



## **REZONING (Zoning Map Amendment)**

Application submittals must include all documents on this checklist as well as this page. Please use the reference guide (pg. 2) included in this packet for more information on each submittal item.

All submittals shall include one (1) hard copy of all documents and one (1) electronic copy with all documents combined in a single PDF. For hard copies, each document shall be labeled or tabbed with the corresponding checklist number.

1. Development Application Form (pg. 4)
2. Application Fees (see table)
3. Written Explanation of the Project
4. Site Plan Showing Proposed Development, including:
  - a. Proposed Building Envelope
  - b. Parking Areas
  - c. Site Access
  - d. Landscape Areas
5. Trip Generation Letter
6. Preliminary Drainage Analysis
7. Neighborhood Meeting Summary
8. Proof of Ownership (warranty deed or title policy)
9. Proof of Water and Sewer Services
10. Legal Description
11. Certificate of Taxes Paid
12. Certificate of Notice to Mineral Estate Owners/and Lessees (pg. 6)
13. Certificate of Surface Development (pg. 7)

Fee Type	Amount	Due
Application	\$1,500	With application submittal
Tri-County Health *made payable to Tri County Health	\$55 (with public utilities), \$110 (with individual septic system)	With application submittal



**Application Type:**

<input type="checkbox"/> Conceptual Review	<input type="checkbox"/> Preliminary PUD	<input type="checkbox"/> Temporary Use
<input type="checkbox"/> Subdivision, Preliminary	<input type="checkbox"/> Final PUD	<input type="checkbox"/> Variance
<input type="checkbox"/> Subdivision, Final	<input checked="" type="checkbox"/> Rezone	<input type="checkbox"/> Conditional Use
<input type="checkbox"/> Plat Correction/ Vacation	<input type="checkbox"/> Special Use	<input type="checkbox"/> Other: _____

**PROJECT NAME:**

**APPLICANT**

Name(s):  Phone #:

Address:

City, State, Zip:

2nd Phone #:  Email:

**OWNER**

Name(s):  Phone #:

Address:

City, State, Zip:

2nd Phone #:  Email:

**TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)**

Name:  Phone #:

Address:

City, State, Zip:

2nd Phone #:  Email:

## DESCRIPTION OF SITE

Address:	NW corner of N Pecos St & W 56th Ave
City, State, Zip:	Denver, CO , 80221
Area (acres or square feet):	approximately 63.24 acres
Tax Assessor Parcel Number	0182509313001, 0182509314001, 0182509300058, 0182509309001, 0182509300056, 0182509300063, 0182509300023, 0182509312001, 0182509312002, also account no. R0184678 and account no. R0179027
Existing Zoning:	R-1-C, I-1, I-2, I-3
Existing Land Use:	precast concrete panel manufacturing plant and yard
Proposed Land Use:	warehouse/ office/ industrial

Have you attended a Conceptual Review? YES ☒ NO ☐

If Yes, please list PRE#: PRE2018-00112

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: Matt Mitchell

Date: 3/1/19

Owner's Printed Name

Name: 

Owner's Signature

## **CONCEPT NARRATIVE**

(north-west corner of N Pecos St and W 56<sup>th</sup> Ave)

The existing parcels of land are located at north-west corner of N Pecos St and W 56<sup>th</sup> Ave. The portions of the property were platted in the Felch Subdivision in April 1974 and in the Prestressed Con and Prestressed Con 2<sup>nd</sup> Filing in 1981. The portions of the property are unplatted. The subject properties are currently designated Residential Single Family (R-1-C), Industrial I-1, Industrial I-2 and Industrial I-3. The applicant requests to rezone entire property to I-2 Industrial Zone District.

The land is currently used as a manufacturing plant and outside storage yard for precast concrete panels by Rocky Mountain Prestress company. Westfield will develop the Pecos site over three phases. Each phase will include the development of approximately three industrial warehouse buildings consisting of between 380,000 and 470,000 total square feet. Once fully complete, this site will include up to 8 buildings totaling 1.3 million square feet that can accommodate businesses of varying size. Targeted tenants will include service oriented and supplier tenants as well as last-mile distribution and logistics users.

Proposed buildings will have the flexibility for small to large and build-to-suit tenants and can accommodate either front park / rear load or cross dock design. Westfield recently completed the successful HUB25 development at 601 64th Ave. in Adams County and it is our intent to largely replicate that development on this site.

The buildings are designed so the front facade will be facing N Pecos public ROW and the truck court will be mostly hidden in the middle between buildings or screened with landscaping and topography. The proposed construction is painted tilt-up concrete with reveals and details to create rhythm, scale and texture. Interior clear height for all buildings will be around 28-feet. We anticipate the overall building height will be approximately 37-feet to the top of parapet.

As part of Phase 1, Westfield will create a Metro District as a vehicle to fund and install some of the required infrastructure; (water, sewer, gas, power, storm, roads, etc.)

It is necessary to obtain adequate ingress and egress from Pecos and 56th Ave. We have commissioned and provided a traffic impact study that supports the overall project as well as the need for a traffic signal from the Pecos Property onto Pecos St. The success of the project is predicated upon the access from this site to the adjacent interstate system(s), I76 and I25.

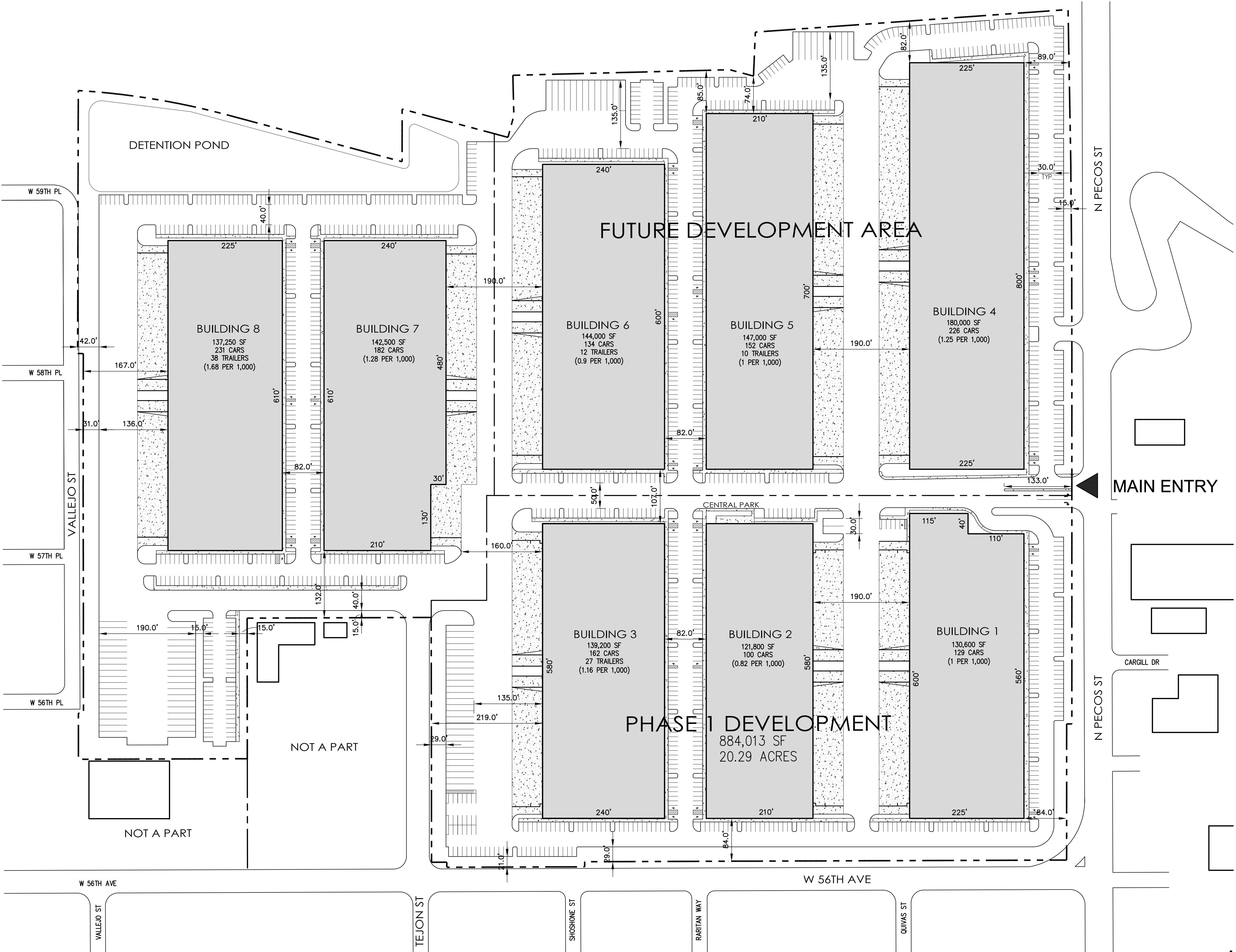
The proposed development will be a valuable asset for Adams County by providing employers the much-needed space to create local job opportunities for residents. The project will start after receiving all necessary permits; probably in the spring of 2020.



REZONING  
PECOS LOGISTICS PARK

PART OF THE SOUTHWEST  $\frac{1}{4}$  OF SECTION 9 TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH  
PRINCIPAL MERIDIAN AND PART OF THE SOUTH  $\frac{1}{2}$  OF THE NORTHWEST  $\frac{1}{4}$  OF SECTION 10 TOWNSHIP  
3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN

SHEET 1 OF 1



SITE DATA

EXISTING ZONING	R-1-C, I-1, I-2, I-3
PROPOSED ZONING	I-2
EXISTING LOT AREA	2,765,972 SF 63.49 AC
PHASE 1 FUTURE DEVELOPMENT	884,013 SF=20.29 AC 1,881,959=43.2 AC
BUILDING AREA	1,142,350 SF
FAR	0.41
COVERAGE	41%
LANDSCAPE REQ'D	10%
LANDSCAPE PROVIDED	13%
PARKING REQ'D	
WAREHOUSE	1 PER 5,000
OFFICE	1 PER 300
WHOLESALE	1 PER 900
MANUFACTURING	1 PER 1,000
PARKING PROVIDED 9x19	1,316
TRAILER PARKING 12x55	88

DATES/ REVISIONS	
02.15.19	NEIGHBORHOOD
03.05.19	REZONE 1ST SUB.



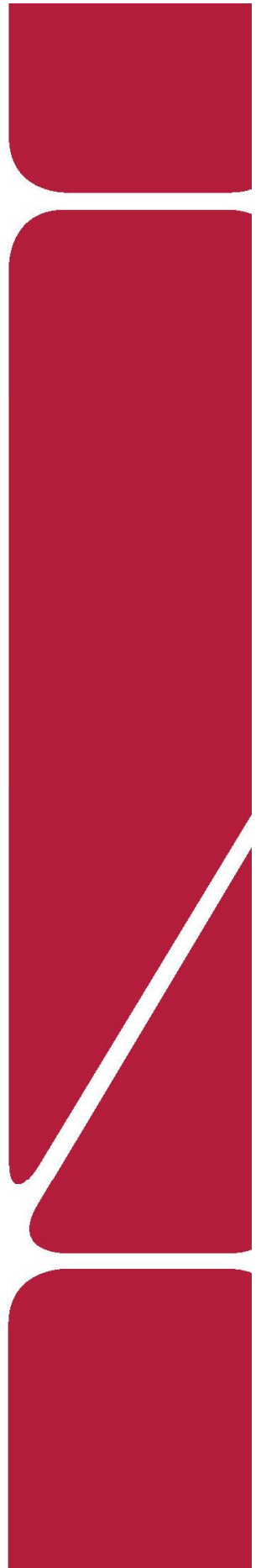
Traffic Impact Study

# Pecos Logistics Park

## Adams County, Colorado

Prepared for:  
Westfield Company, Inc.

**Kimley»Horn**



# T R A F F I C   I M P A C T   S T U D Y

## **Pecos Logistics Park**

Adams County, Colorado

**Prepared for**  
**Westfield Company, Inc.**  
4221 Brighton Boulevard  
Denver, CO 80216

**Prepared by**  
**Kimley-Horn and Associates, Inc.**  
4582 South Ulster Street  
Suite 1500  
Denver, Colorado 80237  
(303) 228-2300



February 2019

*This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.*

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## 1.0 EXECUTIVE SUMMARY

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Pecos Logistics Park is a proposed industrial project to be located on the northwest corner of the 56<sup>th</sup> Avenue and Pecos Street intersection in Adams County, Colorado. Pecos Logistics Park is planned to be built on an approximate 64.3-acre property. Phase one of construction, expected to be completed within the next couple of years, is proposed to include three industrial buildings totaling approximately 400,800 square feet. Full project buildout, expected to be completed in the next five years, is proposed to include an additional four industrial buildings totaling approximately 739,000 square feet. In total, Pecos Logistics Park is estimated to include approximately 1,139,800 square feet of industrial park space at full project build out. Analysis was conducted for both phase one of construction in 2020 and full project buildout in 2024 as well as the 2040 long-term horizon per County requirements.

The purpose of this study is to identify project traffic generation characteristics and potential project traffic related impacts on the local street system, as well as to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study in accordance with Adams County and State of Colorado Department of Transportation (CDOT) standards and requirements:

- I-76 Westbound Ramp and Pecos Street
- I-76 Eastbound Ramp and Pecos Street
- Cargill Drive and Pecos Street
- 56<sup>th</sup> Avenue and Federal Boulevard
- 56<sup>th</sup> Avenue and Tejon Street
- 56<sup>th</sup> Avenue and Pecos Street
- 52<sup>nd</sup> Avenue and Pecos Street

In addition, the proposed project access intersection along Pecos Street was included for evaluation.

Regional access will be provided by Interstate 25 (I-25), Interstate 76 (I-76), Interstate 70 (I-70), and the Denver Boulder Turnpike (US-36). Primary access to the site will be provided by 56<sup>th</sup> Avenue and Pecos Street. Direct access to the project is proposed from an access that exists as the north leg of the 56<sup>th</sup> Avenue and Tejon Street intersection as well as two proposed

accesses along the west side of Pecos Street. The northern access along Pecos Street exists as the west leg of the Cargill Drive and Pecos Street intersection. This access is anticipated to be restricted to right-in/right-out turning movements only due to the location being at the bottom of the bridge and absence of left turn lanes. The southern access along Pecos Street is proposed to allow full turning movements and be signalized.

Phase one of Pecos Logistics Park industrial facility is expected to generate approximately 1,352 daily weekday trips with 160 of these trips expected to occur during the weekday morning peak hour and 161 trips occurring during the weekday afternoon peak hour. Phase one was studied to include approximately 400,800 square feet of industrial space in three (3) separate buildings. Once Pecos Logistics Park is fully built out, the completed industrial facility is expected to generate approximately 3,842 daily weekday trips with 456 of these trips expected to occur during each of the morning and afternoon peak hours. Full project buildout is anticipated to include approximately 1,139,800 square feet of industrial space within seven (7) buildings.

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, anticipated surrounding development in the area, and the proposed access system for the project. Assignment of project traffic was based upon the trip generation described previously and the distributions developed.

Based on the analysis presented in this report, Kimley-Horn believes the proposed Pecos Logistics Park industrial facility will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

- The Adams County Transportation Plan identifies Pecos Street to be a four-lane arterial from 52<sup>nd</sup> Avenue to I-76 through the project study area. When improved, Pecos Street is anticipated to be reconstructed to include the five-lane cross section as identified in the County standards for minor-arterial to match the existing condition of the roadway south of 56<sup>th</sup> Avenue and the Pecos Street bridge to the north of Cargill Drive. It is recommended that the west side improvements along southbound Pecos Street be constructed as part of the project.

- A new signalized full movement project access to Pecos Logistics Park is recommended to be constructed along Pecos Street. When this project access intersection is constructed it is recommended the northbound approach provides a separate left turn lane and one through lane while the southbound approach provides two through lanes with the outside lane being a shared through/right turn lane. It is recommended that the proposed west leg for this access be constructed with separate left and right turn lanes and have an adequate width to allow for entering truck movements to occur without encroaching upon the exiting lanes. It is recommended the eastbound left turn lane provide 100 feet of length and the eastbound right turn lane 75 feet. These throat depths should be planned with the site development. Per Adams County standards, the new northbound left turn lane should be constructed and designated to include a length of 125 feet with a 120-foot taper length to accommodate full build out project traffic volumes.
- It is recommended that the north project access to align with the Cargill Drive and Pecos Street intersection be restricted to right-in/right-out movements only due to the absence of a left turn lane along Pecos Street because of the viaduct to the north. To restrict the access to right turn movements only for exiting vehicles, a R3-2 No Left Turn sign is recommended to be installed underneath the existing “STOP” sign. In addition, a R3-2 No Left Turn sign could be placed on the northwest corner of the access intersection, visible to northbound drivers along Pecos Street to identify the left turn entrance restriction of the access as well. Adams County officials may want to consider restricting the westbound Cargill Drive approach to right-in/right-out movements only if future traffic volumes are realized.
- When Pecos Street is improved to be a four-lane roadway, the southbound right turn lane will be reconstructed at the intersection of 56<sup>th</sup> Avenue and Pecos Street. It is recommended that this right turn lane include a length of 200 feet plus 120-foot taper.
- The existing all way stop control and single lane approach conditions of the 56<sup>th</sup> Avenue and Tejon Street intersection are expected to successfully accommodate Pecos Logistics Park project traffic throughout the 2040 horizon without modification to the intersection or roadways.



- It is anticipated that the northbound left turn lane at the intersection of 52<sup>nd</sup> Avenue and Pecos Street may need to be restriped to 75 feet by 2024 and further extended to 100 feet by 2040 if future traffic volumes are realized. It is believed that adequate pavement width is available to restripe this northbound left turn lane if desired by the County. The northbound left turn movement at this intersection is not impacted by project traffic.
- By the 2040 long term horizon at the intersection of 56<sup>th</sup> Avenue and Federal Boulevard, the westbound right turn lane may need to be extended to 250 feet and the southbound left turn lane may need to be extended to 300 feet if future volumes are realized.
- All on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings and conform to Adams County Standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).

## 2.0 INTRODUCTION

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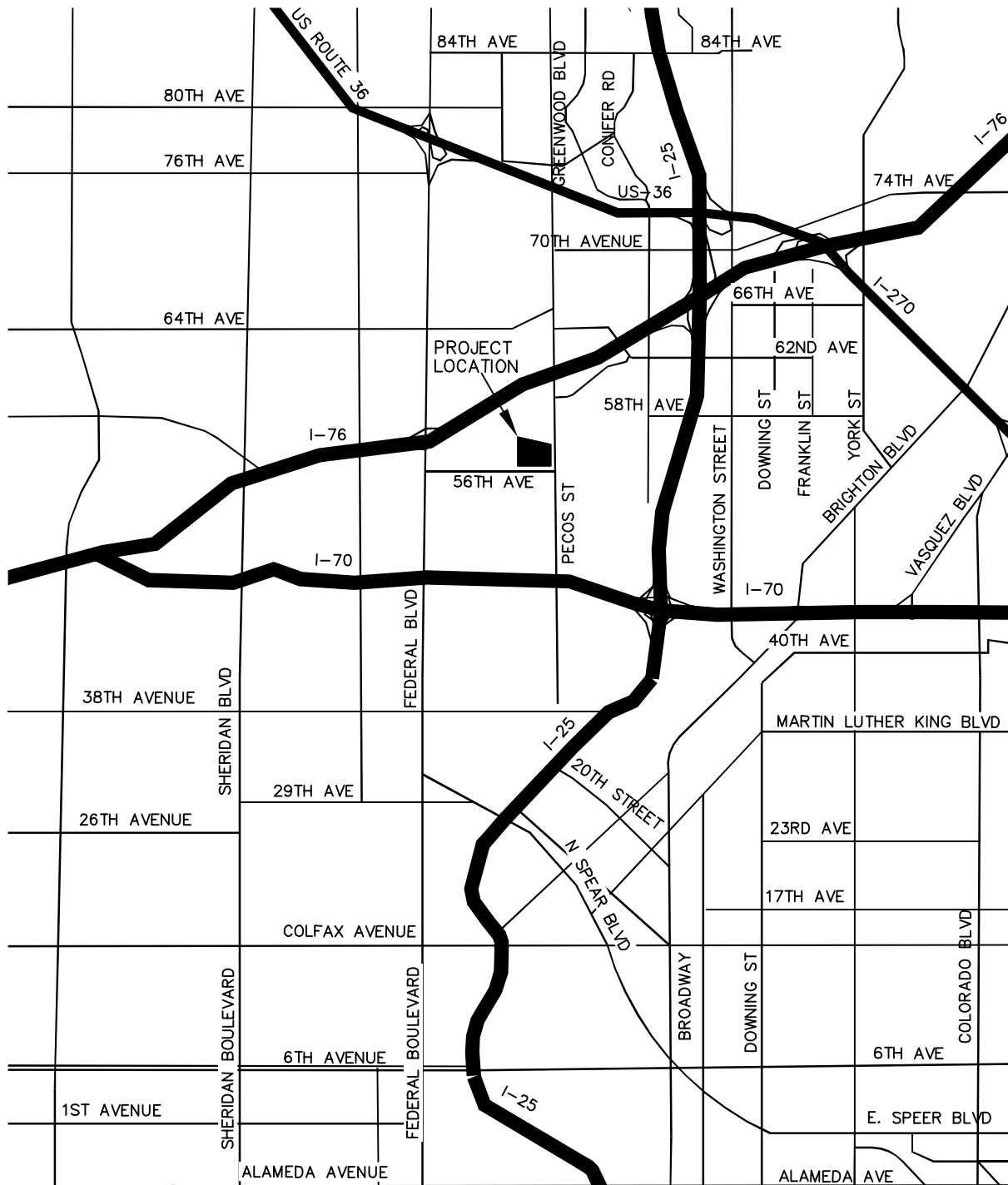
Kimley-Horn and Associates, Inc. has prepared this report to document the results of a Traffic Impact Study of future traffic conditions associated with the proposed Pecos Logistics Park industrial project to be located on the northwest corner of the 56<sup>th</sup> Avenue and Pecos Street intersection in Adams County, Colorado. A vicinity map illustrating the project location is shown in **Figure 1**.

Pecos Logistics Park is planned to be built on an approximate 64.3-acre property and is proposed to include three industrial buildings totaling 400,800 square feet during phase one of construction and an additional four industrial buildings totaling 739,000 square feet with full build out. Therefore, it is estimated that a total of 1,139,800 square feet of building space will be included in the industrial park. It is expected that phase one of development will be completed within a couple of years while full project construction will be completed within five years. Analysis was therefore completed for the 2020 first phase and 2024 full build out horizons as well as the 2040 long-term twenty-year horizon. A conceptual site plan of the project illustrating the development and access locations is provided in **Appendix H**.

The purpose of this study is to identify project traffic generation characteristics and potential project traffic related impacts on the local street system, as well as to develop mitigation measures required for identified impacts. The following intersections were incorporated into this traffic study in accordance with Adams County and State of Colorado Department of Transportation (CDOT) standards and requirements:

- I-76 Westbound Ramp and Pecos Street
- I-76 Eastbound Ramp and Pecos Street
- Cargill Drive and Pecos Street
- 56<sup>th</sup> Avenue and Federal Boulevard
- 56<sup>th</sup> Avenue and Tejon Street
- 56<sup>th</sup> Avenue and Pecos Street
- 52<sup>nd</sup> Avenue and Pecos Street

In addition, the proposed project access intersection along Pecos Street was included for evaluation.



PECOS LOGISTICS PARK  
 (NWC 56TH AVE & PECOS STREET)  
 VICINITY MAP

FIGURE 1

Regional access will be provided by Interstate 25 (I-25), Interstate 76 (I-76), Interstate 70 (I-70), and the Denver Boulder Turnpike (US-36). Primary access to the site will be provided by 56<sup>th</sup> Avenue and Pecos Street. Direct access to the project is proposed from an access that exists as the north leg of the 56<sup>th</sup> Avenue and Tejon Street intersection as well as two proposed accesses along the west side of Pecos Street. The northern access along Pecos Street exists as the west leg of the Cargill Drive and Pecos Street intersection. This access is anticipated to be restricted to right-in/right-out turning movements only due to the location being at the bottom of the bridge and absence of left turn lanes. The southern access along Pecos Street is proposed to allow full turning movements and be signalized.

### 3.0 EXISTING AND FUTURE CONDITIONS

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#### 3.1 Existing and Future Roadway Network

Within the study area, Federal Boulevard is classified as a major arterial roadway that provides two lanes of travel each direction, northbound and southbound, with left and right turn lanes provided at major intersections. It has a 45 mile per hour posted speed limit within the project study area.

Pecos Street is also classified as a major arterial roadway that provides two through lanes of travel in each direction, north of Cargill Drive. To the south between Cargill Drive and 56<sup>th</sup> Avenue however, there is only one northbound through lane and two southbound through lanes along Pecos Street. South of 56<sup>th</sup> Avenue, Pecos Street provides one through lane of travel in each direction, northbound and southbound. Pecos Street has a 35 mile per hour speed limit throughout the study area. According to the Adams County Transportation Plan, Pecos Street is anticipated to be improved to be a four-lane roadway from 52<sup>nd</sup> Avenue to 58<sup>th</sup> Avenue by the 2035 horizon.

56<sup>th</sup> Avenue is classified as a collector roadway that provides a single lane of travel in each direction, eastbound and westbound, with a 30 mile per hour posted speed limit within the project study area. 56<sup>th</sup> Avenue terminates to the west at Federal Boulevard and to the east at Pecos Street. 52<sup>nd</sup> Avenue provides a single lane of travel in each direction, eastbound and westbound, with a 30 mile per hour speed limit within the project study area. 52<sup>nd</sup> Avenue terminates to the west at Federal Boulevard. Tejon Street provides a single lane of travel in each direction, northbound and southbound, with a 25 mile per hour speed limit within the project study area. Cargill Drive provides a single lane of travel in each direction, eastbound and westbound. Cargill Drive provides access to the existing industrial areas located on the west and east sides of Pecos Street and terminates within these industrial areas.

The intersection of I-76 Westbound Ramp and Pecos Street is signalized with protected-permitted left turn phasing on the northbound approach. The northbound approach provides dual left turn lanes and two through lanes. The southbound approach provides two through lanes and a right turn lane with channelized free movements. The westbound approach provides a left turn lane, a single shared movement (left turn/through/right turn) lane, and a free

right turn channelized lane. On the west leg of the intersection two receiving lanes provide westbound access to I-76.

The intersection of I-76 Eastbound and Pecos Street is signalized with protected-permitted left turn phasing on the southbound approach. The southbound approach provides dual left turn lanes and two through lanes. The northbound approach provides two through lanes and a right turn channelized lane with free movements. The eastbound approach provides a left turn lane, a shared left turn/through lane, and a channelized right turn lane with yield movements. The east leg of the intersection provides two receiving lanes to provide eastbound access to I-76.

The intersection of Cargill Drive and Pecos Street is unsignalized with stop control on the eastbound and westbound Cargill Drive approaches. The eastbound, westbound, and northbound approaches provide a single shared movement approach lane. The southbound Pecos Street approach provides two through lanes, with the inside lane being a shared left turn/through lane and the outside lane being a shared through/right turn lane.

The intersection of 56<sup>th</sup> Avenue and Federal Boulevard is signalized which operates with permitted-only left turn phasing on the eastbound, westbound, and northbound approaches and with protected-permitted left turn phasing on the southbound approach. The eastbound approach provides a single shared movement lane. The westbound approach provides a shared left turn/through lane and a separate right turn lane. The northbound approach provides a left turn lane, two through lanes, and a right turn lane. The southbound approach provides a left turn lane and two through lanes, with the outside lane being a shared through/right turn lane.

The intersection of 56<sup>th</sup> Avenue and Tejon Street operates under all-way stop control. All four approaches at this intersection provide a single shared movement lane.

The intersection of 56<sup>th</sup> Avenue and Pecos Street is signalized and operates with protected-permitted left turn phasing on the northbound and southbound approaches and permitted only left turn phasing on the eastbound approach. The eastbound 56<sup>th</sup> Avenue approach provides a shared left turn/through lane and a separate right turn lane. The east leg of this intersection is an eastbound one-way access that provides entrance only movements into the adjacent development. The northbound approach provides a separate left turn lane and a shared

through/right turn lane. The southbound approach provides a left turn lane, one through lane, and a channelized right turn lane operating with yield movements.

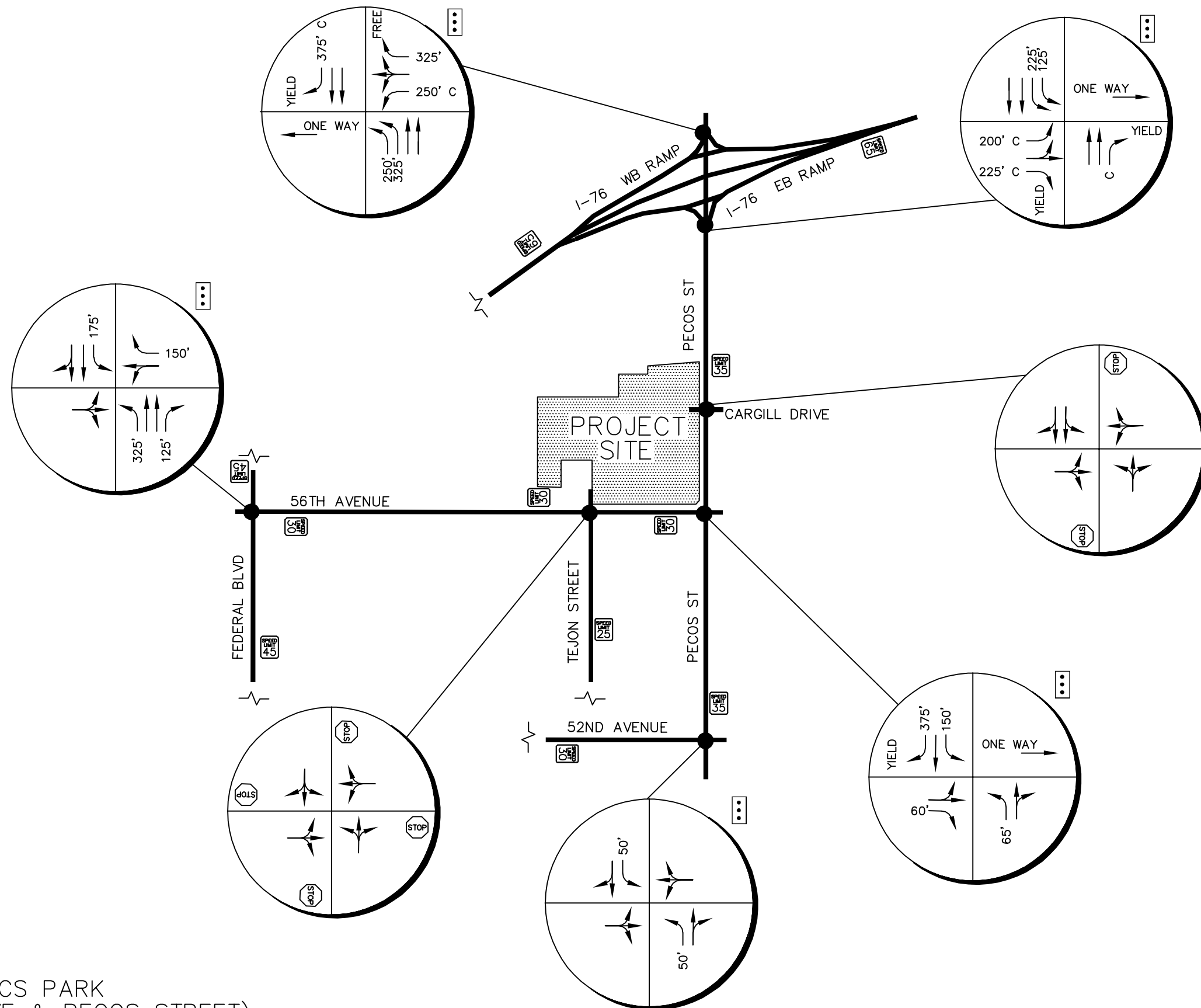
The intersection of 52<sup>nd</sup> Avenue and Pecos Street is signalized and operates with permitted-only left turn phasing on all four approaches. The northbound and southbound Pecos Street approaches provide separate left turn lanes and shared through/right turn lanes. The eastbound and westbound 52<sup>nd</sup> Avenue approaches provide single shared movement lanes. The intersection lane configuration and control for these study area key intersections are shown in **Figure 2**.

### **3.2 Existing Study Area**

The existing site is comprised of the existing Rocky Mountain Prestress industrial site. The surrounding areas to both the north and the east are primarily industrial uses. The areas to the west and south of the project site are primarily single family residential homes. Surrounding the project site in all directions, the area is nearly fully built out.

### **3.3 Existing Traffic Volumes**

Existing peak hour turning movement counts were conducted at the key intersections of Pecos Street/Cargill Drive, 56<sup>th</sup> Avenue/Tejon Street, and 56<sup>th</sup> Avenue/Pecos Street on Tuesday, December 18, 2018. In addition, exiting peak hour turning movement counts were also conducted at the key intersections of I-76 Westbound Ramp/Pecos Street, I-76 Eastbound Ramp/Pecos Street, 56<sup>th</sup> Avenue/Federal Boulevard, and 52<sup>nd</sup> Avenue/Pecos Street on Tuesday, January 8, 2019. All counts were conducted in 15-minute intervals during the morning and afternoon peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on these count dates. Existing turning movement counts are shown in **Figure 3** with count sheets provided in **Appendix A**.



PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
EXISTING LANE CONFIGURATIONS

**LEGEND**

- Study Area Key Intersection
- ⋮ Signalized Intersection
- STOP Stop Controlled Approach
- XX Roadway Speed Limit
- 100' Turn Lane Length (feet)
- C Continuous Turn Lane

FIGURE 2



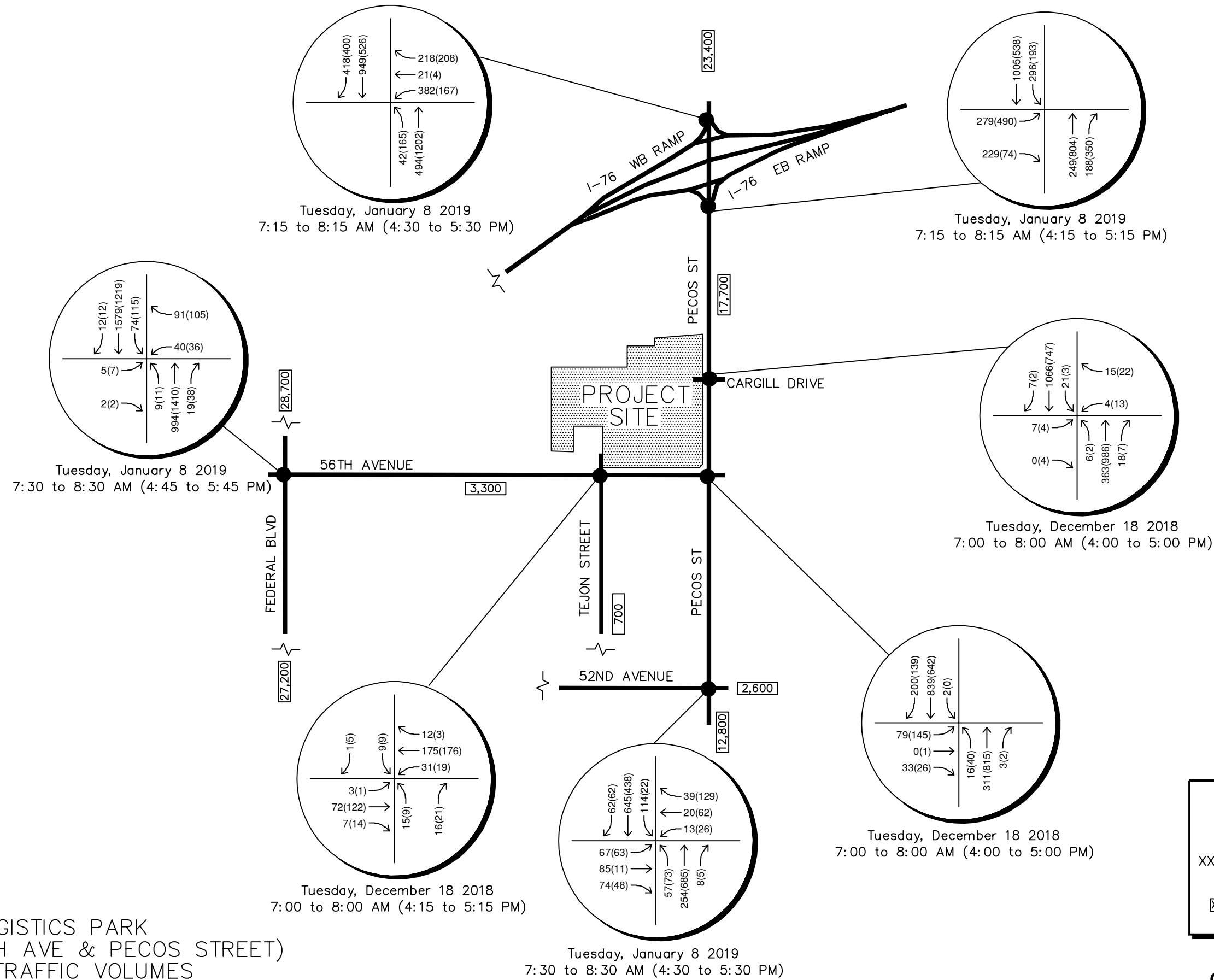
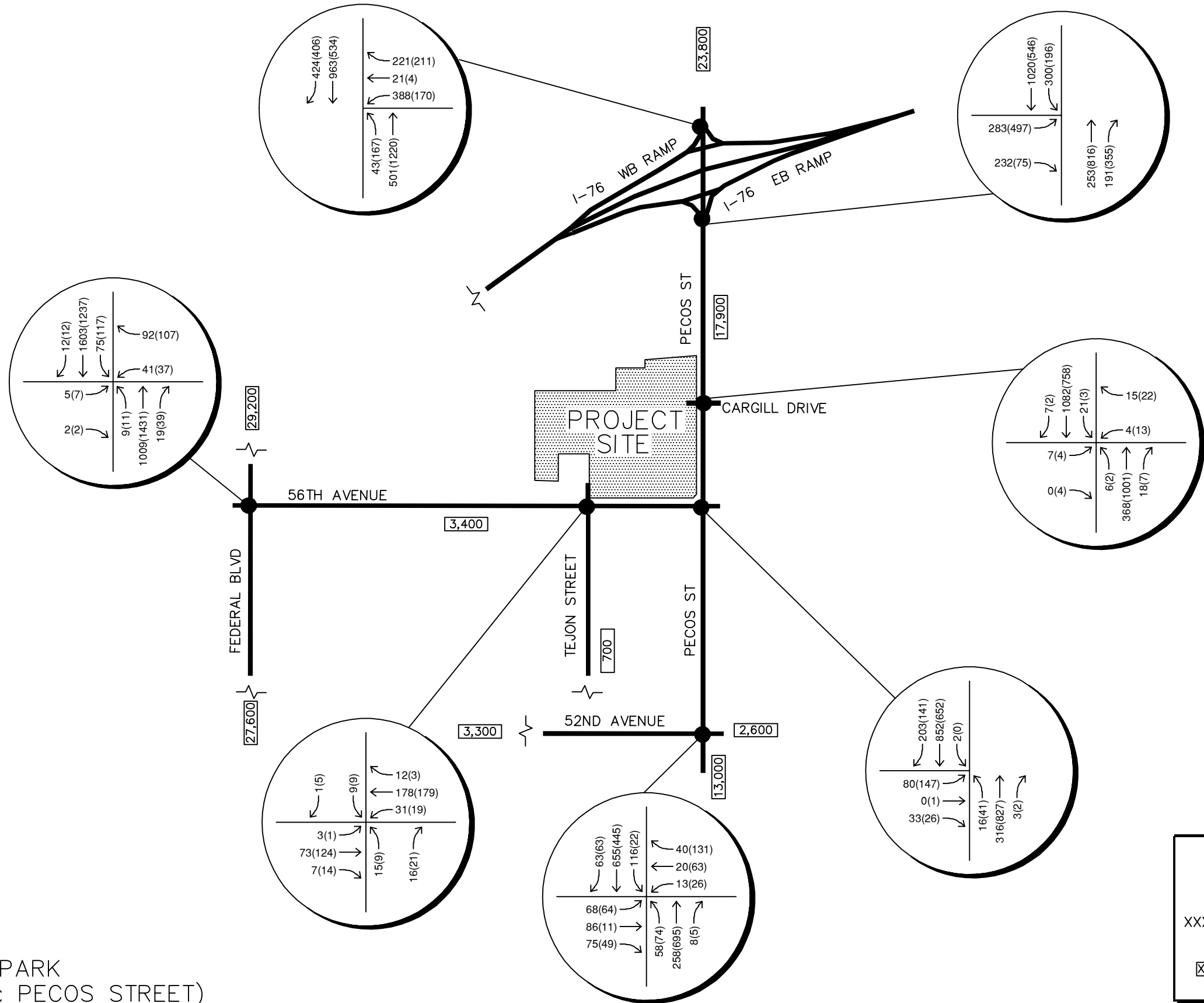


FIGURE 3

### 3.4 Unspecified Development Traffic Growth

Based on information provided on the website for the Colorado Department of Transportation, the 20-year growth factor along US-287 (Federal Boulevard) within the project study area is 1.06. This value equates to an annual growth rate of approximately 0.30 percent per year. Additionally, the 20-year growth factor along Interstate-76 adjacent to the project study area is 1.48. This value equates to an annual growth rate of 2.0 percent per year. Traffic information from the CDOT Online Transportation Information System (OTIS) website is included in **Appendix B**. These two annual growth rates were blended to an overall 1.5 percent annual growth rate for the study area. This blended growth rate was compared to the future traffic projections from the Adams County Transportation Plan adopted December 2012. However, there aren't specific traffic volumes identified within this project study area. Comparing nearby volumes, it appears that traffic is possibly projected to grow at approximately one percent per year in the study area. Therefore, it is believed this applied 1.5 percent annual growth rate will provide a conservative analysis because the area surrounding the project site is primarily fully built out. This annual 1.5 percent annual growth rate was used to estimate short term 2020 phase one horizon traffic volumes, 2024 full build out horizon traffic volumes, as well as long term 2040 traffic volume projections at the key intersections. Background traffic volumes for 2020, 2024, and 2040 are shown in **Figure 4**, **Figure 5**, and **Figure 6** respectively.

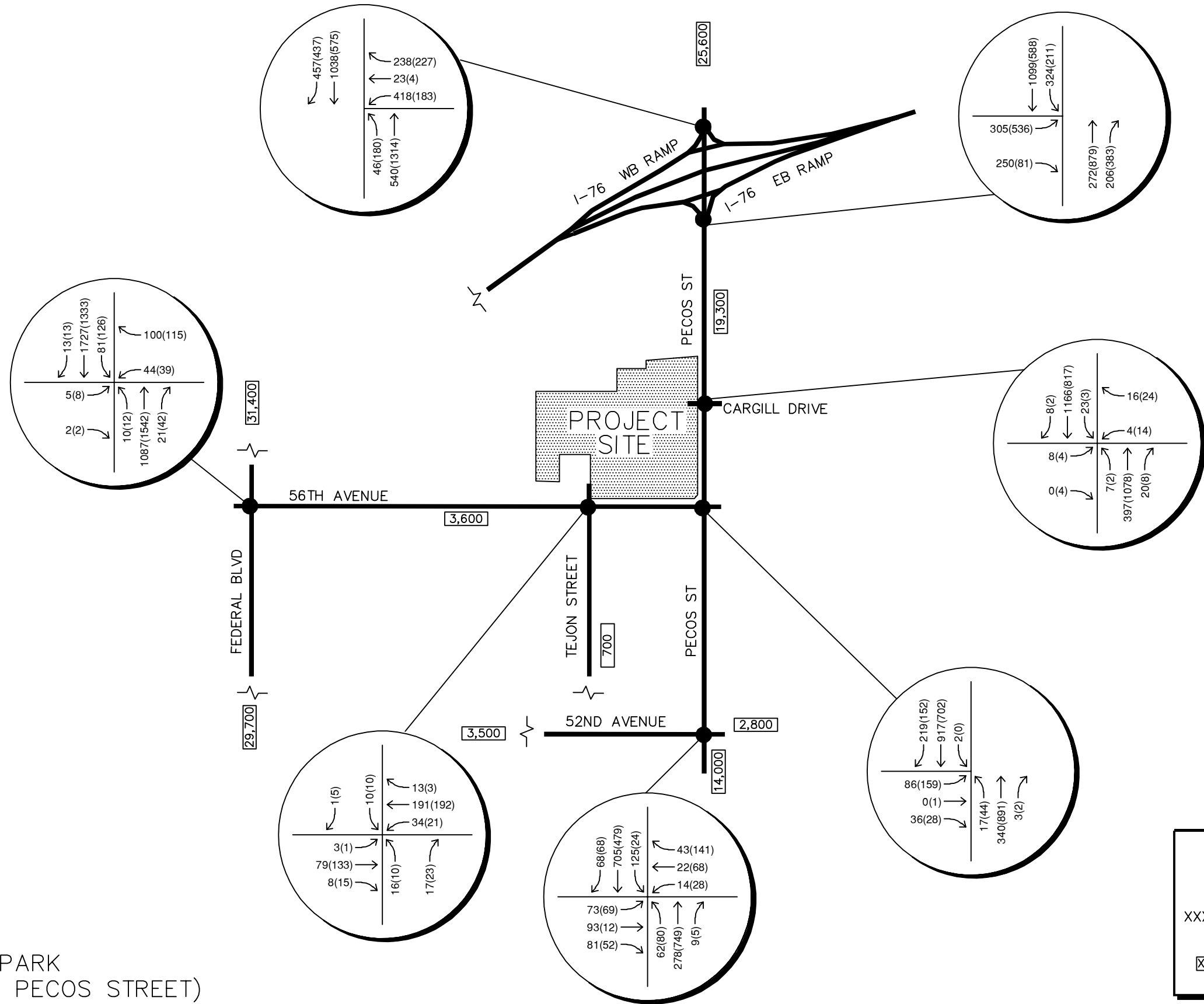


**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
PHASE 1 BUILD OUT  
2020 BACKGROUND TRAFFIC VOLUMES

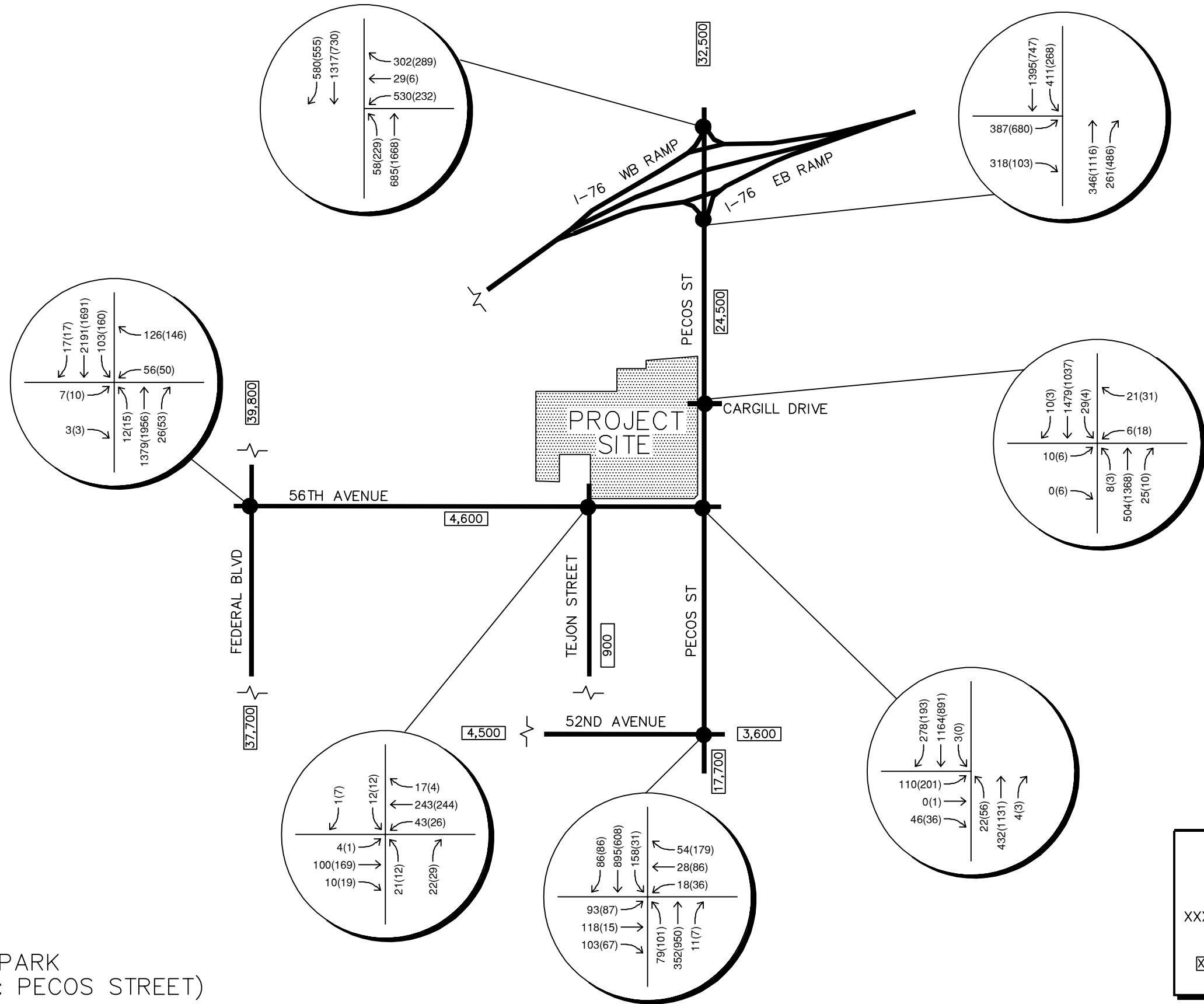
FIGURE 4



**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
FULL BUILD OUT  
2024 BACKGROUND TRAFFIC VOLUMES



**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- [xx,x00] Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
FULL BUILD OUT  
2040 BACKGROUND TRAFFIC VOLUMES

## 4.0 PROJECT TRAFFIC CHARACTERISTICS

### 4.1 Trip Generation

Site-generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Report*<sup>1</sup> published by the Institute of Transportation Engineers (ITE). ITE has established trip rates in nationwide studies of similar land uses. For this study, Kimley-Horn used the ITE Trip Generation Report average rate equations that apply to Industrial Park land use (ITE Code 130) for traffic associated with the development.

Phase one of Pecos Logistics Park industrial facility is expected to generate approximately 1,352 daily weekday trips with 160 of these trips expected to occur during the weekday morning peak hour and 161 trips occurring during the weekday afternoon peak hour. Phase one was studied to include approximately 400,800 square feet of industrial space in three (3) separate buildings. Once Pecos Logistics Park is fully built out, the completed industrial facility is expected to generate approximately 3,842 daily weekday trips with 456 of these trips expected to occur during each of the morning and afternoon peak hours. Full project buildout is anticipated to include approximately 1,139,800 square feet of industrial space within seven (7) buildings. **Table 1** summarizes the estimated trip generation for the proposed development. The trip generation worksheet is included in **Appendix C**.

**Table 1 – Pecos Logistics Park Project Traffic Generation**

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Phase One Buildout: Industrial Park (ITE 130) – 400,800 SF	1,352	130	30	160	34	127	161
Full Project Buildout: Industrial Park (ITE 130) – 1,139,800 SF	3,842	369	87	456	96	360	456

<sup>1</sup> Institute of Transportation Engineers, *Trip Generation: An Information Report*, Tenth Edition, Washington DC, 2017.

## 4.2 Trip Distribution

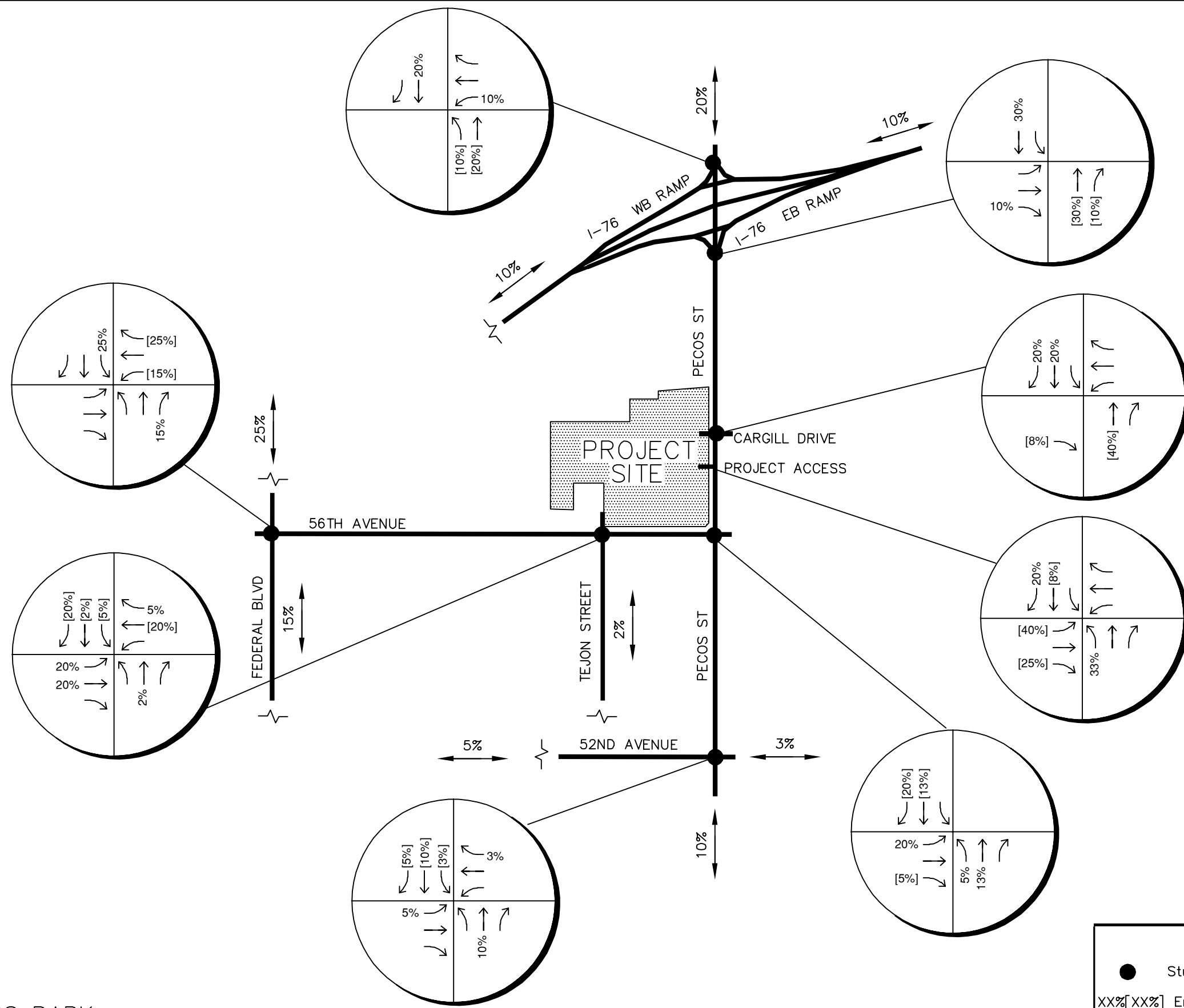
Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns, existing and anticipated surrounding demographic information, expected roadway improvements, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site-generated traffic that approaches the site from a given direction and departs the site back to the original source. The project trip distribution is illustrated in **Figure 7**.

## 4.3 Traffic Assignment

Traffic assignment was obtained by applying the project trip distribution to the estimated traffic generation of the development shown in **Table 1**. Project traffic assignment for Pecos Logistics Park is shown for the first phase of development in **Figure 8** as well as for the full project development in **Figure 9**.

## 4.4 Total (Background Plus Project) Traffic

Site traffic volumes were added to the background volumes to represent estimated traffic conditions for the first phase of development in 2020, the full project development in 2024, and the long term 2040 horizon. These total traffic volumes for the site are illustrated for the 2020, 2024, and 2040 horizon years in **Figure 10**, **Figure 11**, and **Figure 12** respectively. Again, the proposed development will be replacing the existing Rocky Mountain Prestress industrial facility. Traffic volumes to and from the existing facility are accounted for in the existing traffic counts and were not removed in the future background or total traffic volumes to provide a conservative analysis.



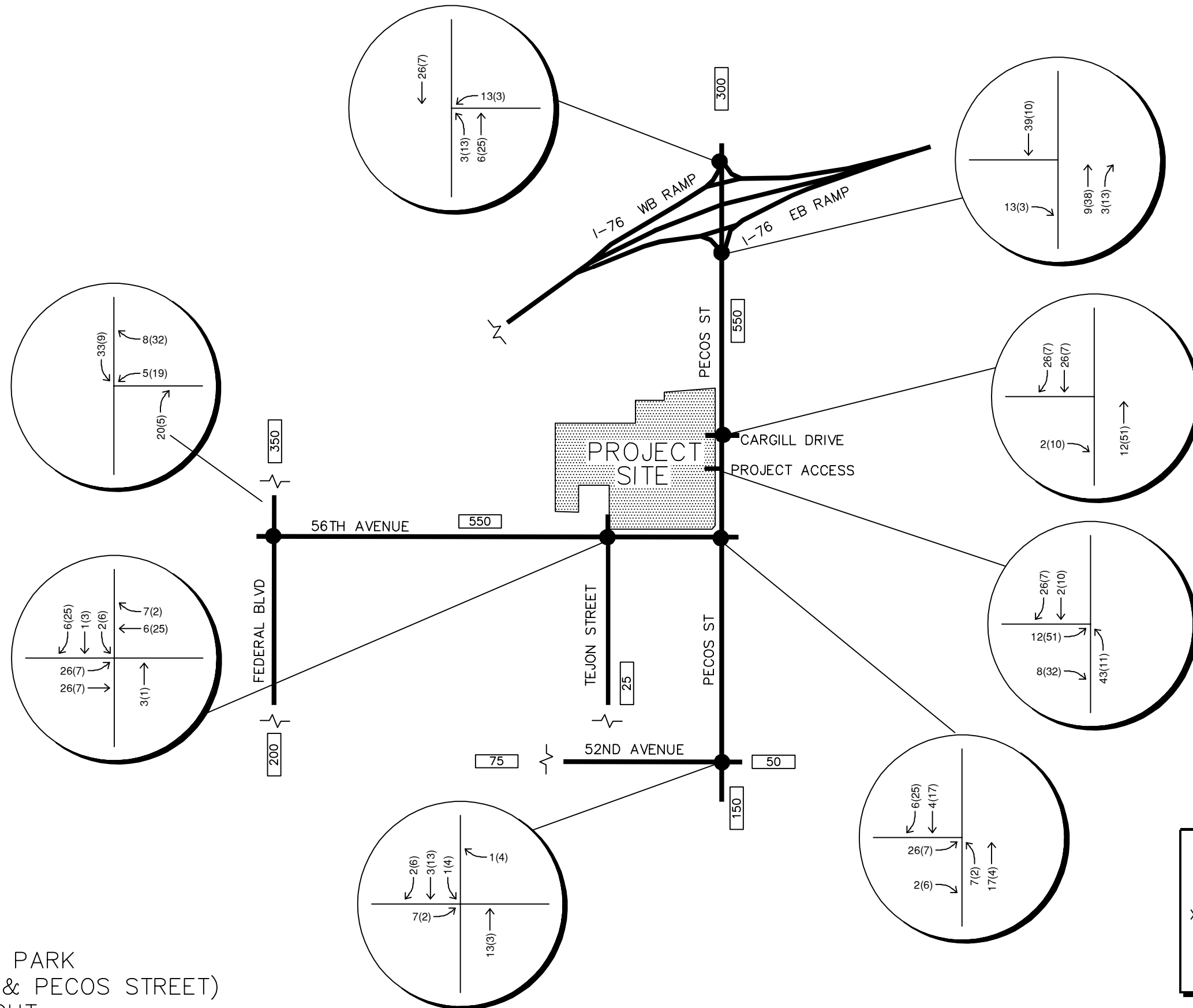
**LEGEND**

● Study Area Key Intersection

XX%[XX%] Entering[Exiting] Trip Distribution Percentage

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
PROJECT TRIP DISTRIBUTION



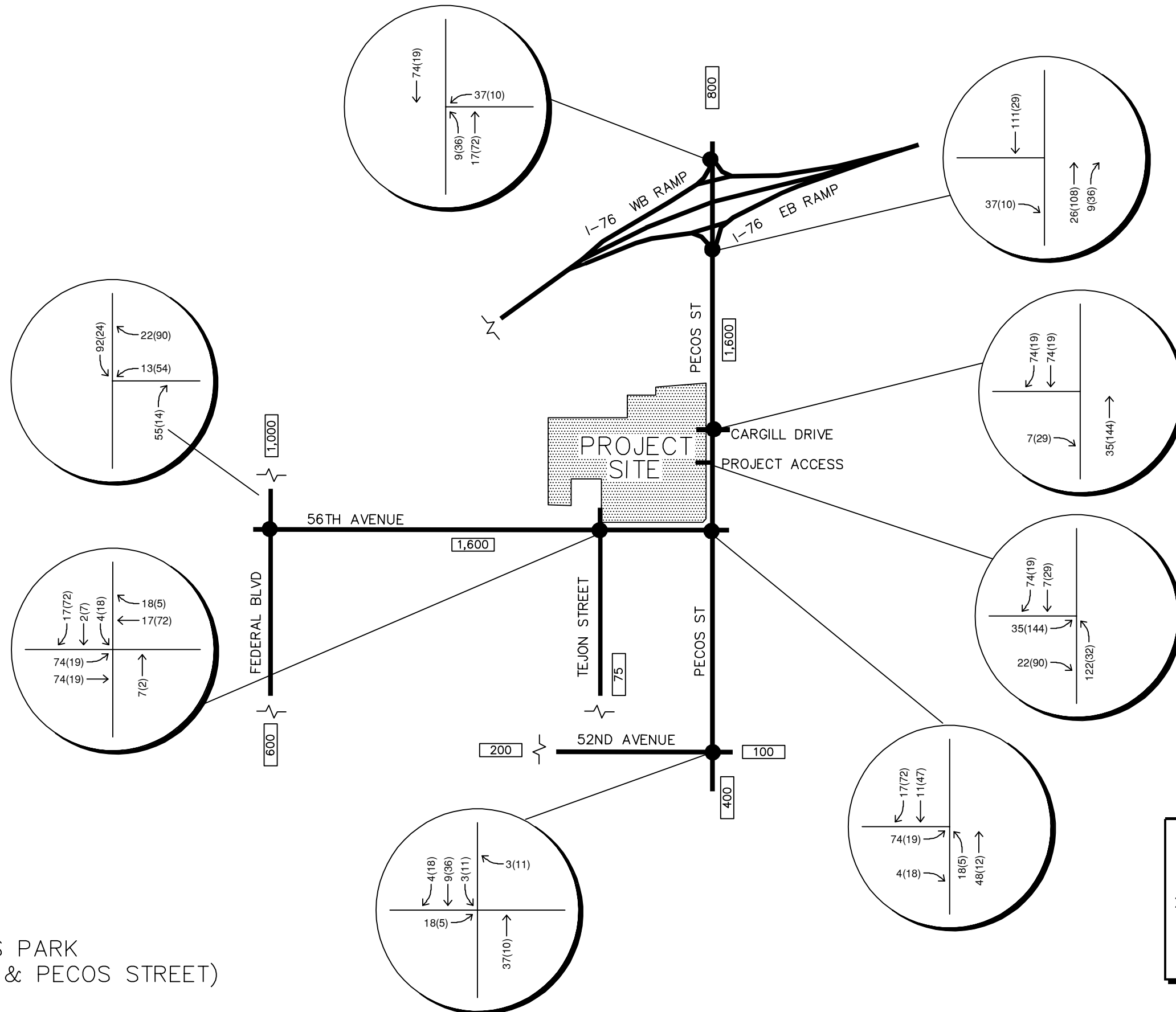


**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- [xx,x00] Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
PHASE 1 BUILD OUT  
2020 PROJECT TRAFFIC ASSIGNMENT

FIGURE 8

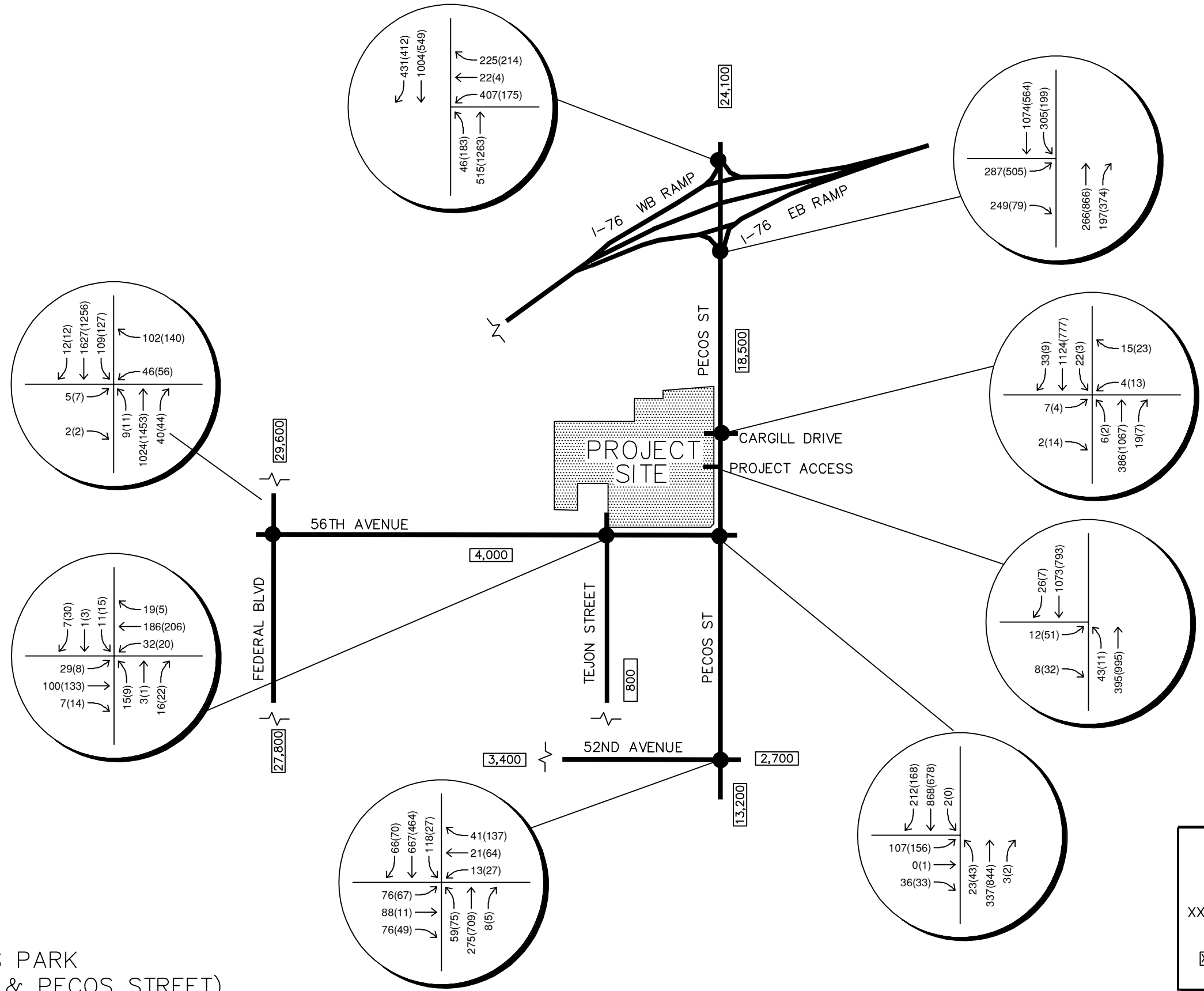


**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- [xx,x00] Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
FULL BUILD OUT  
2024 & 2040 PROJECT TRAFFIC ASSIGNMENT

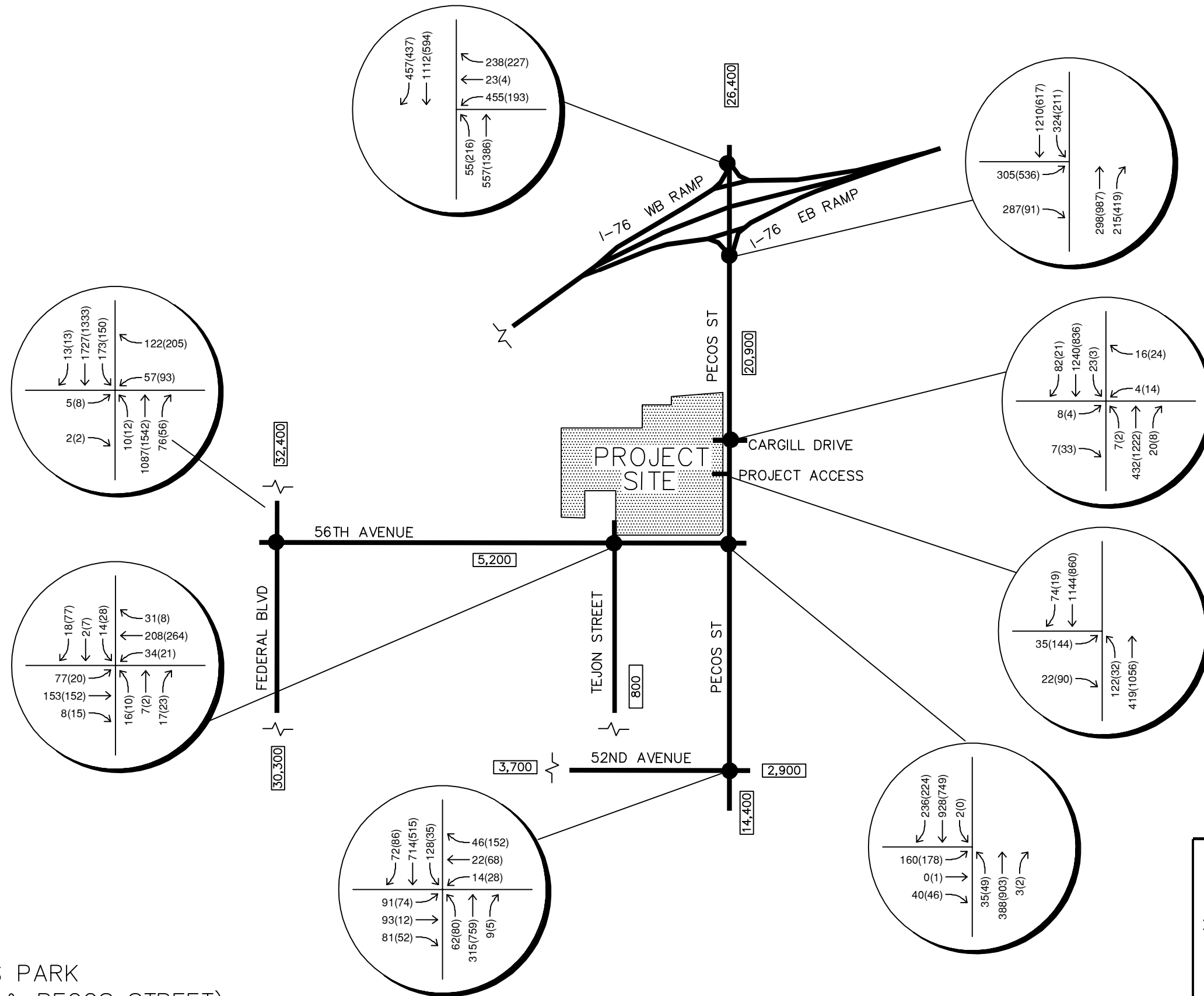
FIGURE 9



**LEGEND**

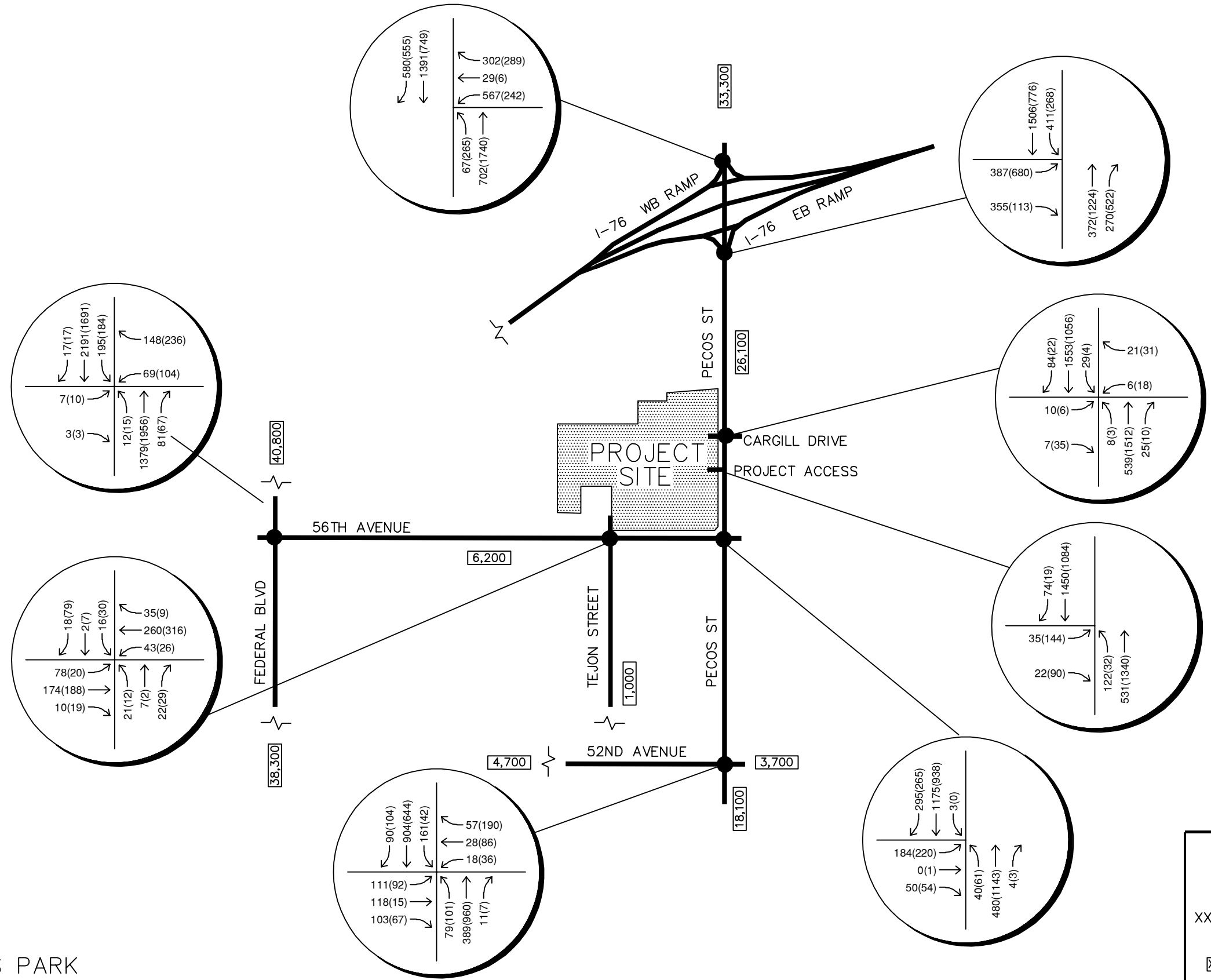
- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- xx,x00 Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
PHASE 1 BUILD OUT  
2020 BACKGROUND PLUS PROJECT TRAFFIC VOLUMES



PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
FULL BUILD OUT  
2024 BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

FIGURE 11



**LEGEND**

- Study Area Key Intersection
- xxx(xxx) Weekday AM(PM)  
Peak Hour Traffic Volumes
- [xx,x00] Estimated Daily Traffic Volume

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
FULL BUILD OUT  
2040 BACKGROUND PLUS PROJECT TRAFFIC VOLUMES

## 5.0 TRAFFIC OPERATIONS ANALYSIS

Kimley-Horn's analysis of traffic operations in the site vicinity was conducted to determine potential capacity deficiencies in the 2020 phase one horizon, 2024 full project development horizon, and the 2040 long term horizon at the identified key intersections and access driveways. The acknowledged source for determining overall capacity is the current edition of the *Highway Capacity Manual (HCM)*<sup>2</sup>.

