1 | 0.1 | 0.0 | 3.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.4 | 0.0 | 20.3 | 38.9 | 0.0 | 20.8 | 8.0 | 0.0 | 14.6 | 9.6 | 0.0 | 9.5 |
| LnGrp LOS | D | A | C | D | A | C | A | A | B | A | A | A |
| Approach Vol, veh/h | | 64 | | | 77 | | | 605 | | | 251 | |
| Approach Delay, s/veh | | 32.9 | | | 26.4 | | | 14.6 | | | 9.5 | |
| Approach LOS | | C | | | C | | | B | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 5.3 | 45.0 | | 25.0 | 4.8 | 45.5 | | 25.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.5 | 40.5 | | 20.5 | 15.5 | 40.5 | | 20.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.2 | 18.8 | | 22.5 | 2.1 | 7.2 | | 22.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.2 | | 0.0 | 0.0 | 1.5 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 15.4 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Future Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.95 | | 0.93 | 0.94 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 |
| 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 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 41 | 1 | 13 | 45 | 0 | 0 | 11 | 612 | 0 | 25 | 243 | 4 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 295 | 6 | 188 | 251 | 0 | | 815 | 1184 | | 530 | 1184 | 976 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.00 | 0.00 | 0.03 | 0.63 | 0.00 | 0.03 | 0.63 | 0.63 |
| Sat Flow, veh/h | 1439 | 46 | 1468 | 1078 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1541 |
| Grp Volume(v), veh/h | 42 | 0 | 13 | 45 | 0 | 0 | 11 | 612 | 0 | 25 | 243 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1485 | 0 | 1468 | 1078 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1541 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.5 | 2.0 | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 3.5 | 0.1 |
| Cycle Q Clear(g_c), s | 1.4 | 0.0 | 0.5 | 3.5 | 0.0 | 0.0 | 0.0 | 11.4 | 0.0 | 0.0 | 3.5 | 0.1 |
| Prop In Lane | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 301 | 0 | 188 | 251 | 0 | | 815 | 1184 | | 530 | 1184 | 976 |
| V/C Ratio(X) | 0.14 | 0.00 | 0.07 | 0.18 | 0.00 | | 0.01 | 0.52 | | 0.05 | 0.21 | 0.00 |
| Avail Cap(c_a), veh/h | 559 | 0 | 470 | 502 | 0 | | 1197 | 1184 | | 912 | 1184 | 976 |
| 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 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.9 | 0.0 | 24.5 | 26.5 | 0.0 | 0.0 | 5.0 | 6.4 | 0.0 | 8.8 | 5.0 | 4.3 |
| Incr Delay (d2), s/veh | 0.2 | 0.0 | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.4 | 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 | 1.0 | 0.0 | 0.3 | 1.1 | 0.0 | 0.0 | 0.1 | 6.9 | 0.0 | 0.3 | 2.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.2 | 0.0 | 24.7 | 26.8 | 0.0 | 0.0 | 5.0 | 8.0 | 0.0 | 8.9 | 5.3 | 4.3 |
| LnGrp LOS | C | A | C | C | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 55 | | | 45 | A | | 623 | A | | 272 | |
| Approach Delay, s/veh | | 25.0 | | | 26.8 | | | 8.0 | | | 5.7 | |
| Approach LOS | | C | | | C | | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 6.3 | 45.0 | | 12.7 | 6.3 | 45.0 | | 12.7 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 15.5 | 40.5 | | 20.5 | 15.5 | 40.5 | | 20.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 13.4 | | 3.4 | 2.0 | 5.5 | | 5.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.5 | | 0.2 | 0.0 | 1.5 | | 0.1 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 9.1 |
| HCM 6th LOS | A |

**Notes**

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Future Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 31 | 136 | 1204 | 15 | 19 | 229 |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.74 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 197 | 175 | 1264 | 16 | 565 | 1448 |
| Arrive On Green | 0.11 | 0.11 | 0.45 | 0.45 | 0.26 | 0.77 |
| Sat Flow, veh/h | 1781 | 1585 | 3698 | 35 | 1781 | 1870 |
| Grp Volume(v), veh/h | 31 | 136 | 413 | 806 | 19 | 229 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 954 | 1863 | 1781 | 1870 |
| Q Serve(g_s), s | 1.2 | 6.5 | 32.5 | 32.5 | 0.0 | 2.5 |
| Cycle Q Clear(g_c), s | 1.2 | 6.5 | 32.5 | 32.5 | 0.0 | 2.5 |
| Prop In Lane | 1.00 | 1.00 | | 0.02 | 1.00 | |
| Lane Grp Cap(c), veh/h | 197 | 175 | 433 | 846 | 565 | 1448 |
| V/C Ratio(X) | 0.16 | 0.78 | 0.95 | 0.95 | 0.03 | 0.16 |
| Avail Cap(c_a), veh/h | 467 | 416 | 433 | 846 | 565 | 1448 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.5 | 33.8 | 20.5 | 20.5 | 21.1 | 2.3 |
| Incr Delay (d2), s/veh | 0.4 | 7.1 | 32.9 | 21.4 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.0 | 5.0 | 15.8 | 24.7 | 0.5 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 31.8 | 40.9 | 53.4 | 41.9 | 21.1 | 2.5 |
| LnGrp LOS | C | D | D | D | C | A |
| Approach Vol, veh/h | 167 | | 1219 | | | 248 |
| Approach Delay, s/veh | 39.2 | | 45.8 | | | 3.9 |
| Approach LOS | D | | D | | | A |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 25.0 | 40.0 | | | | 65.0 | | 13.2 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 20.5 | 35.5 | | | | 60.5 | | 20.5 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 34.5 | | | | 4.5 | | 8.5 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | | | | 1.5 | | 0.4 |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 38.8 |
| HCM 6th LOS | | D |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Future Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 1031 | 129 | 173 | 114 | 27 | 904 |
| Peak Hour Factor | 0.97 | 0.97 | 0.88 | 0.88 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1118 | 1120 | 289 | 1662 | 1359 | 1331 |
| Arrive On Green | 0.31 | 0.31 | 0.08 | 0.47 | 0.39 | 0.39 |
| Sat Flow, veh/h | 3647 | 1577 | 3456 | 3647 | 3456 | 2790 |
| Grp Volume(v), veh/h | 1031 | 129 | 173 | 114 | 27 | 904 |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1577 | 1728 | 1777 | 1728 | 1395 |
| Q Serve(g_s), s | 18.2 | 1.7 | 3.1 | 1.1 | 0.3 | 16.3 |
| Cycle Q Clear(g_c), s | 18.2 | 1.7 | 3.1 | 1.1 | 0.3 | 16.3 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 1118 | 1120 | 289 | 1662 | 1359 | 1331 |
| V/C Ratio(X) | 0.92 | 0.12 | 0.60 | 0.07 | 0.02 | 0.68 |
| Avail Cap(c_a), veh/h | 1124 | 1122 | 1626 | 3042 | 1359 | 1331 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.4 | 3.0 | 28.6 | 9.5 | 12.0 | 13.1 |
| Incr Delay (d2), s/veh | 12.3 | 0.0 | 2.0 | 0.0 | 0.0 | 2.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 13.4 | 2.4 | 2.3 | 0.7 | 0.2 | 8.3 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 33.7 | 3.1 | 30.6 | 9.5 | 12.0 | 15.9 |
| LnGrp LOS | C | A | C | A | B | B |
| Approach Vol, veh/h | 1160 | | | 287 | 931 | |
| Approach Delay, s/veh | 30.3 | | | 22.2 | 15.8 | |
| Approach LOS | C | | | C | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 30.0 | 9.9 | 24.9 | | | | 34.8 |
| Change Period (Y+Rc), s | | 4.5 | 4.5 | 4.5 | | | | 4.5 |
| Max Green Setting (Gmax), s | | 25.5 | 30.5 | 20.5 | | | | 55.5 |
| Max Q Clear Time (g_c+I1), s | | 18.3 | 5.1 | 20.2 | | | | 3.1 |
| Green Ext Time (p_c), s | | 2.6 | 0.5 | 0.2 | | | | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.7 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 5.8 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 2 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 112 | 538 | 576 |
| Demand Flow Rate, veh/h | 114 | 549 | 588 |
| Vehicles Circulating, veh/h | 490 | 45 | 210 |
| Vehicles Exiting, veh/h | 308 | 559 | 45 |
| Ped Vol Crossing Leg, #/h | 2 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 5.8 | 4.7 | 6.8 |
| Approach LOS | A | A | A |

| Lane | Left | Left | Bypass | Left | Right |
|---|---|---|---|---|---|
| Designated Moves | LT | T | R | L | TR |
| Assumed Moves | LT | T | R | L | TR |
| RT Channelized | | | Yield | | |
| Lane Util | 1.000 | 1.000 | | 0.833 | 0.167 |
| Follow-Up Headway, s | 2.609 | 2.609 | | 2.535 | 2.535 |
| Critical Headway, s | 4.976 | 4.976 | 339 | 4.544 | 4.544 |
| Entry Flow, veh/h | 114 | 210 | 1318 | 490 | 98 |
| Cap Entry Lane, veh/h | 837 | 1318 | 0.980 | 1173 | 1173 |
| Entry HV Adj Factor | 0.979 | 0.980 | 332 | 0.980 | 0.980 |
| Flow Entry, veh/h | 112 | 206 | 1292 | 480 | 96 |
| Cap Entry, veh/h | 820 | 1292 | 0.257 | 1149 | 1149 |
| V/C Ratio | 0.136 | 0.159 | 5.0 | 0.418 | 0.084 |
| Control Delay, s/veh | 5.8 | 4.1 | A | 7.4 | 3.8 |
| LOS | A | A | 1 | A | A |
| 95th %tile Queue, veh | 0 | 1 | | 2 | 0 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 5.8 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 2 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 279 | 650 | 317 |
| Demand Flow Rate, veh/h | 285 | 663 | 323 |
| Vehicles Circulating, veh/h | 277 | 98 | 184 |
| Vehicles Exiting, veh/h | 230 | 464 | 98 |
| Ped Vol Crossing Leg, #/h | 3 | 1 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 6.2 | 6.0 | 4.9 |
| Approach LOS | A | A | A |

| Lane | Left | Left | Bypass | Left | Right |
|---|---|---|---|---|---|
| Designated Moves | LT | T | R | L | TR |
| Assumed Moves | LT | T | R | L | TR |
| RT Channelized | | | Yield | | |
| Lane Util | 1.000 | 1.000 | | 0.858 | 0.142 |
| Follow-Up Headway, s | 2.609 | 2.609 | | 2.535 | 2.535 |
| Critical Headway, s | 4.976 | 4.976 | 479 | 4.544 | 4.544 |
| Entry Flow, veh/h | 285 | 184 | 1249 | 277 | 46 |
| Cap Entry Lane, veh/h | 1040 | 1249 | 0.980 | 1201 | 1201 |
| Entry HV Adj Factor | 0.980 | 0.980 | 470 | 0.982 | 0.978 |
| Flow Entry, veh/h | 279 | 180 | 1224 | 272 | 45 |
| Cap Entry, veh/h | 1019 | 1224 | 0.384 | 1179 | 1175 |
| V/C Ratio | 0.274 | 0.147 | 6.7 | 0.231 | 0.038 |
| Control Delay, s/veh | 6.2 | 4.2 | A | 5.1 | 3.4 |
| LOS | A | A | 2 | A | A |
| 95th %tile Queue, veh | 1 | 1 | | 1 | 0 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (Veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Sign Control | | Stop | Stop | | Free | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.96 | 0.96 |
| Hourly flow rate (vph) | 44 | 68 | 206 | 332 | 480 | 96 |
| Pedestrians | | 2 | | | | |
| Lane Width (ft) | | 12.0 | | | | |
| Walking Speed (ft/s) | | 3.5 | | | | |
| Percent Blockage | | 0 | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | 506 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 1065 | 962 | 1058 | 0 | 0 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 1065 | 962 | 1058 | 0 | 0 | |
| tC, single (s) | 7.1 | 6.5 | 6.5 | 6.2 | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 4.0 | 4.0 | 3.3 | 2.2 | |
| p0 queue free % | 0 | 62 | 0 | 69 | 70 | |
| cM capacity (veh/h) | 0 | 180 | 158 | 1085 | 1623 | |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 | SB 2 |
|---|---|---|---|---|---|
| Volume Total | 112 | 206 | 332 | 480 | 96 |
| Volume Left | 44 | 0 | 0 | 480 | 0 |
| Volume Right | 0 | 0 | 332 | 0 | 96 |
| cSH | 0 | 158 | 1085 | 1623 | 1700 |
| Volume to Capacity | Err | 1.30 | 0.31 | 0.30 | 0.06 |
| Queue Length 95th (ft) | Err | 307 | 33 | 31 | 0 |
| Control Delay (s) | Err | 230.7 | 9.8 | 8.1 | 0.0 |
| Lane LOS | F | F | A | A | |
| Approach Delay (s) | Err | 94.4 | | 6.8 | |
| Approach LOS | F | F | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | Err | | |
| Intersection Capacity Utilization | 49.7% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Future Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Conflicting Peds, #/hr | 1 | 0 | 29 | 0 | 0 | 29 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 88 | 88 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 16 | 5 | 13 | 299 | 1049 | 139 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1474 | 1148 | 1217 | 0 | - | 0 |
| Stage 1 | 1148 | - | - | - | - | - |
| Stage 2 | 326 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 139 | 242 | 573 | - | - | - |
| Stage 1 | 302 | - | - | - | - | - |
| Stage 2 | 731 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 128 | 235 | 557 | - | - | - |
| Mov Cap-2 Maneuver | 128 | - | - | - | - | - |
| Stage 1 | 287 | - | - | - | - | - |
| Stage 2 | 711 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 33.5 | 0.5 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 557 | - | 128 | 235 | - | - |
| HCM Lane V/C Ratio | 0.022 | - | 0.129 | 0.02 | - | - |
| HCM Control Delay (s) | 11.6 | - | 37.2 | 20.6 | - | - |
| HCM Lane LOS | B | - | E | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Future Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Conflicting Peds, #/hr | 3 | 15 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 2 | 322 | 14 | 62 | 1035 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1494 | 347 | 0 | 0 | 339 | 0 |
| Stage 1 | 332 | - | - | - | - | - |
| Stage 2 | 1162 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 136 | 696 | - | - | 1220 | - |
| Stage 1 | 727 | - | - | - | - | - |
| Stage 2 | 298 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 128 | 684 | - | - | 1217 | - |
| Mov Cap-2 Maneuver | 128 | - | - | - | - | - |
| Stage 1 | 688 | - | - | - | - | - |
| Stage 2 | 297 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 22 | 0 | 0.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 128 | 684 | 1217 | - |
| HCM Lane V/C Ratio | - | - | 0.018 | 0.003 | 0.051 | - |
| HCM Control Delay (s) | - | - | 33.6 | 10.3 | 8.1 | - |
| HCM Lane LOS | - | - | D | B | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Future Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 61 | 0 | 0 | 61 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 3 | 1 | 302 | 964 | 5 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1332 | 1028 | 1030 | 0 | - | 0 |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | 304 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 170 | 284 | 674 | - | - | - |
| Stage 1 | 345 | - | - | - | - | - |
| Stage 2 | 748 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 151 | 268 | 635 | - | - | - |
| Mov Cap-2 Maneuver | 151 | - | - | - | - | - |
| Stage 1 | 324 | - | - | - | - | - |
| Stage 2 | 705 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 21.3 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 635 | - | 225 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.019 | - | - |
| HCM Control Delay (s) | 10.7 | 0 | 21.3 | - | - |
| HCM Lane LOS | B | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (Veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Sign Control | | Stop | Stop | | Free | |
| Grade | | 0% | 0% | | 0% | |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.86 | 0.86 |
| Hourly flow rate (vph) | 96 | 183 | 180 | 470 | 272 | 45 |
| Pedestrians | | 3 | 1 | | | |
| Lane Width (ft) | | 12.0 | 12.0 | | | |
| Walking Speed (ft/s) | | 3.5 | 3.5 | | | |
| Percent Blockage | | 0 | 0 | | | |
| Right turn flare (veh) | | | | | | |
| Median type | | | | | None | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | 506 | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 637 | 548 | 593 | 1 | 1 | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 637 | 548 | 593 | 1 | 1 | |
| tC, single (s) | 7.1 | 6.5 | 6.5 | 6.2 | 4.1 | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 3.5 | 4.0 | 4.0 | 3.3 | 2.2 | |
| p0 queue free % | 16 | 50 | 48 | 57 | 83 | |
| cM capacity (veh/h) | 115 | 368 | 347 | 1083 | 1620 | |

| Direction, Lane # | EB 1 | WB 1 | WB 2 | SB 1 | SB 2 |
|---|---|---|---|---|---|
| Volume Total | 279 | 180 | 470 | 272 | 45 |
| Volume Left | 96 | 0 | 0 | 272 | 0 |
| Volume Right | 0 | 0 | 470 | 0 | 45 |
| cSH | 209 | 347 | 1083 | 1620 | 1700 |
| Volume to Capacity | 1.33 | 0.52 | 0.43 | 0.17 | 0.03 |
| Queue Length 95th (ft) | 388 | 71 | 56 | 15 | 0 |
| Control Delay (s) | 224.2 | 26.0 | 10.9 | 7.7 | 0.0 |
| Lane LOS | F | D | B | A | |
| Approach Delay (s) | 224.2 | 15.1 | | 6.6 | |
| Approach LOS | F | C | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 59.7 | | |
| Intersection Capacity Utilization | 47.6% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Future Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Conflicting Peds, #/hr | 1 | 4 | 15 | 0 | 0 | 15 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 71 | 71 | 97 | 97 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 72 | 11 | 3 | 795 | 318 | 27 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1149 | 351 | 360 | 0 | - | 0 |
| Stage 1 | 347 | - | - | - | - | - |
| Stage 2 | 802 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 219 | 692 | 1199 | - | - | - |
| Stage 1 | 716 | - | - | - | - | - |
| Stage 2 | 441 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 212 | 680 | 1182 | - | - | - |
| Mov Cap-2 Maneuver | 212 | - | - | - | - | - |
| Stage 1 | 704 | - | - | - | - | - |
| Stage 2 | 435 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 27.7 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1182 | - | 212 | 680 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.339 | 0.017 | - | - |
| HCM Control Delay (s) | 8.1 | - | 30.4 | 10.4 | - | - |
| HCM Lane LOS | A | - | D | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 1.4 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Future Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Conflicting Peds, #/hr | 14 | 25 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 68 | 68 | 68 | 68 | 68 | 68 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 79 | 1209 | 15 | 79 | 326 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1715 | 1242 | 0 | 0 | 1224 | 0 |
| Stage 1 | 1217 | - | - | - | - | - |
| Stage 2 | 498 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | - | - | 4.12 | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | - | - | 2.218 | - |
| Pot Cap-1 Maneuver | 99 | 213 | - | - | 570 | - |
| Stage 1 | 280 | - | - | - | - | - |
| Stage 2 | 611 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 84 | 208 | - | - | 570 | - |
| Mov Cap-2 Maneuver | 84 | - | - | - | - | - |
| Stage 1 | 241 | - | - | - | - | - |
| Stage 2 | 603 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 33.9 | 0 | 2.4 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 84 | 208 | 570 | - |
| HCM Lane V/C Ratio | - | - | 0.07 | 0.382 | 0.139 | - |
| HCM Control Delay (s) | - | - | 51.1 | 32.6 | 12.3 | - |
| HCM Lane LOS | - | - | F | D | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 1.7 | 0.5 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Conflicting Peds, #/hr | 4 | 0 | 103 | 0 | 0 | 103 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 0 | 0 | 1081 | 274 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1462 | 377 | 377 | 0 | - | 0 |
| Stage 1 | 377 | - | - | - | - | - |
| Stage 2 | 1085 | - | - | - | - | - |
| Critical Hdwy | 6.42 | 6.22 | 4.12 | - | - | - |
| Critical Hdwy Stg 1 | 5.42 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.42 | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 3.318 | 2.218 | - | - | - |
| Pot Cap-1 Maneuver | 142 | 670 | 1181 | - | - | - |
| Stage 1 | 694 | - | - | - | - | - |
| Stage 2 | 324 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 116 | 604 | 1065 | - | - | - |
| Mov Cap-2 Maneuver | 116 | - | - | - | - | - |
| Stage 1 | 626 | - | - | - | - | - |
| Stage 2 | 292 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 37.1 | 0 | 0 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1065 | - | 116 | - | - |
| HCM Lane V/C Ratio | - | - | 0.032 | - | - |
| HCM Control Delay (s) | 0 | - | 37.1 | - | - |
| HCM Lane LOS | A | - | E | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

# APPENDIX C
# 2018 IMPROVED INTERSECTION CAPACITY ANALYSIS

Appendix C Listing – 2038 Improved Intersection Capacity Analysis

Diamond & Pajarito Signalized AM
Diamond & Pajarito Signalized PM
Diamond & Sigma AM
Diamond & Sigma PM
Diamond & Eniwetok AM
Diamond & Eniwetok PM
Diamond & Embudo AM
Diamond & Embudo PM
Diamond & West Jemez AM
Diamond & West Jemez PM
Diamond & South Drive AM
Diamond & South Drive PM
Diamond & Grable AM
Diamond & Grable PM
Diamond & Coronado AM
Diamond & Coronado PM
Diamond & Pajarito Roundabout AM
Diamond & Pajarito Roundabout PM
Diamond & Pajarito Realigned AM
Diamond & Pajarito Realigned PM

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 44 | 68 | 206 | 0 | 480 | 96 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 167 | 315 | 315 | | 1281 | 1140 |
| Arrive On Green | 0.17 | 0.17 | 0.17 | 0.00 | 0.72 | 0.72 |
| Sat Flow, veh/h | 1176 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 44 | 68 | 206 | 0 | 480 | 96 |
| Grp Sat Flow(s),veh/h/ln | 1176 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 2.9 | 2.5 | 8.2 | 0.0 | 8.3 | 1.4 |
| Cycle Q Clear(g_c), s | 11.1 | 2.5 | 8.2 | 0.0 | 8.3 | 1.4 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 167 | 315 | 315 | | 1281 | 1140 |
| V/C Ratio(X) | 0.26 | 0.22 | 0.65 | | 0.37 | 0.08 |
| Avail Cap(c_a), veh/h | 358 | 620 | 620 | | 1281 | 1140 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 0.91 | 0.91 |
| Uniform Delay (d), s/veh | 36.3 | 28.7 | 31.1 | 0.0 | 4.3 | 3.4 |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 2.3 | 0.0 | 0.8 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.5 | 2.0 | 6.8 | 0.0 | 4.4 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 37.1 | 29.1 | 33.4 | 0.0 | 5.1 | 3.5 |
| LnGrp LOS | D | C | C | | A | A |
| Approach Vol, veh/h | | 112 | 206 | A | 576 | |
| Approach Delay, s/veh | | 32.2 | 33.4 | | 4.8 | |
| Approach LOS | | C | C | | A | |

| Timer - Assigned Phs | 4 | 6 | 8 |
|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.0 | 62.0 | 18.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 26.5 | 44.5 | 26.5 |
| Max Q Clear Time (g_c+I1), s | 13.1 | 10.3 | 10.2 |
| Green Ext Time (p_c), s | 0.3 | 2.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.8 |
| HCM 6th LOS | B |

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 96 | 183 | 180 | 0 | 272 | 45 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 325 | 412 | 412 | | 1033 | 919 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.00 | 0.58 | 0.58 |
| Sat Flow, veh/h | 1204 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 96 | 183 | 180 | 0 | 272 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1204 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 3.4 | 3.8 | 3.7 | 0.0 | 3.4 | 0.6 |
| Cycle Q Clear(g_c), s | 7.1 | 3.8 | 3.7 | 0.0 | 3.4 | 0.6 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 325 | 412 | 412 | | 1033 | 919 |
| V/C Ratio(X) | 0.30 | 0.44 | 0.44 | | 0.26 | 0.05 |
| Avail Cap(c_a), veh/h | 542 | 748 | 748 | | 1033 | 919 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 18.2 | 15.2 | 15.1 | 0.0 | 4.7 | 4.1 |
| Incr Delay (d2), s/veh | 0.5 | 0.8 | 0.7 | 0.0 | 0.6 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.5 | 2.6 | 2.5 | 0.0 | 1.7 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 18.7 | 15.9 | 15.9 | 0.0 | 5.3 | 4.2 |
| LnGrp LOS | B | B | B | | A | A |
| Approach Vol, veh/h | | 279 | 180 | A | 317 | |
| Approach Delay, s/veh | | 16.9 | 15.9 | | 5.1 | |
| Approach LOS | | B | B | | A | |

| Timer - Assigned Phs | 4 | 6 | 8 |
|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 14.4 | 30.6 | 14.4 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.0 | 18.0 | 18.0 |
| Max Q Clear Time (g_c+I1), s | 9.1 | 5.4 | 5.7 |
| Green Ext Time (p_c), s | 0.8 | 0.8 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 11.9 |
| HCM 6th LOS | B |

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Future Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 0.97 | 0.98 | | 0.97 | 1.00 | | 0.97 | 0.99 | | 0.97 |
| 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 | 1648 | 1648 | 1648 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 6 | 1 | 7 | 20 | 0 | 17 | 7 | 313 | 43 | 60 | 606 | 64 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 17 | 17 | 17 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 85 | 7 | 157 | 93 | 0 | 179 | 468 | 1685 | 229 | 860 | 1169 | 123 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | 0.12 | 0.01 | 0.54 | 0.54 | 0.35 | 1.00 | 1.00 |
| Sat Flow, veh/h | 9 | 60 | 1349 | 24 | 0 | 1531 | 1781 | 3128 | 425 | 1781 | 1656 | 175 |
| Grp Volume(v), veh/h | 7 | 0 | 7 | 20 | 0 | 17 | 7 | 176 | 180 | 60 | 0 | 670 |
| Grp Sat Flow(s),veh/h/ln | 69 | 0 | 1349 | 24 | 0 | 1531 | 1781 | 1777 | 1776 | 1781 | 0 | 1831 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 0.2 | 0.0 | 0.8 | 0.2 | 4.1 | 4.2 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 9.3 | 0.0 | 0.4 | 9.3 | 0.0 | 0.8 | 0.2 | 4.1 | 4.2 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 0.86 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.24 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 92 | 0 | 157 | 93 | 0 | 179 | 468 | 957 | 957 | 860 | 0 | 1292 |
| V/C Ratio(X) | 0.08 | 0.00 | 0.04 | 0.22 | 0.00 | 0.10 | 0.01 | 0.18 | 0.19 | 0.07 | 0.00 | 0.52 |
| Avail Cap(c_a), veh/h | 230 | 0 | 305 | 244 | 0 | 346 | 565 | 957 | 957 | 860 | 0 | 1292 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.81 | 0.81 | 0.81 | 0.86 | 0.00 | 0.86 |
| Uniform Delay (d), s/veh | 31.8 | 0.0 | 31.4 | 40.0 | 0.0 | 31.6 | 9.8 | 9.4 | 9.5 | 4.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.1 | 1.1 | 0.0 | 0.2 | 0.0 | 0.3 | 0.4 | 0.0 | 0.0 | 1.3 |
| 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 | 0.2 | 0.0 | 0.2 | 0.7 | 0.0 | 0.5 | 0.1 | 2.8 | 2.8 | 0.5 | 0.0 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 32.2 | 0.0 | 31.5 | 41.1 | 0.0 | 31.8 | 9.8 | 9.8 | 9.8 | 4.7 | 0.0 | 1.3 |
| LnGrp LOS | C | A | C | D | A | C | A | A | A | A | A | A |
| Approach Vol, veh/h | | 14 | | | 37 | | | 363 | | | 730 | |
| Approach Delay, s/veh | | 31.8 | | | 36.8 | | | 9.8 | | | 1.6 | |
| Approach LOS | | C | | | D | | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 18.5 | 47.6 | | 13.9 | 5.2 | 60.9 | | 13.9 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.3 | 43.1 | | 18.1 | 5.1 | 43.3 | | 18.1 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 6.2 | | 11.3 | 2.2 | 2.0 | | 11.3 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.3 | | 0.0 | 0.0 | 5.6 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 5.7 | | | | | | | | | |
| HCM 6th LOS | | | A | | | | | | | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Future Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.97 | 1.00 | | 0.98 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 40 | 0 | 24 | 24 | 0 | 53 | 3 | 593 | 9 | 8 | 236 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 80 | 0 | 408 | 80 | 0 | 411 | 571 | 1717 | 26 | 560 | 1056 | 31 |
| Arrive On Green | 0.26 | 0.00 | 0.26 | 0.26 | 0.00 | 0.26 | 0.00 | 0.48 | 0.48 | 0.21 | 1.00 | 1.00 |
| Sat Flow, veh/h | 0 | 0 | 1564 | 0 | 0 | 1572 | 1767 | 3553 | 54 | 1781 | 1806 | 54 |
| Grp Volume(v), veh/h | 40 | 0 | 24 | 24 | 0 | 53 | 3 | 294 | 308 | 8 | 0 | 243 |
| Grp Sat Flow(s),veh/h/ln | 0 | 0 | 1564 | 0 | 0 | 1572 | 1767 | 1763 | 1844 | 1781 | 0 | 1859 |
| Q Serve(g_s), s | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 2.3 | 0.1 | 9.3 | 9.3 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 23.5 | 0.0 | 1.0 | 23.5 | 0.0 | 2.3 | 0.1 | 9.3 | 9.3 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 80 | 0 | 408 | 80 | 0 | 411 | 571 | 852 | 891 | 560 | 0 | 1087 |
| V/C Ratio(X) | 0.50 | 0.00 | 0.06 | 0.30 | 0.00 | 0.13 | 0.01 | 0.35 | 0.35 | 0.01 | 0.00 | 0.22 |
| Avail Cap(c_a), veh/h | 80 | 0 | 408 | 80 | 0 | 411 | 750 | 852 | 891 | 560 | 0 | 1087 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.78 | 0.78 | 0.78 | 0.99 | 0.00 | 0.99 |
| Uniform Delay (d), s/veh | 45.0 | 0.0 | 25.0 | 45.0 | 0.0 | 25.4 | 13.4 | 14.4 | 14.4 | 11.5 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 4.7 | 0.0 | 0.1 | 2.1 | 0.0 | 0.1 | 0.0 | 0.9 | 0.8 | 0.0 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.8 | 0.0 | 0.7 | 1.0 | 0.0 | 1.6 | 0.1 | 6.5 | 6.8 | 0.1 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 49.7 | 0.0 | 25.0 | 47.1 | 0.0 | 25.6 | 13.4 | 15.3 | 15.2 | 11.6 | 0.0 | 0.5 |
| LnGrp LOS | D | A | C | D | A | C | B | B | B | B | A | A |
| Approach Vol, veh/h | | 64 | | | 77 | | | 605 | | | 251 | |
| Approach Delay, s/veh | | 40.5 | | | 32.3 | | | 15.3 | | | 0.8 | |
| Approach LOS | | D | | | C | | | B | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 14.0 | 48.0 | | 28.0 | 4.9 | 57.1 | | 28.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 9.5 | 43.5 | | 23.5 | 9.5 | 43.5 | | 23.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 11.3 | | 25.5 | 2.1 | 2.0 | | 25.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 4.0 | | 0.0 | 0.0 | 1.5 | | 0.0 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 14.6 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Future Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.98 | | 0.90 | 0.95 | | 1.00 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 3 | 1 | 8 | 59 | 1 | 0 | 26 | 266 | 0 | 37 | 713 | 267 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 178 | 49 | 130 | 206 | 3 | | 684 | 1319 | | 651 | 1017 | 850 |
| Arrive On Green | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.00 | 0.39 | 1.00 | 0.00 | 0.07 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1093 | 535 | 1431 | 1286 | 31 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1563 |
| Grp Volume(v), veh/h | 4 | 0 | 8 | 60 | 0 | 0 | 26 | 266 | 0 | 37 | 713 | 267 |
| Grp Sat Flow(s),veh/h/ln | 1628 | 0 | 1431 | 1317 | 0 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1563 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.4 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.4 | 3.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 |
| Prop In Lane | 0.75 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 227 | 0 | 130 | 209 | 0 | | 684 | 1319 | | 651 | 1017 | 850 |
| V/C Ratio(X) | 0.02 | 0.00 | 0.06 | 0.29 | 0.00 | | 0.04 | 0.20 | | 0.06 | 0.70 | 0.31 |
| Avail Cap(c_a), veh/h | 425 | 0 | 322 | 388 | 0 | | 684 | 1319 | | 700 | 1017 | 850 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.1 | 0.0 | 33.2 | 34.7 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 9.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 0.7 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 4.0 | 1.0 |
| 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 | 0.1 | 0.0 | 0.3 | 2.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.5 | 2.0 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 33.2 | 0.0 | 33.4 | 35.5 | 0.0 | 0.0 | 4.4 | 0.3 | 0.0 | 9.4 | 4.0 | 1.0 |
| LnGrp LOS | C | A | C | D | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 12 | | | 60 | A | | 292 | A | | 1017 | |
| Approach Delay, s/veh | | 33.3 | | | 35.5 | | | 0.7 | | | 3.4 | |
| Approach LOS | | C | | | D | | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.3 | 60.9 | | 11.8 | 20.2 | 48.0 | | 11.8 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.0 | 43.5 | | 18.0 | 5.0 | 43.5 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.8 | 2.0 | | 2.4 | 2.0 | 2.0 | | 5.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 1.7 | | 0.0 | 0.0 | 7.3 | | 0.2 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 4.5 |
| HCM 6th LOS | | | A |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Future Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.97 | | 0.93 | 0.94 | | 1.00 | 0.99 | | 1.00 | 1.00 | | 0.97 |
| 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 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 41 | 1 | 13 | 45 | 0 | 0 | 11 | 612 | 0 | 25 | 243 | 4 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 253 | 5 | 170 | 203 | 0 | | 908 | 1323 | | 518 | 1049 | 864 |
| Arrive On Green | 0.12 | 0.12 | 0.12 | 0.12 | 0.00 | 0.00 | 0.34 | 1.00 | 0.00 | 0.05 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1484 | 45 | 1458 | 1052 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1540 |
| Grp Volume(v), veh/h | 42 | 0 | 13 | 45 | 0 | 0 | 11 | 612 | 0 | 25 | 243 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1529 | 0 | 1458 | 1052 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1540 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.7 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 0.7 | 4.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| Prop In Lane | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 258 | 0 | 170 | 203 | 0 | | 908 | 1323 | | 518 | 1049 | 864 |
| V/C Ratio(X) | 0.16 | 0.00 | 0.08 | 0.22 | 0.00 | | 0.01 | 0.46 | | 0.05 | 0.23 | 0.00 |
| Avail Cap(c_a), veh/h | 409 | 0 | 332 | 347 | 0 | | 908 | 1323 | | 581 | 1049 | 864 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.99 | 0.99 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.0 | 0.0 | 35.4 | 38.2 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 9.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.3 | 0.0 | 0.2 | 0.5 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.5 | 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 | 1.5 | 0.0 | 0.5 | 1.7 | 0.0 | 0.0 | 0.1 | 0.8 | 0.0 | 0.4 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.3 | 0.0 | 35.6 | 38.8 | 0.0 | 0.0 | 4.8 | 1.2 | 0.0 | 9.7 | 0.5 | 0.0 |
| LnGrp LOS | D | A | D | D | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 55 | | | 45 | A | | 623 | A | | 272 | |
| Approach Delay, s/veh | | 36.1 | | | 38.8 | | | 1.2 | | | 1.4 | |
| Approach LOS | | D | | | D | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.8 | 68.2 | | 15.0 | 20.0 | 55.0 | | 15.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.5 | 50.5 | | 20.5 | 5.5 | 50.5 | | 20.5 |
| Max Q Clear Time (g_c+I1), s | 2.6 | 2.0 | | 4.0 | 2.0 | 2.0 | | 6.9 |
| Green Ext Time (p_c), s | 0.0 | 4.9 | | 0.2 | 0.0 | 1.6 | | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 4.9 |
| HCM 6th LOS | A |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Future Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.96 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | |
| Adj Flow Rate, veh/h | 30 | 23 | 204 | 22 | 60 | 1037 | |
| Peak Hour Factor | 0.74 | 0.74 | 0.90 | 0.90 | 0.90 | 0.90 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 77 | 69 | 1270 | 135 | 1200 | 1579 | |
| Arrive On Green | 0.04 | 0.04 | 0.79 | 0.79 | 0.39 | 0.84 | |
| Sat Flow, veh/h | 1781 | 1585 | 3320 | 343 | 1781 | 1870 | |
| Grp Volume(v), veh/h | 30 | 23 | 111 | 115 | 60 | 1037 | |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1793 | 1781 | 1870 | |
| Q Serve(g_s), s | 1.3 | 1.1 | 1.2 | 1.2 | 0.0 | 15.5 | |
| Cycle Q Clear(g_c), s | 1.3 | 1.1 | 1.2 | 1.2 | 0.0 | 15.5 | |
| Prop In Lane | 1.00 | 1.00 | | 0.19 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 77 | 69 | 700 | 706 | 1200 | 1579 | |
| V/C Ratio(X) | 0.39 | 0.34 | 0.16 | 0.16 | 0.05 | 0.66 | |
| Avail Cap(c_a), veh/h | 668 | 594 | 700 | 706 | 1200 | 1579 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.69 | 0.69 | |
| Uniform Delay (d), s/veh | 37.2 | 37.2 | 5.3 | 5.3 | 2.7 | 2.2 | |
| Incr Delay (d2), s/veh | 3.2 | 2.8 | 0.5 | 0.5 | 0.0 | 1.5 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(95%),veh/ln | 1.1 | 0.9 | 0.9 | 1.0 | 0.3 | 3.6 | |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 40.4 | 40.0 | 5.8 | 5.8 | 2.7 | 3.7 | |
| LnGrp LOS | D | D | A | A | A | A | |
| Approach Vol, veh/h | 53 | | 226 | | | 1097 | |
| Approach Delay, s/veh | 40.2 | | 5.8 | | | 3.6 | |
| Approach LOS | D | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 36.0 | 36.0 | | | | 72.0 | 8.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 31.5 | | | | 41.0 | 30.0 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 3.2 | | | | 17.5 | 3.3 |
| Green Ext Time (p_c), s | 0.0 | 1.3 | | | | 9.7 | 0.1 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 5.4 | | | | |
| HCM 6th LOS | | | A | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 | |
| Future Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | |
| Adj Flow Rate, veh/h | 31 | 136 | 1204 | 15 | 19 | 229 | |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.74 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 195 | 173 | 1649 | 21 | 744 | 1479 | |
| Arrive On Green | 0.11 | 0.11 | 0.92 | 0.92 | 0.28 | 0.79 | |
| Sat Flow, veh/h | 1781 | 1585 | 3686 | 45 | 1781 | 1870 | |
| Grp Volume(v), veh/h | 31 | 136 | 595 | 624 | 19 | 229 | |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1860 | 1781 | 1870 | |
| Q Serve(g_s), s | 1.4 | 7.5 | 7.5 | 7.5 | 0.0 | 2.6 | |
| Cycle Q Clear(g_c), s | 1.4 | 7.5 | 7.5 | 7.5 | 0.0 | 2.6 | |
| Prop In Lane | 1.00 | 1.00 | | 0.02 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 195 | 173 | 815 | 854 | 744 | 1479 | |
| V/C Ratio(X) | 0.16 | 0.78 | 0.73 | 0.73 | 0.03 | 0.15 | |
| Avail Cap(c_a), veh/h | 596 | 530 | 815 | 854 | 744 | 1479 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.99 | |
| Uniform Delay (d), s/veh | 36.3 | 39.1 | 2.3 | 2.3 | 6.3 | 2.2 | |
| Incr Delay (d2), s/veh | 0.4 | 7.6 | 5.7 | 5.5 | 0.0 | 0.2 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(95%),veh/ln | 1.1 | 5.8 | 4.1 | 4.2 | 0.2 | 1.3 | |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 36.7 | 46.7 | 8.0 | 7.8 | 6.3 | 2.5 | |
| LnGrp LOS | D | D | A | A | A | A | |
| Approach Vol, veh/h | 167 | | 1219 | | | 248 | |
| Approach Delay, s/veh | 44.8 | | 7.9 | | | 2.8 | |
| Approach LOS | D | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 29.9 | 45.8 | | | | 75.7 | 14.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.1 | 41.3 | | | | 50.9 | 30.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 9.5 | | | | 4.6 | 9.5 |
| Green Ext Time (p_c), s | 0.0 | 10.3 | | | | 1.5 | 0.5 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.9 | | | | |
| HCM 6th LOS | | | B | | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 | | |
| Future Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 | | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Ped-Bike Adj(A_pbT) | | 0.93 | 1.00 | | 1.00 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Work Zone On Approach | No | | | No | No | | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | | |
| Adj Flow Rate, veh/h | 126 | 173 | 942 | 1115 | 15 | 210 | | |
| Peak Hour Factor | 0.91 | 0.91 | 0.95 | 0.95 | 0.84 | 0.84 | | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | | |
| Cap, veh/h | 442 | 806 | 1083 | 1756 | 701 | 1972 | | |
| Arrive On Green | 0.12 | 0.12 | 0.31 | 0.49 | 0.39 | 0.39 | | |
| Sat Flow, veh/h | 3647 | 1470 | 3456 | 3647 | 1781 | 2790 | | |
| Grp Volume(v), veh/h | 126 | 173 | 942 | 1115 | 15 | 210 | | |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1470 | 1728 | 1777 | 1781 | 1395 | | |
| Q Serve(g_s), s | 2.6 | 5.1 | 20.6 | 18.5 | 0.4 | 0.0 | | |
| Cycle Q Clear(g_c), s | 2.6 | 5.1 | 20.6 | 18.5 | 0.4 | 0.0 | | |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 442 | 806 | 1083 | 1756 | 701 | 1972 | | |
| V/C Ratio(X) | 0.28 | 0.21 | 0.87 | 0.63 | 0.02 | 0.11 | | |
| Avail Cap(c_a), veh/h | 800 | 954 | 1317 | 2354 | 701 | 1972 | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Uniform Delay (d), s/veh | 31.8 | 10.5 | 25.9 | 14.9 | 14.8 | 3.7 | | |
| Incr Delay (d2), s/veh | 0.4 | 0.1 | 5.6 | 0.4 | 0.1 | 0.1 | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | |
| %ile BackOfQ(95%),veh/ln | 2.0 | 5.8 | 13.6 | 10.9 | 0.3 | 0.8 | | |
| Unsig. Movement Delay, s/veh | | | | | | | | |
| LnGrp Delay(d),s/veh | 32.1 | 10.7 | 31.5 | 15.3 | 14.9 | 3.8 | | |
| LnGrp LOS | C | B | C | B | B | A | | |
| Approach Vol, veh/h | 299 | | | 2057 | 225 | | | |
| Approach Delay, s/veh | 19.7 | | | 22.7 | 4.6 | | | |
| Approach LOS | B | | | C | A | | | |
| Timer - Assigned Phs | | 2 | 3 | 4 | | | | 8 |
| Phs Duration (G+Y+Rc), s | | 36.0 | 29.6 | 14.5 | | | | 44.0 |
| Change Period (Y+Rc), s | | 4.5 | 4.5 | 4.5 | | | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | 30.5 | 18.0 | | | | 53.0 |
| Max Q Clear Time (g_c+I1), s | | 2.4 | 22.6 | 7.1 | | | | 20.5 |
| Green Ext Time (p_c), s | | 0.7 | 2.5 | 1.0 | | | | 9.6 |
| Intersection Summary | | | | | | | | |
| HCM 6th Ctrl Delay | | | 20.8 | | | | | |
| HCM 6th LOS | | | C | | | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Future Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 1031 | 129 | 173 | 114 | 27 | 904 |
| Peak Hour Factor | 0.97 | 0.97 | 0.88 | 0.88 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1214 | 1226 | 260 | 1659 | 772 | 1418 |
| Arrive On Green | 0.34 | 0.34 | 0.08 | 0.47 | 0.43 | 0.43 |
| Sat Flow, veh/h | 3647 | 1578 | 3456 | 3647 | 1781 | 2790 |
| Grp Volume(v), veh/h | 1031 | 129 | 173 | 114 | 27 | 904 |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1578 | 1728 | 1777 | 1781 | 1395 |
| Q Serve(g_s), s | 24.2 | 1.8 | 4.4 | 1.6 | 0.8 | 14.4 |
| Cycle Q Clear(g_c), s | 24.2 | 1.8 | 4.4 | 1.6 | 0.8 | 14.4 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 1214 | 1226 | 260 | 1659 | 772 | 1418 |
| V/C Ratio(X) | 0.85 | 0.11 | 0.67 | 0.07 | 0.03 | 0.64 |
| Avail Cap(c_a), veh/h | 1362 | 1292 | 864 | 2428 | 772 | 1418 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 |
| Uniform Delay (d), s/veh | 27.5 | 2.5 | 40.5 | 13.2 | 14.7 | 16.1 |
| Incr Delay (d2), s/veh | 4.8 | 0.0 | 2.9 | 0.0 | 0.1 | 1.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 15.8 | 3.4 | 3.5 | 1.1 | 0.6 | 6.9 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 32.3 | 2.5 | 43.5 | 13.2 | 14.7 | 18.0 |
| LnGrp LOS | C | A | D | B | B | B |
| Approach Vol, veh/h | 1160 | | | 287 | 931 | |
| Approach Delay, s/veh | 29.0 | | | 31.5 | 17.9 | |
| Approach LOS | C | | | C | B | |

| Timer - Assigned Phs | 2 | 3 | 4 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 43.5 | 11.3 | 35.2 | 46.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 19.5 | 22.5 | 34.5 | 61.5 |
| Max Q Clear Time (g_c+I1), s | 16.4 | 6.4 | 26.2 | 3.6 |
| Green Ext Time (p_c), s | 1.3 | 0.5 | 4.5 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 24.9 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Future Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Conflicting Peds, #/hr | 1 | 0 | 29 | 0 | 0 | 29 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 88 | 88 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 16 | 5 | 13 | 299 | 1049 | 139 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1325 | 1148 | 1217 | 0 | - | 0 |
| Stage 1 | 1148 | - | - | - | - | - |
| Stage 2 | 177 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 159 | 241 | 571 | - | - | - |
| Stage 1 | 301 | - | - | - | - | - |
| Stage 2 | 836 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 147 | 234 | 555 | - | - | - |
| Mov Cap-2 Maneuver | 147 | - | - | - | - | - |
| Stage 1 | 286 | - | - | - | - | - |
| Stage 2 | 813 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 30 | 0.5 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 555 | - | 147 | 234 | - | - |
| HCM Lane V/C Ratio | 0.023 | - | 0.112 | 0.02 | - | - |
| HCM Control Delay (s) | 11.6 | - | 32.6 | 20.7 | - | - |
| HCM Lane LOS | B | - | D | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.4 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Future Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Conflicting Peds, #/hr | 1 | 4 | 15 | 0 | 0 | 15 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 71 | 71 | 97 | 97 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 72 | 11 | 3 | 795 | 318 | 27 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 752 | 351 | 360 | 0 | - | 0 |
| Stage 1 | 347 | - | - | - | - | - |
| Stage 2 | 405 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 362 | 692 | 1197 | - | - | - |
| Stage 1 | 715 | - | - | - | - | - |
| Stage 2 | 643 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 351 | 680 | 1180 | - | - | - |
| Mov Cap-2 Maneuver | 351 | - | - | - | - | - |
| Stage 1 | 703 | - | - | - | - | - |
| Stage 2 | 634 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 16.9 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1180 | - | 351 | 680 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.205 | 0.017 | - | - |
| HCM Control Delay (s) | 8.1 | - | 17.9 | 10.4 | - | - |
| HCM Lane LOS | A | - | C | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.8 | 0.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.5 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Future Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Conflicting Peds, #/hr | 3 | 15 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 2 | 322 | 14 | 62 | 1035 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1494 | 186 | 0 | 0 | 339 | 0 |
| Stage 1 | 332 | - | - | - | - | - |
| Stage 2 | 1162 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 124 | 825 | - | - | 1219 | - |
| Stage 1 | 700 | - | - | - | - | - |
| Stage 2 | 297 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 117 | 811 | - | - | 1216 | - |
| Mov Cap-2 Maneuver | 117 | - | - | - | - | - |
| Stage 1 | 662 | - | - | - | - | - |
| Stage 2 | 296 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 23 | 0 | 0.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 117 | 811 | 1216 | - |
| HCM Lane V/C Ratio | - | - | 0.02 | 0.003 | 0.051 | - |
| HCM Control Delay (s) | - | - | 36.4 | 9.5 | 8.1 | - |
| HCM Lane LOS | - | - | E | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | 0.2 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.5 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Future Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Conflicting Peds, #/hr | 14 | 25 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 68 | 68 | 68 | 68 | 68 | 68 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 6 | 79 | 1209 | 15 | 79 | 326 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1715 | 637 | 0 | 0 | 1224 | 0 |
| Stage 1 | 1217 | - | - | - | - | - |
| Stage 2 | 498 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 90 | 421 | - | - | 567 | - |
| Stage 1 | 244 | - | - | - | - | - |
| Stage 2 | 610 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 77 | 411 | - | - | 567 | - |
| Mov Cap-2 Maneuver | 77 | - | - | - | - | - |
| Stage 1 | 210 | - | - | - | - | - |
| Stage 2 | 602 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 18.5 | 0 | 2.4 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 77 | 411 | 567 | - |
| HCM Lane V/C Ratio | - | - | 0.076 | 0.193 | 0.14 | - |
| HCM Control Delay (s) | - | - | 55.6 | 15.8 | 12.4 | - |
| HCM Lane LOS | - | - | F | C | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0.7 | 0.5 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Future Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 61 | 0 | 0 | 61 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 3 | 1 | 302 | 964 | 5 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1181 | 1028 | 1030 | 0 | - | 0 |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | 153 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 196 | 283 | 672 | - | - | - |
| Stage 1 | 344 | - | - | - | - | - |
| Stage 2 | 860 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 174 | 267 | 633 | - | - | - |
| Mov Cap-2 Maneuver | 174 | - | - | - | - | - |
| Stage 1 | 323 | - | - | - | - | - |
| Stage 2 | 810 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20.5 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 633 | - | 236 | - | - |
| HCM Lane V/C Ratio | 0.002 | - | 0.018 | - | - |
| HCM Control Delay (s) | 10.7 | 0 | 20.5 | - | - |
| HCM Lane LOS | B | A | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Conflicting Peds, #/hr | 4 | 0 | 103 | 0 | 0 | 103 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 4 | 0 | 0 | 1081 | 274 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 922 | 377 | 377 | 0 | - | 0 |
| Stage 1 | 377 | - | - | - | - | - |
| Stage 2 | 545 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 284 | 669 | 1180 | - | - | - |
| Stage 1 | 693 | - | - | - | - | - |
| Stage 2 | 546 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 231 | 603 | 1064 | - | - | - |
| Mov Cap-2 Maneuver | 231 | - | - | - | - | - |
| Stage 1 | 625 | - | - | - | - | - |
| Stage 2 | 492 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20.8 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1064 | - | 231 | - | - |
| HCM Lane V/C Ratio | - | - | 0.016 | - | - |
| HCM Control Delay (s) | 0 | - | 20.8 | - | - |
| HCM Lane LOS | A | - | C | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 5.4 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 112 | 538 | 576 |
| Demand Flow Rate, veh/h | 114 | 549 | 588 |
| Vehicles Circulating, veh/h | 490 | 45 | 210 |
| Vehicles Exiting, veh/h | 210 | 490 | 45 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 1.7 | 4.6 | 6.8 |
| Approach LOS | A | A | A |