### 5.1 Analysis Methodology

Capacity analysis results are listed in terms of Level of Service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). Typical standard traffic engineering practice recommends intersection LOS D for signalized intersections and LOS E for movements or approaches as the minimum threshold for acceptable operations. **Table 2** shows the definition of level of service for signalized and unsignalized intersections.

**Table 2 – Level of Service Definitions**

Level of Service	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Definitions provided from the Highway Capacity Manual, Sixth Edition, Transportation Research Board, 2016.

Study area intersections were analyzed based on average total delay analysis for signalized and unsignalized intersections. Under the unsignalized analysis, the LOS for a two-way stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. LOS for a two-way stop-controlled intersection is not defined for the intersection as a whole. LOS for signalized and all-way stop controlled intersections are defined for each approach and for the overall intersection.

<sup>2</sup> Transportation Research Board, *Highway Capacity Manual*, Sixth Edition, Washington DC, 2016.

## 5.2 Key Intersection Operational Analysis

Calculations for the level of service at the key intersections and project access driveways for the study area are provided in **Appendix D**. The existing year analysis is based on the lane geometry and intersection control shown in **Figure 2**. The signalized intersection analysis for all key study intersections utilizes the observed cycle lengths with existing phasing and timing. Synchro traffic analysis software was used to analyze the study area intersections and access driveways. The Synchro Highway Capacity Manual Sixth Edition (HCM) methodology reports were used to analyze intersection delay and level of service.

### I-76 Westbound Ramp and Pecos Street

The intersection of I-76 Westbound Ramp and Pecos Street is signalized with the northbound left turn operating with protected-permitted phasing. With this control and the existing lane configuration, this intersection currently operates at LOS B during the morning peak hour and LOS A during the afternoon peak hour. This intersection is anticipated to continue operating acceptably with the existing intersection lane configuration and control throughout the 2020, 2024, and 2040 horizons with or without the addition of Pecos Logistics Park project traffic. **Table 3** provides the results of the level of service at this intersection.

**Table 3 – I-76 Westbound Ramp and Pecos Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	12.4	B	6.2	A
2020 Background	12.8	B	6.2	A
2020 Background Plus Project	13.2	B	6.2	A
2024 Background	13.7	B	6.3	A
2024 Background Plus Project	14.6	B	6.3	A
2040 Background	15.3	B	6.3	A
2040 Background Plus Project	18.4	B	6.3	A

### **I-76 Eastbound Ramp and Pecos Street**

The intersection of I-76 Eastbound Ramp and Pecos Street is signalized with the southbound left turn operating with protected-permitted phasing. With this control and the existing lane configuration, this intersection currently operates at LOS A during the morning peak hour and LOS B during the afternoon peak hour. This intersection is anticipated to continue operating acceptably with the existing intersection lane configuration and control throughout the 2020, 2024, and 2040 horizons with or without the addition of Pecos Logistics Park project traffic. **Table 4** provides the results of the level of service at this intersection.

**Table 4 – I-76 Eastbound Ramp and Pecos Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	5.2	A	10.8	B
2020 Background	5.2	A	10.9	B
2020 Background Plus Project	5.2	A	11.0	B
2024 Background	5.2	A	11.4	B
2024 Background Plus Project	5.5	A	15.2	B
2040 Background	5.8	A	15.4	B
2040 Background Plus Project	5.9	A	15.8	B



### **Cargill Drive and Pecos Street**

Cargill Drive and Pecos Street is currently an unsignalized intersection with stop control along the eastbound access and westbound Cargill Drive approaches. The west leg at this intersection currently serves traffic for the existing Rocky Mountain Prestress facility, located within the proposed project site. The existing east leg serves the commercial and industrial uses located on the east side of Pecos Street. With this control and the existing lane configuration, all movements at this intersection currently operate acceptably with LOS C or better during morning peak hours and LOS E or better during afternoon peak hours.

With or without the addition of project traffic in 2020 and 2024, prolonged delays and unacceptable LOS for the eastbound and westbound left turning movements are anticipated. Resultantly, it is recommended that the existing west leg that will serve the proposed Pecos Logistics Park be restricted to right-in/right-out access movements only. To restrict the access to right turn movements only for exiting vehicles a R3-2 No Left Turn sign is recommended to be installed underneath the “STOP” sign. Since Pecos Street is unable to be widened to include a northbound left turn lane in this location due to the four lane bridge directly to the north, it is recommended that the left turn entrance be restricted as well. In addition, a R3-2 No Left Turn sign could be placed on the northwest corner of the access, visible to northbound drivers along Pecos Street to identify the left turn entrance restriction of the access as well.

As mentioned previously, Pecos Street is expected to be improved to include two travel lanes in each direction by the 2040 long term horizon. When this improvement occurs, all movements at this intersection are expected to operate acceptably in the year 2040 with exception of the westbound approach. As shown in the table, the westbound approach is anticipated to operate with unacceptable LOS in the future horizon years. It should be noted that Pecos Logistics Park project traffic does not add to this movement. Adams County officials may want to also consider restriction of the westbound Cargill Approach to right-in/right-out movements if future peak hour volumes are realized. **Table 5** provides the results of the level of service analysis for this intersection.

**Table 5 – Cargill Drive and Pecos Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<b>2018 Existing</b>				
Northbound Left	8.7	A	8.1	A
Eastbound Approach	15.4	C	21.9	C
Westbound Approach	11.3	B	37.4	E
Southbound Left	8.1	A	13.5	B
Southbound Through	0.3	A	0.2	A
<b>2020 Background</b>				
Northbound Left	8.7	A	8.2	A
Eastbound Approach	15.4	C	22.4	C
Westbound Approach	11.3	B	40.6	E
Southbound Left	8.1	A	15.5	C
Southbound Through	0.3	A	0.3	A
<b>2020 Background Plus Project #</b>				
Northbound Left	9.2	A	9.6	A
Eastbound Right	10.5	B	11.6	B
Westbound Approach	11.7	B	65.6	F
Southbound Left	8.1	A	11.6	B
Southbound Through	0.4	A	0.2	A
<b>2024 Background</b>				
Northbound Left	9.1	A	8.2	A
Eastbound Approach	17.4	C	38.9	E
Westbound Approach	12.0	B	93.4	F
Southbound Left	8.3	A	18.6	C
Southbound Through	0.5	A	0.5	A
<b>2024 Background Plus Project #</b>				
Northbound Left	10.1	B	10.0	A
Eastbound Right	11.1	B	12.6	B
Westbound Approach	13.8	B	140.0	F
Southbound Left	8.3	A	12.8	B
Southbound Through	0.9	A	0.2	A
<b>2040 Background #</b>				
Northbound Left	9.9	A	8.7	A
Eastbound Approach	50.4	F	21.7	C
Westbound Approach	10.3	B	21.3	C
Southbound Left	8.0	A	9.5	A
Southbound Through	1.0	A	0.1	A
<b>2040 Background Plus Project ##</b>				
Northbound Left	10.6	B	11.1	B
Eastbound Right	13.3	B	13.7	B
Westbound Approach	\$	F	53.7	F
Southbound Left	7.9	A	10.5	B
Southbound Through	3.8	A	0.1	A

# = West leg restricted to right-in/right-out access only

\$ = Delay exceeds capacity

## = NB Two Through Lanes

### 56<sup>th</sup> Avenue and Federal Boulevard

The intersection of 56<sup>th</sup> Avenue and Federal Boulevard is signalized with the southbound left turn operating with protected-permitted phasing and the northbound, westbound, and eastbound left turns operating with permitted-only phasing. With this control and the existing lane configuration, this intersection currently operates at LOS A during the morning and afternoon peak hours. This intersection is anticipated to continue operating acceptably with the existing intersection lane configuration and control throughout the 2020, 2024, and 2040 horizons with or without the addition of Pecos Logistics Park project traffic. **Table 6** provides the results of the level of service at this intersection.

**Table 6 – 56<sup>th</sup> Avenue and Federal Boulevard LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	8.8	A	8.8	A
2020 Background	8.9	A	9.0	A
2020 Background Plus Project	11.2	B	11.2	B
2024 Background	9.7	A	12.1	B
2024 Background Plus Project	11.3	B	16.0	B
2040 Background	11.8	B	16.7	B
2040 Background Plus Project	13.6	B	26.0	C

### 56<sup>th</sup> Avenue and Tejon Street

56<sup>th</sup> Avenue and Tejon Street is currently an unsignalized intersection operating with all-way stop control. With this control and the existing lane configuration, all movements at this intersection currently operate acceptably with LOS A during the weekday peak hours. Currently, the north leg of this intersection serves as an access to the existing industrial site located within the project study area. This project access is to remain and serve Pecos Logistics Park traffic into the development site. With this control and the existing lane configuration, this intersection is anticipated to continue operating acceptably throughout the 2020, 2024, and 2040 horizons with or without the addition of Pecos Logistics Park project traffic. Therefore, the existing all way stop control and single lane approach conditions are expected to successfully accommodate traffic throughout the 2040 horizon without modification to the intersection or roadways. **Table 7** provides the results of the level of service at this intersection.

**Table 7 – 56<sup>th</sup> Avenue and Tejon Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	8.7	A	8.6	A
2020 Background	8.7	A	8.6	A
2020 Background Plus Project	9.3	A	9.4	A
2024 Background	9.0	A	8.9	A
2024 Background Plus Project	11.0	B	11.6	B
2040 Background	10.1	B	9.7	A
2040 Background Plus Project	13.0	B	13.9	B

### 56<sup>th</sup> Avenue and Pecos Street

The intersection of 56<sup>th</sup> Avenue and Pecos Street is currently signalized with the northbound and southbound left turns operating with protected-permitted phasing and the eastbound left turn operating with permitted-only phasing due to the east leg being a one-way entrance access only. With this control and the existing lane configuration, this intersection currently operates at LOS B during the morning peak hour and LOS A during the afternoon peak hour. With the existing lane configuration and control, this intersection is anticipated to operate acceptably throughout the full development of Pecos Logistics Park with LOS B during peak hours. As mentioned previously, Pecos Street is expected to be improved to include two travel lanes in each direction by the 2040 long term horizon. When this improvement occurs, the southbound right turn lane is anticipated to be reconstructed. With these recommended improvements, this intersection is expected to operate acceptably with LOS A in the year 2040. **Table 8** provides the results of the level of service at this intersection.

**Table 8 – 56<sup>th</sup> Avenue and Pecos Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	10.0	B	9.6	A
2020 Background	10.2	B	9.8	A
2020 Background Plus Project	13.5	B	11.0	B
2024 Background	13.7	B	11.4	B
2024 Background Plus Project	24.0	C	14.8	B
2040 Background	35.0	D	25.5	C
2040 Background Plus Project #	6.5	A	4.1	A

#NB and SB Two Through Lanes

### 52<sup>nd</sup> Avenue and Pecos Street

The intersection of 52<sup>nd</sup> Avenue and Pecos Street currently operates under signalized control with permitted-only left turn phasing on all four approaches. With this control and the existing lane configuration, this intersection currently operates at LOS B during the morning and afternoon peak hours. This intersection is anticipated to continue operating acceptably with LOS B with the existing intersection lane configuration and control throughout the 2020, 2024, and 2040 horizons with or without the addition of Pecos Logistics Park project traffic. **Table 9** provides the results of the level of service at this intersection.

**Table 9 – 52<sup>nd</sup> Avenue and Pecos Street LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2018 Existing	10.2	B	10.9	B
2020 Background	10.4	B	11.0	B
2020 Background Plus Project	11.2	B	11.3	B
2024 Background	11.8	B	12.1	B
2024 Background Plus Project	11.8	B	14.4	B
2040 Background	13.4	B	15.7	B
2040 Background Plus Project	16.8	B	16.9	B

### **Pecos Street Full Movement Access**

With development of Pecos Logistics Park, a new proposed full movement project access will be constructed, and it is recommended that this new intersection be signalized. It is anticipated that warrants will be met with development upon completion of the first phase of the project. A four-hour vehicle volume signal warrant analysis was performed for the intersection of Pecos Street and the proposed project access in 2020 for the morning and afternoon peak hours. A signal is anticipated to be above the traffic volume threshold for the two afternoon peak hours (4 to 5 pm and 5 to 6 pm) during the higher exiting volumes. It will likely be warranted with inclusion of the shoulder peak hours from 3 to 4 pm and 6 to 7 pm as well. The signal warrant analysis figure for this intersection is included in **Appendix F**.

When this project access intersection is constructed it is recommended the northbound approach provides a separate left turn lane and one through lane while the southbound approaches provides two through lanes with the outside lane being a shared through/right turn lane. It is recommended that the proposed west leg for this access be constructed with separate left and right turn lanes and have an adequate width to allow for entering truck movements to occur without encroaching upon the exiting lanes. Based on the operational analysis, four vehicles of storage (100 feet) were found to be needed for the eastbound left turn lane and three vehicles of storage length (75 feet) was found to be needed for the eastbound right turn lane for the 2024 full buildout. These throat depths should be planned with project development.

In order to meet Adams County standards, the new northbound left turn lane length should include 50 feet for storage and a 120-foot taper length when phase one of development is completed in 2020. By the full project buildout in 2024, it is recommended that the northbound left turn lane length include a 125-foot length with a 120-foot taper length. With this configuration, all movements at this intersection are anticipated to operate at acceptable levels of service during the weekday morning and afternoon peak hours throughout all stages of project development.

As stated previously, it is understood that Pecos Street will be improved to include two through lanes in the northbound direction in this section of roadway by the 2040 long term horizon. With this improvement, this intersection is anticipated to continue to operate acceptably during peak hours. **Table 10** provides the results of the level of service at this intersection.

**Table 10 –Pecos Street and Access LOS Results**

Scenario	AM Peak Hour		PM Peak Hour	
	Delay (sec)	LOS	Delay (sec)	LOS
2020 Background Plus Project	1.1	A	3.3	A
2024 Background Plus Project	1.9	A	6.6	A
2040 Background Plus Project #	2.1	A	4.7	A

#NB Two Through Lanes

### 5.3 Turn Bay Length Analysis

Left turn lane queuing analysis was conducted for all study area intersections including the proposed project access intersection. Results were obtained from the 95<sup>th</sup> percentile queue lengths obtained from the Synchro analysis. Left turn storage length queuing analysis worksheets at the signalized intersections are provided in **Appendix E**. Queue lengths are shown on the worksheets for the unsignalized intersections on the operational analysis sheets within **Appendix D**. Results of the turn lane length analysis at the key study intersections and project access intersections are provided in **Table 11**.



**Table 11 – Turn Lane Length Analysis Results**

Intersection Turn Lane	Existing Turn Lane Length (feet)	2020 Total Queue Length (feet)	2020 Recommended Turn Lane Length (feet)	2024 Total Queue Length (feet)	2024 Recommended Turn Lane Length (feet)	2040 Total Queue Length (feet)	2040 Recommended Turn Lane Length (feet)
<b>I-76 WB Ramp &amp; Pecos St</b>							
Westbound Left	250' C	133'	250' C	136'	250' C	186'	250' C
Westbound Right	325'	41'	325'	52'	325'	100'	325'
Northbound Left	250' DL	25'	250' DL	46'	250' DL	25'	250' DL
Southbound Right	375' C	49'	375' C	65'	375' C	59'	375' C
<b>I-76 EB Ramp &amp; Pecos St</b>							
Eastbound Left	535'	238'	535'	260'	535'	246'	535'
Eastbound Right	500'	178'	500'	120'	500'	271'	500'
Northbound Right	C	25'	C	51'	C	39'	C
Southbound Left	125' DL	28'	125' DL	61'	125' DL	54'	125' DL
<b>56<sup>th</sup> Avenue &amp; Federal Blvd</b>							
Westbound Right	150'	42'	150'	42'	150'	<b>249'</b>	<b>250'</b>
Northbound Left	325'	25'	325'	25'	325'	25'	325'
Northbound Right	125'	25'	125'	25'	125'	33'	125'
Southbound Left	175'	34'	175'	92'	175'	<b>285'</b>	<b>300'</b>
<b>56<sup>th</sup> Avenue &amp; Pecos Street</b>							
Eastbound Right	60'	25'	60'	25'	60'	25'	60'
Northbound Left	65'	25'	65'	25'	65'	25'	65'
Southbound Left	150'	25'	150'	25'	150'	25'	150'
Southbound Right	375'	40'	375'	25'	375'	25'	<b>200' S + 120' T</b>
<b>52<sup>nd</sup> Avenue &amp; Pecos Street</b>							
Northbound Left	50'	39'	50'	<b>61'</b>	<b>75'</b>	95'	<b>100'</b>
Southbound Left	50'	25'	50'	25'	50'	25'	50'
<b>Pecos St &amp; Project Access</b>							
Eastbound Left	DNE	45'	<b>50'</b>	91'	<b>100'</b>	92'	100'
Eastbound Right	DNE	25'	<b>25'</b>	62'	<b>75'</b>	54'	75'
Northbound Left	DNE	25'	<b>50' S + 120' T</b>	92'	<b>125' S + 120' T</b>	99'	125' S + 120' T

DNE = Does Not Exist; C = Continuous Turn Lane; DL = Dual Lanes; S = Storage Length; T = Taper Length

As shown in the table representing the queuing results, all anticipated queues are accommodated or managed within existing or proposed turn lanes at the study area intersections with full build out of the project in 2024 with exception of the northbound left turn lane of the 52<sup>nd</sup> Avenue/Pecos Street intersection. This turn lane is not impacted by project traffic but could be restriped to provide additional turn lane length if desired by the County.

By 2040, the westbound right turn and southbound left turn lanes at the intersection of 56<sup>th</sup> Avenue and Federal Boulevard may need to be extended to 250 feet and 300 feet, respectively. Likewise, the northbound left turn lane at 52<sup>nd</sup> Avenue and Pecos Street may need to be further extended to 100 feet.

When Pecos Street is improved to be a four-lane roadway, the southbound right turn lane is anticipated to be reconstructed at the intersection of 56<sup>th</sup> Avenue and Pecos Street. In order to meet Adams County standards, the new southbound right turn lane should be 200 feet long with a 120-foot taper.

#### **5.4 Traffic Signal Progression Analysis**

A traffic signal progression analysis was conducted along the approximate 7,000-foot long segment of Pecos Street from I-76 Westbound Ramps to the north and 52<sup>nd</sup> Avenue to the south due to the proposed signalized access for this project. This traffic signal would be installed at the access location approximately 750 feet north of 56<sup>th</sup> Avenue and 350 feet south of the Cargill Drive. This will be a commercial access to serve the Pecos Logistics Park industrial development project along Pecos Street. These limits were studied as being signalized intersections within one mile of the proposed signalized intersection.

The signal progression analysis was conducted to determine if a traffic signal proposed at the Pecos Street Full Movement Access intersection would interrupt the northbound and southbound bandwidth and platooning of vehicles along Pecos Street. Bandwidth is the window of time within the cycle length of a traffic signal that allows vehicles to travel through coordinated intersections without stopping. The goal of signal coordination is to provide sufficient bandwidth to allow for the progression of traffic along a corridor. Intersection coordination bandwidths for the study area were estimated using *Synchro 10* and were evaluated under phase one of project development in 2020, full project development in 2024, and long-term 2040 total traffic conditions during the weekday morning and afternoon peak hours. The existing signalized intersections along this corridor are running with a 60-second cycle length.

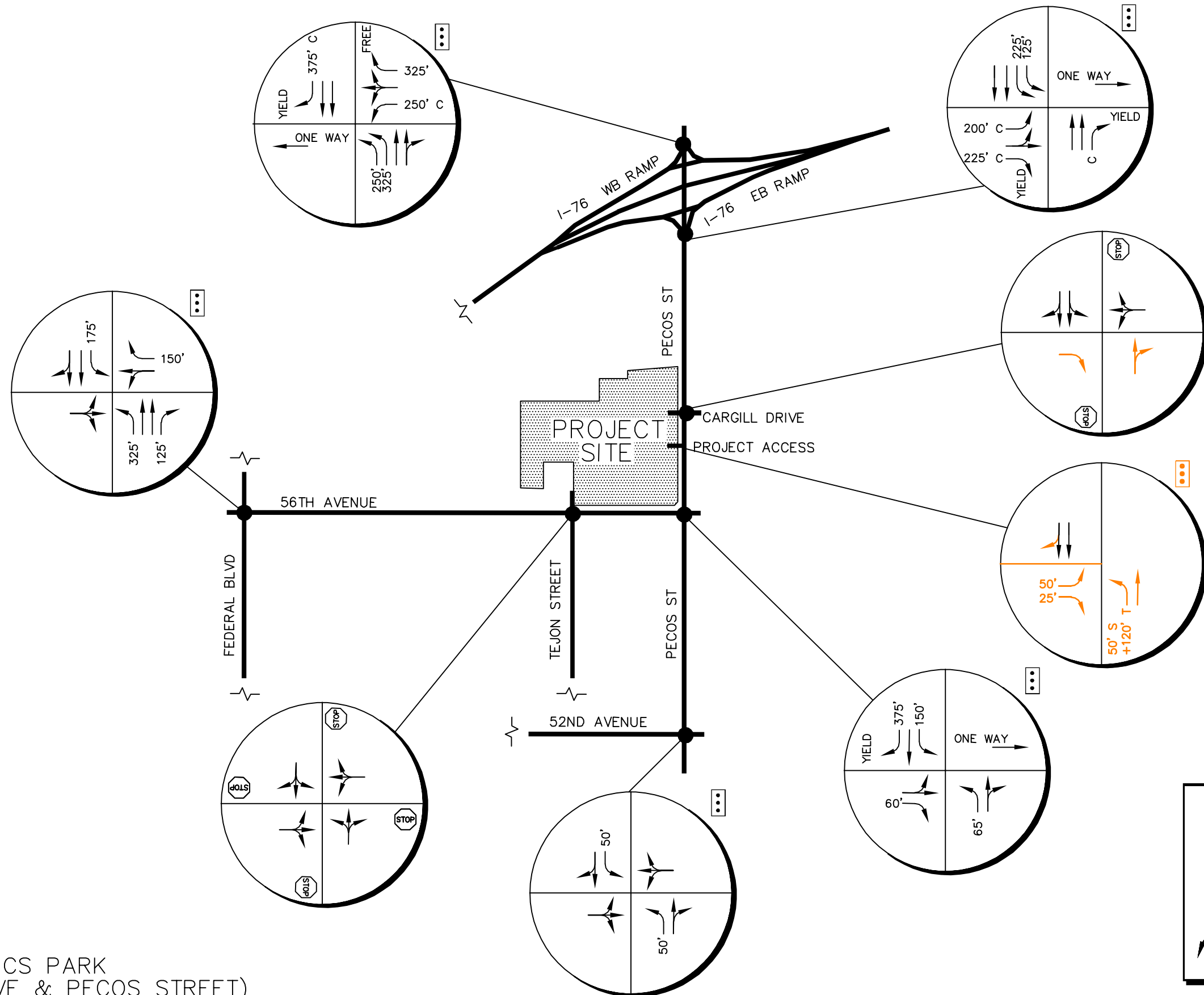
With the proposed access as a signalized intersection and coordinated with the intersections of 52<sup>nd</sup> Avenue/Pecos Street, 56<sup>th</sup> Avenue/Pecos Street, I-76 Eastbound/Pecos Street, and I-76 Westbound/Pecos Street, the available vehicle bandwidth through the studied Pecos Street corridor is anticipated to be 18 seconds in each direction in 2020, when phase one of construction is completed. Likewise, the bandwidth during the afternoon peak hour is anticipated to be 19 seconds in each direction in 2020. These bandwidths equate to a platoon efficiency of 30 percent and 31.67 percent in the morning and afternoon peak hours, respectively.

The available vehicle bandwidth through the studied Pecos Street corridor is anticipated to be 16 seconds in each direction during the morning peak hour in 2024, when the full project buildout is completed. Likewise, the bandwidth during the afternoon peak hour is anticipated to be 19 seconds in the northbound direction and 17 seconds in the southbound direction in 2024. These bandwidths equate to a platoon efficiency of 26.67 percent in the morning peak hour and 31.67 percent in the northbound direction and 28.33 percent in the southbound direction in the afternoon peak hour.

The available vehicle bandwidth through the studied Pecos Street corridor with the proposed access as a traffic signal is anticipated to be 21 seconds in each direction during the morning peak hour with projected 2040 total traffic volumes. Similarly, the available bandwidth during the afternoon peak hour is anticipated to be 16 seconds in each direction in 2040. These bandwidths equate to platoon efficiencies of approximately 35 percent and 26.67 percent in the morning and afternoon peak hours, respectively.

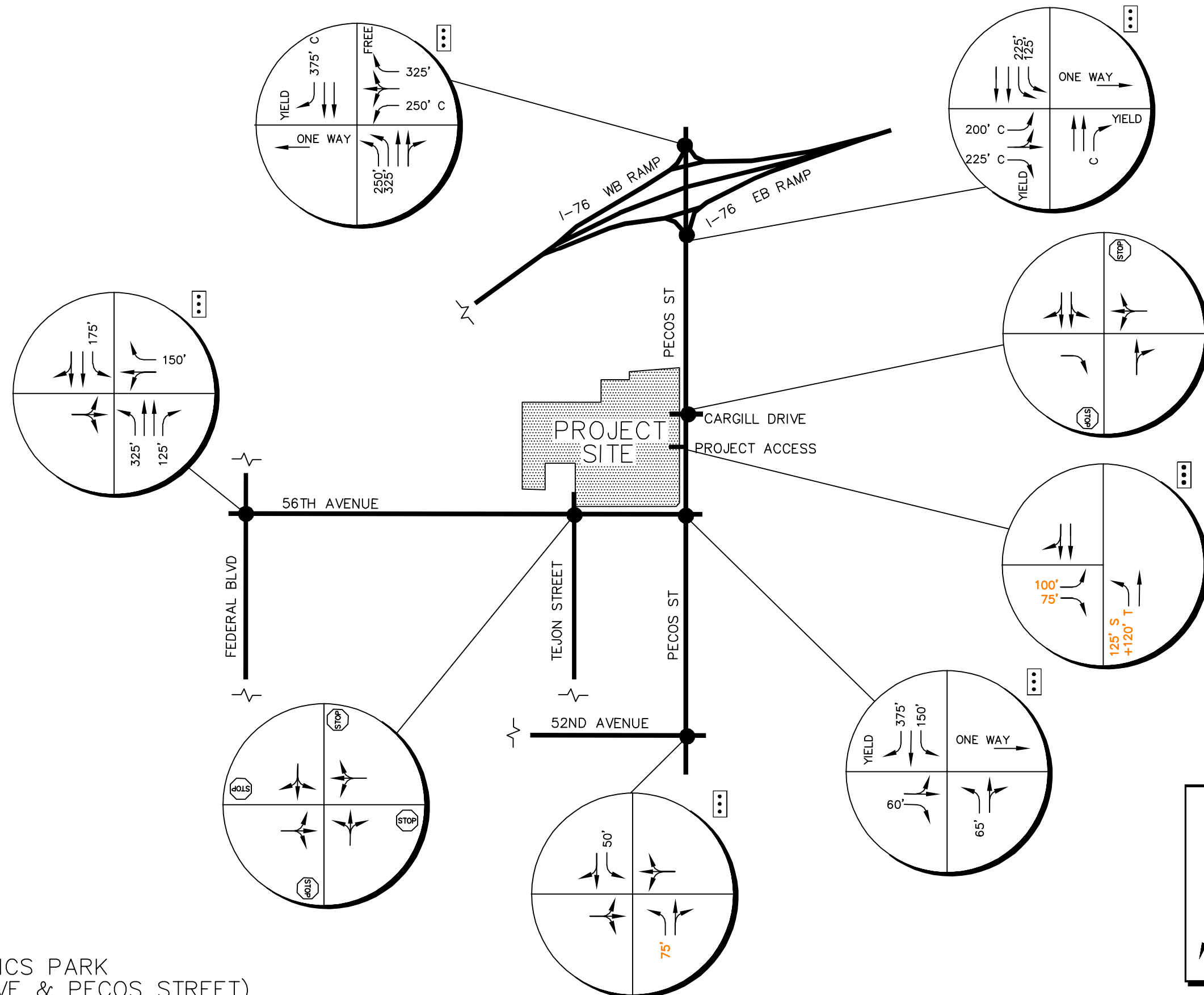
A goal platoon efficiency for a corridor is typically 25 percent or better, or does not degrade the existing signal progression, which has been achieved in both 2020, 2024, and 2040 for both directions of travel. Therefore, it is believed that a traffic signal along Pecos Street at the proposed Pecos Logistics Park access would maintain an acceptable platoon efficiency along the Pecos Street corridor if coordinated with the adjacent traffic signals. Of note, increased signal progression and longer bands along Pecos Street could be achieved if the cycle lengths were increased for the traffic signals along the corridor. Time-space diagrams for the corridor are attached in **Appendix G**.

Based on the results of the operational analysis, the recommended lane configurations and control of the study key intersections and project access driveway in 2020, 2024, and 2040 are shown in **Figure 13, Figure 14, and Figure 15**, respectively.



PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
2020 PHASE 1 RECOMMENDED  
LANE CONFIGURATIONS AND CONTROL

FIGURE 13  
Kimley-Horn

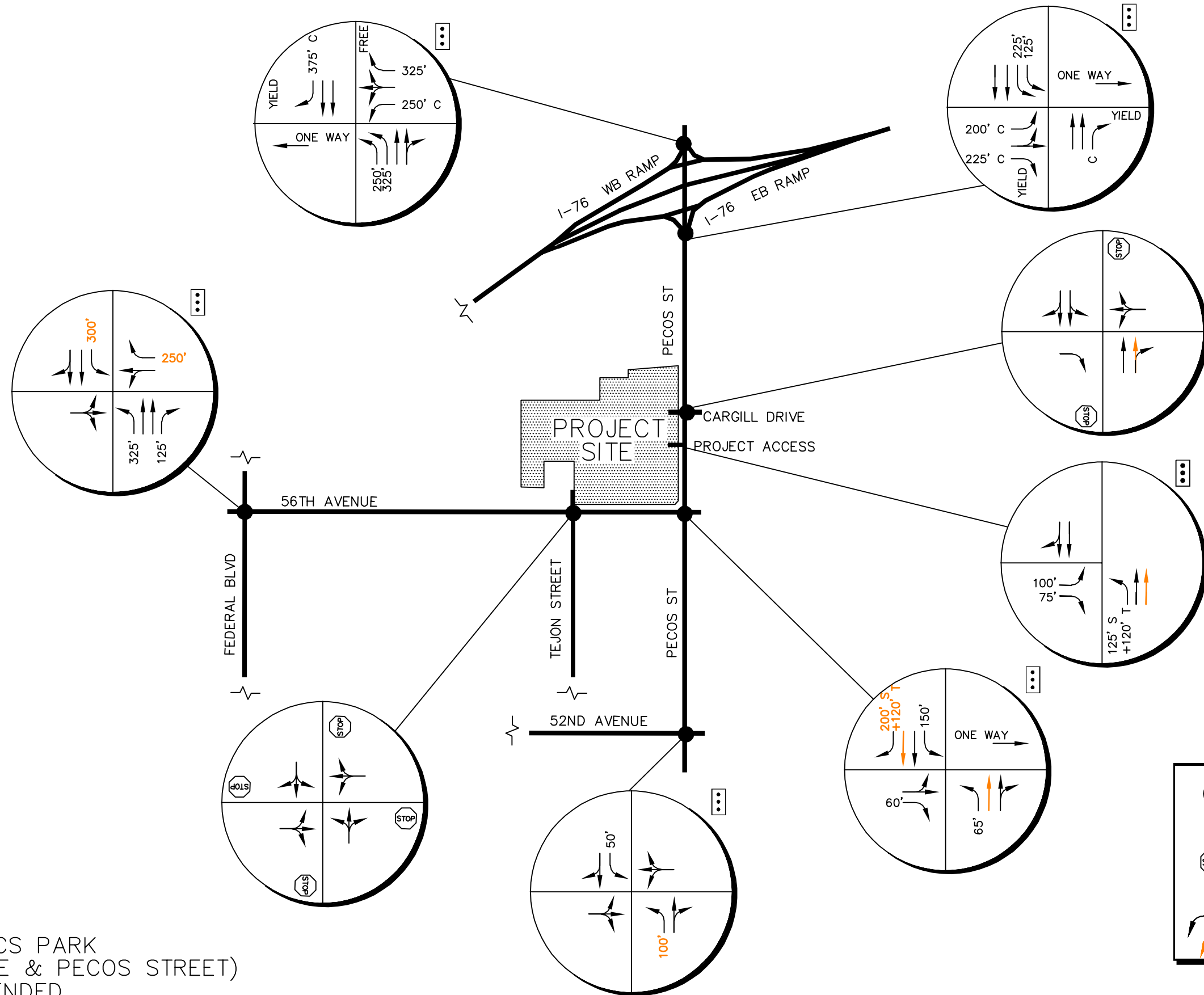


**LEGEND**

- Study Area Key Intersection
- ⋮ Signalized Intersection
- STOP Stop Controlled Approach
- C Continous Right Turn Lane
- 100' Turn Lane Length (feet)
- Improvement

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
2024 FULL BUILD OUT RECOMMENDED  
LANE CONFIGURATIONS AND CONTROL

FIGURE 14  
Kimley-Horn



**LEGEND**

- Study Area Key Intersection
- ⋮ Signalized Intersection
- STOP Stop Controlled Approach
- C Continous Right Turn Lane
- 100' Turn Lane Length (feet) Improvement

PECOS LOGISTICS PARK  
(NWC 56TH AVE & PECOS STREET)  
2040 RECOMMENDED  
LANE CONFIGURATIONS AND CONTROL

FIGURE 15

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

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Based on the analysis presented in this report, Kimley-Horn believes the proposed Pecos Logistics Park industrial facility will be successfully incorporated into the existing and future roadway network. The proposed project development and expected traffic volumes resulted in the following recommendations and conclusions:

- The Adams County Transportation Plan identifies Pecos Street to be a four-lane arterial from 52<sup>nd</sup> Avenue to I-76 through the project study area. When improved, Pecos Street is anticipated to be reconstructed to include the five-lane cross section as identified in the County standards for minor-arterial to match the existing condition of the roadway south of 56<sup>th</sup> Avenue and the Pecos Street bridge to the north of Cargill Drive. It is recommended that the west side improvements along southbound Pecos Street be constructed as part of the project.
- A new signalized full movement project access to Pecos Logistics Park is recommended to be constructed along Pecos Street. When this project access intersection is constructed it is recommended the northbound approach provides a separate left turn lane and one through lane while the southbound approach provides two through lanes with the outside lane being a shared through/right turn lane. It is recommended that the proposed west leg for this access be constructed with separate left and right turn lanes and have an adequate width to allow for entering truck movements to occur without encroaching upon the exiting lanes. It is recommended the eastbound left turn lane provide 100 feet of length and the eastbound right turn lane 75 feet. These throat depths should be planned with the site development. Per Adams County standards, the new northbound left turn lane should be constructed and designated to include a length of 125 feet with a 120-foot taper length to accommodate full build out project traffic volumes.
- It is recommended that the north project access to align with the Cargill Drive and Pecos Street intersection be restricted to right-in/right-out movements only due to the absence of a left turn lane along Pecos Street because of the viaduct to the north. To restrict the access to right turn movements only for exiting vehicles, a R3-2 No Left Turn sign is recommended to be installed underneath the existing "STOP" sign. In addition, a R3-2 No Left Turn sign

could be placed on the northwest corner of the access intersection, visible to northbound drivers along Pecos Street to identify the left turn entrance restriction of the access as well. Adams County officials may want to consider restricting the westbound Cargill Drive approach to right-in/right-out movements only if future traffic volumes are realized.

- When Pecos Street is improved to be a four-lane roadway, the southbound right turn lane will be reconstructed at the intersection of 56<sup>th</sup> Avenue and Pecos Street. It is recommended that this right turn lane include a length of 200 feet plus 120-foot taper.
- The existing all way stop control and single lane approach conditions of the 56<sup>th</sup> Avenue and Tejon Street intersection are expected to successfully accommodate Pecos Logistics Park project traffic throughout the 2040 horizon without modification to the intersection or roadways.
- It is anticipated that the northbound left turn lane at the intersection of 52<sup>nd</sup> Avenue and Pecos Street may need to be restriped to 75 feet by 2024 and further extended to 100 feet by 2040 if future traffic volumes are realized. It is believed that adequate pavement width is available to restripe this northbound left turn lane if desired by the County. The northbound left turn movement at this intersection is not impacted by project traffic.
- By the 2040 long term horizon at the intersection of 56<sup>th</sup> Avenue and Federal Boulevard, the westbound right turn lane may need to be extended to 250 feet and the southbound left turn lane may need to be extended to 300 feet if future volumes are realized.
- All on-site and off-site signing and striping improvements should be incorporated into the Civil Drawings and conform to Adams County Standards as well as the Manual on Uniform Traffic Control Devices – 2009 Edition (MUTCD).



# APPENDICES

# APPENDIX A

## Intersection Count Sheets



Adams County, CO  
 NWC 56th & Pecos Industrial  
 AM Peak  
 I-76 WB Ramp and Pecos St

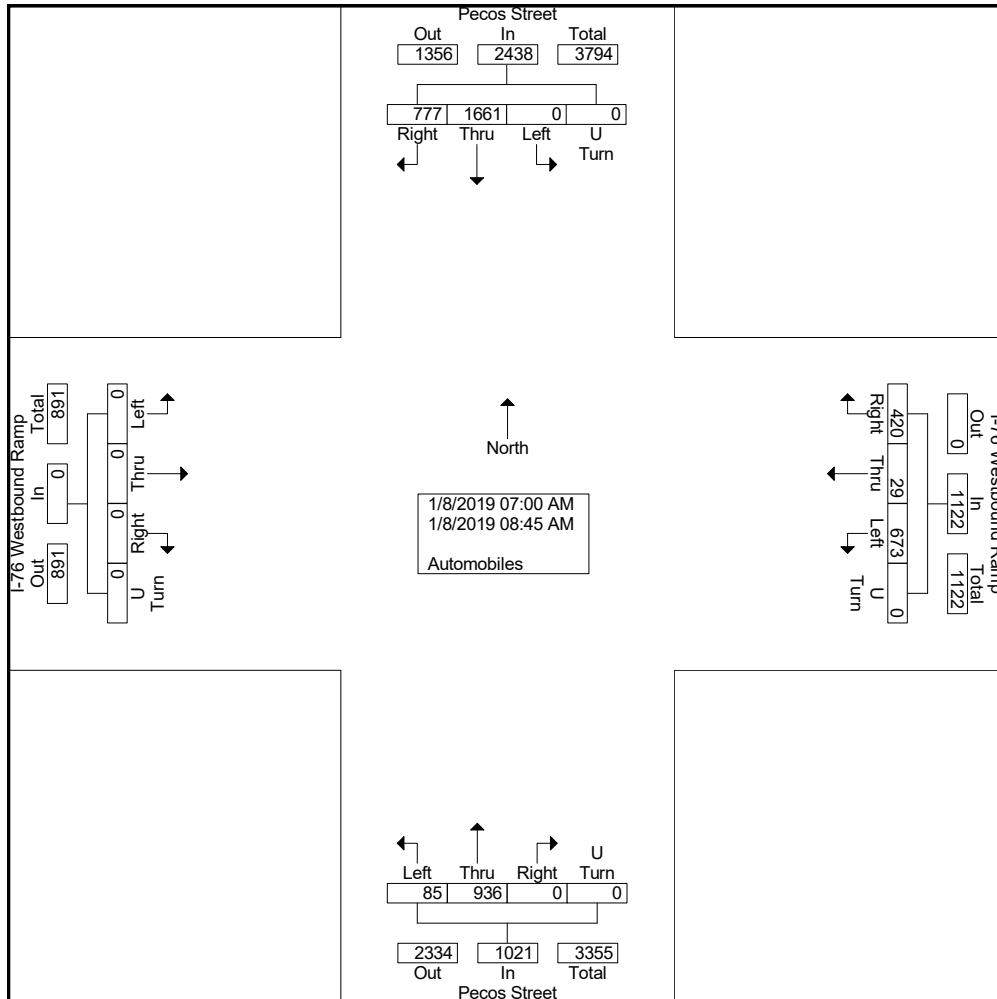
File Name : I 76 WB Ramp and Pecos AM  
 Site Code : IPO 407  
 Start Date : 1/8/2019  
 Page No : 1

Groups Printed- Automobiles

Start Time	I-76 Westbound Ramp Eastbound					I-76 Westbound Ramp Westbound					Pecos Street Northbound					Pecos Street Southbound					Int. Total
	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	
07:00 AM	0	0	0	0	0	47	0	44	0	91	8	101	0	0	109	0	213	114	0	327	527
07:15 AM	0	0	0	0	0	71	0	43	0	114	19	120	0	0	139	0	245	104	0	349	602
07:30 AM	0	0	0	0	0	78	0	49	0	127	8	113	0	0	121	0	243	132	0	375	623
07:45 AM	0	0	0	0	0	132	16	67	0	215	9	118	0	0	127	0	255	93	0	348	690
Total	0	0	0	0	0	328	16	203	0	547	44	452	0	0	496	0	956	443	0	1399	2442
08:00 AM	0	0	0	0	0	101	5	59	0	165	6	143	0	0	149	0	206	89	0	295	609
08:15 AM	0	0	0	0	0	75	3	52	0	130	12	102	0	0	114	0	216	86	0	302	546
08:30 AM	0	0	0	0	0	88	5	50	0	143	9	115	0	0	124	0	148	86	0	234	501
08:45 AM	0	0	0	0	0	81	0	56	0	137	14	124	0	0	138	0	135	73	0	208	483
Total	0	0	0	0	0	345	13	217	0	575	41	484	0	0	525	0	705	334	0	1039	2139
Grand Total	0	0	0	0	0	673	29	420	0	1122	85	936	0	0	1021	0	1661	777	0	2438	4581
Apprch %	0	0	0	0		60	2.6	37.4	0		8.3	91.7	0	0		0	68.1	31.9	0		
Total %	0	0	0	0	0	14.7	0.6	9.2	0	24.5	1.9	20.4	0	0	22.3	0	36.3	17	0	53.2	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
I-76 WB Ramp and Pecos St

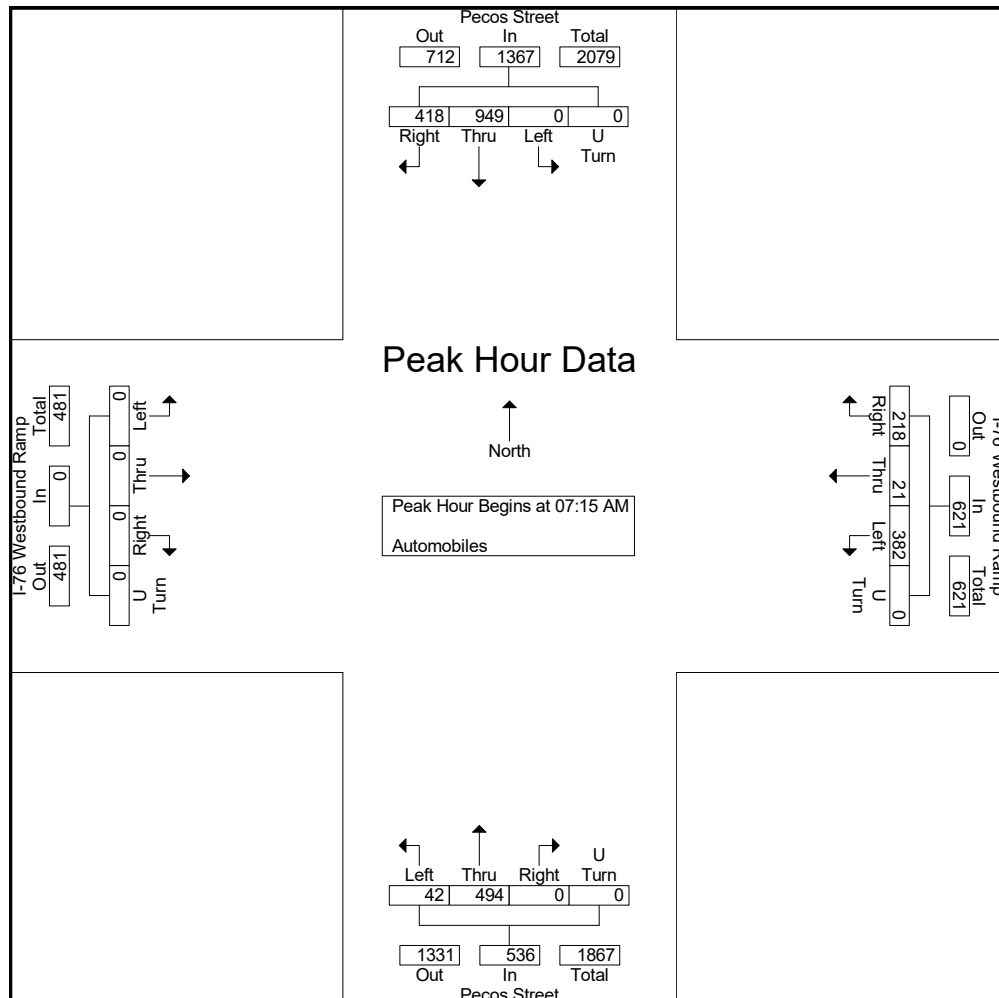
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Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
I-76 WB Ramp and Pecos St

File Name : I 76 WB Ramp and Pecos AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	I-76 Westbound Ramp Eastbound					I-76 Westbound Ramp Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	0	0	0	0	0	71	0	43	0	114	19	120	0	0	139	0	245	104	0	349	602
07:30 AM	0	0	0	0	0	78	0	49	0	127	8	113	0	0	121	0	243	132	0	375	623
07:45 AM	0	0	0	0	0	132	16	67	0	215	9	118	0	0	127	0	255	93	0	348	690
08:00 AM	0	0	0	0	0	101	5	59	0	165	6	143	0	0	149	0	206	89	0	295	609
Total Volume	0	0	0	0	0	382	21	218	0	621	42	494	0	0	536	0	949	418	0	1367	2524
% App. Total	0	0	0	0	0	61.5	3.4	35.1	0		7.8	92.2	0	0		0	69.4	30.6	0		
PHF	.000	.000	.000	.000	.000	.723	.328	.813	.000	.722	.553	.864	.000	.000	.899	.000	.930	.792	.000	.911	.914



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 WB Ramp and Pecos St

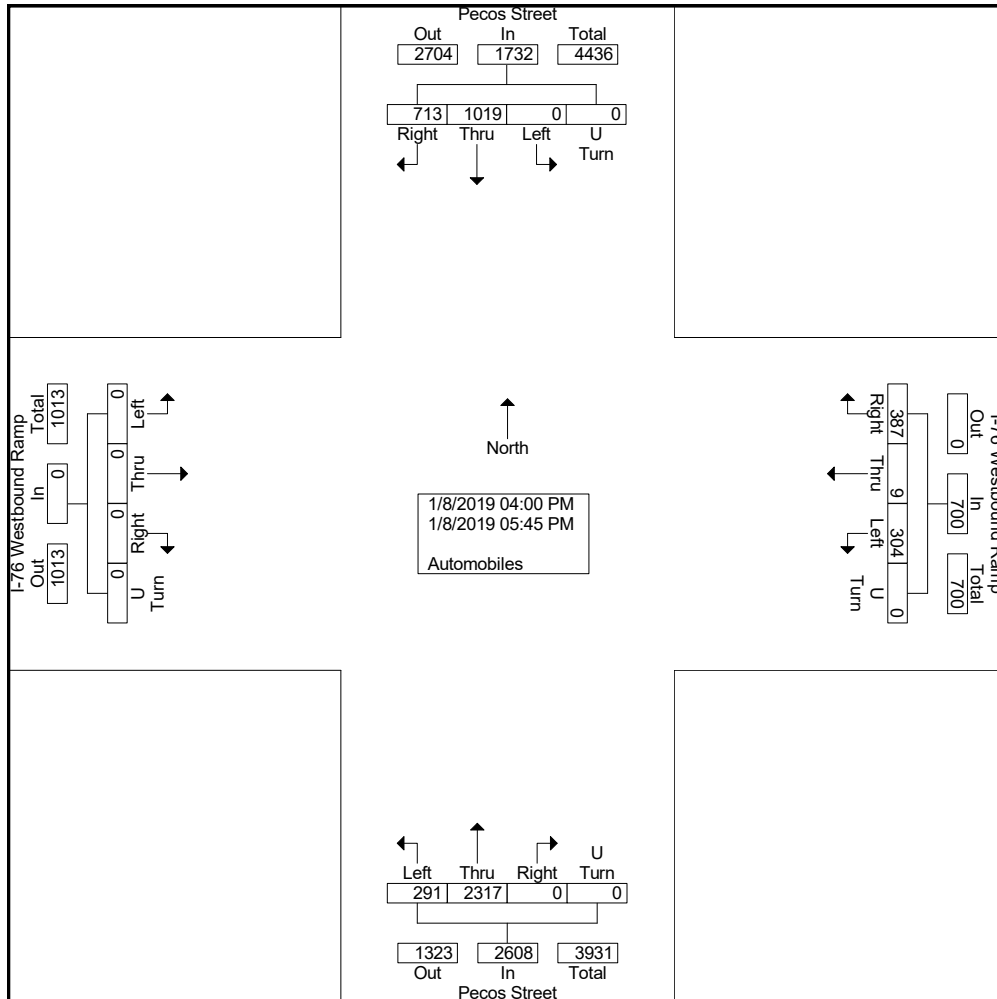
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Page No : 1

Groups Printed- Automobiles

	I-76 Westbound Ramp Eastbound					I-76 Westbound Ramp Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	0	0	0	0	0	31	0	54	0	85	42	284	0	0	326	0	130	82	0	212	623
04:15 PM	0	0	0	0	0	32	4	42	0	78	41	265	0	0	306	0	157	92	0	249	633
04:30 PM	0	0	0	0	0	47	3	58	0	108	47	283	0	0	330	0	132	100	0	232	670
04:45 PM	0	0	0	0	0	61	1	72	0	134	38	278	0	0	316	0	135	95	0	230	680
Total	0	0	0	0	0	171	8	226	0	405	168	1110	0	0	1278	0	554	369	0	923	2606
05:00 PM	0	0	0	0	0	26	0	36	0	62	46	316	0	0	362	0	147	106	0	253	677
05:15 PM	0	0	0	0	0	33	0	42	0	75	34	325	0	0	359	0	112	99	0	211	645
05:30 PM	0	0	0	0	0	40	1	45	0	86	29	252	0	0	281	0	113	75	0	188	555
05:45 PM	0	0	0	0	0	34	0	38	0	72	14	314	0	0	328	0	93	64	0	157	557
Total	0	0	0	0	0	133	1	161	0	295	123	1207	0	0	1330	0	465	344	0	809	2434
Grand Total	0	0	0	0	0	304	9	387	0	700	291	2317	0	0	2608	0	1019	713	0	1732	5040
Apprch %	0	0	0	0		43.4	1.3	55.3	0		11.2	88.8	0	0		0	58.8	41.2	0		
Total %	0	0	0	0	0	6	0.2	7.7	0	13.9	5.8	46	0	0	51.7	0	20.2	14.1	0	34.4	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 WB Ramp and Pecos St

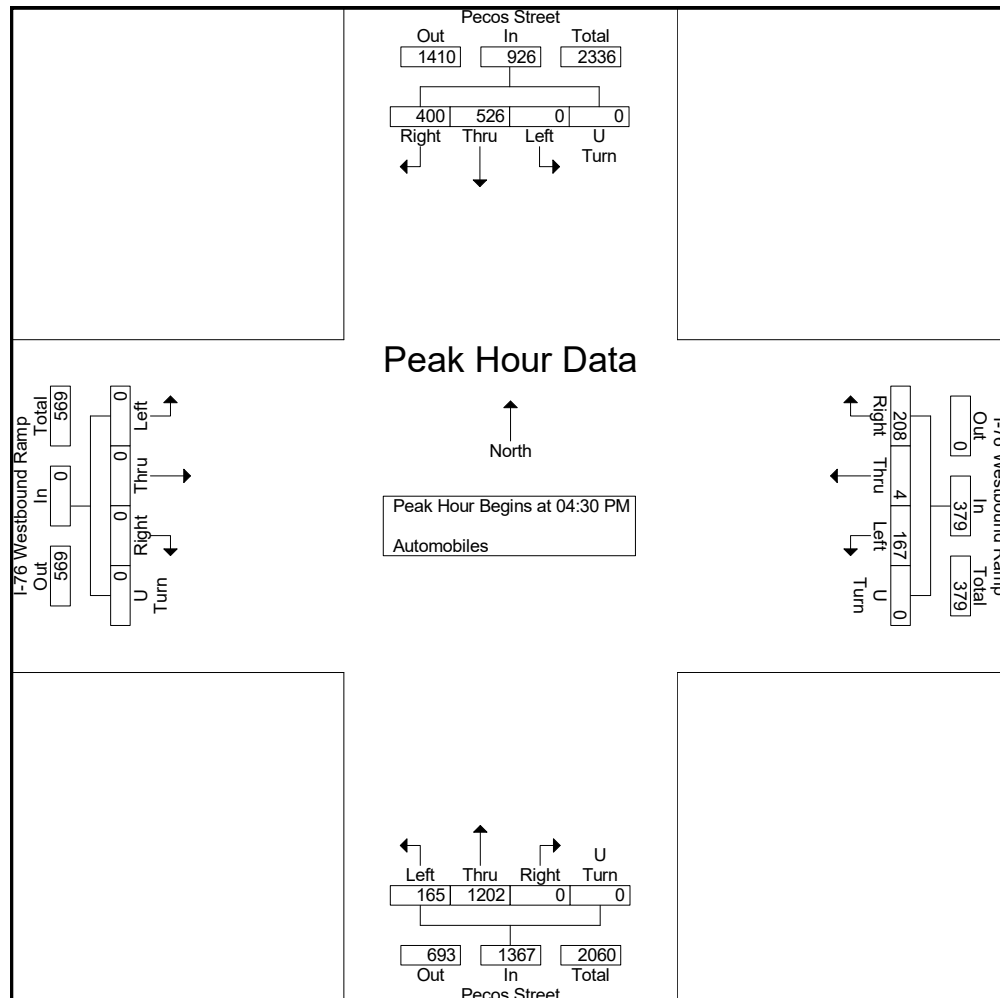
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Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 WB Ramp and Pecos St

File Name : I 76 WB Ramp and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	I-76 Westbound Ramp Eastbound					I-76 Westbound Ramp Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	0	0	0	0	47	3	58	0	108	47	283	0	0	330	0	132	100	0	232	670
04:45 PM	0	0	0	0	0	61	1	72	0	134	38	278	0	0	316	0	135	95	0	230	680
05:00 PM	0	0	0	0	0	26	0	36	0	62	46	316	0	0	362	0	147	106	0	253	677
05:15 PM	0	0	0	0	0	33	0	42	0	75	34	325	0	0	359	0	112	99	0	211	645
Total Volume	0	0	0	0	0	167	4	208	0	379	165	1202	0	0	1367	0	526	400	0	926	2672
% App. Total	0	0	0	0	0	44.1	1.1	54.9	0		12.1	87.9	0	0		0	56.8	43.2	0		
PHF	.000	.000	.000	.000	.000	.684	.333	.722	.000	.707	.878	.925	.000	.000	.944	.000	.895	.943	.000	.915	.982





Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
I-76 EB Ramp and Pecos St

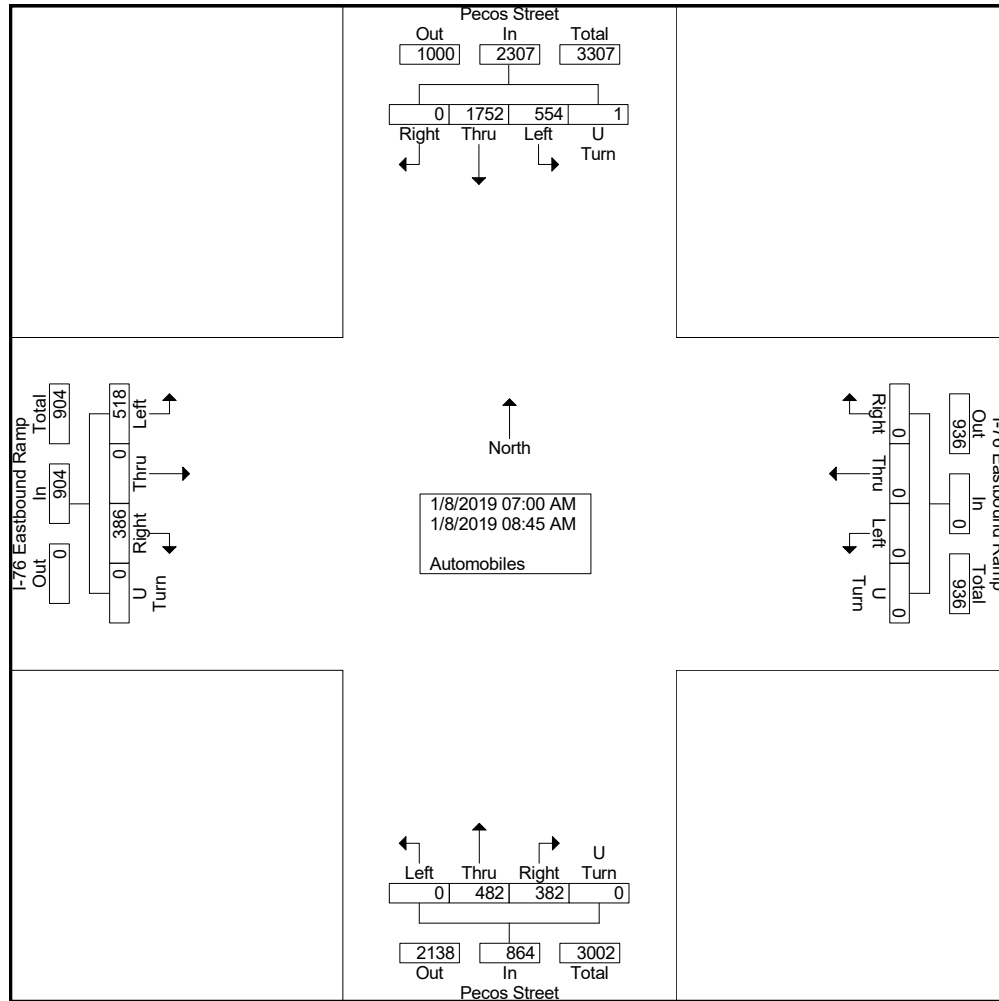
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Page No : 1

Groups Printed- Automobiles

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07:15 AM	70	0	62	0	132	0	0	0	0	0	0	62	58	0	120	80	227	0	0	307	559
07:30 AM	72	0	48	0	120	0	0	0	0	0	0	49	46	0	95	80	226	0	0	306	521
07:45 AM	61	0	67	0	128	0	0	0	0	0	0	63	38	0	101	67	323	0	0	390	619
Total	268	0	224	0	492	0	0	0	0	0	0	218	191	0	409	299	971	0	0	1270	2171
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08:15 AM	52	0	50	0	102	0	0	0	0	0	0	60	60	0	120	73	222	0	0	295	517
08:30 AM	50	0	34	0	84	0	0	0	0	0	0	64	48	0	112	64	167	0	0	231	427
08:45 AM	72	0	26	0	98	0	0	0	0	0	0	65	37	0	102	49	163	0	1	213	413
Total	250	0	162	0	412	0	0	0	0	0	0	264	191	0	455	255	781	0	1	1037	1904
Grand Total	518	0	386	0	904	0	0	0	0	0	0	482	382	0	864	554	1752	0	1	2307	4075
Apprch %	57.3	0	42.7	0		0	0	0	0		0	55.8	44.2	0		24	75.9	0	0		
Total %	12.7	0	9.5	0	22.2	0	0	0	0	0	0	11.8	9.4	0	21.2	13.6	43	0	0	56.6	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
I-76 EB Ramp and Pecos St

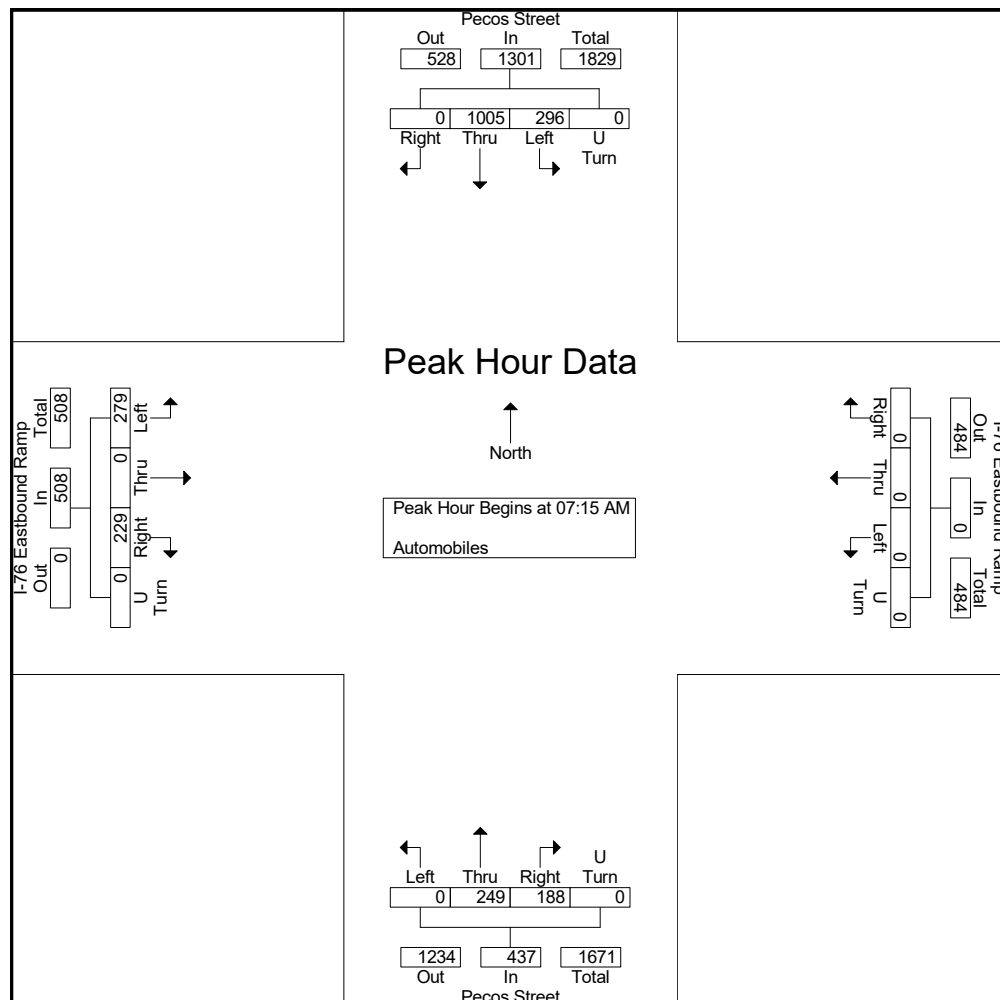
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Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
I-76 EB Ramp and Pecos St

File Name : I 76 EB Ramp and Pecos AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
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Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	70	0	62	0	132	0	0	0	0	0	0	62	58	0	120	80	227	0	0	307	559
07:30 AM	72	0	48	0	120	0	0	0	0	0	0	49	46	0	95	80	226	0	0	306	521
07:45 AM	61	0	67	0	128	0	0	0	0	0	0	63	38	0	101	67	323	0	0	390	619
08:00 AM	76	0	52	0	128	0	0	0	0	0	0	75	46	0	121	69	229	0	0	298	547
Total Volume	279	0	229	0	508	0	0	0	0	0	0	249	188	0	437	296	1005	0	0	1301	2246
% App. Total	54.9	0	45.1	0		0	0	0	0		0	57	43	0		22.8	77.2	0	0		
PHF	.918	.000	.854	.000	.962	.000	.000	.000	.000	.000	.000	.830	.810	.000	.903	.925	.778	.000	.000	.834	.907



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 EB Ramp and Pecos St

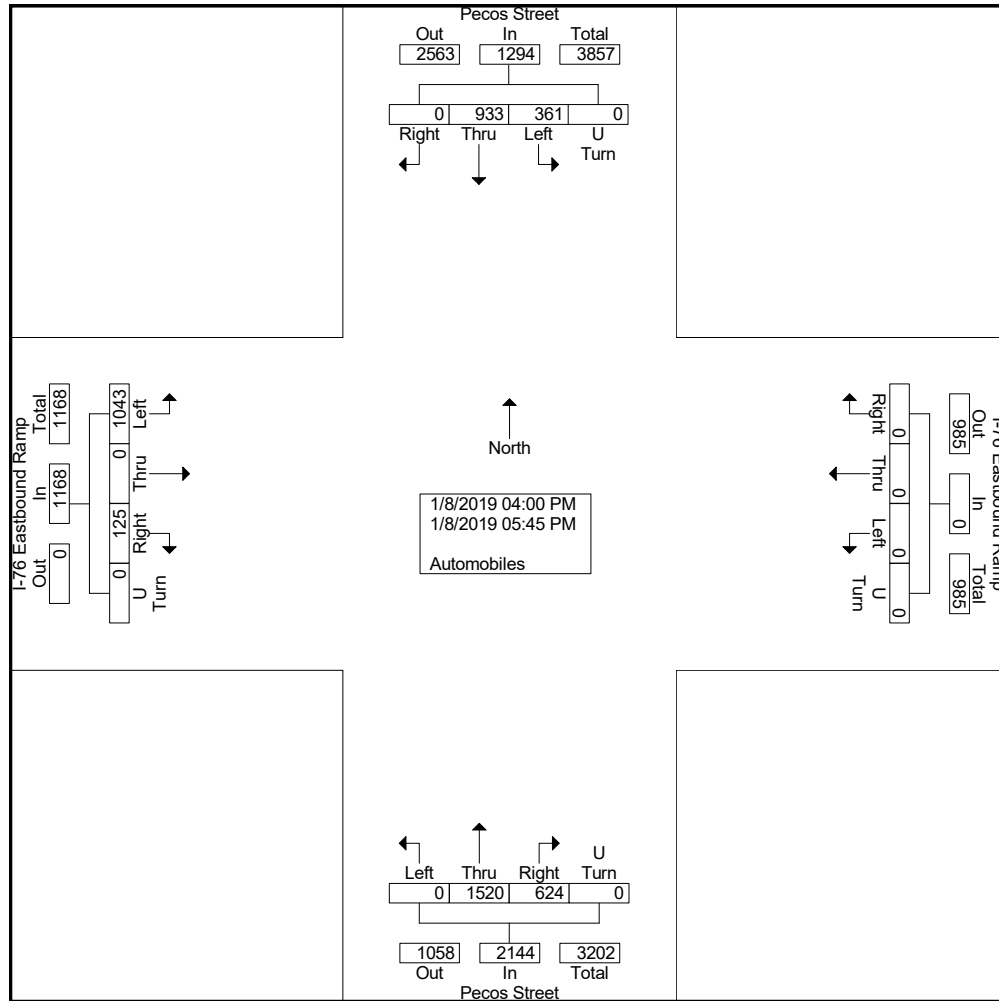
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Page No : 1