| Lane | Left | Bypass | Left | Bypass | Left | Bypass |
|---|---|---|---|---|---|---|
| Designated Moves | L | R | T | R | L | R |
| Assumed Moves | L | R | T | R | L | R |
| RT Channelized | | Free | | Yield | | Yield |
| Lane Util | 1.000 | | 1.000 | | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.535 | | 2.535 | |
| Critical Headway, s | 4.328 | 69 | 4.328 | 339 | 4.328 | 98 |
| Entry Flow, veh/h | 45 | 1938 | 210 | 1318 | 490 | 1114 |
| Cap Entry Lane, veh/h | 936 | 0.980 | 1367 | 0.980 | 1188 | 0.980 |
| Entry HV Adj Factor | 0.978 | 68 | 0.980 | 332 | 0.980 | 96 |
| Flow Entry, veh/h | 44 | 1900 | 206 | 1292 | 480 | 1092 |
| Cap Entry, veh/h | 915 | 0.036 | 1340 | 0.257 | 1164 | 0.088 |
| V/C Ratio | 0.048 | 0.0 | 0.154 | 5.0 | 0.412 | 4.1 |
| Control Delay, s/veh | 4.4 | A | 3.9 | A | 7.3 | A |
| LOS | A | 0 | A | 1 | A | 0 |
| 95th %tile Queue, veh | 0 | | 1 | | 2 | |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 4.6 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 279 | 650 | 317 |
| Demand Flow Rate, veh/h | 285 | 663 | 323 |
| Vehicles Circulating, veh/h | 277 | 98 | 184 |
| Vehicles Exiting, veh/h | 184 | 277 | 98 |
| Ped Vol Crossing Leg, #/h | 0 | 1 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 1.4 | 5.9 | 4.8 |
| Approach LOS | A | A | A |

| Lane | Left | Bypass | Left | Bypass | Left | Bypass |
|---|---|---|---|---|---|---|
| Designated Moves | L | R | T | R | L | R |
| Assumed Moves | L | R | T | R | L | R |
| RT Channelized | | Free | | Yield | | Yield |
| Lane Util | 1.000 | | 1.000 | | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.535 | | 2.535 | |
| Critical Headway, s | 4.328 | 187 | 4.328 | 479 | 4.328 | 46 |
| Entry Flow, veh/h | 98 | 1938 | 184 | 1249 | 277 | 1144 |
| Cap Entry Lane, veh/h | 1122 | 0.980 | 1307 | 0.980 | 1214 | 0.980 |
| Entry HV Adj Factor | 0.980 | 183 | 0.980 | 470 | 0.982 | 45 |
| Flow Entry, veh/h | 96 | 1900 | 180 | 1224 | 272 | 1121 |
| Cap Entry, veh/h | 1099 | 0.096 | 1281 | 0.384 | 1193 | 0.040 |
| V/C Ratio | 0.087 | 0.0 | 0.141 | 6.7 | 0.228 | 3.5 |
| Control Delay, s/veh | 4.0 | A | 4.0 | A | 5.0 | A |
| LOS | A | 0 | A | 2 | A | 0 |
| 95th %tile Queue, veh | 0 | | 0 | | 1 | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 0.98 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 44 | 68 | 206 | 332 | 480 | 96 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 111 | 99 | 714 | 1566 | 1369 | 1230 |
| Arrive On Green | 0.06 | 0.06 | 0.06 | 0.84 | 0.73 | 0.73 |
| Sat Flow, veh/h | 1781 | 1585 | 1781 | 1870 | 1870 | 1546 |
| Grp Volume(v), veh/h | 44 | 68 | 206 | 332 | 480 | 96 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1781 | 1870 | 1870 | 1546 |
| Q Serve(g_s), s | 2.1 | 3.8 | 2.2 | 3.2 | 8.3 | 1.2 |
| Cycle Q Clear(g_c), s | 2.1 | 3.8 | 2.2 | 3.2 | 8.3 | 1.2 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 111 | 99 | 714 | 1566 | 1369 | 1230 |
| V/C Ratio(X) | 0.40 | 0.69 | 0.29 | 0.21 | 0.35 | 0.08 |
| Avail Cap(c_a), veh/h | 366 | 326 | 981 | 1566 | 1369 | 1230 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.92 | 0.92 |
| Uniform Delay (d), s/veh | 40.6 | 41.3 | 2.6 | 1.4 | 4.4 | 2.0 |
| Incr Delay (d2), s/veh | 2.3 | 8.1 | 0.2 | 0.3 | 0.7 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.8 | 6.3 | 0.8 | 0.9 | 4.9 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 42.8 | 49.4 | 2.8 | 1.8 | 5.0 | 2.1 |
| LnGrp LOS | D | D | A | A | A | A |
| Approach Vol, veh/h | 112 | | | 538 | 576 | |
| Approach Delay, s/veh | 46.8 | | | 2.2 | 4.5 | |
| Approach LOS | D | | | A | A | |
| **Timer - Assigned Phs** | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 79.9 | | 10.1 | 9.5 | 70.4 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 62.5 | | 18.5 | 18.5 | 39.5 |
| Max Q Clear Time (g_c+I1), s | | 5.2 | | 5.8 | 4.2 | 10.3 |
| Green Ext Time (p_c), s | | 2.1 | | 0.2 | 0.5 | 3.7 |
| **Intersection Summary** | | | | | | |
| HCM 6th Ctrl Delay | | | 7.4 | | | |
| HCM 6th LOS | | | A | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 96 | 183 | 180 | 470 | 272 | 45 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 290 | 258 | 836 | 1192 | 1192 | 1241 |
| Arrive On Green | 0.16 | 0.16 | 0.64 | 0.64 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1781 | 1585 | 1061 | 1870 | 1870 | 1542 |
| Grp Volume(v), veh/h | 96 | 183 | 180 | 470 | 272 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1061 | 1870 | 1870 | 1542 |
| Q Serve(g_s), s | 2.1 | 4.9 | 3.3 | 5.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.1 | 4.9 | 3.3 | 5.5 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 290 | 258 | 836 | 1192 | 1192 | 1241 |
| V/C Ratio(X) | 0.33 | 0.71 | 0.22 | 0.39 | 0.23 | 0.04 |
| Avail Cap(c_a), veh/h | 713 | 634 | 836 | 1192 | 1192 | 1241 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 16.7 | 17.8 | 3.6 | 4.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.7 | 3.6 | 0.6 | 1.0 | 0.4 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.4 | 3.2 | 0.8 | 2.2 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 17.3 | 21.4 | 4.2 | 4.9 | 0.4 | 0.1 |
| LnGrp LOS | B | C | A | A | A | A |
| Approach Vol, veh/h | 279 | | | 650 | 317 | |
| Approach Delay, s/veh | 20.0 | | | 4.7 | 0.4 | |
| Approach LOS | B | | | A | A | |

| Timer - Assigned Phs | | 2 | | 4 | | 6 |
|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 33.2 | | 11.8 | | 33.2 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 18.0 | | 18.0 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | | 7.5 | | 6.9 | | 2.0 |
| Green Ext Time (p_c), s | | 2.7 | | 0.6 | | 1.5 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 7.0 |
| HCM 6th LOS | | | A |

# APPENDIX D
# 2038 IMPROVED INTERSECTION CAPACITY ANALYSIS (33% TOTAL GROWTH / 1.43% ANNUAL GROWTH)

Appendix D Listing – 2038 Improved Intersection Capacity Analysis – 33% Total Growth

Diamond & Pajarito Signalized AM
Diamond & Pajarito Signalized PM
Diamond & Sigma AM
Diamond & Sigma PM
Diamond & Eniwetok AM
Diamond & Eniwetok PM
Diamond & Embudo AM
Diamond & Embudo PM
Diamond & West Jemez AM
Diamond & West Jemez PM
Diamond & South Drive AM
Diamond & South Drive PM
Diamond & Grable AM
Diamond & Grable PM
Diamond & Coronado AM
Diamond & Coronado PM
Diamond & Pajarito Roundabout AM
Diamond & Pajarito Roundabout PM
Diamond & Pajarito Realigned AM
Diamond & Pajarito Realigned PM
Diamond & South Drive/Realigned Grable AM
Diamond & South Drive/Realigned Grable PM

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | ↰ | ↑ | ↑ | ↱ | ↰ | ↱ |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 59 | 90 | 274 | 0 | 639 | 127 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 179 | 403 | 403 | | 1197 | 1065 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.00 | 0.67 | 0.67 |
| Sat Flow, veh/h | 1105 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 59 | 90 | 274 | 0 | 639 | 127 |
| Grp Sat Flow(s),veh/h/ln | 1105 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 4.1 | 3.2 | 10.8 | 0.0 | 14.7 | 2.3 |
| Cycle Q Clear(g_c), s | 14.9 | 3.2 | 10.8 | 0.0 | 14.7 | 2.3 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 179 | 403 | 403 | | 1197 | 1065 |
| V/C Ratio(X) | 0.33 | 0.22 | 0.68 | | 0.53 | 0.12 |
| Avail Cap(c_a), veh/h | 280 | 573 | 573 | | 1197 | 1065 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 0.80 | 0.80 |
| Uniform Delay (d), s/veh | 35.7 | 25.9 | 28.8 | 0.0 | 6.7 | 4.7 |
| Incr Delay (d2), s/veh | 1.1 | 0.3 | 2.0 | 0.0 | 1.4 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.0 | 2.5 | 8.4 | 0.0 | 8.1 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.7 | 26.1 | 30.9 | 0.0 | 8.1 | 4.9 |
| LnGrp LOS | D | C | C | | A | A |
| Approach Vol, veh/h | | 149 | 274 | A | 766 | |
| Approach Delay, s/veh | | 30.3 | 30.9 | | 7.5 | |
| Approach LOS | | C | C | | A | |

| Timer - Assigned Phs | | | | 4 | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 21.7 | | 58.3 | 21.7 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | | | 24.5 | | 46.5 | 24.5 |
| Max Q Clear Time (g_c+I1), s | | | | 16.9 | | 16.7 | 12.8 |
| Green Ext Time (p_c), s | | | | 0.3 | | 2.8 | 1.1 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 15.8 |
| HCM 6th LOS | | | B |

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 127 | 243 | 239 | 0 | 362 | 60 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 338 | 516 | 516 | | 969 | 862 |
| Arrive On Green | 0.28 | 0.28 | 0.28 | 0.00 | 0.54 | 0.54 |
| Sat Flow, veh/h | 1141 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 127 | 243 | 239 | 0 | 362 | 60 |
| Grp Sat Flow(s),veh/h/ln | 1141 | 1870 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 5.2 | 5.4 | 5.3 | 0.0 | 5.8 | 0.9 |
| Cycle Q Clear(g_c), s | 10.5 | 5.4 | 5.3 | 0.0 | 5.8 | 0.9 |
| Prop In Lane | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 338 | 516 | 516 | | 969 | 862 |
| V/C Ratio(X) | 0.38 | 0.47 | 0.46 | | 0.37 | 0.07 |
| Avail Cap(c_a), veh/h | 536 | 842 | 842 | | 969 | 862 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 0.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 19.4 | 15.1 | 15.0 | 0.0 | 6.5 | 5.4 |
| Incr Delay (d2), s/veh | 0.7 | 0.7 | 0.6 | 0.0 | 1.1 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.3 | 3.7 | 3.6 | 0.0 | 3.3 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 20.1 | 15.7 | 15.7 | 0.0 | 7.6 | 5.6 |
| LnGrp LOS | C | B | B | | A | A |
| Approach Vol, veh/h | | 370 | 239 | A | 422 | |
| Approach Delay, s/veh | | 17.2 | 15.7 | | 7.3 | |
| Approach LOS | | B | B | | A | |

| Timer - Assigned Phs | 4 | 6 | 8 |
|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.3 | 31.7 | 18.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 22.5 | 18.5 | 22.5 |
| Max Q Clear Time (g_c+I1), s | 12.5 | 7.8 | 7.3 |
| Green Ext Time (p_c), s | 1.3 | 1.0 | 1.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.8 |
| HCM 6th LOS | B |

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Future Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 0.97 | 0.99 | | 0.97 | 1.00 | | 0.97 | 0.99 | | 0.96 |
| 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 | 1648 | 1648 | 1648 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 8 | 2 | 9 | 26 | 0 | 23 | 9 | 416 | 57 | 80 | 806 | 84 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 17 | 17 | 17 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 82 | 11 | 204 | 92 | 0 | 231 | 404 | 1685 | 229 | 748 | 1111 | 116 |
| Arrive On Green | 0.15 | 0.15 | 0.15 | 0.15 | 0.00 | 0.15 | 0.01 | 0.54 | 0.54 | 0.28 | 1.00 | 1.00 |
| Sat Flow, veh/h | 7 | 70 | 1360 | 12 | 0 | 1539 | 1781 | 3127 | 425 | 1781 | 1659 | 173 |
| Grp Volume(v), veh/h | 10 | 0 | 9 | 26 | 0 | 23 | 9 | 235 | 238 | 80 | 0 | 890 |
| Grp Sat Flow(s),veh/h/ln | 77 | 0 | 1360 | 12 | 0 | 1539 | 1781 | 1777 | 1776 | 1781 | 0 | 1832 |
| Q Serve(g_s), s | 0.1 | 0.0 | 0.5 | 0.1 | 0.0 | 1.0 | 0.2 | 5.6 | 5.7 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 12.0 | 0.0 | 0.5 | 12.0 | 0.0 | 1.0 | 0.2 | 5.6 | 5.7 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 0.80 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.24 | 1.00 | | 0.09 |
| Lane Grp Cap(c), veh/h | 93 | 0 | 204 | 92 | 0 | 231 | 404 | 957 | 957 | 748 | 0 | 1226 |
| V/C Ratio(X) | 0.11 | 0.00 | 0.04 | 0.28 | 0.00 | 0.10 | 0.02 | 0.25 | 0.25 | 0.11 | 0.00 | 0.73 |
| Avail Cap(c_a), veh/h | 190 | 0 | 308 | 197 | 0 | 348 | 497 | 957 | 957 | 748 | 0 | 1226 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.76 | 0.76 | 0.76 | 0.66 | 0.00 | 0.66 |
| Uniform Delay (d), s/veh | 29.9 | 0.0 | 29.1 | 40.0 | 0.0 | 29.3 | 9.8 | 9.8 | 9.8 | 6.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 0.1 | 1.7 | 0.0 | 0.2 | 0.0 | 0.5 | 0.5 | 0.0 | 0.0 | 2.5 |
| 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 | 0.3 | 0.0 | 0.3 | 1.0 | 0.0 | 0.7 | 0.1 | 3.8 | 3.9 | 0.8 | 0.0 | 1.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 30.4 | 0.0 | 29.2 | 41.7 | 0.0 | 29.5 | 9.8 | 10.3 | 10.3 | 6.3 | 0.0 | 2.5 |
| LnGrp LOS | C | A | C | D | A | C | A | B | B | A | A | A |
| Approach Vol, veh/h | | 19 | | | 49 | | | 482 | | | 970 | |
| Approach Delay, s/veh | | 29.8 | | | 36.0 | | | 10.3 | | | 2.8 | |
| Approach LOS | | C | | | D | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.8 | 47.6 | | 16.6 | 5.4 | 58.0 | | 16.6 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.3 | 43.1 | | 18.1 | 5.1 | 43.3 | | 18.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 7.7 | | 14.0 | 2.2 | 2.0 | | 14.0 |
| Green Ext Time (p_c), s | 0.0 | 3.1 | | 0.0 | 0.0 | 8.9 | | 0.0 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 6.6 |
| HCM 6th LOS | | | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Future Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.97 | 1.00 | | 0.98 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 53 | 0 | 32 | 32 | 0 | 70 | 5 | 789 | 12 | 11 | 314 | 9 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 72 | 0 | 383 | 72 | 0 | 385 | 700 | 2156 | 33 | 343 | 967 | 28 |
| Arrive On Green | 0.24 | 0.00 | 0.24 | 0.24 | 0.00 | 0.24 | 0.09 | 0.61 | 0.61 | 0.03 | 1.00 | 1.00 |
| Sat Flow, veh/h | 0 | 0 | 1562 | 0 | 0 | 1571 | 1767 | 3553 | 54 | 1781 | 1808 | 52 |
| Grp Volume(v), veh/h | 53 | 0 | 32 | 32 | 0 | 70 | 5 | 391 | 410 | 11 | 0 | 323 |
| Grp Sat Flow(s),veh/h/ln | 0 | 0 | 1562 | 0 | 0 | 1571 | 1767 | 1763 | 1844 | 1781 | 0 | 1859 |
| Q Serve(g_s), s | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 3.5 | 0.0 | 11.2 | 11.2 | 0.3 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 24.5 | 0.0 | 1.6 | 24.5 | 0.0 | 3.5 | 0.0 | 11.2 | 11.2 | 0.3 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 72 | 0 | 383 | 72 | 0 | 385 | 700 | 1070 | 1119 | 343 | 0 | 995 |
| V/C Ratio(X) | 0.74 | 0.00 | 0.08 | 0.44 | 0.00 | 0.18 | 0.01 | 0.37 | 0.37 | 0.03 | 0.00 | 0.32 |
| Avail Cap(c_a), veh/h | 72 | 0 | 383 | 72 | 0 | 385 | 700 | 1070 | 1119 | 471 | 0 | 995 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.71 | 0.71 | 0.71 | 0.98 | 0.00 | 0.98 |
| Uniform Delay (d), s/veh | 50.0 | 0.0 | 29.1 | 50.0 | 0.0 | 29.8 | 10.5 | 9.9 | 9.9 | 12.8 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 32.2 | 0.0 | 0.1 | 4.2 | 0.0 | 0.2 | 0.0 | 0.7 | 0.7 | 0.0 | 0.0 | 0.9 |
| 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 | 3.5 | 0.0 | 1.1 | 1.6 | 0.0 | 2.4 | 0.1 | 7.1 | 7.3 | 0.2 | 0.0 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 82.2 | 0.0 | 29.2 | 54.2 | 0.0 | 30.1 | 10.5 | 10.6 | 10.6 | 12.8 | 0.0 | 0.9 |
| LnGrp LOS | F | A | C | D | A | C | B | B | B | B | A | A |
| Approach Vol, veh/h | | 85 | | | 102 | | | 806 | | | 334 | |
| Approach Delay, s/veh | | 62.2 | | | 37.6 | | | 10.6 | | | 1.2 | |
| Approach LOS | | E | | | D | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.8 | 65.2 | | 29.0 | 13.0 | 58.0 | | 29.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 8.5 | 53.5 | | 24.5 | 8.5 | 53.5 | | 24.5 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 13.2 | | 26.5 | 2.0 | 2.0 | | 26.5 |
| Green Ext Time (p_c), s | 0.0 | 5.9 | | 0.0 | 0.0 | 2.2 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.6 |
| HCM 6th LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Future Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.98 | | 0.91 | 0.96 | | 1.00 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 2 | 11 | 79 | 2 | 0 | 34 | 354 | 0 | 49 | 949 | 355 |
| Peak Hour Factor | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.86 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 192 | 64 | 156 | 226 | 5 | | 588 | 1276 | | 618 | 1017 | 850 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.36 | 1.00 | 0.00 | 0.08 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1064 | 598 | 1450 | 1273 | 43 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1563 |
| Grp Volume(v), veh/h | 7 | 0 | 11 | 81 | 0 | 0 | 34 | 354 | 0 | 49 | 949 | 355 |
| Grp Sat Flow(s),veh/h/ln | 1662 | 0 | 1450 | 1317 | 0 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1563 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.5 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.3 | 0.0 | 0.5 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 |
| Prop In Lane | 0.71 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 256 | 0 | 156 | 231 | 0 | | 588 | 1276 | | 618 | 1017 | 850 |
| V/C Ratio(X) | 0.03 | 0.00 | 0.07 | 0.35 | 0.00 | | 0.06 | 0.28 | | 0.08 | 0.93 | 0.42 |
| Avail Cap(c_a), veh/h | 432 | 0 | 326 | 389 | 0 | | 588 | 1276 | | 658 | 1017 | 850 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.99 | 0.99 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.0 | 0.0 | 32.1 | 34.1 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 9.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 0.9 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.1 | 16.1 | 1.5 |
| 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 | 0.2 | 0.0 | 0.4 | 2.7 | 0.0 | 0.0 | 0.3 | 0.3 | 0.0 | 0.7 | 8.0 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 32.0 | 0.0 | 32.3 | 35.0 | 0.0 | 0.0 | 5.4 | 0.5 | 0.0 | 9.4 | 16.1 | 1.5 |
| LnGrp LOS | C | A | C | C | A | | A | A | | A | B | A |
| Approach Vol, veh/h | | 18 | | | 81 | A | | 388 | A | | 1353 | |
| Approach Delay, s/veh | | 32.2 | | | 35.0 | | | 1.0 | | | 12.0 | |
| Approach LOS | | C | | | C | | | A | | | B | |
| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
| Phs Duration (G+Y+Rc), s | 7.8 | 59.1 | | 13.1 | 18.9 | 48.0 | | 13.1 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 43.4 | | 18.0 | 5.0 | 43.5 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.1 | 2.0 | | 2.5 | 2.0 | 2.0 | | 6.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.4 | | 0.0 | 0.0 | 12.0 | | 0.2 | | | | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 6th Ctrl Delay | | | 10.9 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Future Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.97 | | 0.93 | 0.94 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 |
| 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 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 55 | 1 | 17 | 59 | 0 | 0 | 15 | 814 | 0 | 33 | 324 | 5 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 264 | 4 | 183 | 197 | 0 | | 932 | 1167 | | 696 | 1167 | 962 |
| Arrive On Green | 0.13 | 0.13 | 0.13 | 0.13 | 0.00 | 0.00 | 0.23 | 1.00 | 0.00 | 0.23 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1539 | 33 | 1466 | 996 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1541 |
| Grp Volume(v), veh/h | 56 | 0 | 17 | 59 | 0 | 0 | 15 | 814 | 0 | 33 | 324 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1573 | 0 | 1466 | 996 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1541 |
| Q Serve(g_s), s | 0.0 | 0.0 | 1.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 2.9 | 0.0 | 1.0 | 7.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 268 | 0 | 183 | 197 | 0 | | 932 | 1167 | | 696 | 1167 | 962 |
| V/C Ratio(X) | 0.21 | 0.00 | 0.09 | 0.30 | 0.00 | | 0.02 | 0.70 | | 0.05 | 0.28 | 0.01 |
| Avail Cap(c_a), veh/h | 359 | 0 | 280 | 282 | 0 | | 932 | 1167 | | 696 | 1167 | 962 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.97 | 0.97 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.6 | 0.0 | 38.7 | 42.8 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 3.1 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 0.6 | 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 | 2.3 | 0.0 | 0.7 | 2.6 | 0.0 | 0.0 | 0.1 | 2.0 | 0.0 | 0.2 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 39.9 | 0.0 | 38.9 | 43.7 | 0.0 | 0.0 | 3.0 | 3.4 | 0.0 | 3.1 | 0.6 | 0.0 |
| LnGrp LOS | D | A | D | D | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 73 | | | 59 | A | | 829 | A | | 362 | |
| Approach Delay, s/veh | | 39.7 | | | 43.7 | | | 3.4 | | | 0.8 | |
| Approach LOS | | D | | | D | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.1 | 66.9 | | 17.0 | 16.1 | 66.9 | | 17.0 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 62.4 | | 19.1 | 5.0 | 62.4 | | 19.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 2.0 | | 4.9 | 2.0 | 2.0 | | 9.2 |
| Green Ext Time (p_c), s | 0.0 | 7.7 | | 0.2 | 0.0 | 2.2 | | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 6.5 |
| HCM 6th LOS | A |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Future Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.96 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | |
| Adj Flow Rate, veh/h | 40 | 31 | 272 | 30 | 80 | 1379 | |
| Peak Hour Factor | 0.74 | 0.74 | 0.90 | 0.90 | 0.90 | 0.90 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 88 | 79 | 1267 | 138 | 1096 | 1567 | |
| Arrive On Green | 0.05 | 0.05 | 0.13 | 0.13 | 0.39 | 0.84 | |
| Sat Flow, veh/h | 1781 | 1585 | 3310 | 351 | 1781 | 1870 | |
| Grp Volume(v), veh/h | 40 | 31 | 149 | 153 | 80 | 1379 | |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1791 | 1781 | 1870 | |
| Q Serve(g_s), s | 1.7 | 1.5 | 6.0 | 6.1 | 0.0 | 36.4 | |
| Cycle Q Clear(g_c), s | 1.7 | 1.5 | 6.0 | 6.1 | 0.0 | 36.4 | |
| Prop In Lane | 1.00 | 1.00 | | 0.20 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 88 | 79 | 700 | 705 | 1096 | 1567 | |
| V/C Ratio(X) | 0.45 | 0.39 | 0.21 | 0.22 | 0.07 | 0.88 | |
| Avail Cap(c_a), veh/h | 668 | 594 | 700 | 705 | 1096 | 1567 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 0.33 | 0.33 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.58 | 0.58 | |
| Uniform Delay (d), s/veh | 37.0 | 36.9 | 23.7 | 23.8 | 4.4 | 4.0 | |
| Incr Delay (d2), s/veh | 3.6 | 3.2 | 0.7 | 0.7 | 0.0 | 4.5 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(95%),veh/ln | 1.5 | 1.2 | 4.9 | 5.0 | 0.7 | 8.7 | |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 40.6 | 40.0 | 24.4 | 24.5 | 4.4 | 8.5 | |
| LnGrp LOS | D | D | C | C | A | A | |
| Approach Vol, veh/h | 71 | | 302 | | | 1459 | |
| Approach Delay, s/veh | 40.3 | | 24.4 | | | 8.3 | |
| Approach LOS | D | | C | | | A | |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 35.5 | 36.0 | | | | 71.5 | 8.5 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 31.5 | | | | 41.0 | 30.0 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 8.1 | | | | 38.4 | 3.7 |
| Green Ext Time (p_c), s | 0.0 | 1.7 | | | | 2.3 | 0.2 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 12.2 | | | | |
| HCM 6th LOS | | | B | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Future Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 41 | 182 | 1601 | 20 | 25 | 304 |
| Peak Hour Factor | 0.74 | 0.74 | 0.74 | 0.74 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 245 | 218 | 1836 | 23 | 610 | 1444 |
| Arrive On Green | 0.14 | 0.14 | 1.00 | 1.00 | 0.22 | 0.77 |
| Sat Flow, veh/h | 1781 | 1585 | 3686 | 45 | 1781 | 1870 |
| Grp Volume(v), veh/h | 41 | 182 | 791 | 830 | 25 | 304 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1860 | 1781 | 1870 |
| Q Serve(g_s), s | 2.0 | 11.2 | 0.0 | 0.0 | 0.0 | 4.4 |
| Cycle Q Clear(g_c), s | 2.0 | 11.2 | 0.0 | 0.0 | 0.0 | 4.4 |
| Prop In Lane | 1.00 | 1.00 | | 0.02 | 1.00 | |
| Lane Grp Cap(c), veh/h | 245 | 218 | 908 | 951 | 610 | 1444 |
| V/C Ratio(X) | 0.17 | 0.83 | 0.87 | 0.87 | 0.04 | 0.21 |
| Avail Cap(c_a), veh/h | 540 | 480 | 908 | 951 | 610 | 1444 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 0.98 |
| Uniform Delay (d), s/veh | 38.0 | 42.0 | 0.0 | 0.0 | 4.7 | 3.1 |
| Incr Delay (d2), s/veh | 0.3 | 8.0 | 11.2 | 10.9 | 0.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.6 | 8.4 | 5.1 | 5.2 | 0.3 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.4 | 50.0 | 11.2 | 10.9 | 4.7 | 3.4 |
| LnGrp LOS | D | D | B | B | A | A |
| Approach Vol, veh/h | 223 | | 1621 | | | 329 |
| Approach Delay, s/veh | 47.9 | | 11.1 | | | 3.5 |
| Approach LOS | D | | B | | | A |

| Timer - Assigned Phs | 1 | 2 | 6 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 26.1 | 55.6 | 81.7 | 18.3 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.1 | 51.1 | 60.7 | 30.3 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 2.0 | 6.4 | 13.2 |
| Green Ext Time (p_c), s | 0.0 | 19.1 | 2.0 | 0.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.7 |
| HCM 6th LOS | B |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Future Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.94 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 168 | 229 | 1253 | 1483 | 21 | 279 |
| Peak Hour Factor | 0.91 | 0.91 | 0.95 | 0.95 | 0.84 | 0.84 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 552 | 700 | 1313 | 2102 | 527 | 1886 |
| Arrive On Green | 0.16 | 0.16 | 0.38 | 0.59 | 0.30 | 0.30 |
| Sat Flow, veh/h | 3647 | 1486 | 3456 | 3647 | 1781 | 2790 |
| Grp Volume(v), veh/h | 168 | 229 | 1253 | 1483 | 21 | 279 |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1486 | 1728 | 1777 | 1781 | 1395 |
| Q Serve(g_s), s | 3.4 | 8.0 | 28.2 | 23.4 | 0.7 | 0.0 |
| Cycle Q Clear(g_c), s | 3.4 | 8.0 | 28.2 | 23.4 | 0.7 | 0.0 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 552 | 700 | 1313 | 2102 | 527 | 1886 |
| V/C Ratio(X) | 0.30 | 0.33 | 0.95 | 0.71 | 0.04 | 0.15 |
| Avail Cap(c_a), veh/h | 800 | 804 | 1317 | 2354 | 527 | 1886 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 30.0 | 14.2 | 24.1 | 11.5 | 20.1 | 4.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.3 | 15.2 | 0.9 | 0.1 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.5 | 7.7 | 19.3 | 12.4 | 0.5 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 30.3 | 14.5 | 39.3 | 12.3 | 20.2 | 4.8 |
| LnGrp LOS | C | B | D | B | C | A |
| Approach Vol, veh/h | 397 | | | 2736 | 300 | |
| Approach Delay, s/veh | 21.2 | | | 24.7 | 5.9 | |
| Approach LOS | C | | | C | A | |

| Timer - Assigned Phs | 2 | 3 | 4 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 28.2 | 34.9 | 16.9 | 51.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 18.0 | 30.5 | 18.0 | 53.0 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 30.2 | 10.0 | 25.4 |
| Green Ext Time (p_c), s | 1.0 | 0.2 | 1.2 | 13.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.6 |
| HCM 6th LOS | C |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 | |
| Future Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | | No | No | | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | |
| Adj Flow Rate, veh/h | 1371 | 171 | 230 | 151 | 36 | 1202 | |
| Peak Hour Factor | 0.97 | 0.97 | 0.88 | 0.88 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 1433 | 1224 | 316 | 1917 | 660 | 1288 | |
| Arrive On Green | 0.40 | 0.40 | 0.09 | 0.54 | 0.37 | 0.37 | |
| Sat Flow, veh/h | 3647 | 1579 | 3456 | 3647 | 1781 | 2790 | |
| Grp Volume(v), veh/h | 1371 | 171 | 230 | 151 | 36 | 1202 | |
| Grp Sat Flow(s),veh/h/ln | 1777 | 1579 | 1728 | 1777 | 1781 | 1395 | |
| Q Serve(g_s), s | 37.5 | 2.7 | 6.5 | 2.0 | 1.3 | 31.6 | |
| Cycle Q Clear(g_c), s | 37.5 | 2.7 | 6.5 | 2.0 | 1.3 | 31.6 | |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Lane Grp Cap(c), veh/h | 1433 | 1224 | 316 | 1917 | 660 | 1288 | |
| V/C Ratio(X) | 0.96 | 0.14 | 0.73 | 0.08 | 0.05 | 0.93 | |
| Avail Cap(c_a), veh/h | 1439 | 1227 | 881 | 2505 | 660 | 1288 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.72 | 0.72 | |
| Uniform Delay (d), s/veh | 29.0 | 2.9 | 44.2 | 11.1 | 20.2 | 25.4 | |
| Incr Delay (d2), s/veh | 14.7 | 0.1 | 3.2 | 0.0 | 0.1 | 10.4 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(95%),veh/ln | 24.9 | 4.7 | 5.2 | 1.4 | 1.0 | 15.4 | |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 43.7 | 2.9 | 47.4 | 11.1 | 20.3 | 35.9 | |
| LnGrp LOS | D | A | D | B | C | D | |
| Approach Vol, veh/h | 1542 | | | 381 | 1238 | | |
| Approach Delay, s/veh | 39.2 | | | 33.0 | 35.4 | | |
| Approach LOS | D | | | C | D | | |
| Timer - Assigned Phs | | 2 | 3 | 4 | | | 8 |
| Phs Duration (G+Y+Rc), s | | 41.5 | 13.6 | 44.8 | | | 58.5 |
| Change Period (Y+Rc), s | | 4.5 | 4.5 | 4.5 | | | 4.5 |
| Max Green Setting (Gmax), s | | 20.5 | 25.5 | 40.5 | | | 70.5 |
| Max Q Clear Time (g_c+I1), s | | 33.6 | 8.5 | 39.5 | | | 4.0 |
| Green Ext Time (p_c), s | | 0.0 | 0.7 | 0.8 | | | 1.0 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 37.0 | | | | |
| HCM 6th LOS | | | D | | | | |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Future Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Conflicting Peds, #/hr | 1 | 0 | 29 | 0 | 0 | 29 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 88 | 88 | 85 | 85 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 22 | 6 | 17 | 397 | 1396 | 185 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1752 | 1518 | 1610 | 0 | - | 0 |
| Stage 1 | 1518 | - | - | - | - | - |
| Stage 2 | 234 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 85 | 146 | 403 | - | - | - |
| Stage 1 | 199 | - | - | - | - | - |
| Stage 2 | 783 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 77 | 142 | 392 | - | - | - |
| Mov Cap-2 Maneuver | 77 | - | - | - | - | - |
| Stage 1 | 185 | - | - | - | - | - |
| Stage 2 | 761 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 61 | 0.6 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 392 | - | 77 | 142 | - | - |
| HCM Lane V/C Ratio | 0.042 | - | 0.284 | 0.044 | - | - |
| HCM Control Delay (s) | 14.6 | - | 69.4 | 31.5 | - | - |
| HCM Lane LOS | B | - | F | D | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 1 | 0.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.8 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Future Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Conflicting Peds, #/hr | 1 | 4 | 15 | 0 | 0 | 15 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 71 | 71 | 97 | 97 | 71 | 71 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 96 | 15 | 4 | 1057 | 423 | 36 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 994 | 460 | 474 | 0 | - | 0 |
| Stage 1 | 456 | - | - | - | - | - |
| Stage 2 | 538 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 256 | 600 | 1086 | - | - | - |
| Stage 1 | 637 | - | - | - | - | - |
| Stage 2 | 550 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 248 | 589 | 1070 | - | - | - |
| Mov Cap-2 Maneuver | 248 | - | - | - | - | - |
| Stage 1 | 626 | - | - | - | - | - |
| Stage 2 | 542 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 26 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1070 | - | 248 | 589 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.385 | 0.025 | - | - |
| HCM Control Delay (s) | 8.4 | - | 28.3 | 11.3 | - | - |
| HCM Lane LOS | A | - | D | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 1.7 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Future Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Conflicting Peds, #/hr | 3 | 15 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 86 | 86 | 86 | 86 | 86 | 86 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 428 | 19 | 82 | 1376 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1984 | 242 | 0 | 0 | 450 | 0 |
| Stage 1 | 441 | - | - | - | - | - |
| Stage 2 | 1543 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 60 | 759 | - | - | 1109 | - |
| Stage 1 | 617 | - | - | - | - | - |
| Stage 2 | 193 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 55 | 746 | - | - | 1106 | - |
| Mov Cap-2 Maneuver | 55 | - | - | - | - | - |
| Stage 1 | 569 | - | - | - | - | - |
| Stage 2 | 192 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 42.1 | 0 | 0.5 |
| HCM LOS | E | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 55 | 746 | 1106 | - |
| HCM Lane V/C Ratio | - | - | 0.056 | 0.004 | 0.074 | - |
| HCM Control Delay (s) | - | - | 74.3 | 9.8 | 8.5 | - |
| HCM Lane LOS | - | - | F | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0 | 0.2 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 2.5 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Future Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Conflicting Peds, #/hr | 14 | 25 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 68 | 68 | 68 | 68 | 68 | 68 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 8 | 106 | 1608 | 20 | 106 | 434 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 2278 | 839 | 0 | 0 | 1628 | 0 |
| Stage 1 | 1618 | - | - | - | - | - |
| Stage 2 | 660 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.93 | - | - | 4.13 | - |
| Critical Hdwy Stg 1 | 5.83 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.43 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | - | - | 2.219 | - |
| Pot Cap-1 Maneuver | 38 | 310 | - | - | 397 | - |
| Stage 1 | 148 | - | - | - | - | - |
| Stage 2 | 513 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 27 | 303 | - | - | 397 | - |
| Mov Cap-2 Maneuver | 27 | - | - | - | - | - |
| Stage 1 | 108 | - | - | - | - | - |
| Stage 2 | 506 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 34.3 | 0 | 3.4 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 27 | 303 | 397 | - |
| HCM Lane V/C Ratio | - | - | 0.29 | 0.349 | 0.266 | - |
| HCM Control Delay (s) | - | - | 185.7 | 23.1 | 17.3 | - |
| HCM Lane LOS | - | - | F | C | C | - |
| HCM 95th %tile Q(veh) | - | - | 0.9 | 1.5 | 1.1 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Future Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 61 | 0 | 0 | 61 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 1 | 4 | 1 | 402 | 1282 | 7 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1550 | 1347 | 1350 | 0 | - | 0 |
| Stage 1 | 1347 | - | - | - | - | - |
| Stage 2 | 203 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 114 | 184 | 508 | - | - | - |
| Stage 1 | 241 | - | - | - | - | - |
| Stage 2 | 812 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 101 | 173 | 478 | - | - | - |
| Mov Cap-2 Maneuver | 101 | - | - | - | - | - |
| Stage 1 | 226 | - | - | - | - | - |
| Stage 2 | 765 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 30.5 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 478 | - | 147 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | 0.039 | - | - |
| HCM Control Delay (s) | 12.6 | 0 | 30.5 | - | - |
| HCM Lane LOS | B | A | D | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Conflicting Peds, #/hr | 4 | 0 | 103 | 0 | 0 | 103 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 81 | 81 | 81 | 81 | 81 | 81 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 0 | 0 | 1438 | 365 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1191 | 468 | 468 | 0 | - | 0 |
| Stage 1 | 468 | - | - | - | - | - |
| Stage 2 | 723 | - | - | - | - | - |
| Critical Hdwy | 6.63 | 6.23 | 4.13 | - | - | - |
| Critical Hdwy Stg 1 | 5.43 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.83 | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 3.319 | 2.219 | - | - | - |
| Pot Cap-1 Maneuver | 193 | 594 | 1092 | - | - | - |
| Stage 1 | 629 | - | - | - | - | - |
| Stage 2 | 442 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 157 | 536 | 985 | - | - | - |
| Mov Cap-2 Maneuver | 157 | - | - | - | - | - |
| Stage 1 | 567 | - | - | - | - | - |
| Stage 2 | 399 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 28.7 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 985 | - | 157 | - | - |
| HCM Lane V/C Ratio | - | - | 0.031 | - | - |
| HCM Control Delay (s) | 0 | - | 28.7 | - | - |
| HCM Lane LOS | A | - | D | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.1 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 149 | 716 | 766 |
| Demand Flow Rate, veh/h | 152 | 730 | 782 |
| Vehicles Circulating, veh/h | 652 | 60 | 279 |
| Vehicles Exiting, veh/h | 279 | 652 | 60 |
| Ped Vol Crossing Leg, #/h | 0 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 2.1 | 5.5 | 9.7 |
| Approach LOS | A | A | A |

| Lane | Left | Bypass | Left | Bypass | Left | Bypass |
|---|---|---|---|---|---|---|
| Designated Moves | L | R | T | R | L | R |
| Assumed Moves | L | R | T | R | L | R |
| RT Channelized | | Free | | Yield | | Yield |
| Lane Util | 1.000 | | 1.000 | | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.535 | | 2.535 | |
| Critical Headway, s | 4.328 | 92 | 4.328 | 451 | 4.328 | 130 |
| Entry Flow, veh/h | 60 | 1938 | 279 | 1298 | 652 | 1038 |
| Cap Entry Lane, veh/h | 816 | 0.980 | 1349 | 0.980 | 1120 | 0.980 |
| Entry HV Adj Factor | 0.983 | 90 | 0.980 | 442 | 0.980 | 127 |
| Flow Entry, veh/h | 59 | 1900 | 274 | 1272 | 639 | 1018 |
| Cap Entry, veh/h | 802 | 0.047 | 1323 | 0.347 | 1098 | 0.125 |
| V/C Ratio | 0.074 | 0.0 | 0.207 | 6.1 | 0.582 | 4.7 |
| Control Delay, s/veh | 5.2 | A | 4.5 | A | 10.6 | A |
| LOS | A | 0 | A | 2 | B | 0 |
| 95th %tile Queue, veh | 0 | | 1 | | 4 | |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 5.9 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 1 |
| Conflicting Circle Lanes | 2 | 2 | 2 |
| Adj Approach Flow, veh/h | 370 | 864 | 422 |
| Demand Flow Rate, veh/h | 378 | 882 | 430 |
| Vehicles Circulating, veh/h | 369 | 130 | 244 |
| Vehicles Exiting, veh/h | 244 | 369 | 130 |
| Ped Vol Crossing Leg, #/h | 0 | 1 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 1.6 | 7.8 | 5.9 |
| Approach LOS | A | A | A |

| Lane | Left | Bypass | Left | Bypass | Left | Bypass |
|---|---|---|---|---|---|---|
| Designated Moves | L | R | T | R | L | R |
| Assumed Moves | L | R | T | R | L | R |
| RT Channelized | | Free | | Yield | | Yield |
| Lane Util | 1.000 | | 1.000 | | 1.000 | |
| Follow-Up Headway, s | 2.535 | | 2.535 | | 2.535 | |
| Critical Headway, s | 4.328 | 248 | 4.328 | 637 | 4.328 | 61 |
| Entry Flow, veh/h | 130 | 1938 | 244 | 1209 | 369 | 1076 |
| Cap Entry Lane, veh/h | 1038 | 0.980 | 1272 | 0.980 | 1154 | 0.980 |
| Entry HV Adj Factor | 0.977 | 243 | 0.980 | 625 | 0.981 | 60 |
| Flow Entry, veh/h | 127 | 1900 | 239 | 1185 | 362 | 1055 |
| Cap Entry, veh/h | 1014 | 0.128 | 1246 | 0.528 | 1132 | 0.057 |
| V/C Ratio | 0.125 | 0.0 | 0.192 | 9.0 | 0.320 | 3.9 |
| Control Delay, s/veh | 4.7 | A | 4.5 | A | 6.3 | A |
| LOS | A | 0 | A | 3 | A | 0 |
| 95th %tile Queue, veh | 0 | | 1 | | 1 | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 59 | 90 | 274 | 442 | 639 | 127 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 144 | 128 | 578 | 1509 | 1265 | 1174 |
| Arrive On Green | 0.08 | 0.08 | 0.07 | 0.81 | 0.68 | 0.68 |
| Sat Flow, veh/h | 1781 | 1585 | 1781 | 1870 | 1870 | 1545 |
| Grp Volume(v), veh/h | 59 | 90 | 274 | 442 | 639 | 127 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1781 | 1870 | 1870 | 1545 |
| Q Serve(g_s), s | 2.5 | 4.4 | 3.3 | 4.8 | 13.4 | 1.7 |
| Cycle Q Clear(g_c), s | 2.5 | 4.4 | 3.3 | 4.8 | 13.4 | 1.7 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 144 | 128 | 578 | 1509 | 1265 | 1174 |
| V/C Ratio(X) | 0.41 | 0.70 | 0.47 | 0.29 | 0.50 | 0.11 |
| Avail Cap(c_a), veh/h | 401 | 357 | 848 | 1509 | 1265 | 1174 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.81 |
| Uniform Delay (d), s/veh | 34.9 | 35.8 | 4.8 | 2.0 | 6.4 | 2.6 |
| Incr Delay (d2), s/veh | 1.9 | 6.8 | 0.6 | 0.5 | 1.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.0 | 7.3 | 1.2 | 1.6 | 7.7 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 36.8 | 42.6 | 5.4 | 2.5 | 7.5 | 2.7 |
| LnGrp LOS | D | D | A | A | A | A |
| Approach Vol, veh/h | 149 | | | 716 | 766 | |
| Approach Delay, s/veh | 40.3 | | | 3.6 | 6.7 | |
| Approach LOS | D | | | A | A | |
| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 |
| Phs Duration (G+Y+Rc), s | | 69.0 | | 11.0 | 10.4 | 58.6 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | | 53.0 | | 18.0 | 18.0 | 30.5 |
| Max Q Clear Time (g_c+I1), s | | 6.8 | | 6.4 | 5.3 | 15.4 |
| Green Ext Time (p_c), s | | 3.0 | | 0.3 | 0.6 | 4.3 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 8.4 | | | |
| HCM 6th LOS | | | A | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | 1.00 | | | 0.97 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 127 | 243 | 239 | 625 | 362 | 60 |
| Peak Hour Factor | 0.93 | 0.93 | 0.93 | 0.93 | 0.86 | 0.86 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 356 | 317 | 742 | 1160 | 1160 | 1273 |
| Arrive On Green | 0.20 | 0.20 | 0.62 | 0.62 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1781 | 1585 | 964 | 1870 | 1870 | 1542 |
| Grp Volume(v), veh/h | 127 | 243 | 239 | 625 | 362 | 60 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 964 | 1870 | 1870 | 1542 |
| Q Serve(g_s), s | 3.1 | 7.2 | 6.3 | 9.5 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 3.1 | 7.2 | 6.3 | 9.5 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | 1.00 | 1.00 | | | 1.00 |
| Lane Grp Cap(c), veh/h | 356 | 317 | 742 | 1160 | 1160 | 1273 |
| V/C Ratio(X) | 0.36 | 0.77 | 0.32 | 0.54 | 0.31 | 0.05 |
| Avail Cap(c_a), veh/h | 641 | 571 | 742 | 1160 | 1160 | 1273 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 17.2 | 18.9 | 4.8 | 5.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.6 | 3.9 | 1.1 | 1.8 | 0.7 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.1 | 4.8 | 1.7 | 4.7 | 0.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 17.8 | 22.8 | 5.9 | 7.2 | 0.7 | 0.1 |
| LnGrp LOS | B | C | A | A | A | A |
| Approach Vol, veh/h | 370 | | | 864 | 422 | |
| Approach Delay, s/veh | 21.1 | | | 6.9 | 0.6 | |
| Approach LOS | C | | | A | A | |
| Timer - Assigned Phs | | 2 | | 4 | | 6 |
| Phs Duration (G+Y+Rc), s | | 35.5 | | 14.5 | | 35.5 |
| Change Period (Y+Rc), s | | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | 23.0 | | 18.0 | | 23.0 |
| Max Q Clear Time (g_c+I1), s | | 11.5 | | 9.2 | | 2.0 |
| Green Ext Time (p_c), s | | 4.1 | | 0.8 | | 2.4 |
| Intersection Summary | | | | | | |
| HCM 6th Ctrl Delay | | | 8.4 | | | |
| HCM 6th LOS | | | A | | | |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 14 | 1 | 4 | 2 | 1 | 2 | 11 | 251 | 12 | 53 | 890 | 118 |
| Future Vol, veh/h | 14 | 1 | 4 | 2 | 1 | 2 | 11 | 251 | 12 | 53 | 890 | 118 |
| Conflicting Peds, #/hr | 1 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 0 | 29 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | 150 | - | - | 250 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 90 | 92 | 90 | 92 | 92 | 92 | 97 | 97 | 92 | 92 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 21 | 1 | 6 | 3 | 1 | 2 | 15 | 344 | 17 | 77 | 1220 | 162 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1688 | 1875 | 1330 | 1842 | 1948 | 182 | 1411 | 0 | 0 | 361 | 0 | 0 |
| Stage 1 | 1484 | 1484 | - | 383 | 383 | - | - | - | - | - | - | - |
| Stage 2 | 204 | 391 | - | 1459 | 1565 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.33 | 6.53 | 6.23 | 7.33 | 6.53 | 6.93 | 4.13 | - | - | 4.13 | - | - |
| Critical Hdwy Stg 1 | 6.13 | 5.53 | - | 6.53 | 5.53 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.53 | 5.53 | - | 6.13 | 5.53 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 | 2.219 | - | - | 2.219 | - | - |
| Pot Cap-1 Maneuver | 67 | 71 | 188 | 52 | 64 | 830 | 481 | - | - | 1196 | - | - |
| Stage 1 | 155 | 188 | - | 612 | 611 | - | - | - | - | - | - | - |
| Stage 2 | 779 | 606 | - | 160 | 171 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 59 | 63 | 183 | 46 | 56 | 829 | 468 | - | - | 1196 | - | - |
| Mov Cap-2 Maneuver | 59 | 63 | - | 46 | 56 | - | - | - | - | - | - | - |
| Stage 1 | 146 | 171 | - | 592 | 591 | - | - | - | - | - | - | - |
| Stage 2 | 750 | 587 | - | 144 | 156 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 79.6 | 58.3 | 0.5 | 0.4 |
| HCM LOS | F | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 468 | - | - | 59 | 133 | 46 | 127 | 1196 | - | - |
| HCM Lane V/C Ratio | 0.032 | - | - | 0.351 | 0.055 | 0.063 | 0.029 | 0.064 | - | - |
| HCM Control Delay (s) | 12.9 | - | - | 95.9 | 33.6 | 88.4 | 34.2 | 8.2 | - | - |
| HCM Lane LOS | B | - | - | F | D | F | D | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 1.3 | 0.2 | 0.2 | 0.1 | 0.2 | - | - |