Groups Printed- Automobiles

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Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	137	0	16	0	153	0	0	0	0	0	0	178	102	0	280	55	102	0	0	157	590
04:15 PM	120	0	31	0	151	0	0	0	0	0	0	176	81	0	257	48	138	0	0	186	594
04:30 PM	131	0	24	0	155	0	0	0	0	0	0	196	90	0	286	43	140	0	0	183	624
04:45 PM	111	0	15	0	126	0	0	0	0	0	0	203	66	0	269	41	152	0	0	193	588
Total	499	0	86	0	585	0	0	0	0	0	0	753	339	0	1092	187	532	0	0	719	2396
05:00 PM	128	0	4	0	132	0	0	0	0	0	0	229	113	0	342	61	108	0	0	169	643
05:15 PM	139	0	10	0	149	0	0	0	0	0	0	217	76	0	293	36	111	0	0	147	589
05:30 PM	122	0	13	0	135	0	0	0	0	0	0	161	54	0	215	36	96	0	0	132	482
05:45 PM	155	0	12	0	167	0	0	0	0	0	0	160	42	0	202	41	86	0	0	127	496
Total	544	0	39	0	583	0	0	0	0	0	0	767	285	0	1052	174	401	0	0	575	2210
Grand Total	1043	0	125	0	1168	0	0	0	0	0	0	1520	624	0	2144	361	933	0	0	1294	4606
Apprch %	89.3	0	10.7	0		0	0	0	0		0	70.9	29.1	0		27.9	72.1	0	0		
Total %	22.6	0	2.7	0	25.4	0	0	0	0	0	0	33	13.5	0	46.5	7.8	20.3	0	0	28.1	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 EB Ramp and Pecos St

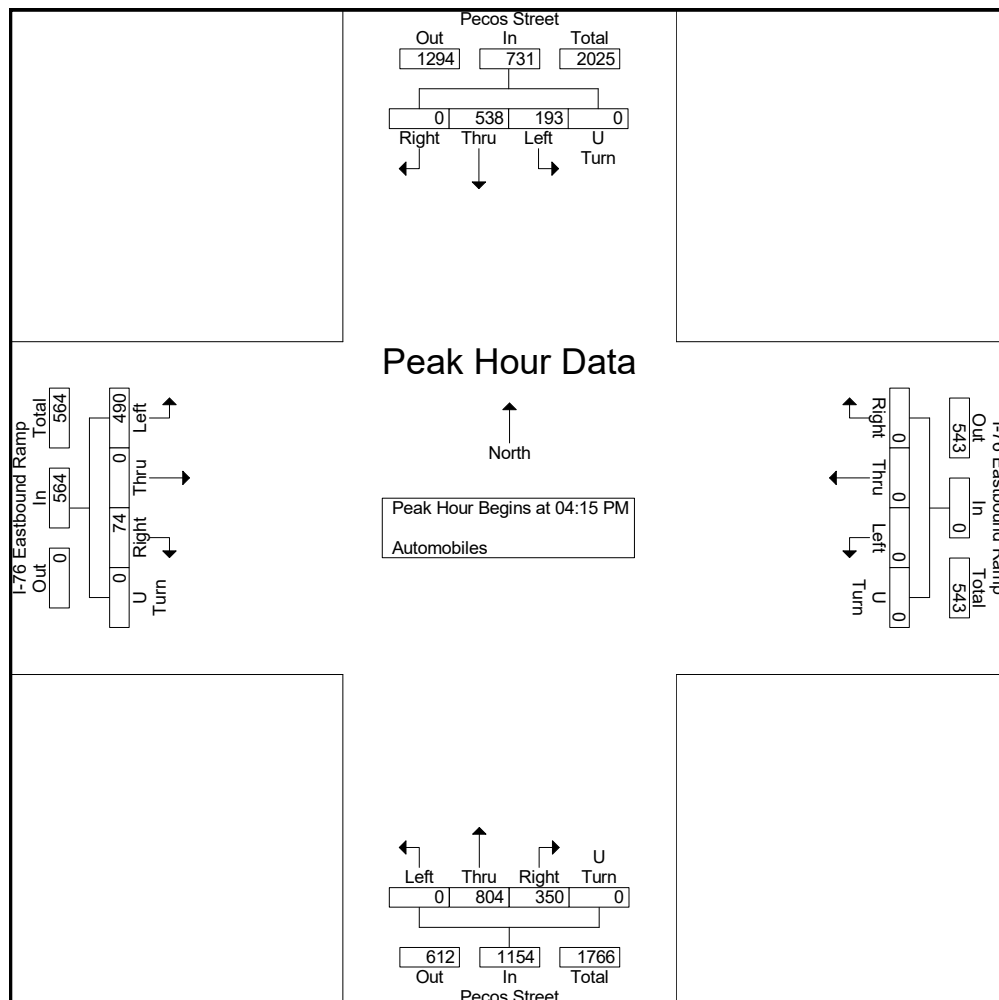
File Name : I 76 EB Ramp and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
I-76 EB Ramp and Pecos St

File Name : I 76 EB Ramp and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	I-76 Eastbound Ramp Eastbound					I-76 Eastbound Ramp Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	120	0	31	0	151	0	0	0	0	0	0	176	81	0	257	48	138	0	0	186	594
04:30 PM	131	0	24	0	155	0	0	0	0	0	0	196	90	0	286	43	140	0	0	183	624
04:45 PM	111	0	15	0	126	0	0	0	0	0	0	203	66	0	269	41	152	0	0	193	588
05:00 PM	128	0	4	0	132	0	0	0	0	0	0	229	113	0	342	61	108	0	0	169	643
Total Volume	490	0	74	0	564	0	0	0	0	0	0	804	350	0	1154	193	538	0	0	731	2449
% App. Total	86.9	0	13.1	0		0	0	0	0		0	69.7	30.3	0		26.4	73.6	0	0		
PHF	.935	.000	.597	.000	.910	.000	.000	.000	.000	.000	.000	.878	.774	.000	.844	.791	.885	.000	.000	.947	.952



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
Cargill Dr and Pecos St

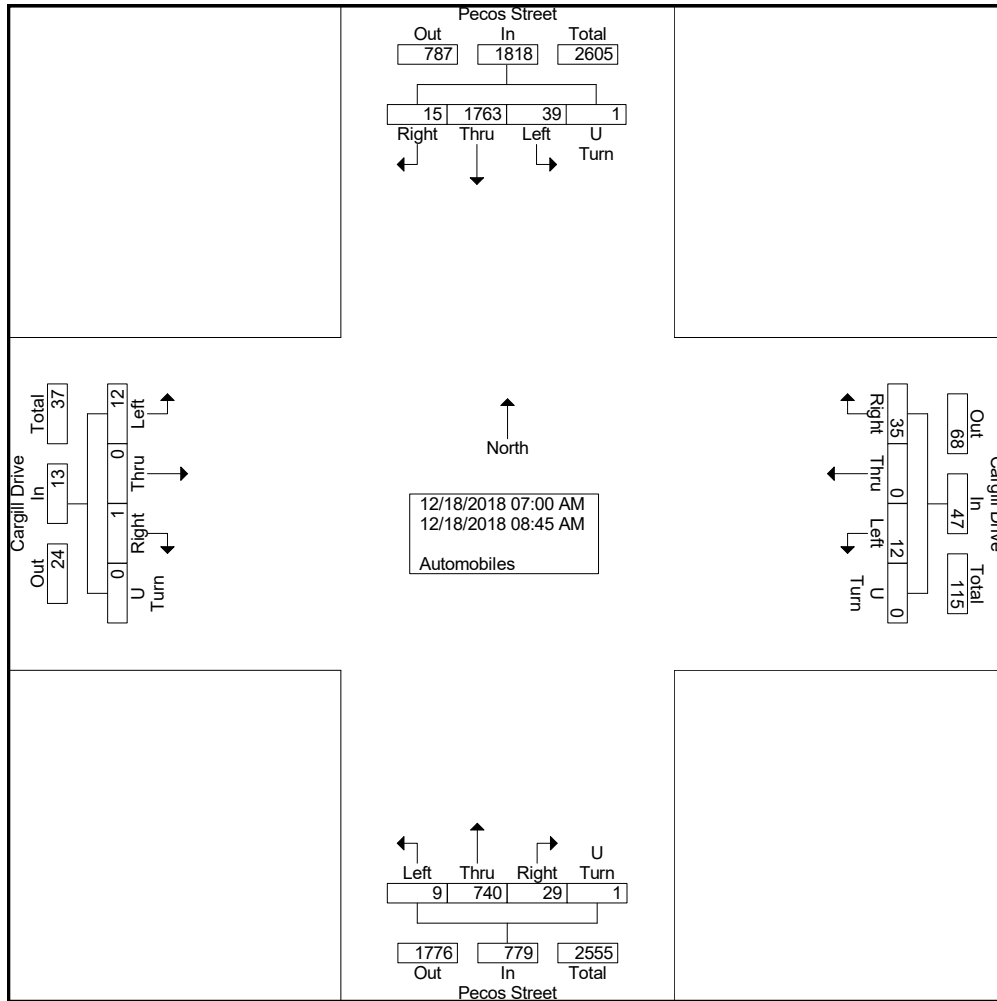
File Name : Cargill and Pecos AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 1

Groups Printed- Automobiles

	Cargill Drive Eastbound					Cargill Drive Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	1	0	0	0	1	1	0	3	0	4	1	91	5	0	97	9	243	2	0	254	356
07:15 AM	3	0	0	0	3	0	0	5	0	5	1	89	8	0	98	4	283	1	0	288	394
07:30 AM	2	0	0	0	2	2	0	4	0	6	2	91	2	0	95	2	251	3	0	256	359
07:45 AM	1	0	0	0	1	1	0	3	0	4	2	92	3	0	97	6	289	1	0	296	398
Total	7	0	0	0	7	4	0	15	0	19	6	363	18	0	387	21	1066	7	0	1094	1507
08:00 AM	0	0	1	0	1	4	0	4	0	8	0	88	3	0	91	3	207	2	0	212	312
08:15 AM	1	0	0	0	1	1	0	3	0	4	2	91	5	0	98	12	207	1	0	220	323
08:30 AM	0	0	0	0	0	1	0	10	0	11	0	102	1	0	103	1	182	2	1	186	300
08:45 AM	4	0	0	0	4	2	0	3	0	5	1	96	2	1	100	2	101	3	0	106	215
Total	5	0	1	0	6	8	0	20	0	28	3	377	11	1	392	18	697	8	1	724	1150
Grand Total	12	0	1	0	13	12	0	35	0	47	9	740	29	1	779	39	1763	15	1	1818	2657
Apprch %	92.3	0	7.7	0		25.5	0	74.5	0		1.2	95	3.7	0.1		2.1	97	0.8	0.1		
Total %	0.5	0	0	0	0.5	0.5	0	1.3	0	1.8	0.3	27.9	1.1	0	29.3	1.5	66.4	0.6	0	68.4	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
Cargill Dr and Pecos St

File Name : Cargill and Pecos AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 2

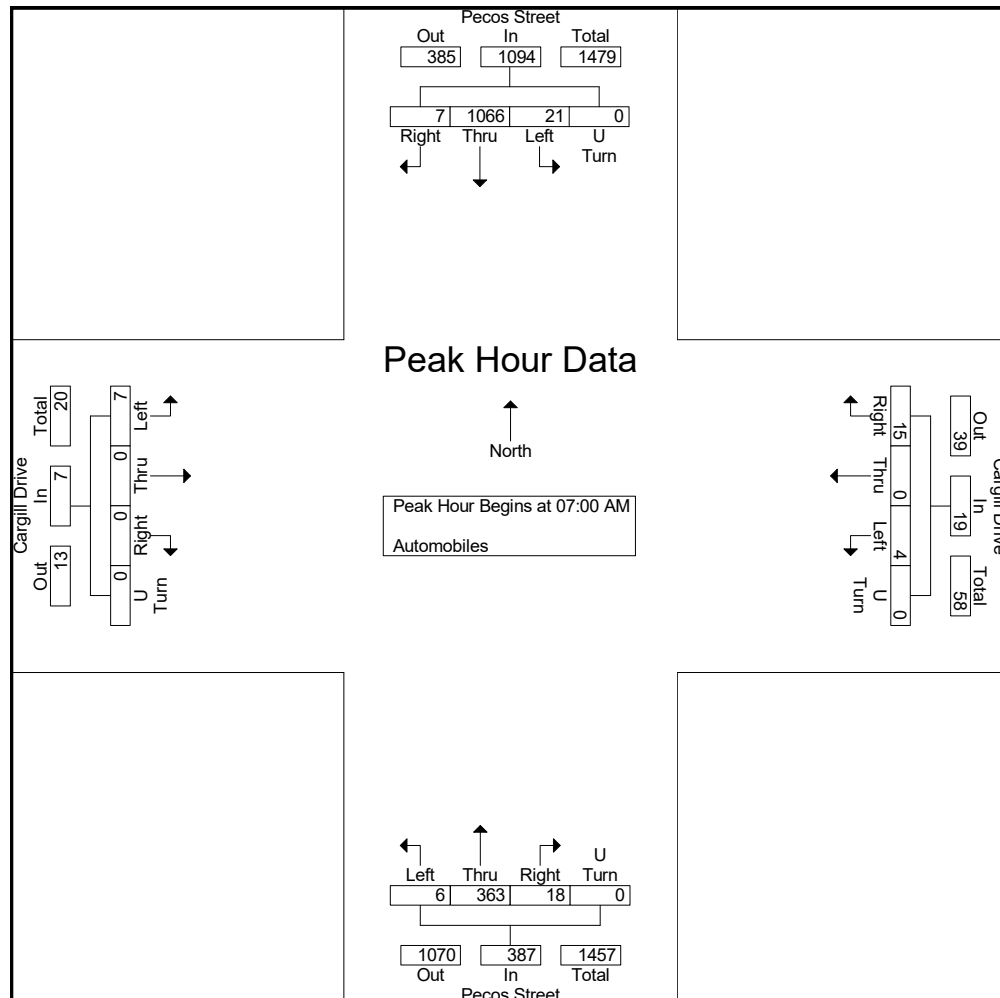




Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
Cargill Dr and Pecos St

File Name : Cargill and Pecos AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	Cargill Drive Eastbound					Cargill Drive Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	1	0	0	0	1	1	0	3	0	4	1	91	5	0	97	9	243	2	0	254	356
07:15 AM	3	0	0	0	3	0	0	5	0	5	1	89	8	0	98	4	283	1	0	288	394
07:30 AM	2	0	0	0	2	2	0	4	0	6	2	91	2	0	95	2	251	3	0	256	359
07:45 AM	1	0	0	0	1	1	0	3	0	4	2	92	3	0	97	6	289	1	0	296	398
Total Volume	7	0	0	0	7	4	0	15	0	19	6	363	18	0	387	21	1066	7	0	1094	1507
% App. Total	100	0	0	0		21.1	0	78.9	0		1.6	93.8	4.7	0		1.9	97.4	0.6	0		
PHF	.583	.000	.000	.000	.583	.500	.000	.750	.000	.792	.750	.986	.563	.000	.987	.583	.922	.583	.000	.924	.947



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
Cargill Dr and Pecos St

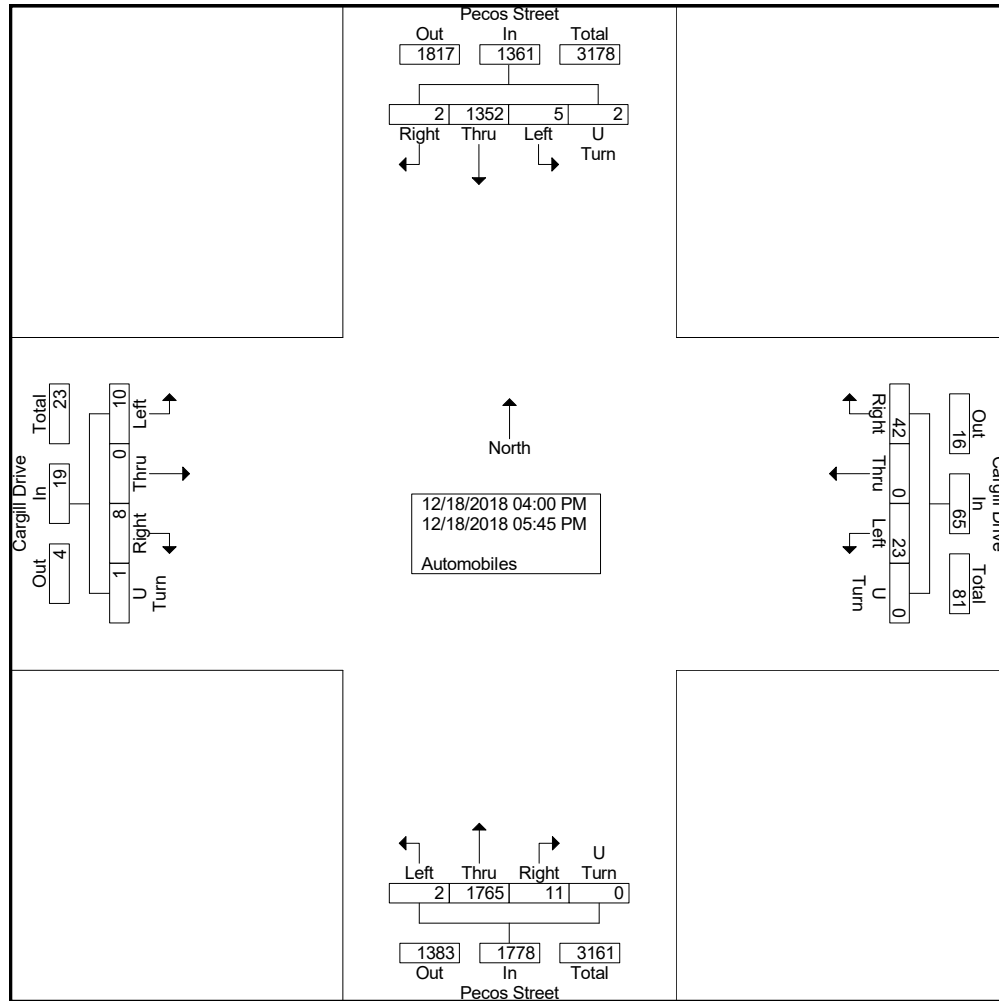
File Name : Cargill and Pecos PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 1

Groups Printed- Automobiles

	Cargill Drive Eastbound					Cargill Drive Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	1	0	1	0	2	4	0	6	0	10	0	238	3	0	241	0	200	1	0	201	454
04:15 PM	1	0	2	0	3	2	0	5	0	7	1	252	4	0	257	0	186	1	0	187	454
04:30 PM	1	0	1	0	2	2	0	6	0	8	1	286	0	0	287	1	184	0	0	185	482
04:45 PM	1	0	0	0	1	5	0	5	0	10	0	210	0	0	210	2	177	0	0	179	400
Total	4	0	4	0	8	13	0	22	0	35	2	986	7	0	995	3	747	2	0	752	1790
05:00 PM	5	0	1	0	6	7	0	10	0	17	0	247	0	0	247	0	172	0	0	172	442
05:15 PM	0	0	2	0	2	2	0	4	0	6	0	238	1	0	239	0	151	0	0	151	398
05:30 PM	0	0	0	0	0	1	0	4	0	5	0	226	3	0	229	0	157	0	0	157	391
05:45 PM	1	0	1	1	3	0	0	2	0	2	0	68	0	0	68	2	125	0	2	129	202
Total	6	0	4	1	11	10	0	20	0	30	0	779	4	0	783	2	605	0	2	609	1433
Grand Total	10	0	8	1	19	23	0	42	0	65	2	1765	11	0	1778	5	1352	2	2	1361	3223
Apprch %	52.6	0	42.1	5.3		35.4	0	64.6	0		0.1	99.3	0.6	0		0.4	99.3	0.1	0.1		
Total %	0.3	0	0.2	0	0.6	0.7	0	1.3	0	2	0.1	54.8	0.3	0	55.2	0.2	41.9	0.1	0.1	42.2	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
Cargill Dr and Pecos St

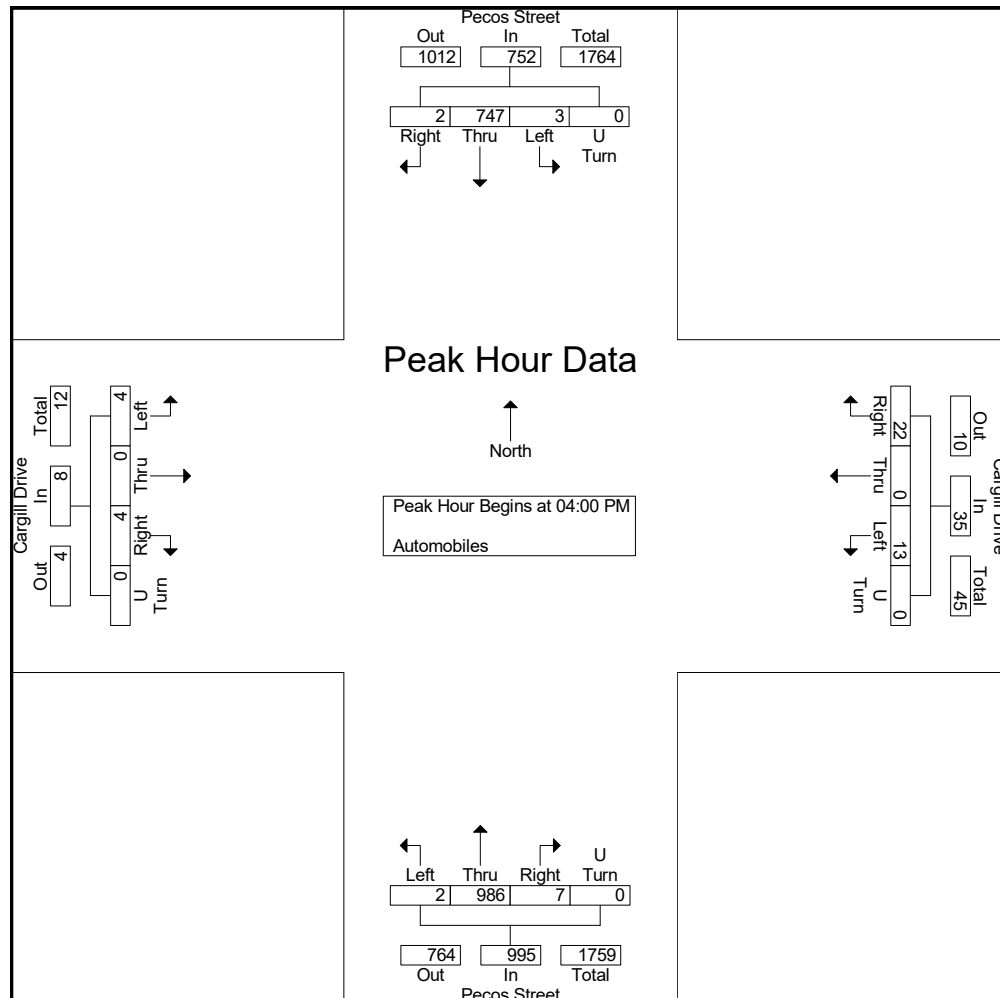
File Name : Cargill and Pecos PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
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Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
Cargill Dr and Pecos St

File Name : Cargill and Pecos PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	Cargill Drive Eastbound					Cargill Drive Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	1	0	1	0	2	4	0	6	0	10	0	238	3	0	241	0	200	1	0	201	454
04:15 PM	1	0	2	0	3	2	0	5	0	7	1	252	4	0	257	0	186	1	0	187	454
04:30 PM	1	0	1	0	2	2	0	6	0	8	1	286	0	0	287	1	184	0	0	185	482
04:45 PM	1	0	0	0	1	5	0	5	0	10	0	210	0	0	210	2	177	0	0	179	400
Total Volume	4	0	4	0	8	13	0	22	0	35	2	986	7	0	995	3	747	2	0	752	1790
% App. Total	50	0	50	0		37.1	0	62.9	0		0.2	99.1	0.7	0		0.4	99.3	0.3	0		
PHF	1.00	.000	.500	.000	.667	.650	.000	.917	.000	.875	.500	.862	.438	.000	.867	.375	.934	.500	.000	.935	.928



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Federal Blvd

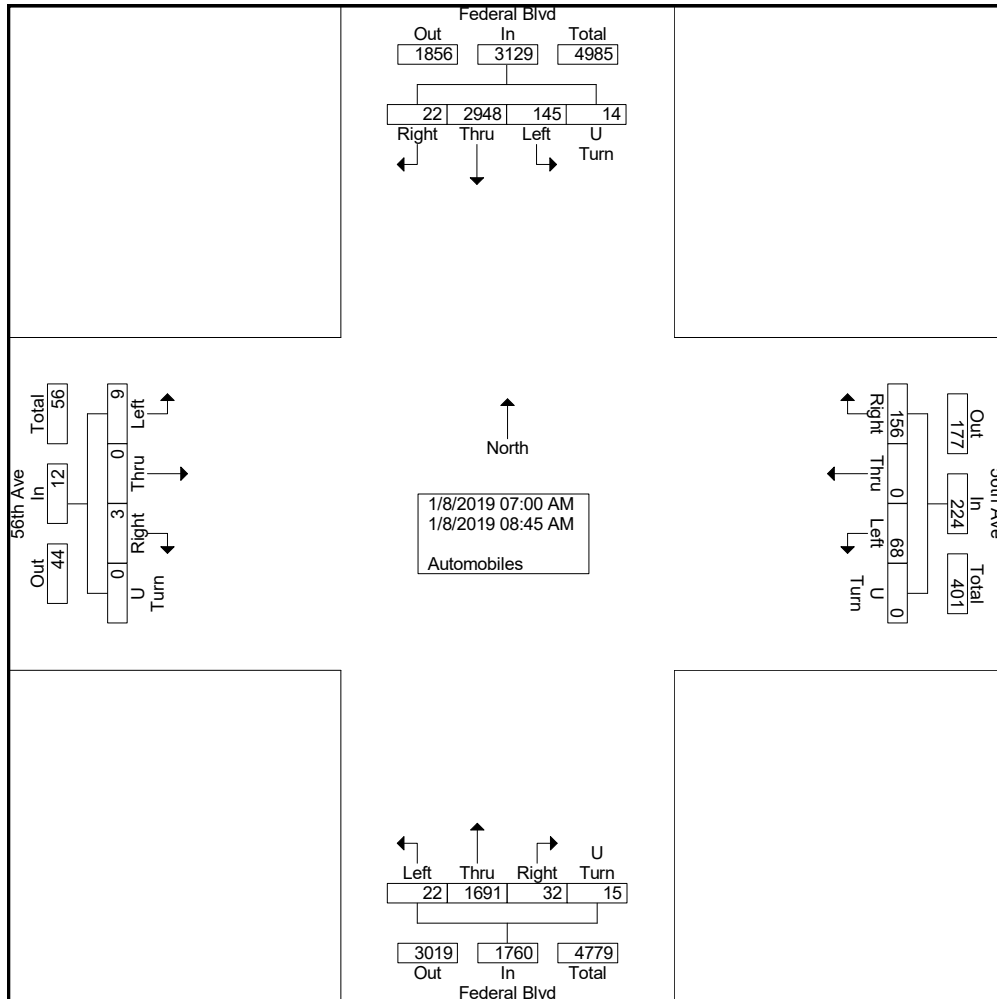
File Name : 56th and Federal AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 1

Groups Printed- Automobiles

	56th Ave Eastbound					56th Ave Westbound					Federal Blvd Northbound					Federal Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	6	0	10	0	16	4	166	2	0	172	18	357	0	4	379	567
07:15 AM	1	0	0	0	1	8	0	22	0	30	2	186	5	2	195	17	377	5	1	400	626
07:30 AM	0	0	0	0	0	4	0	23	0	27	1	275	4	1	281	20	360	5	1	386	694
07:45 AM	4	0	1	0	5	15	0	32	0	47	2	235	3	1	241	17	415	3	1	436	729
Total	5	0	1	0	6	33	0	87	0	120	9	862	14	4	889	72	1509	13	7	1601	2616
08:00 AM	0	0	0	0	0	14	0	19	0	33	2	241	3	2	248	21	402	1	2	426	707
08:15 AM	1	0	1	0	2	7	0	17	0	24	4	243	9	2	258	16	402	3	1	422	706
08:30 AM	2	0	0	0	2	9	0	16	0	25	5	189	3	1	198	16	336	2	3	357	582
08:45 AM	1	0	1	0	2	5	0	17	0	22	2	156	3	6	167	20	299	3	1	323	514
Total	4	0	2	0	6	35	0	69	0	104	13	829	18	11	871	73	1439	9	7	1528	2509
Grand Total	9	0	3	0	12	68	0	156	0	224	22	1691	32	15	1760	145	2948	22	14	3129	5125
Apprch %	75	0	25	0		30.4	0	69.6	0		1.2	96.1	1.8	0.9		4.6	94.2	0.7	0.4		
Total %	0.2	0	0.1	0	0.2	1.3	0	3	0	4.4	0.4	33	0.6	0.3	34.3	2.8	57.5	0.4	0.3	61.1	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Federal Blvd

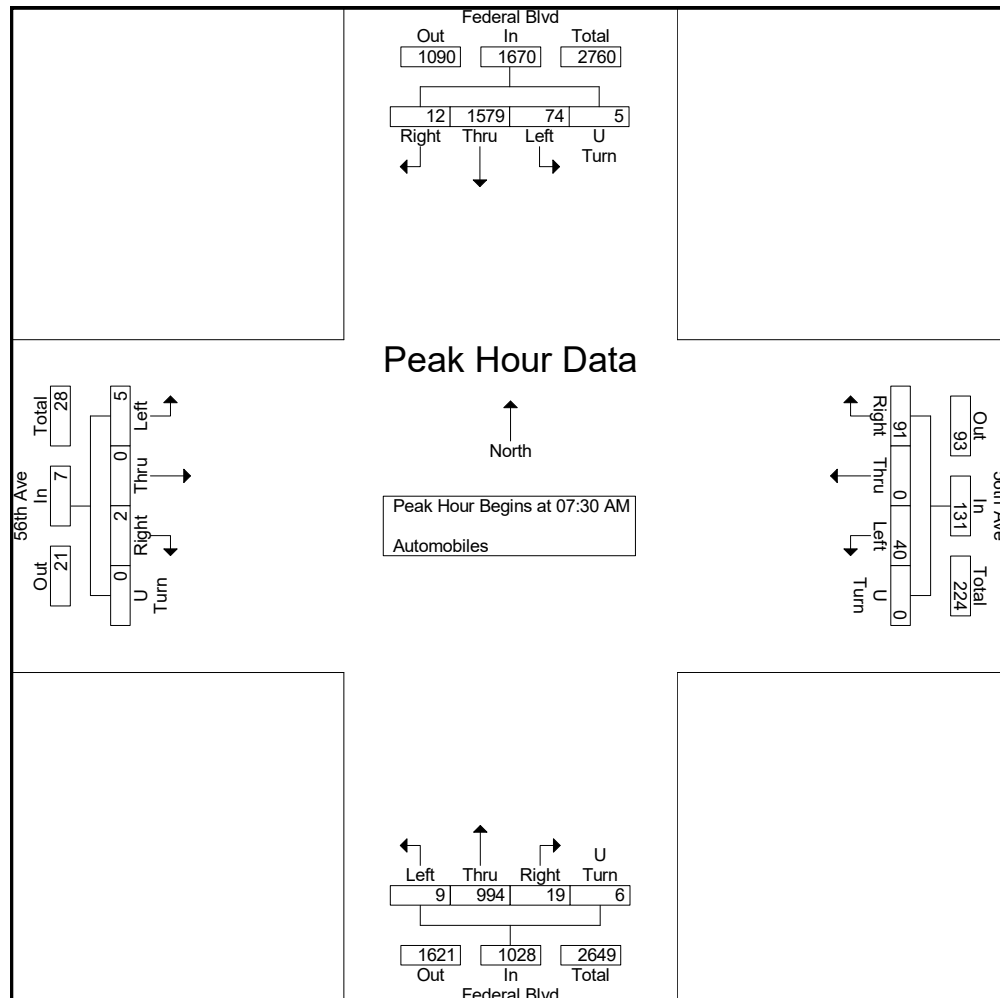
File Name : 56th and Federal AM  
Site Code : IPO 407  
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Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Federal Blvd

File Name : 56th and Federal AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	56th Ave Eastbound					56th Ave Westbound					Federal Blvd Northbound					Federal Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	4	0	23	0	27	1	275	4	1	281	20	360	5	1	386	694
07:45 AM	4	0	1	0	5	15	0	32	0	47	2	235	3	1	241	17	415	3	1	436	729
08:00 AM	0	0	0	0	0	14	0	19	0	33	2	241	3	2	248	21	402	1	2	426	707
08:15 AM	1	0	1	0	2	7	0	17	0	24	4	243	9	2	258	16	402	3	1	422	706
Total Volume	5	0	2	0	7	40	0	91	0	131	9	994	19	6	1028	74	1579	12	5	1670	2836
% App. Total	71.4	0	28.6	0		30.5	0	69.5	0		0.9	96.7	1.8	0.6		4.4	94.6	0.7	0.3		
PHF	.313	.000	.500	.000	.350	.667	.000	.711	.000	.697	.563	.904	.528	.750	.915	.881	.951	.600	.625	.958	.973



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Federal Blvd

File Name : 56th and Federal PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 1

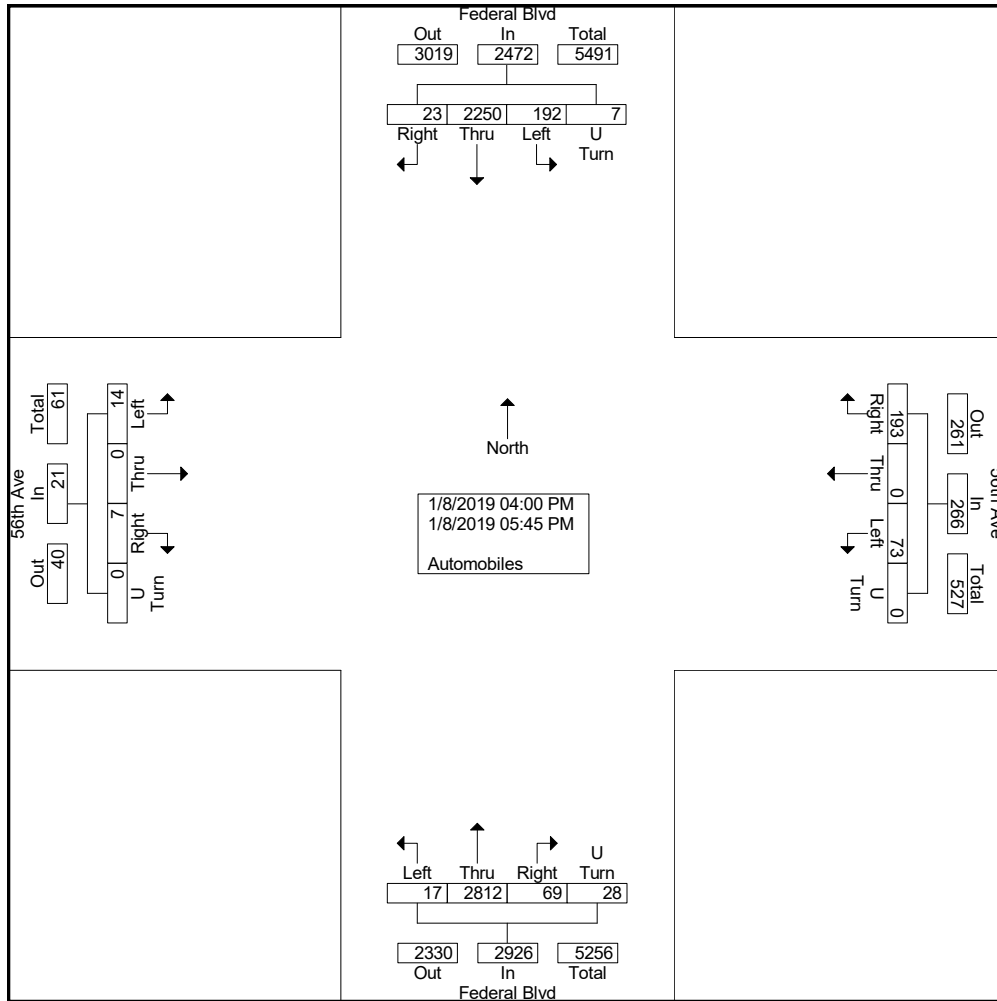
Groups Printed- Automobiles

	56th Ave Eastbound					56th Ave Westbound					Federal Blvd Northbound					Federal Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	0	0	0	0	0	10	0	17	0	27	2	358	8	4	372	19	238	4	0	261	660
04:15 PM	2	0	1	0	3	7	0	24	0	31	0	369	8	2	379	15	268	0	1	284	697
04:30 PM	1	0	0	0	1	14	0	31	0	45	3	334	7	3	347	25	237	0	2	264	657
04:45 PM	2	0	0	0	2	10	0	27	0	37	1	355	4	4	364	27	287	6	1	321	724
Total	5	0	1	0	6	41	0	99	0	140	6	1416	27	13	1462	86	1030	10	4	1130	2738
05:00 PM	2	0	0	0	2	11	0	33	0	44	2	356	9	3	370	33	292	1	1	327	743
05:15 PM	1	0	2	0	3	5	0	26	0	31	2	354	18	3	377	32	326	1	1	360	771
05:30 PM	2	0	0	0	2	10	0	19	0	29	6	345	7	2	360	23	314	4	1	342	733
05:45 PM	4	0	4	0	8	6	0	16	0	22	1	341	8	7	357	18	288	7	0	313	700
Total	9	0	6	0	15	32	0	94	0	126	11	1396	42	15	1464	106	1220	13	3	1342	2947
Grand Total	14	0	7	0	21	73	0	193	0	266	17	2812	69	28	2926	192	2250	23	7	2472	5685
Apprch %	66.7	0	33.3	0		27.4	0	72.6	0		0.6	96.1	2.4	1		7.8	91	0.9	0.3		
Total %	0.2	0	0.1	0	0.4	1.3	0	3.4	0	4.7	0.3	49.5	1.2	0.5	51.5	3.4	39.6	0.4	0.1	43.5	



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Federal Blvd

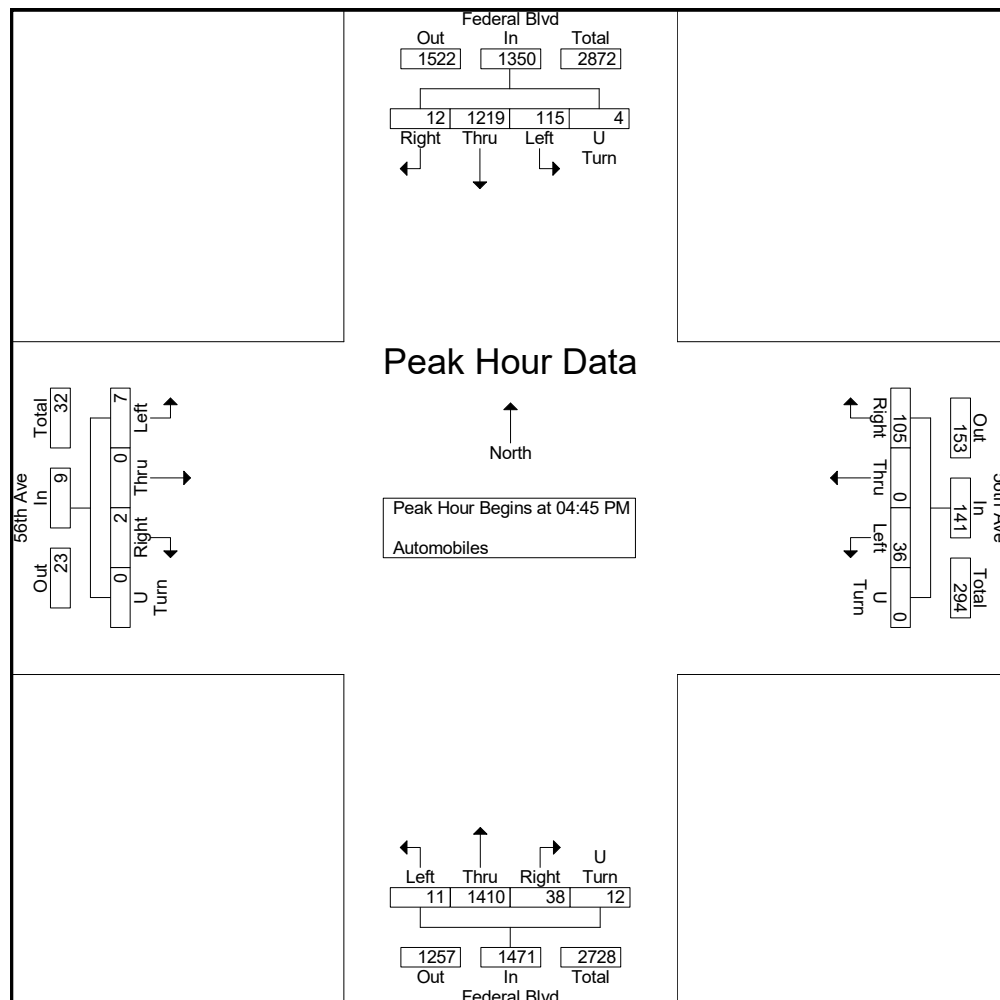
File Name : 56th and Federal PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
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Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Federal Blvd

File Name : 56th and Federal PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	56th Ave Eastbound					56th Ave Westbound					Federal Blvd Northbound					Federal Blvd Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	2	0	0	0	2	10	0	27	0	37	1	355	4	4	364	27	287	6	1	321	724
05:00 PM	2	0	0	0	2	11	0	33	0	44	2	356	9	3	370	33	292	1	1	327	743
05:15 PM	1	0	2	0	3	5	0	26	0	31	2	354	18	3	377	32	326	1	1	360	771
05:30 PM	2	0	0	0	2	10	0	19	0	29	6	345	7	2	360	23	314	4	1	342	733
Total Volume	7	0	2	0	9	36	0	105	0	141	11	1410	38	12	1471	115	1219	12	4	1350	2971
% App. Total	77.8	0	22.2	0		25.5	0	74.5	0		0.7	95.9	2.6	0.8		8.5	90.3	0.9	0.3		
PHF	.875	.000	.250	.000	.750	.818	.000	.795	.000	.801	.458	.990	.528	.750	.975	.871	.935	.500	1.00	.938	.963



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Tejon St

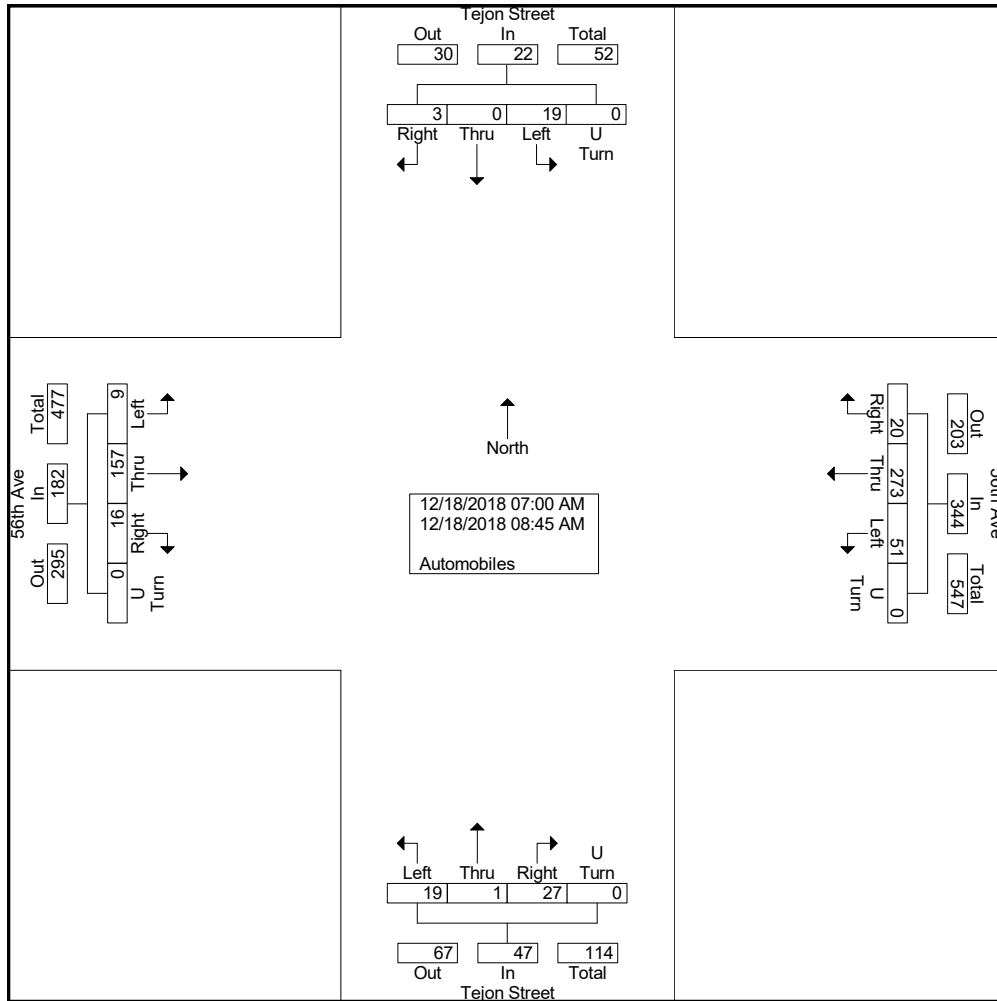
File Name : 56th and Tejon AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 1

Groups Printed- Automobiles

	56th Ave Eastbound					56th Ave Westbound					Tejon Street Northbound					Tejon Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	1	19	3	0	23	3	46	3	0	52	6	0	4	0	10	3	0	1	0	4	89
07:15 AM	0	22	2	0	24	10	34	2	0	46	1	0	3	0	4	4	0	0	0	4	78
07:30 AM	1	12	1	0	14	6	40	3	0	49	2	0	5	0	7	1	0	0	0	1	71
07:45 AM	1	19	1	0	21	12	55	4	0	71	6	0	4	0	10	1	0	0	0	1	103
Total	3	72	7	0	82	31	175	12	0	218	15	0	16	0	31	9	0	1	0	10	341
08:00 AM	2	20	1	0	23	8	30	3	0	41	0	0	1	0	1	3	0	1	0	4	69
08:15 AM	2	14	2	0	18	6	22	4	0	32	1	0	2	0	3	1	0	0	0	1	54
08:30 AM	1	24	4	0	29	1	24	0	0	25	3	0	4	0	7	2	0	1	0	3	64
08:45 AM	1	27	2	0	30	5	22	1	0	28	0	1	4	0	5	4	0	0	0	4	67
Total	6	85	9	0	100	20	98	8	0	126	4	1	11	0	16	10	0	2	0	12	254
Grand Total	9	157	16	0	182	51	273	20	0	344	19	1	27	0	47	19	0	3	0	22	595
Apprch %	4.9	86.3	8.8	0		14.8	79.4	5.8	0		40.4	2.1	57.4	0		86.4	0	13.6	0		
Total %	1.5	26.4	2.7	0	30.6	8.6	45.9	3.4	0	57.8	3.2	0.2	4.5	0	7.9	3.2	0	0.5	0	3.7	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Tejon St

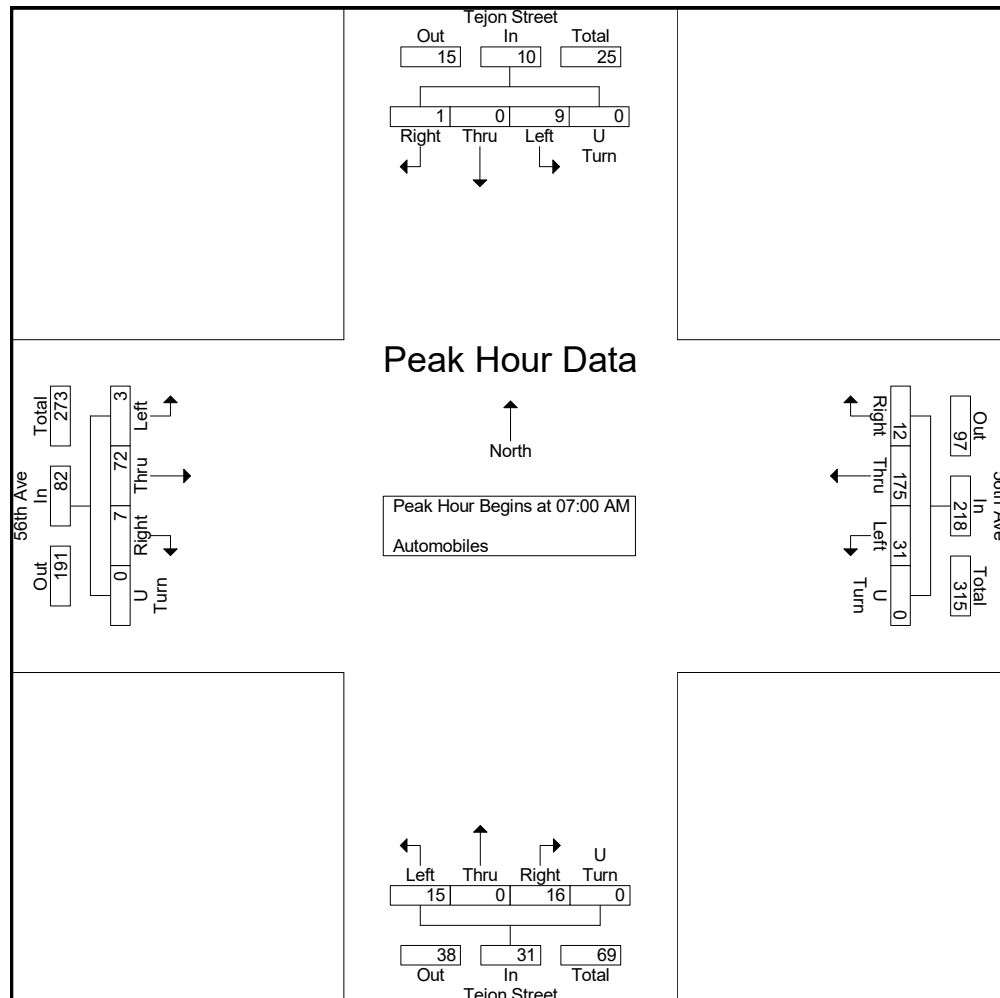
File Name : 56th and Tejon AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
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Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Tejon St

File Name : 56th and Tejon AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	56th Ave Eastbound					56th Ave Westbound					Tejon Street Northbound					Tejon Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	1	19	3	0	23	3	46	3	0	52	6	0	4	0	10	3	0	1	0	4	89
07:15 AM	0	22	2	0	24	10	34	2	0	46	1	0	3	0	4	4	0	0	0	4	78
07:30 AM	1	12	1	0	14	6	40	3	0	49	2	0	5	0	7	1	0	0	0	1	71
07:45 AM	1	19	1	0	21	12	55	4	0	71	6	0	4	0	10	1	0	0	0	1	103
Total Volume	3	72	7	0	82	31	175	12	0	218	15	0	16	0	31	9	0	1	0	10	341
% App. Total	3.7	87.8	8.5	0		14.2	80.3	5.5	0		48.4	0	51.6	0		90	0	10	0		
PHF	.750	.818	.583	.000	.854	.646	.795	.750	.000	.768	.625	.000	.800	.000	.775	.563	.000	.250	.000	.625	.828



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Tejon St

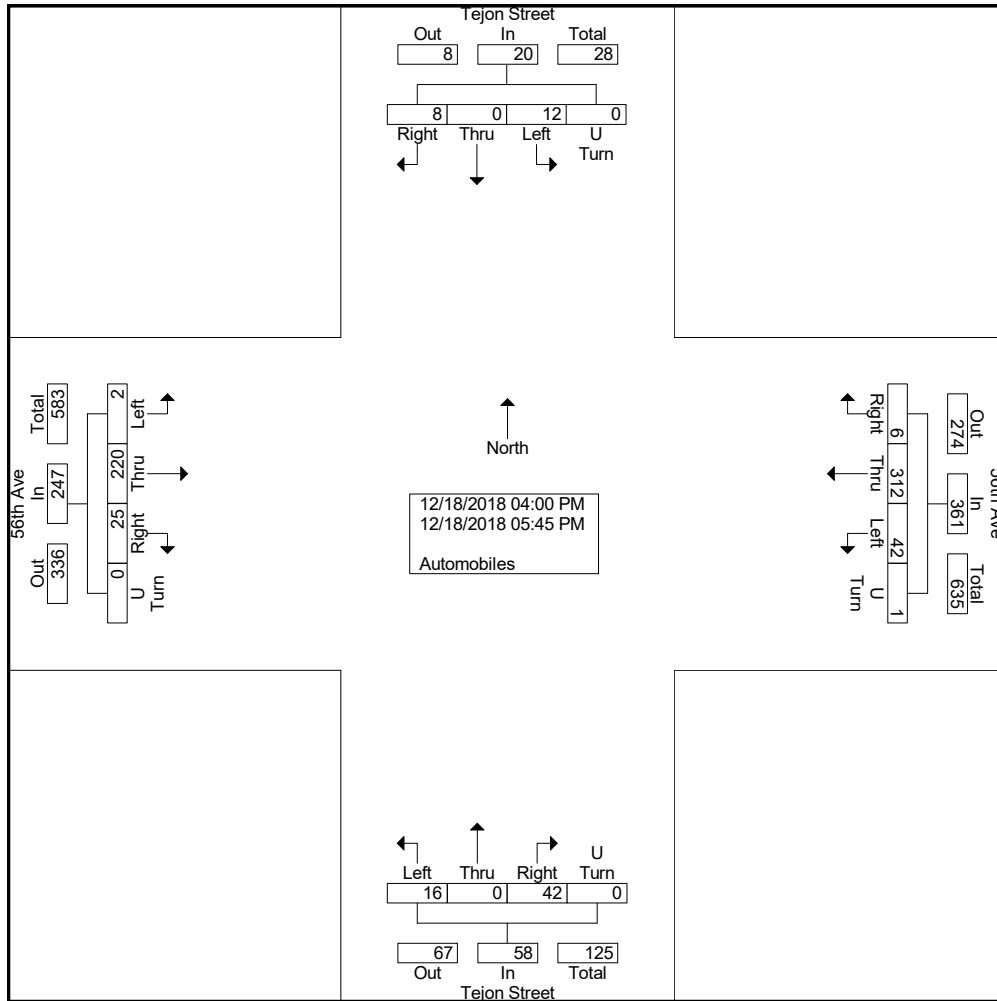
File Name : 56th and Tejon PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 1

Groups Printed- Automobiles

	56th Ave Eastbound					56th Ave Westbound					Tejon Street Northbound					Tejon Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	0	34	0	0	34	8	31	2	0	41	1	0	7	0	8	3	0	1	0	4	87
04:15 PM	0	39	4	0	43	6	52	0	0	58	0	0	8	0	8	2	0	0	0	2	111
04:30 PM	1	34	3	0	38	6	35	1	0	42	3	0	5	0	8	5	0	2	0	7	95
04:45 PM	0	22	3	0	25	3	40	1	0	44	4	0	7	0	11	0	0	2	0	2	82
Total	1	129	10	0	140	23	158	4	0	185	8	0	27	0	35	10	0	5	0	15	375
05:00 PM	0	27	4	0	31	4	49	1	0	54	2	0	1	0	3	2	0	1	0	3	91
05:15 PM	0	27	5	0	32	6	37	0	0	43	2	0	6	0	8	0	0	0	0	0	83
05:30 PM	1	20	3	0	24	5	32	0	1	38	2	0	5	0	7	0	0	2	0	2	71
05:45 PM	0	17	3	0	20	4	36	1	0	41	2	0	3	0	5	0	0	0	0	0	66
Total	1	91	15	0	107	19	154	2	1	176	8	0	15	0	23	2	0	3	0	5	311
Grand Total	2	220	25	0	247	42	312	6	1	361	16	0	42	0	58	12	0	8	0	20	686
Apprch %	0.8	89.1	10.1	0		11.6	86.4	1.7	0.3		27.6	0	72.4	0		60	0	40	0		
Total %	0.3	32.1	3.6	0	36	6.1	45.5	0.9	0.1	52.6	2.3	0	6.1	0	8.5	1.7	0	1.2	0	2.9	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Tejon St

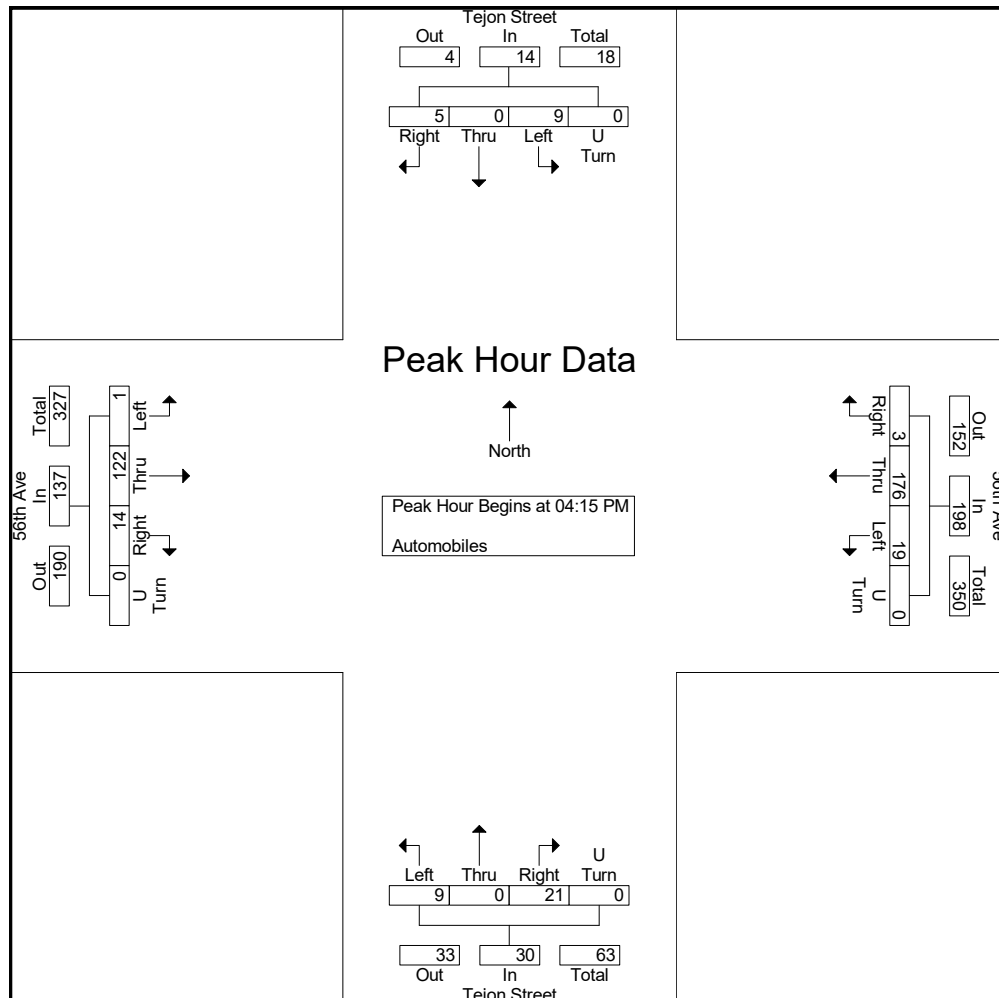
File Name : 56th and Tejon PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
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Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Tejon St

File Name : 56th and Tejon PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	56th Ave Eastbound					56th Ave Westbound					Tejon Street Northbound					Tejon Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	39	4	0	43	6	52	0	0	58	0	0	8	0	8	2	0	0	0	2	111
04:30 PM	1	34	3	0	38	6	35	1	0	42	3	0	5	0	8	5	0	2	0	7	95
04:45 PM	0	22	3	0	25	3	40	1	0	44	4	0	7	0	11	0	0	2	0	2	82
05:00 PM	0	27	4	0	31	4	49	1	0	54	2	0	1	0	3	2	0	1	0	3	91
Total Volume	1	122	14	0	137	19	176	3	0	198	9	0	21	0	30	9	0	5	0	14	379
% App. Total	0.7	89.1	10.2	0		9.6	88.9	1.5	0		30	0	70	0		64.3	0	35.7	0		
PHF	.250	.782	.875	.000	.797	.792	.846	.750	.000	.853	.563	.000	.656	.000	.682	.450	.000	.625	.000	.500	.854







Adams County, CO  
 NWC 56th & Pecos Industrial  
 AM Peak  
 56th Ave and Pecos St

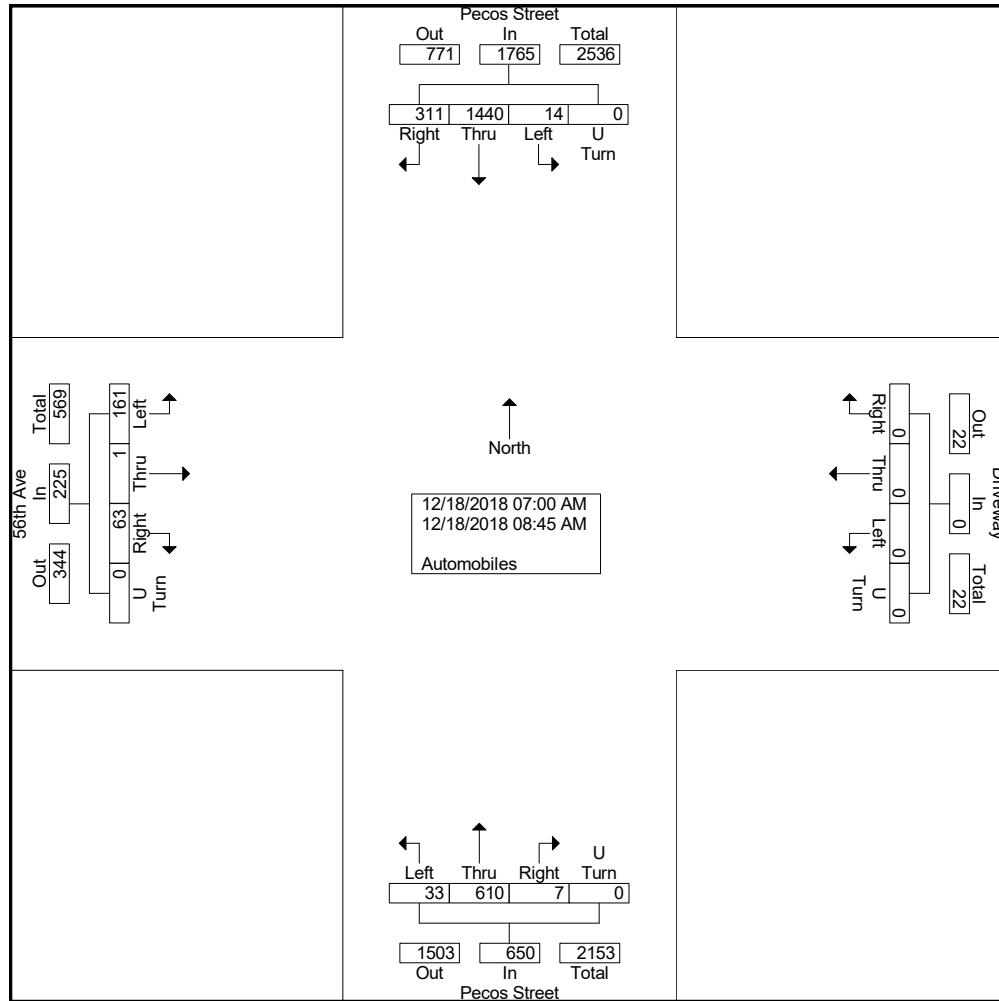
File Name : 56th and Pecos AM  
 Site Code : IPO 405  
 Start Date : 12/18/2018  
 Page No : 1

Groups Printed- Automobiles

	56th Ave Eastbound					Driveway Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	20	0	9	0	29	0	0	0	0	0	5	80	2	0	87	0	189	47	0	236	352
07:15 AM	22	0	10	0	32	0	0	0	0	0	3	77	0	0	80	0	233	51	0	284	396
07:30 AM	20	0	6	0	26	0	0	0	0	0	2	74	0	0	76	1	202	42	0	245	347
07:45 AM	17	0	8	0	25	0	0	0	0	0	6	80	1	0	87	1	215	60	0	276	388
Total	79	0	33	0	112	0	0	0	0	0	16	311	3	0	330	2	839	200	0	1041	1483
08:00 AM	17	1	10	0	28	0	0	0	0	0	4	70	1	0	75	5	179	38	0	222	325
08:15 AM	15	0	1	0	16	0	0	0	0	0	5	83	0	0	88	2	175	31	0	208	312
08:30 AM	24	0	11	0	35	0	0	0	0	0	4	78	1	0	83	2	159	19	0	180	298
08:45 AM	26	0	8	0	34	0	0	0	0	0	4	68	2	0	74	3	88	23	0	114	222
Total	82	1	30	0	113	0	0	0	0	0	17	299	4	0	320	12	601	111	0	724	1157
Grand Total	161	1	63	0	225	0	0	0	0	0	33	610	7	0	650	14	1440	311	0	1765	2640
Apprch %	71.6	0.4	28	0		0	0	0	0		5.1	93.8	1.1	0		0.8	81.6	17.6	0		
Total %	6.1	0	2.4	0	8.5	0	0	0	0	0	1.2	23.1	0.3	0	24.6	0.5	54.5	11.8	0	66.9	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Pecos St

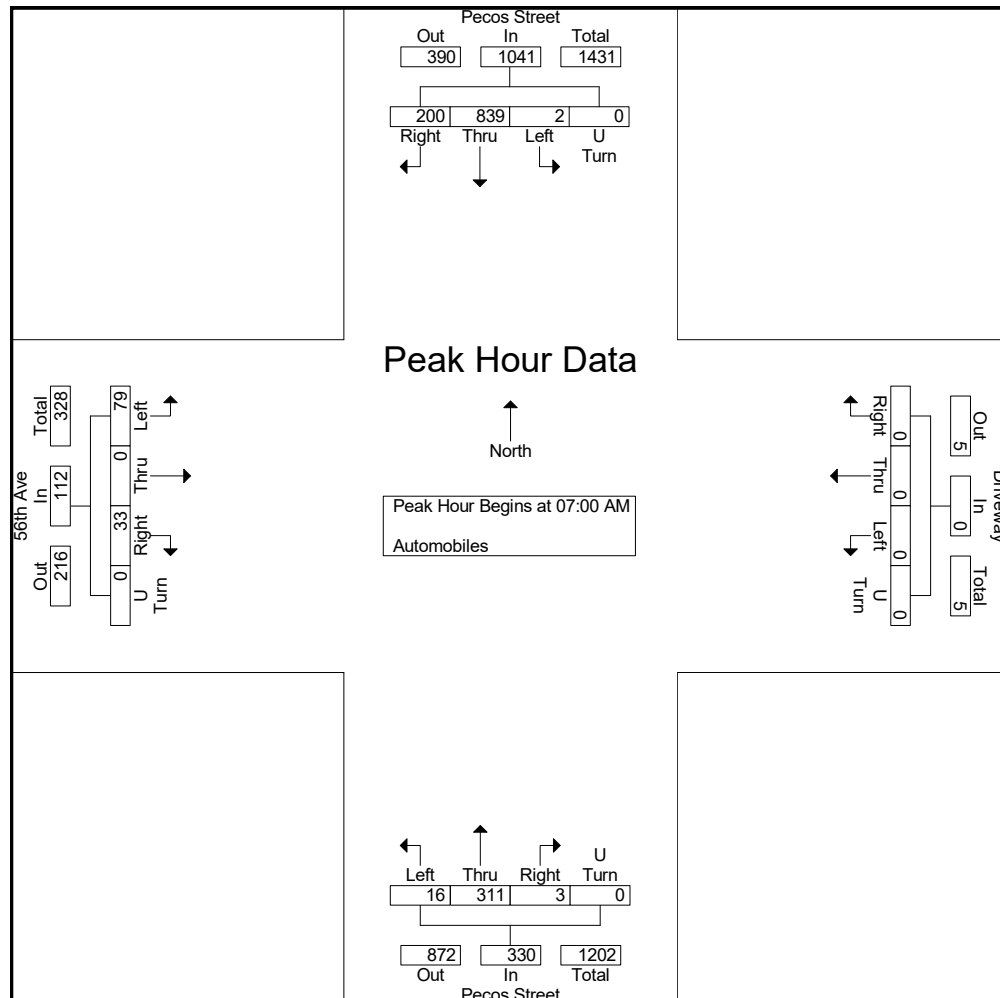
File Name : 56th and Pecos AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
56th Ave and Pecos St

File Name : 56th and Pecos AM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	56th Ave Eastbound					Driveway Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	20	0	9	0	29	0	0	0	0	0	5	80	2	0	87	0	189	47	0	236	352
07:15 AM	22	0	10	0	32	0	0	0	0	0	3	77	0	0	80	0	233	51	0	284	396
07:30 AM	20	0	6	0	26	0	0	0	0	0	2	74	0	0	76	1	202	42	0	245	347
07:45 AM	17	0	8	0	25	0	0	0	0	0	6	80	1	0	87	1	215	60	0	276	388
Total Volume	79	0	33	0	112	0	0	0	0	0	16	311	3	0	330	2	839	200	0	1041	1483
% App. Total	70.5	0	29.5	0		0	0	0	0	0	4.8	94.2	0.9	0		0.2	80.6	19.2	0		
PHF	.898	.000	.825	.000	.875	.000	.000	.000	.000	.000	.667	.972	.375	.000	.948	.500	.900	.833	.000	.916	.936





Adams County, CO  
 NWC 56th & Pecos Industrial  
 PM Peak  
 56th Ave and Pecos St