| Intersection | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Int Delay, s/veh | 4.2 | | | | | | | | | | | |
| **Movement** | **EBL** | **EBT** | **EBR** | **WBL** | **WBT** | **WBR** | **NBL** | **NBT** | **NBR** | **SBL** | **SBT** | **SBR** |
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 51 | 1 | 8 | 4 | 1 | 54 | 3 | 771 | 10 | 53 | 226 | 19 |
| Future Vol, veh/h | 51 | 1 | 8 | 4 | 1 | 54 | 3 | 771 | 10 | 53 | 226 | 19 |
| Conflicting Peds, #/hr | 1 | 0 | 4 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | 0 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 92 | 85 | 92 | 92 | 92 | 97 | 97 | 92 | 92 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 80 | 1 | 13 | 6 | 1 | 78 | 4 | 1057 | 14 | 77 | 310 | 26 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1030 | 1571 | 342 | 1560 | 1577 | 537 | 351 | 0 | 0 | 1071 | 0 | 0 |
| Stage 1 | 492 | 492 | - | 1072 | 1072 | - | - | - | - | - | - | - |
| Stage 2 | 538 | 1079 | - | 488 | 505 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.33 | 6.53 | 6.23 | 7.33 | 6.53 | 6.93 | 4.13 | - | - | 4.13 | - | - |
| Critical Hdwy Stg 1 | 6.13 | 5.53 | - | 6.53 | 5.53 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.53 | 5.53 | - | 6.13 | 5.53 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.519 | 4.019 | 3.319 | 3.519 | 4.019 | 3.319 | 2.219 | - | - | 2.219 | - | - |
| Pot Cap-1 Maneuver | 199 | 110 | 700 | 83 | 109 | 489 | 1206 | - | - | 649 | - | - |
| Stage 1 | 558 | 547 | - | 236 | 296 | - | - | - | - | - | - | - |
| Stage 2 | 496 | 294 | - | 560 | 539 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 148 | 95 | 687 | 73 | 94 | 489 | 1189 | - | - | 649 | - | - |
| Mov Cap-2 Maneuver | 148 | 95 | - | 73 | 94 | - | - | - | - | - | - | - |
| Stage 1 | 548 | 475 | - | 235 | 295 | - | - | - | - | - | - | - |
| Stage 2 | 413 | 293 | - | 481 | 468 | - | - | - | - | - | - | - |
| **Approach** | **EB** | | | **WB** | | | **NB** | | | **SB** | | |
| HCM Control Delay, s | 48.6 | | | 17.6 | | | 0 | | | 2.1 | | |
| HCM LOS | E | | | C | | | | | | | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | WBLn2 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1189 | - | - | 148 | 418 | 73 | 454 | 649 | - | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.539 | 0.033 | 0.079 | 0.175 | 0.118 | - | - |
| HCM Control Delay (s) | 8 | - | - | 54.7 | 13.9 | 58.5 | 14.6 | 11.3 | - | - |
| HCM Lane LOS | A | - | - | F | B | F | B | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 2.7 | 0.1 | 0.3 | 0.6 | 0.4 | - | - |

# APPENDIX E
# 2038 IMPROVED INTERSECTION CAPACITY ANALYSIS (50% TOTAL GROWTH / 2% ANNUAL GROWTH)

3AEGREEN
A Joint Venture

Appendix E Listing – 2038 Improved Intersection Capacity Analysis – 50% Total Growth

Diamond & Pajarito Signalized AM
Diamond & Sigma AM
Diamond & Eniwetok AM
Diamond & Embudo AM
Diamond & West Jemez AM
Diamond & Pajarito Signalized PM
Diamond & Sigma PM
Diamond & Eniwetok PM
Diamond & Embudo PM
Diamond & West Jemez PM
Diamond & Pajarito Roundabout AM
Diamond & Pajarito Roundabout PM
Diamond & South Drive AM
Diamond & Grable AM
Diamond & Coronado AM
Diamond & South Drive PM
Diamond & Grable PM
Diamond & Coronado PM

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Future Volume (veh/h) | 37 | 57 | 173 | 279 | 461 | 92 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 62 | 95 | 268 | 0 | 713 | 142 |
| Peak Hour Factor | 0.90 | 0.90 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 106 | 141 | 407 | | 1215 | 1082 |
| Arrive On Green | 0.22 | 0.22 | 0.22 | 0.00 | 0.68 | 0.68 |
| Sat Flow, veh/h | 232 | 646 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 157 | 0 | 268 | 0 | 713 | 142 |
| Grp Sat Flow(s),veh/h/ln | 878 | 0 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 5.5 | 0.0 | 11.8 | 0.0 | 19.1 | 2.8 |
| Cycle Q Clear(g_c), s | 17.3 | 0.0 | 11.8 | 0.0 | 19.1 | 2.8 |
| Prop In Lane | 0.39 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 247 | 0 | 407 | | 1215 | 1082 |
| V/C Ratio(X) | 0.64 | 0.00 | 0.66 | | 0.59 | 0.13 |
| Avail Cap(c_a), veh/h | 327 | 0 | 509 | | 1215 | 1082 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.81 | 0.81 |
| Uniform Delay (d), s/veh | 34.8 | 0.0 | 32.2 | 0.0 | 7.6 | 5.0 |
| Incr Delay (d2), s/veh | 2.7 | 0.0 | 2.2 | 0.0 | 1.7 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 6.2 | 0.0 | 9.2 | 0.0 | 10.4 | 1.5 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 37.5 | 0.0 | 34.3 | 0.0 | 9.3 | 5.2 |
| LnGrp LOS | D | A | C | | A | A |
| Approach Vol, veh/h | | 157 | 268 | A | 855 | |
| Approach Delay, s/veh | | 37.5 | 34.3 | | 8.6 | |
| Approach LOS | | D | C | | A | |

| Timer - Assigned Phs | 4 | 6 | 8 |
|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 24.1 | 65.9 | 24.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 24.5 | 56.5 | 24.5 |
| Max Q Clear Time (g_c+I1), s | 19.3 | 21.1 | 13.8 |
| Green Ext Time (p_c), s | 0.3 | 3.3 | 1.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.5 |
| HCM 6th LOS | B |

Notes

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Future Volume (veh/h) | 5 | 1 | 6 | 17 | 0 | 15 | 6 | 269 | 37 | 51 | 515 | 54 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.99 | | 0.98 | 0.99 | | 0.97 | 1.00 | | 0.97 | 0.99 | | 0.96 |
| 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 | 1648 | 1648 | 1648 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 8 | 2 | 10 | 28 | 0 | 25 | 9 | 416 | 57 | 79 | 796 | 84 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 17 | 17 | 17 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 73 | 9 | 220 | 82 | 0 | 249 | 431 | 2089 | 900 | 721 | 1122 | 118 |
| Arrive On Green | 0.16 | 0.16 | 0.16 | 0.16 | 0.00 | 0.16 | 0.01 | 0.59 | 0.59 | 0.20 | 1.00 | 1.00 |
| Sat Flow, veh/h | 6 | 58 | 1362 | 10 | 0 | 1541 | 1781 | 3554 | 1532 | 1781 | 1656 | 175 |
| Grp Volume(v), veh/h | 10 | 0 | 10 | 28 | 0 | 25 | 9 | 416 | 57 | 79 | 0 | 880 |
| Grp Sat Flow(s),veh/h/ln | 64 | 0 | 1362 | 10 | 0 | 1541 | 1781 | 1777 | 1532 | 1781 | 0 | 1831 |
| Q Serve(g_s), s | 0.1 | 0.0 | 0.6 | 0.1 | 0.0 | 1.2 | 0.2 | 4.9 | 1.4 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 14.5 | 0.0 | 0.6 | 14.5 | 0.0 | 1.2 | 0.2 | 4.9 | 1.4 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 0.80 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.10 |
| Lane Grp Cap(c), veh/h | 82 | 0 | 220 | 82 | 0 | 249 | 431 | 2089 | 900 | 721 | 0 | 1241 |
| V/C Ratio(X) | 0.12 | 0.00 | 0.05 | 0.34 | 0.00 | 0.10 | 0.02 | 0.20 | 0.06 | 0.11 | 0.00 | 0.71 |
| Avail Cap(c_a), veh/h | 133 | 0 | 274 | 137 | 0 | 310 | 512 | 2089 | 900 | 721 | 0 | 1241 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.71 | 0.71 | 0.71 | 0.72 | 0.00 | 0.72 |
| Uniform Delay (d), s/veh | 32.9 | 0.0 | 31.9 | 45.0 | 0.0 | 32.2 | 8.8 | 8.7 | 7.9 | 6.7 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.7 | 0.0 | 0.1 | 2.5 | 0.0 | 0.2 | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 2.5 |
| 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 | 0.4 | 0.0 | 0.3 | 1.2 | 0.0 | 0.8 | 0.1 | 3.2 | 0.8 | 1.0 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 33.6 | 0.0 | 32.0 | 47.5 | 0.0 | 32.3 | 8.8 | 8.8 | 8.0 | 6.8 | 0.0 | 2.5 |
| LnGrp LOS | C | A | C | D | A | C | A | A | A | A | A | A |
| Approach Vol, veh/h | | 20 | | | 53 | | | 482 | | | 959 | |
| Approach Delay, s/veh | | 32.8 | | | 40.3 | | | 8.7 | | | 2.9 | |
| Approach LOS | | C | | | D | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.5 | 57.4 | | 19.1 | 5.5 | 65.4 | | 19.1 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.5 | 52.9 | | 18.1 | 5.1 | 53.3 | | 18.1 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 6.9 | | 16.5 | 2.2 | 2.0 | | 16.5 |
| Green Ext Time (p_c), s | 0.0 | 3.3 | | 0.0 | 0.0 | 9.0 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 6.4 |
| HCM 6th LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Future Volume (veh/h) | 3 | 1 | 7 | 51 | 1 | 57 | 21 | 218 | 35 | 30 | 585 | 219 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.98 | | 0.92 | 0.96 | | 1.00 | 1.00 | | 1.00 | 0.99 | | 0.99 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 5 | 2 | 12 | 85 | 2 | 0 | 32 | 337 | 0 | 46 | 905 | 339 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 187 | 64 | 159 | 218 | 4 | | 557 | 1314 | | 672 | 1112 | 930 |
| Arrive On Green | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.00 | 0.29 | 1.00 | 0.00 | 0.08 | 1.00 | 1.00 |
| Sat Flow, veh/h | 1086 | 586 | 1451 | 1275 | 39 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1565 |
| Grp Volume(v), veh/h | 7 | 0 | 12 | 87 | 0 | 0 | 32 | 337 | 0 | 46 | 905 | 339 |
| Grp Sat Flow(s),veh/h/ln | 1672 | 0 | 1451 | 1314 | 0 | 1585 | 1781 | 1870 | 1585 | 1781 | 1870 | 1565 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.7 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.3 | 0.0 | 0.7 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 |
| Prop In Lane | 0.71 | | 1.00 | 0.98 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 251 | 0 | 159 | 223 | 0 | | 557 | 1314 | | 672 | 1112 | 930 |
| V/C Ratio(X) | 0.03 | 0.00 | 0.08 | 0.39 | 0.00 | | 0.06 | 0.26 | | 0.07 | 0.81 | 0.36 |
| Avail Cap(c_a), veh/h | 387 | 0 | 290 | 345 | 0 | | 557 | 1314 | | 705 | 1112 | 930 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.99 | 0.99 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.8 | 0.0 | 36.0 | 38.4 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 8.4 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 0.0 | 0.2 | 1.1 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 6.6 | 1.1 |
| 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 | 0.3 | 0.0 | 0.4 | 3.4 | 0.0 | 0.0 | 0.3 | 0.3 | 0.0 | 0.7 | 3.7 | 0.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 35.9 | 0.0 | 36.2 | 39.5 | 0.0 | 0.0 | 5.5 | 0.5 | 0.0 | 8.4 | 6.6 | 1.1 |
| LnGrp LOS | D | A | D | D | A | | A | A | | A | A | A |
| Approach Vol, veh/h | | 19 | | | 87 | A | | 369 | A | | 1290 | |
| Approach Delay, s/veh | | 36.1 | | | 39.5 | | | 0.9 | | | 5.2 | |
| Approach LOS | | D | | | D | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.9 | 67.8 | | 14.3 | 17.7 | 58.0 | | 14.3 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 5.1 | 53.4 | | 18.0 | 5.0 | 53.5 | | 18.0 | | | | |
| Max Q Clear Time (g_c+I1), s | 3.0 | 2.0 | | 2.7 | 2.0 | 2.0 | | 7.8 | | | | |
| Green Ext Time (p_c), s | 0.0 | 2.3 | | 0.0 | 0.0 | 11.3 | | 0.2 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 6.3 |
| HCM 6th LOS | | | A |

**Notes**

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT | |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Future Volume (veh/h) | 22 | 17 | 184 | 20 | 54 | 933 | |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Work Zone On Approach | No | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | |
| Adj Flow Rate, veh/h | 39 | 30 | 285 | 31 | 84 | 1443 | |
| Peak Hour Factor | 0.85 | 0.85 | 0.97 | 0.97 | 0.97 | 0.97 | |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | |
| Cap, veh/h | 81 | 72 | 1809 | 195 | 1086 | 3036 | |
| Arrive On Green | 0.05 | 0.05 | 1.00 | 1.00 | 0.24 | 0.85 | |
| Sat Flow, veh/h | 1781 | 1585 | 3317 | 347 | 1781 | 3647 | |
| Grp Volume(v), veh/h | 39 | 30 | 156 | 160 | 84 | 1443 | |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1794 | 1781 | 1777 | |
| Q Serve(g_s), s | 1.9 | 1.7 | 0.0 | 0.0 | 0.0 | 9.0 | |
| Cycle Q Clear(g_c), s | 1.9 | 1.7 | 0.0 | 0.0 | 0.0 | 9.0 | |
| Prop In Lane | 1.00 | 1.00 | | 0.19 | 1.00 | | |
| Lane Grp Cap(c), veh/h | 81 | 72 | 997 | 1007 | 1086 | 3036 | |
| V/C Ratio(X) | 0.48 | 0.41 | 0.16 | 0.16 | 0.08 | 0.48 | |
| Avail Cap(c_a), veh/h | 386 | 343 | 997 | 1007 | 1086 | 3036 | |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.81 | 0.81 | |
| Uniform Delay (d), s/veh | 41.9 | 41.8 | 0.0 | 0.0 | 2.3 | 1.6 | |
| Incr Delay (d2), s/veh | 4.3 | 3.8 | 0.3 | 0.3 | 0.0 | 0.4 | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| %ile BackOfQ(95%),veh/ln | 1.7 | 1.3 | 0.2 | 0.2 | 0.4 | 2.0 | |
| Unsig. Movement Delay, s/veh | | | | | | | |
| LnGrp Delay(d),s/veh | 46.2 | 45.5 | 0.3 | 0.3 | 2.3 | 2.0 | |
| LnGrp LOS | D | D | A | A | A | A | |
| Approach Vol, veh/h | 69 | | 316 | | | 1527 | |
| Approach Delay, s/veh | 45.9 | | 0.3 | | | 2.1 | |
| Approach LOS | D | | A | | | A | |
| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
| Phs Duration (G+Y+Rc), s | 26.4 | 55.0 | | | | 81.4 | 8.6 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | | | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 6.5 | 50.5 | | | | 61.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 2.0 | | | | 11.0 | 3.9 |
| Green Ext Time (p_c), s | 0.1 | 2.0 | | | | 17.0 | 0.1 |
| Intersection Summary | | | | | | | |
| HCM 6th Ctrl Delay | | | 3.4 | | | | |
| HCM 6th LOS | | | A | | | | |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Future Volume (veh/h) | 115 | 157 | 895 | 1059 | 13 | 176 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 0.94 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 178 | 243 | 1384 | 1638 | 20 | 272 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 758 | 767 | 1792 | 1973 | 1192 | 1957 |
| Arrive On Green | 0.15 | 0.15 | 0.36 | 0.56 | 0.34 | 0.34 |
| Sat Flow, veh/h | 5274 | 1483 | 5023 | 3647 | 3456 | 2790 |
| Grp Volume(v), veh/h | 178 | 243 | 1384 | 1638 | 20 | 272 |
| Grp Sat Flow(s),veh/h/ln | 1702 | 1483 | 1674 | 1777 | 1728 | 1395 |
| Q Serve(g_s), s | 2.8 | 8.9 | 22.0 | 34.2 | 0.3 | 0.0 |
| Cycle Q Clear(g_c), s | 2.8 | 8.9 | 22.0 | 34.2 | 0.3 | 0.0 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 758 | 767 | 1792 | 1973 | 1192 | 1957 |
| V/C Ratio(X) | 0.23 | 0.32 | 0.77 | 0.83 | 0.02 | 0.14 |
| Avail Cap(c_a), veh/h | 1050 | 851 | 2037 | 2349 | 1192 | 1957 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.8 | 13.8 | 25.7 | 16.5 | 19.4 | 4.4 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 1.7 | 2.3 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 2.0 | 9.1 | 13.3 | 18.7 | 0.3 | 1.2 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 34.0 | 14.1 | 27.4 | 18.8 | 19.5 | 4.6 |
| LnGrp LOS | C | B | C | B | B | A |
| Approach Vol, veh/h | 421 | | | 3022 | 292 | |
| Approach Delay, s/veh | 22.5 | | | 22.7 | 5.6 | |
| Approach LOS | C | | | C | A | |

| Timer - Assigned Phs | | 2 | 3 | 4 | | | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.5 | 36.6 | 17.9 | | | | 54.5 |
| Change Period (Y+Rc), s | | 4.5 | 4.5 | 4.5 | | | | 4.5 |
| Max Green Setting (Gmax), s | | 21.5 | 36.5 | 18.5 | | | | 59.5 |
| Max Q Clear Time (g_c+I1), s | | 2.3 | 24.0 | 10.9 | | | | 36.2 |
| Green Ext Time (p_c), s | | 1.1 | 4.9 | 1.2 | | | | 13.7 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 21.4 |
| HCM 6th LOS | | | C |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Future Volume (veh/h) | 89 | 170 | 167 | 437 | 234 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | No | | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 148 | 283 | 258 | 0 | 362 | 60 |
| Peak Hour Factor | 0.90 | 0.90 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 200 | 338 | 709 | | 928 | 825 |
| Arrive On Green | 0.38 | 0.38 | 0.38 | 0.00 | 0.52 | 0.52 |
| Sat Flow, veh/h | 386 | 892 | 1870 | 1585 | 1781 | 1585 |
| Grp Volume(v), veh/h | 431 | 0 | 258 | 0 | 362 | 60 |
| Grp Sat Flow(s),veh/h/ln | 1277 | 0 | 1870 | 1585 | 1781 | 1585 |
| Q Serve(g_s), s | 20.8 | 0.0 | 8.9 | 0.0 | 11.0 | 1.7 |
| Cycle Q Clear(g_c), s | 29.7 | 0.0 | 8.9 | 0.0 | 11.0 | 1.7 |
| Prop In Lane | 0.34 | | | 1.00 | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 538 | 0 | 709 | | 928 | 825 |
| V/C Ratio(X) | 0.80 | 0.00 | 0.36 | | 0.39 | 0.07 |
| Avail Cap(c_a), veh/h | 747 | 0 | 966 | | 928 | 825 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 0.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 28.4 | 0.0 | 20.1 | 0.0 | 13.0 | 10.7 |
| Incr Delay (d2), s/veh | 4.3 | 0.0 | 0.3 | 0.0 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 14.0 | 0.0 | 6.8 | 0.0 | 7.5 | 1.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 32.7 | 0.0 | 20.4 | 0.0 | 13.2 | 10.8 |
| LnGrp LOS | C | A | C | | B | B |
| Approach Vol, veh/h | | 431 | 258 | A | 422 | |
| Approach Delay, s/veh | | 32.7 | 20.4 | | 12.9 | |
| Approach LOS | | C | C | | B | |

| Timer - Assigned Phs | | | | 4 | | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | | | 38.6 | | 51.4 | | 38.6 |
| Change Period (Y+Rc), s | | | | 4.5 | | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | | | | 46.5 | | 34.5 | | 46.5 |
| Max Q Clear Time (g_c+I1), s | | | | 31.7 | | 13.0 | | 10.9 |
| Green Ext Time (p_c), s | | | | 2.4 | | 1.3 | | 1.5 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 22.3 |
| HCM 6th LOS | | | C |