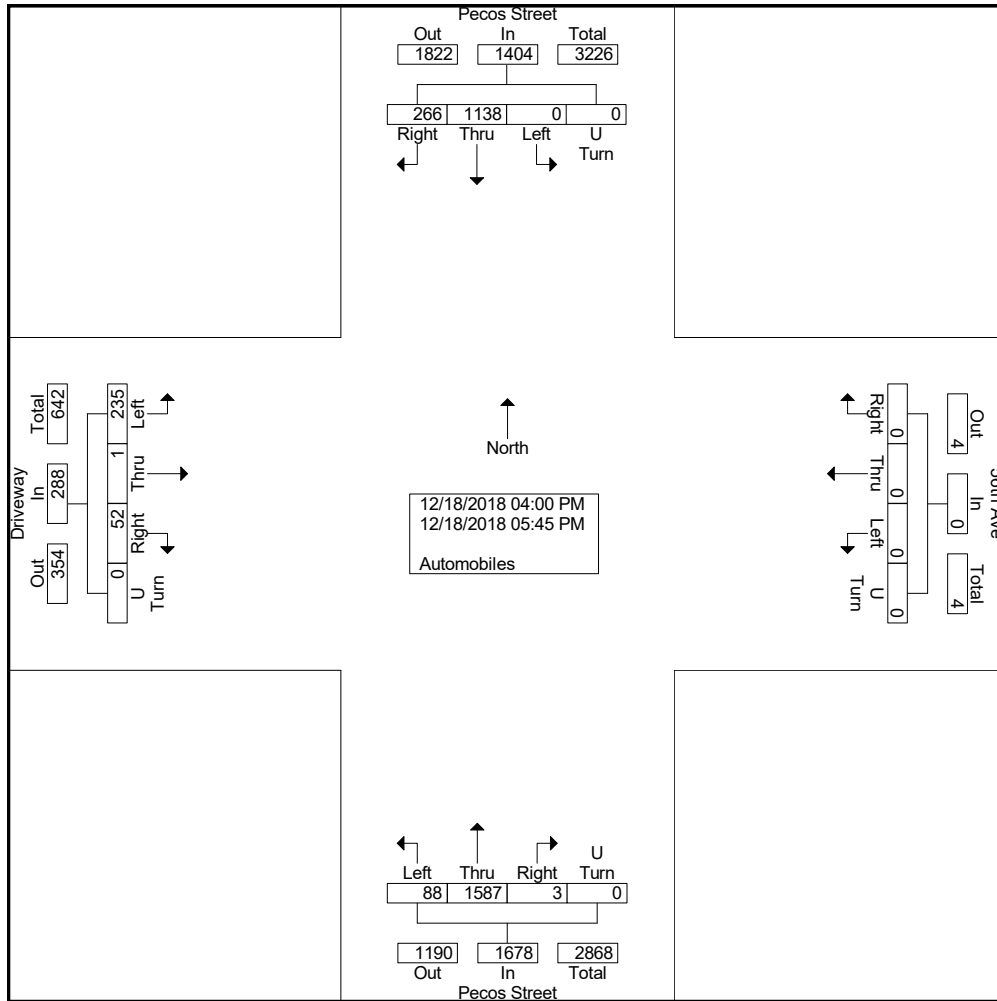
File Name : 56th and Pecos PM  
 Site Code : IPO 405  
 Start Date : 12/18/2018  
 Page No : 1

Groups Printed- Automobiles

Start Time	Driveway Eastbound					56th Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					Int. Total
	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	
04:00 PM	37	0	7	0	44	0	0	0	0	0	12	203	0	0	215	0	181	33	0	214	473
04:15 PM	43	0	5	0	48	0	0	0	0	0	15	204	1	0	220	0	155	36	0	191	459
04:30 PM	37	0	12	0	49	0	0	0	0	0	5	232	1	0	238	0	161	34	0	195	482
04:45 PM	28	1	2	0	31	0	0	0	0	0	8	176	0	0	184	0	145	36	0	181	396
Total	145	1	26	0	172	0	0	0	0	0	40	815	2	0	857	0	642	139	0	781	1810
05:00 PM	20	0	7	0	27	0	0	0	0	0	11	226	1	0	238	0	143	42	0	185	450
05:15 PM	28	0	8	0	36	0	0	0	0	0	13	186	0	0	199	0	124	32	0	156	391
05:30 PM	21	0	6	0	27	0	0	0	0	0	11	200	0	0	211	0	122	33	0	155	393
05:45 PM	21	0	5	0	26	0	0	0	0	0	13	160	0	0	173	0	107	20	0	127	326
Total	90	0	26	0	116	0	0	0	0	0	48	772	1	0	821	0	496	127	0	623	1560
Grand Total	235	1	52	0	288	0	0	0	0	0	88	1587	3	0	1678	0	1138	266	0	1404	3370
Apprch %	81.6	0.3	18.1	0		0	0	0	0		5.2	94.6	0.2	0		0	81.1	18.9	0		
Total %	7	0	1.5	0	8.5	0	0	0	0	0	2.6	47.1	0.1	0	49.8	0	33.8	7.9	0	41.7	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Pecos St

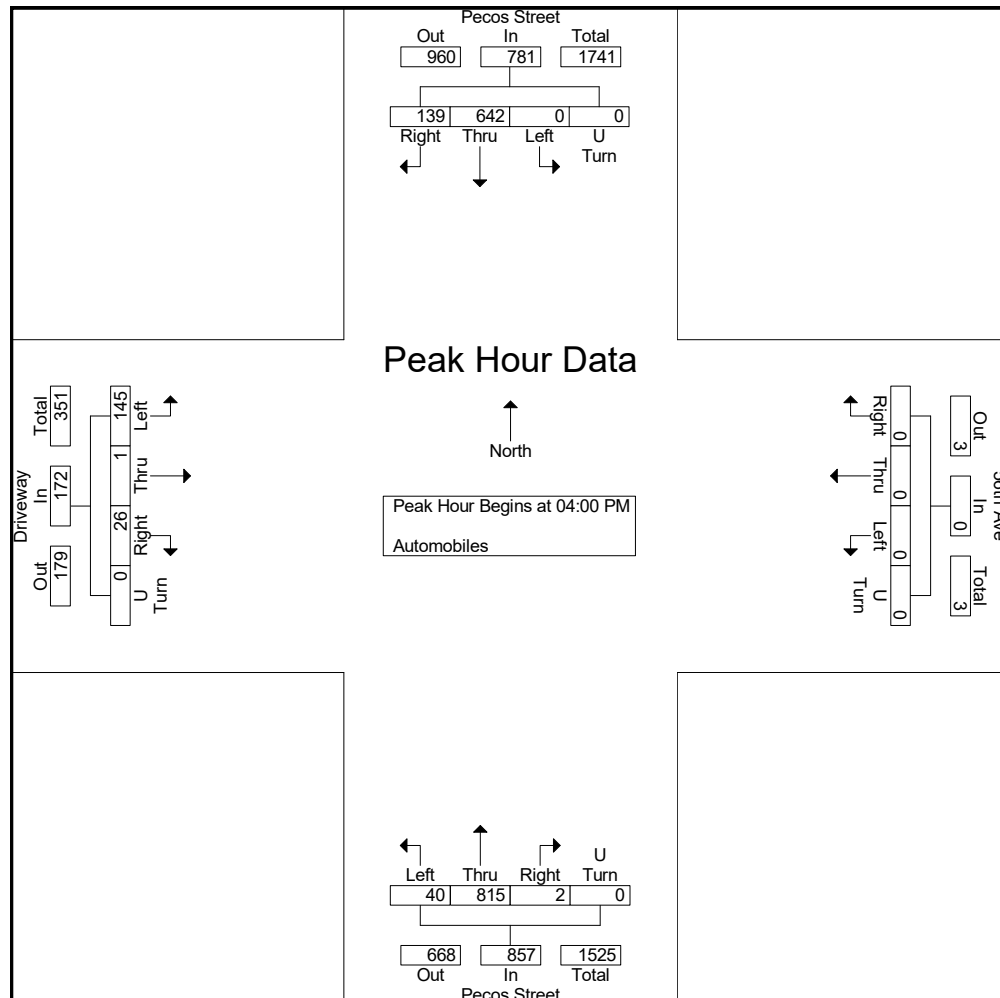
File Name : 56th and Pecos PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
56th Ave and Pecos St

File Name : 56th and Pecos PM  
Site Code : IPO 405  
Start Date : 12/18/2018  
Page No : 3

	Driveway Eastbound					56th Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	37	0	7	0	44	0	0	0	0	0	12	203	0	0	215	0	181	33	0	214	473
04:15 PM	43	0	5	0	48	0	0	0	0	0	15	204	1	0	220	0	155	36	0	191	459
04:30 PM	37	0	12	0	49	0	0	0	0	0	5	232	1	0	238	0	161	34	0	195	482
04:45 PM	28	1	2	0	31	0	0	0	0	0	8	176	0	0	184	0	145	36	0	181	396
Total Volume	145	1	26	0	172	0	0	0	0	0	40	815	2	0	857	0	642	139	0	781	1810
% App. Total	84.3	0.6	15.1	0		0	0	0	0		4.7	95.1	0.2	0		0	82.2	17.8	0		
PHF	.843	.250	.542	.000	.878	.000	.000	.000	.000	.000	.667	.878	.500	.000	.900	.000	.887	.965	.000	.912	.939



Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
52nd Ave and Pecos St

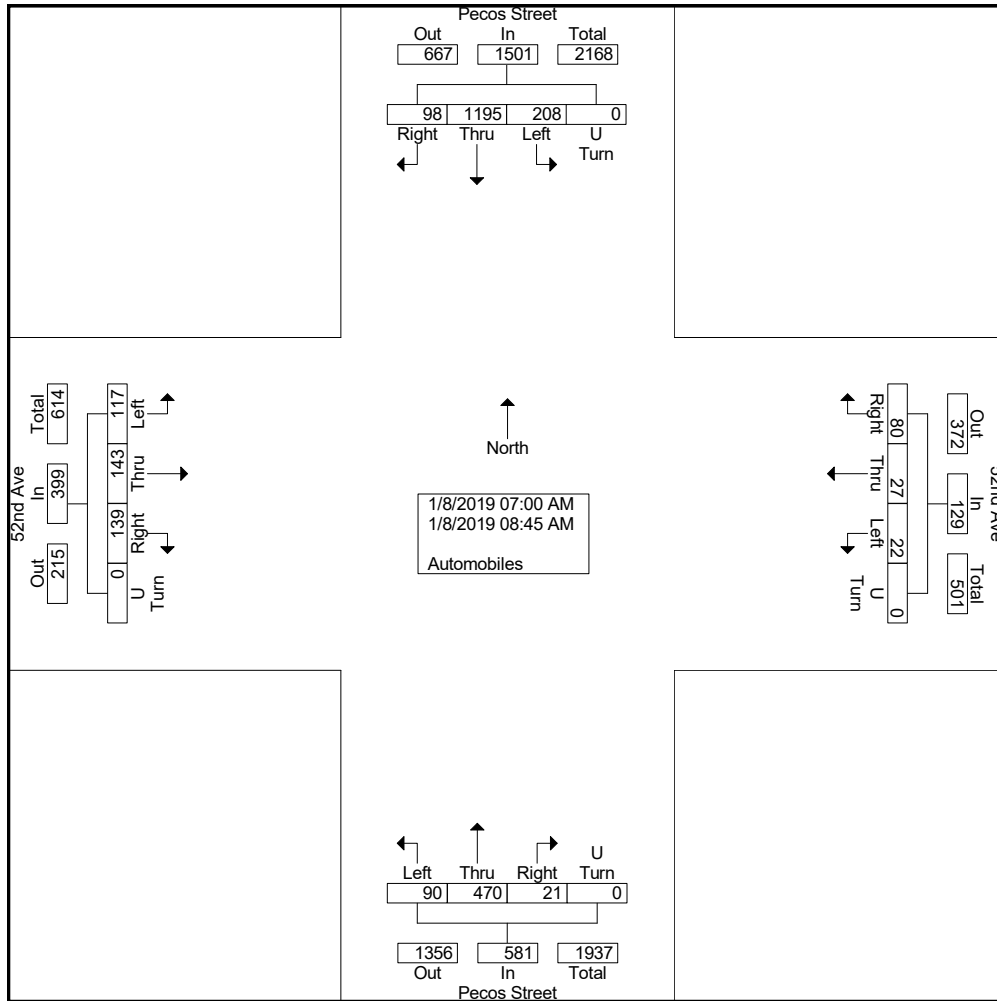
File Name : 52nd and Pecos AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 1

Groups Printed- Automobiles

	52nd Ave Eastbound					52nd Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
07:00 AM	8	14	15	0	37	3	3	14	0	20	9	62	4	0	75	23	127	12	0	162	294
07:15 AM	10	30	27	0	67	2	2	8	0	12	4	45	3	0	52	29	167	9	0	205	336
07:30 AM	10	20	18	0	48	6	4	6	0	16	9	61	5	0	75	15	171	7	0	193	332
07:45 AM	20	32	19	0	71	2	4	7	0	13	8	66	2	0	76	43	188	8	0	239	399
Total	48	96	79	0	223	13	13	35	0	61	30	234	14	0	278	110	653	36	0	799	1361
08:00 AM	15	15	14	0	44	3	6	10	0	19	16	72	1	0	89	32	150	18	0	200	352
08:15 AM	22	18	23	0	63	2	6	16	0	24	24	55	0	0	79	24	136	29	0	189	355
08:30 AM	22	12	15	0	49	4	1	8	0	13	13	53	4	0	70	23	140	10	0	173	305
08:45 AM	10	2	8	0	20	0	1	11	0	12	7	56	2	0	65	19	116	5	0	140	237
Total	69	47	60	0	176	9	14	45	0	68	60	236	7	0	303	98	542	62	0	702	1249
Grand Total	117	143	139	0	399	22	27	80	0	129	90	470	21	0	581	208	1195	98	0	1501	2610
Apprch %	29.3	35.8	34.8	0		17.1	20.9	62	0		15.5	80.9	3.6	0		13.9	79.6	6.5	0		
Total %	4.5	5.5	5.3	0	15.3	0.8	1	3.1	0	4.9	3.4	18	0.8	0	22.3	8	45.8	3.8	0	57.5	

Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
52nd Ave and Pecos St

File Name : 52nd and Pecos AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 2

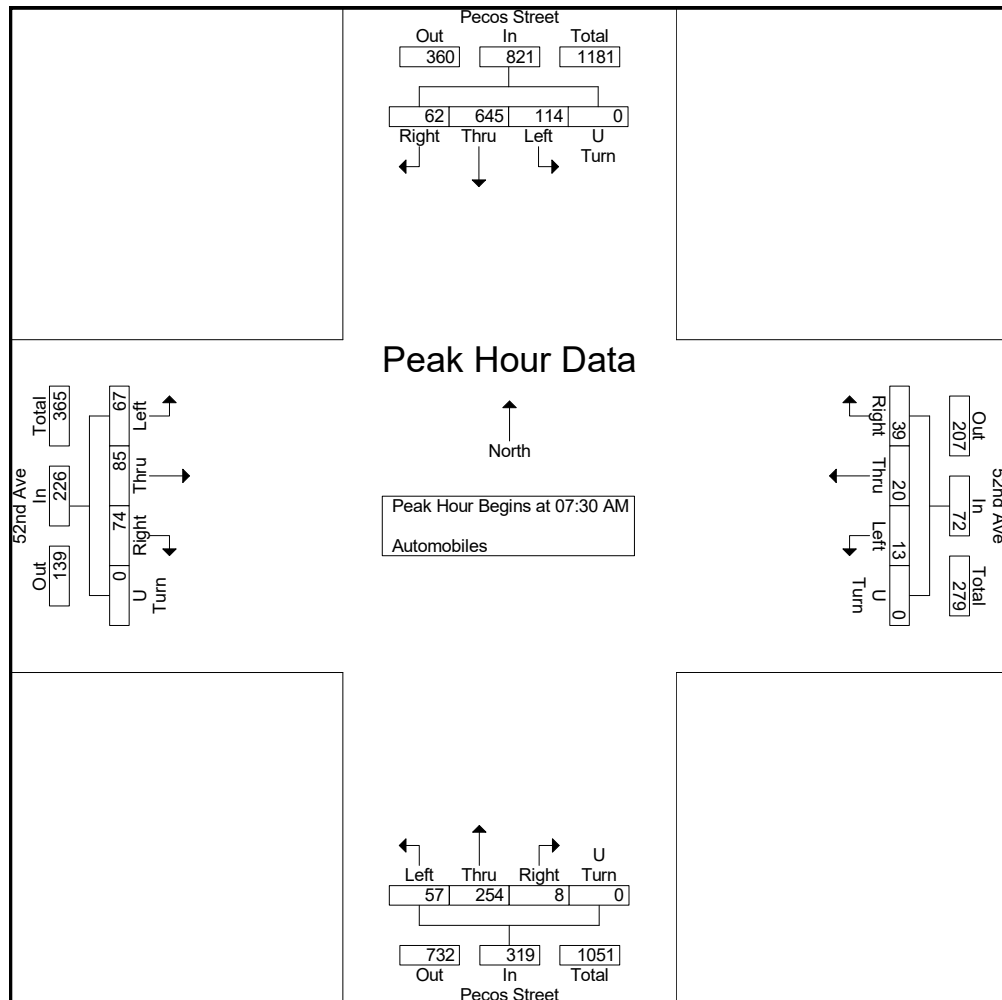




Adams County, CO  
NWC 56th & Pecos Industrial  
AM Peak  
52nd Ave and Pecos St

File Name : 52nd and Pecos AM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	52nd Ave Eastbound					52nd Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	10	20	18	0	48	6	4	6	0	16	9	61	5	0	75	15	171	7	0	193	332
07:45 AM	20	32	19	0	71	2	4	7	0	13	8	66	2	0	76	43	188	8	0	239	399
08:00 AM	15	15	14	0	44	3	6	10	0	19	16	72	1	0	89	32	150	18	0	200	352
08:15 AM	22	18	23	0	63	2	6	16	0	24	24	55	0	0	79	24	136	29	0	189	355
Total Volume	67	85	74	0	226	13	20	39	0	72	57	254	8	0	319	114	645	62	0	821	1438
% App. Total	29.6	37.6	32.7	0		18.1	27.8	54.2	0		17.9	79.6	2.5	0		13.9	78.6	7.6	0		
PHF	.761	.664	.804	.000	.796	.542	.833	.609	.000	.750	.594	.882	.400	.000	.896	.663	.858	.534	.000	.859	.901



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
52nd Ave and Pecos St

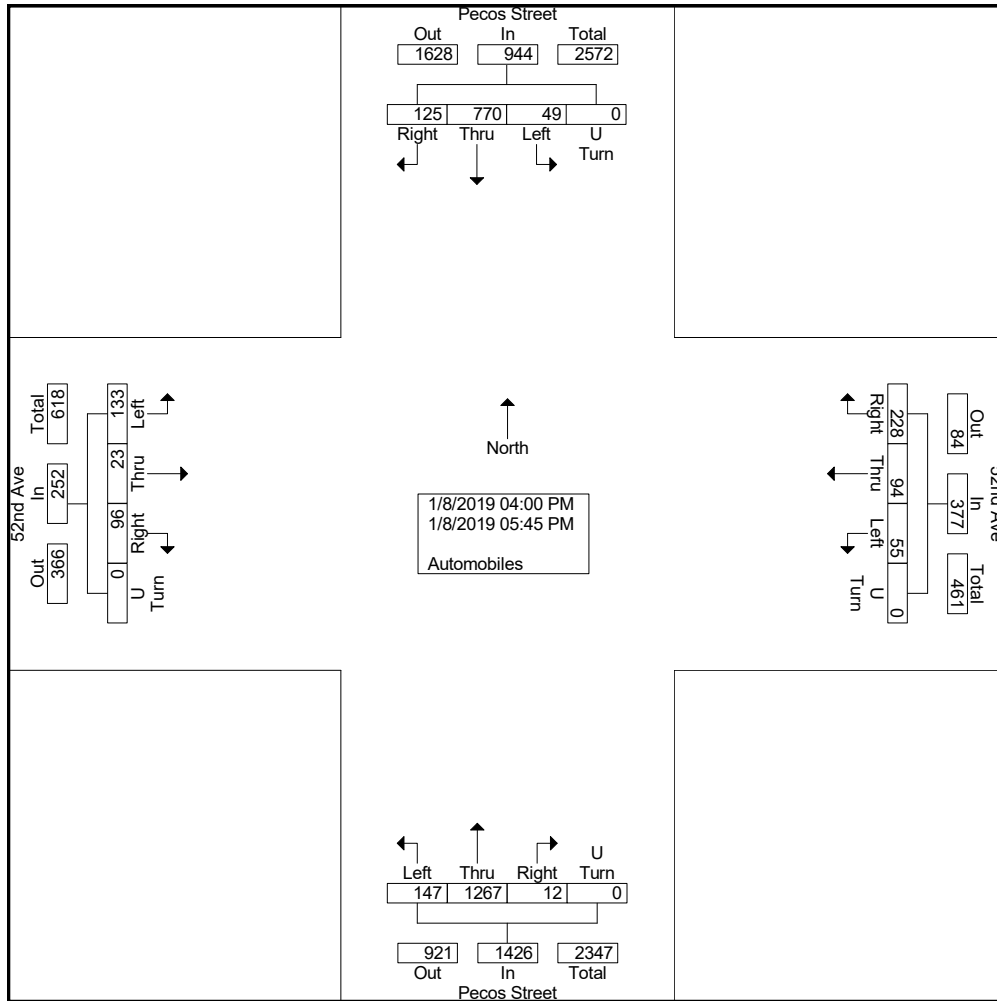
File Name : 52nd and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 1

Groups Printed- Automobiles

	52nd Ave Eastbound					52nd Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
04:00 PM	21	2	7	0	30	20	11	43	0	74	16	132	1	0	149	4	79	15	0	98	351
04:15 PM	20	5	16	0	41	1	9	31	0	41	20	147	4	0	171	13	100	24	0	137	390
04:30 PM	20	3	8	0	31	13	16	33	0	62	18	147	3	0	168	6	111	13	0	130	391
04:45 PM	13	5	14	0	32	2	13	31	0	46	23	183	2	0	208	6	113	20	0	139	425
Total	74	15	45	0	134	36	49	138	0	223	77	609	10	0	696	29	403	72	0	504	1557
05:00 PM	14	2	12	0	28	6	24	37	0	67	18	162	0	0	180	2	97	17	0	116	391
05:15 PM	16	1	14	0	31	5	9	28	0	42	14	193	0	0	207	8	117	12	0	137	417
05:30 PM	16	2	16	0	34	4	9	17	0	30	14	147	2	0	163	3	76	13	0	92	319
05:45 PM	13	3	9	0	25	4	3	8	0	15	24	156	0	0	180	7	77	11	0	95	315
Total	59	8	51	0	118	19	45	90	0	154	70	658	2	0	730	20	367	53	0	440	1442
Grand Total	133	23	96	0	252	55	94	228	0	377	147	1267	12	0	1426	49	770	125	0	944	2999
Apprch %	52.8	9.1	38.1	0		14.6	24.9	60.5	0		10.3	88.8	0.8	0		5.2	81.6	13.2	0		
Total %	4.4	0.8	3.2	0	8.4	1.8	3.1	7.6	0	12.6	4.9	42.2	0.4	0	47.5	1.6	25.7	4.2	0	31.5	

Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
52nd Ave and Pecos St

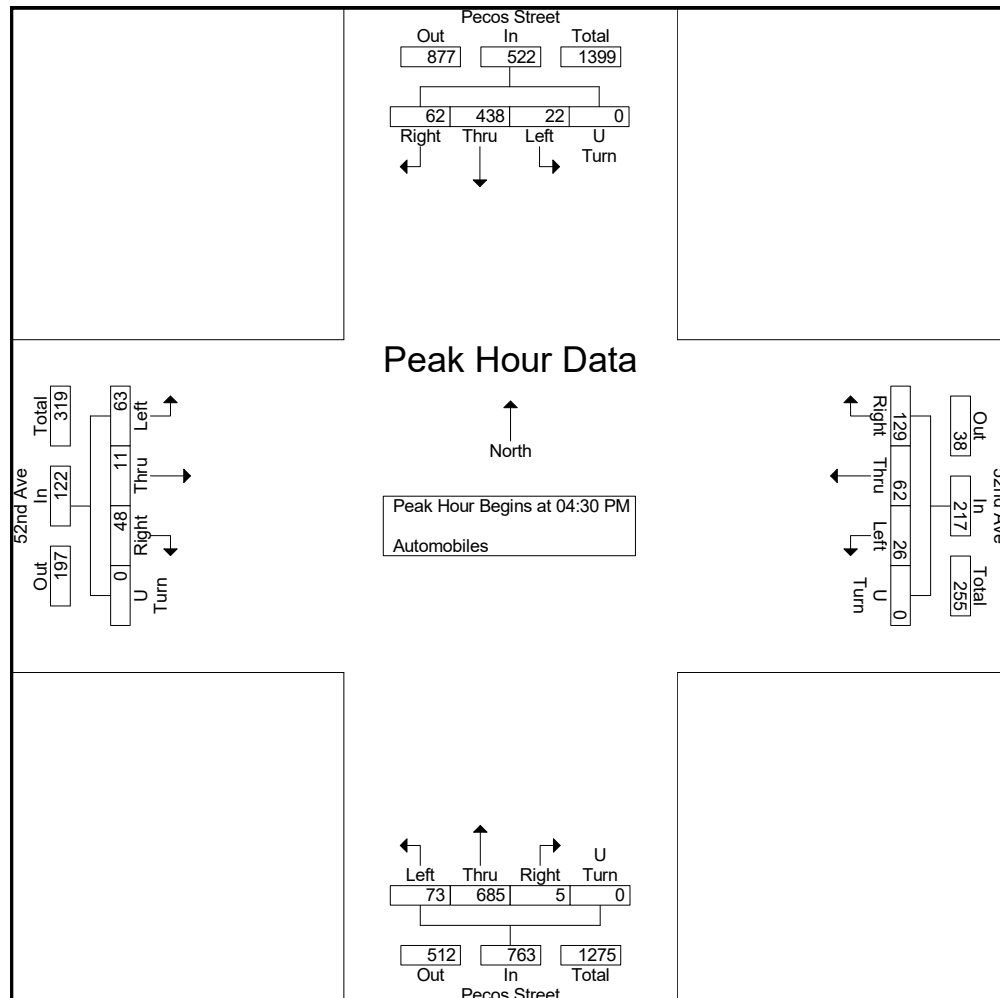
File Name : 52nd and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 2



Adams County, CO  
NWC 56th & Pecos Industrial  
PM Peak  
52nd Ave and Pecos St

File Name : 52nd and Pecos PM  
Site Code : IPO 407  
Start Date : 1/8/2019  
Page No : 3

	52nd Ave Eastbound					52nd Ave Westbound					Pecos Street Northbound					Pecos Street Southbound					
Start Time	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Left	Thru	Right	U Turn	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	20	3	8	0	31	13	16	33	0	62	18	147	3	0	168	6	111	13	0	130	391
04:45 PM	13	5	14	0	32	2	13	31	0	46	23	183	2	0	208	6	113	20	0	139	425
05:00 PM	14	2	12	0	28	6	24	37	0	67	18	162	0	0	180	2	97	17	0	116	391
05:15 PM	16	1	14	0	31	5	9	28	0	42	14	193	0	0	207	8	117	12	0	137	417
Total Volume	63	11	48	0	122	26	62	129	0	217	73	685	5	0	763	22	438	62	0	522	1624
% App. Total	51.6	9	39.3	0		12	28.6	59.4	0		9.6	89.8	0.7	0		4.2	83.9	11.9	0		
PHF	.788	.550	.857	.000	.953	.500	.646	.872	.000	.810	.793	.887	.417	.000	.917	.688	.936	.775	.000	.939	.955



# APPENDIX B

## CDOT Traffic Data

Pecos Logistics Park Traffic Projections:

Interstate-76:

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTYR	COUNTYEAR	OFFPKTRK	YR20FACTOR	DHV	AADTTRUCKS	VMT	LOCATION
076A	1.768	3.223	1.532	87000	2017	2017	8.4	1.46	8	7300	133284	ON I-76 W/O SH 287 FEDERAL BLVD
076A	3.223	4.217	0.974	83000	2017	2017	9	1.48	8	7400	80842	ON I-76 E/O SH 287 FEDERAL BLVD
076A	4.217	5.777	1.602	84000	2017	2017	13.4	1.48	8	11300	134568	ON I-76 W/O I-25

US-287 (Federal Boulevard):

ROUTE	REFPT	ENDREFPT	LENGTH	AADT	AADTYR	COUNTYEAR	OFFPKTRK	YR20FACTOR	DHV	AADTTRUCKS	VMT	LOCATION
287C	285.992	286.913	0.916	32000	2017	2017	2.7	1.06	9.5	860	29312	ON SH 287 FEDERAL BLVD S/O I-76 DENVER
287C	286.913	287.803	0.843	36000	2017	2017	3	1.08	9.5	1080	30348	ON SH 287 FEDERAL BLVD N/O I-76 DENVER

# APPENDIX C

## Trip Generation Worksheets

Project Pecos Logistics Park - Phase 1  
Subject Trip Generation for Industrial Park  
Designed by ACK Date January 18, 2019 Job No. 096799000  
Checked by \_\_\_\_\_ Date \_\_\_\_\_ Sheet No. 1 of 1

## **TRIP GENERATION MANUAL TECHNIQUES**

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Industrial Park (130)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)

Gross Floor Area = 400,800

X = 400.8

T = Average Vehicle Trip Ends

### **Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 22)**

T = 0.40 (X)		Directional Distribution:	81% ent.	19% exit.
T = 0.40 *	400.8	T =	160	Average Vehicle Trip Ends
		130	entering	30 exiting
		130	+	30 = 160

### **Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 23)**

T = 0.40 (X)		Directional Distribution:	21% ent.	79% exit.
T = 0.40 *	400.8	T =	161	Average Vehicle Trip Ends
		34	entering	127 exiting
		34	+	127 = 161

### **Weekday (100 Series Page 21)**

T = 3.37 (X)		Directional Distribution:	50% entering, 50% exiting	
T = 3.37 *	400.8	T =	1352	Average Vehicle Trip Ends
		676	entering	676 exiting
		676	+	676 = 1352



Project Pecos Logistics Park - Full Buildout  
 Subject Trip Generation for Industrial Park  
 Designed by ACK Date January 18, 2019 Job No. 096799000  
 Checked by \_\_\_\_\_ Date \_\_\_\_\_ Sheet No. 1 of 1

## **TRIP GENERATION MANUAL TECHNIQUES**

ITE Trip Generation Manual 10th Edition, Average Rate Equations

Land Use Code - Industrial Park (130)

Independant Variable - 1000 Square Feet Gross Floor Feet (X)

Gross Floor Area = 1,139,800

X = 1139.8

T = Average Vehicle Trip Ends

### **Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m. (100 Series Page 22)**

T = 0.40 (X)		Directional Distribution:	81% ent.	19% exit.
T = 0.40 *	1139.8	T = 456	Average Vehicle Trip Ends	
		369 entering	87 exiting	
		369 + 87 = 456		

### **Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. (100 Series Page 23)**

T = 0.40 (X)		Directional Distribution:	21% ent.	79% exit.
T = 0.40 *	1139.8	T = 456	Average Vehicle Trip Ends	
		96 entering	360 exiting	
		96 + 360 = 456		

### **Weekday (100 Series Page 21)**

T = 3.37 (X)		Directional Distribution:	50% entering, 50% exiting	
T = 3.37 *	1139.8	T = 3842	Average Vehicle Trip Ends	
		1921 entering	1921 exiting	
		1921 + 1921 = 3842		

# APPENDIX D




















## Intersection Analysis Worksheets

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2018 Existing AM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	382	21	218	42	494	0	0	949	418
Future Volume (veh/h)	0	0	0	382	21	218	42	494	0	0	949	418
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				640	0	0	76	574	0	0	1020	0
Peak Hour Factor				0.72	0.33	0.81	0.55	0.86	0.92	0.92	0.93	0.79
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				849	0		732	2174	0	0	1695	
Arrive On Green				0.24	0.00	0.00	0.12	1.00	0.00	0.00	0.48	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				640	0	0	76	574	0	0	1020	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				10.0	0.0	0.0	0.6	0.0	0.0	0.0	12.6	0.0
Cycle Q Clear(g_c), s				10.0	0.0	0.0	0.6	0.0	0.0	0.0	12.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				849	0		732	2174	0	0	1695	
V/C Ratio(X)				0.75	0.00		0.10	0.26	0.00	0.00	0.60	
Avail Cap(c_a), veh/h				1752	0		842	2174	0	0	1695	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.2	0.0	0.0	7.1	0.0	0.0	0.0	11.5	0.0
Incr Delay (d2), s/veh				1.4	0.0	0.0	0.1	0.3	0.0	0.0	1.6	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
%ile BackOfQ(50%),veh/ln				4.0	0.0	0.0	0.2	0.1	0.0	0.0	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.6	0.0	0.0	7.2	0.3	0.0	0.0	13.1	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					640	A		650			1020	A
Approach Delay, s/veh					22.6			1.1			13.1	
Approach LOS					C			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.2			8.1	33.1		18.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		21.5			5.5	11.5		29.5				
Max Q Clear Time (g_c+I1), s		2.0			2.6	14.6		12.0				
Green Ext Time (p_c), s		3.8			0.0	0.0		2.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.4								
HCM 6th LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2018 Existing PM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	167	4	208	165	1202	0	0	526	400
Future Volume (veh/h)	0	0	0	167	4	208	165	1202	0	0	526	400
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				347	0	0	188	1292	0	0	584	0
Peak Hour Factor				0.68	0.33	0.72	0.88	0.93	0.92	0.92	0.90	0.94
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				503	0		1267	2519	0	0	1969	
Arrive On Green				0.14	0.00	0.00	0.16	1.00	0.00	0.00	0.55	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				347	0	0	188	1292	0	0	584	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				5.6	0.0	0.0	1.1	0.0	0.0	0.0	5.3	0.0
Cycle Q Clear(g_c), s				5.6	0.0	0.0	1.1	0.0	0.0	0.0	5.3	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				503	0		1267	2519	0	0	1969	
V/C Ratio(X)				0.69	0.00		0.15	0.51	0.00	0.00	0.30	
Avail Cap(c_a), veh/h				1098	0		1280	2519	0	0	1969	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.76	0.76	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				24.5	0.0	0.0	3.7	0.0	0.0	0.0	7.1	0.0
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				2.3	0.0	0.0	0.2	0.2	0.0	0.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.2	0.0	0.0	3.7	0.6	0.0	0.0	7.5	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					347	A		1480			584	A
Approach Delay, s/veh					26.2			1.0			7.5	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	47.0			9.3			37.7			13.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	32.5			5.0			23.0			18.5		
Max Q Clear Time (g_c+I1), s	2.0			3.1			7.3			7.6		
Green Ext Time (p_c), s	12.1			0.1			3.6			0.9		
Intersection Summary												
HCM 6th Ctrl Delay				6.2								
HCM 6th LOS				A								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2020 BG AM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	388	21	221	43	501	0	0	963	424
Future Volume (veh/h)	0	0	0	388	21	221	43	501	0	0	963	424
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				650	0	0	78	583	0	0	1035	0
Peak Hour Factor				0.72	0.33	0.81	0.55	0.86	0.92	0.92	0.93	0.79
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				816	0		739	2206	0	0	1724	
Arrive On Green				0.23	0.00	0.00	0.12	1.00	0.00	0.00	0.49	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				650	0	0	78	583	0	0	1035	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				10.3	0.0	0.0	0.6	0.0	0.0	0.0	12.7	0.0
Cycle Q Clear(g_c), s				10.3	0.0	0.0	0.6	0.0	0.0	0.0	12.7	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				816	0		739	2206	0	0	1724	
V/C Ratio(X)				0.80	0.00		0.11	0.26	0.00	0.00	0.60	
Avail Cap(c_a), veh/h				1098	0		817	2206	0	0	1724	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.8	0.0	0.0	6.9	0.0	0.0	0.0	11.2	0.0
Incr Delay (d2), s/veh				3.0	0.0	0.0	0.1	0.3	0.0	0.0	1.6	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
%ile BackOfQ(50%),veh/ln				4.3	0.0	0.0	0.2	0.1	0.0	0.0	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.8	0.0	0.0	6.9	0.3	0.0	0.0	12.8	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					650	A		661			1035	A
Approach Delay, s/veh					24.8			1.1			12.8	
Approach LOS					C			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.7			8.1	33.6		18.3				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		32.5			5.0	23.0		18.5				
Max Q Clear Time (g_c+I1), s		2.0			2.6	14.7		12.3				
Green Ext Time (p_c), s		4.4			0.0	4.4		1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				12.8								
HCM 6th LOS				B								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2020 BG PM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	170	4	211	167	1220	0	0	534	406
Future Volume (veh/h)	0	0	0	170	4	211	167	1220	0	0	534	406
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				353	0	0	190	1312	0	0	593	0
Peak Hour Factor				0.68	0.33	0.72	0.88	0.93	0.92	0.92	0.90	0.94
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				510	0		1255	2512	0	0	1962	
Arrive On Green				0.14	0.00	0.00	0.16	1.00	0.00	0.00	0.55	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				353	0	0	190	1312	0	0	593	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				5.7	0.0	0.0	1.1	0.0	0.0	0.0	5.4	0.0
Cycle Q Clear(g_c), s				5.7	0.0	0.0	1.1	0.0	0.0	0.0	5.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				510	0		1255	2512	0	0	1962	
V/C Ratio(X)				0.69	0.00		0.15	0.52	0.00	0.00	0.30	
Avail Cap(c_a), veh/h				1098	0		1296	2512	0	0	1962	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.75	0.75	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				24.5	0.0	0.0	3.7	0.0	0.0	0.0	7.2	0.0
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.0	0.3	0.2	0.0	0.0	1.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.2	0.0	0.0	3.7	0.6	0.0	0.0	7.6	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					353	A		1502			593	A
Approach Delay, s/veh					26.2			1.0			7.6	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	46.9			9.3		37.6	13.1					
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5					
Max Green Setting (Gmax), s	32.5			5.5		22.5	18.5					
Max Q Clear Time (g_c+l1), s	2.0			3.1		7.4	7.7					
Green Ext Time (p_c), s	12.4			0.1		3.5	0.9					
Intersection Summary												
HCM 6th Ctrl Delay	6.2											
HCM 6th LOS	A											
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2020 Total AM.syn

01/24/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	407	22	225	46	515	0	0	1004	431
Future Volume (veh/h)	0	0	0	407	22	225	46	515	0	0	1004	431
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				679	0	0	84	599	0	0	1080	0
Peak Hour Factor				0.72	0.33	0.81	0.55	0.86	0.92	0.92	0.93	0.79
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				852	0		703	2171	0	0	1682	
Arrive On Green				0.24	0.00	0.00	0.13	1.00	0.00	0.00	0.47	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				679	0	0	84	599	0	0	1080	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				10.8	0.0	0.0	0.6	0.0	0.0	0.0	13.8	0.0
Cycle Q Clear(g_c), s				10.8	0.0	0.0	0.6	0.0	0.0	0.0	13.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				852	0		703	2171	0	0	1682	
V/C Ratio(X)				0.80	0.00		0.12	0.28	0.00	0.00	0.64	
Avail Cap(c_a), veh/h				1158	0		803	2171	0	0	1682	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.95	0.95	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.5	0.0	0.0	7.4	0.0	0.0	0.0	12.0	0.0
Incr Delay (d2), s/veh				2.8	0.0	0.0	0.1	0.3	0.0	0.0	1.9	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
%ile BackOfQ(50%),veh/ln				4.4	0.0	0.0	0.2	0.1	0.0	0.0	5.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.3	0.0	0.0	7.5	0.3	0.0	0.0	13.9	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					679	A		683			1080	A
Approach Delay, s/veh					24.3			1.2			13.9	
Approach LOS					C			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.2			8.3	32.9		18.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		31.5			5.5	21.5		19.5				
Max Q Clear Time (g_c+I1), s		2.0			2.6	15.8		12.8				
Green Ext Time (p_c), s		4.5			0.0	3.4		1.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.2								
HCM 6th LOS				B								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2020 Total PM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	175	4	214	183	1263	0	0	549	412
Future Volume (veh/h)	0	0	0	175	4	214	183	1263	0	0	549	412
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				360	0	0	208	1358	0	0	610	0
Peak Hour Factor				0.68	0.33	0.72	0.88	0.93	0.92	0.92	0.90	0.94
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				517	0		1236	2505	0	0	1951	
Arrive On Green				0.15	0.00	0.00	0.16	1.00	0.00	0.00	0.55	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				360	0	0	208	1358	0	0	610	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				5.8	0.0	0.0	1.3	0.0	0.0	0.0	5.6	0.0
Cycle Q Clear(g_c), s				5.8	0.0	0.0	1.3	0.0	0.0	0.0	5.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				517	0		1236	2505	0	0	1951	
V/C Ratio(X)				0.70	0.00		0.17	0.54	0.00	0.00	0.31	
Avail Cap(c_a), veh/h				1098	0		1245	2505	0	0	1951	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.74	0.74	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				24.4	0.0	0.0	3.8	0.0	0.0	0.0	7.4	0.0
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.0	0.6	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
%ile BackOfQ(50%),veh/ln				2.4	0.0	0.0	0.3	0.2	0.0	0.0	1.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.1	0.0	0.0	3.8	0.6	0.0	0.0	7.8	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					360	A		1566			610	A
Approach Delay, s/veh					26.1			1.1			7.8	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	46.8			9.3			37.4			13.2		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	32.5			5.0			23.0			18.5		
Max Q Clear Time (g_c+I1), s	2.0			3.3			7.6			7.8		
Green Ext Time (p_c), s	13.0			0.1			3.7			1.0		
Intersection Summary												
HCM 6th Ctrl Delay				6.2								
HCM 6th LOS				A								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												






















# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2024 BG AM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	418	23	238	46	540	0	0	1038	457
Future Volume (veh/h)	0	0	0	418	23	238	46	540	0	0	1038	457
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				701	0	0	84	628	0	0	1116	0
Peak Hour Factor				0.72	0.33	0.81	0.55	0.86	0.92	0.92	0.93	0.79
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				864	0		679	2159	0	0	1669	
Arrive On Green				0.24	0.00	0.00	0.13	1.00	0.00	0.00	0.47	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				701	0	0	84	628	0	0	1116	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				11.1	0.0	0.0	0.6	0.0	0.0	0.0	14.6	0.0
Cycle Q Clear(g_c), s				11.1	0.0	0.0	0.6	0.0	0.0	0.0	14.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				864	0		679	2159	0	0	1669	
V/C Ratio(X)				0.81	0.00		0.12	0.29	0.00	0.00	0.67	
Avail Cap(c_a), veh/h				1098	0		750	2159	0	0	1669	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.4	0.0	0.0	7.7	0.0	0.0	0.0	12.3	0.0
Incr Delay (d2), s/veh				3.7	0.0	0.0	0.1	0.3	0.0	0.0	2.1	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
%ile BackOfQ(50%),veh/ln				4.7	0.0	0.0	0.2	0.1	0.0	0.0	5.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.1	0.0	0.0	7.8	0.3	0.0	0.0	14.4	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					701	A		712			1116	A
Approach Delay, s/veh					25.1			1.2			14.4	
Approach LOS					C			A			B	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	40.9			8.3		32.7	19.1					
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5					
Max Green Setting (Gmax), s	32.5			5.0		23.0	18.5					
Max Q Clear Time (g_c+I1), s	2.0			2.6		16.6	13.1					
Green Ext Time (p_c), s	4.8			0.0		3.9	1.4					
Intersection Summary												
HCM 6th Ctrl Delay	13.7											
HCM 6th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2024 BG PM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	183	4	227	180	1314	0	0	575	437
Future Volume (veh/h)	0	0	0	183	4	227	180	1314	0	0	575	437
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				379	0	0	205	1413	0	0	639	0
Peak Hour Factor				0.68	0.33	0.72	0.88	0.93	0.92	0.92	0.90	0.94
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				538	0		1198	2484	0	0	1931	
Arrive On Green				0.15	0.00	0.00	0.16	1.00	0.00	0.00	0.54	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				379	0	0	205	1413	0	0	639	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				6.1	0.0	0.0	1.3	0.0	0.0	0.0	6.0	0.0
Cycle Q Clear(g_c), s				6.1	0.0	0.0	1.3	0.0	0.0	0.0	6.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				538	0		1198	2484	0	0	1931	
V/C Ratio(X)				0.70	0.00		0.17	0.57	0.00	0.00	0.33	
Avail Cap(c_a), veh/h				1098	0		1207	2484	0	0	1931	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.69	0.69	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				24.2	0.0	0.0	4.0	0.0	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh				1.7	0.0	0.0	0.0	0.7	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
%ile BackOfQ(50%),veh/ln				2.5	0.0	0.0	0.3	0.2	0.0	0.0	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.9	0.0	0.0	4.0	0.7	0.0	0.0	8.1	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					379	A		1618			639	A
Approach Delay, s/veh					25.9			1.1			8.1	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	46.4			9.3			37.1			13.6		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	32.5			5.0			23.0			18.5		
Max Q Clear Time (g_c+I1), s	2.0			3.3			8.0			8.1		
Green Ext Time (p_c), s	13.7			0.1			3.8			1.0		
Intersection Summary												
HCM 6th Ctrl Delay				6.3								
HCM 6th LOS				A								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2024 Total AM.syn

01/24/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	455	23	238	55	557	0	0	1112	457
Future Volume (veh/h)	0	0	0	455	23	238	55	557	0	0	1112	457
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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		
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				752	0	0	100	648	0	0	1196	0
Peak Hour Factor				0.72	0.33	0.81	0.55	0.86	0.92	0.92	0.93	0.79
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				943	0		619	2080	0	0	1573	
Arrive On Green				0.26	0.00	0.00	0.14	1.00	0.00	0.00	0.44	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				752	0	0	100	648	0	0	1196	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				11.8	0.0	0.0	0.8	0.0	0.0	0.0	17.0	0.0
Cycle Q Clear(g_c), s				11.8	0.0	0.0	0.8	0.0	0.0	0.0	17.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				943	0		619	2080	0	0	1573	
V/C Ratio(X)				0.80	0.00		0.16	0.31	0.00	0.00	0.76	
Avail Cap(c_a), veh/h				1336	0		702	2080	0	0	1573	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.97	0.97	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				20.6	0.0	0.0	9.1	0.0	0.0	0.0	14.0	0.0
Incr Delay (d2), s/veh				2.3	0.0	0.0	0.1	0.4	0.0	0.0	3.5	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
%ile BackOfQ(50%),veh/ln				4.8	0.0	0.0	0.2	0.1	0.0	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				22.9	0.0	0.0	9.2	0.4	0.0	0.0	17.6	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					752	A		748			1196	A
Approach Delay, s/veh					22.9			1.6			17.6	
Approach LOS					C			A			B	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	39.6			8.6		31.1	20.4					
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5					
Max Green Setting (Gmax), s	28.5			5.5		18.5	22.5					
Max Q Clear Time (g_c+I1), s	2.0			2.8		19.0	13.8					
Green Ext Time (p_c), s	4.8			0.1		0.0	2.1					
Intersection Summary												
HCM 6th Ctrl Delay	14.6											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2024 Total PM.syn

01/24/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	193	4	227	216	1386	0	0	594	437
Future Volume (veh/h)	0	0	0	193	4	227	216	1386	0	0	594	437
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				392	0	0	245	1490	0	0	660	0
Peak Hour Factor				0.68	0.33	0.72	0.88	0.93	0.92	0.92	0.90	0.94
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				572	0		1163	2450	0	0	1893	
Arrive On Green				0.16	0.00	0.00	0.16	1.00	0.00	0.00	0.53	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				392	0	0	245	1490	0	0	660	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				6.2	0.0	0.0	1.6	0.0	0.0	0.0	6.4	0.0
Cycle Q Clear(g_c), s				6.2	0.0	0.0	1.6	0.0	0.0	0.0	6.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				572	0		1163	2450	0	0	1893	
V/C Ratio(X)				0.69	0.00		0.21	0.61	0.00	0.00	0.35	
Avail Cap(c_a), veh/h				2078	0		1168	2450	0	0	1893	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.62	0.62	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				23.8	0.0	0.0	4.3	0.0	0.0	0.0	8.0	0.0
Incr Delay (d2), s/veh				1.5	0.0	0.0	0.1	0.7	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
%ile BackOfQ(50%),veh/ln				2.6	0.0	0.0	0.4	0.2	0.0	0.0	2.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.2	0.0	0.0	4.3	0.7	0.0	0.0	8.6	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					392	A		1735			660	A
Approach Delay, s/veh					25.2			1.2			8.6	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	45.9			9.4		36.5	14.1					
Change Period (Y+Rc), s	4.5			4.5		4.5	4.5					
Max Green Setting (Gmax), s	16.0			5.0		6.5	35.0					
Max Q Clear Time (g_c+I1), s	2.0			3.6		8.4	8.2					
Green Ext Time (p_c), s	9.1			0.1		0.0	1.4					
Intersection Summary												
HCM 6th Ctrl Delay				6.3								
HCM 6th LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2040 BG AM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	530	29	302	58	685	0	0	1317	580
Future Volume (veh/h)	0	0	0	530	29	302	58	685	0	0	1317	580
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				691	0	0	63	745	0	0	1432	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				855	0		522	2168	0	0	1709	
Arrive On Green				0.24	0.00	0.00	0.11	1.00	0.00	0.00	0.48	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				691	0	0	63	745	0	0	1432	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				11.0	0.0	0.0	0.5	0.0	0.0	0.0	21.0	0.0
Cycle Q Clear(g_c), s				11.0	0.0	0.0	0.5	0.0	0.0	0.0	21.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				855	0		522	2168	0	0	1709	
V/C Ratio(X)				0.81	0.00		0.12	0.34	0.00	0.00	0.84	
Avail Cap(c_a), veh/h				1098	0		623	2168	0	0	1709	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.95	0.95	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.5	0.0	0.0	9.9	0.0	0.0	0.0	13.5	0.0
Incr Delay (d2), s/veh				3.6	0.0	0.0	0.1	0.4	0.0	0.0	5.1	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
%ile BackOfQ(50%),veh/ln				4.6	0.0	0.0	0.1	0.1	0.0	0.0	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.1	0.0	0.0	10.0	0.4	0.0	0.0	18.6	0.0
LnGrp LOS				C	A		A	A	A	A	B	
Approach Vol, veh/h					691	A		808			1432	A
Approach Delay, s/veh					25.1			1.2			18.6	
Approach LOS					C			A			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.1			7.8	33.4		18.9				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		32.5			5.0	23.0		18.5				
Max Q Clear Time (g_c+I1), s		2.0			2.5	23.0		13.0				
Green Ext Time (p_c), s		5.9			0.0	0.0		1.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.3								
HCM 6th LOS				B								
<b>Notes</b>												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2040 BG PM.syn

01/23/2019




















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	232	6	289	229	1668	0	0	730	555
Future Volume (veh/h)	0	0	0	232	6	289	229	1668	0	0	730	555
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				362	0	0	249	1813	0	0	793	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				473	0		1099	2549	0	0	1991	
Arrive On Green				0.13	0.00	0.00	0.16	1.00	0.00	0.00	0.56	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				362	0	0	249	1813	0	0	793	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				5.9	0.0	0.0	1.5	0.0	0.0	0.0	7.6	0.0
Cycle Q Clear(g_c), s				5.9	0.0	0.0	1.5	0.0	0.0	0.0	7.6	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				473	0		1099	2549	0	0	1991	
V/C Ratio(X)				0.77	0.00		0.23	0.71	0.00	0.00	0.40	
Avail Cap(c_a), veh/h				505	0		1190	2549	0	0	1991	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.50	0.50	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				25.1	0.0	0.0	3.9	0.0	0.0	0.0	7.5	0.0
Incr Delay (d2), s/veh				6.5	0.0	0.0	0.1	0.9	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
%ile BackOfQ(50%),veh/ln				2.8	0.0	0.0	0.3	0.3	0.0	0.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.6	0.0	0.0	4.0	0.9	0.0	0.0	8.1	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					362	A		2062			793	A
Approach Delay, s/veh					31.6			1.2			8.1	
Approach LOS					C			A			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		47.5			9.4	38.1		12.5				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		42.5			6.5	31.5		8.5				
Max Q Clear Time (g_c+l1), s		2.0			3.5	9.6		7.9				
Green Ext Time (p_c), s		22.6			0.2	5.8		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				6.3								
HCM 6th LOS				A								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2040 Total AM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	567	29	302	67	702	0	0	1391	580
Future Volume (veh/h)	0	0	0	567	29	302	67	702	0	0	1391	580
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				731	0	0	73	763	0	0	1512	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				905	0		486	2118	0	0	1643	
Arrive On Green				0.25	0.00	0.00	0.12	1.00	0.00	0.00	0.46	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				731	0	0	73	763	0	0	1512	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				11.6	0.0	0.0	0.6	0.0	0.0	0.0	23.9	0.0
Cycle Q Clear(g_c), s				11.6	0.0	0.0	0.6	0.0	0.0	0.0	23.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				905	0		486	2118	0	0	1643	
V/C Ratio(X)				0.81	0.00		0.15	0.36	0.00	0.00	0.92	
Avail Cap(c_a), veh/h				1188	0		571	2118	0	0	1643	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.92	0.92	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				21.0	0.0	0.0	11.5	0.0	0.0	0.0	15.1	0.0
Incr Delay (d2), s/veh				3.2	0.0	0.0	0.1	0.4	0.0	0.0	9.9	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
%ile BackOfQ(50%),veh/ln				4.8	0.0	0.0	0.2	0.1	0.0	0.0	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.2	0.0	0.0	11.7	0.4	0.0	0.0	25.0	0.0
LnGrp LOS				C	A		B	A	A	A	C	
Approach Vol, veh/h					731	A		836			1512	A
Approach Delay, s/veh					24.2			1.4			25.0	
Approach LOS					C			A			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		40.3			8.0	32.2		19.7				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		31.0			5.0	21.5		20.0				
Max Q Clear Time (g_c+I1), s		2.0			2.6	25.9		13.6				
Green Ext Time (p_c), s		6.0			0.0	0.0		1.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				18.4								
HCM 6th LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												






















# HCM 6th Signalized Intersection Summary

## 1: Pecos Street & I-76 Westbound Ramp

2040 Total PM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	242	6	289	265	1740	0	0	749	555
Future Volume (veh/h)	0	0	0	242	6	289	265	1740	0	0	749	555
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				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	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				371	0	0	288	1891	0	0	814	0
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				481	0		1080	2541	0	0	1981	
Arrive On Green				0.13	0.00	0.00	0.17	1.00	0.00	0.00	0.56	0.00
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	3647	1585
Grp Volume(v), veh/h				371	0	0	288	1891	0	0	814	0
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1777	1585
Q Serve(g_s), s				6.0	0.0	0.0	1.8	0.0	0.0	0.0	7.9	0.0
Cycle Q Clear(g_c), s				6.0	0.0	0.0	1.8	0.0	0.0	0.0	7.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				481	0		1080	2541	0	0	1981	
V/C Ratio(X)				0.77	0.00		0.27	0.74	0.00	0.00	0.41	
Avail Cap(c_a), veh/h				505	0		1111	2541	0	0	1981	
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(l)				1.00	0.00	0.00	0.32	0.32	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				25.1	0.0	0.0	4.1	0.0	0.0	0.0	7.6	0.0
Incr Delay (d2), s/veh				6.9	0.0	0.0	0.0	0.7	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
%ile BackOfQ(50%),veh/ln				2.9	0.0	0.0	0.4	0.2	0.0	0.0	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				32.0	0.0	0.0	4.1	0.7	0.0	0.0	8.3	0.0
LnGrp LOS				C	A		A	A	A	A	A	
Approach Vol, veh/h					371	A		2179			814	A
Approach Delay, s/veh					32.0			1.1			8.3	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	47.4			9.5			37.9			12.6		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	42.5			5.5			32.5			8.5		
Max Q Clear Time (g_c+l1), s	2.0			3.8			9.9			8.0		
Green Ext Time (p_c), s	24.0			0.2			6.0			0.1		
Intersection Summary												
HCM 6th Ctrl Delay				6.3								
HCM 6th LOS				A								
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												























# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2018 Existing AM.syn

01/22/2019





















																
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR				
Lane Configurations																
Traffic Volume (veh/h)	279	0	229	0	0	0	0	249	188	296	1005	0				
Future Volume (veh/h)	279	0	229	0	0	0	0	249	188	296	1005	0				
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0				
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00				
Parking Bus, Adj	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						
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0				
Adj Flow Rate, veh/h	303	0	0				0	300	0	318	1288	0				
Peak Hour Factor	0.92	0.92	0.85				0.92	0.83	0.81	0.93	0.78	0.92				
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0				
Cap, veh/h	452	0					0	2008		1626	2569	0				
Arrive On Green	0.13	0.00	0.00				0.00	0.57	0.00	0.17	1.00	0.00				
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0				
Grp Volume(v), veh/h	303	0	0				0	300	0	318	1288	0				
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0				
Q Serve(g_s), s	4.9	0.0	0.0				0.0	2.4	0.0	2.0	0.0	0.0				
Cycle Q Clear(g_c), s	4.9	0.0	0.0				0.0	2.4	0.0	2.0	0.0	0.0				
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00				
Lane Grp Cap(c), veh/h	452	0					0	2008		1626	2569	0				
V/C Ratio(X)	0.67	0.00					0.00	0.15		0.20	0.50	0.00				
Avail Cap(c_a), veh/h	1069	0					0	2008		1639	2569	0				
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00				
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.57	0.57	0.00				
Uniform Delay (d), s/veh	25.0	0.0	0.0				0.0	6.2	0.0	3.2	0.0	0.0				
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.2	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				
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0				0.0	0.8	0.0	0.4	0.1	0.0				
Unsig. Movement Delay, s/veh																
LnGrp Delay(d),s/veh	26.7	0.0	0.0				0.0	6.4	0.0	3.3	0.4	0.0				
LnGrp LOS	C	A					A	A		A	A	A				
Approach Vol, veh/h			303	A				300	A		1606					
Approach Delay, s/veh			26.7					6.4			1.0					
Approach LOS			C					A			A					
Timer - Assigned Phs	1	2		4		6										
Phs Duration (G+Y+Rc), s	9.5	38.4		12.1		47.9										
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5										
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0										
Max Q Clear Time (g_c+I1), s	4.0	4.4		6.9		2.0										
Green Ext Time (p_c), s	0.2	1.8		0.8		12.1										
Intersection Summary																
HCM 6th Ctrl Delay			5.2													
HCM 6th LOS			A													
Notes																
User approved volume balancing among the lanes for turning movement.																
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.																

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2018 Existing PM.syn





















01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	490	0	74	0	0	0	0	804	350	193	538	0
Future Volume (veh/h)	490	0	74	0	0	0	0	804	350	193	538	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	521	0	0				0	914	0	244	604	0
Peak Hour Factor	0.94	0.92	0.60				0.92	0.88	0.77	0.79	0.89	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	686	0					0	1778		911	2336	0
Arrive On Green	0.19	0.00	0.00				0.00	0.50	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	521	0	0				0	914	0	244	604	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	8.3	0.0	0.0				0.0	10.4	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	8.3	0.0	0.0				0.0	10.4	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	686	0					0	1778		911	2336	0
V/C Ratio(X)	0.76	0.00					0.00	0.51		0.27	0.26	0.00
Avail Cap(c_a), veh/h	1069	0					0	1778		928	2336	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	22.9	0.0	0.0				0.0	10.1	0.0	5.8	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	1.1	0.0	0.1	0.2	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
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0				0.0	3.6	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	0.0				0.0	11.1	0.0	5.9	0.2	0.0
LnGrp LOS	C	A					A	B		A	A	A
Approach Vol, veh/h	521		A					914	A	848		
Approach Delay, s/veh	24.7							11.1		1.9		
Approach LOS	C							B		A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	34.5		16.1		43.9						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+I1), s	3.7	12.4		10.3		2.0						
Green Ext Time (p_c), s	0.1	4.7		1.3		4.6						
Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary 2: Pecos Street & I-76 Eastbound Ramp

2020 BG AM.syn

01/22/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	283	0	232	0	0	0	0	253	191	300	1020	0
Future Volume (veh/h)	283	0	232	0	0	0	0	253	191	300	1020	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	308	0	0				0	305	0	323	1308	0
Peak Hour Factor	0.92	0.92	0.85				0.92	0.83	0.81	0.93	0.78	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	458	0					0	2002		1616	2564	0
Arrive On Green	0.13	0.00	0.00				0.00	0.56	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	308	0	0				0	305	0	323	1308	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	4.9	0.0	0.0				0.0	2.5	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	4.9	0.0	0.0				0.0	2.5	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0					0	2002		1616	2564	0
V/C Ratio(X)	0.67	0.00					0.00	0.15		0.20	0.51	0.00
Avail Cap(c_a), veh/h	1069	0					0	2002		1628	2564	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	24.9	0.0	0.0				0.0	6.3	0.0	3.3	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.2	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
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0				0.0	0.8	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	0.0	0.0				0.0	6.4	0.0	3.3	0.4	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h	308		A				305		A	1631		
Approach Delay, s/veh	26.7						6.4			1.0		
Approach LOS	C						A			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	38.3		12.2		47.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+I1), s	4.0	4.5		6.9		2.0						
Green Ext Time (p_c), s	0.2	1.8		0.8		12.4						
Intersection Summary												
HCM 6th Ctrl Delay	5.2											
HCM 6th LOS	A											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2020 BG PM.syn

01/23/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	0	75	0	0	0	0	816	355	196	546	0
Future Volume (veh/h)	497	0	75	0	0	0	0	816	355	196	546	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	529	0	0				0	927	0	248	613	0
Peak Hour Factor	0.94	0.92	0.60				0.92	0.88	0.77	0.79	0.89	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	694	0					0	1770		899	2328	0
Arrive On Green	0.19	0.00	0.00				0.00	0.50	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	529	0	0				0	927	0	248	613	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	8.4	0.0	0.0				0.0	10.6	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	8.4	0.0	0.0				0.0	10.6	0.0	1.8	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	694	0					0	1770		899	2328	0
V/C Ratio(X)	0.76	0.00					0.00	0.52		0.28	0.26	0.00
Avail Cap(c_a), veh/h	1069	0					0	1770		915	2328	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.90	0.90	0.00
Uniform Delay (d), s/veh	22.8	0.0	0.0				0.0	10.2	0.0	5.9	0.0	0.0
Incr Delay (d2), s/veh	1.8	0.0	0.0				0.0	1.1	0.0	0.1	0.2	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
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0				0.0	3.7	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	0.0				0.0	11.3	0.0	6.0	0.2	0.0
LnGrp LOS	C	A					A	B		A	A	A
Approach Vol, veh/h	529		A				927		A	861		
Approach Delay, s/veh	24.6						11.3			1.9		
Approach LOS	C						B			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	34.4		16.2		43.8						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+I1), s	3.8	12.6		10.4		2.0						
Green Ext Time (p_c), s	0.1	4.7		1.3		4.6						
Intersection Summary												
HCM 6th Ctrl Delay	10.9											
HCM 6th LOS	B											
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2020 Total AM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	287	0	249	0	0	0	0	266	197	305	1074	0
Future Volume (veh/h)	287	0	249	0	0	0	0	266	197	305	1074	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	312	0	0				0	320	0	328	1377	0
Peak Hour Factor	0.92	0.92	0.85				0.92	0.83	0.81	0.93	0.78	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	428	0					0	2033		1652	2594	0
Arrive On Green	0.12	0.00	0.00				0.00	0.76	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	312	0	0				0	320	0	328	1377	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	5.1	0.0	0.0				0.0	1.5	0.0	2.0	0.0	0.0
Cycle Q Clear(g_c), s	5.1	0.0	0.0				0.0	1.5	0.0	2.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	428	0					0	2033		1652	2594	0
V/C Ratio(X)	0.73	0.00					0.00	0.16		0.20	0.53	0.00
Avail Cap(c_a), veh/h	505	0					0	2033		1970	2594	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.65	0.65	0.00
Uniform Delay (d), s/veh	25.5	0.0	0.0				0.0	3.2	0.0	3.0	0.0	0.0
Incr Delay (d2), s/veh	4.4	0.0	0.0				0.0	0.2	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
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.0				0.0	0.4	0.0	0.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	0.0	0.0				0.0	3.4	0.0	3.1	0.5	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h		312	A					320	A		1705	
Approach Delay, s/veh		29.9						3.4			1.0	
Approach LOS		C						A			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	38.8		11.7		48.3						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	10.5	27.5		8.5		42.5						
Max Q Clear Time (g_c+I1), s	4.0	3.5		7.1		2.0						
Green Ext Time (p_c), s	0.6	2.1		0.2		14.7						
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			5.2									
HCM 6th LOS			A									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2020 Total PM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	505	0	79	0	0	0	0	866	374	199	564	0
Future Volume (veh/h)	505	0	79	0	0	0	0	866	374	199	564	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	537	0	0				0	984	0	252	634	0
Peak Hour Factor	0.94	0.92	0.60				0.92	0.88	0.77	0.79	0.89	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	582	0					0	1882		1111	2440	0
Arrive On Green	0.16	0.00	0.00				0.00	1.00	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	537	0	0				0	984	0	252	634	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	8.9	0.0	0.0				0.0	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	8.9	0.0	0.0				0.0	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	582	0					0	1882		1111	2440	0
V/C Ratio(X)	0.92	0.00					0.00	0.52		0.23	0.26	0.00
Avail Cap(c_a), veh/h	582	0					0	1882		1127	2440	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(l)	1.00	0.00	0.00				0.00	1.00	0.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	24.7	0.0	0.0				0.0	0.0	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	20.5	0.0	0.0				0.0	1.0	0.0	0.1	0.2	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
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0				0.0	0.3	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	0.0	0.0				0.0	1.0	0.0	3.8	0.2	0.0
LnGrp LOS	D	A					A	A		A	A	A
Approach Vol, veh/h	537			A			984			A		
Approach Delay, s/veh	45.2						1.0			1.3		
Approach LOS	D						A			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	36.3		14.3		45.7						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	31.5		9.8		41.2						
Max Q Clear Time (g_c+l1), s	3.7	2.0		10.9		2.0						
Green Ext Time (p_c), s	0.1	8.3		0.0		5.0						
Intersection Summary												
HCM 6th Ctrl Delay	11.0											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2024 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	0	250	0	0	0	0	272	206	324	1099	0
Future Volume (veh/h)	305	0	250	0	0	0	0	272	206	324	1099	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	332	0	0				0	328	0	348	1409	0
Peak Hour Factor	0.92	0.92	0.85				0.92	0.83	0.81	0.93	0.78	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	485	0					0	1975		1569	2537	0
Arrive On Green	0.14	0.00	0.00				0.00	0.56	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	332	0	0				0	328	0	348	1409	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	5.3	0.0	0.0				0.0	2.7	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0				0.0	2.7	0.0	2.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	485	0					0	1975		1569	2537	0
V/C Ratio(X)	0.68	0.00					0.00	0.17		0.22	0.56	0.00
Avail Cap(c_a), veh/h	1069	0					0	1975		1582	2537	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.38	0.38	0.00
Uniform Delay (d), s/veh	24.7	0.0	0.0				0.0	6.5	0.0	3.5	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.2	0.0	0.0	0.3	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
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0				0.0	0.9	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	0.0				0.0	6.7	0.0	3.5	0.3	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h	332		A				328		A	1757		
Approach Delay, s/veh	26.4						6.7			1.0		
Approach LOS	C						A			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	37.8		12.7		47.3						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+l1), s	4.3	4.7		7.3		2.0						
Green Ext Time (p_c), s	0.1	2.0		0.9		13.7						
Intersection Summary												
HCM 6th Ctrl Delay				5.2								
HCM 6th LOS				A								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												























# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2024 BG PM.syn

01/22/2019

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	536	0	81	0	0	0	0	879	383	211	588	0	
Future Volume (veh/h)	536	0	81	0	0	0	0	879	383	211	588	0	
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00	
Parking Bus, Adj	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			
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0	
Adj Flow Rate, veh/h	570	0	0				0	999	0	267	661	0	
Peak Hour Factor	0.94	0.92	0.60				0.92	0.88	0.77	0.79	0.89	0.92	
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0	
Cap, veh/h	735	0					0	1728		837	2287	0	
Arrive On Green	0.21	0.00	0.00				0.00	0.49	0.00	0.16	1.00	0.00	
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0	
Grp Volume(v), veh/h	570	0	0				0	999	0	267	661	0	
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0	
Q Serve(g_s), s	9.1	0.0	0.0				0.0	12.1	0.0	2.0	0.0	0.0	
Cycle Q Clear(g_c), s	9.1	0.0	0.0				0.0	12.1	0.0	2.0	0.0	0.0	
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00	
Lane Grp Cap(c), veh/h	735	0					0	1728		837	2287	0	
V/C Ratio(X)	0.78	0.00					0.00	0.58		0.32	0.29	0.00	
Avail Cap(c_a), veh/h	1069	0					0	1728		852	2287	0	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00	
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.87	0.87	0.00	
Uniform Delay (d), s/veh	22.5	0.0	0.0				0.0	11.0	0.0	6.6	0.0	0.0	
Incr Delay (d2), s/veh	2.2	0.0	0.0				0.0	1.4	0.0	0.2	0.3	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	
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0				0.0	4.3	0.0	0.5	0.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	24.7	0.0	0.0				0.0	12.4	0.0	6.8	0.3	0.0	
LnGrp LOS	C	A					A	B		A	A	A	
Approach Vol, veh/h			570	A					999	A			928
Approach Delay, s/veh			24.7						12.4				2.2
Approach LOS			C						B				A
Timer - Assigned Phs	1	2		4		6							
Phs Duration (G+Y+Rc), s	9.4	33.7		16.9		43.1							
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5							
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0							
Max Q Clear Time (g_c+I1), s	4.0	14.1		11.1		2.0							
Green Ext Time (p_c), s	0.1	4.6		1.3		5.1							
Intersection Summary													
HCM 6th Ctrl Delay			11.4										
HCM 6th LOS			B										
Notes													
User approved volume balancing among the lanes for turning movement.													
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.													























# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2024 Total AM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	305	0	287	0	0	0	0	298	215	324	1210	0
Future Volume (veh/h)	305	0	287	0	0	0	0	298	215	324	1210	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	332	0	0				0	359	0	348	1551	0
Peak Hour Factor	0.92	0.92	0.85				0.92	0.83	0.81	0.93	0.78	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	490	0					0	1970		1492	2532	0
Arrive On Green	0.14	0.00	0.00				0.00	0.37	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	332	0	0				0	359	0	348	1551	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	5.3	0.0	0.0				0.0	4.1	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	5.3	0.0	0.0				0.0	4.1	0.0	2.3	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	490	0					0	1970		1492	2532	0
V/C Ratio(X)	0.68	0.00					0.00	0.18		0.23	0.61	0.00
Avail Cap(c_a), veh/h	1217	0					0	1970		1521	2532	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	0.67	0.67	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.47	0.47	0.00
Uniform Delay (d), s/veh	24.6	0.0	0.0				0.0	9.7	0.0	3.6	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.2	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
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0				0.0	1.4	0.0	0.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	0.0				0.0	9.9	0.0	3.7	0.5	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h			332	A				359	A		1899	
Approach Delay, s/veh			26.3					9.9			1.1	
Approach LOS			C					A			A	
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	9.5	37.8	12.8		47.2							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	5.5	20.5	20.5		30.5							
Max Q Clear Time (g_c+l1), s	4.3	6.1	7.3		2.0							
Green Ext Time (p_c), s	0.2	2.0	1.0		15.0							
Intersection Summary												
HCM 6th Ctrl Delay			5.5									
HCM 6th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2024 Total PM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	536	0	91	0	0	0	0	987	419	211	617	0
Future Volume (veh/h)	536	0	91	0	0	0	0	987	419	211	617	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	570	0	0				0	1122	0	267	693	0
Peak Hour Factor	0.94	0.92	0.60				0.92	0.88	0.77	0.79	0.89	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	564	0					0	1899		1045	2458	0
Arrive On Green	0.16	0.00	0.00				0.00	1.00	0.00	0.16	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	570	0	0				0	1122	0	267	693	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	9.5	0.0	0.0				0.0	0.0	0.0	1.7	0.0	0.0
Cycle Q Clear(g_c), s	9.5	0.0	0.0				0.0	0.0	0.0	1.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	564	0					0	1899		1045	2458	0
V/C Ratio(X)	1.01	0.00					0.00	0.59		0.26	0.28	0.00
Avail Cap(c_a), veh/h	564	0					0	1899		1480	2458	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	2.00	2.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.88	0.88	0.00
Uniform Delay (d), s/veh	25.3	0.0	0.0				0.0	0.0	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	40.5	0.0	0.0				0.0	1.4	0.0	0.1	0.3	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
%ile BackOfQ(50%),veh/ln	6.9	0.0	0.0				0.0	0.4	0.0	0.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.8	0.0	0.0				0.0	1.4	0.0	3.8	0.3	0.0
LnGrp LOS	F	A					A	A		A	A	A
Approach Vol, veh/h	570			A			1122			A		
Approach Delay, s/veh	65.8						1.4			1.2		
Approach LOS	E						A			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.4	36.6		14.0		46.0						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	12.5	24.5		9.5		41.5						
Max Q Clear Time (g_c+I1), s	3.7	2.0		11.5		2.0						
Green Ext Time (p_c), s	0.6	8.9		0.0		5.6						
Intersection Summary												
HCM 6th Ctrl Delay	15.2											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2040 BG AM.syn

01/23/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	0	318	0	0	0	0	346	261	411	1395	0
Future Volume (veh/h)	387	0	318	0	0	0	0	346	261	411	1395	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	421	0	0				0	376	0	447	1516	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	582	0					0	1865		1455	2440	0
Arrive On Green	0.16	0.00	0.00				0.00	0.52	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	421	0	0				0	376	0	447	1516	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	6.7	0.0	0.0				0.0	3.4	0.0	3.4	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0				0.0	3.4	0.0	3.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	582	0					0	1865		1455	2440	0
V/C Ratio(X)	0.72	0.00					0.00	0.20		0.31	0.62	0.00
Avail Cap(c_a), veh/h	1069	0					0	1865		1455	2440	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.21	0.21	0.00
Uniform Delay (d), s/veh	23.8	0.0	0.0				0.0	7.6	0.0	4.2	0.0	0.0
Incr Delay (d2), s/veh	1.7	0.0	0.0				0.0	0.2	0.0	0.0	0.3	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
%ile BackOfQ(50%),veh/ln	2.8	0.0	0.0				0.0	1.1	0.0	0.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0				0.0	7.8	0.0	4.3	0.3	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h	421		A				376		A	1963		
Approach Delay, s/veh	25.5						7.8			1.2		
Approach LOS	C						A			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	36.0		14.3		45.7						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+l1), s	5.4	5.4		8.7		2.0						
Green Ext Time (p_c), s	0.0	2.3		1.1		15.2						
Intersection Summary												
HCM 6th Ctrl Delay			5.8									
HCM 6th LOS			A									
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2040 BG PM.syn

01/23/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	680	0	103	0	0	0	0	1116	486	268	747	0
Future Volume (veh/h)	680	0	103	0	0	0	0	1116	486	268	747	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	739	0	0				0	1213	0	291	812	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	842	0					0	1620		681	2181	0
Arrive On Green	0.24	0.00	0.00				0.00	0.46	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	739	0	0				0	1213	0	291	812	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	12.0	0.0	0.0				0.0	16.9	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	12.0	0.0	0.0				0.0	16.9	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	842	0					0	1620		681	2181	0
V/C Ratio(X)	0.88	0.00					0.00	0.75		0.43	0.37	0.00
Avail Cap(c_a), veh/h	861	0					0	1620		695	2181	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	22.1	0.0	0.0				0.0	13.5	0.0	9.3	0.0	0.0
Incr Delay (d2), s/veh	10.1	0.0	0.0				0.0	3.2	0.0	0.4	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
%ile BackOfQ(50%),veh/ln	5.8	0.0	0.0				0.0	6.4	0.0	0.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0				0.0	16.7	0.0	9.7	0.4	0.0
LnGrp LOS	C	A					A	B		A	A	A
Approach Vol, veh/h	739			A			1213			A		
Approach Delay, s/veh	32.1						16.7			2.9		
Approach LOS	C						B			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	31.9		18.7		41.3						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	26.8		14.5		36.5						
Max Q Clear Time (g_c+I1), s	4.4	18.9		14.0		2.0						
Green Ext Time (p_c), s	0.1	4.9		0.2		6.7						
Intersection Summary												
HCM 6th Ctrl Delay	15.4											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2040 Total AM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	387	0	355	0	0	0	0	372	270	411	1506	0
Future Volume (veh/h)	387	0	355	0	0	0	0	372	270	411	1506	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	421	0	0				0	404	0	447	1637	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	541	0					0	1865		1502	2481	0
Arrive On Green	0.15	0.00	0.00				0.00	0.70	0.00	0.20	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	421	0	0				0	404	0	447	1637	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	6.8	0.0	0.0				0.0	2.4	0.0	3.2	0.0	0.0
Cycle Q Clear(g_c), s	6.8	0.0	0.0				0.0	2.4	0.0	3.2	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	541	0					0	1865		1502	2481	0
V/C Ratio(X)	0.78	0.00					0.00	0.22		0.30	0.66	0.00
Avail Cap(c_a), veh/h	623	0					0	1865		1709	2481	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.33	1.33	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.36	0.36	0.00
Uniform Delay (d), s/veh	24.5	0.0	0.0				0.0	4.7	0.0	3.8	0.0	0.0
Incr Delay (d2), s/veh	5.4	0.0	0.0				0.0	0.3	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
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0				0.0	0.8	0.0	0.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	0.0	0.0				0.0	4.9	0.0	3.9	0.5	0.0
LnGrp LOS	C	A					A	A		A	A	A
Approach Vol, veh/h			421	A				404	A		2084	
Approach Delay, s/veh			29.9					4.9			1.2	
Approach LOS			C					A			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.4	36.0		13.6		46.4						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	9.5	26.5		10.5		40.5						
Max Q Clear Time (g_c+l1), s	5.2	4.4		8.8		2.0						
Green Ext Time (p_c), s	0.7	2.6		0.3		18.8						
Intersection Summary												
HCM 6th Ctrl Delay			5.9									
HCM 6th LOS			A									
Notes												
User approved pedestrian interval to be less than phase max green.												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 2: Pecos Street & I-76 Eastbound Ramp

2040 Total PM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	680	0	113	0	0	0	0	1224	522	268	776	0
Future Volume (veh/h)	680	0	113	0	0	0	0	1224	522	268	776	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	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		
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	739	0	0				0	1330	0	291	843	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	893	0					0	1570		612	2130	0
Arrive On Green	0.25	0.00	0.00				0.00	0.44	0.00	0.17	1.00	0.00
Sat Flow, veh/h	3563	0	1585				0	3647	1585	3456	3647	0
Grp Volume(v), veh/h	739	0	0				0	1330	0	291	843	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1777	1585	1728	1777	0
Q Serve(g_s), s	11.8	0.0	0.0				0.0	20.0	0.0	2.4	0.0	0.0
Cycle Q Clear(g_c), s	11.8	0.0	0.0				0.0	20.0	0.0	2.4	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	893	0					0	1570		612	2130	0
V/C Ratio(X)	0.83	0.00					0.00	0.85		0.48	0.40	0.00
Avail Cap(c_a), veh/h	1069	0					0	1570		626	2130	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	0.00	0.85	0.85	0.00
Uniform Delay (d), s/veh	21.3	0.0	0.0				0.0	14.9	0.0	11.0	0.0	0.0
Incr Delay (d2), s/veh	4.7	0.0	0.0				0.0	5.9	0.0	0.5	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
%ile BackOfQ(50%),veh/ln	5.1	0.0	0.0				0.0	8.1	0.0	0.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	0.0				0.0	20.8	0.0	11.5	0.5	0.0
LnGrp LOS	C	A					A	C		B	A	A
Approach Vol, veh/h	739			A			1330			A		
Approach Delay, s/veh	26.0						20.8			3.3		
Approach LOS	C						C			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	31.0		19.5		40.5						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	5.2	23.3		18.0		33.0						
Max Q Clear Time (g_c+I1), s	4.4	22.0		13.8		2.0						
Green Ext Time (p_c), s	0.1	1.0		1.3		6.9						
Intersection Summary												
HCM 6th Ctrl Delay				15.8								
HCM 6th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	0	4	0	15	6	363	18	21	1066	7
Future Vol, veh/h	7	0	0	4	0	15	6	363	18	21	1066	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	92	92	50	92	75	75	99	56	58	92	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	0	8	0	20	8	367	32	36	1159	12





Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1646	1652	586	1051	1642	383	1171	0	0	399	0	0
Stage 1	1237	1237	-	399	399	-	-	-	-	-	-	-
Stage 2	409	415	-	652	1243	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*398	*349	*651	*398	*349	*807	*975	-	-	*1209	-	-
Stage 1	*562	*504	-	*762	*667	-	-	-	-	-	-	-
Stage 2	*762	*667	-	*614	*499	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*359	*315	*651	*368	*315	*807	*975	-	-	*1209	-	-
Mov Cap-2 Maneuver	*359	*315	-	*368	*315	-	-	-	-	-	-	-
Stage 1	*556	*460	-	*754	*660	-	-	-	-	-	-	-
Stage 2	*735	*660	-	*562	*456	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	15.4		11.3		0.2		0.5	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 975	-	-	359	602	* 1209	-
HCM Lane V/C Ratio	0.008	-	-	0.034	0.047	0.03	-
HCM Control Delay (s)	8.7	0	-	15.4	11.3	8.1	0.3
HCM Lane LOS	A	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-

Notes												
-: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						



Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	4	13	0	22	2	986	7	3	747	2
Future Vol, veh/h	4	0	4	13	0	22	2	986	7	3	747	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	92	50	65	92	92	50	86	44	38	93	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	8	20	0	24	4	1147	16	8	803	4
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1996	1992	404	1581	1986	1155	807	0	0	1163	0	0
Stage 1	821	821	-	1163	1163	-	-	-	-	-	-	-
Stage 2	1175	1171	-	418	823	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*104	*91	*807	*104	*91	*286	1151	-	-	*429	-	-
Stage 1	*688	*619	-	*270	*237	-	-	-	-	-	-	-
Stage 2	*270	*237	-	*762	*617	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*92	*87	*807	*99	*87	*286	1151	-	-	*429	-	-
Mov Cap-2 Maneuver	*92	*87	-	*99	*87	-	-	-	-	-	-	-
Stage 1	*681	*598	-	*268	*234	-	-	-	-	-	-	-
Stage 2	*245	*234	-	*729	*596	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	21.9		37.4			0			0.3			
HCM LOS	C		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1151	-	-	225	154	*429	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.053	0.285	0.018	-	-				
HCM Control Delay (s)	8.1	0	-	21.9	37.4	13.5	0.2	-				
HCM Lane LOS	A	A	-	C	E	B	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	1.1	0.1	-	-				
Notes												
~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												







Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	0	4	0	15	6	368	18	21	1082	7
Future Vol, veh/h	7	0	0	4	0	15	6	368	18	21	1082	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	92	92	50	92	75	75	99	56	58	92	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	0	8	0	20	8	372	32	36	1176	12





Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1668	1674	594	1064	1664	388	1188	0	0	404	0	0
Stage 1	1254	1254	-	404	404	-	-	-	-	-	-	-
Stage 2	414	420	-	660	1260	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*398	*349	*651	*398	*349	*807	*975	-	-	*1209	-	-
Stage 1	*542	*490	-	*762	*667	-	-	-	-	-	-	-
Stage 2	*762	*667	-	*614	*485	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*359	*314	*651	*368	*314	*807	*975	-	-	*1209	-	-
Mov Cap-2 Maneuver	*359	*314	-	*368	*314	-	-	-	-	-	-	-
Stage 1	*536	*447	-	*754	*660	-	-	-	-	-	-	-
Stage 2	*735	*660	-	*560	*442	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	11.3	0.2	0.5
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 975	-	-	359	602	* 1209	-
HCM Lane V/C Ratio	0.008	-	-	0.034	0.047	0.03	-
HCM Control Delay (s)	8.7	0	-	15.4	11.3	8.1	0.3
HCM Lane LOS	A	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-

Notes												
-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	4	13	0	22	2	1001	7	3	758	2
Future Vol, veh/h	4	0	4	13	0	22	2	1001	7	3	758	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	92	50	65	92	92	50	86	44	38	93	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	8	20	0	24	4	1164	16	8	815	4
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2025	2021	410	1604	2015	1172	819	0	0	1180	0	0
Stage 1	833	833	-	1180	1180	-	-	-	-	-	-	-
Stage 2	1192	1188	-	424	835	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*104	*91	*807	*104	*91	*234	1136	-	-	*351	-	-
Stage 1	*674	*609	-	*221	*194	-	-	-	-	-	-	-
Stage 2	*221	*194	-	*762	*608	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*89	*86	*807	*99	*86	*234	1136	-	-	*351	-	-
Mov Cap-2 Maneuver	*89	*86	-	*99	*86	-	-	-	-	-	-	-
Stage 1	*667	*584	-	*219	*192	-	-	-	-	-	-	-
Stage 2	*197	*192	-	*723	*582	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	22.4		40.6			0			0.4			
HCM LOS	C		E									
Minor Lane/Major Mvmt	NBL		NBT	NBR		EBLn1WBLn1		SBL	SBT	SBR		
Capacity (veh/h)	1136		-	-	219	144	*351	-	-			
HCM Lane V/C Ratio	0.004		-	-	0.055	0.305	0.022	-	-			
HCM Control Delay (s)	8.2		0	-	22.4	40.6	15.5	0.3	-			
HCM Lane LOS	A		A	-	C	E	C	A	-			
HCM 95th %tile Q(veh)	0		-	-	0.2	1.2	0.1	-	-			
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			





Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	2	4	0	15	6	386	19	22	1124	33
Future Vol, veh/h	7	0	2	4	0	15	6	386	19	22	1124	33
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	92	92	50	92	75	75	99	56	58	92	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	0	2	8	0	20	8	390	34	38	1222	57

Major/Minor	Minor2	Minor1		Major1		Major2							
Conflicting Flow All	1760	-	640	1110	1778	407	1279	0	0	424	0	0	0
Stage 1	1327	-	-	423	423	-	-	-	-	-	-	-	-
Stage 2	433	-	-	687	1355	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	-	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-	-
Critical Hdwy Stg 1	6.53	-	-	6.13	5.53	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.53	5.53	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	-	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-	-
Pot Cap-1 Maneuver	*354	0	*651	*354	*310	*807	869	-	-	*1209	-	-	-
Stage 1	*461	0	-	*762	*667	-	-	-	-	-	-	-	-
Stage 2	*762	0	-	*614	*414	-	-	-	-	-	-	-	-
Platoon blocked, %	1		1	1	1	1	1	-	-	1	-	-	-
Mov Cap-1 Maneuver	*313	-	*651	*320	*273	*807	869	-	-	*1209	-	-	-
Mov Cap-2 Maneuver	*313	-	-	*320	*273	-	-	-	-	-	-	-	-
Stage 1	*455	-	-	*753	*659	-	-	-	-	-	-	-	-
Stage 2	*734	-	-	*544	*368	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	11.7	0.2	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	869	-	-	651	562	*1209	-
HCM Lane V/C Ratio	0.009	-	-	0.003	0.05	0.031	-
HCM Control Delay (s)	9.2	-	-	10.5	11.7	8.1	0.4
HCM Lane LOS	A	-	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Notes												
-: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	14	13	0	23	2	1067	7	3	777	9
Future Vol, veh/h	4	0	14	13	0	23	2	1067	7	3	777	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	92	50	65	92	92	50	86	44	38	93	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	28	20	0	25	4	1241	16	8	835	18
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	2130	-	427	1691	2126	1249	853	0	0	1257	0	0
Stage 1	860	-	-	1257	1257	-	-	-	-	-	-	-
Stage 2	1270	-	-	434	869	-	-	-	-	-	-	-
Critical Hdwy	7.33	-	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	-	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	-	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	32	0	577	67	50	210	784	-	-	551	-	-
Stage 1	318	0	-	209	242	-	-	-	-	-	-	-
Stage 2	205	0	-	571	368	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	27	-	577	62	48	210	784	-	-	551	-	-
Mov Cap-2 Maneuver	27	-	-	62	48	-	-	-	-	-	-	-
Stage 1	313	-	-	205	238	-	-	-	-	-	-	-
Stage 2	178	-	-	528	358	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	11.6		65.6			0			0.3			
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	784	-	-	577	102	551	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.049	0.441	0.014	-	-				
HCM Control Delay (s)	9.6	-	-	11.6	65.6	11.6	0.2	-				
HCM Lane LOS	A	-	-	B	F	B	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	1.9	0	-	-				

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	0	0	4	0	16	7	397	20	23	1166	8
Future Vol, veh/h	8	0	0	4	0	16	7	397	20	23	1166	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	92	92	50	92	75	75	99	56	58	92	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	0	8	0	21	9	401	36	40	1267	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1802	1809	641	1151	1798	419	1281	0	0	437	0	0
Stage 1	1354	1354	-	437	437	-	-	-	-	-	-	-
Stage 2	448	455	-	714	1361	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*349	*305	*599	*349	*305	*755	*897	-	-	*1131	-	-
Stage 1	*548	*484	-	*713	*624	-	-	-	-	-	-	-
Stage 2	*713	*624	-	*565	*478	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*304	*265	*599	*313	*265	*755	*897	-	-	*1131	-	-
Mov Cap-2 Maneuver	*304	*265	-	*313	*265	-	-	-	-	-	-	-
Stage 1	*541	*424	-	*704	*616	-	-	-	-	-	-	-
Stage 2	*684	*616	-	*496	*419	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	17.4		12		0.2		0.7	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 897	-	-	304	545	* 1131	-
HCM Lane V/C Ratio	0.01	-	-	0.045	0.054	0.035	-
HCM Control Delay (s)	9.1	0	-	17.4	12	8.3	0.5
HCM Lane LOS	A	A	-	C	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	-

Notes												
-: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						





Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	0	4	14	0	24	2	1078	8	3	817	2
Future Vol, veh/h	4	0	4	14	0	24	2	1078	8	3	817	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	92	50	65	92	92	50	86	44	38	93	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	8	22	0	26	4	1253	18	8	878	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2179	2175	441	1725	2168	1262	882	0	0	1271	0	0
Stage 1	896	896	-	1270	1270	-	-	-	-	-	-	-
Stage 2	1283	1279	-	455	898	-	-	-	-	-	-	-
Critical Hdwy	7.33	6.53	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.53	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	*55	*48	*755	*55	*48	*182	*1131	-	-	*273	-	-
Stage 1	*713	*624	-	*172	*151	-	-	-	-	-	-	-
Stage 2	*172	*151	-	*713	*624	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*44	*45	*755	*51	*45	*182	*1131	-	-	*273	-	-
Mov Cap-2 Maneuver	*44	*45	-	*51	*45	-	-	-	-	-	-	-
Stage 1	*704	*588	-	*170	*149	-	-	-	-	-	-	-
Stage 2	*146	*149	-	*664	*588	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	38.9		93.4		0		0.7	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	* 1131	-	-	118	84	* 273	-
HCM Lane V/C Ratio	0.004	-	-	0.102	0.567	0.029	-
HCM Control Delay (s)	8.2	0	-	38.9	93.4	18.6	0.5
HCM Lane LOS	A	A	-	E	F	C	A
HCM 95th %tile Q(veh)	0	-	-	0.3	2.5	0.1	-

Notes												
-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												





Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	7	4	0	16	7	432	20	23	1240	82
Future Vol, veh/h	8	0	7	4	0	16	7	432	20	23	1240	82
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	58	92	92	50	92	75	75	99	56	58	92	58
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	8	8	0	21	9	436	36	40	1348	141

Major/Minor	Minor2	Minor1		Major1		Major2							
Conflicting Flow All	1982	-	745	1226	2041	454	1489	0	0	472	0	0	0
Stage 1	1499	-	-	472	472	-	-	-	-	-	-	-	-
Stage 2	483	-	-	754	1569	-	-	-	-	-	-	-	-
Critical Hdwy	7.33	-	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-	-
Critical Hdwy Stg 1	6.53	-	-	6.13	5.53	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.53	5.53	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	-	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-	-
Pot Cap-1 Maneuver	*256	0	*599	*256	*224	*755	716	-	-	*1131	-	-	-
Stage 1	*386	0	-	*713	*624	-	-	-	-	-	-	-	-
Stage 2	*713	0	-	*565	*328	-	-	-	-	-	-	-	-
Platoon blocked, %	1		1	1	1	1	1	-	-	1	-	-	-
Mov Cap-1 Maneuver	*203	-	*599	*206	*171	*755	716	-	-	*1131	-	-	-
Mov Cap-2 Maneuver	*203	-	-	*206	*171	-	-	-	-	-	-	-	-
Stage 1	*380	-	-	*701	*614	-	-	-	-	-	-	-	-
Stage 2	*681	-	-	*433	*254	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	13.8	0.2	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	716	-	-	599	437	*1131	-
HCM Lane V/C Ratio	0.013	-	-	0.013	0.067	0.035	-
HCM Control Delay (s)	10.1	-	-	11.1	13.8	8.3	0.9
HCM Lane LOS	B	-	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Notes												
-: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	0	33	14	0	24	2	1222	8	3	836	21
Future Vol, veh/h	4	0	33	14	0	24	2	1222	8	3	836	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	92	50	65	92	92	50	86	44	38	93	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	0	66	22	0	26	4	1421	18	8	899	42

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2387	-	471	1904	2395	1430	941	0	0	1439	0	0
Stage 1	936	-	-	1438	1438	-	-	-	-	-	-	-
Stage 2	1451	-	-	466	957	-	-	-	-	-	-	-
Critical Hdwy	7.33	-	6.93	7.33	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.53	-	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	-	-	6.53	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.519	-	3.319	3.519	4.019	3.319	2.219	-	-	2.219	-	-
Pot Cap-1 Maneuver	20	0	540	47	33	164	726	-	-	470	-	-
Stage 1	286	0	-	165	198	-	-	-	-	-	-	-
Stage 2	162	0	-	547	335	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	16	-	540	39	31	164	726	-	-	470	-	-
Mov Cap-2 Maneuver	16	-	-	39	31	-	-	-	-	-	-	-
Stage 1	278	-	-	160	192	-	-	-	-	-	-	-
Stage 2	132	-	-	463	323	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.6		140		0		0.3	
HCM LOS	B		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	726	-	-	540	67	470	-
HCM Lane V/C Ratio	0.006	-	-	0.122	0.711	0.017	-
HCM Control Delay (s)	10	-	-	12.6	140	12.8	0.2
HCM Lane LOS	A	-	-	B	F	B	A
HCM 95th %tile Q(veh)	0	-	-	0.4	3.2	0.1	-



Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	0	6	0	21	8	504	25	29	1479	10
Future Vol, veh/h	10	0	0	6	0	21	8	504	25	29	1479	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	0	7	0	23	9	548	27	32	1608	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1970	2271	810	1448	2263	288	1619	0	0	575	0	0
Stage 1	1678	1678	-	580	580	-	-	-	-	-	-	-
Stage 2	292	593	-	868	1683	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*118	59	*495	*496	60	*912	*740	-	-	1235	-	-
Stage 1	*405	368	-	*729	666	-	-	-	-	-	-	-
Stage 2	*859	656	-	*466	365	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*90	43	*495	*391	44	*912	*740	-	-	1235	-	-
Mov Cap-2 Maneuver	*90	43	-	*391	44	-	-	-	-	-	-	-
Stage 1	*398	273	-	*716	654	-	-	-	-	-	-	-
Stage 2	*823	644	-	*345	270	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	50.4		10.3		0.2		1.1	
HCM LOS	F		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	*740	-	-	90	704	1235	-
HCM Lane V/C Ratio	0.012	-	-	0.121	0.042	0.026	-
HCM Control Delay (s)	9.9	0.1	-	50.4	10.3	8	1
HCM Lane LOS	A	A	-	F	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	0.1	-

Notes												
-: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	6	18	0	31	3	1368	10	4	1037	3
Future Vol, veh/h	6	0	6	18	0	31	3	1368	10	4	1037	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	7	20	0	34	3	1487	11	4	1127	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1887	2641	565	2071	2637	749	1130	0	0	1498	0	0
Stage 1	1137	1137	-	1499	1499	-	-	-	-	-	-	-
Stage 2	750	1504	-	572	1138	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*152	*62	*651	*152	*65	*547	*974	-	-	801	-	-
Stage 1	*614	*538	-	*498	*440	-	-	-	-	-	-	-
Stage 2	*516	*436	-	*614	*538	-	-	-	-	-	-	-
Platoon blocked, %	1	1	1	1	1	1	1	-	-	1	-	-
Mov Cap-1 Maneuver	*139	*60	*651	*147	*63	*547	*974	-	-	801	-	-
Mov Cap-2 Maneuver	*139	*60	-	*147	*63	-	-	-	-	-	-	-
Stage 1	*603	*531	-	*489	*432	-	-	-	-	-	-	-
Stage 2	*475	*428	-	*600	*531	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.7		21.3		0.1		0.1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	*974	-	-	229	274	801	-
HCM Lane V/C Ratio	0.003	-	-	0.057	0.194	0.005	-
HCM Control Delay (s)	8.7	0.1	-	21.7	21.3	9.5	0.1
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.7	0	-

Notes												
-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↖			↖			↗	
Traffic Vol, veh/h	10	0	7	6	0	21	8	539	25	29	1553	84
Future Vol, veh/h	10	0	7	6	0	21	8	539	25	29	1553	84
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	0	8	7	0	23	9	586	27	32	1688	91

Major/Minor	Minor2	Minor1		Major1		Major2							
Conflicting Flow All	2109	-	890	1526	2461	307	1779	0	0	613	0	0	0
Stage 1	1798	-	-	618	618	-	-	-	-	-	-	-	-
Stage 2	311	-	-	908	1843	-	-	-	-	-	-	-	-
Critical Hdwy	7.54	-	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-	-
Critical Hdwy Stg 1	6.54	-	-	6.54	5.54	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	-	-	6.54	5.54	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	-	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-	-
Pot Cap-1 Maneuver	*207	0	*443	*207	*118	*860	656	-	-	*1286	-	-	-
Stage 1	*386	0	-	*810	*710	-	-	-	-	-	-	-	-
Stage 2	*810	0	-	*417	*309	-	-	-	-	-	-	-	-
Platoon blocked, %	1		1	1	1	1	1	-	-	1	-	-	-
Mov Cap-1 Maneuver	-	-	*443	-	*0	*860	656	-	-	*1286	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	*0	-	-	-	-	-	-	-	-
Stage 1	*378	-	-	*793	*695	-	-	-	-	-	-	-	-
Stage 2	*772	-	-	-	*0	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.3		0.1	3.7
HCM LOS	B	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	656	-	-	443	- *1286	-	-
HCM Lane V/C Ratio	0.013	-	-	0.017	- 0.025	-	-
HCM Control Delay (s)	10.6	-	-	13.3	- 7.9	3.8	-
HCM Lane LOS	B	-	-	B	- A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	- 0.1	-	-

Notes												
-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    *: All major volume in platoon												

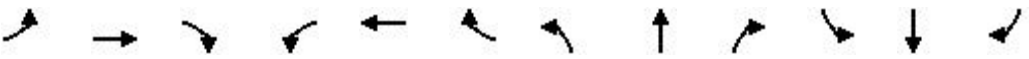
Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↗		↕			↕			↗	
Traffic Vol, veh/h	6	0	35	18	0	31	3	1512	10	4	1056	22
Future Vol, veh/h	6	0	35	18	0	31	3	1512	10	4	1056	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	0	38	20	0	34	3	1643	11	4	1148	24
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1996	-	586	2237	2835	827	1172	0	0	1654	0	0
Stage 1	1168	-	-	1655	1655	-	-	-	-	-	-	-
Stage 2	828	-	-	582	1180	-	-	-	-	-	-	-
Critical Hdwy	7.54	-	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	-	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	-	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	-	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	*173	0	454	*65	*10	*443	592	-	-	*662	-	-
Stage 1	*206	0	-	*417	*366	-	-	-	-	-	-	-
Stage 2	*417	0	-	*466	*262	-	-	-	-	-	-	-
Platoon blocked, %	1			1	1	1		-	-	1	-	-
Mov Cap-1 Maneuver	*150	-	454	*56	*9	*443	592	-	-	*662	-	-
Mov Cap-2 Maneuver	*150	-	-	*56	*9	-	-	-	-	-	-	-
Stage 1	*193	-	-	*391	*342	-	-	-	-	-	-	-
Stage 2	*361	-	-	*420	*258	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	13.7		53.7			0			0.1			
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	592	-	-	454	125	*662	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.084	0.426	0.007	-	-				
HCM Control Delay (s)	11.1	-	-	13.7	53.7	10.5	0.1	-				
HCM Lane LOS	B	-	-	B	F	B	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.3	1.8	0	-	-				
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined					*: All major volume in platoon			

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2018 Existing AM.syn






















01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	5	0	2	40	0	91	9	994	19	74	1579	12
Future Volume (veh/h)	5	0	2	40	0	91	9	994	19	74	1579	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	4	60	0	128	16	1104	36	84	1662	20
Peak Hour Factor	0.31	0.92	0.50	0.67	0.92	0.71	0.56	0.90	0.53	0.88	0.95	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	124	6	19	212	0	159	258	2659	1186	443	2966	36
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.75	0.75	0.75	0.04	0.82	0.82
Sat Flow, veh/h	700	60	190	1521	0	1585	294	3554	1585	1781	3596	43
Grp Volume(v), veh/h	20	0	0	60	0	128	16	1104	36	84	820	862
Grp Sat Flow(s),veh/h/ln	951	0	0	1521	0	1585	294	1777	1585	1781	1777	1863
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	9.5	2.3	13.6	0.7	1.2	18.0	18.1
Cycle Q Clear(g_c), s	5.1	0.0	0.0	4.0	0.0	9.5	11.2	13.6	0.7	1.2	18.0	18.1
Prop In Lane	0.80		0.20	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	149	0	0	212	0	159	258	2659	1186	443	1466	1536
V/C Ratio(X)	0.13	0.00	0.00	0.28	0.00	0.81	0.06	0.42	0.03	0.19	0.56	0.56
Avail Cap(c_a), veh/h	286	0	0	359	0	324	258	2659	1186	544	1466	1536
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.1	0.0	0.0	50.4	0.0	52.9	6.7	5.5	3.9	3.6	3.4	3.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	9.2	0.5	0.5	0.0	0.2	1.5	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(50%),veh/ln	0.6	0.0	0.0	1.7	0.0	4.2	0.2	4.6	0.2	0.3	5.1	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.5	0.0	0.0	51.1	0.0	62.1	7.2	6.0	3.9	3.8	5.0	4.9
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	20			188			1156			1766		
Approach Delay, s/veh	51.5			58.6			5.9			4.9		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.2	94.3		16.5		103.5		16.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+I1), s	3.2	15.6		7.1		20.1		11.5				
Green Ext Time (p_c), s	0.1	11.9		0.0		22.5		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				8.8								
HCM 6th LOS				A								

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2018 Existing PM.syn  
01/22/2019


												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	2	36	0	105	11	1410	38	115	1219	12
Future Volume (veh/h)	7	0	2	36	0	105	11	1410	38	115	1219	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	8	44	0	131	24	1424	72	132	1297	24
Peak Hour Factor	0.88	0.92	0.25	0.82	0.92	0.80	0.46	0.99	0.53	0.87	0.94	0.50
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	14	69	211	0	161	360	2647	1181	335	2940	54
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.74	0.74	0.74	0.04	0.82	0.82
Sat Flow, veh/h	544	139	683	1492	0	1585	415	3554	1585	1781	3569	66
Grp Volume(v), veh/h	16	0	0	44	0	131	24	1424	72	132	645	676
Grp Sat Flow(s),veh/h/ln	1366	0	0	1492	0	1585	415	1777	1585	1781	1777	1858
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	9.7	2.0	20.5	1.5	1.9	12.1	12.1
Cycle Q Clear(g_c), s	2.7	0.0	0.0	2.7	0.0	9.7	4.7	20.5	1.5	1.9	12.1	12.1
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	184	0	0	211	0	161	360	2647	1181	335	1463	1531
V/C Ratio(X)	0.09	0.00	0.00	0.21	0.00	0.82	0.07	0.54	0.06	0.39	0.44	0.44
Avail Cap(c_a), veh/h	328	0	0	356	0	324	360	2647	1181	432	1463	1531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.9	0.0	0.0	49.7	0.0	52.8	4.9	6.5	4.1	5.9	2.9	2.9
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	9.6	0.4	0.8	0.1	0.8	1.0	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(50%),veh/ln	0.4	0.0	0.0	1.2	0.0	4.3	0.2	7.0	0.5	0.8	3.4	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.1	0.0	0.0	50.2	0.0	62.4	5.2	7.3	4.2	6.6	3.9	3.9
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	16			175			1520			1453		
Approach Delay, s/veh	49.1			59.3			7.1			4.1		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.4	93.9		16.7		103.3		16.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	3.9	22.5		4.7		14.1		11.7				
Green Ext Time (p_c), s	0.2	17.6		0.0		13.7		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	8.8											
HCM 6th LOS	A											

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2020 BG AM.syn

01/22/2019






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	
Traffic Volume (veh/h)	5	0	2	41	0	92	9	1009	19	75	1603	12
Future Volume (veh/h)	5	0	2	41	0	92	9	1009	19	75	1603	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	4	61	0	130	16	1121	36	85	1687	20
Peak Hour Factor	0.31	0.92	0.50	0.67	0.92	0.71	0.56	0.90	0.53	0.88	0.95	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	6	19	214	0	161	251	2654	1184	436	2962	35
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.75	0.75	0.75	0.04	0.82	0.82
Sat Flow, veh/h	697	59	189	1518	0	1585	287	3554	1585	1781	3597	43
Grp Volume(v), veh/h	20	0	0	61	0	130	16	1121	36	85	832	875
Grp Sat Flow(s),veh/h/ln	945	0	0	1518	0	1585	287	1777	1585	1781	1777	1863
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	9.6	2.4	14.0	0.7	1.2	18.7	18.7
Cycle Q Clear(g_c), s	5.1	0.0	0.0	4.1	0.0	9.6	11.9	14.0	0.7	1.2	18.7	18.7
Prop In Lane	0.80		0.20	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	150	0	0	214	0	161	251	2654	1184	436	1463	1534
V/C Ratio(X)	0.13	0.00	0.00	0.29	0.00	0.81	0.06	0.42	0.03	0.20	0.57	0.57
Avail Cap(c_a), veh/h	285	0	0	359	0	324	251	2654	1184	537	1463	1534
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.0	0.0	0.0	50.3	0.0	52.8	7.0	5.6	3.9	3.7	3.5	3.5
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	9.2	0.5	0.5	0.0	0.2	1.6	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(50%),veh/ln	0.6	0.0	0.0	1.8	0.0	4.2	0.2	4.7	0.2	0.3	5.3	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	0.0	51.0	0.0	62.0	7.5	6.1	4.0	4.0	5.1	5.1
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	20			191			1173			1792		
Approach Delay, s/veh	51.4			58.5			6.1			5.0		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.2	94.1		16.7		103.3		16.7				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+I1), s	3.2	16.0		7.1		20.7		11.6				
Green Ext Time (p_c), s	0.1	12.2		0.0		23.2		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	8.9											
HCM 6th LOS	A											

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2020 BG PM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	2	37	0	107	11	1431	39	117	1237	12
Future Volume (veh/h)	7	0	2	37	0	107	11	1431	39	117	1237	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	8	45	0	134	24	1445	74	134	1316	24
Peak Hour Factor	0.88	0.92	0.25	0.82	0.92	0.80	0.46	0.99	0.53	0.87	0.94	0.50
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	14	70	214	0	164	353	2640	1178	328	2934	53
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.74	0.74	0.74	0.04	0.82	0.82
Sat Flow, veh/h	543	137	680	1492	0	1585	408	3554	1585	1781	3570	65
Grp Volume(v), veh/h	16	0	0	45	0	134	24	1445	74	134	655	685
Grp Sat Flow(s),veh/h/ln	1359	0	0	1492	0	1585	408	1777	1585	1781	1777	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	9.9	2.1	21.1	1.5	1.9	12.5	12.5
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.8	0.0	9.9	5.2	21.1	1.5	1.9	12.5	12.5
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	185	0	0	214	0	164	353	2640	1178	328	1460	1527
V/C Ratio(X)	0.09	0.00	0.00	0.21	0.00	0.82	0.07	0.55	0.06	0.41	0.45	0.45
Avail Cap(c_a), veh/h	327	0	0	356	0	324	353	2640	1178	425	1460	1527
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.7	0.0	0.0	49.5	0.0	52.7	5.1	6.7	4.2	6.2	3.0	3.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.5	0.0	9.6	0.4	0.8	0.1	0.8	1.0	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(50%),veh/ln	0.4	0.0	0.0	1.3	0.0	4.4	0.2	7.2	0.5	0.9	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	0.0	0.0	50.0	0.0	62.3	5.5	7.5	4.3	7.0	4.0	4.0
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	16			179			1543			1474		
Approach Delay, s/veh	48.9			59.2			7.3			4.3		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.4	93.7		16.9		103.1		16.9				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	3.9	23.1		4.8		14.5		11.9				
Green Ext Time (p_c), s	0.2	18.0		0.0		14.0		0.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	9.0											
HCM 6th LOS	A											
























# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2020 Total AM.syn

01/24/2019


												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	2	46	0	102	9	1024	40	109	1627	12
Future Volume (veh/h)	5	0	2	46	0	102	9	1024	40	109	1627	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	4	69	0	144	16	1138	75	124	1713	20
Peak Hour Factor	0.31	0.92	0.50	0.67	0.92	0.71	0.56	0.90	0.53	0.88	0.95	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	6	16	205	0	152	248	2668	1190	425	2983	35
Arrive On Green	0.10	0.00	0.10	0.10	0.00	0.10	0.75	0.75	0.75	0.04	0.83	0.83
Sat Flow, veh/h	601	63	166	1514	0	1585	279	3554	1585	1781	3598	42
Grp Volume(v), veh/h	20	0	0	69	0	144	16	1138	75	124	845	888
Grp Sat Flow(s),veh/h/ln	829	0	0	1514	0	1585	279	1777	1585	1781	1777	1863
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	10.8	2.4	14.1	1.5	1.7	18.6	18.7
Cycle Q Clear(g_c), s	5.9	0.0	0.0	4.9	0.0	10.8	11.6	14.1	1.5	1.7	18.6	18.7
Prop In Lane	0.80		0.20	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	133	0	0	205	0	152	248	2668	1190	425	1473	1545
V/C Ratio(X)	0.15	0.00	0.00	0.34	0.00	0.95	0.06	0.43	0.06	0.29	0.57	0.57
Avail Cap(c_a), veh/h	133	0	0	205	0	152	248	2668	1190	463	1473	1545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	52.1	0.0	0.0	51.2	0.0	54.0	6.8	5.5	3.9	3.8	3.3	3.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.0	0.0	57.4	0.5	0.5	0.1	0.4	1.6	1.6
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(50%),veh/ln	0.6	0.0	0.0	2.0	0.0	6.7	0.2	4.7	0.5	0.5	5.2	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.6	0.0	0.0	52.2	0.0	111.4	7.3	6.0	4.0	4.2	5.0	4.9
LnGrp LOS	D	A	A	D	A	F	A	A	A	A	A	A
Approach Vol, veh/h	20			213			1229			1857		
Approach Delay, s/veh	52.6			92.2			5.9			4.9		
Approach LOS	D			F			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.4	94.6		16.0		104.0		16.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	7.5	87.5		11.5		99.5		11.5				
Max Q Clear Time (g_c+l1), s	3.7	16.1		7.9		20.7		12.8				
Green Ext Time (p_c), s	0.1	13.1		0.0		25.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									
Notes												

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2020 Total PM.syn

01/24/2019

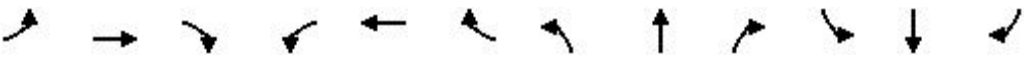
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	
Traffic Volume (veh/h)	7	0	2	56	0	140	11	1453	44	127	1256	12
Future Volume (veh/h)	7	0	2	56	0	140	11	1453	44	127	1256	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	8	68	0	175	24	1468	83	146	1336	24
Peak Hour Factor	0.88	0.92	0.25	0.82	0.92	0.80	0.46	0.99	0.53	0.87	0.94	0.50
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	14	76	248	0	206	329	2546	1135	306	2840	51
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.72	0.72	0.72	0.04	0.80	0.80
Sat Flow, veh/h	475	110	584	1450	0	1585	400	3554	1585	1781	3572	64
Grp Volume(v), veh/h	16	0	0	68	0	175	24	1468	83	146	664	696
Grp Sat Flow(s),veh/h/ln	1169	0	0	1450	0	1585	400	1777	1585	1781	1777	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	13.0	2.5	24.0	1.9	2.4	14.7	14.7
Cycle Q Clear(g_c), s	4.8	0.0	0.0	4.8	0.0	13.0	7.7	24.0	1.9	2.4	14.7	14.7
Prop In Lane	0.50		0.50	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	197	0	0	248	0	206	329	2546	1135	306	1413	1478
V/C Ratio(X)	0.08	0.00	0.00	0.27	0.00	0.85	0.07	0.58	0.07	0.48	0.47	0.47
Avail Cap(c_a), veh/h	299	0	0	353	0	324	329	2546	1135	403	1413	1478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	0.0	47.5	0.0	51.1	6.8	8.2	5.1	8.3	4.0	4.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.6	0.0	11.8	0.4	1.0	0.1	1.2	1.1	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(50%),veh/ln	0.4	0.0	0.0	1.9	0.0	5.8	0.2	8.6	0.6	1.2	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	0.0	48.1	0.0	62.9	7.3	9.2	5.2	9.5	5.1	5.1
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	16			243			1575			1506		
Approach Delay, s/veh	46.1			58.8			8.9			5.5		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.5	90.5		20.1		99.9		20.1				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	4.4	26.0		6.8		16.7		15.0				
Green Ext Time (p_c), s	0.2	18.1		0.0		14.4		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	11.2											
HCM 6th LOS	B											

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2024 BG AM.syn

01/22/2019






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	5	0	2	44	0	100	10	1087	21	81	1727	13
Future Volume (veh/h)	5	0	2	44	0	100	10	1087	21	81	1727	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	4	66	0	141	18	1208	40	92	1818	22
Peak Hour Factor	0.31	0.92	0.50	0.67	0.92	0.71	0.56	0.90	0.53	0.88	0.95	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	128	6	20	224	0	172	218	2627	1172	400	2936	35
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.74	0.74	0.74	0.04	0.82	0.82
Sat Flow, veh/h	682	55	184	1506	0	1585	252	3554	1585	1781	3596	43
Grp Volume(v), veh/h	20	0	0	66	0	141	18	1208	40	92	897	943
Grp Sat Flow(s),veh/h/ln	922	0	0	1506	0	1585	252	1777	1585	1781	1777	1863
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	10.4	3.4	16.1	0.8	1.3	22.4	22.6
Cycle Q Clear(g_c), s	5.5	0.0	0.0	4.5	0.0	10.4	16.8	16.1	0.8	1.3	22.4	22.6
Prop In Lane	0.80		0.20	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	154	0	0	224	0	172	218	2627	1172	400	1451	1521
V/C Ratio(X)	0.13	0.00	0.00	0.30	0.00	0.82	0.08	0.46	0.03	0.23	0.62	0.62
Avail Cap(c_a), veh/h	279	0	0	359	0	324	218	2627	1172	500	1451	1521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	0.0	0.0	49.7	0.0	52.3	8.9	6.2	4.2	4.4	4.1	4.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.7	0.0	9.2	0.7	0.6	0.1	0.3	2.0	1.9
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(50%),veh/ln	0.6	0.0	0.0	1.9	0.0	4.6	0.2	5.5	0.3	0.4	6.7	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	0.0	50.4	0.0	61.6	9.7	6.8	4.2	4.7	6.1	6.0
LnGrp LOS	D	A	A	D	A	E	A	A	A	A	A	A
Approach Vol, veh/h	20			207			1266			1932		
Approach Delay, s/veh	50.8			58.0			6.7			6.0		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.3	93.2		17.5		102.5		17.5				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	3.3	18.8		7.5		24.6		12.4				
Green Ext Time (p_c), s	0.1	13.9		0.0		27.0		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				9.7								
HCM 6th LOS				A								

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2024 BG PM.syn

01/22/2019

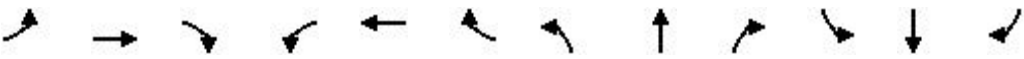
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	0	2	39	0	115	12	1542	42	126	1333	13
Future Volume (veh/h)	8	0	2	39	0	115	12	1542	42	126	1333	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	8	48	0	144	26	1558	79	145	1418	26
Peak Hour Factor	0.88	0.92	0.25	0.82	0.92	0.80	0.46	0.99	0.53	0.87	0.94	0.50
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	91	13	52	193	0	139	330	2696	1203	308	2990	55
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.76	0.76	0.76	0.04	0.84	0.84
Sat Flow, veh/h	521	152	598	1516	0	1585	369	3554	1585	1781	3570	65
Grp Volume(v), veh/h	17	0	0	48	0	144	26	1558	79	145	705	739
Grp Sat Flow(s),veh/h/ln	1271	0	0	1516	0	1585	369	1777	1585	1781	1777	1859
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	10.5	2.5	22.6	1.5	1.9	12.8	12.9
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.0	0.0	10.5	5.9	22.6	1.5	1.9	12.8	12.9
Prop In Lane	0.53		0.47	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	157	0	0	193	0	139	330	2696	1203	308	1488	1557
V/C Ratio(X)	0.11	0.00	0.00	0.25	0.00	1.04	0.08	0.58	0.07	0.47	0.47	0.47
Avail Cap(c_a), veh/h	157	0	0	193	0	139	330	2696	1203	331	1488	1557
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	0.0	0.0	51.3	0.0	54.8	4.7	6.2	3.7	7.0	2.6	2.6
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.7	0.0	87.0	0.5	0.9	0.1	1.1	1.1	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(50%),veh/ln	0.5	0.0	0.0	1.4	0.0	7.5	0.2	7.5	0.5	1.2	3.4	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.8	0.0	0.0	52.0	0.0	141.7	5.2	7.1	3.8	8.1	3.7	3.7
LnGrp LOS	D	A	A	D	A	F	A	A	A	A	A	A
Approach Vol, veh/h	17			192			1663			1589		
Approach Delay, s/veh	50.8			119.3			6.9			4.1		
Approach LOS	D			F			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.5	95.5		15.0		105.0		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	6.5	89.5		10.5		100.5		10.5				
Max Q Clear Time (g_c+I1), s	3.9	24.6		5.0		14.9		12.5				
Green Ext Time (p_c), s	0.1	22.7		0.0		16.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	12.1											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2024 Total AM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	↕
Traffic Volume (veh/h)	5	0	2	57	0	122	10	1087	76	173	1727	13
Future Volume (veh/h)	5	0	2	57	0	122	10	1087	76	173	1727	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	16	0	4	85	0	172	18	1208	143	197	1818	22
Peak Hour Factor	0.31	0.92	0.50	0.67	0.92	0.71	0.56	0.90	0.53	0.88	0.95	0.60
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	134	6	21	250	0	204	208	2531	1129	371	2864	35
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.71	0.71	0.71	0.05	0.80	0.80
Sat Flow, veh/h	621	47	167	1481	0	1585	252	3554	1585	1781	3596	43
Grp Volume(v), veh/h	20	0	0	85	0	172	18	1208	143	197	897	943
Grp Sat Flow(s),veh/h/ln	835	0	0	1481	0	1585	252	1777	1585	1781	1777	1863
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	12.7	3.8	17.8	3.4	3.3	24.9	25.1
Cycle Q Clear(g_c), s	7.1	0.0	0.0	6.0	0.0	12.7	18.8	17.8	3.4	3.3	24.9	25.1
Prop In Lane	0.80		0.20	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	161	0	0	250	0	204	208	2531	1129	371	1415	1484
V/C Ratio(X)	0.12	0.00	0.00	0.34	0.00	0.84	0.09	0.48	0.13	0.53	0.63	0.64
Avail Cap(c_a), veh/h	258	0	0	357	0	324	208	2531	1129	458	1415	1484
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	49.1	0.0	0.0	48.2	0.0	51.1	11.0	7.5	5.5	6.6	5.0	5.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.8	0.0	11.0	0.8	0.6	0.2	1.2	2.2	2.1
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(50%),veh/ln	0.6	0.0	0.0	2.4	0.0	5.7	0.3	6.4	1.1	1.1	7.9	8.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	0.0	0.0	49.0	0.0	62.1	11.8	8.2	5.7	7.8	7.2	7.1
LnGrp LOS	D	A	A	D	A	E	B	A	A	A	A	A
Approach Vol, veh/h	20			257			1369			2037		
Approach Delay, s/veh	49.4			57.8			8.0			7.2		
Approach LOS	D			E			A			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.1	90.0		19.9		100.1		19.9				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	5.3	20.8		9.1		27.1		14.7				
Green Ext Time (p_c), s	0.3	14.5		0.0		26.6		0.7				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	11.3											
HCM 6th LOS	B											

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2024 Total PM.syn

01/24/2019






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕	↔	↔	↕	
Traffic Volume (veh/h)	8	0	2	93	0	205	12	1542	56	150	1333	13
Future Volume (veh/h)	8	0	2	93	0	205	12	1542	56	150	1333	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	9	0	8	113	0	256	26	1558	106	172	1418	26
Peak Hour Factor	0.88	0.92	0.25	0.82	0.92	0.80	0.46	0.99	0.53	0.87	0.94	0.50
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	14	68	291	0	294	269	2316	1033	262	2639	48
Arrive On Green	0.19	0.00	0.19	0.19	0.00	0.19	0.65	0.65	0.65	0.05	0.74	0.74
Sat Flow, veh/h	340	73	367	1245	0	1585	369	3554	1585	1781	3570	65
Grp Volume(v), veh/h	17	0	0	113	0	256	26	1558	106	172	705	739
Grp Sat Flow(s),veh/h/ln	780	0	0	1245	0	1585	369	1777	1585	1781	1777	1859
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	18.8	3.9	32.6	3.0	3.6	20.6	20.6
Cycle Q Clear(g_c), s	11.4	0.0	0.0	11.3	0.0	18.8	14.1	32.6	3.0	3.6	20.6	20.6
Prop In Lane	0.53		0.47	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	191	0	0	291	0	294	269	2316	1033	262	1314	1374
V/C Ratio(X)	0.09	0.00	0.00	0.39	0.00	0.87	0.10	0.67	0.10	0.66	0.54	0.54
Avail Cap(c_a), veh/h	410	0	0	528	0	561	269	2316	1033	493	1314	1374
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.6	0.0	0.0	44.4	0.0	47.4	12.1	13.0	7.8	17.0	6.8	6.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.8	0.0	7.8	0.7	1.6	0.2	2.8	1.6	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(50%),veh/ln	0.4	0.0	0.0	3.1	0.0	8.0	0.4	12.6	1.0	2.9	7.4	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	0.0	0.0	45.2	0.0	55.2	12.8	14.5	8.0	19.8	8.3	8.3
LnGrp LOS	D	A	A	D	A	E	B	B	A	B	A	A
Approach Vol, veh/h	17			369			1690			1616		
Approach Delay, s/veh	40.8			52.2			14.1			9.5		
Approach LOS	D			D			B			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.5	82.7		26.8		93.2		26.8				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	21.5	42.5		42.5		68.5		42.5				
Max Q Clear Time (g_c+l1), s	5.6	34.6		13.4		22.6		20.8				
Green Ext Time (p_c), s	0.4	6.2		0.1		15.1		1.5				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	16.0											
HCM 6th LOS	B											

# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2040 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	3	56	0	126	12	1379	26	103	2191	17
Future Volume (veh/h)	7	0	3	56	0	126	12	1379	26	103	2191	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	3	61	0	137	13	1499	28	112	2382	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	123	8	30	221	0	168	128	2633	1175	321	2961	22
Arrive On Green	0.11	0.00	0.11	0.11	0.00	0.11	0.74	0.74	0.74	0.04	0.82	0.82
Sat Flow, veh/h	677	77	282	1525	0	1585	145	3554	1585	1781	3615	27
Grp Volume(v), veh/h	11	0	0	61	0	137	13	1499	28	112	1169	1231
Grp Sat Flow(s),veh/h/ln	1036	0	0	1525	0	1585	145	1777	1585	1781	1777	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	10.2	6.3	22.7	0.6	1.6	41.8	42.1
Cycle Q Clear(g_c), s	3.8	0.0	0.0	3.8	0.0	10.2	39.0	22.7	0.6	1.6	41.8	42.1
Prop In Lane	0.73		0.27	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	161	0	0	221	0	168	128	2633	1175	321	1456	1528
V/C Ratio(X)	0.07	0.00	0.00	0.28	0.00	0.82	0.10	0.57	0.02	0.35	0.80	0.81
Avail Cap(c_a), veh/h	292	0	0	360	0	324	128	2633	1175	419	1456	1528
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	0.0	0.0	49.7	0.0	52.5	18.6	7.0	4.1	6.4	5.7	5.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	9.3	1.6	0.9	0.0	0.6	4.8	4.6
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(50%),veh/ln	0.3	0.0	0.0	1.7	0.0	4.5	0.3	7.8	0.2	0.7	12.7	13.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.5	0.0	0.0	50.3	0.0	61.8	20.2	7.9	4.1	7.0	10.5	10.4
LnGrp LOS	D	A	A	D	A	E	C	A	A	A	B	B
Approach Vol, veh/h	11			198			1540			2512		
Approach Delay, s/veh	48.5			58.3			7.9			10.3		
Approach LOS	D			E			A			B		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.4	93.4		17.2		102.8		17.2				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	3.6	41.0		5.8		44.1		12.2				
Green Ext Time (p_c), s	0.1	15.6		0.0		34.5		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	11.8											
HCM 6th LOS	B											
























# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2040 BG PM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	3	50	0	146	15	1956	53	160	1691	17
Future Volume (veh/h)	10	0	3	50	0	146	15	1956	53	160	1691	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	3	54	0	159	16	2126	58	174	1838	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	113	6	18	196	0	139	226	2695	1202	206	3020	30
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.76	0.76	0.76	0.04	0.84	0.84
Sat Flow, veh/h	683	73	206	1550	0	1585	248	3554	1585	1781	3606	35
Grp Volume(v), veh/h	14	0	0	54	0	159	16	2126	58	174	904	952
Grp Sat Flow(s),veh/h/ln	963	0	0	1550	0	1585	248	1777	1585	1781	1777	1864
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	10.5	2.7	43.2	1.1	2.6	20.2	20.3
Cycle Q Clear(g_c), s	3.9	0.0	0.0	3.4	0.0	10.5	13.6	43.2	1.1	2.6	20.2	20.3
Prop In Lane	0.79		0.21	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	138	0	0	196	0	139	226	2695	1202	206	1488	1561
V/C Ratio(X)	0.10	0.00	0.00	0.28	0.00	1.15	0.07	0.79	0.05	0.85	0.61	0.61
Avail Cap(c_a), veh/h	138	0	0	196	0	139	226	2695	1202	213	1488	1561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.4	0.0	0.0	51.5	0.0	54.8	7.1	8.7	3.6	28.9	3.2	3.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.8	0.0	121.2	0.6	2.4	0.1	25.1	1.9	1.8
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(50%),veh/ln	0.4	0.0	0.0	1.6	0.0	8.9	0.2	14.6	0.3	5.4	5.4	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	0.0	0.0	52.3	0.0	175.9	7.7	11.1	3.7	54.0	5.1	5.0
LnGrp LOS	D	A	A	D	A	F	A	B	A	D	A	A
Approach Vol, veh/h	14			213			2200			2030		
Approach Delay, s/veh	51.7			144.6			10.9			9.2		
Approach LOS	D			F			B			A		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.5	95.5		15.0		105.0		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	5.5	90.5		10.5		100.5		10.5				
Max Q Clear Time (g_c+l1), s	4.6	45.2		5.9		22.3		12.5				
Green Ext Time (p_c), s	0.0	31.5		0.0		29.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	16.7											
HCM 6th LOS	B											
Notes												
























# HCM 6th Signalized Intersection Summary

## 6: Federal Boulevard & 56th Avenue

2040 Total AM.syn

01/24/2019






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	0	3	69	0	148	12	1379	81	195	2191	17
Future Volume (veh/h)	7	0	3	69	0	148	12	1379	81	195	2191	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	3	75	0	161	13	1499	88	212	2382	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	8	31	240	0	192	121	2551	1138	311	2905	22
Arrive On Green	0.12	0.00	0.12	0.12	0.00	0.12	0.72	0.72	0.72	0.05	0.80	0.80
Sat Flow, veh/h	613	67	255	1482	0	1585	145	3554	1585	1781	3615	27
Grp Volume(v), veh/h	11	0	0	75	0	161	13	1499	88	212	1169	1231
Grp Sat Flow(s),veh/h/ln	935	0	0	1482	0	1585	145	1777	1585	1781	1777	1865
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	11.9	6.8	24.7	2.0	3.5	45.3	45.7
Cycle Q Clear(g_c), s	5.2	0.0	0.0	5.2	0.0	11.9	42.2	24.7	2.0	3.5	45.3	45.7
Prop In Lane	0.73		0.27	1.00		1.00	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	165	0	0	240	0	192	121	2551	1138	311	1428	1499
V/C Ratio(X)	0.07	0.00	0.00	0.31	0.00	0.84	0.11	0.59	0.08	0.68	0.82	0.82
Avail Cap(c_a), veh/h	273	0	0	357	0	324	121	2551	1138	395	1428	1499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.7	0.0	0.0	48.6	0.0	51.6	22.0	8.3	5.1	11.9	6.8	6.8
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.7	0.0	9.2	1.8	1.0	0.1	3.3	5.3	5.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	2.1	0.0	5.2	0.3	8.8	0.6	3.1	14.7	15.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	0.0	49.3	0.0	60.8	23.7	9.3	5.2	15.2	12.1	12.0
LnGrp LOS	D	A	A	D	A	E	C	A	A	B	B	B
Approach Vol, veh/h	11			236			1600			2612		
Approach Delay, s/veh	46.9			57.1			9.2			12.3		
Approach LOS	D			E			A			B		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.3	90.6		19.1		100.9		19.1				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	11.5	70.5		24.5		86.5		24.5				
Max Q Clear Time (g_c+l1), s	5.5	44.2		7.2		47.7		13.9				
Green Ext Time (p_c), s	0.3	14.8		0.0		32.0		0.6				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay	13.6											
HCM 6th LOS	B											

# HCM 6th Signalized Intersection Summary





## 6: Federal Boulevard & 56th Avenue

2040 Total PM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	3	104	0	236	15	1956	67	184	1691	17
Future Volume (veh/h)	10	0	3	104	0	236	15	1956	67	184	1691	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	3	113	0	257	16	2126	73	200	1838	18
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	126	6	21	273	0	231	196	2414	1077	207	2809	27
Arrive On Green	0.15	0.00	0.15	0.15	0.00	0.15	0.68	0.68	0.68	0.06	0.78	0.78
Sat Flow, veh/h	493	44	147	1459	0	1585	248	3554	1585	1781	3606	35
Grp Volume(v), veh/h	14	0	0	113	0	257	16	2126	73	200	904	952
Grp Sat Flow(s),veh/h/ln	684	0	0	1459	0	1585	248	1777	1585	1781	1777	1864
Q Serve(g_s), s	0.5	0.0	0.0	0.0	0.0	17.5	3.7	57.3	1.9	7.0	27.5	27.6
Cycle Q Clear(g_c), s	8.8	0.0	0.0	8.3	0.0	17.5	19.4	57.3	1.9	7.0	27.5	27.6
Prop In Lane	0.79		0.21	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	153	0	0	273	0	231	196	2414	1077	207	1384	1452
V/C Ratio(X)	0.09	0.00	0.00	0.41	0.00	1.11	0.08	0.88	0.07	0.97	0.65	0.66
Avail Cap(c_a), veh/h	153	0	0	273	0	231	196	2414	1077	207	1384	1452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	0.0	0.0	47.3	0.0	51.2	13.1	15.4	6.5	38.3	6.0	6.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.0	0.0	92.5	0.8	5.0	0.1	52.7	2.4	2.3
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(50%),veh/ln	0.4	0.0	0.0	3.2	0.0	12.9	0.3	22.3	0.6	7.1	9.1	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.8	0.0	0.0	48.3	0.0	143.7	13.9	20.4	6.6	91.1	8.4	8.3
LnGrp LOS	D	A	A	D	A	F	B	C	A	F	A	A
Approach Vol, veh/h	14			370			2215			2056		
Approach Delay, s/veh	46.8			114.6			19.9			16.4		
Approach LOS	D			F			B			B		
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.0	86.0		22.0		98.0		22.0				
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s	7.5	81.5		17.5		93.5		17.5				
Max Q Clear Time (g_c+l1), s	9.0	59.3		10.8		29.6		19.5				
Green Ext Time (p_c), s	0.0	18.1		0.0		27.8		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			26.0									
HCM 6th LOS			C									
Notes												





Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	72	7	31	175	12	15	0	16	9	0	1
Future Vol, veh/h	3	72	7	31	175	12	15	0	16	9	0	1
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	88	12	48	219	16	24	0	20	16	0	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	9.2	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	4%	14%	90%
Vol Thru, %	0%	88%	80%	0%
Vol Right, %	52%	9%	6%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	82	218	10
LT Vol	15	3	31	9
Through Vol	0	72	175	0
RT Vol	16	7	12	1
Lane Flow Rate	44	104	282	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.056	0.125	0.323	0.028
Departure Headway (Hd)	4.592	4.326	4.12	4.958
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	783	832	861	725
Service Time	2.6	2.335	2.202	2.965
HCM Lane V/C Ratio	0.056	0.125	0.328	0.028
HCM Control Delay	7.9	8	9.2	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	1.4	0.1

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	122	14	19	176	3	9	0	21	9	0	5
Future Vol, veh/h	1	122	14	19	176	3	9	0	21	9	0	5
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	156	16	24	207	4	16	0	32	20	0	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	1%	10%	64%
Vol Thru, %	0%	89%	89%	0%
Vol Right, %	70%	10%	2%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	137	198	14
LT Vol	9	1	19	9
Through Vol	0	122	176	0
RT Vol	21	14	3	5
Lane Flow Rate	48	176	235	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.06	0.21	0.282	0.038
Departure Headway (Hd)	4.513	4.296	4.319	4.812
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	794	838	837	745
Service Time	2.537	2.312	2.319	2.837
HCM Lane V/C Ratio	0.06	0.21	0.281	0.038
HCM Control Delay	7.8	8.5	9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.8	1.2	0.1

Intersection	
Intersection Delay, s/veh	8.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	73	7	31	178	12	15	0	16	9	0	1
Future Vol, veh/h	3	73	7	31	178	12	15	0	16	9	0	1
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	89	12	48	223	16	24	0	20	16	0	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	9.2	7.9	8.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	4%	14%	90%
Vol Thru, %	0%	88%	81%	0%
Vol Right, %	52%	8%	5%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	83	221	10
LT Vol	15	3	31	9
Through Vol	0	73	178	0
RT Vol	16	7	12	1
Lane Flow Rate	44	105	286	20
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.126	0.328	0.028
Departure Headway (Hd)	4.605	4.333	4.121	4.969
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	781	830	861	724
Service Time	2.611	2.342	2.205	2.978
HCM Lane V/C Ratio	0.056	0.127	0.332	0.028
HCM Control Delay	7.9	8	9.2	8.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.4	1.4	0.1

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	124	14	19	179	3	9	0	21	9	0	5
Future Vol, veh/h	1	124	14	19	179	3	9	0	21	9	0	5
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	159	16	24	211	4	16	0	32	20	0	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	9	7.8	8
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	1%	9%	64%
Vol Thru, %	0%	89%	89%	0%
Vol Right, %	70%	10%	1%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	30	139	201	14
LT Vol	9	1	19	9
Through Vol	0	124	179	0
RT Vol	21	14	3	5
Lane Flow Rate	48	179	239	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.06	0.214	0.286	0.038
Departure Headway (Hd)	4.525	4.3	4.322	4.825
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	792	837	838	742
Service Time	2.551	2.316	2.322	2.852
HCM Lane V/C Ratio	0.061	0.214	0.285	0.038
HCM Control Delay	7.8	8.5	9	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.8	1.2	0.1

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	100	7	32	186	19	15	3	16	11	1	7
Future Vol, veh/h	29	100	7	32	186	19	15	3	16	11	1	7
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	122	12	49	233	25	24	3	20	20	1	28
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.8	9.9	8.2	8.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	44%	21%	14%	58%
Vol Thru, %	9%	74%	78%	5%
Vol Right, %	47%	5%	8%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	136	237	19
LT Vol	15	29	32	11
Through Vol	3	100	186	1
RT Vol	16	7	19	7
Lane Flow Rate	47	173	307	49
Geometry Grp	1	1	1	1
Degree of Util (X)	0.064	0.216	0.37	0.067
Departure Headway (Hd)	4.872	4.506	4.339	4.96
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	734	798	829	721
Service Time	2.91	2.53	2.36	2.996
HCM Lane V/C Ratio	0.064	0.217	0.37	0.068
HCM Control Delay	8.2	8.8	9.9	8.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.8	1.7	0.2

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	133	14	20	206	5	9	1	22	15	3	30
Future Vol, veh/h	8	133	14	20	206	5	9	1	22	15	3	30
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	171	16	25	242	7	16	1	33	33	3	48
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.3	9.9	8.2	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	5%	9%	31%
Vol Thru, %	3%	86%	89%	6%
Vol Right, %	69%	9%	2%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	155	231	48
LT Vol	9	8	20	15
Through Vol	1	133	206	3
RT Vol	22	14	5	30
Lane Flow Rate	50	218	274	85
Geometry Grp	1	1	1	1
Degree of Util (X)	0.067	0.274	0.343	0.113
Departure Headway (Hd)	4.803	4.519	4.505	4.797
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	743	795	798	744
Service Time	2.853	2.553	2.538	2.843
HCM Lane V/C Ratio	0.067	0.274	0.343	0.114
HCM Control Delay	8.2	9.3	9.9	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1.1	1.5	0.4







Intersection	
Intersection Delay, s/veh	9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	79	8	34	191	13	16	0	17	10	0	1
Future Vol, veh/h	3	79	8	34	191	13	16	0	17	10	0	1
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	96	14	52	239	17	26	0	21	18	0	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	9.5	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	48%	3%	14%	91%
Vol Thru, %	0%	88%	80%	0%
Vol Right, %	52%	9%	5%	9%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	90	238	11
LT Vol	16	3	34	10
Through Vol	0	79	191	0
RT Vol	17	8	13	1
Lane Flow Rate	47	114	308	22
Geometry Grp	1	1	1	1
Degree of Util (X)	0.061	0.138	0.354	0.031
Departure Headway (Hd)	4.676	4.365	4.136	5.05
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	769	824	854	712
Service Time	2.685	2.376	2.23	3.06
HCM Lane V/C Ratio	0.061	0.138	0.361	0.031
HCM Control Delay	8	8.1	9.5	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.5	1.6	0.1

Intersection	
Intersection Delay, s/veh	8.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	133	15	21	192	3	10	0	23	10	0	5
Future Vol, veh/h	1	133	15	21	192	3	10	0	23	10	0	5
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	171	17	27	226	4	18	0	35	22	0	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.7	9.3	8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	30%	1%	10%	67%
Vol Thru, %	0%	89%	89%	0%
Vol Right, %	70%	10%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	149	216	15
LT Vol	10	1	21	10
Through Vol	0	133	192	0
RT Vol	23	15	3	5
Lane Flow Rate	53	192	256	30
Geometry Grp	1	1	1	1
Degree of Util (X)	0.067	0.231	0.309	0.041
Departure Headway (Hd)	4.602	4.341	4.342	4.923
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	778	829	831	727
Service Time	2.629	2.357	2.359	2.952
HCM Lane V/C Ratio	0.068	0.232	0.308	0.041
HCM Control Delay	8	8.7	9.3	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.9	1.3	0.1

Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	77	153	8	34	208	31	16	7	17	14	2	18
Future Vol, veh/h	77	153	8	34	208	31	16	7	17	14	2	18
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	103	187	14	52	260	41	26	8	21	25	2	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.1	11.6	9	9.3
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	32%	12%	41%
Vol Thru, %	18%	64%	76%	6%
Vol Right, %	42%	3%	11%	53%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	238	273	34
LT Vol	16	77	34	14
Through Vol	7	153	208	2
RT Vol	17	8	31	18
Lane Flow Rate	55	303	354	99
Geometry Grp	1	1	1	1
Degree of Util (X)	0.082	0.403	0.456	0.145
Departure Headway (Hd)	5.416	4.783	4.647	5.277
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	654	749	771	672
Service Time	3.514	2.846	2.707	3.366
HCM Lane V/C Ratio	0.084	0.405	0.459	0.147
HCM Control Delay	9	11.1	11.6	9.3
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.3	2	2.4	0.5

Intersection	
Intersection Delay, s/veh	11.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	20	152	15	21	264	8	10	2	23	28	7	77
Future Vol, veh/h	20	152	15	21	264	8	10	2	23	28	7	77
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	195	17	27	311	11	18	2	35	62	8	124
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.6	12.7	9.1	10.4
HCM LOS	B	B	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	11%	7%	25%
Vol Thru, %	6%	81%	90%	6%
Vol Right, %	66%	8%	3%	69%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	187	293	112
LT Vol	10	20	21	28
Through Vol	2	152	264	7
RT Vol	23	15	8	77
Lane Flow Rate	55	292	348	194
Geometry Grp	1	1	1	1
Degree of Util (X)	0.085	0.412	0.486	0.284
Departure Headway (Hd)	5.571	5.081	5.032	5.273
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	642	709	717	681
Service Time	3.615	3.108	3.058	3.308
HCM Lane V/C Ratio	0.086	0.412	0.485	0.285
HCM Control Delay	9.1	11.6	12.7	10.4
HCM Lane LOS	A	B	B	B
HCM 95th-tile Q	0.3	2	2.7	1.2

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	4	100	10	43	243	17	21	0	22	12	0	1
Future Vol, veh/h	4	100	10	43	243	17	21	0	22	12	0	1
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	122	17	66	304	23	34	0	28	21	0	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.5	11.1	8.4	8.6
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	49%	4%	14%	92%
Vol Thru, %	0%	88%	80%	0%
Vol Right, %	51%	9%	6%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	114	303	13
LT Vol	21	4	43	12
Through Vol	0	100	243	0
RT Vol	22	10	17	1
Lane Flow Rate	61	145	393	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.084	0.181	0.47	0.038
Departure Headway (Hd)	4.947	4.516	4.306	5.35
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	723	795	836	668
Service Time	2.985	2.543	2.327	3.392
HCM Lane V/C Ratio	0.084	0.182	0.47	0.037
HCM Control Delay	8.4	8.5	11.1	8.6
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	0.7	2.5	0.1

Intersection

Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	169	19	26	244	4	12	0	29	12	0	7
Future Vol, veh/h	1	169	19	26	244	4	12	0	29	12	0	7
Peak Hour Factor	0.50	0.78	0.88	0.85	0.85	0.85	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	217	22	31	287	5	21	0	44	27	0	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.4	10.4	8.4	8.5
HCM LOS	A	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	1%	9%	63%
Vol Thru, %	0%	89%	89%	0%
Vol Right, %	71%	10%	1%	37%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	189	274	19
LT Vol	12	1	26	12
Through Vol	0	169	244	0
RT Vol	29	19	4	7
Lane Flow Rate	65	240	322	38
Geometry Grp	1	1	1	1
Degree of Util (X)	0.088	0.299	0.399	0.055
Departure Headway (Hd)	4.87	4.478	4.459	5.182
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	733	802	806	689
Service Time	2.919	2.51	2.49	3.234
HCM Lane V/C Ratio	0.089	0.299	0.4	0.055
HCM Control Delay	8.4	9.4	10.4	8.5
HCM Lane LOS	A	A	B	A
HCM 95th-tile Q	0.3	1.3	1.9	0.2