| Notes |
|---|
| Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay. |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Future Volume (veh/h) | 35 | 0 | 21 | 21 | 0 | 46 | 3 | 516 | 8 | 7 | 208 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 0.97 | 1.00 | | 0.98 |
| 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 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 60 | 0 | 36 | 36 | 0 | 79 | 5 | 798 | 12 | 11 | 322 | 9 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 2 |
| Cap, veh/h | 80 | 0 | 391 | 80 | 0 | 393 | 570 | 1822 | 791 | 466 | 1074 | 30 |
| Arrive On Green | 0.25 | 0.00 | 0.25 | 0.25 | 0.00 | 0.25 | 0.01 | 0.52 | 0.52 | 0.17 | 1.00 | 1.00 |
| Sat Flow, veh/h | 0 | 0 | 1563 | 0 | 0 | 1572 | 1767 | 3526 | 1530 | 1781 | 1809 | 51 |
| Grp Volume(v), veh/h | 60 | 0 | 36 | 36 | 0 | 79 | 5 | 798 | 12 | 11 | 0 | 331 |
| Grp Sat Flow(s),veh/h/ln | 0 | 0 | 1563 | 0 | 0 | 1572 | 1767 | 1763 | 1530 | 1781 | 0 | 1860 |
| Q Serve(g_s), s | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 3.6 | 0.1 | 12.7 | 0.3 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 22.5 | 0.0 | 1.6 | 22.5 | 0.0 | 3.6 | 0.1 | 12.7 | 0.3 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 |
| Lane Grp Cap(c), veh/h | 80 | 0 | 391 | 80 | 0 | 393 | 570 | 1822 | 791 | 466 | 0 | 1104 |
| V/C Ratio(X) | 0.75 | 0.00 | 0.09 | 0.45 | 0.00 | 0.20 | 0.01 | 0.44 | 0.02 | 0.02 | 0.00 | 0.30 |
| Avail Cap(c_a), veh/h | 80 | 0 | 391 | 80 | 0 | 393 | 706 | 1822 | 791 | 466 | 0 | 1104 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.87 | 0.87 | 0.87 | 0.98 | 0.00 | 0.98 |
| Uniform Delay (d), s/veh | 45.0 | 0.0 | 25.9 | 45.0 | 0.0 | 26.7 | 11.8 | 13.6 | 10.6 | 13.2 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 32.0 | 0.0 | 0.1 | 3.9 | 0.0 | 0.2 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 |
| 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 | 3.7 | 0.0 | 1.1 | 1.6 | 0.0 | 2.4 | 0.1 | 8.3 | 0.2 | 0.2 | 0.0 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 77.0 | 0.0 | 26.0 | 48.9 | 0.0 | 26.9 | 11.8 | 14.3 | 10.6 | 13.2 | 0.0 | 0.7 |
| LnGrp LOS | E | A | C | D | A | C | B | B | B | B | A | A |
| Approach Vol, veh/h | | 96 | | | 115 | | | 815 | | | 342 | |
| Approach Delay, s/veh | | 57.9 | | | 33.8 | | | 14.2 | | | 1.1 | |
| Approach LOS | | E | | | C | | | B | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 12.0 | 51.0 | | 27.0 | 5.1 | 57.9 | | 27.0 | | | | |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 | | | | |
| Max Green Setting (Gmax), s | 7.5 | 46.5 | | 22.5 | 7.5 | 46.5 | | 22.5 | | | | |
| Max Q Clear Time (g_c+I1), s | 2.0 | 14.7 | | 24.5 | 2.1 | 2.0 | | 24.5 | | | | |
| Green Ext Time (p_c), s | 0.0 | 6.5 | | 0.0 | 0.0 | 2.2 | | 0.0 | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 15.6 |
| HCM 6th LOS | | | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Future Volume (veh/h) | 39 | 1 | 12 | 42 | 0 | 195 | 11 | 594 | 21 | 24 | 236 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 0.97 | | 0.94 | 0.95 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.97 |
| 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 | 1856 | 1856 | 1856 | 1856 | 1856 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 62 | 2 | 19 | 67 | 0 | 0 | 17 | 919 | 0 | 37 | 365 | 6 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 288 | 8 | 202 | 216 | 0 | | 755 | 1112 | | 652 | 1112 | 916 |
| Arrive On Green | 0.14 | 0.14 | 0.14 | 0.14 | 0.00 | 0.00 | 0.24 | 1.00 | 0.00 | 0.08 | 0.40 | 0.40 |
| Sat Flow, veh/h | 1527 | 59 | 1475 | 990 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1540 |
| Grp Volume(v), veh/h | 64 | 0 | 19 | 67 | 0 | 0 | 17 | 919 | 0 | 37 | 365 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1586 | 0 | 1475 | 990 | 0 | 1572 | 1781 | 1870 | 1585 | 1781 | 1870 | 1540 |
| Q Serve(g_s), s | 0.0 | 0.0 | 1.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 | 0.2 |
| Cycle Q Clear(g_c), s | 3.0 | 0.0 | 1.0 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 | 0.2 |
| Prop In Lane | 0.97 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 296 | 0 | 202 | 216 | 0 | | 755 | 1112 | | 652 | 1112 | 916 |
| V/C Ratio(X) | 0.22 | 0.00 | 0.09 | 0.31 | 0.00 | | 0.02 | 0.83 | | 0.06 | 0.33 | 0.01 |
| Avail Cap(c_a), veh/h | 383 | 0 | 295 | 298 | 0 | | 755 | 1112 | | 652 | 1112 | 916 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 2.00 | 0.67 | 0.67 | 0.67 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 0.97 | 0.97 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.8 | 0.0 | 33.9 | 38.1 | 0.0 | 0.0 | 7.0 | 0.0 | 0.0 | 4.1 | 14.6 | 11.0 |
| Incr Delay (d2), s/veh | 0.4 | 0.0 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 | 6.9 | 0.0 | 0.0 | 0.8 | 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 | 2.3 | 0.0 | 0.7 | 2.6 | 0.0 | 0.0 | 0.2 | 3.8 | 0.0 | 0.3 | 9.7 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 35.2 | 0.0 | 34.1 | 38.9 | 0.0 | 0.0 | 7.1 | 6.9 | 0.0 | 4.2 | 15.4 | 11.1 |
| LnGrp LOS | D | A | C | D | A | | A | A | | A | B | B |
| Approach Vol, veh/h | | 83 | | | 67 | A | | 936 | A | | 408 | |
| Approach Delay, s/veh | | 34.9 | | | 38.9 | | | 6.9 | | | 14.3 | |
| Approach LOS | | C | | | D | | | A | | | B | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.2 | 58.0 | | 16.8 | 15.2 | 58.0 | | 16.8 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | | 4.5 | 4.5 | 4.5 | | 4.5 |
| Max Green Setting (Gmax), s | 5.0 | 53.5 | | 18.0 | 5.0 | 53.5 | | 18.0 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 2.0 | | 5.0 | 2.0 | 14.2 | | 9.3 |
| Green Ext Time (p_c), s | 0.0 | 9.6 | | 0.2 | 0.0 | 2.5 | | 0.1 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 11.9 |
| HCM 6th LOS | | | B |

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Future Volume (veh/h) | 23 | 101 | 891 | 11 | 18 | 222 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 0.97 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 41 | 178 | 1378 | 17 | 28 | 343 |
| Peak Hour Factor | 0.85 | 0.85 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 241 | 215 | 2056 | 25 | 546 | 2717 |
| Arrive On Green | 0.14 | 0.14 | 1.00 | 1.00 | 0.14 | 0.76 |
| Sat Flow, veh/h | 1781 | 1585 | 3687 | 44 | 1781 | 3647 |
| Grp Volume(v), veh/h | 41 | 178 | 681 | 714 | 28 | 343 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 1585 | 1777 | 1861 | 1781 | 1777 |
| Q Serve(g_s), s | 1.8 | 9.8 | 0.0 | 0.0 | 0.0 | 2.3 |
| Cycle Q Clear(g_c), s | 1.8 | 9.8 | 0.0 | 0.0 | 0.0 | 2.3 |
| Prop In Lane | 1.00 | 1.00 | | 0.02 | 1.00 | |
| Lane Grp Cap(c), veh/h | 241 | 215 | 1017 | 1065 | 546 | 2717 |
| V/C Ratio(X) | 0.17 | 0.83 | 0.67 | 0.67 | 0.05 | 0.13 |
| Avail Cap(c_a), veh/h | 386 | 343 | 1017 | 1065 | 546 | 2717 |
| HCM Platoon Ratio | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.99 |
| Uniform Delay (d), s/veh | 34.4 | 37.9 | 0.0 | 0.0 | 4.6 | 2.8 |
| Incr Delay (d2), s/veh | 0.3 | 8.9 | 3.5 | 3.4 | 0.0 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 1.5 | 7.7 | 1.8 | 1.8 | 0.3 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 34.8 | 46.8 | 3.5 | 3.4 | 4.6 | 2.9 |
| LnGrp LOS | C | D | A | A | A | A |

| | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Approach Vol, veh/h | 219 | | 1395 | | | 371 |
| Approach Delay, s/veh | 44.6 | | 3.4 | | | 3.0 |
| Approach LOS | D | | A | | | A |

| Timer - Assigned Phs | 1 | 2 | 6 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.3 | 56.0 | 73.3 | 16.7 |
| Change Period (Y+Rc), s | 4.5 | 4.5 | 4.5 | 4.5 |
| Max Green Setting (Gmax), s | 5.5 | 51.5 | 61.5 | 19.5 |
| Max Q Clear Time (g_c+I1), s | 2.0 | 2.0 | 4.3 | 11.8 |
| Green Ext Time (p_c), s | 0.0 | 14.4 | 2.5 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 7.9 |
| HCM 6th LOS | A |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Future Volume (veh/h) | 1000 | 125 | 152 | 100 | 26 | 877 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | | No | No | |
| Adj Sat Flow, veh/h/ln | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 1546 | 193 | 235 | 155 | 40 | 1356 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 1664 | 1224 | 382 | 1607 | 1548 | 1462 |
| Arrive On Green | 0.33 | 0.33 | 0.08 | 0.45 | 0.45 | 0.45 |
| Sat Flow, veh/h | 5274 | 1578 | 5023 | 3647 | 3456 | 2790 |
| Grp Volume(v), veh/h | 1546 | 193 | 235 | 155 | 40 | 1356 |
| Grp Sat Flow(s),veh/h/ln | 1702 | 1578 | 1674 | 1777 | 1728 | 1395 |
| Q Serve(g_s), s | 26.3 | 2.8 | 4.1 | 2.2 | 0.6 | 33.7 |
| Cycle Q Clear(g_c), s | 26.3 | 2.8 | 4.1 | 2.2 | 0.6 | 33.7 |
| Prop In Lane | | 1.00 | 1.00 | | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h | 1664 | 1224 | 382 | 1607 | 1548 | 1462 |
| V/C Ratio(X) | 0.93 | 0.16 | 0.61 | 0.10 | 0.03 | 0.93 |
| Avail Cap(c_a), veh/h | 1674 | 1227 | 1535 | 2428 | 1548 | 1462 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.82 | 0.82 |
| Uniform Delay (d), s/veh | 29.3 | 2.6 | 40.3 | 14.1 | 13.9 | 19.8 |
| Incr Delay (d2), s/veh | 9.6 | 0.1 | 1.6 | 0.0 | 0.0 | 9.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(95%),veh/ln | 17.2 | 5.5 | 3.1 | 1.6 | 0.4 | 15.8 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 38.9 | 2.7 | 41.9 | 14.2 | 13.9 | 29.7 |
| LnGrp LOS | D | A | D | B | B | C |
| Approach Vol, veh/h | 1739 | | | 390 | 1396 | |
| Approach Delay, s/veh | 34.9 | | | 30.9 | 29.3 | |
| Approach LOS | C | | | C | C | |

| Timer - Assigned Phs | | 2 | 3 | 4 | | | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 44.8 | 11.4 | 33.8 | | | | 45.2 |
| Change Period (Y+Rc), s | | 4.5 | 4.5 | 4.5 | | | | 4.5 |
| Max Green Setting (Gmax), s | | 19.5 | 27.5 | 29.5 | | | | 61.5 |
| Max Q Clear Time (g_c+I1), s | | 35.7 | 6.1 | 28.3 | | | | 4.2 |
| Green Ext Time (p_c), s | | 0.0 | 0.8 | 1.0 | | | | 1.0 |

| Intersection Summary | | | |
|---|---|---|---|
| HCM 6th Ctrl Delay | | | 32.2 |
| HCM 6th LOS | | | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.7 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 2 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 157 | 699 | 855 |
| Demand Flow Rate, veh/h | 160 | 713 | 872 |
| Vehicles Circulating, veh/h | 727 | 63 | 273 |
| Vehicles Exiting, veh/h | 418 | 824 | 63 |
| Ped Vol Crossing Leg, #/h | 2 | 0 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 8.6 | 5.5 | 11.3 |
| Approach LOS | A | A | B |

| Lane | Left | Left | Bypass | Left | Right |
|---|---|---|---|---|---|
| Designated Moves | LT | T | R | L | TR |
| Assumed Moves | LT | T | R | L | TR |
| RT Channelized | | | Yield | | |
| Lane Util | 1.000 | 1.000 | | 0.834 | 0.166 |
| Follow-Up Headway, s | 2.609 | 2.609 | | 2.535 | 2.535 |
| Critical Headway, s | 4.976 | 4.976 | 440 | 4.544 | 4.544 |
| Entry Flow, veh/h | 160 | 273 | 1294 | 727 | 145 |
| Cap Entry Lane, veh/h | 657 | 1294 | 0.980 | 1108 | 1108 |
| Entry HV Adj Factor | 0.982 | 0.980 | 431 | 0.981 | 0.979 |
| Flow Entry, veh/h | 157 | 268 | 1269 | 713 | 142 |
| Cap Entry, veh/h | 645 | 1269 | 0.340 | 1086 | 1085 |
| V/C Ratio | 0.243 | 0.211 | 6.0 | 0.656 | 0.131 |
| Control Delay, s/veh | 8.6 | 4.6 | A | 12.7 | 4.5 |
| LOS | A | A | 2 | B | A |
| 95th %tile Queue, veh | 1 | 1 | | 5 | 0 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 8.4 |
| Intersection LOS | A |

| Approach | EB | WB | SB |
|---|---|---|---|
| Entry Lanes | 1 | 1 | 2 |
| Conflicting Circle Lanes | 1 | 1 | 1 |
| Adj Approach Flow, veh/h | 431 | 934 | 422 |
| Demand Flow Rate, veh/h | 440 | 953 | 430 |
| Vehicles Circulating, veh/h | 369 | 151 | 263 |
| Vehicles Exiting, veh/h | 324 | 658 | 151 |
| Ped Vol Crossing Leg, #/h | 3 | 1 | 0 |
| Ped Cap Adj | 1.000 | 1.000 | 1.000 |
| Approach Delay, s/veh | 9.5 | 8.8 | 6.1 |
| Approach LOS | A | A | A |

| Lane | Left | Left | Bypass | Left | Right |
|---|---|---|---|---|---|
| Designated Moves | LT | T | R | L | TR |
| Assumed Moves | LT | T | R | L | TR |
| RT Channelized | | | Yield | | |
| Lane Util | 1.000 | 1.000 | | 0.858 | 0.142 |
| Follow-Up Headway, s | 2.609 | 2.609 | | 2.535 | 2.535 |
| Critical Headway, s | 4.976 | 4.976 | 690 | 4.544 | 4.544 |
| Entry Flow, veh/h | 440 | 263 | 1183 | 369 | 61 |
| Cap Entry Lane, veh/h | 947 | 1183 | 0.980 | 1118 | 1118 |
| Entry HV Adj Factor | 0.980 | 0.980 | 676 | 0.981 | 0.984 |
| Flow Entry, veh/h | 431 | 258 | 1160 | 362 | 60 |
| Cap Entry, veh/h | 928 | 1160 | 0.583 | 1097 | 1099 |
| V/C Ratio | 0.465 | 0.222 | 10.3 | 0.330 | 0.055 |
| Control Delay, s/veh | 9.5 | 5.1 | B | 6.5 | 3.7 |
| LOS | A | A | 4 | A | A |
| 95th %tile Queue, veh | 3 | 1 | | 1 | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Future Vol, veh/h | 14 | 4 | 11 | 263 | 892 | 118 |
| Conflicting Peds, #/hr | 1 | 0 | 29 | 0 | 0 | 29 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 90 | 90 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 23 | 7 | 17 | 407 | 1379 | 182 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1738 | 810 | 1590 | 0 | - | 0 |
| Stage 1 | 1499 | - | - | - | - | - |
| Stage 2 | 239 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 78 | 323 | 409 | - | - | - |
| Stage 1 | 171 | - | - | - | - | - |
| Stage 2 | 778 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 71 | 314 | 398 | - | - | - |
| Mov Cap-2 Maneuver | 71 | - | - | - | - | - |
| Stage 1 | 159 | - | - | - | - | - |
| Stage 2 | 756 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 65 | 0.6 | 0 |
| HCM LOS | F | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 398 | - | 71 | 314 | - | - |
| HCM Lane V/C Ratio | 0.043 | - | 0.329 | 0.021 | - | - |
| HCM Control Delay (s) | 14.4 | - | 78.8 | 16.7 | - | - |
| HCM Lane LOS | B | - | F | C | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 1.2 | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.5 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Future Vol, veh/h | 2 | 2 | 277 | 12 | 53 | 890 |
| Conflicting Peds, #/hr | 3 | 15 | 0 | 3 | 3 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 90 | 90 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 3 | 3 | 428 | 19 | 82 | 1376 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1296 | 242 | 0 | 0 | 450 | 0 |
| Stage 1 | 441 | - | - | - | - | - |
| Stage 2 | 855 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 | - |
| Pot Cap-1 Maneuver | 154 | 759 | - | - | 1107 | - |
| Stage 1 | 616 | - | - | - | - | - |
| Stage 2 | 377 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 142 | 746 | - | - | 1104 | - |
| Mov Cap-2 Maneuver | 142 | - | - | - | - | - |
| Stage 1 | 569 | - | - | - | - | - |
| Stage 2 | 376 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 20.4 | 0 | 0.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 142 | 746 | 1104 | - |
| HCM Lane V/C Ratio | - | - | 0.023 | 0.004 | 0.074 | - |
| HCM Control Delay (s) | - | - | 31 | 9.8 | 8.5 | - |
| HCM Lane LOS | - | - | D | A | A | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | 0.2 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Future Vol, veh/h | 1 | 3 | 1 | 278 | 887 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 61 | 0 | 0 | 61 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 2 | 5 | 2 | 430 | 1372 | 8 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1656 | 751 | 1441 | 0 | - | 0 |
| Stage 1 | 1437 | - | - | - | - | - |
| Stage 2 | 219 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 89 | 353 | 467 | - | - | - |
| Stage 1 | 185 | - | - | - | - | - |
| Stage 2 | 796 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 78 | 332 | 440 | - | - | - |
| Mov Cap-2 Maneuver | 78 | - | - | - | - | - |
| Stage 1 | 173 | - | - | - | - | - |
| Stage 2 | 750 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 25.4 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 440 | - | 183 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.036 | - | - |
| HCM Control Delay (s) | 13.2 | 0 | 25.4 | - | - |
| HCM Lane LOS | B | A | D | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Future Vol, veh/h | 51 | 8 | 3 | 771 | 226 | 19 |
| Conflicting Peds, #/hr | 1 | 4 | 15 | 0 | 0 | 15 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | 150 | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 90 | 14 | 5 | 1192 | 349 | 29 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 986 | 208 | 393 | 0 | - | 0 |
| Stage 1 | 379 | - | - | - | - | - |
| Stage 2 | 607 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 245 | 798 | 1162 | - | - | - |
| Stage 1 | 662 | - | - | - | - | - |
| Stage 2 | 507 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 237 | 784 | 1145 | - | - | - |
| Mov Cap-2 Maneuver | 237 | - | - | - | - | - |
| Stage 1 | 650 | - | - | - | - | - |
| Stage 2 | 500 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 26.6 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | EBLn2 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1145 | - | 237 | 784 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | 0.38 | 0.018 | - | - |
| HCM Control Delay (s) | 8.2 | - | 29.2 | 9.7 | - | - |
| HCM Lane LOS | A | - | D | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 1.7 | 0.1 | - | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 1.7 | | | | | |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Future Vol, veh/h | 4 | 54 | 822 | 10 | 54 | 222 |
| Conflicting Peds, #/hr | 14 | 25 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | 0 | - | - | 100 | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 85 | 85 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 95 | 1271 | 15 | 84 | 343 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1633 | 668 | 0 | 0 | 1286 | 0 |
| Stage 1 | 1279 | - | - | - | - | - |
| Stage 2 | 354 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | - | - | 4.14 | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | - | - | 2.22 | - |
| Pot Cap-1 Maneuver | 92 | 401 | - | - | 535 | - |
| Stage 1 | 225 | - | - | - | - | - |
| Stage 2 | 681 | - | - | - | - | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | 77 | 391 | - | - | 535 | - |
| Mov Cap-2 Maneuver | 77 | - | - | - | - | - |
| Stage 1 | 190 | - | - | - | - | - |
| Stage 2 | 672 | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 19.8 | 0 | 2.5 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | WBLn2 | SBL | SBT |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 77 | 391 | 535 | - |
| HCM Lane V/C Ratio | - | - | 0.092 | 0.244 | 0.156 | - |
| HCM Control Delay (s) | - | - | 56.4 | 17.1 | 13 | - |
| HCM Lane LOS | - | - | F | C | B | - |
| HCM 95th %tile Q(veh) | - | - | 0.3 | 0.9 | 0.6 | - |

| Intersection | | | | | | |
|---|---|---|---|---|---|---|
| Int Delay, s/veh | 0.1 | | | | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Future Vol, veh/h | 3 | 0 | 0 | 876 | 222 | 0 |
| Conflicting Peds, #/hr | 4 | 0 | 103 | 0 | 0 | 103 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 85 | 85 | 97 | 97 | 97 | 97 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 5 | 0 | 0 | 1355 | 343 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1128 | 275 | 446 | 0 | - | 0 |
| Stage 1 | 446 | - | - | - | - | - |
| Stage 2 | 682 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 198 | 722 | 1111 | - | - | - |
| Stage 1 | 612 | - | - | - | - | - |
| Stage 2 | 464 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 161 | 651 | 1002 | - | - | - |
| Mov Cap-2 Maneuver | 161 | - | - | - | - | - |
| Stage 1 | 552 | - | - | - | - | - |
| Stage 2 | 419 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 28.1 | 0 | 0 |
| HCM LOS | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1002 | - | 161 | - | - |
| HCM Lane V/C Ratio | - | - | 0.033 | - | - |
| HCM Control Delay (s) | 0 | - | 28.1 | - | - |
| HCM Lane LOS | A | - | D | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

# LANL R & G Traffic Crew

Los Alamos National Lab
PO Box 1663
Los Alamos, NM 87545

Site Code: TA 60
Station ID:
TA-60 East of Roads & Grounds

Latitude: 0' 0.0000 Undefined

| Start Time | Mon 08-Oct-18 | Tue | Wed | Thu | Fri | Average Day | Sat | Sun | Week Average |
|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | * | * | * | * | 0 | 0 | 0 | 0 | 0 |
| 01:00 | * | * | * | * | 0 | 0 | 0 | 0 | 0 |
| 02:00 | * | * | * | * | 0 | 0 | 0 | 0 | 0 |
| 03:00 | * | * | * | * | 1 | 1 | 0 | 0 | 0 |
| 04:00 | * | * | * | * | 0 | 0 | 0 | 0 | 0 |
| 05:00 | * | * | * | * | 1 | 1 | 0 | 0 | 0 |
| 06:00 | * | * | * | * | 2 | 2 | 0 | 0 | 1 |
| 07:00 | * | * | * | * | 9 | 9 | 0 | 0 | 3 |
| 08:00 | * | * | * | * | **32** | **32** | 0 | **2** | **11** |
| 09:00 | * | * | * | * | 20 | 20 | 0 | 0 | 7 |
| 10:00 | * | * | * | * | 13 | 13 | 0 | 0 | 4 |
| 11:00 | * | * | * | * | 27 | 27 | 0 | 0 | 9 |
| 12:00 PM | * | * | * | * | 22 | 22 | 0 | 0 | 7 |
| 01:00 | * | * | * | * | 22 | 22 | 0 | 0 | 7 |
| 02:00 | * | * | * | * | **49** | **49** | 0 | 1 | **17** |
| 03:00 | * | * | * | **42** | 21 | 32 | 0 | 1 | 16 |
| 04:00 | * | * | * | 2 | 2 | 2 | 0 | **2** | 2 |
| 05:00 | * | * | * | 0 | 2 | 1 | 0 | 0 | 0 |
| 06:00 | * | * | * | 2 | 0 | 1 | 0 | 0 | 0 |
| 07:00 | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | * | * | * | 0 | 0 | 0 | 0 | 2 | 0 |
| 10:00 | * | * | * | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 | * | * | * | 0 | 2 | 1 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 46 | 225 | 235 | 0 | 8 | 84 |
| % Avg. WkDay | 0.0% | 0.0% | 0.0% | 19.6% | 95.7% | 100.0% | | | |
| % Avg. Week | 0.0% | 0.0% | 0.0% | 54.8% | 267.9% | 279.8% | 0.0% | 9.5% | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak | - | - | - | - | 08:00 | - | 08:00 | - | - | 08:00 | - | 08:00 | - | - |
| Vol. | - | - | - | - | 32 | - | 32 | - | - | 2 | - | 11 | - | - |
| PM Peak | - | - | - | 15:00 | 14:00 | - | 14:00 | - | - | 16:00 | - | 14:00 | - | - |
| Vol. | - | - | - | 42 | 49 | - | 49 | - | - | 2 | - | 17 | - | - |