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	78	174	10	43	260	35	21	7	22	16	2	18
Future Vol, veh/h	78	174	10	43	260	35	21	7	22	16	2	18
Peak Hour Factor	0.75	0.82	0.58	0.65	0.80	0.75	0.62	0.92	0.80	0.56	0.92	0.25
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	104	212	17	66	325	47	34	8	28	29	2	72
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.5	14.7	9.6	9.9
HCM LOS	B	B	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	30%	13%	44%
Vol Thru, %	14%	66%	77%	6%
Vol Right, %	44%	4%	10%	50%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	262	338	36
LT Vol	21	78	43	16
Through Vol	7	174	260	2
RT Vol	22	10	35	18
Lane Flow Rate	69	333	438	103
Geometry Grp	1	1	1	1
Degree of Util (X)	0.112	0.469	0.592	0.164
Departure Headway (Hd)	5.85	5.063	4.871	5.74
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	714	744	624
Service Time	3.895	3.074	2.881	3.782
HCM Lane V/C Ratio	0.113	0.466	0.589	0.165
HCM Control Delay	9.6	12.5	14.7	9.9
HCM Lane LOS	A	B	B	A
HCM 95th-tile Q	0.4	2.5	3.9	0.6

Intersection	
Intersection Delay, s/veh	13.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	20	188	19	26	316	9	12	2	29	30	7	79
Future Vol, veh/h	20	188	19	26	316	9	12	2	29	30	7	79
Peak Hour Factor	0.25	0.78	0.88	0.79	0.85	0.75	0.56	0.92	0.66	0.45	0.92	0.62
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	241	22	33	372	12	21	2	44	67	8	127
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13.7	16.1	9.8	11.3
HCM LOS	B	C	A	B





















Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	9%	7%	26%
Vol Thru, %	5%	83%	90%	6%
Vol Right, %	67%	8%	3%	68%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	43	227	351	116
LT Vol	12	20	26	30
Through Vol	2	188	316	7
RT Vol	29	19	9	79
Lane Flow Rate	68	343	417	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.112	0.505	0.606	0.317
Departure Headway (Hd)	5.983	5.309	5.238	5.66
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	596	678	688	633
Service Time	4.055	3.356	3.282	3.717
HCM Lane V/C Ratio	0.114	0.506	0.606	0.319
HCM Control Delay	9.8	13.7	16.1	11.3
HCM Lane LOS	A	B	C	B
HCM 95th-tile Q	0.4	2.9	4.1	1.4



# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue





















2018 Existing AM.syn  
01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	0	33	0	0	0	16	311	3	2	839	200
Future Volume (veh/h)	79	0	33	0	0	0	16	311	3	2	839	200
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	0	40	0	0	0	24	321	8	4	932	0
Peak Hour Factor	0.90	0.92	0.82	0.92	0.92	0.92	0.67	0.97	0.38	0.50	0.90	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	242	0	137	0	162	0	364	1241	31	824	1237	
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.00	0.05	1.00	1.00	0.01	0.66	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1817	45	1781	1870	1585
Grp Volume(v), veh/h	88	0	40	0	0	0	24	0	329	4	932	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1862	1781	1870	1585
Q Serve(g_s), s	3.6	0.0	1.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	20.2	0.0
Cycle Q Clear(g_c), s	3.6	0.0	1.4	0.0	0.0	0.0	0.3	0.0	0.0	0.0	20.2	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	242	0	137	0	162	0	364	0	1272	824	1237	
V/C Ratio(X)	0.36	0.00	0.29	0.00	0.00	0.00	0.07	0.00	0.26	0.00	0.75	
Avail Cap(c_a), veh/h	415	0	330	0	390	0	597	0	1272	978	1237	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.7	0.0	25.7	0.0	0.0	0.0	6.3	0.0	0.0	3.3	6.9	0.0
Incr Delay (d2), s/veh	0.9	0.0	1.2	0.0	0.0	0.0	0.1	0.0	0.5	0.0	4.3	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(50%),veh/ln	1.2	0.0	0.5	0.0	0.0	0.0	0.1	0.0	0.2	0.0	6.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	0.0	26.9	0.0	0.0	0.0	6.4	0.0	0.5	3.3	11.2	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h		128			0			353			936	A
Approach Delay, s/veh		27.4			0.0			0.9			11.1	
Approach LOS		C						A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	45.5		9.7	6.1	44.2		9.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	28.5		12.5	9.5	24.5		12.5				
Max Q Clear Time (g_c+l1), s	2.0	2.0		5.6	2.3	22.2		0.0				
Green Ext Time (p_c), s	0.0	2.0		0.3	0.0	1.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			10.0									
HCM 6th LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2018 Existing PM.syn  
01/22/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	1	26	0	0	0	40	815	2	0	642	139
Future Volume (veh/h)	145	1	26	0	0	0	40	815	2	0	642	139
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	4	48	0	0	0	60	926	4	0	721	0
Peak Hour Factor	0.84	0.25	0.54	0.92	0.92	0.92	0.67	0.88	0.50	0.92	0.89	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	342	5	254	0	299	0	424	1284	6	461	1052	
Arrive On Green	0.16	0.16	0.16	0.00	0.00	0.00	0.07	0.92	0.92	0.00	0.56	0.00
Sat Flow, veh/h	1393	32	1585	0	1870	0	1781	1861	8	1781	1870	1585
Grp Volume(v), veh/h	177	0	48	0	0	0	60	0	930	0	721	0
Grp Sat Flow(s),veh/h/ln	1425	0	1585	0	1870	0	1781	0	1869	1781	1870	1585
Q Serve(g_s), s	7.1	0.0	1.6	0.0	0.0	0.0	0.7	0.0	7.3	0.0	16.5	0.0
Cycle Q Clear(g_c), s	7.1	0.0	1.6	0.0	0.0	0.0	0.7	0.0	7.3	0.0	16.5	0.0
Prop In Lane	0.98		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	347	0	254	0	299	0	424	0	1290	461	1052	
V/C Ratio(X)	0.51	0.00	0.19	0.00	0.00	0.00	0.14	0.00	0.72	0.00	0.69	
Avail Cap(c_a), veh/h	546	0	476	0	561	0	479	0	1290	607	1052	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.70	0.00	0.70	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.2	0.0	21.8	0.0	0.0	0.0	6.8	0.0	1.1	0.0	9.4	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.0	0.0	0.0	0.1	0.0	2.5	0.0	3.6	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(50%),veh/ln	2.4	0.0	0.6	0.0	0.0	0.0	0.2	0.0	1.5	0.0	6.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	22.2	0.0	0.0	0.0	6.9	0.0	3.5	0.0	13.0	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h		225			0			990			721	A
Approach Delay, s/veh		24.7			0.0			3.7			13.0	
Approach LOS		C						A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	45.9		14.1	7.7	38.2		14.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	0.0	9.3		9.1	2.7	18.5		0.0				
Green Ext Time (p_c), s	0.0	6.2		0.7	0.0	2.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			9.6									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue





















2020 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	0	33	0	0	0	16	316	3	2	852	203
Future Volume (veh/h)	80	0	33	0	0	0	16	316	3	2	852	203
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	0	40	0	0	0	24	326	8	4	947	0
Peak Hour Factor	0.90	0.92	0.82	0.92	0.92	0.92	0.67	0.97	0.38	0.50	0.90	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	0	133	0	157	0	358	1247	31	824	1242	
Arrive On Green	0.08	0.00	0.08	0.00	0.00	0.00	0.05	1.00	1.00	0.01	0.66	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1818	45	1781	1870	1585
Grp Volume(v), veh/h	89	0	40	0	0	0	24	0	334	4	947	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1862	1781	1870	1585
Q Serve(g_s), s	3.7	0.0	1.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	20.7	0.0
Cycle Q Clear(g_c), s	3.7	0.0	1.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	20.7	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	239	0	133	0	157	0	358	0	1277	824	1242	
V/C Ratio(X)	0.37	0.00	0.30	0.00	0.00	0.00	0.07	0.00	0.26	0.00	0.76	
Avail Cap(c_a), veh/h	250	0	145	0	171	0	739	0	1277	1067	1242	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.97	0.00	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.9	0.0	25.8	0.0	0.0	0.0	6.4	0.0	0.0	3.3	6.9	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.3	0.0	0.0	0.0	0.1	0.0	0.5	0.0	4.5	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(50%),veh/ln	1.2	0.0	0.6	0.0	0.0	0.0	0.1	0.0	0.2	0.0	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	27.1	0.0	0.0	0.0	6.5	0.0	0.5	3.3	11.3	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h		129			0			358			951	A
Approach Delay, s/veh		27.6			0.0			0.9			11.3	
Approach LOS		C						A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	45.7		9.5	6.1	44.3		9.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	32.5		5.5	14.5	26.5		5.5				
Max Q Clear Time (g_c+I1), s	2.0	2.0		5.7	2.2	22.7		0.0				
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.3		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			10.2									
HCM 6th LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary 8: Pecos Street & 56th Avenue

2020 BG PM.syn  
01/22/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	147	1	26	0	0	0	41	827	2	0	652	141
Future Volume (veh/h)	147	1	26	0	0	0	41	827	2	0	652	141
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	175	4	48	0	0	0	61	940	4	0	733	0
Peak Hour Factor	0.84	0.25	0.54	0.92	0.92	0.92	0.67	0.88	0.50	0.92	0.89	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	5	256	0	302	0	415	1281	5	455	1048	
Arrive On Green	0.16	0.16	0.16	0.00	0.00	0.00	0.07	0.92	0.92	0.00	0.56	0.00
Sat Flow, veh/h	1393	32	1585	0	1870	0	1781	1861	8	1781	1870	1585
Grp Volume(v), veh/h	179	0	48	0	0	0	61	0	944	0	733	0
Grp Sat Flow(s),veh/h/ln	1425	0	1585	0	1870	0	1781	0	1869	1781	1870	1585
Q Serve(g_s), s	7.2	0.0	1.6	0.0	0.0	0.0	0.7	0.0	7.8	0.0	17.0	0.0
Cycle Q Clear(g_c), s	7.2	0.0	1.6	0.0	0.0	0.0	0.7	0.0	7.8	0.0	17.0	0.0
Prop In Lane	0.98		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	349	0	256	0	302	0	415	0	1287	455	1048	
V/C Ratio(X)	0.51	0.00	0.19	0.00	0.00	0.00	0.15	0.00	0.73	0.00	0.70	
Avail Cap(c_a), veh/h	546	0	476	0	561	0	469	0	1287	600	1048	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.68	0.00	0.68	0.00	1.00	0.00
Uniform Delay (d), s/veh	24.1	0.0	21.8	0.0	0.0	0.0	7.0	0.0	1.1	0.0	9.5	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.0	0.0	0.0	0.1	0.0	2.6	0.0	3.9	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(50%),veh/ln	2.4	0.0	0.6	0.0	0.0	0.0	0.2	0.0	1.6	0.0	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	0.0	22.1	0.0	0.0	0.0	7.1	0.0	3.7	0.0	13.4	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h		227			0			1005			733	A
Approach Delay, s/veh		24.6			0.0			3.9			13.4	
Approach LOS		C						A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	45.8		14.2	7.7	38.1		14.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+l1), s	0.0	9.8		9.2	2.7	19.0		0.0				
Green Ext Time (p_c), s	0.0	6.2		0.7	0.0	2.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			9.8									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2020 Total AM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	0	36	0	0	0	23	337	3	2	868	212
Future Volume (veh/h)	107	0	36	0	0	0	23	337	3	2	868	212
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	119	0	44	0	0	0	34	347	8	4	964	0
Peak Hour Factor	0.90	0.92	0.82	0.92	0.92	0.92	0.67	0.97	0.38	0.50	0.90	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	273	0	171	0	202	0	323	1205	28	727	1180	
Arrive On Green	0.11	0.00	0.11	0.00	0.00	0.00	0.04	0.66	0.66	0.01	0.63	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1821	42	1781	1870	1585
Grp Volume(v), veh/h	119	0	44	0	0	0	34	0	355	4	964	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1863	1781	1870	1585
Q Serve(g_s), s	4.9	0.0	1.5	0.0	0.0	0.0	0.4	0.0	4.8	0.0	23.6	0.0
Cycle Q Clear(g_c), s	4.9	0.0	1.5	0.0	0.0	0.0	0.4	0.0	4.8	0.0	23.6	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	273	0	171	0	202	0	323	0	1232	727	1180	
V/C Ratio(X)	0.44	0.00	0.26	0.00	0.00	0.00	0.11	0.00	0.29	0.01	0.82	
Avail Cap(c_a), veh/h	297	0	198	0	234	0	482	0	1232	969	1180	
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	0.00	0.00	0.00	0.96	0.00	0.96	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.1	0.0	24.5	0.0	0.0	0.0	8.3	0.0	4.2	4.1	8.4	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.8	0.0	0.0	0.0	0.1	0.0	0.6	0.0	6.3	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(50%),veh/ln	1.6	0.0	0.6	0.0	0.0	0.0	0.1	0.0	1.4	0.0	8.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	25.3	0.0	0.0	0.0	8.4	0.0	4.8	4.1	14.8	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h		163			0			389			968	A
Approach Delay, s/veh		26.7			0.0			5.1			14.7	
Approach LOS		C						A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	44.2		11.0	6.7	42.4		11.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	8.5	30.5		7.5	7.5	31.5		7.5				
Max Q Clear Time (g_c+l1), s	2.0	6.8		6.9	2.4	25.6		0.0				
Green Ext Time (p_c), s	0.0	2.2		0.0	0.0	3.5		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2020 Total PM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	1	33	0	0	0	43	844	2	0	678	168
Future Volume (veh/h)	156	1	33	0	0	0	43	844	2	0	678	168
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	4	61	0	0	0	64	959	4	0	762	0
Peak Hour Factor	0.84	0.25	0.54	0.92	0.92	0.92	0.67	0.88	0.50	0.92	0.89	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	362	5	276	0	326	0	382	1258	5	421	1021	
Arrive On Green	0.17	0.17	0.17	0.00	0.00	0.00	0.07	0.90	0.90	0.00	0.55	0.00
Sat Flow, veh/h	1395	30	1585	0	1870	0	1781	1861	8	1781	1870	1585
Grp Volume(v), veh/h	190	0	61	0	0	0	64	0	963	0	762	0
Grp Sat Flow(s),veh/h/ln	1425	0	1585	0	1870	0	1781	0	1869	1781	1870	1585
Q Serve(g_s), s	7.6	0.0	2.0	0.0	0.0	0.0	0.8	0.0	9.9	0.0	18.7	0.0
Cycle Q Clear(g_c), s	7.6	0.0	2.0	0.0	0.0	0.0	0.8	0.0	9.9	0.0	18.7	0.0
Prop In Lane	0.98		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	367	0	276	0	326	0	382	0	1263	421	1021	
V/C Ratio(X)	0.52	0.00	0.22	0.00	0.00	0.00	0.17	0.00	0.76	0.00	0.75	
Avail Cap(c_a), veh/h	665	0	608	0	717	0	433	0	1263	566	1021	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	1.00	0.00
Uniform Delay (d), s/veh	23.6	0.0	21.3	0.0	0.0	0.0	7.9	0.0	1.5	0.0	10.4	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.4	0.0	0.0	0.0	0.1	0.0	2.9	0.0	5.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.7	0.0	0.0	0.0	0.2	0.0	1.9	0.0	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	0.0	21.7	0.0	0.0	0.0	8.1	0.0	4.4	0.0	15.4	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h	251		0			1027			762			A
Approach Delay, s/veh	24.0		0.0			4.7			15.4			
Approach LOS	C					A			B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	45.0		15.0	7.8	37.3		15.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	18.5		23.0	5.0	18.5		23.0				
Max Q Clear Time (g_c+I1), s	0.0	11.9		9.6	2.8	20.7		0.0				
Green Ext Time (p_c), s	0.0	3.7		1.0	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	11.0											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2024 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	0	36	0	0	0	17	340	3	2	917	219
Future Volume (veh/h)	86	0	36	0	0	0	17	340	3	2	917	219
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	0	44	0	0	0	25	351	8	4	1019	0
Peak Hour Factor	0.90	0.92	0.82	0.92	0.92	0.92	0.67	0.97	0.38	0.50	0.90	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	0	155	0	183	0	297	1223	28	736	1213	
Arrive On Green	0.10	0.00	0.10	0.00	0.00	0.00	0.03	0.67	0.67	0.01	0.65	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1821	42	1781	1870	1585
Grp Volume(v), veh/h	96	0	44	0	0	0	25	0	359	4	1019	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1863	1781	1870	1585
Q Serve(g_s), s	3.9	0.0	1.5	0.0	0.0	0.0	0.3	0.0	4.7	0.0	25.2	0.0
Cycle Q Clear(g_c), s	3.9	0.0	1.5	0.0	0.0	0.0	0.3	0.0	4.7	0.0	25.2	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	259	0	155	0	183	0	297	0	1251	736	1213	
V/C Ratio(X)	0.37	0.00	0.28	0.00	0.00	0.00	0.08	0.00	0.29	0.01	0.84	
Avail Cap(c_a), veh/h	793	0	753	0	888	0	409	0	1251	919	1213	
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	0.00	0.00	0.00	0.97	0.00	0.97	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.2	0.0	25.1	0.0	0.0	0.0	8.7	0.0	4.0	3.7	8.1	0.0
Incr Delay (d2), s/veh	0.9	0.0	1.0	0.0	0.0	0.0	0.1	0.0	0.6	0.0	7.1	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(50%),veh/ln	1.3	0.0	0.6	0.0	0.0	0.0	0.1	0.0	1.4	0.0	9.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.1	0.0	26.1	0.0	0.0	0.0	8.9	0.0	4.6	3.7	15.2	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h	140		0				384			1023		
Approach Delay, s/veh	26.8		0.0				4.8			15.2		
Approach LOS	C						A			B		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	44.8		10.4	6.2	43.4		10.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	11.5		28.5	5.5	12.5		28.5				
Max Q Clear Time (g_c+l1), s	2.0	6.7		5.9	2.3	27.2		0.0				
Green Ext Time (p_c), s	0.0	0.9		0.6	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	13.7											
HCM 6th LOS	B											
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												























# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2024 BG PM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1	28	0	0	0	44	891	2	0	702	152
Future Volume (veh/h)	159	1	28	0	0	0	44	891	2	0	702	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	189	4	52	0	0	0	66	1012	4	0	789	0
Peak Hour Factor	0.84	0.25	0.54	0.92	0.92	0.92	0.67	0.88	0.50	0.92	0.89	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	5	273	0	322	0	368	1262	5	392	1023	
Arrive On Green	0.17	0.17	0.17	0.00	0.00	0.00	0.07	0.90	0.90	0.00	0.55	0.00
Sat Flow, veh/h	1395	30	1585	0	1870	0	1781	1862	7	1781	1870	1585
Grp Volume(v), veh/h	193	0	52	0	0	0	66	0	1016	0	789	0
Grp Sat Flow(s),veh/h/ln	1425	0	1585	0	1870	0	1781	0	1869	1781	1870	1585
Q Serve(g_s), s	7.8	0.0	1.7	0.0	0.0	0.0	0.8	0.0	11.6	0.0	19.8	0.0
Cycle Q Clear(g_c), s	7.8	0.0	1.7	0.0	0.0	0.0	0.8	0.0	11.6	0.0	19.8	0.0
Prop In Lane	0.98		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	364	0	273	0	322	0	368	0	1267	392	1023	
V/C Ratio(X)	0.53	0.00	0.19	0.00	0.00	0.00	0.18	0.00	0.80	0.00	0.77	
Avail Cap(c_a), veh/h	546	0	476	0	561	0	417	0	1267	537	1023	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.59	0.00	0.59	0.00	1.00	0.00
Uniform Delay (d), s/veh	23.8	0.0	21.3	0.0	0.0	0.0	8.3	0.0	1.5	0.0	10.6	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.3	0.0	0.0	0.0	0.1	0.0	3.3	0.0	5.6	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(50%),veh/ln	2.6	0.0	0.6	0.0	0.0	0.0	0.2	0.0	2.1	0.0	8.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	0.0	21.6	0.0	0.0	0.0	8.5	0.0	4.8	0.0	16.3	0.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	B	
Approach Vol, veh/h	245		0				1082			789		
Approach Delay, s/veh	24.3		0.0				5.0			16.3		
Approach LOS	C						A			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.0	45.2	14.8		7.8	37.3	14.8					
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5	4.5	4.5					
Max Green Setting (Gmax), s	5.0	23.5	18.0		5.0	23.5	18.0					
Max Q Clear Time (g_c+I1), s	0.0	13.6	9.8		2.8	21.8	0.0					
Green Ext Time (p_c), s	0.0	5.5	0.7		0.0	0.9	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	11.4											
HCM 6th LOS	B											























# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2024 Total AM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	0	40	0	0	0	35	388	3	2	928	236
Future Volume (veh/h)	160	0	40	0	0	0	35	388	3	2	928	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	178	0	49	0	0	0	52	400	8	4	1031	0
Peak Hour Factor	0.90	0.92	0.82	0.92	0.92	0.92	0.67	0.97	0.38	0.50	0.90	0.83
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	344	0	250	0	295	0	227	1118	22	686	1064	
Arrive On Green	0.16	0.00	0.16	0.00	0.00	0.00	0.10	1.00	1.00	0.01	0.57	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1827	37	1781	1870	1585
Grp Volume(v), veh/h	178	0	49	0	0	0	52	0	408	4	1031	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1864	1781	1870	1585
Q Serve(g_s), s	7.3	0.0	1.6	0.0	0.0	0.0	0.7	0.0	0.0	0.1	31.8	0.0
Cycle Q Clear(g_c), s	7.3	0.0	1.6	0.0	0.0	0.0	0.7	0.0	0.0	0.1	31.8	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	344	0	250	0	295	0	227	0	1140	686	1064	
V/C Ratio(X)	0.52	0.00	0.20	0.00	0.00	0.00	0.23	0.00	0.36	0.01	0.97	
Avail Cap(c_a), veh/h	451	0	370	0	436	0	305	0	1140	824	1064	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.95	0.00	0.95	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.3	0.0	22.0	0.0	0.0	0.0	13.0	0.0	0.0	5.5	12.4	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.4	0.0	0.0	0.0	0.5	0.0	0.8	0.0	21.1	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(50%),veh/ln	2.4	0.0	0.6	0.0	0.0	0.0	0.4	0.0	0.3	0.0	16.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	22.3	0.0	0.0	0.0	13.5	0.0	0.8	5.5	33.5	0.0
LnGrp LOS	C	A	C	A	A	A	B	A	A	A	C	
Approach Vol, veh/h		227			0			460			1035	A
Approach Delay, s/veh		24.8			0.0			2.3			33.4	
Approach LOS		C						A			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	41.2		14.0	7.4	38.6		14.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	27.5		14.0	5.5	27.0		14.0				
Max Q Clear Time (g_c+l1), s	2.1	2.0		9.3	2.7	33.8		0.0				
Green Ext Time (p_c), s	0.0	2.6		0.4	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			24.0									
HCM 6th LOS			C									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2024 Total PM.syn

01/24/2019





















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	178	1	46	0	0	0	49	903	2	0	749	224
Future Volume (veh/h)	178	1	46	0	0	0	49	903	2	0	749	224
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	212	4	85	0	0	0	73	1026	4	0	842	0
Peak Hour Factor	0.84	0.25	0.54	0.92	0.92	0.92	0.67	0.88	0.50	0.92	0.89	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	386	5	303	0	357	0	314	1227	5	344	983	
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.08	0.88	0.88	0.00	0.53	0.00
Sat Flow, veh/h	1398	26	1585	0	1870	0	1781	1862	7	1781	1870	1585
Grp Volume(v), veh/h	216	0	85	0	0	0	73	0	1030	0	842	0
Grp Sat Flow(s),veh/h/ln	1424	0	1585	0	1870	0	1781	0	1869	1781	1870	1585
Q Serve(g_s), s	8.7	0.0	2.8	0.0	0.0	0.0	1.0	0.0	15.3	0.0	23.3	0.0
Cycle Q Clear(g_c), s	8.7	0.0	2.8	0.0	0.0	0.0	1.0	0.0	15.3	0.0	23.3	0.0
Prop In Lane	0.98		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	391	0	303	0	357	0	314	0	1232	344	983	
V/C Ratio(X)	0.55	0.00	0.28	0.00	0.00	0.00	0.23	0.00	0.84	0.00	0.86	
Avail Cap(c_a), veh/h	546	0	476	0	561	0	358	0	1232	490	983	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.66	0.00	0.66	0.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	0.0	20.8	0.0	0.0	0.0	10.4	0.0	2.2	0.0	12.3	0.0
Incr Delay (d2), s/veh	1.2	0.0	0.5	0.0	0.0	0.0	0.2	0.0	4.6	0.0	9.5	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(50%),veh/ln	2.8	0.0	1.0	0.0	0.0	0.0	0.4	0.0	2.9	0.0	10.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	0.0	21.3	0.0	0.0	0.0	10.6	0.0	6.8	0.0	21.8	0.0
LnGrp LOS	C	A	C	A	A	A	B	A	A	A	C	
Approach Vol, veh/h		301			0			1103			842	A
Approach Delay, s/veh		23.5			0.0			7.1			21.8	
Approach LOS		C						A			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	44.0		16.0	8.0	36.0		16.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+I1), s	0.0	17.3		10.7	3.0	25.3		0.0				
Green Ext Time (p_c), s	0.0	3.9		0.8	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			14.8									
HCM 6th LOS			B									
<b>Notes</b>												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue





















2040 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	0	46	0	0	0	22	432	4	3	1164	278
Future Volume (veh/h)	110	0	46	0	0	0	22	432	4	3	1164	278
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	0	50	0	0	0	24	470	4	3	1265	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	262	0	159	0	187	0	169	1242	11	706	1211	
Arrive On Green	0.10	0.00	0.10	0.00	0.00	0.00	0.04	0.89	0.89	0.00	0.65	0.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	1852	16	1781	1870	1585
Grp Volume(v), veh/h	120	0	50	0	0	0	24	0	474	3	1265	0
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	0	1868	1781	1870	1585
Q Serve(g_s), s	5.0	0.0	1.8	0.0	0.0	0.0	0.3	0.0	2.5	0.0	38.9	0.0
Cycle Q Clear(g_c), s	5.0	0.0	1.8	0.0	0.0	0.0	0.3	0.0	2.5	0.0	38.9	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	262	0	159	0	187	0	169	0	1253	706	1211	
V/C Ratio(X)	0.46	0.00	0.32	0.00	0.00	0.00	0.14	0.00	0.38	0.00	1.04	
Avail Cap(c_a), veh/h	262	0	159	0	187	0	268	0	1253	848	1211	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.94	0.00	0.94	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.5	0.0	25.1	0.0	0.0	0.0	15.6	0.0	1.2	3.7	10.6	0.0
Incr Delay (d2), s/veh	1.3	0.0	1.1	0.0	0.0	0.0	0.4	0.0	0.8	0.0	38.3	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(50%),veh/ln	1.7	0.0	0.7	0.0	0.0	0.0	0.2	0.0	0.7	0.0	23.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	26.2	0.0	0.0	0.0	16.0	0.0	2.0	3.7	48.8	0.0
LnGrp LOS	C	A	C	A	A	A	B	A	A	A	F	
Approach Vol, veh/h		170			0			498			1268	A
Approach Delay, s/veh		27.3			0.0			2.7			48.7	
Approach LOS		C						A			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	44.8		10.5	6.1	43.4		10.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	35.5		6.0	5.0	35.5		6.0				
Max Q Clear Time (g_c+l1), s	2.0	4.5		7.0	2.3	40.9		0.0				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	0.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			35.0									
HCM 6th LOS			D									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

# HCM 6th Signalized Intersection Summary 8: Pecos Street & 56th Avenue

2040 BG PM.syn  
01/22/2019






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	201	1	36	0	0	0	56	1131	3	0	891	193
Future Volume (veh/h)	201	1	36	0	0	0	56	1131	3	0	891	193
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	218	1	39	0	0	0	61	1229	3	0	968	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	389	1	302	0	356	0	231	1230	3	125	994	
Arrive On Green	0.19	0.19	0.19	0.00	0.00	0.00	0.07	0.88	0.88	0.00	0.53	0.00
Sat Flow, veh/h	1413	6	1585	0	1870	0	1781	1865	5	1781	1870	1585
Grp Volume(v), veh/h	219	0	39	0	0	0	61	0	1232	0	968	0
Grp Sat Flow(s),veh/h/ln	1419	0	1585	0	1870	0	1781	0	1870	1781	1870	1585
Q Serve(g_s), s	8.9	0.0	1.2	0.0	0.0	0.0	0.8	0.0	39.4	0.0	30.2	0.0
Cycle Q Clear(g_c), s	8.9	0.0	1.2	0.0	0.0	0.0	0.8	0.0	39.4	0.0	30.2	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	390	0	302	0	356	0	231	0	1233	125	994	
V/C Ratio(X)	0.56	0.00	0.13	0.00	0.00	0.00	0.26	0.00	1.00	0.00	0.97	
Avail Cap(c_a), veh/h	545	0	476	0	561	0	285	0	1233	270	994	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.30	0.00	0.30	0.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	0.0	20.2	0.0	0.0	0.0	13.6	0.0	3.7	0.0	13.7	0.0
Incr Delay (d2), s/veh	1.3	0.0	0.2	0.0	0.0	0.0	0.2	0.0	13.9	0.0	23.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.4	0.0	0.0	0.0	0.4	0.0	6.4	0.0	16.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	0.0	20.3	0.0	0.0	0.0	13.8	0.0	17.6	0.0	36.6	0.0
LnGrp LOS	C	A	C	A	A	A	B	A	B	A	D	
Approach Vol, veh/h	258			0			1293			968		
Approach Delay, s/veh	23.9			0.0			17.4			36.6		
Approach LOS	C						B			D		
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	44.1		15.9	7.7	36.4		15.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.0	23.5		18.0	5.0	23.5		18.0				
Max Q Clear Time (g_c+l1), s	0.0	41.4		10.9	2.8	32.2		0.0				
Green Ext Time (p_c), s	0.0	0.0		0.7	0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			25.5									
HCM 6th LOS			C									
Notes												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue

2040 Total AM.syn

01/24/2019






















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	0	50	0	0	0	40	480	4	3	1175	295
Future Volume (veh/h)	184	0	50	0	0	0	40	480	4	3	1175	295
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	200	0	54	0	0	0	43	522	4	3	1277	321
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	0	145	0	171	0	400	2455	19	646	2277	1016
Arrive On Green	0.09	0.00	0.09	0.00	0.00	0.00	0.03	0.46	0.46	0.01	1.00	1.00
Sat Flow, veh/h	1418	0	1585	0	1870	0	1781	3615	28	1781	3554	1585
Grp Volume(v), veh/h	200	0	54	0	0	0	43	257	269	3	1277	321
Grp Sat Flow(s),veh/h/ln	1418	0	1585	0	1870	0	1781	1777	1865	1781	1777	1585
Q Serve(g_s), s	5.5	0.0	1.9	0.0	0.0	0.0	0.5	5.2	5.2	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.5	0.0	1.9	0.0	0.0	0.0	0.5	5.2	5.2	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	250	0	145	0	171	0	400	1207	1267	646	2277	1016
V/C Ratio(X)	0.80	0.00	0.37	0.00	0.00	0.00	0.11	0.21	0.21	0.00	0.56	0.32
Avail Cap(c_a), veh/h	250	0	145	0	171	0	487	1207	1267	802	2277	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	25.6	0.0	0.0	0.0	3.1	6.7	6.7	3.8	0.0	0.0
Incr Delay (d2), s/veh	16.7	0.0	1.6	0.0	0.0	0.0	0.1	0.4	0.4	0.0	1.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	0.7	0.0	0.0	0.0	0.1	1.5	1.6	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.9	0.0	27.2	0.0	0.0	0.0	3.2	7.0	7.0	3.9	1.0	0.8
LnGrp LOS	D	A	C	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		254			0			569			1601	
Approach Delay, s/veh		41.2			0.0			6.7			1.0	
Approach LOS		D						A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.7	45.3		10.0	7.1	42.9		10.0				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	35.5		5.5	5.5	35.5		5.5				
Max Q Clear Time (g_c+I1), s	2.0	7.2		7.5	2.5	2.0		0.0				
Green Ext Time (p_c), s	0.0	3.3		0.0	0.0	14.2		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			6.5									
HCM 6th LOS			A									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

# HCM 6th Signalized Intersection Summary

## 8: Pecos Street & 56th Avenue



















2040 Total PM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	1	54	0	0	0	61	1143	3	0	938	265
Future Volume (veh/h)	220	1	54	0	0	0	61	1143	3	0	938	265
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	239	1	59	0	0	0	66	1242	3	0	1020	288
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	1	277	0	327	0	448	2455	6	366	1935	863
Arrive On Green	0.17	0.17	0.17	0.00	0.00	0.00	0.07	0.90	0.90	0.00	1.00	1.00
Sat Flow, veh/h	1413	6	1585	0	1870	0	1781	3637	9	1781	3554	1585
Grp Volume(v), veh/h	240	0	59	0	0	0	66	607	638	0	1020	288
Grp Sat Flow(s),veh/h/ln	1419	0	1585	0	1870	0	1781	1777	1869	1781	1777	1585
Q Serve(g_s), s	10.1	0.0	1.9	0.0	0.0	0.0	0.8	3.8	3.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.1	0.0	1.9	0.0	0.0	0.0	0.8	3.8	3.8	0.0	0.0	0.0
Prop In Lane	1.00		1.00	0.00		0.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	368	0	277	0	327	0	448	1199	1261	366	1935	863
V/C Ratio(X)	0.65	0.00	0.21	0.00	0.00	0.00	0.15	0.51	0.51	0.00	0.53	0.33
Avail Cap(c_a), veh/h	368	0	277	0	327	0	512	1199	1261	526	1935	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	0.00	0.00	0.35	0.35	0.35	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	0.0	21.2	0.0	0.0	0.0	4.1	1.2	1.2	0.0	0.0	0.0
Incr Delay (d2), s/veh	4.1	0.0	0.4	0.0	0.0	0.0	0.1	0.5	0.5	0.0	1.0	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(50%),veh/ln	3.5	0.0	0.7	0.0	0.0	0.0	0.2	0.7	0.7	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	21.6	0.0	0.0	0.0	4.2	1.7	1.7	0.0	1.0	1.0
LnGrp LOS	C	A	C	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		299			0			1311			1308	
Approach Delay, s/veh		27.2			0.0			1.8			1.0	
Approach LOS		C						A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	45.0		15.0	7.8	37.2		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	30.5		10.5	5.5	30.5		10.5				
Max Q Clear Time (g_c+l1), s	0.0	5.8		12.1	2.8	2.0		0.0				
Green Ext Time (p_c), s	0.0	9.6		0.0	0.0	10.0		0.0				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			4.1									
HCM 6th LOS			A									
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street



















2018 Existing AM.syn  
01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	85	74	13	20	39	57	254	8	114	645	62
Future Volume (veh/h)	67	85	74	13	20	39	57	254	8	114	645	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	129	92	24	24	64	97	289	20	173	750	117
Peak Hour Factor	0.76	0.66	0.80	0.54	0.83	0.61	0.59	0.88	0.40	0.66	0.86	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	176	110	119	117	217	379	1079	75	707	986	154
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.62	0.62	0.62	0.83	0.83	0.83
Sat Flow, veh/h	372	779	488	203	519	962	638	1729	120	1070	1580	246
Grp Volume(v), veh/h	309	0	0	112	0	0	97	0	309	173	0	867
Grp Sat Flow(s),veh/h/ln	1639	0	0	1684	0	0	638	0	1849	1070	0	1826
Q Serve(g_s), s	7.4	0.0	0.0	0.0	0.0	0.0	6.4	0.0	4.5	3.3	0.0	13.1
Cycle Q Clear(g_c), s	10.7	0.0	0.0	3.3	0.0	0.0	19.5	0.0	4.5	7.9	0.0	13.1
Prop In Lane	0.28		0.30	0.21		0.57	1.00		0.06	1.00		0.13
Lane Grp Cap(c), veh/h	447	0	0	453	0	0	379	0	1154	707	0	1140
V/C Ratio(X)	0.69	0.00	0.00	0.25	0.00	0.00	0.26	0.00	0.27	0.24	0.00	0.76
Avail Cap(c_a), veh/h	573	0	0	573	0	0	379	0	1154	707	0	1140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.68	0.00	0.68
Uniform Delay (d), s/veh	22.0	0.0	0.0	19.3	0.0	0.0	12.5	0.0	5.1	3.4	0.0	3.0
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.3	0.0	0.0	1.6	0.0	0.6	0.6	0.0	3.3
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(50%),veh/ln	4.1	0.0	0.0	1.2	0.0	0.0	1.0	0.0	1.4	0.5	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	0.0	0.0	19.5	0.0	0.0	14.1	0.0	5.7	3.9	0.0	6.3
LnGrp LOS	C	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		309			112			406			1040	
Approach Delay, s/veh		24.4			19.5			7.7			5.9	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.9		18.1		41.9		18.1				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		21.5		12.7		15.1		5.3				
Green Ext Time (p_c), s		2.0		0.9		7.2		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.2								
HCM 6th LOS				B								



HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2018 Existing PM.syn  
01/22/2019



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	11	48	26	62	129	73	685	5	22	438	62
Future Volume (veh/h)	63	11	48	26	62	129	73	685	5	22	438	62
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	20	56	52	95	148	92	770	12	32	466	79
Peak Hour Factor	0.79	0.55	0.86	0.50	0.65	0.87	0.79	0.89	0.42	0.69	0.94	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	209	65	103	114	135	180	603	1169	18	378	992	168
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.64	0.64	0.64	0.85	0.85	0.85
Sat Flow, veh/h	554	304	481	205	631	843	862	1837	29	691	1559	264
Grp Volume(v), veh/h	156	0	0	295	0	0	92	0	782	32	0	545
Grp Sat Flow(s),veh/h/ln	1339	0	0	1680	0	0	862	0	1865	691	0	1823
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	3.2	0.0	15.8	1.5	0.0	4.6
Cycle Q Clear(g_c), s	5.9	0.0	0.0	9.9	0.0	0.0	7.7	0.0	15.8	17.2	0.0	4.6
Prop In Lane	0.51		0.36	0.18		0.50	1.00		0.02	1.00		0.14
Lane Grp Cap(c), veh/h	377	0	0	429	0	0	603	0	1187	378	0	1160
V/C Ratio(X)	0.41	0.00	0.00	0.69	0.00	0.00	0.15	0.00	0.66	0.08	0.00	0.47
Avail Cap(c_a), veh/h	499	0	0	576	0	0	603	0	1187	378	0	1160
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.66	0.00	0.66
Uniform Delay (d), s/veh	20.7	0.0	0.0	22.4	0.0	0.0	6.5	0.0	6.8	7.2	0.0	2.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.1	0.0	0.0	0.5	0.0	2.9	0.3	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(50%),veh/ln	1.9	0.0	0.0	3.9	0.0	0.0	0.5	0.0	5.2	0.2	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	0.0	24.5	0.0	0.0	7.0	0.0	9.7	7.5	0.0	2.9
LnGrp LOS	C	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		156			295			874			577	
Approach Delay, s/veh		21.4			24.5			9.4			3.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		42.7		17.3		42.7		17.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		17.8		7.9		19.2		11.9				
Green Ext Time (p_c), s		5.6		0.6		3.3		0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.9								
HCM 6th LOS				B								



HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2020 BG AM.syn



















01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	86	75	13	20	40	58	258	8	116	655	63
Future Volume (veh/h)	68	86	75	13	20	40	58	258	8	116	655	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	130	94	24	24	66	98	293	20	176	762	119
Peak Hour Factor	0.76	0.66	0.80	0.54	0.83	0.61	0.59	0.88	0.40	0.66	0.86	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	162	177	112	118	117	222	365	1076	73	701	982	153
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.62	0.62	0.62	0.83	0.83	0.83
Sat Flow, veh/h	372	774	492	198	511	975	630	1731	118	1067	1579	247
Grp Volume(v), veh/h	313	0	0	114	0	0	98	0	313	176	0	881
Grp Sat Flow(s),veh/h/ln	1639	0	0	1683	0	0	630	0	1849	1067	0	1826
Q Serve(g_s), s	7.5	0.0	0.0	0.0	0.0	0.0	6.8	0.0	4.6	3.5	0.0	14.0
Cycle Q Clear(g_c), s	10.8	0.0	0.0	3.3	0.0	0.0	20.7	0.0	4.6	8.1	0.0	14.0
Prop In Lane	0.28		0.30	0.21		0.58	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	451	0	0	457	0	0	365	0	1150	701	0	1135
V/C Ratio(X)	0.69	0.00	0.00	0.25	0.00	0.00	0.27	0.00	0.27	0.25	0.00	0.78
Avail Cap(c_a), veh/h	573	0	0	573	0	0	365	0	1150	701	0	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.66	0.00	0.66
Uniform Delay (d), s/veh	21.9	0.0	0.0	19.2	0.0	0.0	13.3	0.0	5.2	3.5	0.0	3.2
Incr Delay (d2), s/veh	2.6	0.0	0.0	0.3	0.0	0.0	1.8	0.0	0.6	0.6	0.0	3.5
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(50%),veh/ln	4.2	0.0	0.0	1.3	0.0	0.0	1.0	0.0	1.5	0.5	0.0	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	0.0	0.0	19.4	0.0	0.0	15.1	0.0	5.8	4.0	0.0	6.7
LnGrp LOS	C	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		313			114			411			1057	
Approach Delay, s/veh		24.5			19.4			8.0			6.2	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.8		18.2		41.8		18.2				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		22.7		12.8		16.0		5.3				
Green Ext Time (p_c), s		1.9		0.9		7.2		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				10.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street



















2020 BG PM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	11	49	26	63	131	74	695	5	22	445	63
Future Volume (veh/h)	64	11	49	26	63	131	74	695	5	22	445	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	81	20	57	52	97	151	94	781	12	32	473	81
Peak Hour Factor	0.79	0.55	0.86	0.50	0.65	0.87	0.79	0.89	0.42	0.69	0.94	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	210	65	104	114	137	183	593	1164	18	368	986	169
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.63	0.63	0.63	0.84	0.84	0.84
Sat Flow, veh/h	550	299	479	202	633	846	854	1837	28	684	1556	266
Grp Volume(v), veh/h	158	0	0	300	0	0	94	0	793	32	0	554
Grp Sat Flow(s),veh/h/ln	1328	0	0	1681	0	0	854	0	1865	684	0	1822
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	3.3	0.0	16.3	1.5	0.0	4.8
Cycle Q Clear(g_c), s	6.0	0.0	0.0	10.1	0.0	0.0	8.1	0.0	16.3	17.8	0.0	4.8
Prop In Lane	0.51		0.36	0.17		0.50	1.00		0.02	1.00		0.15
Lane Grp Cap(c), veh/h	378	0	0	434	0	0	593	0	1182	368	0	1155
V/C Ratio(X)	0.42	0.00	0.00	0.69	0.00	0.00	0.16	0.00	0.67	0.09	0.00	0.48
Avail Cap(c_a), veh/h	496	0	0	577	0	0	593	0	1182	368	0	1155
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.64	0.00	0.64
Uniform Delay (d), s/veh	20.6	0.0	0.0	22.3	0.0	0.0	6.7	0.0	7.0	7.6	0.0	2.1
Incr Delay (d2), s/veh	0.7	0.0	0.0	2.3	0.0	0.0	0.6	0.0	3.0	0.3	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(50%),veh/ln	1.9	0.0	0.0	4.0	0.0	0.0	0.6	0.0	5.4	0.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	0.0	24.6	0.0	0.0	7.3	0.0	10.1	7.9	0.0	3.0
LnGrp LOS	C	A	A	C	A	A	A	A	B	A	A	A
Approach Vol, veh/h	158		300				887				586	
Approach Delay, s/veh	21.3		24.6				9.8				3.3	
Approach LOS	C		C				A				A	
Timer - Assigned Phs	2		4				6				8	
Phs Duration (G+Y+Rc), s	42.5		17.5				42.5				17.5	
Change Period (Y+Rc), s	4.5		4.5				4.5				4.5	
Max Green Setting (Gmax), s	32.7		18.3				32.7				18.3	
Max Q Clear Time (g_c+l1), s	18.3		8.0				19.8				12.1	
Green Ext Time (p_c), s	5.6		0.6				3.3				0.9	
Intersection Summary												
HCM 6th Ctrl Delay			11.0									
HCM 6th LOS			B									



















HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2020 Total AM.syn  
01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	88	76	13	21	41	59	275	8	118	667	66
Future Volume (veh/h)	76	88	76	13	21	41	59	275	8	118	667	66
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	133	95	24	25	67	100	312	20	179	776	125
Peak Hour Factor	0.76	0.66	0.80	0.54	0.83	0.61	0.59	0.88	0.40	0.66	0.86	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	178	112	119	122	230	334	1065	68	673	963	155
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.61	0.61	0.61	0.81	0.81	0.81
Sat Flow, veh/h	408	751	472	195	514	969	618	1739	111	1048	1572	253
Grp Volume(v), veh/h	328	0	0	116	0	0	100	0	332	179	0	901
Grp Sat Flow(s),veh/h/ln	1631	0	0	1678	0	0	618	0	1850	1048	0	1825
Q Serve(g_s), s	8.0	0.0	0.0	0.0	0.0	0.0	7.6	0.0	5.1	4.0	0.0	16.0
Cycle Q Clear(g_c), s	11.4	0.0	0.0	3.4	0.0	0.0	23.6	0.0	5.1	9.0	0.0	16.0
Prop In Lane	0.30		0.29	0.21		0.58	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	466	0	0	471	0	0	334	0	1133	673	0	1118
V/C Ratio(X)	0.70	0.00	0.00	0.25	0.00	0.00	0.30	0.00	0.29	0.27	0.00	0.81
Avail Cap(c_a), veh/h	572	0	0	573	0	0	334	0	1133	673	0	1118
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.64	0.00	0.64
Uniform Delay (d), s/veh	21.6	0.0	0.0	18.7	0.0	0.0	15.3	0.0	5.5	4.0	0.0	3.6
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.3	0.0	0.0	2.3	0.0	0.7	0.6	0.0	4.1
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(50%),veh/ln	4.4	0.0	0.0	1.3	0.0	0.0	1.2	0.0	1.7	0.6	0.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	0.0	19.0	0.0	0.0	17.6	0.0	6.1	4.6	0.0	7.7
LnGrp LOS	C	A	A	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		328			116			432			1080	
Approach Delay, s/veh		24.6			19.0			8.8			7.2	
Approach LOS		C			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.2		18.8		41.2		18.8				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		25.6		13.4		18.0		5.4				
Green Ext Time (p_c), s		1.7		0.9		6.9		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.2								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2020 Total PM.syn  
01/24/2019



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	67	11	49	27	64	137	75	709	5	27	464	70
Future Volume (veh/h)	67	11	49	27	64	137	75	709	5	27	464	70
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	20	57	54	98	157	95	797	12	39	494	90
Peak Hour Factor	0.79	0.55	0.86	0.50	0.65	0.87	0.79	0.89	0.42	0.69	0.94	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	214	63	101	116	138	189	567	1156	17	352	968	176
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.63	0.63	0.63	0.84	0.84	0.84
Sat Flow, veh/h	555	285	456	206	623	856	831	1838	28	674	1539	280
Grp Volume(v), veh/h	162	0	0	309	0	0	95	0	809	39	0	584
Grp Sat Flow(s),veh/h/ln	1296	0	0	1684	0	0	831	0	1865	674	0	1820
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.0	0.0	3.6	0.0	17.1	2.0	0.0	5.5
Cycle Q Clear(g_c), s	6.4	0.0	0.0	10.3	0.0	0.0	9.1	0.0	17.1	19.1	0.0	5.5
Prop In Lane	0.52		0.35	0.17		0.51	1.00		0.01	1.00		0.15
Lane Grp Cap(c), veh/h	378	0	0	443	0	0	567	0	1173	352	0	1145
V/C Ratio(X)	0.43	0.00	0.00	0.70	0.00	0.00	0.17	0.00	0.69	0.11	0.00	0.51
Avail Cap(c_a), veh/h	489	0	0	578	0	0	567	0	1173	352	0	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.60	0.00	0.60
Uniform Delay (d), s/veh	20.4	0.0	0.0	22.2	0.0	0.0	7.2	0.0	7.3	8.4	0.0	2.3
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.5	0.0	0.0	0.6	0.0	3.3	0.4	0.0	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(50%),veh/ln	1.9	0.0	0.0	4.1	0.0	0.0	0.6	0.0	5.8	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	0.0	0.0	24.7	0.0	0.0	7.9	0.0	10.6	8.8	0.0	3.2
LnGrp LOS	C	A	A	C	A	A	A	A	B	A	A	A
Approach Vol, veh/h	162		309				904			623		
Approach Delay, s/veh	21.2		24.7				10.3			3.6		
Approach LOS	C		C				B			A		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	42.2		17.8		42.2		17.8					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	32.7		18.3		32.7		18.3					
Max Q Clear Time (g_c+l1), s	19.1		8.4		21.1		12.3					
Green Ext Time (p_c), s	5.5		0.6		3.3		0.9					
Intersection Summary												
HCM 6th Ctrl Delay			11.3									
HCM 6th LOS			B									

# HCM 6th Signalized Intersection Summary

## 9: 52nd Avenue & Pecos Street



















2024 BG AM.syn

01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	93	81	14	22	43	62	278	9	125	705	68
Future Volume (veh/h)	73	93	81	14	22	43	62	278	9	125	705	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	96	141	101	26	27	70	105	316	22	189	820	128
Peak Hour Factor	0.76	0.66	0.80	0.54	0.83	0.61	0.59	0.88	0.40	0.66	0.86	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	159	160	103	113	109	198	354	1109	77	705	1013	158
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.64	0.64	0.64	0.85	0.85	0.85
Sat Flow, veh/h	391	767	494	194	525	949	592	1728	120	1042	1579	247
Grp Volume(v), veh/h	338	0	0	123	0	0	105	0	338	189	0	948
Grp Sat Flow(s),veh/h/ln	1652	0	0	1668	0	0	592	0	1849	1042	0	1826
Q Serve(g_s), s	8.5	0.0	0.0	0.0	0.0	0.0	7.8	0.0	4.8	3.6	0.0	14.8
Cycle Q Clear(g_c), s	12.2	0.0	0.0	3.7	0.0	0.0	22.6	0.0	4.8	8.4	0.0	14.8
Prop In Lane	0.28		0.30	0.21		0.57	1.00		0.07	1.00		0.14
Lane Grp Cap(c), veh/h	421	0	0	420	0	0	354	0	1186	705	0	1172
V/C Ratio(X)	0.80	0.00	0.00	0.29	0.00	0.00	0.30	0.00	0.28	0.27	0.00	0.81
Avail Cap(c_a), veh/h	421	0	0	420	0	0	354	0	1186	705	0	1172
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.58	0.00	0.58
Uniform Delay (d), s/veh	23.5	0.0	0.0	20.3	0.0	0.0	13.3	0.0	4.7	3.0	0.0	2.7
Incr Delay (d2), s/veh	10.7	0.0	0.0	0.4	0.0	0.0	2.1	0.0	0.6	0.5	0.0	3.6
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(50%),veh/ln	5.6	0.0	0.0	1.4	0.0	0.0	1.1	0.0	1.5	0.5	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.1	0.0	0.0	20.7	0.0	0.0	15.4	0.0	5.3	3.5	0.0	6.3
LnGrp LOS	C	A	A	C	A	A	B	A	A	A	A	A
Approach Vol, veh/h	338		123				443			1137		
Approach Delay, s/veh	34.1		20.7				7.7			5.8		
Approach LOS	C		C				A			A		
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	43.0		17.0		43.0		17.0					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	38.5		12.5		38.5		12.5					
Max Q Clear Time (g_c+I1), s	24.6		14.2		16.8		5.7					
Green Ext Time (p_c), s	2.6		0.0		9.1		0.3					
Intersection Summary												
HCM 6th Ctrl Delay			11.8									
HCM 6th LOS			B									
Notes												

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2024 BG PM.syn  
01/22/2019



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	12	52	28	68	141	80	749	5	24	479	68
Future Volume (veh/h)	69	12	52	28	68	141	80	749	5	24	479	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	22	60	56	105	162	101	842	12	35	510	87
Peak Hour Factor	0.79	0.55	0.86	0.50	0.65	0.87	0.79	0.89	0.42	0.69	0.94	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	213	66	104	117	145	193	548	1143	16	315	968	165
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.62	0.62	0.62	0.83	0.83	0.83
Sat Flow, veh/h	536	290	455	206	636	847	821	1839	26	646	1557	266
Grp Volume(v), veh/h	169	0	0	323	0	0	101	0	854	35	0	597
Grp Sat Flow(s),veh/h/ln	1282	0	0	1688	0	0	821	0	1866	646	0	1823
Q Serve(g_s), s	0.0	0.0	0.0	4.1	0.0	0.0	4.0	0.0	19.2	2.1	0.0	6.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0	10.8	0.0	0.0	10.1	0.0	19.2	21.3	0.0	6.0
Prop In Lane	0.51		0.36	0.17		0.50	1.00		0.01	1.00		0.15
Lane Grp Cap(c), veh/h	384	0	0	456	0	0	548	0	1160	315	0	1133
V/C Ratio(X)	0.44	0.00	0.00	0.71	0.00	0.00	0.18	0.00	0.74	0.11	0.00	0.53
Avail Cap(c_a), veh/h	485	0	0	579	0	0	548	0	1160	315	0	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh	20.2	0.0	0.0	21.9	0.0	0.0	7.9	0.0	7.9	10.0	0.0	2.5
Incr Delay (d2), s/veh	0.8	0.0	0.0	2.9	0.0	0.0	0.7	0.0	4.2	0.4	0.0	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(50%),veh/ln	2.0	0.0	0.0	4.3	0.0	0.0	0.7	0.0	6.8	0.3	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.0	0.0	0.0	24.8	0.0	0.0	8.6	0.0	12.1	10.4	0.0	3.5
LnGrp LOS	C	A	A	C	A	A	A	A	B	B	A	A
Approach Vol, veh/h	169		323				955				632	
Approach Delay, s/veh	21.0		24.8				11.7				3.8	
Approach LOS	C		C				B				A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	41.8		18.2		41.8		18.2					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	32.7		18.3		32.7		18.3					
Max Q Clear Time (g_c+l1), s	21.2		8.7		23.3		12.8					
Green Ext Time (p_c), s	5.3		0.6		3.0		0.9					
Intersection Summary												
HCM 6th Ctrl Delay			12.1									
HCM 6th LOS			B									

# HCM 6th Signalized Intersection Summary

## 9: 52nd Avenue & Pecos Street

2024 Total AM.syn

01/24/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	93	81	14	22	46	62	315	9	128	714	72
Future Volume (veh/h)	91	93	81	14	22	46	62	315	9	128	714	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	141	101	26	27	75	105	358	22	194	830	136
Peak Hour Factor	0.76	0.66	0.80	0.54	0.83	0.61	0.59	0.88	0.40	0.66	0.86	0.53
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	195	177	113	120	124	243	259	1047	64	618	941	154
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.60	0.60	0.60	0.80	0.80	0.80
Sat Flow, veh/h	460	709	452	191	498	974	582	1744	107	1003	1567	257
Grp Volume(v), veh/h	362	0	0	128	0	0	105	0	380	194	0	966
Grp Sat Flow(s),veh/h/ln	1622	0	0	1663	0	0	582	0	1851	1003	0	1824
Q Serve(g_s), s	9.1	0.0	0.0	0.0	0.0	0.0	10.1	0.0	6.2	5.3	0.0	21.7
Cycle Q Clear(g_c), s	12.8	0.0	0.0	3.7	0.0	0.0	31.7	0.0	6.2	11.5	0.0	21.7
Prop In Lane	0.33		0.28	0.20		0.59	1.00		0.06	1.00		0.14
Lane Grp Cap(c), veh/h	485	0	0	488	0	0	259	0	1111	618	0	1095
V/C Ratio(X)	0.75	0.00	0.00	0.26	0.00	0.00	0.41	0.00	0.34	0.31	0.00	0.88
Avail Cap(c_a), veh/h	498	0	0	500	0	0	259	0	1111	618	0	1095
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.18	0.00	0.18
Uniform Delay (d), s/veh	21.5	0.0	0.0	18.3	0.0	0.0	21.2	0.0	6.0	5.0	0.0	4.6
Incr Delay (d2), s/veh	5.9	0.0	0.0	0.3	0.0	0.0	4.7	0.0	0.8	0.2	0.0	2.1
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(50%),veh/ln	5.3	0.0	0.0	1.4	0.0	0.0	1.6	0.0	2.1	0.6	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.4	0.0	0.0	18.6	0.0	0.0	25.9	0.0	6.9	5.2	0.0	6.7
LnGrp LOS	C	A	A	B	A	A	C	A	A	A	A	A
Approach Vol, veh/h		362			128			485			1160	
Approach Delay, s/veh		27.4			18.6			11.0			6.5	
Approach LOS		C			B			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.5		19.5		40.5		19.5				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		35.5		15.5		35.5		15.5				
Max Q Clear Time (g_c+l1), s		33.7		14.8		23.7		5.7				
Green Ext Time (p_c), s		0.6		0.2		6.6		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				11.8								
HCM 6th LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												





















# HCM 6th Signalized Intersection Summary

## 9: 52nd Avenue & Pecos Street

2024 Total PM.syn

01/24/2019



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	12	52	28	68	152	80	759	5	35	515	86
Future Volume (veh/h)	74	12	52	28	68	152	80	759	5	35	515	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	94	22	60	56	105	175	101	853	12	51	548	110
Peak Hour Factor	0.79	0.55	0.86	0.50	0.65	0.87	0.79	0.89	0.42	0.69	0.94	0.78
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	184	48	72	108	107	157	588	1242	17	372	1021	205
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.68	0.68	0.68	0.90	0.90	0.90
Sat Flow, veh/h	526	273	413	217	610	899	776	1840	26	640	1512	304
Grp Volume(v), veh/h	176	0	0	336	0	0	101	0	865	51	0	658
Grp Sat Flow(s),veh/h/ln	1213	0	0	1725	0	0	776	0	1866	640	0	1816
Q Serve(g_s), s	0.0	0.0	0.0	2.3	0.0	0.0	3.6	0.0	16.9	2.5	0.0	4.3
Cycle Q Clear(g_c), s	8.2	0.0	0.0	10.5	0.0	0.0	7.9	0.0	16.9	19.4	0.0	4.3
Prop In Lane	0.53		0.34	0.17		0.52	1.00		0.01	1.00		0.17
Lane Grp Cap(c), veh/h	304	0	0	372	0	0	588	0	1259	372	0	1226
V/C Ratio(X)	0.58	0.00	0.00	0.90	0.00	0.00	0.17	0.00	0.69	0.14	0.00	0.54
Avail Cap(c_a), veh/h	304	0	0	372	0	0	588	0	1259	372	0	1226
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.47	0.00	0.47
Uniform Delay (d), s/veh	23.5	0.0	0.0	25.2	0.0	0.0	5.4	0.0	5.9	6.5	0.0	1.2
Incr Delay (d2), s/veh	2.7	0.0	0.0	24.5	0.0	0.0	0.6	0.0	3.1	0.4	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	7.1	0.0	0.0	0.5	0.0	5.1	0.3	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	0.0	49.8	0.0	0.0	6.1	0.0	9.0	6.8	0.0	2.0
LnGrp LOS	C	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	176			336			966			709		
Approach Delay, s/veh	26.2			49.8			8.7			2.4		
Approach LOS	C			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	45.0			15.0			45.0			15.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	40.5			10.5			40.5			10.5		
Max Q Clear Time (g_c+I1), s	18.9			10.2			21.4			12.5		
Green Ext Time (p_c), s	7.7			0.0			5.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay			14.4									
HCM 6th LOS			B									
Notes												



HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2040 BG AM.syn



















01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	118	103	18	28	54	79	352	11	158	895	86
Future Volume (veh/h)	93	118	103	18	28	54	79	352	11	158	895	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	101	128	112	20	30	59	86	383	12	172	973	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	174	171	131	112	151	226	177	1089	34	612	1015	97
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.60	0.60	0.60	0.80	0.80	0.80
Sat Flow, veh/h	392	696	532	165	613	917	529	1804	57	989	1681	161
Grp Volume(v), veh/h	341	0	0	109	0	0	86	0	395	172	0	1066
Grp Sat Flow(s),veh/h/ln	1619	0	0	1695	0	0	529	0	1860	989	0	1841
Q Serve(g_s), s	8.9	0.0	0.0	0.0	0.0	0.0	6.5	0.0	6.4	4.6	0.0	29.8
Cycle Q Clear(g_c), s	12.0	0.0	0.0	3.1	0.0	0.0	36.2	0.0	6.4	11.0	0.0	29.8
Prop In Lane	0.30		0.33	0.18		0.54	1.00		0.03	1.00		0.09
Lane Grp Cap(c), veh/h	477	0	0	488	0	0	177	0	1123	612	0	1112
V/C Ratio(X)	0.72	0.00	0.00	0.22	0.00	0.00	0.49	0.00	0.35	0.28	0.00	0.96
Avail Cap(c_a), veh/h	569	0	0	579	0	0	177	0	1123	612	0	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.20	0.00	0.20
Uniform Delay (d), s/veh	21.4	0.0	0.0	18.2	0.0	0.0	27.9	0.0	6.0	4.8	0.0	5.3
Incr Delay (d2), s/veh	3.4	0.0	0.0	0.2	0.0	0.0	9.2	0.0	0.9	0.2	0.0	5.8
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(50%),veh/ln	4.6	0.0	0.0	1.2	0.0	0.0	1.6	0.0	2.1	0.6	0.0	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	0.0	0.0	18.4	0.0	0.0	37.1	0.0	6.8	5.1	0.0	11.0
LnGrp LOS	C	A	A	B	A	A	D	A	A	A	A	B
Approach Vol, veh/h		341			109			481			1238	
Approach Delay, s/veh		24.9			18.4			12.3			10.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.7		19.3		40.7		19.3				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		38.2		14.0		31.8		5.1				
Green Ext Time (p_c), s		0.0		0.8		0.7		0.4				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				13.4								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2040 BG PM.syn



















01/22/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	15	67	36	86	179	101	950	7	31	608	86
Future Volume (veh/h)	87	15	67	36	86	179	101	950	7	31	608	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	16	73	39	93	195	110	1033	8	34	661	93
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	211	53	114	96	128	232	445	1148	9	196	993	140
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.62	0.62	0.62	0.82	0.82	0.82
Sat Flow, veh/h	521	229	493	126	556	1007	710	1853	14	542	1604	226
Grp Volume(v), veh/h	184	0	0	327	0	0	110	0	1041	34	0	754
Grp Sat Flow(s),veh/h/ln	1243	0	0	1689	0	0	710	0	1868	542	0	1830
Q Serve(g_s), s	0.0	0.0	0.0	3.1	0.0	0.0	6.0	0.0	28.8	3.3	0.0	9.7
Cycle Q Clear(g_c), s	7.8	0.0	0.0	10.9	0.0	0.0	15.6	0.0	28.8	32.1	0.0	9.7
Prop In Lane	0.52		0.40	0.12		0.60	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	378	0	0	457	0	0	445	0	1156	196	0	1133
V/C Ratio(X)	0.49	0.00	0.00	0.72	0.00	0.00	0.25	0.00	0.90	0.17	0.00	0.67
Avail Cap(c_a), veh/h	474	0	0	577	0	0	445	0	1156	196	0	1133
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.14	0.00	0.14
Uniform Delay (d), s/veh	20.4	0.0	0.0	21.9	0.0	0.0	10.4	0.0	9.8	17.6	0.0	2.9
Incr Delay (d2), s/veh	1.0	0.0	0.0	3.1	0.0	0.0	1.3	0.0	11.2	0.3	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	4.4	0.0	0.0	1.0	0.0	11.8	0.4	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	0.0	25.0	0.0	0.0	11.7	0.0	21.1	17.9	0.0	3.3
LnGrp LOS	C	A	A	C	A	A	B	A	C	B	A	A
Approach Vol, veh/h		184			327			1151			788	
Approach Delay, s/veh		21.4			25.0			20.2			3.9	
Approach LOS		C			C			C			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		41.6		18.4		41.6		18.4				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		32.7		18.3		32.7		18.3				
Max Q Clear Time (g_c+l1), s		30.8		9.8		34.1		12.9				
Green Ext Time (p_c), s		1.4		0.7		0.0		0.9				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				15.7								
HCM 6th LOS				B								

HCM 6th Signalized Intersection Summary  
9: 52nd Avenue & Pecos Street

2040 Total AM.syn

01/24/2019



















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	118	103	18	28	57	79	389	11	161	904	90
Future Volume (veh/h)	111	118	103	18	28	57	79	389	11	161	904	90
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	128	112	20	30	62	86	423	12	175	983	98
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	133	105	103	126	197	249	1161	33	628	1074	107
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.64	0.64	0.64	0.85	0.85	0.85
Sat Flow, veh/h	484	637	504	155	605	943	522	1810	51	954	1673	167
Grp Volume(v), veh/h	361	0	0	112	0	0	86	0	435	175	0	1081
Grp Sat Flow(s),veh/h/ln	1626	0	0	1704	0	0	522	0	1861	954	0	1840
Q Serve(g_s), s	9.2	0.0	0.0	0.0	0.0	0.0	8.9	0.0	6.6	4.3	0.0	23.6
Cycle Q Clear(g_c), s	12.5	0.0	0.0	3.3	0.0	0.0	32.5	0.0	6.6	10.8	0.0	23.6
Prop In Lane	0.34		0.31	0.18		0.55	1.00		0.03	1.00		0.09
Lane Grp Cap(c), veh/h	419	0	0	426	0	0	249	0	1194	628	0	1181
V/C Ratio(X)	0.86	0.00	0.00	0.26	0.00	0.00	0.34	0.00	0.36	0.28	0.00	0.92
Avail Cap(c_a), veh/h	419	0	0	426	0	0	249	0	1194	628	0	1181
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.85	0.00	0.85
Uniform Delay (d), s/veh	24.0	0.0	0.0	20.1	0.0	0.0	20.3	0.0	5.0	3.6	0.0	3.3
Incr Delay (d2), s/veh	16.6	0.0	0.0	0.3	0.0	0.0	3.7	0.0	0.9	0.9	0.0	10.9
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(50%),veh/ln	6.7	0.0	0.0	1.3	0.0	0.0	1.3	0.0	2.0	0.5	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.6	0.0	0.0	20.5	0.0	0.0	24.1	0.0	5.9	4.6	0.0	14.2
LnGrp LOS	D	A	A	C	A	A	C	A	A	A	A	B
Approach Vol, veh/h		361			112			521			1256	
Approach Delay, s/veh		40.6			20.5			8.9			12.9	
Approach LOS		D			C			A			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		43.0		17.0		43.0		17.0				
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5				
Max Green Setting (Gmax), s		38.5		12.5		38.5		12.5				
Max Q Clear Time (g_c+l1), s		34.5		14.5		25.6		5.3				
Green Ext Time (p_c), s		1.3		0.0		7.9		0.3				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				16.8								
HCM 6th LOS				B								
<b>Notes</b>												
User approved pedestrian interval to be less than phase max green.												

# HCM 6th Signalized Intersection Summary

## 9: 52nd Avenue & Pecos Street

2040 Total PM.syn

01/24/2019






												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	15	67	36	86	190	101	960	7	42	644	104
Future Volume (veh/h)	92	15	67	36	86	190	101	960	7	42	644	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	100	16	73	39	93	207	110	1043	8	46	700	113
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	205	50	103	95	121	233	418	1161	9	198	984	159
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.63	0.63	0.63	0.83	0.83	0.83
Sat Flow, veh/h	507	223	459	125	540	1043	671	1854	14	537	1571	254
Grp Volume(v), veh/h	189	0	0	339	0	0	110	0	1051	46	0	813
Grp Sat Flow(s),veh/h/ln	1189	0	0	1708	0	0	671	0	1868	537	0	1825
Q Serve(g_s), s	0.0	0.0	0.0	2.7	0.0	0.0	6.5	0.0	28.8	4.7	0.0	11.0
Cycle Q Clear(g_c), s	8.7	0.0	0.0	11.4	0.0	0.0	17.5	0.0	28.8	33.5	0.0	11.0
Prop In Lane	0.53		0.39	0.12		0.61	1.00		0.01	1.00		0.14
Lane Grp Cap(c), veh/h	358	0	0	449	0	0	418	0	1170	198	0	1143
V/C Ratio(X)	0.53	0.00	0.00	0.76	0.00	0.00	0.26	0.00	0.90	0.23	0.00	0.71
Avail Cap(c_a), veh/h	359	0	0	451	0	0	418	0	1170	198	0	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.87	0.00	0.87
Uniform Delay (d), s/veh	21.1	0.0	0.0	22.5	0.0	0.0	11.1	0.0	9.6	17.8	0.0	2.8
Incr Delay (d2), s/veh	1.4	0.0	0.0	7.1	0.0	0.0	1.5	0.0	11.0	2.4	0.0	3.3
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(50%),veh/ln	2.4	0.0	0.0	5.1	0.0	0.0	1.0	0.0	11.6	0.6	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	0.0	29.6	0.0	0.0	12.6	0.0	20.5	20.2	0.0	6.1
LnGrp LOS	C	A	A	C	A	A	B	A	C	C	A	A
Approach Vol, veh/h	189		339			1161			859			
Approach Delay, s/veh	22.5		29.6			19.8			6.8			
Approach LOS	C		C			B			A			
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	42.1		17.9		42.1		17.9					
Change Period (Y+Rc), s	4.5		4.5		4.5		4.5					
Max Green Setting (Gmax), s	37.5		13.5		37.5		13.5					
Max Q Clear Time (g_c+l1), s	30.8		10.7		35.5		13.4					
Green Ext Time (p_c), s	4.5		0.3		1.2		0.0					
Intersection Summary												
HCM 6th Ctrl Delay	16.9											
HCM 6th LOS	B											
Notes												

# HCM 6th Signalized Intersection Summary

## 10: Pecos Street & Access

2020 Total AM.syn  
01/24/2019















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	12	8	43	395	1073	26
Future Volume (veh/h)	12	8	43	395	1073	26
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	13	9	47	429	1166	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	46	41	507	1542	2924	70
Arrive On Green	0.03	0.03	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	469	1870	3640	85
Grp Volume(v), veh/h	13	9	47	429	584	610
Grp Sat Flow(s),veh/h/ln	1781	1585	469	1870	1777	1855
Q Serve(g_s), s	0.4	0.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.3	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.05
Lane Grp Cap(c), veh/h	46	41	507	1542	1465	1529
V/C Ratio(X)	0.29	0.22	0.09	0.28	0.40	0.40
Avail Cap(c_a), veh/h	534	476	507	1542	1465	1529
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	28.6	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.4	2.7	0.4	0.4	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	0.1	0.2	0.3	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.1	31.4	0.4	0.4	0.8	0.8
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	22			476	1194	
Approach Delay, s/veh	31.8			0.4	0.8	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	54.0		6.0		54.0	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	33.0		18.0		33.0	
Max Q Clear Time (g_c+l1), s	2.0		2.4		2.0	
Green Ext Time (p_c), s	3.7		0.0		9.9	
Intersection Summary						
HCM 6th Ctrl Delay			1.1			
HCM 6th LOS			A			

# HCM 6th Signalized Intersection Summary

## 10: Pecos Street & Access

2020 Total PM.syn  
01/24/2019













						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	32	11	995	793	7
Future Volume (veh/h)	51	32	11	995	793	7
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	55	35	12	1082	862	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	115	103	620	1469	2833	26
Arrive On Green	0.06	0.06	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	637	1870	3701	33
Grp Volume(v), veh/h	55	35	12	1082	425	445
Grp Sat Flow(s),veh/h/ln	1781	1585	637	1870	1777	1864
Q Serve(g_s), s	1.8	1.3	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.8	1.3	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.02
Lane Grp Cap(c), veh/h	115	103	620	1469	1395	1464
V/C Ratio(X)	0.48	0.34	0.02	0.74	0.30	0.30
Avail Cap(c_a), veh/h	534	476	620	1469	1395	1464
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	26.8	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	3.0	1.9	0.1	3.3	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.5	0.0	1.4	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	28.8	0.1	3.3	0.6	0.5
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	90			1094	870	
Approach Delay, s/veh	29.6			3.3	0.5	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	51.6		8.4		51.6	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	33.0		18.0		33.0	
Max Q Clear Time (g_c+l1), s	2.0		3.8		2.0	
Green Ext Time (p_c), s	11.9		0.2		6.3	
Intersection Summary						
HCM 6th Ctrl Delay			3.3			
HCM 6th LOS			A			

# HCM 6th Signalized Intersection Summary

## 10: Pecos Street & Access

2024 Total AM.syn













01/24/2019

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	22	122	419	1144	74
Future Volume (veh/h)	35	22	122	419	1144	74
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	38	24	133	455	1243	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	96	85	450	1489	2700	174
Arrive On Green	0.05	0.05	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	415	1870	3484	218
Grp Volume(v), veh/h	38	24	133	455	651	672
Grp Sat Flow(s),veh/h/ln	1781	1585	415	1870	1777	1831
Q Serve(g_s), s	1.2	0.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.12
Lane Grp Cap(c), veh/h	96	85	450	1489	1415	1458
V/C Ratio(X)	0.40	0.28	0.30	0.31	0.46	0.46
Avail Cap(c_a), veh/h	772	687	450	1489	1415	1458
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	27.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.7	1.8	1.7	0.5	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.2	0.2	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	29.1	1.7	0.5	1.1	1.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	62			588	1323	
Approach Delay, s/veh	29.7			0.8	1.1	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	52.3		7.7		52.3	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	25.0		26.0		25.0	
Max Q Clear Time (g_c+l1), s	2.0		3.2		2.0	
Green Ext Time (p_c), s	5.3		0.1		10.2	
Intersection Summary						
HCM 6th Ctrl Delay			1.9			
HCM 6th LOS			A			

# HCM 6th Signalized Intersection Summary

## 10: Pecos Street & Access

2024 Total PM.syn  
01/24/2019

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations					 	
Traffic Volume (veh/h)	144	90	32	1056	860	19
Future Volume (veh/h)	144	90	32	1056	860	19
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	157	65	35	1148	935	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	224	199	537	1355	2573	58
Arrive On Green	0.13	0.13	0.96	0.96	0.96	0.96
Sat Flow, veh/h	1781	1585	587	1870	3647	80
Grp Volume(v), veh/h	157	65	35	1148	468	488
Grp Sat Flow(s),veh/h/ln	1781	1585	587	1870	1777	1856
Q Serve(g_s), s	5.1	2.2	0.2	7.4	0.9	0.9
Cycle Q Clear(g_c), s	5.1	2.2	1.1	7.4	0.9	0.9
Prop In Lane	1.00	1.00	1.00			0.04
Lane Grp Cap(c), veh/h	224	199	537	1355	1287	1344
V/C Ratio(X)	0.70	0.33	0.07	0.85	0.36	0.36
Avail Cap(c_a), veh/h	1202	1070	537	1355	1287	1344
HCM Platoon Ratio	1.00	1.00	1.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.1	23.9	0.4	0.4	0.3	0.3
Incr Delay (d2), s/veh	4.0	0.9	0.2	6.7	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.8	0.0	2.8	0.4	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.1	24.8	0.6	7.2	1.1	1.1
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	222			1183	956	
Approach Delay, s/veh	27.9			7.0	1.1	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	48.0		12.0		48.0	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	10.5		40.5		10.5	
Max Q Clear Time (g_c+l1), s	9.4		7.1		2.9	
Green Ext Time (p_c), s	0.9		0.7		3.6	
Intersection Summary						
HCM 6th Ctrl Delay			6.6			
HCM 6th LOS			A			













### Notes

User approved pedestrian interval to be less than phase max green.