# LANL R & G Traffic Crew

Los Alamos National Lab
PO Box 1663
Los Alamos, NM 87545

Site Code: TA 60
Station ID:
TA-60 East of Roads & Grounds

Latitude: 0' 0.0000 Undefined

| Start Time | Mon 15-Oct-18 | Tue | Wed | Thu | Fri | Average Day | Sat | Sun | Week Average |
|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 |
| 01:00 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 02:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03:00 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 |
| 04:00 | 3 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 |
| 05:00 | 0 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 1 |
| 06:00 | 5 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| 07:00 | 1 | 2 | 6 | 4 | 1 | 3 | **3** | 0 | 2 |
| 08:00 | 9 | **30** | **36** | 27 | 19 | 24 | 0 | 0 | 17 |
| 09:00 | 21 | 28 | 24 | 14 | 16 | 21 | 1 | 0 | 15 |
| 10:00 | **23** | 14 | 18 | 27 | 33 | 23 | 1 | 0 | 17 |
| 11:00 | 21 | 19 | 31 | **40** | **40** | **30** | 0 | 0 | **22** |
| 12:00 PM | 7 | 10 | 23 | 18 | 9 | 13 | 0 | 0 | 10 |
| 01:00 | 21 | 27 | 36 | 30 | 33 | 29 | 0 | 0 | 21 |
| 02:00 | **33** | **37** | 31 | **37** | **41** | **36** | 0 | 6 | **26** |
| 03:00 | 26 | 24 | **37** | 22 | 19 | 26 | 0 | 4 | 19 |
| 04:00 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 2 | 1 |
| 05:00 | 5 | 3 | 1 | 0 | 0 | 2 | 0 | 4 | 2 |
| 06:00 | 3 | 1 | 1 | 0 | 0 | 1 | 0 | **7** | 2 |
| 07:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 08:00 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 2 | 1 |
| 09:00 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 184 | 197 | 249 | 227 | 217 | 214 | 8 | 30 | 160 |
| % Avg. WkDay | 86.0% | 92.1% | 116.4% | 106.1% | 101.4% | 100.0% | | | |
| % Avg. Week | 115.0% | 123.1% | 155.6% | 141.9% | 135.6% | 133.8% | 5.0% | 18.8% | |

| | Mon | Tue | Wed | Thu | Fri | | Average Day | | Sat | Sun | | Week Average | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM Peak | 10:00 | 08:00 | 08:00 | 11:00 | 11:00 | - | 11:00 | - | 07:00 | 00:00 | - | 11:00 | - | - |
| Vol. | 23 | 30 | 36 | 40 | 40 | - | 30 | - | 3 | 2 | - | 22 | - | - |
| PM Peak | 14:00 | 14:00 | 15:00 | 14:00 | 14:00 | - | 14:00 | - | - | 18:00 | - | 14:00 | - | - |
| Vol. | 33 | 37 | 37 | 37 | 41 | - | 36 | - | - | 7 | - | 26 | - | - |

# LANL R & G Traffic Crew

Los Alamos National Lab
PO Box 1663
Los Alamos, NM 87545

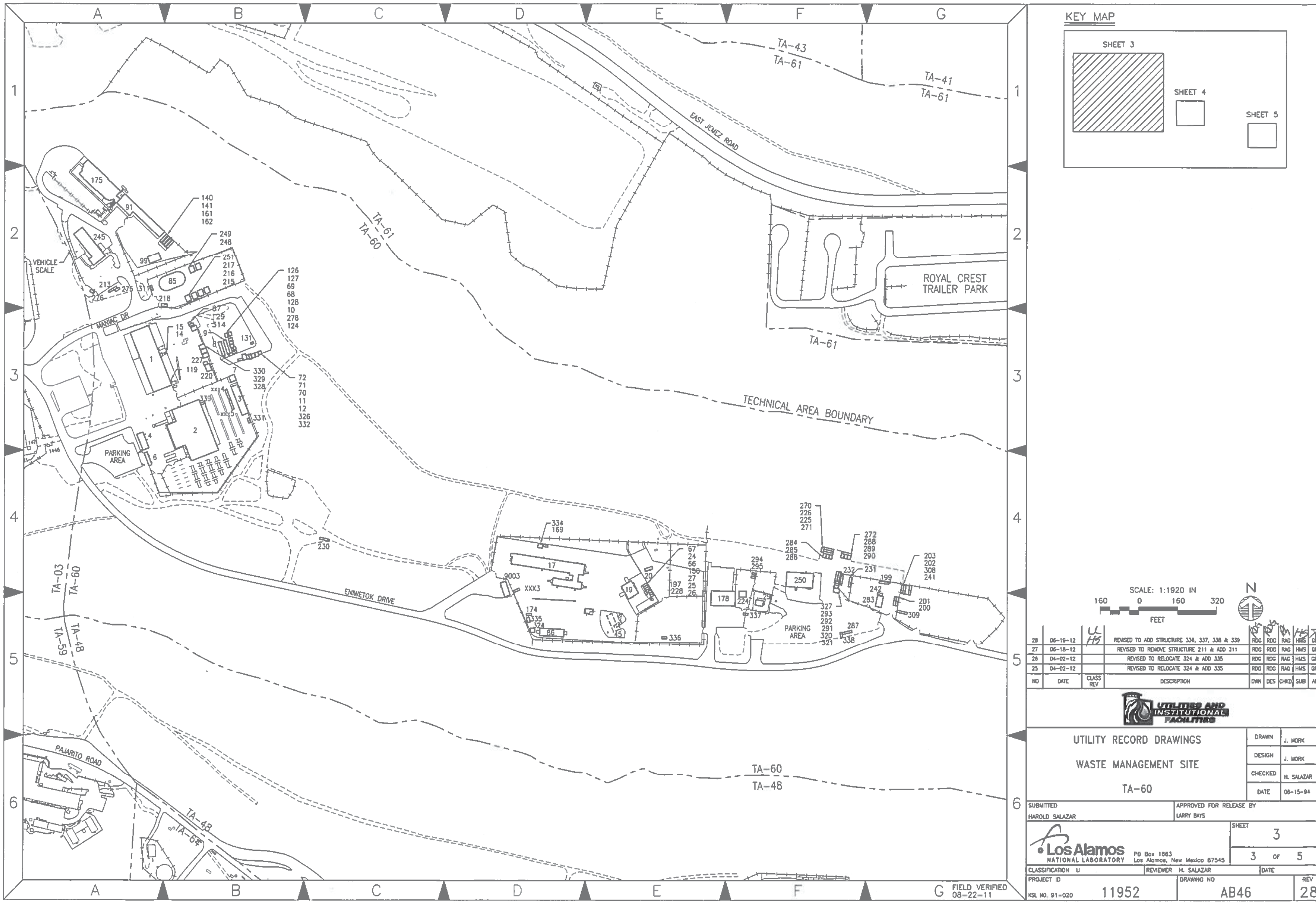
Site Code: TA 60
Station ID:
TA-60 East of Roads & Grounds

Latitude: 0' 0.0000 Undefined

| Start Time | Mon 22-Oct-18 | Tue | Wed | Thu | Fri | Average Day | Sat | Sun | Week Average |
|---|---|---|---|---|---|---|---|---|---|
| 12:00 AM | 0 | 0 | 2 | 2 | 0 | 1 | * | * | 1 |
| 01:00 | 2 | 2 | 2 | 1 | 2 | 2 | * | * | 2 |
| 02:00 | 0 | 0 | 0 | 1 | 0 | 0 | * | * | 0 |
| 03:00 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 0 |
| 04:00 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 0 |
| 05:00 | 2 | 0 | 0 | 0 | 2 | 1 | * | * | 1 |
| 06:00 | 0 | 0 | 0 | 0 | 0 | 0 | * | * | 0 |
| 07:00 | 0 | 7 | 3 | 5 | 20 | 7 | * | * | 7 |
| 08:00 | 18 | **28** | 16 | 24 | **35** | 24 | * | * | 24 |
| 09:00 | 20 | 16 | 24 | 7 | 33 | 20 | * | * | 20 |
| 10:00 | 20 | 13 | 21 | 24 | 20 | 20 | * | * | 20 |
| 11:00 | **26** | 22 | **25** | **43** | 24 | **28** | * | * | **28** |
| 12:00 PM | 11 | 23 | 6 | 8 | **26** | 15 | * | * | 15 |
| 01:00 | 12 | 27 | 22 | 28 | * | 22 | * | * | 22 |
| 02:00 | **41** | 26 | 27 | **43** | * | **34** | * | * | **34** |
| 03:00 | 39 | **36** | **28** | 19 | * | 30 | * | * | 30 |
| 04:00 | 0 | 0 | 0 | 0 | * | 0 | * | * | 0 |
| 05:00 | 2 | 2 | 2 | 0 | * | 2 | * | * | 2 |
| 06:00 | 0 | 0 | 0 | 6 | * | 2 | * | * | 2 |
| 07:00 | 0 | 0 | 0 | 0 | * | 0 | * | * | 0 |
| 08:00 | 0 | 2 | 0 | 0 | * | 0 | * | * | 0 |
| 09:00 | 0 | 0 | 0 | 0 | * | 0 | * | * | 0 |
| 10:00 | 0 | 2 | 0 | 0 | * | 0 | * | * | 0 |
| 11:00 | 0 | 0 | 0 | 0 | * | 0 | * | * | 0 |
| Total | 193 | 206 | 178 | 211 | 162 | 208 | 0 | 0 | 208 |
| % Avg. WkDay | 92.8% | 99.0% | 85.6% | 101.4% | 77.9% | 100.0% | | | |
| % Avg. Week | 92.8% | 99.0% | 85.6% | 101.4% | 77.9% | 100.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 08:00 | 11:00 | 11:00 | 08:00 | 11:00 | - | - | 11:00 |
| Vol. | 26 | 28 | 25 | 43 | 35 | 28 | - | - | 28 |
| PM Peak | 14:00 | 15:00 | 15:00 | 14:00 | 12:00 | 14:00 | - | - | 14:00 |
| Vol. | 41 | 36 | 28 | 43 | 26 | 34 | - | - | 34 |
| Total | 377 | 403 | 427 | 484 | 604 | 657 | 8 | 38 | 452 |

ADT ADT 154 AADT 154

# Attachment 6 Design Drawings




| NO | DATE | CLASS REV | DESCRIPTION | DWN | DES | CHKD | SUB | APP |
|---|---|---|---|---|---|---|---|---|
| 28 | 06-19-12 | U HS | REVISED TO ADD STRUCTURE 334, 337, 338 & 339 | RDG | RDG | RAG | HMS | GFB |
| 27 | 06-18-12 | | REVISED TO REMOVE STRUCTURE 211 & ADD 311 | RDG | RDG | RAG | HMS | GFB |
| 26 | 04-02-12 | | REVISED TO RELOCATE 324 & ADD 335 | RDG | RDG | RAG | HMS | GFB |
| 25 | 04-02-12 | | REVISED TO RELOCATE 324 & ADD 335 | RDG | RDG | RAG | HMS | GFB |

UTILITIES AND INSTITUTIONAL FACILITIES

UTILITY RECORD DRAWINGS
WASTE MANAGEMENT SITE
TA-60

| | |
|---|---|
| DRAWN | J. MORK |
| DESIGN | J. MORK |
| CHECKED | H. SALAZAR |
| DATE | 06-15-94 |

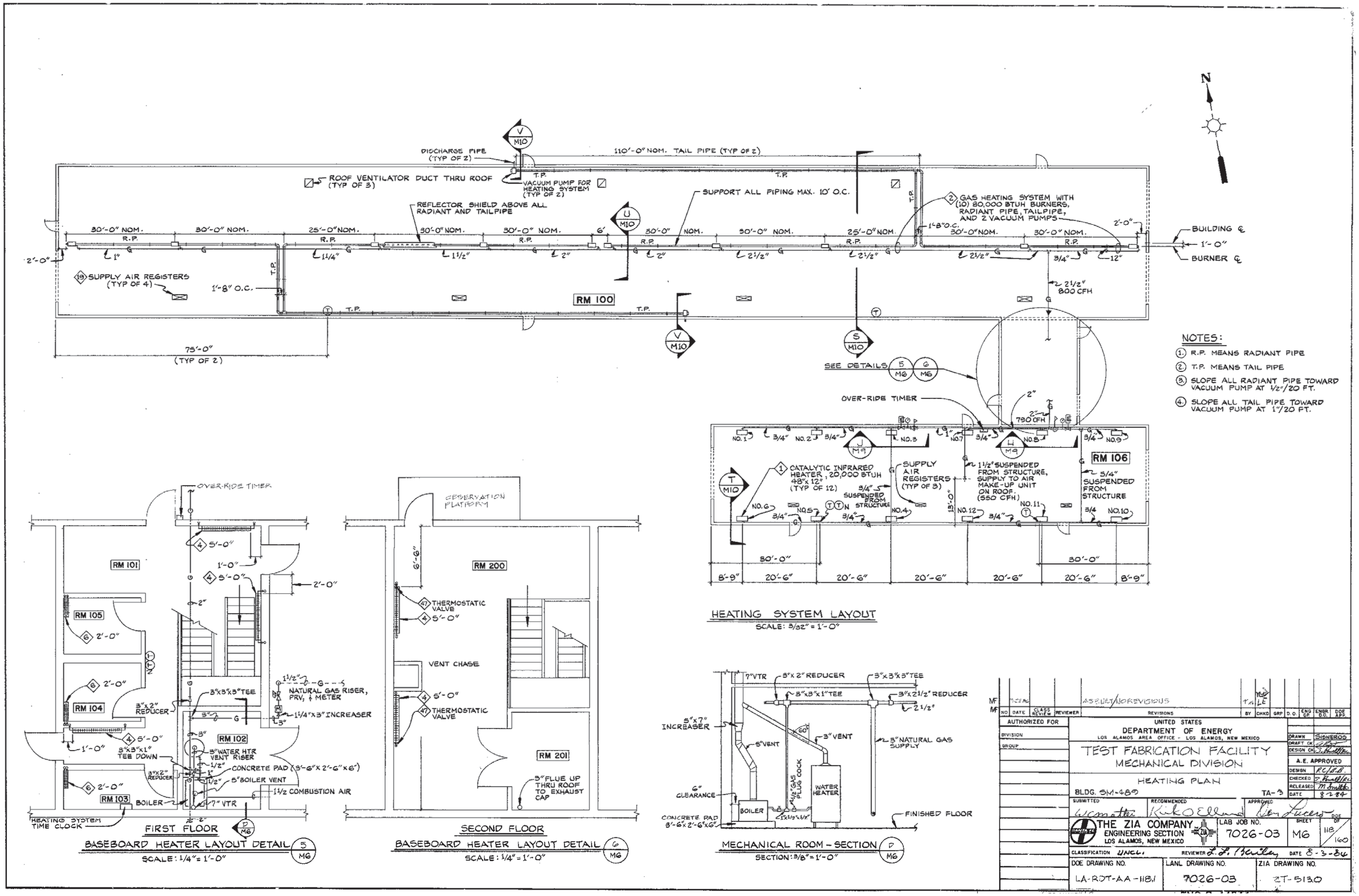
SUBMITTED: HAROLD SALAZAR
APPROVED FOR RELEASE BY: LARRY BAYS

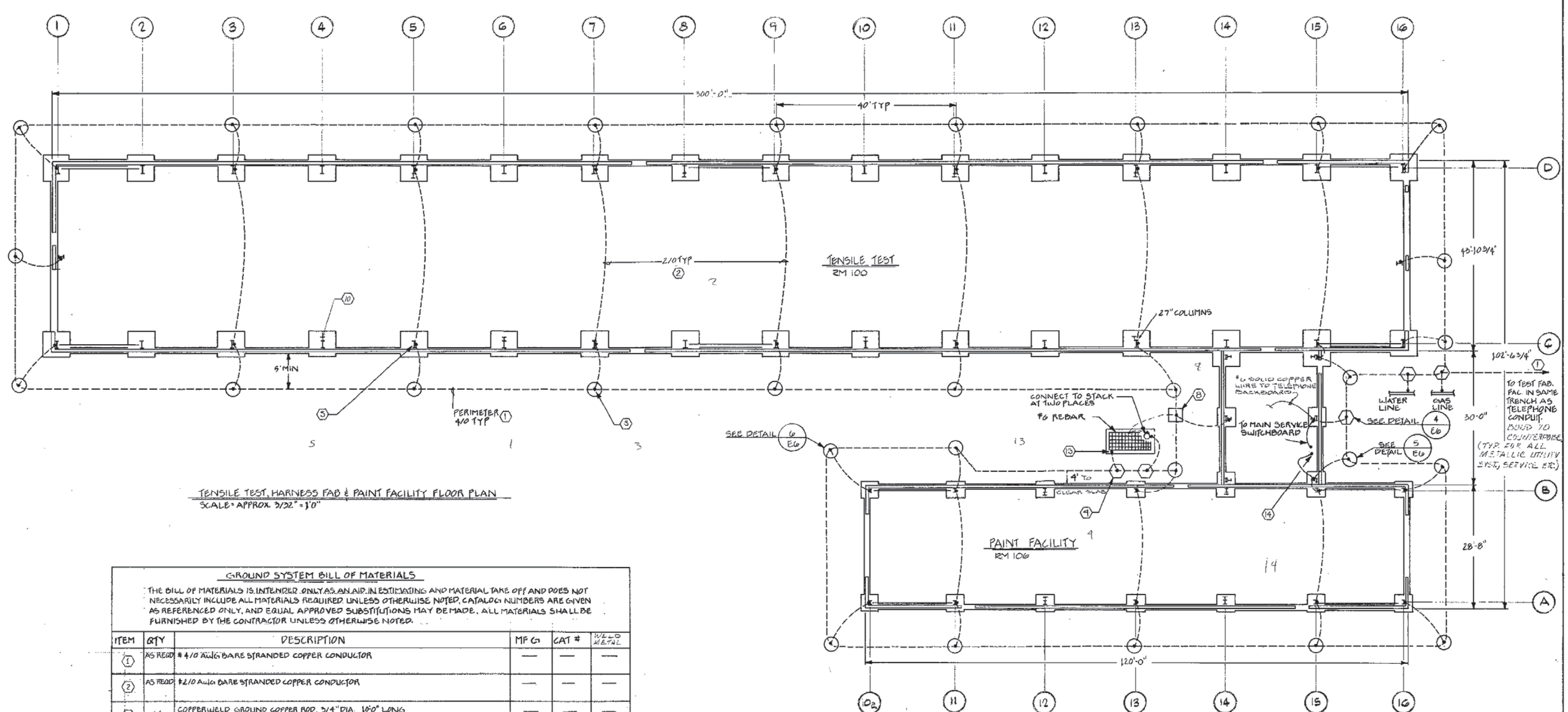
Los Alamos NATIONAL LABORATORY
PO Box 1663
Los Alamos, New Mexico 87545

SHEET 3
3 OF 5

CLASSIFICATION U
REVIEWER H. SALAZAR
DATE

PROJECT ID: KSL NO. 91-020 11952
DRAWING NO: AB46
REV: 28


NOTES:
1. R.P. MEANS RADIANT PIPE
2. T.P. MEANS TAIL PIPE
3. SLOPE ALL RADIANT PIPE TOWARD VACUUM PUMP AT 1/2"/20 FT.
4. SLOPE ALL TAIL PIPE TOWARD VACUUM PUMP AT 1"/20 FT.
RM 100
110'-0" NOM. TAIL PIPE (TYP OF 2)
DISCHARGE PIPE (TYP OF 2)
ROOF VENTILATOR DUCT THRU ROOF (TYP OF 3)
VACUUM PUMP FOR HEATING SYSTEM (TYP OF 2)
REFLECTOR SHIELD ABOVE ALL RADIANT AND TAILPIPE
SUPPORT ALL PIPING MAX. 10' O.C.
GAS HEATING SYSTEM WITH (10) 80,000 BTUH BURNERS, RADIANT PIPE, TAILPIPE, AND 2 VACUUM PUMPS
BUILDING ℄
BURNER ℄
SUPPLY AIR REGISTERS (TYP OF 4)
75'-0" (TYP OF 2)
2 1/2" 800 CFH
SEE DETAILS
OVER-RIDE TIMER
RM 106
CATALYTIC INFRARED HEATER, 20,000 BTUH 48"x 12" (TYP OF 12)
SUPPLY AIR REGISTERS (TYP OF 3)
1 1/2" SUSPENDED FROM STRUCTURE, SUPPLY TO AIR MAKE-UP UNIT ON ROOF. (550 CFH)
3/4" SUSPENDED FROM STRUCTURE
HEATING SYSTEM LAYOUT
SCALE: 3/32" = 1'-0"
RM 101
RM 102
RM 103
RM 104
RM 105
NATURAL GAS RISER, PRV, & METER
1 1/4"x3" INCREASER
3"x3"x3" TEE
3"x2" REDUCER
3"x3"x1" TEE DOWN
5" WATER HTR VENT RISER
CONCRETE PAD (3'-6"x 2'-6"x 6")
5" BOILER VENT
1 1/2 COMBUSTION AIR
7" VTR
BOILER
HEATING SYSTEM TIME CLOCK
FIRST FLOOR
BASEBOARD HEATER LAYOUT DETAIL
SCALE: 1/4" = 1'-0"
RM 200
RM 201
OBSERVATION PLATFORM
THERMOSTATIC VALVE
VENT CHASE
5" FLUE UP THRU ROOF TO EXHAUST CAP
SECOND FLOOR
BASEBOARD HEATER LAYOUT DETAIL
SCALE: 1/4" = 1'-0"
7" VTR
3"x2" REDUCER
3"x3"x3" TEE
3"x3"x1" TEE
3"x2 1/2" REDUCER
5"x7" INCREASER
5" VENT
3" VENT
3" NATURAL GAS SUPPLY
GAS PLUG COCK
WATER HEATER
6" CLEARANCE
CONCRETE PAD 3'-6"x2'-6"x6"
FINISHED FLOOR
MECHANICAL ROOM - SECTION
SECTION: 3/8" = 1'-0"
AS BUILT/NO REVISIONS
UNITED STATES DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO
TEST FABRICATION FACILITY
MECHANICAL DIVISION
HEATING PLAN
BLDG. SM-489
TA-3
THE ZIA COMPANY
ENGINEERING SECTION
LOS ALAMOS, NEW MEXICO
LAB JOB NO. 7026-03
M6
118/160
CLASSIFICATION UNCL.
DATE 8-3-84
DOE DRAWING NO. LA-RDT-AA-1181
LANL DRAWING NO. 7026-03
ZIA DRAWING NO. ZT-5130




TENSILE TEST, HARNESS FAB & PAINT FACILITY FLOOR PLAN
SCALE: APPROX. 3/32" = 1'0"

## GROUND SYSTEM BILL OF MATERIALS

THE BILL OF MATERIALS IS INTENDED ONLY AS AN AID IN ESTIMATING AND MATERIAL TAKE OFF AND DOES NOT NECESSARILY INCLUDE ALL MATERIALS REQUIRED UNLESS OTHERWISE NOTED, CATALOG NUMBERS ARE GIVEN AS REFERENCED ONLY, AND EQUAL APPROVED SUBSTITUTIONS MAY BE MADE. ALL MATERIALS SHALL BE FURNISHED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

| ITEM | QTY | DESCRIPTION | MFG | CAT # | WELD METAL |
|---|---|---|---|---|---|
| 1 | AS REQD | # 4/0 AWG BARE STRANDED COPPER CONDUCTOR | — | — | — |
| 2 | AS REQD | #2/0 AWG BARE STRANDED COPPER CONDUCTOR | — | — | — |
| 3 | 61 | COPPERWELD GROUND COPPER ROD, 3/4" DIA. 10'0" LONG | — | — | — |
| 4 | 69 | "T" CONNECTION | CADWELD | TAC-2Q2G | 90 |
| 5 | AS REQD | STRUCTURAL CONNECTION | CADWELD | VSC-2G | 90 |
| 6 | AS REQD | CABLE TO GROUND ROD CONNECTION | CADWELD | GTC-182Q | 115 |
| 7 | 2 | 2 HOLE GROUND PLATES | CADWELD | B-162-2Q | — |
| 8 | 14 | "X" CONNECTIONS | CADWELD | XAC-2G2G | 115 |
| 9 | 6 | FENCE GROUND CLAMP | CADWELD | VNC-2G | 90 |
| 10 | 65 | GROUND PLATE | CADWELD | B-161-2Q | — |
| 11 | 2 | METAL COVERPLATE 12" DIA. X 1/2" THICK | — | — | — |
| 12 | 2 | 10" DIA. VITREOUS CLAY TYPE - LENGTH 24" | — | — | — |
| 13 | 2 | PARALLEL CABLE TAP TO HORIZONTAL REBAR | CADWELD | RRH-5426 | 90 |
| 14 | 4 | BUS BAR CONNECTIONS (BUS SIZE 1/4" X 1") | CADWELD | LAC-2GEE | 65 |
| 15 | AS REQD | CABLE TO REBAR | CADWELD | AS REQD | AS REQD |

| NO | DATE | CLASS REVIEW | REVIEWER | REVISIONS | BY | CHKD | GRP | D.O. | ENG GP | ENGR. D.O. | DOE APP. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MF | 9-22-82 | | | AS BUILT/NO REVISIONS | MG | LE | | | | | |