HCM 6th Signalized Intersection Summary  
10: Pecos Street & Access













2040 Total AM.syn  
01/24/2019

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	35	22	122	531	1450	74
Future Volume (veh/h)	35	22	122	531	1450	74
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	38	24	133	577	1576	80
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	96	85	360	2830	2741	139
Arrive On Green	0.05	0.05	1.00	1.00	1.00	1.00
Sat Flow, veh/h	1781	1585	301	3647	3535	174
Grp Volume(v), veh/h	38	24	133	577	810	846
Grp Sat Flow(s),veh/h/ln	1781	1585	301	1777	1777	1839
Q Serve(g_s), s	1.2	0.9	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.9	0.0	0.0	0.0	0.0
Prop In Lane	1.00	1.00	1.00			0.09
Lane Grp Cap(c), veh/h	96	85	360	2830	1415	1464
V/C Ratio(X)	0.40	0.28	0.37	0.20	0.57	0.58
Avail Cap(c_a), veh/h	534	476	360	2830	1415	1464
HCM Platoon Ratio	1.00	1.00	2.00	2.00	1.33	1.33
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	27.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	2.7	1.8	2.9	0.2	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.3	0.1	0.7	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	29.1	2.9	0.2	1.7	1.7
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	62			710	1656	
Approach Delay, s/veh	29.7			0.7	1.7	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	52.3		7.7		52.3	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	33.0		18.0		33.0	
Max Q Clear Time (g_c+l1), s	2.0		3.2		2.0	
Green Ext Time (p_c), s	8.5		0.1		16.3	
Intersection Summary						
HCM 6th Ctrl Delay			2.1			
HCM 6th LOS			A			

# HCM 6th Signalized Intersection Summary

## 10: Pecos Street & Access

2040 Total PM.syn  
01/24/2019

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	144	90	32	1340	1084	19
Future Volume (veh/h)	144	90	32	1340	1084	19
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	157	98	35	1457	1178	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	227	202	393	2568	2581	46
Arrive On Green	0.13	0.13	1.00	1.00	0.72	0.72
Sat Flow, veh/h	1781	1585	467	3647	3666	64
Grp Volume(v), veh/h	157	98	35	1457	586	613
Grp Sat Flow(s),veh/h/ln	1781	1585	467	1777	1777	1859
Q Serve(g_s), s	5.1	3.5	0.9	0.0	8.2	8.2
Cycle Q Clear(g_c), s	5.1	3.5	9.1	0.0	8.2	8.2
Prop In Lane	1.00	1.00	1.00			0.03
Lane Grp Cap(c), veh/h	227	202	393	2568	1284	1343
V/C Ratio(X)	0.69	0.49	0.09	0.57	0.46	0.46
Avail Cap(c_a), veh/h	757	674	393	2568	1284	1343
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	1.00	1.00
Uniform Delay (d), s/veh	25.0	24.3	0.9	0.0	3.4	3.4
Incr Delay (d2), s/veh	3.7	1.8	0.4	0.9	1.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	1.3	0.0	0.3	1.9	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.8	26.1	1.3	0.9	4.6	4.6
LnGrp LOS	C	C	A	A	A	A
Approach Vol, veh/h	255			1492	1199	
Approach Delay, s/veh	27.8			0.9	4.6	
Approach LOS	C			A	A	
Timer - Assigned Phs	2		4		6	
Phs Duration (G+Y+Rc), s	47.9		12.1		47.9	
Change Period (Y+Rc), s	4.5		4.5		4.5	
Max Green Setting (Gmax), s	25.5		25.5		25.5	
Max Q Clear Time (g_c+l1), s	11.1		7.1		10.2	
Green Ext Time (p_c), s	9.3		0.7		7.2	
Intersection Summary						
HCM 6th Ctrl Delay			4.7			
HCM 6th LOS			A			

### Notes

User approved pedestrian interval to be less than phase max green.

# APPENDIX E

## Queue Analysis Worksheets

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	328	332	250	84	599	1080	546
v/c Ratio	0.69	0.72	0.41	0.15	0.30	0.71	0.55
Control Delay	26.7	27.6	4.9	5.0	6.3	19.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	27.6	4.9	5.0	6.3	19.7	4.0
Queue Length 50th (ft)	103	106	1	4	31	184	0
Queue Length 95th (ft)	133	52	32	5	46	#293	30
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	546	530	654	550	2002	1527	993
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.63	0.38	0.15	0.30	0.71	0.55

## Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	195	190	181	208	1358	610	438
v/c Ratio	0.54	0.53	0.44	0.21	0.61	0.38	0.46
Control Delay	25.3	21.1	11.7	5.7	8.5	12.7	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	21.1	11.7	5.7	8.5	12.7	3.4
Queue Length 50th (ft)	66	52	23	11	101	74	0
Queue Length 95th (ft)	77	24	41	m25	m257	123	49
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	518	492	539	982	2241	1604	956
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.39	0.34	0.21	0.61	0.38	0.46

## Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	367	364	265	100	648	1196	578
v/c Ratio	0.68	0.70	0.44	0.18	0.35	0.86	0.59
Control Delay	24.2	24.5	7.5	10.5	10.5	30.0	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	24.5	7.5	10.5	10.5	30.0	4.8
Queue Length 50th (ft)	112	114	21	10	80	~262	0
Queue Length 95th (ft)	136	52	52	14	133	#380	32
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	630	611	677	561	1876	1389	972
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.60	0.39	0.18	0.35	0.86	0.59

## Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

## Queues

2024 Total PM.syn

01/24/2019

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	210	206	195	245	1490	660	465
v/c Ratio	0.49	0.54	0.42	0.27	0.71	0.47	0.51
Control Delay	21.7	23.1	10.4	9.9	17.4	18.1	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.7	23.1	10.4	9.9	17.4	18.1	4.7
Queue Length 50th (ft)	69	71	26	29	216	87	0
Queue Length 95th (ft)	71	32	40	m46	m#370	#203	65
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	980	886	922	905	2112	1402	908
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.23	0.21	0.27	0.71	0.47	0.51

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	339	342	295	73	763	1512	630
v/c Ratio	0.69	0.72	0.54	0.14	0.39	0.92	0.59
Control Delay	26.5	27.4	11.8	4.3	6.5	32.1	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	27.4	11.8	4.3	6.5	32.1	4.1
Queue Length 50th (ft)	105	108	37	3	114	~359	0
Queue Length 95th (ft)	185	194	100	m5	149	#480	59
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	560	542	605	523	1978	1642	1072
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.63	0.49	0.14	0.39	0.92	0.59

## Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



## Queues

2040 Total PM.syn

01/24/2019

## 1: Pecos Street &amp; I-76 Westbound Ramp



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	203	196	185	288	1891	814	603
v/c Ratio	0.85	0.83	0.60	0.32	0.75	0.42	0.53
Control Delay	59.7	52.4	20.8	3.5	7.5	9.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	52.4	20.8	3.5	7.5	9.1	2.7
Queue Length 50th (ft)	76	64	26	12	201	83	0
Queue Length 95th (ft)	#186	#178	#97	m15	m234	118	38
Internal Link Dist (ft)		971			565	1002	
Turn Bay Length (ft)	250		325	250			
Base Capacity (vph)	238	237	306	905	2506	1916	1133
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.83	0.60	0.32	0.75	0.42	0.53

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 2: Pecos Street &amp; I-76 Eastbound Ramp



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	156	156	293	320	243	328	1377
v/c Ratio	0.66	0.66	0.92	0.18	0.26	0.23	0.55
Control Delay	40.0	40.0	54.9	6.5	1.6	3.7	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	40.0	54.9	6.5	1.6	3.7	6.1
Queue Length 50th (ft)	56	56	66	22	0	13	135
Queue Length 95th (ft)	#134	#134	#178	37	0	m28	134
Internal Link Dist (ft)		751		2335			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	238	238	317	1809	928	1539	2506
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.92	0.18	0.26	0.21	0.55

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 2: Pecos Street &amp; I-76 Eastbound Ramp



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	268	269	132	984	486	252	634
v/c Ratio	0.98	0.98	0.36	0.53	0.46	0.35	0.26
Control Delay	79.4	80.3	8.2	7.1	1.7	6.1	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.4	80.3	8.2	7.1	1.7	6.1	3.3
Queue Length 50th (ft)	103	103	0	85	9	11	41
Queue Length 95th (ft)	#238	#240	11	93	6	18	36
Internal Link Dist (ft)		751		2335			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	274	274	368	1857	1061	727	2430
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.98	0.36	0.53	0.46	0.35	0.26

## Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

## 2: Pecos Street &amp; I-76 Eastbound Ramp



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	166	166	338	359	265	348	1551
v/c Ratio	0.39	0.39	0.70	0.25	0.33	0.29	0.73
Control Delay	19.8	19.8	20.9	13.9	4.4	11.1	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	19.8	20.9	13.9	4.4	11.1	17.2
Queue Length 50th (ft)	50	50	71	49	2	43	266
Queue Length 95th (ft)	88	88	120	87	51	m61	277
Internal Link Dist (ft)		751		2335			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	574	574	612	1448	804	1181	2112
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.29	0.55	0.25	0.33	0.29	0.73

## Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

## 2: Pecos Street &amp; I-76 Eastbound Ramp



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	285	285	152	1122	544	267	693
v/c Ratio	1.07	1.07	0.40	0.63	0.51	0.38	0.28
Control Delay	105.3	105.3	8.3	13.0	4.0	11.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.3	105.3	8.3	13.0	4.0	11.2	4.5
Queue Length 50th (ft)	~124	~124	0	180	25	16	45
Queue Length 95th (ft)	#260	#260	10	m228	m43	45	52
Internal Link Dist (ft)		751		2335			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	266	266	378	1768	1063	970	2447
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	1.07	0.40	0.63	0.51	0.28	0.28

## Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

## 2: Pecos Street &amp; I-76 Eastbound Ramp



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	210	211	386	404	293	447	1637
v/c Ratio	0.71	0.72	1.05	0.25	0.33	0.34	0.69
Control Delay	39.6	39.8	84.5	7.6	2.0	5.4	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.6	39.8	84.5	7.6	2.0	5.4	9.2
Queue Length 50th (ft)	76	76	~121	31	1	36	210
Queue Length 95th (ft)	#171	#171	#271	53	0	m41	m241
Internal Link Dist (ft)		751		2335			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	294	294	366	1633	888	1370	2388
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.71	0.72	1.05	0.25	0.33	0.33	0.69

## Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	369	370	123	1330	567	291	843
v/c Ratio	0.79	0.79	0.23	0.93	0.58	0.52	0.42
Control Delay	33.7	33.9	5.0	28.2	4.5	15.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	33.9	5.0	28.2	4.5	15.0	7.3
Queue Length 50th (ft)	124	125	0	245	48	30	57
Queue Length 95th (ft)	#246	#247	31	#389	39	m54	m97
Internal Link Dist (ft)		751		1870			565
Turn Bay Length (ft)	90		90		500	125	
Base Capacity (vph)	504	504	561	1432	978	555	2021
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.73	0.22	0.93	0.58	0.52	0.42

#### Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
6: Federal Boulevard & 56th Avenue

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Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	69	144	16	1138	75	124	1733
v/c Ratio	0.12	0.60	0.55	0.09	0.43	0.06	0.30	0.58
Control Delay	1.6	74.2	16.5	6.0	6.5	1.1	3.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	74.2	16.5	6.0	6.5	1.1	3.7	4.0
Queue Length 50th (ft)	0	52	0	3	158	0	13	177
Queue Length 95th (ft)	0	102	25	6	198	1	22	217
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	180	132	281	182	2643	1201	415	2973
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.52	0.51	0.09	0.43	0.06	0.30	0.58
Intersection Summary								





Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	16	68	175	24	1468	83	146	1360
v/c Ratio	0.08	0.53	0.57	0.09	0.57	0.07	0.47	0.46
Control Delay	0.9	65.3	14.8	7.5	9.7	2.9	7.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	65.3	14.8	7.5	9.7	2.9	7.4	3.6
Queue Length 50th (ft)	0	51	0	5	238	5	16	114
Queue Length 95th (ft)	0	96	42	9	401	8	34	186
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	349	283	462	270	2563	1161	350	2935
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.24	0.38	0.09	0.57	0.07	0.42	0.46
Intersection Summary								

Queues  
6: Federal Boulevard & 56th Avenue

2024 Total AM.syn  
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Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	20	85	172	18	1208	143	197	1840
v/c Ratio	0.10	0.58	0.54	0.12	0.48	0.12	0.51	0.64
Control Delay	1.0	65.9	13.3	9.8	9.2	2.9	7.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	65.9	13.3	9.8	9.2	2.9	7.5	5.8
Queue Length 50th (ft)	0	64	0	4	190	9	24	220
Queue Length 95th (ft)	0	113	23	10	307	9	50	358
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	328	282	460	146	2513	1152	418	2894
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.30	0.37	0.12	0.48	0.12	0.47	0.64
Intersection Summary								



Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	17	113	256	26	1558	106	172	1444
v/c Ratio	0.07	0.63	0.60	0.11	0.66	0.10	0.59	0.51
Control Delay	0.6	64.6	11.6	11.8	15.3	5.3	17.2	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	64.6	11.6	11.8	15.3	5.3	17.2	5.5
Queue Length 50th (ft)	0	84	0	7	341	12	24	162
Queue Length 95th (ft)	0	138	42	12	577	17	92	276
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	566	492	725	228	2358	1073	430	2812
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.23	0.35	0.11	0.66	0.10	0.40	0.51
Intersection Summary								

Queues  
6: Federal Boulevard & 56th Avenue

2040 Total AM.syn  
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Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	11	75	161	13	1499	88	212	2400
v/c Ratio	0.06	0.55	0.54	0.21	0.62	0.08	0.62	0.82
Control Delay	0.6	65.6	14.1	20.8	13.3	4.2	16.7	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	65.6	14.1	20.8	13.3	4.2	16.7	9.5
Queue Length 50th (ft)	0	56	0	3	303	8	25	404
Queue Length 95th (ft)	0	103	62	23	498	33	113	673
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	343	285	451	62	2412	1096	357	2924
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.26	0.36	0.21	0.62	0.08	0.59	0.82
Intersection Summary								

Queues  
6: Federal Boulevard & 56th Avenue

2040 Total PM.syn  
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Lane Group	EBT	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	14	113	257	16	2126	73	200	1856
v/c Ratio	0.06	0.63	0.87	0.12	0.88	0.07	0.98	0.66
Control Delay	0.5	65.4	58.0	9.3	21.3	2.6	90.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	65.4	58.0	9.3	21.3	2.6	90.7	6.9
Queue Length 50th (ft)	0	82	116	4	633	4	~131	292
Queue Length 95th (ft)	0	146	#249	14	769	19	#285	353
Internal Link Dist (ft)	118	3885			1470			855
Turn Bay Length (ft)			150	325		125	225	
Base Capacity (vph)	258	203	321	133	2403	1092	205	2818
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.56	0.80	0.12	0.88	0.07	0.98	0.66

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Lane Group	EBT	EBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	119	44	34	355	4	964	255
v/c Ratio	0.70	0.15	0.10	0.26	0.00	0.73	0.21
Control Delay	49.5	1.2	2.4	3.6	2.5	14.5	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	1.2	2.4	3.6	2.5	14.5	2.3
Queue Length 50th (ft)	42	0	2	28	1	177	10
Queue Length 95th (ft)	#112	0	m4	78	m1	#594	19
Internal Link Dist (ft)	1262			2580		379	
Turn Bay Length (ft)		60	65		150		
Base Capacity (vph)	176	293	379	1386	873	1320	1196
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.15	0.09	0.26	0.00	0.73	0.21

#### Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
8: Pecos Street & 56th Avenue

2020 Total PM.syn  
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Lane Group	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	190	61	64	963	762	175
v/c Ratio	0.61	0.14	0.21	0.83	0.81	0.20
Control Delay	28.7	1.9	7.4	16.2	27.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.7	1.9	7.4	16.2	27.1	4.9
Queue Length 50th (ft)	62	0	6	150	200	3
Queue Length 95th (ft)	24	0	m17	#542	#504	40
Internal Link Dist (ft)	1262			2580	379	
Turn Bay Length (ft)		60	65			
Base Capacity (vph)	522	674	307	1158	944	888
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.09	0.21	0.83	0.81	0.20

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
8: Pecos Street & 56th Avenue

2024 Total AM.syn  
01/24/2019



Lane Group	EBT	EBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	178	49	52	408	4	1031	284
v/c Ratio	0.65	0.12	0.18	0.35	0.01	1.00	0.28
Control Delay	33.2	1.3	4.8	6.5	5.5	45.8	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.2	1.3	4.8	6.5	5.5	45.8	2.5
Queue Length 50th (ft)	58	0	5	45	0	~457	0
Queue Length 95th (ft)	112	1	m8	m125	m1	#674	5
Internal Link Dist (ft)	1262			2580		379	
Turn Bay Length (ft)		60	65		150		
Base Capacity (vph)	329	452	287	1158	647	1030	1002
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.11	0.18	0.35	0.01	1.00	0.28

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.





Lane Group	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	216	85	73	1030	842	233
v/c Ratio	0.68	0.19	0.26	0.90	0.88	0.25
Control Delay	31.5	3.8	6.5	19.1	29.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	3.8	6.5	19.1	29.9	2.2
Queue Length 50th (ft)	70	0	7	185	~263	0
Queue Length 95th (ft)	27	0	m13	m#535	#586	0
Internal Link Dist (ft)	1262			2580	379	
Turn Bay Length (ft)		60	65			
Base Capacity (vph)	408	551	285	1146	955	925
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.15	0.26	0.90	0.88	0.25

#### Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
8: Pecos Street & 56th Avenue

2040 Total AM.syn  
01/24/2019



Lane Group	EBT	EBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	200	54	43	526	3	1277	321
v/c Ratio	1.55	0.22	0.12	0.21	0.00	0.52	0.27
Control Delay	308.6	3.6	1.9	2.6	2.7	5.2	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	308.6	3.6	1.9	2.6	2.7	5.2	1.7
Queue Length 50th (ft)	~105	0	1	12	0	85	8
Queue Length 95th (ft)	#216	8	m3	m47	m1	102	17
Internal Link Dist (ft)	1262			2580		178	
Turn Bay Length (ft)		60	65		150		320
Base Capacity (vph)	129	244	364	2563	703	2447	1194
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.55	0.22	0.12	0.21	0.00	0.52	0.27

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
8: Pecos Street & 56th Avenue

2040 Total PM.syn  
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Lane Group	EBT	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	240	59	66	1245	1020	288
v/c Ratio	1.02	0.16	0.18	0.52	0.50	0.28
Control Delay	93.5	2.7	3.4	4.0	8.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.5	2.7	3.4	4.0	8.7	2.7
Queue Length 50th (ft)	~90	0	4	60	94	8
Queue Length 95th (ft)	#214	10	m6	m87	99	13
Internal Link Dist (ft)	1262			2580	379	
Turn Bay Length (ft)		60	65			320
Base Capacity (vph)	236	366	372	2389	2034	1032
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.16	0.18	0.52	0.50	0.28

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
9: 52nd Avenue & Pecos Street

2020 Total AM.syn  
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Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	328	116	100	333	179	901
v/c Ratio	0.76	0.26	0.62	0.30	0.30	0.83
Control Delay	30.2	9.7	33.5	7.6	2.5	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	9.7	33.5	7.6	2.5	12.9
Queue Length 50th (ft)	94	13	22	54	20	354
Queue Length 95th (ft)	106	39	39	99	4	#468
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			50		50	
Base Capacity (vph)	503	519	160	1097	600	1089
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.22	0.63	0.30	0.30	0.83

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
9: 52nd Avenue & Pecos Street

2020 Total PM.syn  
01/24/2019



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	162	309	95	809	39	584
v/c Ratio	0.64	0.72	0.22	0.70	0.15	0.51
Control Delay	26.4	24.5	8.0	13.3	1.3	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	24.5	8.0	13.3	1.3	2.7
Queue Length 50th (ft)	36	71	13	168	0	2
Queue Length 95th (ft)	38	77	34	#377	m1	m4
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			50		50	
Base Capacity (vph)	326	551	431	1164	265	1148
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.56	0.22	0.70	0.15	0.51

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
9: 52nd Avenue & Pecos Street

2024 Total AM.syn  
01/24/2019



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	362	128	105	381	194	966
v/c Ratio	0.89	0.29	0.85	0.34	0.34	0.87
Control Delay	46.6	10.9	68.9	7.1	1.9	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.6	10.9	68.9	7.1	1.9	11.8
Queue Length 50th (ft)	114	15	27	60	3	11
Queue Length 95th (ft)	131	45	#61	100	m3	m11
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			50		50	
Base Capacity (vph)	421	447	124	1112	567	1105
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.29	0.85	0.34	0.34	0.87

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
9: 52nd Avenue & Pecos Street

2024 Total PM.syn  
01/24/2019



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	176	336	101	865	51	658
v/c Ratio	1.11	0.99	0.23	0.69	0.18	0.53
Control Delay	128.8	69.8	5.4	9.6	1.3	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.8	69.8	5.4	9.6	1.3	3.4
Queue Length 50th (ft)	~63	95	11	151	1	2
Queue Length 95th (ft)	#74	#130	24	255	m0	m2
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			50		50	
Base Capacity (vph)	159	340	435	1255	286	1237
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.11	0.99	0.23	0.69	0.18	0.53

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	361	112	86	435	175	1081
v/c Ratio	1.03	0.31	0.69	0.36	0.31	0.91
Control Delay	81.8	13.3	42.8	6.0	2.3	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.8	13.3	42.8	6.0	2.3	17.6
Queue Length 50th (ft)	~126	15	17	60	24	428
Queue Length 95th (ft)	#280	52	#95	102	2	#614
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			100			
Base Capacity (vph)	351	362	124	1192	572	1184
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.03	0.31	0.69	0.36	0.31	0.91

#### Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Queues  
9: 52nd Avenue & Pecos Street

2040 Total PM.syn  
01/24/2019



Lane Group	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	189	339	110	1051	46	813
v/c Ratio	0.93	0.78	0.39	0.88	0.37	0.69
Control Delay	68.1	28.7	10.9	21.1	9.8	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.1	28.7	10.9	21.1	9.8	7.1
Queue Length 50th (ft)	49	72	17	278	0	41
Queue Length 95th (ft)	#158	#187	51	#577	m1	315
Internal Link Dist (ft)	1281	264		578		2580
Turn Bay Length (ft)			100			
Base Capacity (vph)	216	458	280	1192	124	1177
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.74	0.39	0.88	0.37	0.69

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

## 10: Pecos Street &amp; Access



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	13	9	47	429	1194
v/c Ratio	0.07	0.05	0.12	0.26	0.38
Control Delay	25.0	15.1	1.7	1.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	15.1	1.7	1.2	2.1
Queue Length 50th (ft)	4	0	0	0	0
Queue Length 95th (ft)	18	11	m5	33	m60
Internal Link Dist (ft)	289			191	147
Turn Bay Length (ft)			150		
Base Capacity (vph)	531	481	379	1668	3156
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.02	0.02	0.12	0.26	0.38

## Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
10: Pecos Street & Access

2020 Total PM.syn  
01/24/2019



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	55	35	12	1082	870
v/c Ratio	0.25	0.16	0.02	0.70	0.30
Control Delay	26.1	10.7	3.4	6.9	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	10.7	3.4	6.9	1.6
Queue Length 50th (ft)	18	0	1	65	10
Queue Length 95th (ft)	45	21	m2	m#259	31
Internal Link Dist (ft)	203			204	134
Turn Bay Length (ft)			150		
Base Capacity (vph)	531	499	499	1539	2922
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.10	0.07	0.02	0.70	0.30

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

## 10: Pecos Street &amp; Access



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	38	24	133	455	1323
v/c Ratio	0.19	0.12	0.45	0.29	0.45
Control Delay	25.7	14.5	12.4	3.8	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	14.5	12.4	3.8	1.5
Queue Length 50th (ft)	13	2	11	33	34
Queue Length 95th (ft)	35	19	m#92	134	47
Internal Link Dist (ft)	161			217	121
Turn Bay Length (ft)			150		
Base Capacity (vph)	767	696	293	1553	2926
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.05	0.03	0.45	0.29	0.45

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 10: Pecos Street &amp; Access



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	157	98	35	1148	956
v/c Ratio	0.49	0.34	0.09	0.86	0.38
Control Delay	26.5	23.3	8.2	21.5	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	23.3	8.2	21.5	6.0
Queue Length 50th (ft)	52	31	6	422	37
Queue Length 95th (ft)	91	62	m10	m#623	155
Internal Link Dist (ft)	513			181	157
Turn Bay Length (ft)			150		
Base Capacity (vph)	1194	1068	376	1342	2543
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.13	0.09	0.09	0.86	0.38

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 10: Pecos Street &amp; Access



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	38	24	133	577	1656
v/c Ratio	0.19	0.12	0.70	0.20	0.56
Control Delay	25.7	13.0	31.3	1.2	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	13.0	31.3	1.2	3.8
Queue Length 50th (ft)	13	1	8	13	45
Queue Length 95th (ft)	35	18	m#99	m17	m161
Internal Link Dist (ft)	341			300	162
Turn Bay Length (ft)			150		
Base Capacity (vph)	531	490	189	2950	2931
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.07	0.05	0.70	0.20	0.56

## Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

## 10: Pecos Street &amp; Access



Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Group Flow (vph)	157	98	35	1457	1199
v/c Ratio	0.50	0.33	0.13	0.57	0.47
Control Delay	27.1	18.9	6.4	7.0	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	18.9	6.4	7.0	2.5
Queue Length 50th (ft)	52	23	5	155	21
Queue Length 95th (ft)	92	54	m11	m184	46
Internal Link Dist (ft)	491			186	152
Turn Bay Length (ft)			150		
Base Capacity (vph)	752	687	275	2562	2556
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.14	0.13	0.57	0.47

## Intersection Summary

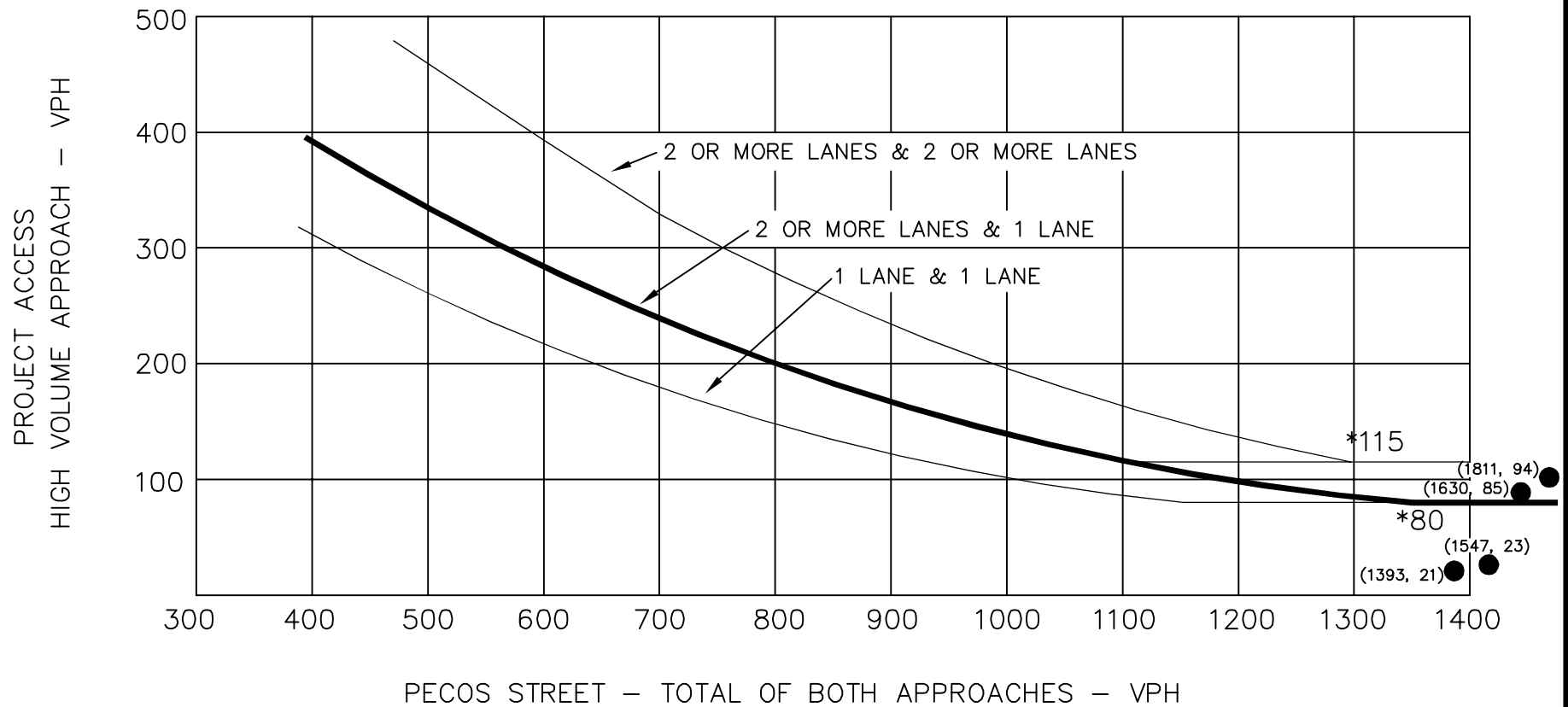
m Volume for 95th percentile queue is metered by upstream signal.

# APPENDIX F

## Signal Warrant Analysis



## WARRANT 2 - FOUR HOUR VEHICULAR VOLUME



PECOS STREET & PROJECT ACCESS  
FOUR HOUR VOLUME WARRANT

\* NOTE: 115 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET  
APPROACH WITH TWO OR MORE LANES AND 80 VPH APPLIES AS THE LOWER  
THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

● 2020 TRAFFIC DATA POINT

FIGURE A1

Source: Manual of Uniform Traffic Control Devices 2009

# APPENDIX G

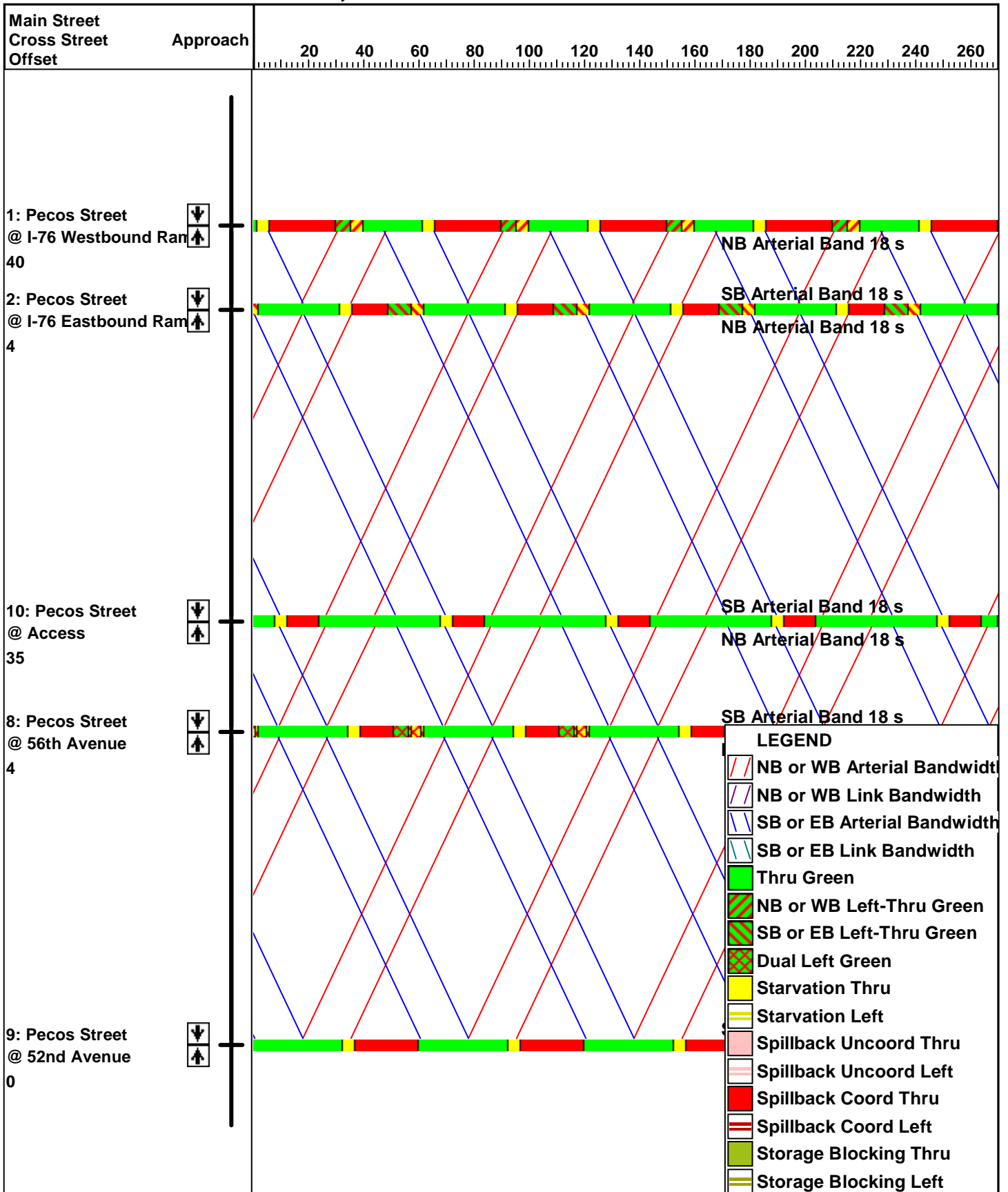
## Time Space Diagram Worksheets

# Time-Space Diagram - Pecos Street

## 2020 Total AM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

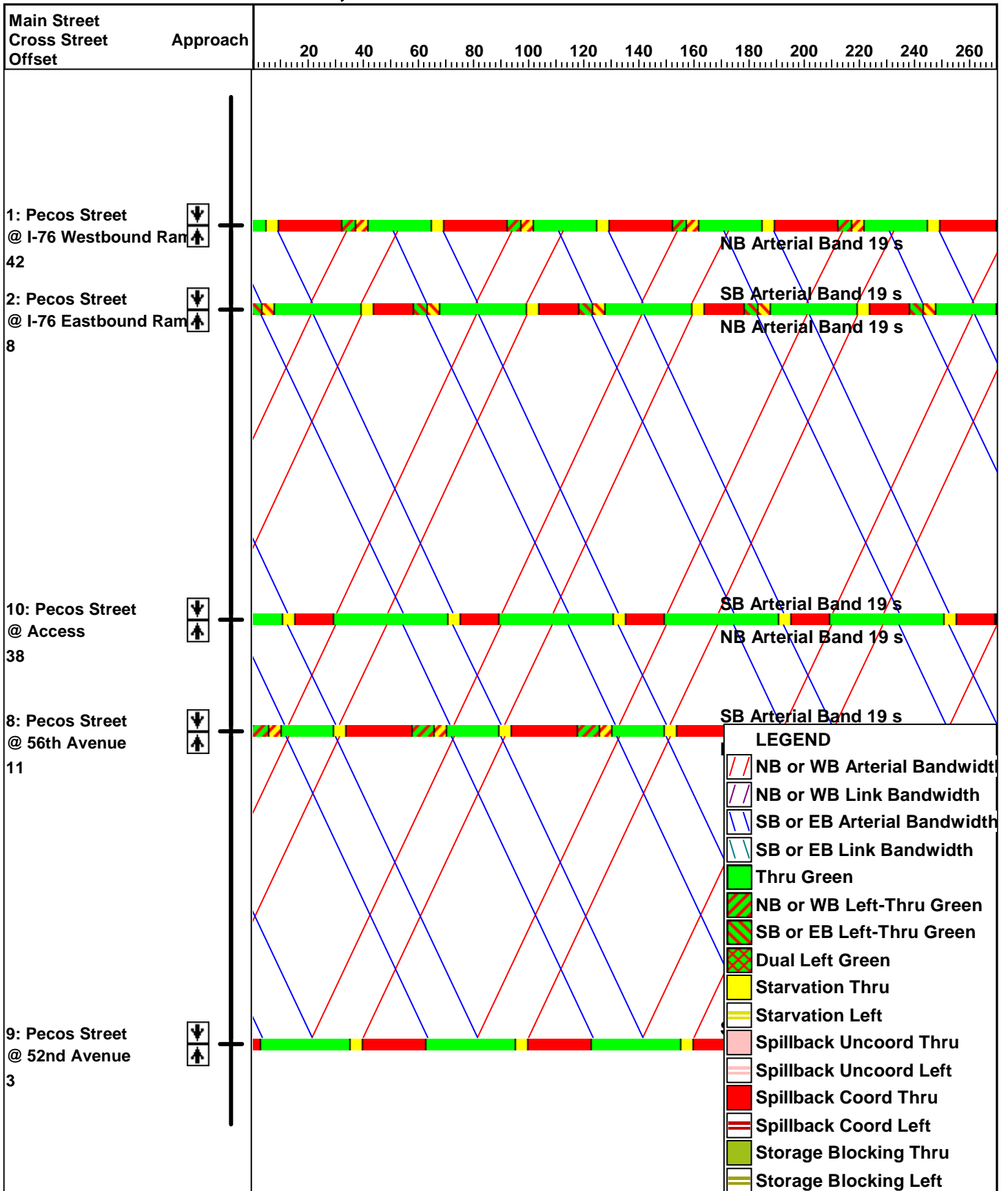


# Time-Space Diagram - Pecos Street

## 2020 Total PM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

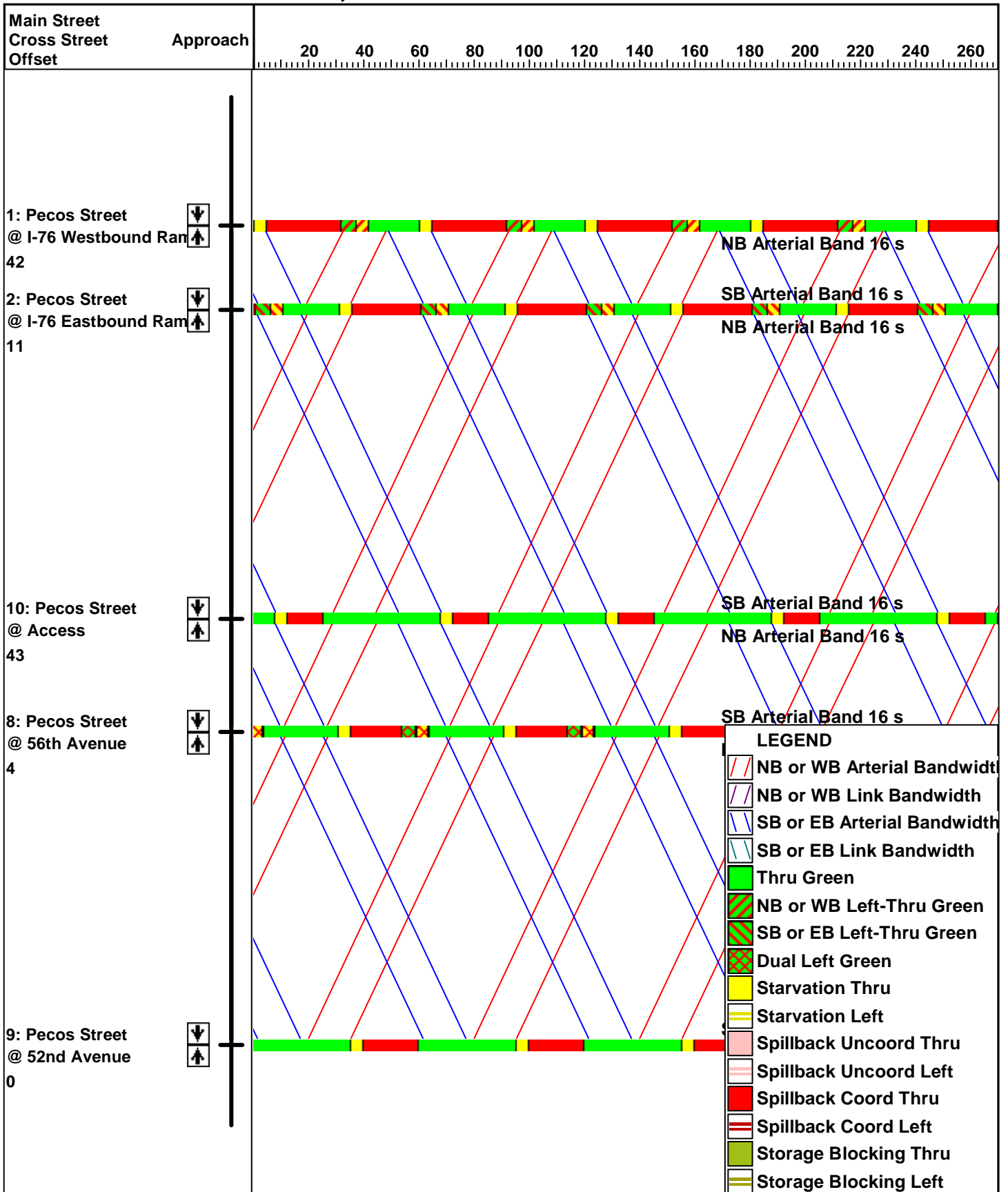


# Time-Space Diagram - Pecos Street

## 2024 Total AM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

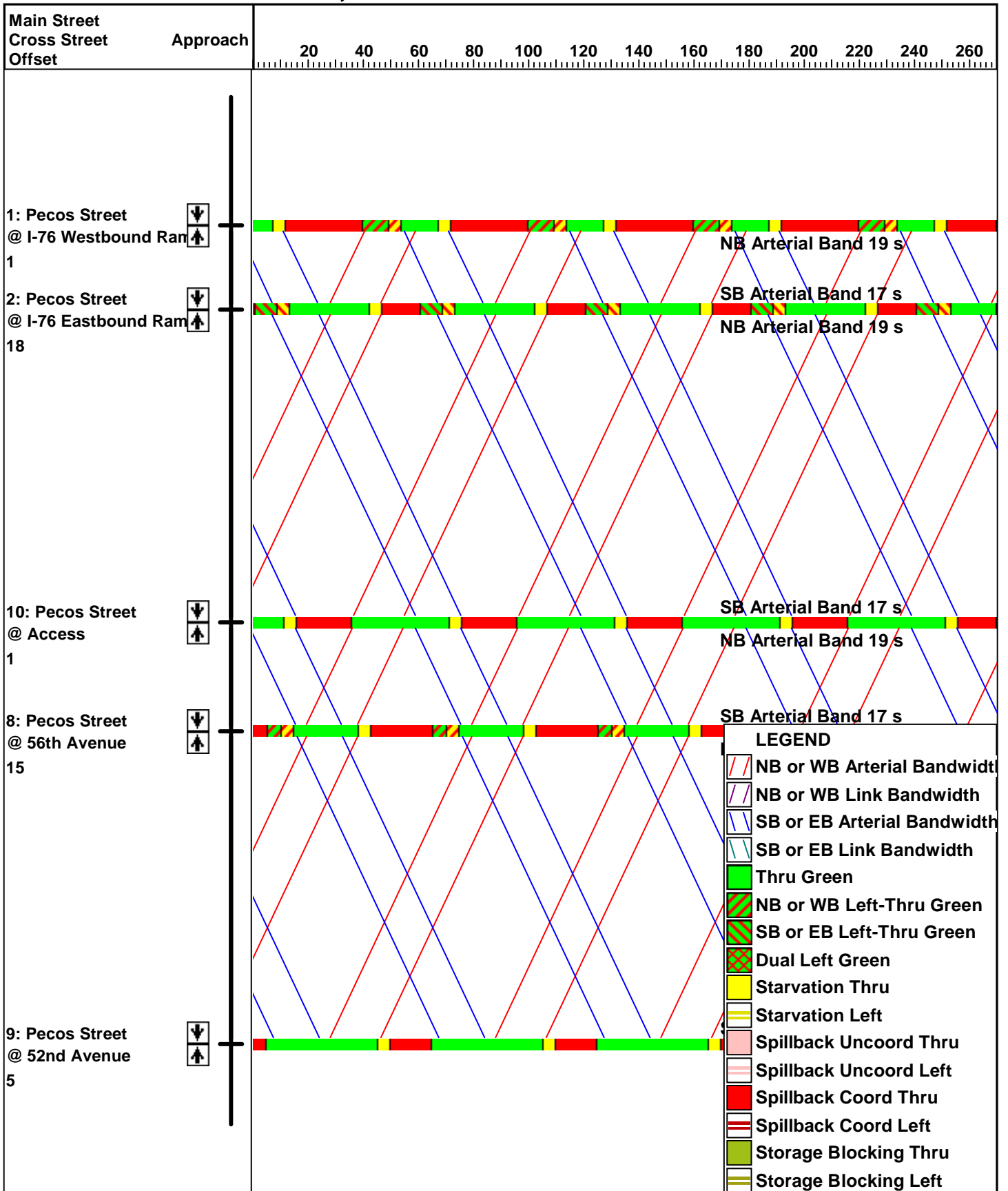


# Time-Space Diagram - Pecos Street

## 2024 Total PM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

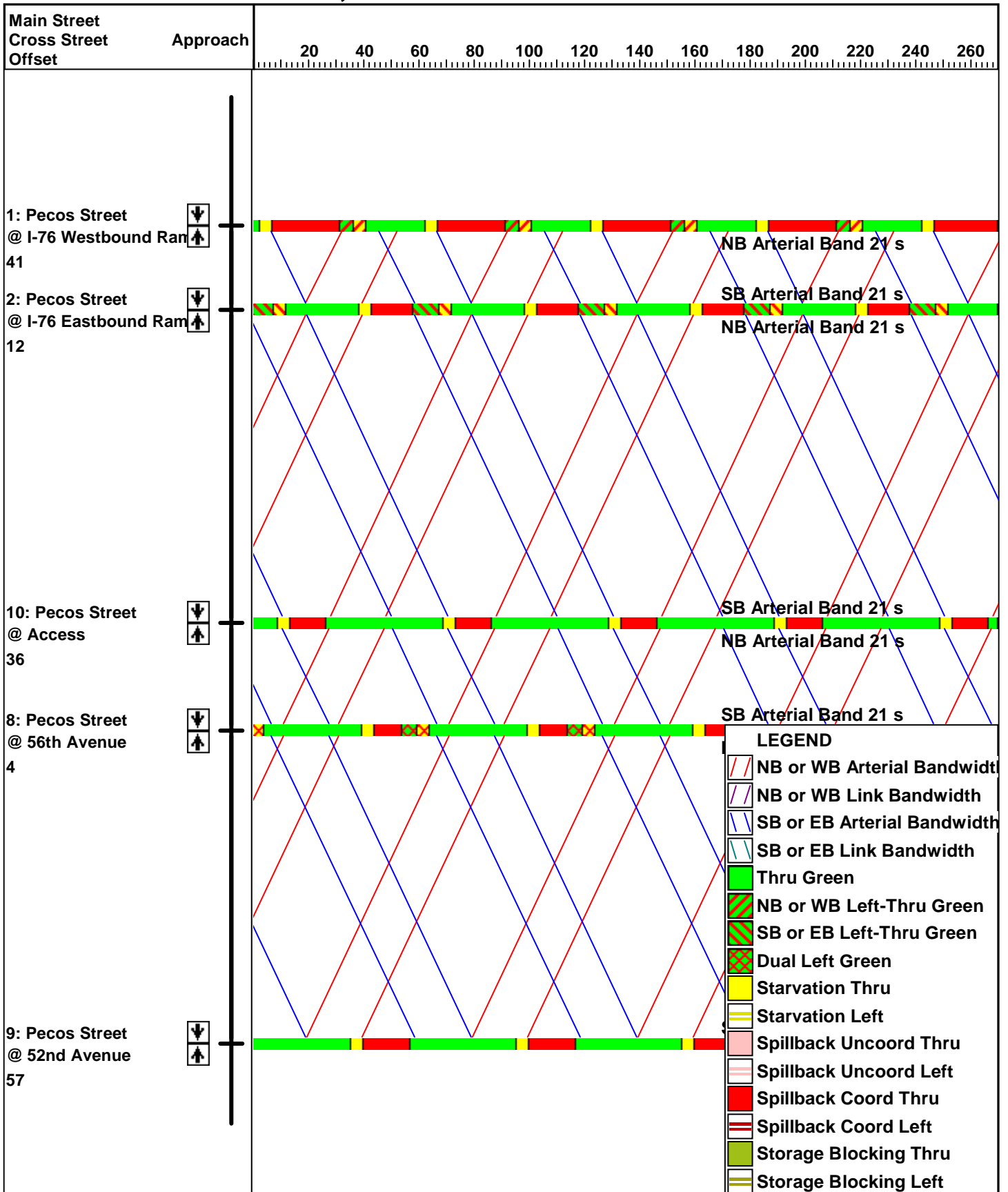


# Time-Space Diagram - Pecos Street

## 2040 Total AM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

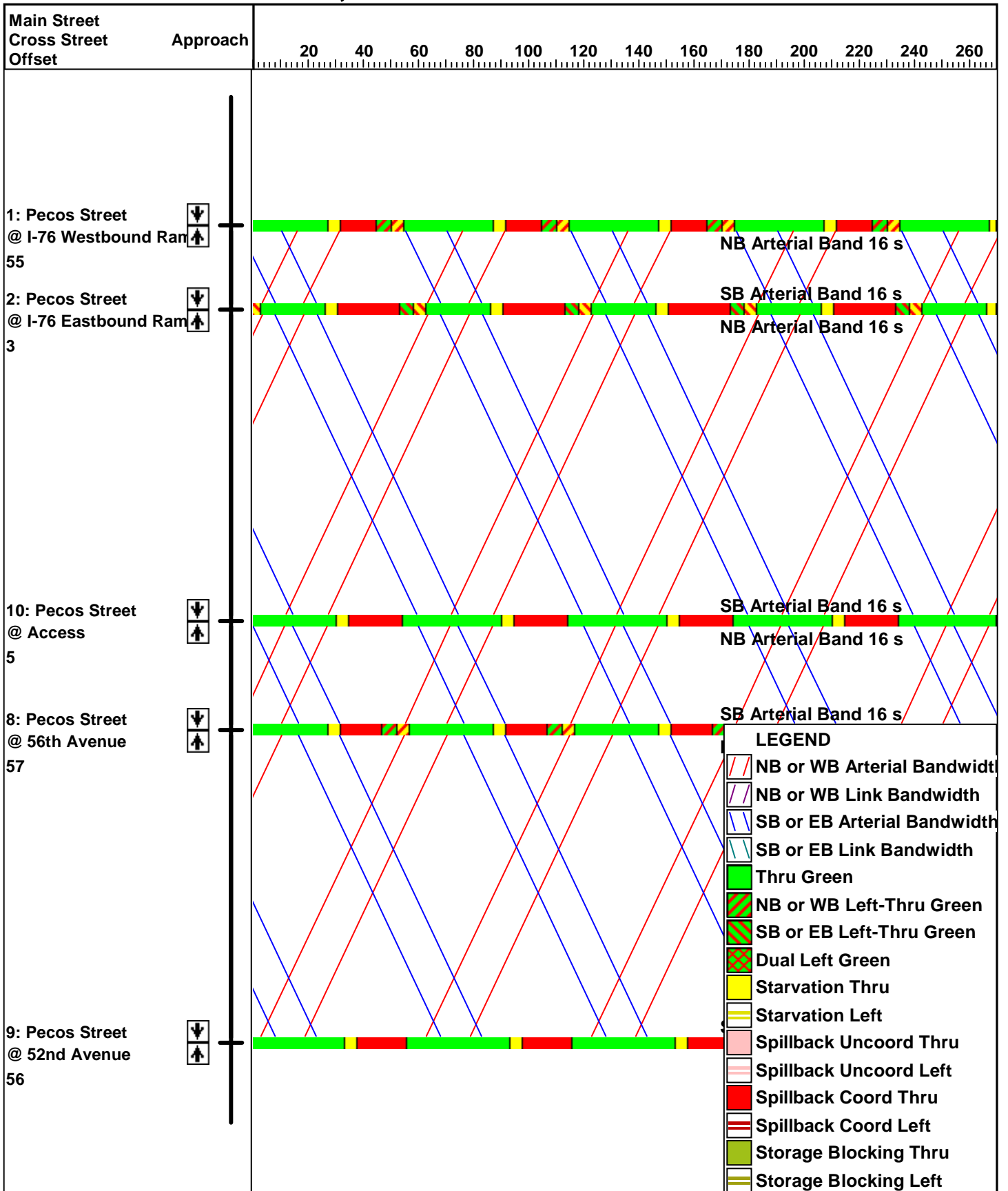


# Time-Space Diagram - Pecos Street

## 2040 Total PM.syn

### Arterial Bandwidths, 90th Percentile Green Times

01/31/2019

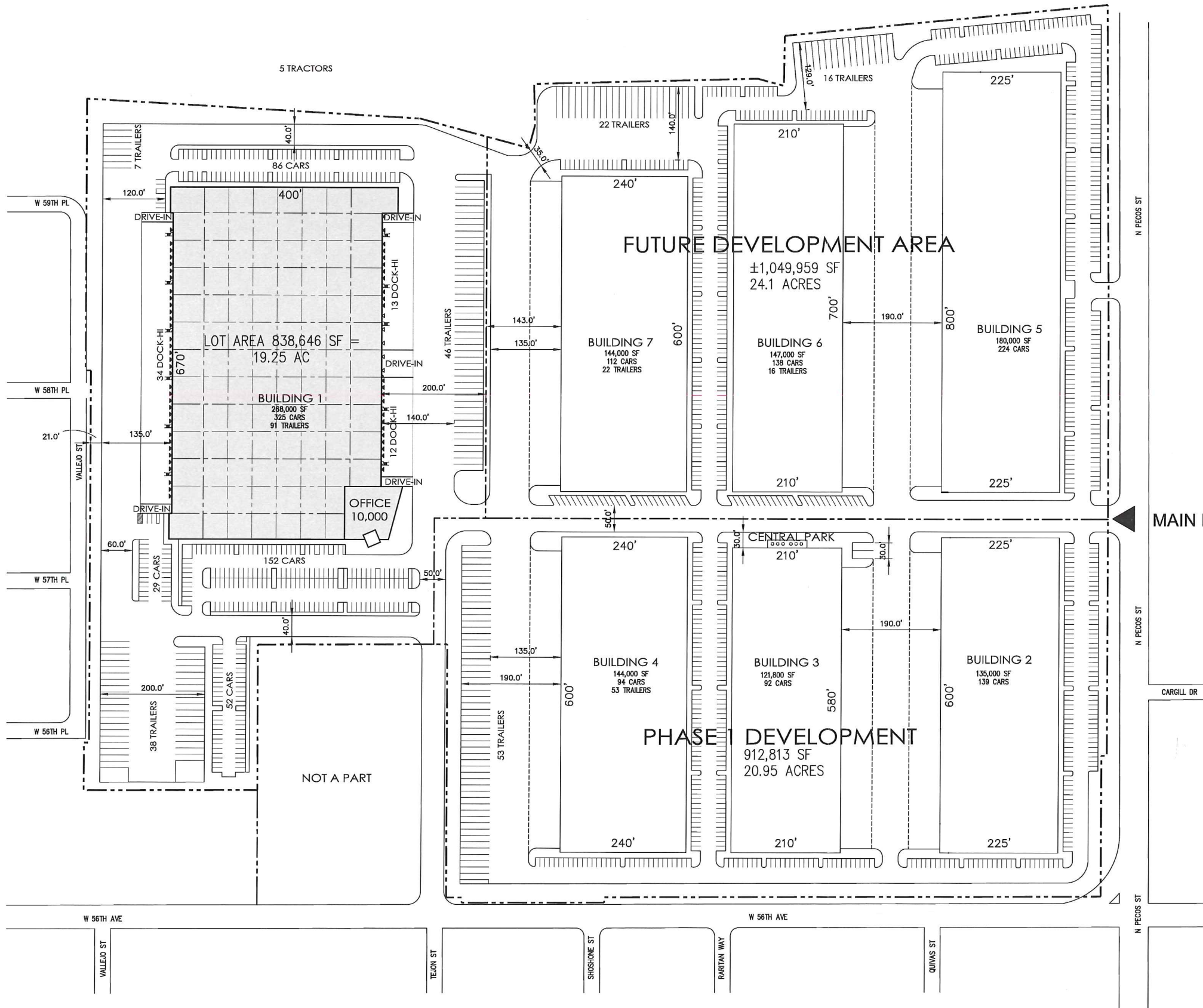




# APPENDIX H

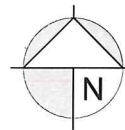
## Conceptual Site Plan

DWG: Full Path: D:\V05 Pecos Mountain Printarea\p02219\_485 site plan.dwg  
Plot Date/Time: 01/23/19 07:15am



## SITE DATA

LOT AREA (BLDG 1)	838,646 SF 19.25 AC
PHASE 1 AREA	912,813 SF 20.95 AC
FUTURE DEVELOPMENT AREA	±1,049,959 SF 24.1 AC



1 SITE PLAN  
A0.0 1"=100'-0"

GREY WOLF ARCHITECTURE

ARCHITECTURE PLANNING  
INTERIOR DESIGN  
1543 champa st. #200  
denver, co 80202  
phone: 303.292.9107  
fax: 303.292.4297

5801 N PECOS ST  
Adams County, Colorado

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ARCHITECTURE.  
PROJECT NUMBER 18-495.1  
DRAWN JH  
CHECKED KWH  
ISSUE  
01.23.2019 PRELIMINARY

REVISIONS

SITE PLAN  
option 7

A1.2



▷ 5619 DTC Parkway | Suite 1150 | Greenwood Village, CO 80111  
Main 720.602.4999

▷ [HRGREEN.COM](http://HRGREEN.COM)

## DEVELOPMENT

March 1, 2019

Adams County  
Community & Economic Development  
4430 South Adams County Parkway  
1st Floor, Suite W2000  
Brighton, CO 80601

Re: Pecos Logistics Park - Preliminary Drainage Evaluation

To Whom It May Concern,

This purpose of this letter is to outline the preliminary drainage characteristics of the proposed development of the Pecos Logistics Park (PLP). The site is located at the northwest corner of the intersection of North Pecos Street and West 56<sup>th</sup> Avenue. The site is currently occupied by Rocky Mountain Prestress. The existing facilities will be demolished and the site is planned to be redeveloped in to an industrial warehouse park. The fully developed site will consist of up to nine individual buildings totaling approximately 1.3 million square feet.

The site is located within the Fisher Basin as delineated in the *Utah Junction Stormwater Outfall Systems Plan*. The site generally drains from the south to the north/northwest. Runoff from the site is directed to a low-laying area in the northwest corner of the site. The low-laying area appears to be a pond, but it is generally assumed runoff is released from the site untreated and undetained. The runoff ultimately discharges to Clear Creek. A map showing existing storm drain facilities is included with this letter.

The proposed development will drain to a new water quality and detention facility towards the northwest. The developer and design team, in conjunction with Adams County, are evaluating alternative locations for the new facility. Options for the location of the new pond include onsite within the property boundary controlled by the developer, and offsite on land owned and controlled by Adams County. If the facility is located onsite, the developer/property owner will be responsible for construction and maintenance of the facility. If the pond is located on Adams County property, the pond will serve as a regional facility. Construction of the regional facility will need to be negotiated between the developer and the County. The County would be responsible for maintenance of the facility.

The site grading and storm drainage system will be designed to safely convey runoff to the new water quality and detention pond. Improvements to the existing storm sewer in North Pecos Street are not anticipated to be required. Significant improvements to this system were implemented with the construction of Pecos Street bridge north of the proposed development site.



Pecos Logistics Park  
March 1, 2019

D E V E L O P M E N T

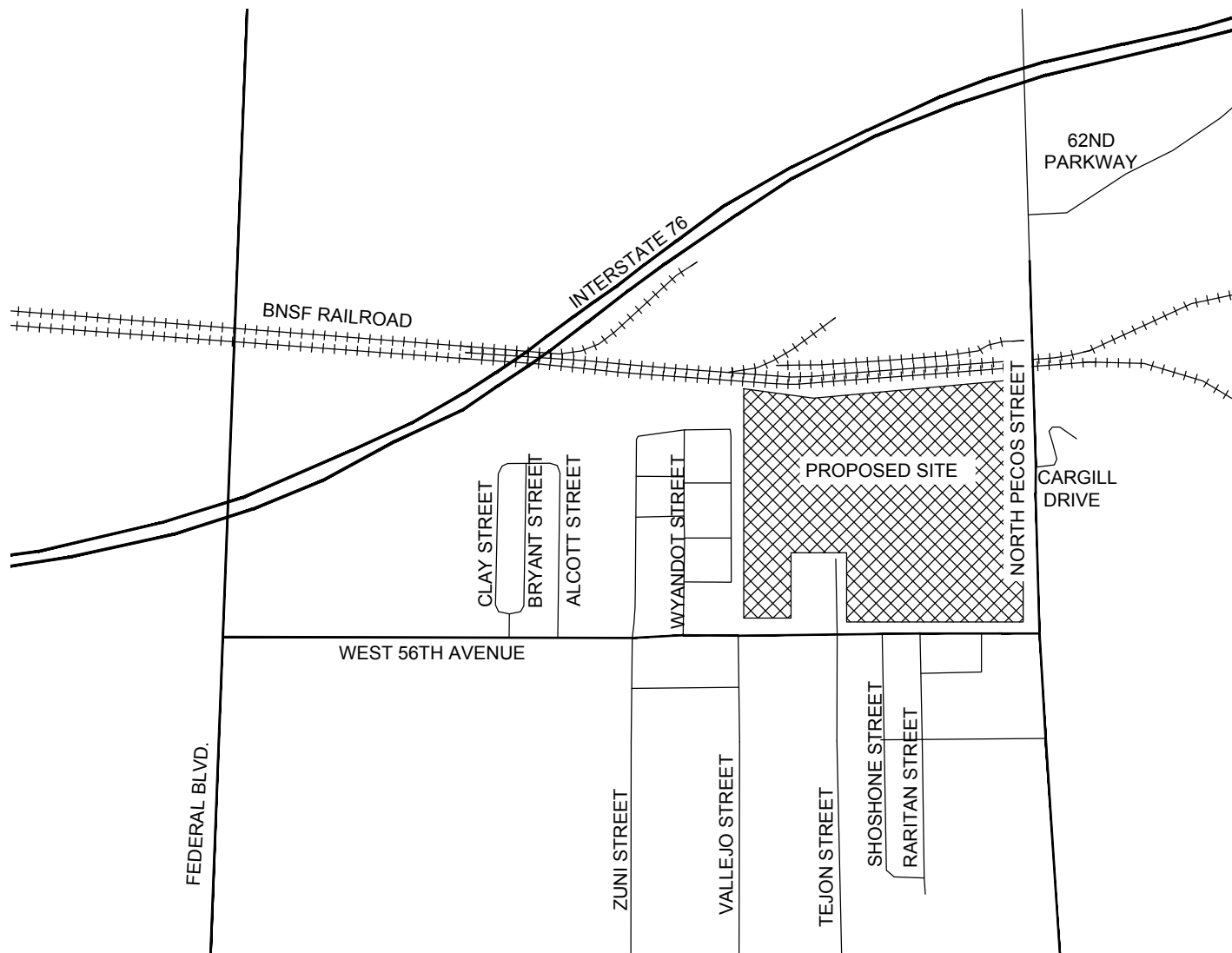
If there are any questions or comments on the contents, please do not hesitate to contact me directly at 720-602-4937.

Sincerely,

HR GREEN DEVELOPMENT, LLC

A handwritten signature in blue ink, appearing to read 'Ryan Littleton'.