AUTHORIZED FOR
DIVISION
GROUP

UNITED STATES
DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO

TEST FABRICATION FACILITY
ELECTRICAL DIVISION

NTS & PAINT FACILITY BUILDING GROUND
BLDG. SM 489 TA-3

DRAWN F. LOPEZ
DRAFT CK
DESIGN CK
A.E. APPROVED
DESIGN
CHECKED
RELEASED M. Smith
DATE 8-2-84

SUBMITTED
RECOMMENDED Kirk O Elland
APPROVED Don Lucero

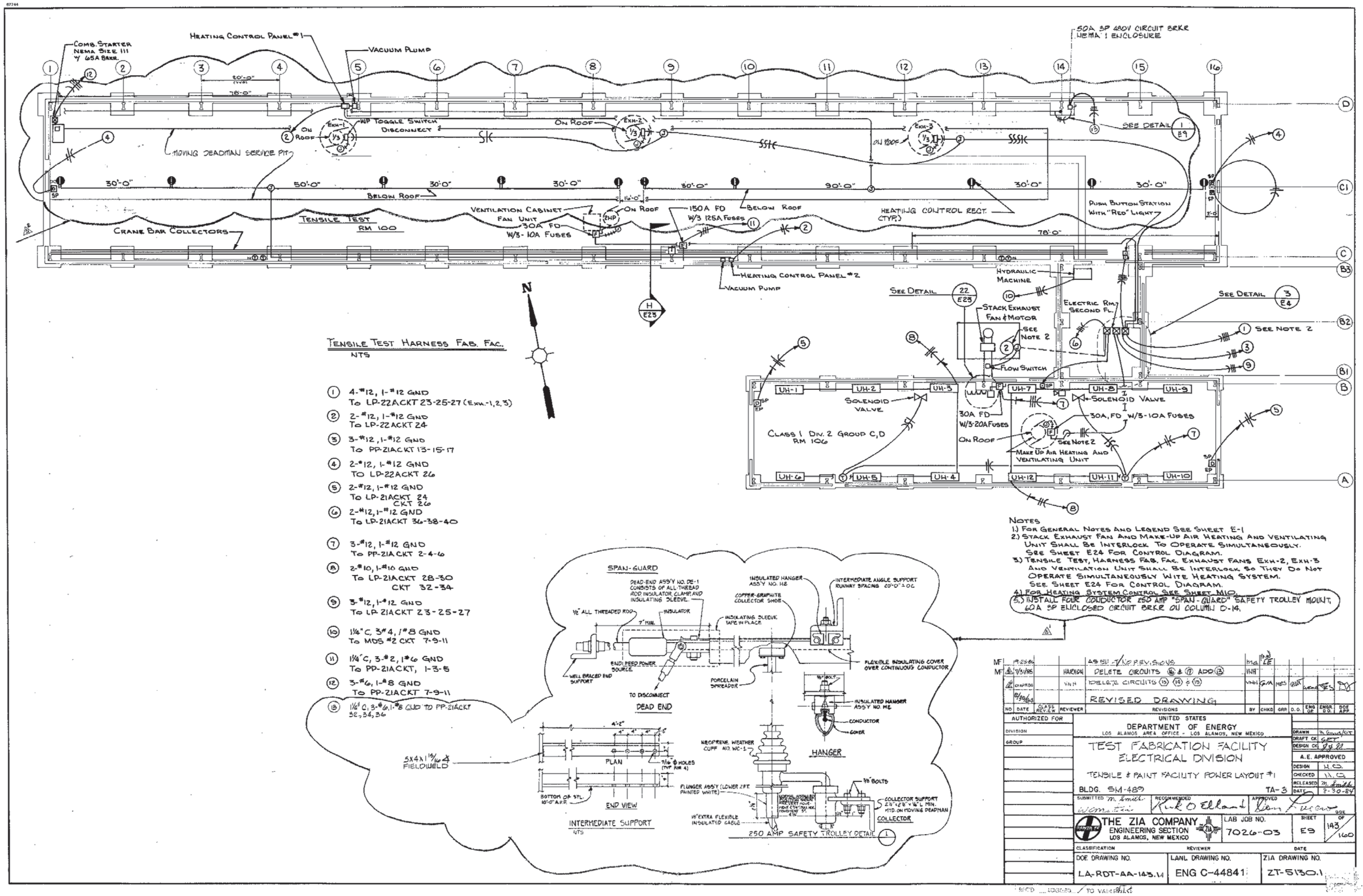
THE ZIA COMPANY
ENGINEERING SECTION
LOS ALAMOS, NEW MEXICO

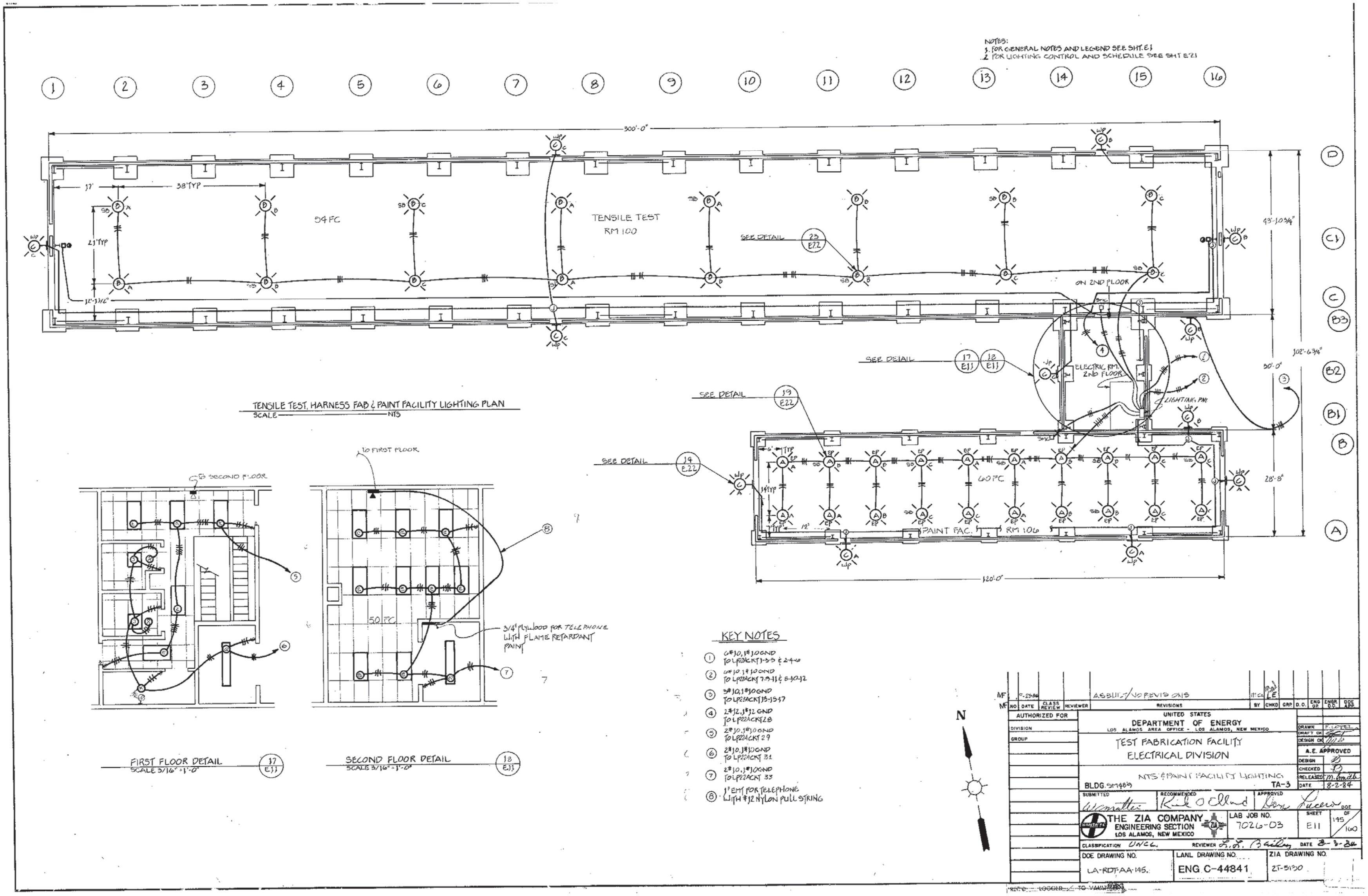
LAB JOB NO. 7026-03
SHEET E5
DOE 139 OF 160

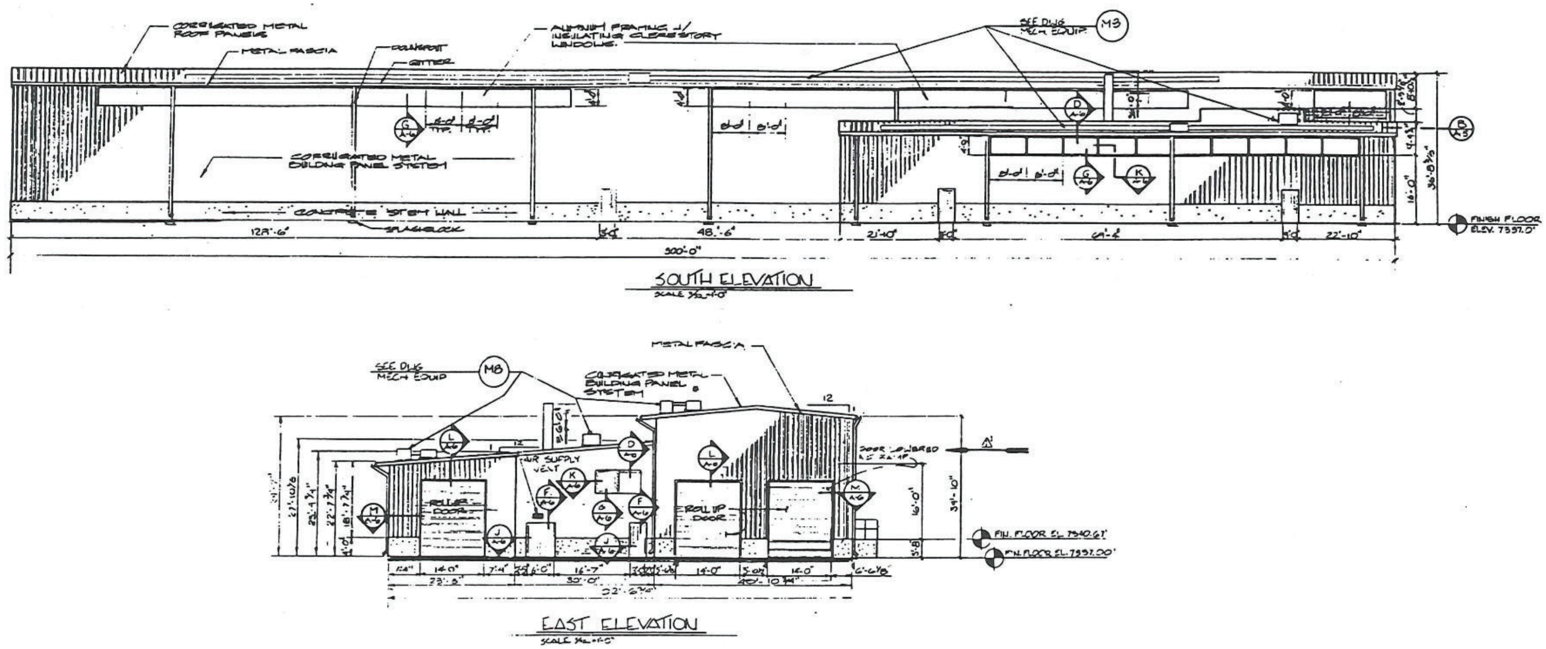
CLASSIFICATION UNCL. REVIEWER DATE 8-3-84

DOE DRAWING NO. LA-RDT-AA-139.1
LANL DRAWING NO. ENG C-44841
ZIA DRAWING NO. ZT-5130

TO VAULT

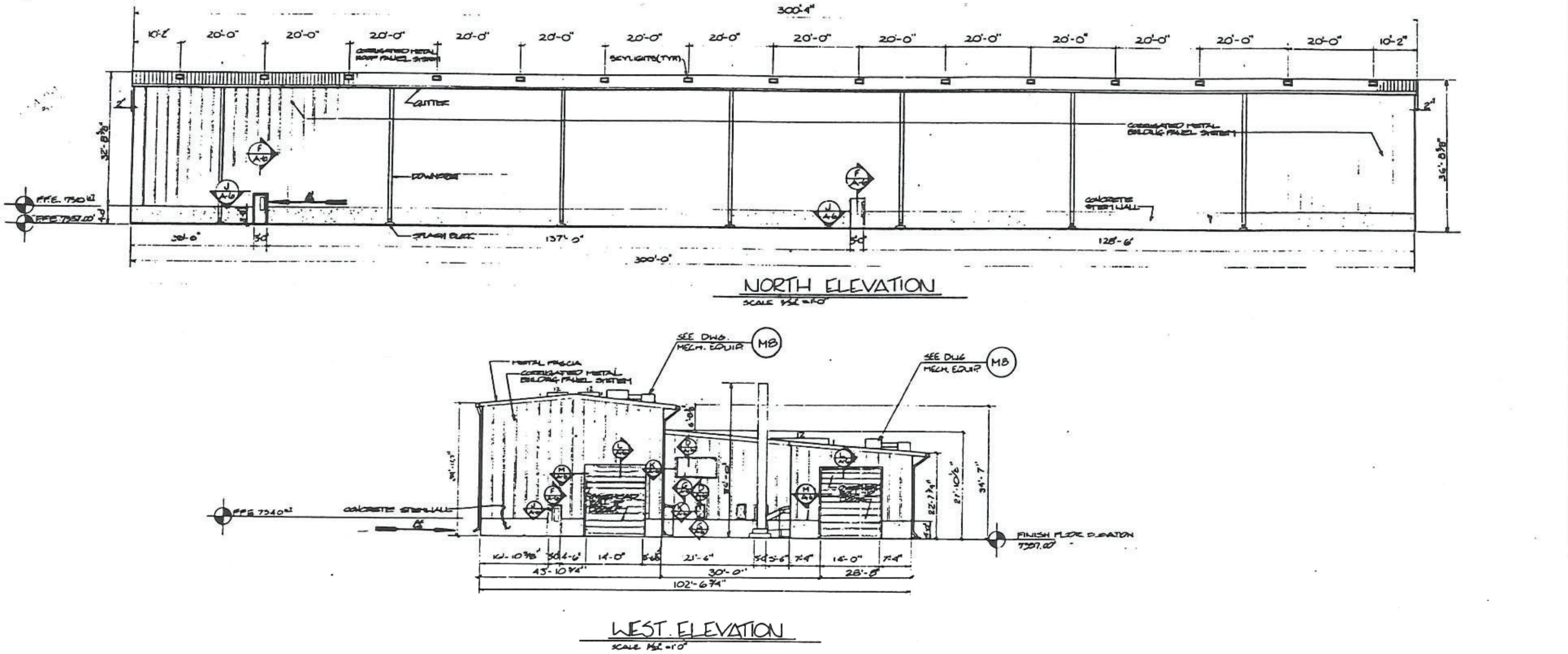

TENSILE TEST HARNESS FAB. FAC.
NTS
① 4-#12, 1-#12 GND To LP-22ACKT 23-25-27 (EXH-1,2,3)
② 2-#12, 1-#12 GND To LP-22ACKT 24
③ 3-#12, 1-#12 GND To PP-21ACKT 13-15-17
④ 2-#12, 1-#12 GND TO LP-22ACKT 26
⑤ 2-#12, 1-#12 GND To LP-21ACKT 24 CKT 26
⑥ 2-#12, 1-#12 GND To LP-21ACKT 36-38-40
⑦ 3-#12, 1-#12 GND To PP-21ACKT 2-4-6
⑧ 2-#10, 1-#10 GND To LP-21ACKT 28-30 CKT 32-34
⑨ 3-#12, 1-#12 GND To LP 21ACKT 23-25-27
⑩ 1¼"C, 3-#4, 1-#8 GND To MDS #2 CKT 7-9-11
⑪ 1¼"C, 3-#2, 1-#6 GND To PP-21ACKT, 1-3-5
⑫ 3-#6, 1-#8 GND To PP-21ACKT 7-9-11
Notes
1.) For General Notes And Legend See Sheet E-1
2.) Stack Exhaust Fan And Make-Up Air Heating And Ventilating Unit Shall Be Interlock To Operate Simultaneously. See Sheet E24 For Control Diagram.
3.) Tensile Test, Harness Fab. Fac. Exhaust Fans Exh-2, Exh-3 And Ventilation Unit Shall Be Interlock So They Do Not Operate Simultaneously With Heating System. See Sheet E24 For Control Diagram.
4.) For Heating System Control See Sheet M10.
5.) Install Four Conductor 250 Amp "Span-Guard" Safety Trolley Mount, 60A 3P Enclosed Circuit Brkr On Column D-14.
Tensile Test RM 100
Class 1 Div. 2 Group C,D RM 106
250 Amp Safety Trolley Detail
Span-Guard
Dead End
Hanger
Collector
Intermediate Support
UNITED STATES DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO
TEST FABRICATION FACILITY ELECTRICAL DIVISION
TENSILE & PAINT FACILITY POWER LAYOUT #1
BLDG. SM-489 TA-3
THE ZIA COMPANY ENGINEERING SECTION LOS ALAMOS, NEW MEXICO
LAB JOB NO. 7026-03
SHEET E9 143 OF 160
DOE DRAWING NO. LA-RDT-AA-143.11
LANL DRAWING NO. ENG C-44841
ZIA DRAWING NO. ZT-5130.1
REVISED DRAWING
DELETE CIRCUITS ⑥ & ⑦ ADD ⑫
DELETE CIRCUITS ⑬ ⑭ & ⑮


NOTES:
1. FOR GENERAL NOTES AND LEGEND SEE SHT. E1
2. FOR LIGHTING CONTROL AND SCHEDULE SEE SHT E21
TENSILE TEST RM 100
54 FC
300'-0"
38' TYP
PAINT FAC. RM 106
60 FC
120'-0"
ON 2ND FLOOR
ELECTRIC RM 2ND FLOOR
SEE DETAIL
TENSILE TEST, HARNESS FAB & PAINT FACILITY LIGHTING PLAN
SCALE NTS
TO SECOND FLOOR
TO FIRST FLOOR
50 FC
3/4" PLYWOOD FOR TELEPHONE WITH FLAME RETARDANT PAINT
FIRST FLOOR DETAIL
SCALE 3/16" = 1'-0"
SECOND FLOOR DETAIL
SCALE 3/16" = 1'-0"
KEY NOTES
N
UNITED STATES
DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO
TEST FABRICATION FACILITY
ELECTRICAL DIVISION
NTS & PAINT FACILITY LIGHTING
TA-3
THE ZIA COMPANY
ENGINEERING SECTION
LOS ALAMOS, NEW MEXICO
LAB JOB NO. 7026-03
SHEET E11
CLASSIFICATION UNCL.
DOE DRAWING NO. LA-RDTAA-145.
LANL DRAWING NO. ENG C-44841
ZIA DRAWING NO. 2T-5150




Currently designated as TA-60-17

UNITED STATES
DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO
TEST FABRICATION FACILITY
ARCHITECTURAL DIVISION
SOUTH / EAST ELEVATION
BLDG. SM 489 TA-3
THE ZIA COMPANY
ENGINEERING SECTION
LOS ALAMOS, NEW MEXICO
LAB JOB NO. 7026-03
A-3
24/160
DATE 8-3-84
DOE DRAWING NO. LA-RDT-AA-241
LANL DRAWING NO. ENG C-44841
ZIA DRAWING NO. ZT-5130




| | |
|---|---|
| UNITED STATES DEPARTMENT OF ENERGY | LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO |
| TEST FABRICATION FACILITY | |
| ARCHITECTURAL DIVISION | |
| NORTH & WEST ELEVATIONS | |
| BLDG. SM 484 | TA-3 |
| THE ZIA COMPANY ENGINEERING SECTION LOS ALAMOS, NEW MEXICO | LAB JOB NO. 7026-03 |
| SHEET A-2 | 23 of 60 |
| DOE DRAWING NO. LA-RDT-AA-231 | LANL DRAWING NO. ENG C-44841 |
| ZIA DRAWING NO. ZT-5130 | DATE 8-3-84 |

Currently designated as TA-60-17

# ENCLOSURE 2

*Public Notice of Class 2 Permit Modification Request*

*and Public Meeting for Technical Area 60*

*New Container Storage Unit*

*Los Alamos National Laboratory,*

*EPA ID# NM0890010515*

EPC-DO-23-086
LA-UR-23-21636

U.S. Department of Energy,
National Nuclear Security Administration Los Alamos Field Office, and
Triad National Security, LLC

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**Public Notice**

**Los Alamos National Laboratory Hazardous Waste Facility Permit, EPA ID No. NM0890010515**

**Activity:** The U.S. Department of Energy (DOE) and Triad National Security, LLC (Triad), have submitted a Class 2 permit modification request to add a new container storage unit at Technical Area 60.

**Facility:** The Permit authorizes the U.S. Department of Energy (DOE); Triad National Security, LLC (Triad); and Newport News Nuclear BWXT-Los Alamos, LLC (N3B) [the Permittees] to manage, store, and treat hazardous waste at LANL. Under authority of the New Mexico Hazardous Waste Act (Section 74-4-1 et seq., NMSA 1978, as amended, 1992) and the New Mexico Hazardous Waste Management Regulations (20.4.1 NMAC), the New Mexico Environment Department (NMED) can approve or deny hazardous waste permits and closure plans, permit modifications, and amendments.

**Availability:** The proposed permit modification is available for public review weekdays between 8:00 am and 5:00 pm at

**NMED - Hazardous Waste Bureau**
**2905 Rodeo Park Drive East, Building 1**
**Santa Fe, New Mexico 87505-6313**

Copies are also available at the LANL Hardcopy Public Reading Room by appointment (call 505-709-7466) weekdays from 9:00 am to 4:00 pm at

**Northern New Mexico Citizens' Advisory Board Office**
**94 Cities of Gold Road in Pojoaque, New Mexico**
https://environment.lanl.gov/public-reading-room/

Electronic copies of the permit modification request can also be found in the **LANL Electronic Public Reading Room (EPRR)** at http://eprr.lanl.gov

The LANL Hazardous Waste Facility Permit can be found on the NMED LANL Permit web page at: https://www.env.nm.gov/hazardous-waste/lanl-permit/

**Meeting:** A public meeting about the permit modification will be held from 5:00 pm to 7:00pm on April 19, 2023 via WebEx.

From Link: https://lanl-us.webex.com/lanl-us/j.php?MTID=md3aa442009bba2308759287a2b978e91

Using meeting number: 2456 245 3427 (access code) Meeting password: PublicMeeting

By phone: +1-415-655-0002 (US Toll) Meeting number: 2456 245 3427

**Comments:**

**Neelam Dhawan**
**NMED-Hazardous Waste Bureau,**
**2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico 87505-6313**
**Telephone (505) 476-6000 or e-mail: neelam.dhawan@env.nm.gov**

The Permittee's compliance history during the life of the permit being modified is available from the NMED contact person. The public comment period for this permit modification will run from March 16, 2023 through May 15, 2023. Any person who wishes to comment on this action should submit written or e-mail comments with the commenter's name and address to the address above. Only written comments received on or before May 15, 2023, will be considered.

**Facility Contact:** If you have questions, please contact Los Alamos National Laboratory.

**Steven Horak**
**Environmental Communication & Public Involvement**
**P.O. Box 1663, MS S020**
**Los Alamos, NM 87545**
**Phone/email: 505-551-4514 / envoutreach@lanl.gov**

Environmental Protection & Compliance Division
Waste Management Programs
P.O. Box 1663, Mail Stop M969
Los Alamos, NM 87545