**Ryan Littleton**  
Project Manager



HRGreen.com

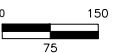
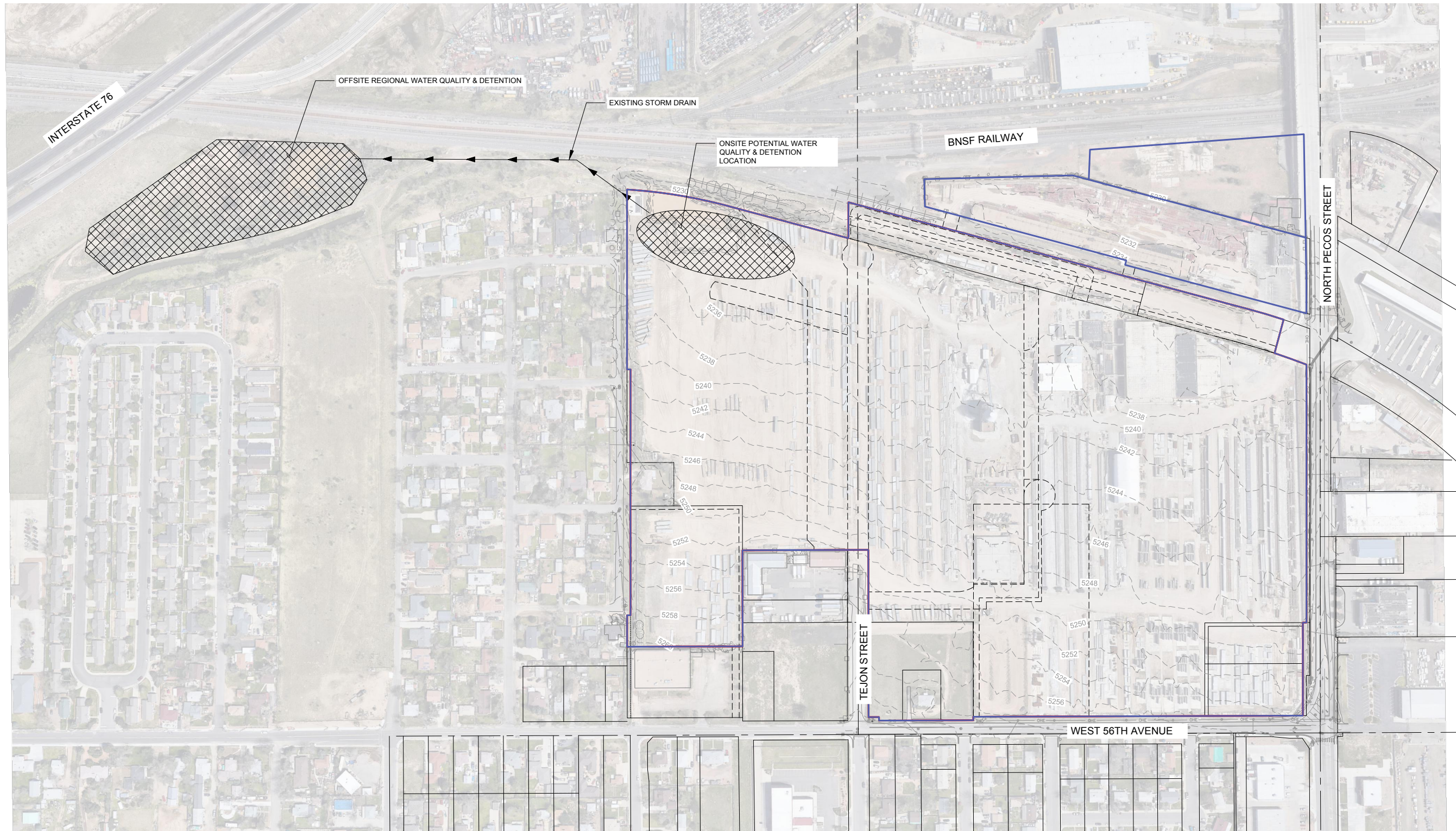
56TH AND PECOS  
EXHIBIT  
VICINITY MAP

SHEET  
VM

SCALE: 1" = 2000'  
DATE: FEB. 2019



J:\2018\180905.01\CADD\Drawings\Exhibits\Overall Drainage Map Exhibit.dwg



DRAWN BY: \_\_\_\_\_ JOB DATE: 2018  
APPROVED: \_\_\_\_\_ JOB NUMBER: 180905  
CAD DATE: \_\_\_\_\_  
CAD FILE: \_\_\_\_\_

BAR IS ONE INCH ON  
OFFICIAL DRAWINGS.  
0 1"  
IF NOT ONE INCH,  
ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION
-----	------	----	----------------------



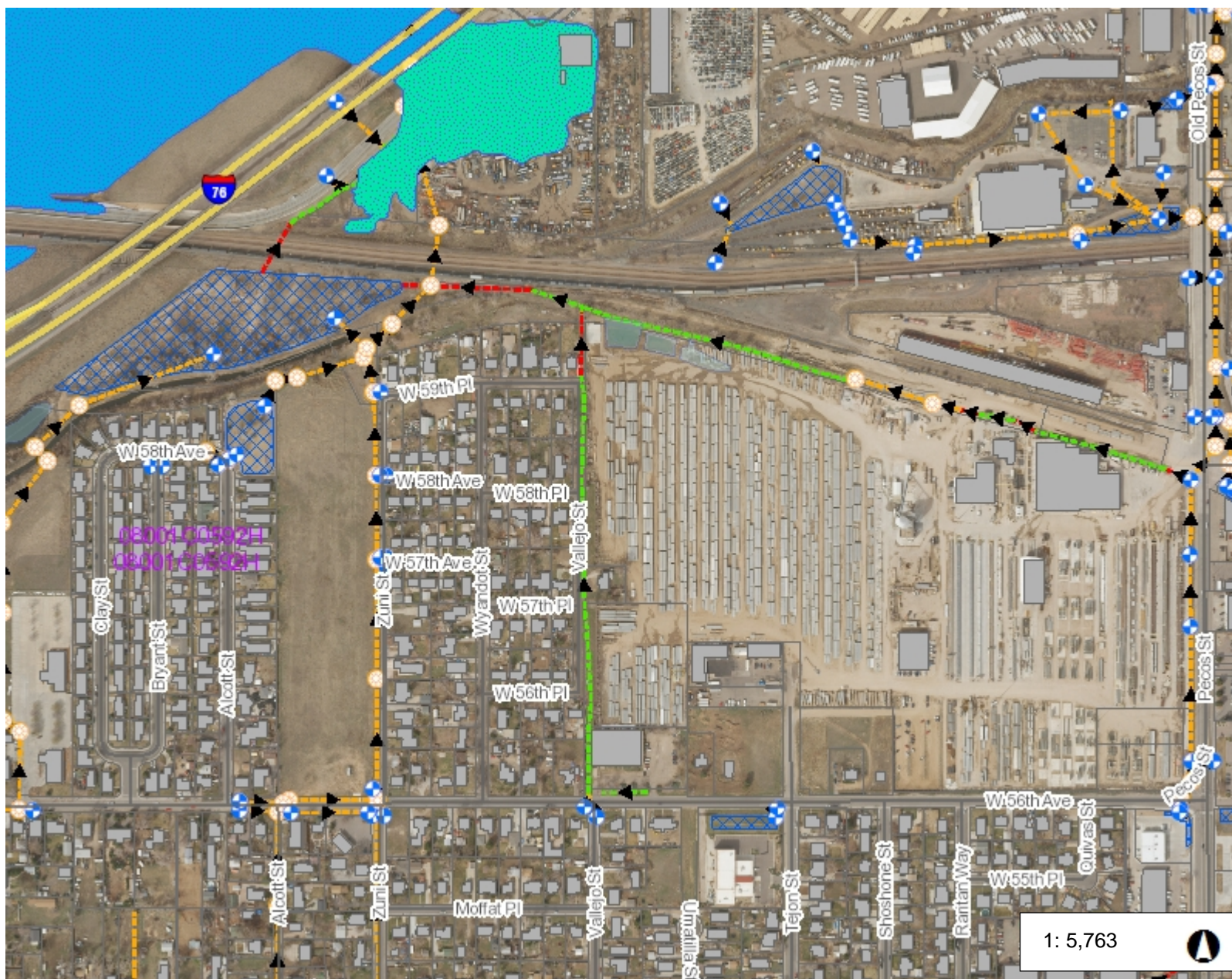
56TH AND PECOS  
INDUSTRIAL DEVELOPMENT

EXHIBIT  
OVERALL DRAINAGE MAP

SHEET NO.  
1 OF 1



# Adams County Map



## Legend

- Highways
  - Highways (5,000 - 10,000)
    - Interstate
    - Highway
    - Tollway
- Streets
  - Streets (2,000 -10,000)
    - Streets
    - Ramp
- Building
- County Parks and Open Space
- Cities
  - Arvada
  - Aurora
  - Bennett
  - Brighton
  - Commerce City
  - Federal Heights
  - Lochbuie
  - Northglenn
  - Thornton
  - Westminster
- Small Lakes
- Major Lakes
- Rivers
- Canal

1: 5,763



## Notes

0.2 0 0.09 0.2 Miles

NAD\_1983\_StatePlane\_Colorado\_Central\_FIPS\_0502\_Feet  
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

### **Neighborhood Meeting Summary**

Project Number – PRE2018-00112

Project Name – Rocky Mountain Prestress

Neighborhood Meeting -

Location: Carl Park Community Center (5401 Meade Street, Denver, CO 80221)

Time: 5:00 – 6:30pm

Date: Friday, February 15, 2019

In Attendance –

Developer Team: Matt Mitchell and Jason Miller with Westfield

Architect: Kenneth Harshman with Grey Wolf Architecture

Neighbors: 35 individuals including 3 commercial property owners, 1 business owner, and 31 residential neighbors.

The required neighborhood meeting was held on Friday, February 15 2019 at the Carl Park Community Center located approximately 1.5 miles from the Rocky Mountain Prestress site at W 56<sup>th</sup> Avenue and Pecos St. No indoor space large enough to accommodate this meeting exists on the subject site currently. Invitations were mailed to the 302 addresses that were provided to us by Emily Collins, planner with Adams County. This represents all the real property owners within a 750' radius of the proposed project. Westfield agreed to expand the typical 500' requirement to 750' at the request of Adams County due to the 60+ acres size of the site.

Westfield setup easels with large format printed poster boards, 12 total, containing various informational exhibits for the proposed project including: parties involved, a locational aerial map, an overlay with existing zoning, overlay with proposed zoning, site photos of the existing conditions of the site, a site plan of phase 1 of the proposed development as well as a conceptual site plan of the entire site at full build out with all three contemplated phases, some elevation renderings for scale and depth of the project, and a site plan and photos of Westfields' recently completed HUB25 development off 64<sup>th</sup> and Washington as an example of the type of building, use, and tenancy our neighbors can expect. Copies of these materials are attached for reference.

Attendees of the meeting had the opportunity to sign in if they wished (sign in sheet attached), pens and comment/question cards were made available with a submission box (no cards were filled out and submitted), and attendees could view the visual exhibits and meet with the 3 project representatives (wearing name tags), to ask questions or express concerns one on one.

The feedback from attendees was nearly entirely positive. Neighbors were enthusiastic about how our proposed redevelopment would clean up the street frontages along Pecos and W 56<sup>th</sup> with curb, gutter, and sidewalk as well as building, pavement and professional landscaping on the site to control the dust that comes off the RMP site as it currently exists today.

Key concerns for neighbors were regional stormwater management and truck traffic extending west on W 56<sup>th</sup> Ave beyond Vallejo Street where the commercial properties end and the area becomes exclusively residential.



- A few neighbors asked about ensuring our stormwater was managed such that it did not flow uncontrolled out on to 56<sup>th</sup> or west into the neighborhood potentially exacerbating some localized stormwater management issues that were reportedly present in extreme rain events where stormwater comes down from the neighborhood to the south of 56<sup>th</sup> flowing north into the residential area between Vallejo and Zuni. It was discussed that due to the current topography and slope, the subject site was not currently contributing any stormwater into the neighborhood or onto 56<sup>th</sup> and our re-development would completely manage the flow of all stormwater on the site to either on site or regional detention facilities that would prevent it from becoming a concern for our neighbors.
- Neighbors were accustomed to local truck traffic coming to the commercial properties operated by Quicksilver (5671 Tejon St), the Iron Workers Union building (5575 Tejon St), and the rug cleaning facility (2151 W 56<sup>th</sup> Ave) which are all located between Vallejo and Tejon on W 56<sup>th</sup> Ave. However, they were concerned about significant truck traffic being allowed to continue west of Vallejo on W 56<sup>th</sup> Ave towards Federal. Our proposed new curb cut location on Pecos with a fully signalized intersection tied to the timing of the light at Pecos and 56<sup>th</sup>, which is supported by our traffic study, is intended to serve as the primary point of access for trucks entering and exiting our site. Truck access at Tejon and 56<sup>th</sup> must be maintained for proper site circulation and an alternate point of access into the project, but the focus of the traffic generated by our proposed development will be the proximity and ease of access onto I-76 at Pecos, which is far closer and more efficient than traveling west on 56<sup>th</sup> Ave to Federal to access 76.

Other topics of discussion were focused around timing, phasing of the project, and what kind of tenants we expect to see based on the tenants that currently lease space in our HUB25 project. Neighbors were appreciative that we had materials on the HUB25 project to show them as an example of what they can generally expect to see come to the Rocky Mountain Prestress site. No other significant concerns were voiced that would require a redesign or change to our proposed project.

Regards,



Matt Mitchell, Vice President  
Westfield Company, Inc.

Attachments:

Sign In Sheet  
Exhibits from Meeting

# NEIGHBORHOOD MEETING OPTIONAL SIGN-IN SHEET

<b>Project:</b>	Pecos Logistics Park	<b>Meeting Date:</b>	Friday, February 15, 2019 5:00 p.m. to 6:30 p.m.
<b>Facilitator:</b>	Westfield Company, Inc.	<b>Place/ Room:</b>	Carl Park Community Center 5401 Meade Street Denver, CO 80221

Print First Name	Print Last Name	Address	Phone number	Email
Susan	Lythgoe	2240 W 57th Pl Denver CO 80221		slithgoe@flatironshabitat.org
Michael	Morenwen	5800 Pecos St		MORENWE@ALPINE LUMBER.COM
Gene	Robbins	3380 W 53rd	303 477 5732	
Ron	VASQUEZ	2240 W 57th Pl	303-264-9684	ronproperties77@gmail.com
Dennis	McLin	5294 Village St	720-480-9342	dennis@mcclincommercial.com
Ruth	Conca	5511 Shoshone St	720-891-9415	
JAMES TERREY	HARROD	2220 W 56th Ave	720.234.6613	pharrod2001@yahoo.com
Robert	MANN	2151 W 56th	303 292 2522	rdm@MANNUG7.494
JJ Kalish	Kalish	56th Ave		
Dorothy	Garcia	1780 W 55th Pl	3-433-2830	
Scott	BUNNEY	5555 Pecos	720-837-6358	SCOTT@WB-CONCRETE.NET

# EXISTING SITE CONDITIONS





# ZONING MAP - PROPOSED



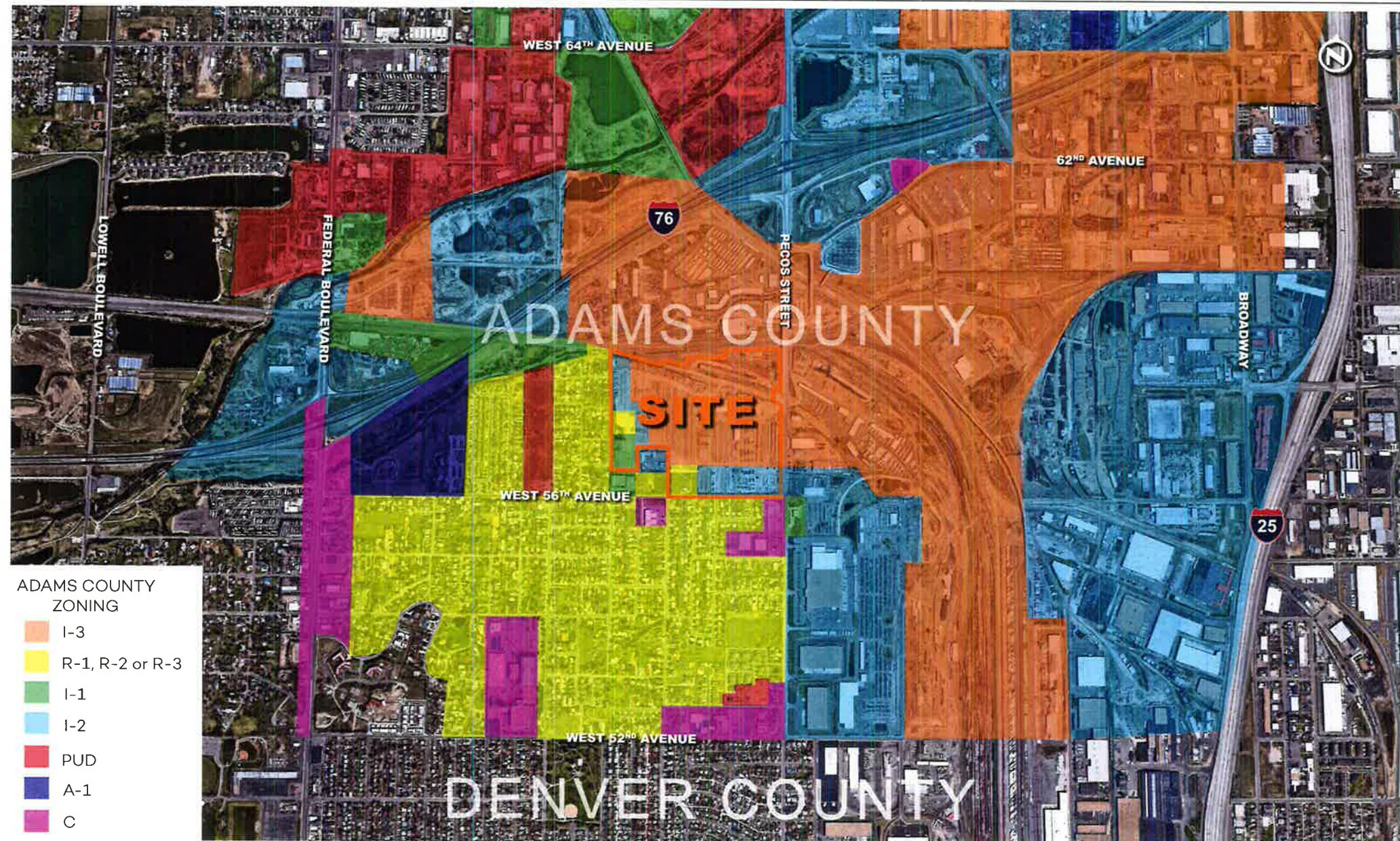


# ZONING MAP - EXISTING





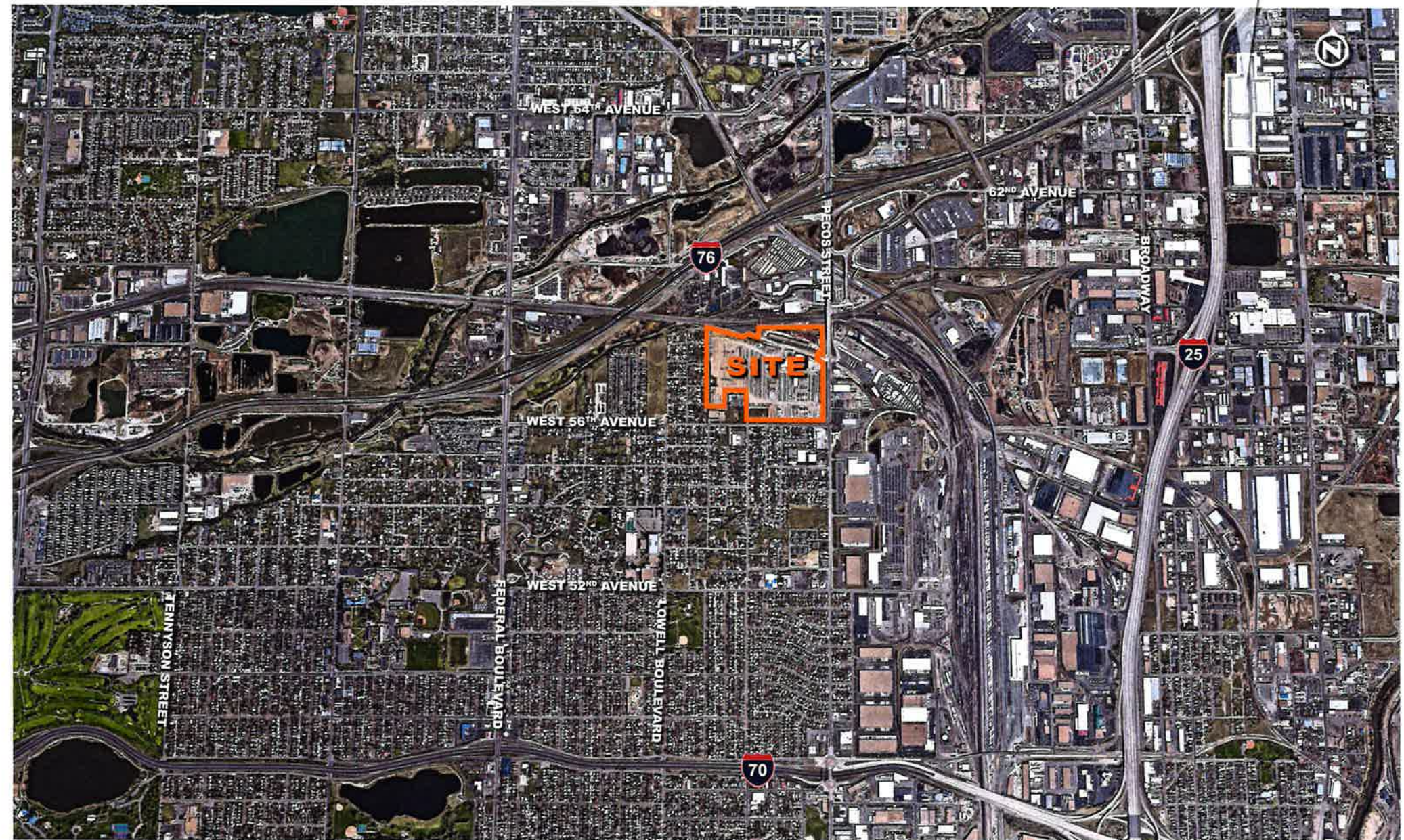
# ZONING MAP - SURROUNDING AREA





# SURROUNDING AREA

HUB  
25







# **PECOS** LOGISTICS PARK

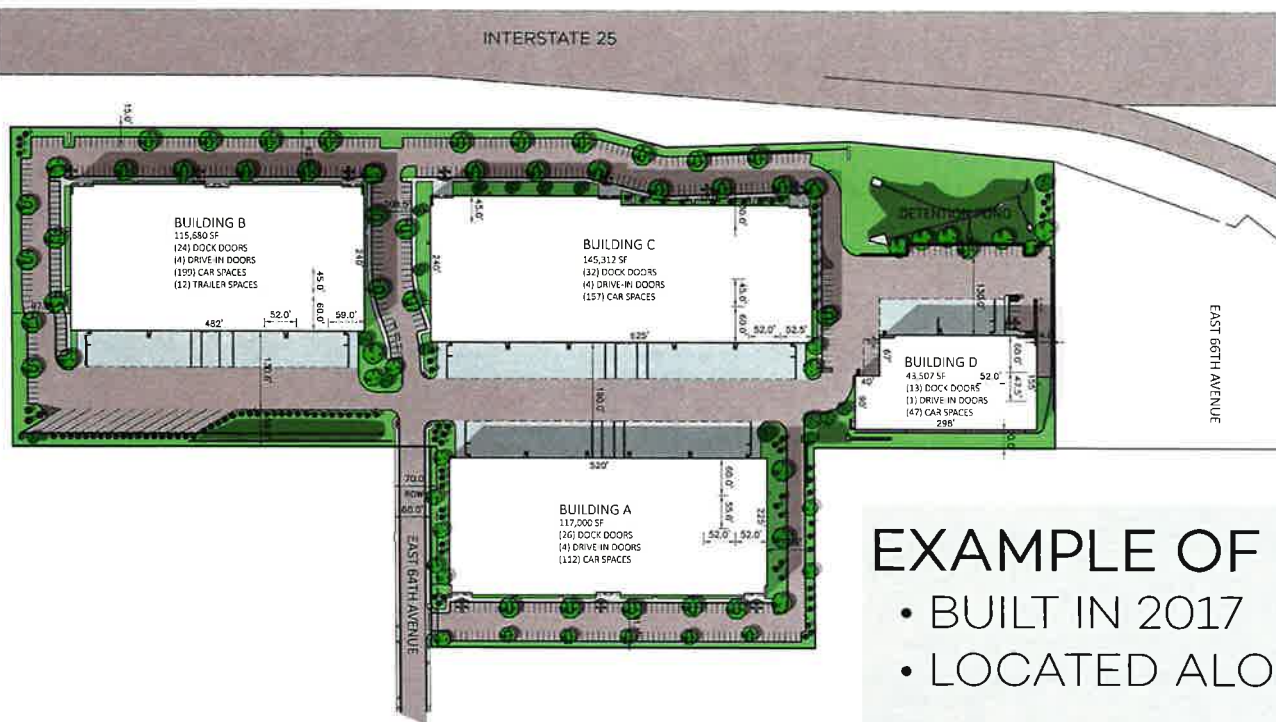
DEVELOPER: PECOS LOGISTICS PARK, LLLP

ARCHITECT: GREY WOLF ARCHITECTURE





# HUB 25 - A WESTFIELD DEVELOPMENT

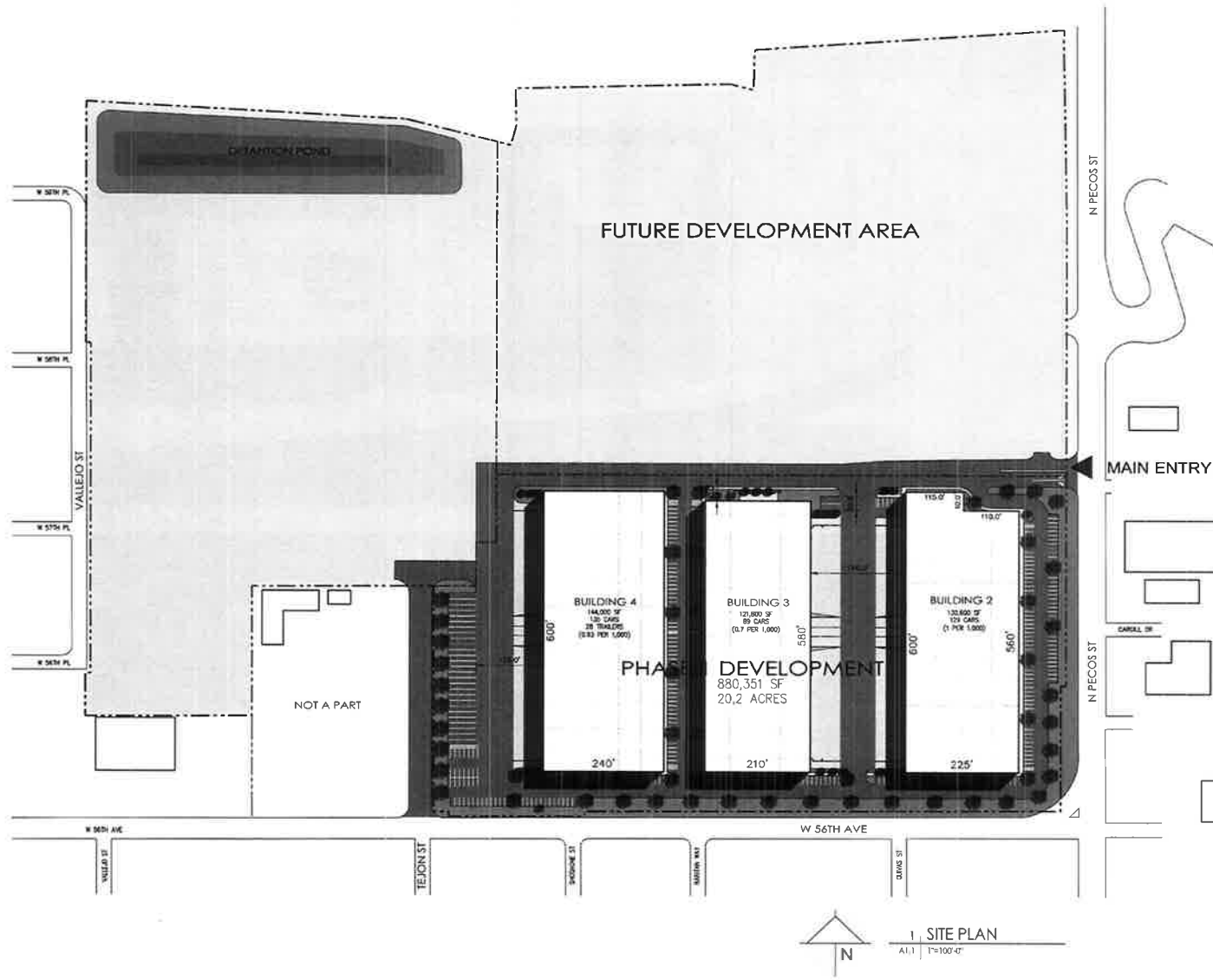


HUB  
25

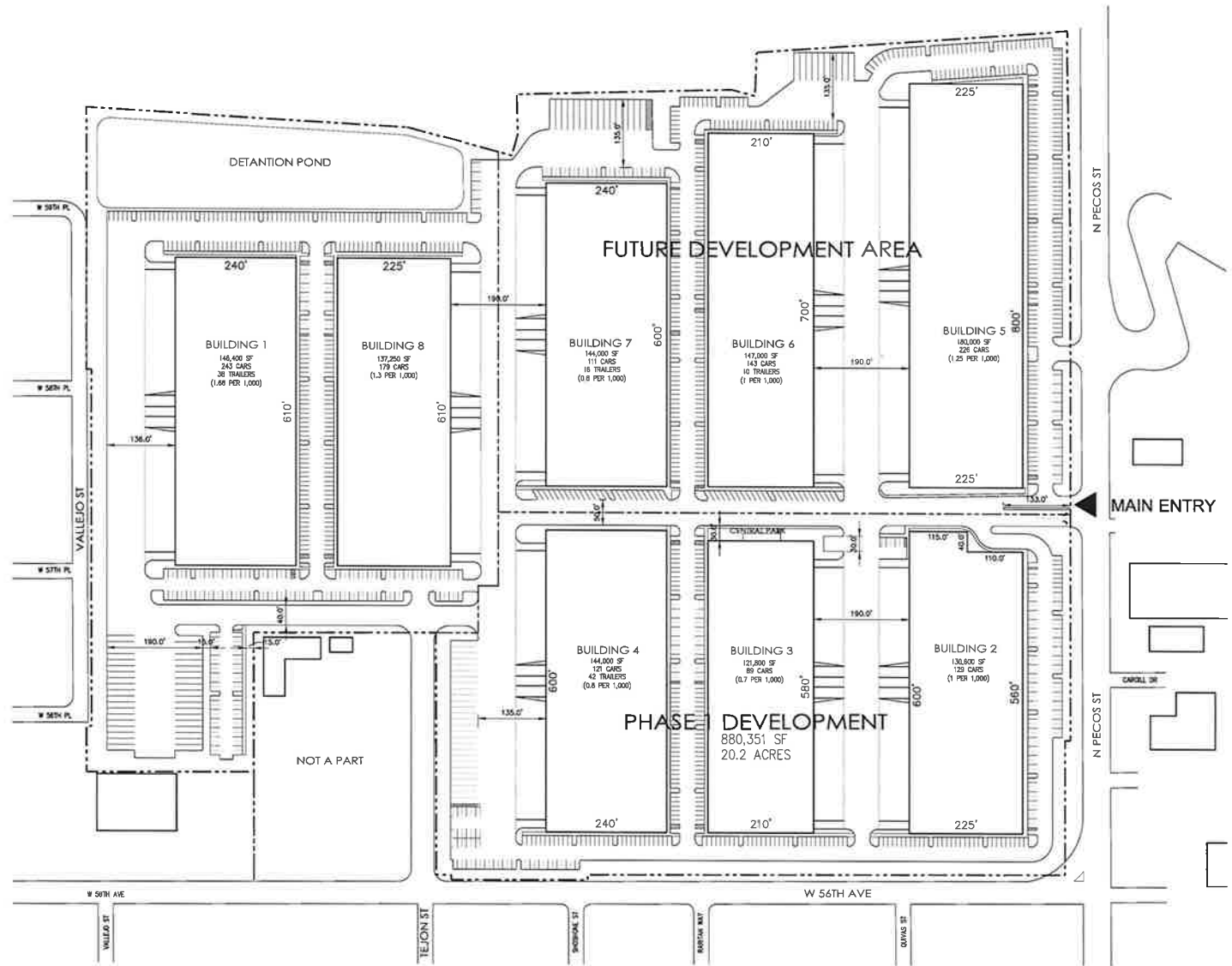
## EXAMPLE OF A LOGISTICS PARK

- BUILT IN 2017
- LOCATED ALONG I-25 OFF OF E. 64TH AVENUE

# SITE PLAN - PHASE I



# SITE PLAN - POTENTIAL FULL BUILD OUT



1 SITE PLAN  
A1.1 1"=100'-0"



# PERSPECTIVE RENDERINGS

FOR SCALE ONLY  
NOT THE FINAL DESIGN



# PERSPECTIVE RENDERINGS

FOR SCALE ONLY  
NOT THE FINAL DESIGN





# ALTA/NSPS LAND TITLE SURVEY

Part of the Southwest  $\frac{1}{4}$  of Section 9 Township 3 South, Range 68 West of the 6th Principal Meridian  
And Part of the South  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of Section 10 Township 3 South, Range 68 West of the 6th Principal Meridian

## LEGAL DESCRIPTION:

**PARCEL A:**  
LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING, COUNTY OF ADAMS, STATE OF COLORADO. EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL B:**  
LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING, COUNTY OF ADAMS, STATE OF COLORADO. EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL C:**  
THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

**PARCEL D:**  
LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL E:**  
LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL F:**  
THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9,  
THENCE EAST ALONG SAID SECTION LINE 60 FEET; THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET; THENCE WEST 30 FEET; THENCE NORTH 308 FEET; THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET; THENCE WEST 95 FEET; THENCE NORTH 145 FEET; THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET; THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.  
THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

**PARCEL G:**  
A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 9,  
THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET; THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET; THENCE EAST 110 FEET; THENCE SOUTH 145 FEET THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS "THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

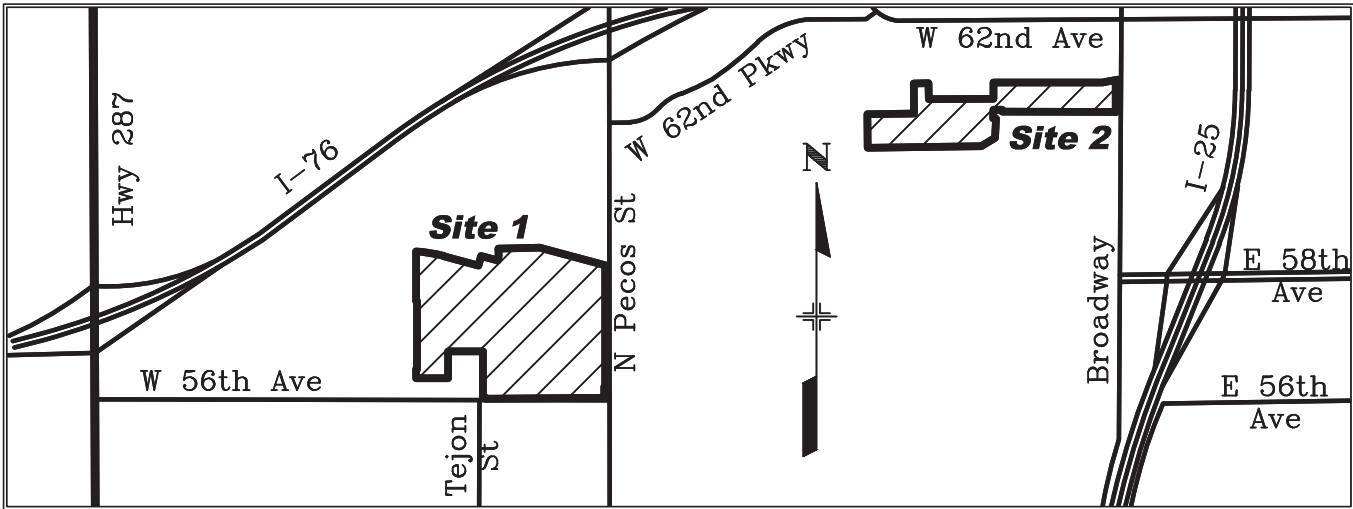
**PARCEL H:**  
A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

**PARCEL I:**  
A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND SANTA FE RAILROAD COMPANY TO ANT, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE 846, RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. 2009000069014, RECORDS OF ADAMS COUNTY.

VICINITY MAP  
1" = 2000'



**PARCEL J:**  
A PARCEL OF LAND LOCATED IN THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
BEGINNING AT THE POINT OF INTERSECTION OF THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 10, AND THE EAST LINE OF HURON ST. WHICH POINT IS 20.0 FEET EAST OF THE WEST ONE-QUARTER CORNER OF SAID SECTION 10;  
THENCE NORTH, ALONG THE EAST LINE OF HURON ST. A DISTANCE OF 347.0 FEET;  
THENCE EAST, PARALLEL WITH THE NORTH LINE OF THE N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 487.09 FEET;  
THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 313.0 FEET TO A POINT ON THE NORTH LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE EAST, ALONG THE NORTH LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 154.06 FEET TO THE NORTHEAST CORNER OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE SOUTH, ALONG THE EAST LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 330.0 FEET TO THE SOUTHEAST CORNER OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE EAST, ALONG THE NORTH LINE OF SAID S1/2 S1/2 SW1/4 NW1/4 OF SAID SECTION 10, A DISTANCE OF 660.3 FEET TO THE NORTHEAST CORNER OF SAID S1/2 S1/2 SW1/4 NW1/4;  
THENCE SOUTH, ALONG THE EAST LINE OF SAID S1/2 S1/2 SW1/4 NW1/4, A DISTANCE OF 255.62 FEET TO A POINT ON THE NORTHWESTERLY RIGHT-OF-WAY LINE OF THE DENVER & RIO GRANDE WESTERN RAILROAD COMPANY;  
THENCE SOUTH 58°58' WEST ALONG SAID NORTHWESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 144.17 FEET TO A POINT ON THE SOUTH LINE OF THE SW1/4 NW1/4 OF SAID SECTION 10;  
THENCE WEST, ALONG THE SOUTH LINE OF THE SW1/4 NW1/4 OF SAID SECTION 10, A DISTANCE OF 1199.55 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.  
EXCEPT THAT PART DESCRIBED IN DEED RECORDED MAY 25, 2004 UNDER RECEPTION NO. 20040525000402220.

**PARCEL K:**  
THE SOUTH ONE-HALF (S1/2) OF THE NORTH ONE-HALF (N1/2) OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF THE NORTHWEST ONE-QUARTER (NW1/4) OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL L:**  
A TRACT OR PARCEL OF LAND WITHIN THE SOUTHEAST 1/4 OF THE NORTHWEST ONE-QUARTER OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
BEGINNING AT A POINT IN THE WEST LINE OF SAID SE1/4 NW1/4 LOCATED 74.33 FEET NORTH FROM THE SW CORNER THEREOF;  
THENCE NORTH ALONG SAID WEST LINE 209.92 FEET;  
THENCE EAST 30 FEET, MORE OR LESS TO A POINT 10 FEET EASTERLY AT RIGHT ANGLES FROM THE CENTERLINE OF THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY'S I.C.C. TRACK NO. 31C;  
THENCE SOUTHERLY PARALLEL WITH SAID TRACK 200 FEET, MORE OR LESS, TO A POINT IN SAID RAILROAD COMPANY'S NORTHERLY RIGHT-OF-WAY LINE;  
THENCE SOUTHWESTERLY ALONG SAID RIGHT-OF-WAY LINE 23 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

**PARCEL M:**  
LOT 1, BLOCK 1, PHELPS-TOINTON 60TH PLACE MINOR SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

## COLORADO LAND SURVEYING STANDARDS OF PRACTICE NOTES:

- LINEAR UNITS ARE U.S. SURVEY FEET, DEFINED AS EXACTLY 1200/3937 METERS.
- VERTICAL DATUM: NAVD88, GEOID 2012 REVISION A (GEOID12A).  
SITE 1 BENCHMARK: N39° 48' 08.89348" W105° 00' 37.47412" ORTHO ELEV: 5,175.65 IS THE SOUTHWEST CORNER OF PARCEL "B" RN 2017000035300. FOUND 2.5" ALUM. CAP SET IN CONCRETE, STAMPED "PT 4 LS 7735"  
SITE 2 BENCHMARK: N39° 48' 23.15379" W104° 59' 13.58750" ORTHO ELEV: 5,200.310 IS A NGS POINT "T 452" PID DJ8168 STANDARD BRASS DISK STAMPED "T452 2003" IN A CONCRETE COLLAR.
- THIS SURVEY PLAT DOES NOT CONSTITUTE A TITLE SEARCH BY NV5.
- ALL REFERENCES TO BOOKS, PAGES, MAPS, AND RECEPTION NUMBERS ARE PUBLIC DOCUMENTS ON FILE WITH THE CLERK AND RECORDER'S OFFICE OF ADAMS COUNTY, STATE OF COLORADO, UNLESS NOTED OTHERWISE.
- EASEMENTS AND PUBLIC DOCUMENTS SHOWN OR NOTED HEREON WERE EXAMINED AS TO LOCATION AND PURPOSE AND WERE NOT EXAMINED AS TO RESERVATIONS, RESTRICTIONS, CONDITIONS, OBLIGATIONS, TERMS, OR AS TO THE RIGHT TO GRANT THE SAME.

6. THIS SURVEY WAS MADE IN ACCORDANCE WITH LAWS AND/OR MINIMUM STANDARDS OF THE STATE OF COLORADO.

7. ANY PERSON WHO KNOWINGLY REMOVES, ALTERS OR DEFACES ANY PUBLIC LAND SURVEY MONUMENT OR LAND MONUMENT OR ACCESSORY, COMMITS A CLASS TWO (2) MISDEMEANOR PURSUANT TO STATE STATUTE 18-4-508, C.R.S.

8. ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED UPON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATA OF THE CERTIFICATION SHOWN HEREON.

9. THE WORD "CERTIFY" AS SHOWN AND USED HEREON MEANS AN EXPRESSION OF PROFESSIONAL OPINION REGARDING THE FACTS OF THIS SURVEY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESSED OR IMPLIED.

10. THIS SURVEY IS VALID ONLY IF PRINT HAS SEAL AND SIGNATURE OF SURVEYOR.

11. BASIS OF BEARINGS: SITE 1: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE NORTH POINT OF SAID LINE IS A FOUND 2-INCH ALUMINUM CAP STAMPED "JACOBS ENGINEERING 2016 PLS 24942". THE SOUTH POINT OF SAID LINE IS A FOUND 2½-INCH ALUMINUM CAP STAMPED "W.C. 5.00 2016 PLS 37601" IN A RANGE BOX MARKED "SURVEY". THE WITNESS CORNER IS 5.00 FEET WEST OF AND ON LINE TO THE WEST 1/16 CORNER OF SAID SECTION 9. THE MEASURED BEARING BETWEEN SAID POINTS IS SOUTH 00° 02' 51" WEST A DISTANCE OF 2,646.62 FEET. HOWEVER, THE BASIS OF BEARINGS HAS BEEN ROTATED COUNTERCLOCKWISE 00° 02' 51" TO MATCH THE BASIS OF BEARINGS USED ON THE PLAT PRESTRESSED-CON SUBDIVISION, SECOND FILING, RECORDED AT SURVEY DEPOSIT FILE NO. 14, MAP NO. 765, PLAT RECEPTION NUMBER 336912 ON AUGUST 5, 1981 IN THE RECORDS OF SAID COUNTY. THE PLAT WAS ALSO RECORDED AT RECEPTION NUMBER 1981020336912 IN THE RECORDS OF SAID COUNTY. THE BASIS OF BEARINGS ON THIS AND THE REFERENCE PLAT IS NORTH 00° 02' 51" EAST. SITE 2: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE SOUTH LINE OF THE NORTHWEST ONE-QUARTER OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE WEST POINT OF SAID LINE IS A FOUND 3¼-INCH ALUMINUM CAP STAMPED "JR ENG. 1994 PLS 13258". THE EAST POINT OF SAID LINE IS A FOUND 3¼-INCH ALUMINUM CAP STAMPED "MOLLENHAUER 207 PLS 36580". THE MEASURED BEARING AND DISTANCE BETWEEN SAID POINTS IS NORTH 89° 29' 52" EAST A DISTANCE OF 2,642.01 FEET.

## COUNTY SURVEYOR'S CERTIFICATE:

DEPOSITED THIS \_\_\_\_ DAY OF \_\_\_\_\_, 2018, AT \_\_\_\_ M., IN BOOK \_\_\_\_\_ OF LAND SURVEY PLATS AT PAGE \_\_\_\_\_, OF THE RECORDS OF ADAMS COUNTY, COLORADO  
RECEPTION NUMBER \_\_\_\_\_

SIGNED: \_\_\_\_\_

TITLE: \_\_\_\_\_

## SURVEYOR'S STATEMENT:

- DURING THE COURSE OF THIS SURVEY A SIGNIFICANT ERROR WAS FOUND IN PLAT "PRESTRESS-CON SUBDIVISION SECOND FILING", FILE NO. 14 MAP NO. 765, PLAT RN B336912. A CORRECTION PLAT WAS RECORDED IN BOOK \_\_\_\_\_ OF LAND SURVEY PLATS AT PAGE \_\_\_\_\_, OF THE RECORDS OF ADAMS COUNTY, COLORADO, RECEPTION NUMBER \_\_\_\_\_.
- FIELDWORK BEGAN ON MARCH 12, 2018 WITH SITE VISITS DURING MARCH & APRIL 2018. FIELDWORK WAS COMPLETED WITH THE SETTING OF PROPERTY CORNERS ON MAY 9 & 10, 2018.

## SURVEYOR'S CERTIFICATION:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(A), 7(B)(1), 8, 11, & 15 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON MAY 10, 2018.

PURSUANT TO COLORADO STATE BOARD OF LICENSURE FOR PROFESSIONAL LAND SURVEYORS RULE 6.2.2 THE UNDERSIGNED FURTHER CERTIFIES THAT THIS MAP OR PLAT WAS PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, IS ACCURATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, IS IN ACCORDANCE WITH APPLICABLE STANDARDS OF PRACTICE AND NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED.

ERIC ROBERT WHITE  
COLORADO PROFESSIONAL LAND SURVEYOR, LICENSE NUMBER 38278  
SEPTEMBER 25, 2018

PREPARED FOR:  
MR. DOUG MCCARTHY  
ROCKY MOUNTAIN PRESTRESS  
5801 PECOS STREET  
DENVER, CO 80221

PREPARED BY:  
NV5, INC.  
5445 MARK DABLING BLVD., SUITE 100  
COLORADO SPRINGS, CO 80918  
TEL: (719) 268-8500 E-MAIL: ERIC.WHITE@NV5.COM



DATE: _____ TIME: _____		NO.	BY	DATE	REVISIONS:		N V 5	5445 Mark Dabling, Suite 100 Colorado Springs, CO 80918 719.268.5800 TEL www.nv5.com	ALTA/NSPS LAND TITLE SURVEY 1921 W. 56th Ave., 5700 Vallejo St., 1901 W. 56th Ave., 5751 Pecos St., 5801 Pecos St., 301 W. 60th Pl. City of Denver, Adams County, Colorado	SHEET NUMBER 1	
SERVER: _____ LAYOUT: _____										OF 15 SHEETS	
PATH: _____										SCALE	
DRAWING NAME: _____										HORIZONTAL: N/A	
PAGE SETUP: _____										JOB NUMBER	
DESIGNER: _____ PROJ. MGR: _____										223518-0000060.00	
						PREPARED FOR: Rocky Mountain Prestress				DATE SUBMITTED: September 25, 2018	



# ALTA/NSPS LAND TITLE SURVEY

Part of the Southwest  $\frac{1}{4}$  of Section 9 Township 3 South, Range 68 West of the 6th Principal Meridian  
And Part of the South  $\frac{1}{2}$  of the Northwest  $\frac{1}{4}$  of Section 10 Township 3 South, Range 68 West of the 6th Principal Meridian

## ALTA/NSPS LAND TITLE SURVEY TABLE A OPTION NOTES:

TABLE A ITEMS REQUESTED FOR THIS SURVEY INCLUDE: 1, 2, 3, 4, 5, 7(a), 7(b)(1), 8 & 11.

- ITEM 1: MONUMENTS FOUND OR SET ARE DESCRIBED ON THE SURVEY.
- ITEM 2: THE ADDRESSES OF THE SURVEYED PROPERTY ARE: 1921 W. 56TH AVE., 5700 VALLEJO ST., 1901 W. 56TH AVE., 5751 PECOS ST., 5801 PECOS ST., 301 W. 60TH PL., DENVER, COLORADO. EACH ADDRESS HAS BEEN VERIFIED WITH THE RECORDS OF THE ADAMS COUNTY ASSESSOR'S WEBSITE LISTING ROCKY MOUNTAIN PRESTRESS AS THE OWNER.
- ITEM 3: THE PROPERTY IS LOCATED WITHIN ZONE X, AS DETERMINED BY GRAPHICAL INTERPRETATION. FLOODPLAIN INFORMATION OBTAINED FROM THE FLOOD INSURANCE RATE MAP (FIRM) FOR ADAMS COUNTY, COLORADO, FIRM MAP NUMBERS 08001C0592H (SITE 1) AND 08001C0611H (SITE 2), EFFECTIVE DATE MARCH 5, 2007.
- ITEM 4: THE TOTAL AREA OF THE SUBJECT PROPERTIES CONTAINS 3,580,764 SQUARE FEET OR 82.203 ACRES.  
THE AREA OF THE "SITE 1" NORTHERN PROPERTY IS 204,021 SQUARE FEET OR 4.684 ACRES.  
THE AREA OF THE "SITE 1" SOUTHERN PROPERTY IS 2,390,115 SQUARE FEET OR 54.869 ACRES.  
THE AREA OF THE "SITE 2" PROPERTY IS 986,628 SQUARE FEET OR 22.650 ACRES.
- ITEM 5: TOPOGRAPHIC MAP PREPARED BY PHOTOGRAMMETRIC METHODS.  
THE SITE WAS FLOWN / PHOTOGRAPHED ON MARCH 14, 2018.  
THE SCALE OF THE PHOTOGRAPHY IS 1:2,400 (1"=200').  
THIS MAP WAS COMPILED PHOTOGRAMMETRICALLY TO MEET THE FOLLOWING ACCURACY SPECIFICATIONS FOR MAP SCALE OF 1:480 (1 INCH = 40 FEET) AND A CONTOUR INTERVAL OF 1 FOOT.  
ACCURACY SPECIFICATION: AMERICAN SOCIETY FOR PHOTOGRAMMETRY AND REMOTE SENSING (ASPRS)  
POSITIONAL ACCURACY STANDARDS FOR DIGITAL GEOSPATIAL DATA, EDITION 1, VERSION 1.0 - NOVEMBER 2014.  
HORIZONTAL ACCURACY CLASS: 12.5 CM RMSEX / RMSEY. VERTICAL ACCURACY CLASS: 10 CM RMSEZ.
- ITEM 7: EXTERIOR DIMENSIONS AND BUILDING SQUARE FOOTAGE ARE SHOWN ON THE SURVEY.
- ITEM 8: SUBSTANTIAL FEATURES ARE SHOWN ON THE SURVEY.
- ITEM 11: UNDERGROUND UTILITY LOCATION SERVICE WAS PROVIDED BY UNDERGROUND CONSULTING SOLUTIONS, LITTLETON, COLORADO, ON MARCH 14, 2018, AND FIELD SURVEYED BY NV5, INC. AND ARE SHOWN ON THE SURVEY.

## TITLE COMMITMENT NOTES:

THE PROPERTY DESCRIBED HEREON IS THE SAME AS THE PROPERTY DESCRIBED IN LAND TITLE GUARANTEE COMPANY COMMITMENT NUMBER ABD70572630-3 WITH AN EFFECTIVE DATE OF JULY 12, 2018 AND THAT ALL EASEMENTS, COVENANTS AND RESTRICTIONS REFERENCED IN SAID TITLE COMMITMENT OR APPARENT FROM A PHYSICAL INSPECTION OF THE SITE OR OTHERWISE KNOWN HAVE BEEN PLOTTED HEREON OR OTHERWISE NOTED AS TO THEIR EFFECT ON THE SUBJECT PROPERTY. THE FOLLOWING COMMENTS ARE IN REGARD TO THE ABOVE-REFERENCED TITLE COMMITMENT. THE NUMBERS IN OUR COMMENTS CORRESPOND TO THE NUMBERING SYSTEM USED IN THE TITLE COMMITMENT ONLY.

## SCHEDULE A

### ITEM COMMENT

1. EFFECTIVE DATE IS JULY 12, 2018 AT 5:00 A.M.
- 2-4. NV5, INC. DID NOT EXAMINE OR ADDRESS THESE ITEMS.
5. THE LEGAL DESCRIPTIONS OF THE LAND SURVEYED, LISTED AS PARCELS A, B, C, D, E, F, G, H, I, J, K, L & M IN THE TITLE COMMITMENT, ARE SHOWN HEREON.

## SCHEDULE B-1 REQUIREMENTS

ITEM NUMBERS 1 - 6 AND SUBSEQUENT NOTES ARE GENERAL NON-SURVEY RELATED ITEMS AND ARE NOT ADDRESSED HEREON.

## SCHEDULE B-2 EXCEPTIONS

### ITEM COMMENT

- 1-7 STANDARD EXCEPTIONS.
- 8 ANY EXISTING LEASES OR TENANCIES. NV5, INC. DID NOT EXAMINE OR ADDRESS THIS ITEM.
- 9 THE RIGHT OF TENANTS, AS TENANTS ONLY, UNDER RECORDED LEASES. NV5, INC. DID NOT EXAMINE OR ADDRESS THIS ITEM.
- 10 ITEM INTENTIONALLY DELETED.
- 11 RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED, AND A RIGHT OF WAY FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED AUGUST 21, 1897 IN BOOK A67 AT PAGE 272. NV5, INC. DID NOT EXAMINE OR ADDRESS THIS ITEM EXCEPT TO CONFIRM THAT A PART OF THE SUBJECT PROPERTY IS AFFECTED.

12 RIGHT OF WAY FOR LATERAL DITCH AS EXCEPTED IN DEED FROM JOSEPH PEARSON TO NELS NELSON, RECORDED APRIL 19, 1922 IN BOOK 116 AT PAGE 291. NV5, INC.: AFFECTS SUBJECT PROPERTY, DITCH LOCATION IS UNKNOWN AND IS NOT PLOTTED. THE BOUNDARY LINE IS DEPICTED HEREON.

13 TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN RESOLUTION OF COMMISSIONERS RECORDED AUGUST 21, 1957 IN BOOK 670 AT PAGE 517 AND MARCH 19, 1958 IN BOOK 702 AT PAGE 107. NV5, INC.: RE-ZONE RESOLUTION BY COMMISSIONERS, AFFECTS SUBJECT PROPERTY, NOT PLOTTED.

14 EASEMENT GRANTED TO PUBLIC SERVICE COMPANY OF COLORADO, FOR GAS PIPELINES, AND INCIDENTAL PURPOSES, BY INSTRUMENT RECORDED JULY 01, 1959, IN BOOK 786 AT PAGE 562. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

15 RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF TEJON STREET, RARITAN STREET AND PINKARD DRIVE, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED JUNE 15, 1970 IN BOOK 1605 AT PAGE 266. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

16 RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF A PORTION OF RARITAN STREET NORTH OF W. 56TH AVENUE, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED APRIL 28, 1971 IN BOOK 1689 AT PAGE 483, AND CORRECTION RECORDED JULY 14, 1971 IN BOOK 1714 AT PAGE 369. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

17 TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN DEVELOPMENT AGREEMENT RECORDED APRIL 16, 1974 IN BOOK 1924 AT PAGE 492. (AFFECTS PARCEL E). NV5, INC.: DEVELOPMENT AGREEMENT WHICH APPLIES TO PARCEL E, FELCH SUBDIVISION. CONTAINS NO PLOTTABLE ITEMS.

18 EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF FELCH SUBDIVISION RECORDED APRIL 16, 1974 UNDER RECEPTION NO. 37717. AFFIDAVIT OF CORRECTION RECORDED JULY 16, 1974 IN BOOK 1942 AT PAGE 492. (AFFECTS PARCEL E). NV5, INC.: APPLIES TO THE SUBJECT PROJECT, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

19 RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF A PORTION OF WEST 56TH PLACE AND RARITAN STREET, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED FEBRUARY 10, 1981 IN BOOK 2530 AT PAGE 336. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

20 EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF PRESTRESSED - CON SUBDIVISION RECORDED AUGUST 05, 1981 UNDER RECEPTION NO. 336911. (AFFECTS PARCEL D) NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

21 EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF PRESTRESSED - CON SUBDIVISION SECOND FILING RECORDED AUGUST 05, 1981 UNDER RECEPTION NO. 336912. (AFFECTS PARCEL A AND B) NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON. NOTE: THIS ACCESS EASEMENT WAS DEDICATED ON UNPLATTED LAND OUTSIDE OF THE SUBDIVISION.

22 TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN DEVELOPMENT AGREEMENT RECORDED AUGUST 18, 1981 IN BOOK 2579 AT PAGE 800. (AFFECTS PARCELS A, B AND D). NV5, INC.: APPLIES TO THE SUBJECT PROJECT, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

23 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN PRIVATE WAY LICENSE RECORDED SEPTEMBER 28, 1982 IN BOOK 2681 AT PAGE 765. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON. CONTAINS AN ABANDONMENT CLAUSE.

24 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN RIGHT OF WAY AGREEMENT RECORDED JUNE 19, 1984 IN BOOK 2885 AT PAGE 838. NV5, INC.: THE RIGHT OF WAY AGREEMENT IS DEPICTED HEREON. IT IS 60'X208.60' CENTERED ON TEJON STREET.

25 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN RIGHT OF WAY AGREEMENT RECORDED JUNE 19, 1984 IN BOOK 2885 AT PAGE 841. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON. CONTAINS THE SAME METES AND BOUNDS DESCRIPTION AS ITEM #19.

26 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN UTILITY EASEMENT FOR WATER LINE, SANITARY SEWER AND STORM SEWER RECORDED DECEMBER 10, 1987 IN BOOK 3397 AT PAGE 485. NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

27 NOTICE OF UNDERGROUND FACILITIES INFORMATION FILING PURSUANT TO SECTION 9-1.5 - 103 COLORADO REVISED STATUTES, 1973 AS AMENDED, BY THE NORTH PECOS WATER AND SANITATION DISTRICT AS OPERATOR OF UNDERGROUND WATER AND SANITATION FACILITIES, IN INSTRUMENT RECORDED MARCH 15, 1993 IN BOOK 4038 AT PAGE 101. NV5, INC.: APPLIES TO THE SUBJECT PROJECT, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

28 TERMS, PROVISIONS AND CONDITIONS OF RESERVATION OF ALL COAL, OIL, GAS, CASING HEAD GAS AND ALL ORES AND MINERALS OF EVERY KIND AND NATURE, AS RESERVED IN INSTRUMENT RECORDED DECEMBER 10, 1999, IN BOOK 5978 AT PAGE 846, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN. (AFFECTS PARCEL H) NV5, INC.: APPLIES TO THE SUBJECT PROJECT, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

29 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND RESERVED IN QUITCLAIM DEED FROM THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY TO ANT, LLC, DOING BUSINESS AS ANT PROPERTIES, LLC RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE 846. AND CORRECTION DEED RECORDED APRIL 17, 2002 UNDER RECEPTION NO. C0956732. (AFFECTS PARCEL H) NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON AS PARCEL H. RESERVES A 24' RAILROAD EASEMENT AND A 20' ROADWAY EASEMENT, ALSO SHOWN HEREON.

30 TERMS, PROVISIONS AND CONDITIONS OF RESERVATION OF ALL COAL, OIL, GAS, CASING-HEAD GAS AND ALL ORES AND MINERALS OF EVERY KIND AND NATURE INCLUDING SAND AND GRAVEL, AND OTHER MINERAL RIGHTS AS RESERVED IN INSTRUMENT RECORDED JULY 22, 2014, UNDER RECEPTION NO. 2014000048098, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN. (AFFECTS PARCEL I) NV5, INC.: AFFECTS SUBJECT PROPERTY, CONTAINS NO PLOTTABLE ITEMS.

31 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND RESERVED IN QUITCLAIM DEED FROM BNSF RAILWAY COMPANY TO ROCKY MOUNTAIN PRESTRESS, LLC RECORDED JULY 22, 2014 UNDER RECEPTION NO. 2014000048098. (AFFECTS PARCEL I). NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON AS PARCEL I. RESERVES A 20 FT. NON-EXCLUSIVE ROADWAY EASEMENT.

32 ANY BOUNDARY DISCREPANCY DUE TO THE LACK OF AN EXACT LEGAL DESCRIPTION FOR THAT PART OF THE FORMER COLORADO AND SOUTHERN RAILWAY COMPANY'S MAIN TRACK, AND RIGHT, TITLE OR INTEREST WHICH MAY BE CLAIMED BY SAID RAILROAD IF IT IS DETERMINED THERE IS A DISCREPANCY, AS DESCRIBED IN DEED FROM THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY RECORDED DECEMBER 10, 1999 UNDER RECEPTION NO. C0621161 AND CORRECTED BY DEED RECORDED APRIL 17, 2002 UNDER RECEPTION NO. C0956732 AND DEED FROM BNSF RAILWAY COMPANY, RECORDED JULY 22, 2014 UNDER RECEPTION NO. 2014000048098. (AFFECTS PARCELS H AND I) (ITEMS 8 THROUGH 30 AFFECT PARCELS A THROUGH I) NV5, INC.: APPLIES TO THE SUBJECT PROJECT. DURING THE FIELD SURVEY, NONE OF THE REFERENCED ORIGINAL RAILROAD TRACKS WERE FOUND. NV5 USED THE NORTHERN BOUNDARY OF LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING, COUNTY OF ADAMS, STATE OF COLORADO. RECEPTION NO. 2009000061475 AS BEING 50 FOOT SOUTH OF THE CENTERLINE OF THE COLORADO AND SOUTHERN RAILWAY COMPANY'S TRACKS. THE LEGAL DESCRIPTIONS ALSO CALLED FOR THE CENTERLINE OF PECOS STREET, WHICH WAS INTERPRETED TO MEAN THE EAST LINE OF THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN.

33 EASEMENT GRANTED TO PUBLIC SERVICE COMPANY OF COLORADO, FOR ELECTRIC TRANSMISSION LINES, AND INCIDENTAL PURPOSES, BY INSTRUMENT RECORDED JANUARY 28, 1955, IN BOOK 533 AT PAGE 570. (AFFECTS PARCEL M). NV5, INC.: ADJOINS PARCEL M ON THE NORTH BOUNDARY AND IS DEPICTED HEREON.

34 RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF A PORTION OF WEST 60TH PLACE, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED JULY 18, 1967 IN BOOK 1375 AT PAGE 351. (AFFECTS PARCEL M) NV5, INC.: AFFECTS SUBJECT PROPERTY AND IS DEPICTED HEREON.

35 NOTICE OF UNDERGROUND FACILITIES INFORMATION FILING PURSUANT TO SECTION 9-1.5 - 103 COLORADO REVISED STATUTES, 1973 AS AMENDED, BY THE NORTH PECOS WATER AND SANITATION DISTRICT AS OPERATOR OF UNDERGROUND WATER AND SANITATION FACILITIES, IN INSTRUMENT RECORDED MARCH 15, 1993 IN BOOK 4038 AT PAGE 101. (AFFECTS PARCELS J THROUGH M) NV5, INC.: APPLIES TO THE SUBJECT PROJECT, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

36 TERMS, PROVISIONS AND CONDITIONS OF RESERVATION OF ALL MINERALS AND ALL MINERAL RIGHTS OF EVERY KIND AND CHARACTER NOW KNOWN TO EXIST OR HEREAFTER DISCOVERED UNDERLYING THE PROPERTY, INCLUDING WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, OIL, AND GAS AND RIGHTS THERETO, AS RESERVED IN DEED RECORDED MAY 17, 2001 UNDER RECEPTION NO. C0801890. (AFFECTS PARCEL L AND PART OF PARCEL M) NV5, INC.: QUITCLAIM DEED BOOK 926 PAGE 571 AFFECTS PARCEL M AND IS SHOWN HEREON. QUITCLAIM DEED BOOK 1236 PAGE 380 AFFECTS PARCEL M AND IS SHOWN HEREON. QUITCLAIM DEED BOOK 1369 PAGE 341 IS THE SAME LEGAL DESCRIPTION AS PARCEL L AND IS SHOWN HEREON.

37 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN EASEMENT DEED RECORDED MAY 02, 2004 UNDER RECEPTION NO. 20040525000402230. (AFFECTS PARCEL L). NV5, INC.: EASEMENT DEED TO UNION PACIFIC RAILROAD COMPANY, AFFECTS PARCEL L AND IS DEPICTED HEREON.

38 THE EFFECT OF CERTIFICATION OF NOTICE TO MINERAL ESTATE OWNERS, RECORDED DECEMBER 20, 2012, UNDER RECEPTION NO. 2012000096676. (AFFECTS PARCEL M). NV5, INC.: AFFECTS PARCEL M, BUT IS NOT DEPICTED HEREON.

39 EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF PHELPS-TOINTON 60TH PLACE MINOR SUBDIVISION RECORDED MAY 07, 2013 UNDER RECEPTION NO. 2013000038822. (AFFECTS PARCEL M). NV5, INC: AFFECTS PARCEL M, EASEMENTS ARE SHOWN HEREON.

40 TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN RESOLUTION FOR ZONING HEARING DECISION - CASE PLT2012-00024 PHELPS TOINTON, INC. BY THE BOARD OF COUNTY COMMISSIONERS FOR ADAMS COUNTY RECORDED JUNE 04, 2013 UNDER RECEPTION NO. 2013000047739. (AFFECTS PARCEL M). NV5, INC: AFFECTS PARCEL M, HOWEVER CONTAINS NO PLOTTABLE ITEMS.

41 ANY BOUNDARY DISCREPANCY DUE TO THE LACK OF AN EXACT LEGAL DESCRIPTION FOR THAT PART OF THE UNION PACIFIC RAILROAD COMPANY'S (FORMERLY THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY) TRACK, AND RIGHT, TITLE OR INTEREST WHICH MAY BE CLAIMED BY SAID RAILROAD IF IT IS DETERMINED THERE IS A DISCREPANCY, AS DESCRIBED IN DEED RECORDED MAY 17, 2001 UNDER RECEPTION NO. C0801890. (AFFECTS PARCEL I). NV5, INC: THREE (3) QUITCLAIMS DEEDS, AFFECTS PARCEL L AND ARE DEPICTED HEREON. SEE EXCEPTION NO. 36.

DATE: _____ TIME: _____ SERVER: _____ LAYOUT: _____ PATH: _____ DRAWING NAME: _____ PAGE SETUP: _____ DESIGNER: _____ PROJ. MGR: _____	NO. BY DATE REVISIONS: <table><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td></tr></table>																													<div><div>NV5</div><div>5445 Mark Dabling, Suite 100 Colorado Springs, CO 80918 719.268.5800 TEL www.nv5.com</div></div>	<div>ALTA/NSPS LAND TITLE SURVEY</div> <div>1921 W. 56th Ave., 5700 Vallejo St., 1901 W. 56th Ave., 5751 Pecos St., 5801 Pecos St., 301 W. 60th Pl. City of Denver, Adams County, Colorado</div>	<div>SHEET NUMBER 2 OF 15 SHEETS SCALE HORIZONTAL: N/A</div> <div>JOB NUMBER 223518-0000060.00</div>
PREPARED FOR: Rocky Mountain Prestress		DATE SUBMITTED: September 25, 2018																														



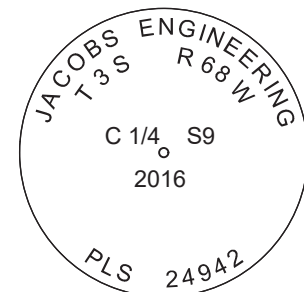
Closure Report, Southern Parcel:

Total Traverse Length = 7,330.16'  
Error in Closure = 0.00  
Closure is one part in = 3,416,333.36  
Error in North(Y) = 0.0021  
Error in East(X) = 0.0002  
Direction of Error = N 05°59'00.47" E  
Area = 2,390,115.25 square feet or 54.869 acres.

Closure Report, Parcel B:

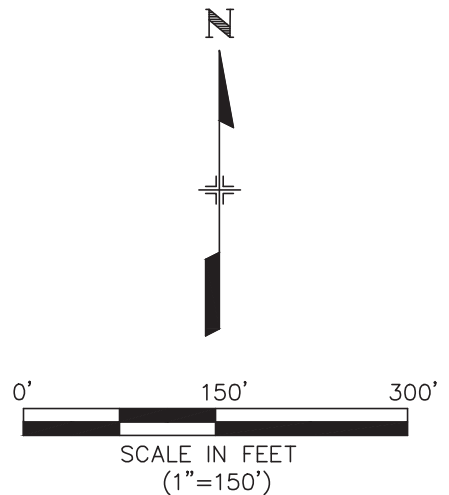
Total Traverse Length = 2,571.26'  
Error in Closure = 0.00  
Closure is one part in = 1,033,512.49  
Error in North(Y) = 0.0025  
Error in East(X) = 0.0001  
Direction of Error = N 01°11'03.93" E  
Area = 204,021.03 square feet or 4.684 acres.

C 1/4 S9 T3S R68W  
Found 2" aluminum cap.  
Agrees with Monument  
Record accepted  
March 31, 2017



LEGEND

Section Corner  
Found Property Corner (as noted)  
Set #5 rebar with green plastic cap stamped "NV5, INC. PLS 38278"



Schedule B, Part 1 Exceptions:

- (12) Warranty Deed  
RN 81514 Bk 116 Pg 291  
April 19, 1922  
{Exception 12}
- (14) PSCO Easement  
RN 586796 Bk 786 Pg 562  
July 1, 1959  
{Exception 14}
- (15) Utility Easement  
RN 893549 B 1605 P 266  
June 15, 1970  
(Vacated Tejon Street)  
{Exception 15}
- (16) Easement  
RN 920740 Bk 1689 Pg 483  
April 28, 1971  
{Exception 16}
- (19) Vacated by Resolution of  
Board of County Commissioners  
on February 9, 1981 as  
Recorded in Book 2530 Page  
336, Reception No. B0308693  
Adams County Records  
{Exception 19}
- (20) 10' Utilities Easement  
per plat RN B336911  
August 5, 1981  
{Exception 20}
- (21) 20' Access Easement  
Per plat RN B336912  
August 5, 1981  
{Exception 21}
- (23) 30' Private Way License  
RN 398698 Bk 2681 Pg 765  
Sept. 28, 1982  
{Exception 23}
- (24) 60' R.O.W. Agreement  
RN 510668 B2885 P838  
June 19, 1984  
{Exception 24}
- (25) Right-of-Way Agreement  
RN 510669 Bk 2885 Pg 841  
April 9, 1984  
{Exception 25}
- (26) Centerline Water, Sanitary &  
Storm Sewer Easement  
B 3397 P 485  
RN 786531 Dec. 10, 1987  
{Exception 26}
- (29) Quit Claim Deed, reserves a 24  
Ft. Railroad Easement and a  
20' Roadway Easement  
RN C0956732  
April 17, 2002  
(31) Quit Claim Deed, reserves a  
20' Roadway Easement  
RN 2014000048098  
July, 22, 2014  
{Exception 30}

Line Table		
Line #	Direction	Length
L1	S89° 48' 07"W	948.20'
L2	S0° 05' 03"E	10.00'
L3	S89° 48' 07"W	271.20'
L4	N0° 05' 00"W	10.00'
L5	S89° 48' 07"W	30.00'
L6	N0° 05' 00"W	273.00'
L7	N0° 05' 00"W	208.60'
L8	S89° 48' 07"W	60.00'
L9	S89° 48' 07"W	302.20'
L10	S0° 05' 00"E	143.60'
L11	S0° 05' 00"E	65.00'
L12	S0° 05' 00"E	68.00'
L13	S89° 48' 07"W	332.20'
L14	N0° 05' 00"W	90.62'
L15	N89° 48' 07"E	10.00'
L16	N0° 05' 00"W	314.38'
L17	N0° 01' 00"E	125.00'
L18	N0° 01' 00"E	268.38'
L19	S89° 51' 16"W	10.00'
L20	N0° 01' 00"E	517.61'
L21	S75° 02' 00"E	358.82'
L22	N0° 00' 00"E	103.51'
L23	S75° 02' 00"E	1187.02'
L24	S15° 01' 02"W	100.15'
L25	S0° 00' 00"E	742.71'
L26	S89° 48' 07"W	10.30'
L27	S0° 00' 00"W	267.86'

Adams County:

- (1) 10' Dedicated per plat  
RN B336912  
August 5, 1981
- (2) RN 2009000061475  
August 18, 2009
- (3) RN 2009000059721  
August 11, 2009
- (4) RN 2009000069014  
September 16, 2009
- (5) RN 2009000061475  
Aug. 18, 2009
- (6) 10' Dedicated per plat  
RN B336912  
August 5, 1981
- (7) Dedicated per plat RN  
B336911  
August 5, 1981

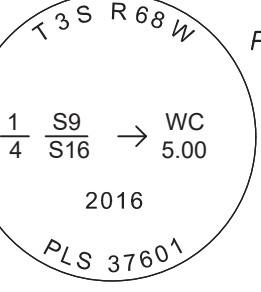
Other:

- (8) 40' Private Way License  
Bk 2681 Pg 768  
RN 398699  
Sept. 28, 1982
- (9) Found rebar with yellow  
cap stamped "BURDICK  
PE PLS 9010"  
ACCEPTED

Adjoining Properties:

- (A1) CSWM PROPERTIES LLC  
5671 Tejon Street  
Parcel #0182509310001
- (A2) CSWM PROPERTIES LLC  
Parcel #0182509300059
- (A3) CSWM PROPERTIES LLC  
2051 W 56th Ave.  
Parcel #0182509300060
- (A4) CSWM PROPERTIES LLC  
2055 W. 56th Ave.  
Parcel #0182509300014
- (A5) MANN PROPERTIES LTD  
2151 W. 56th Ave.  
Parcel #0182509309002

Curve Table					
Curve #	Radius	Delta	Length	Chord Bearing	Chord Length
C1	1,475.85'	11° 26' 33"	294.74'	S80° 45' 16"E	294.25'
C2	2,028.00'	3° 05' 57"	109.70'	S73° 29' 01"E	109.68'
C3	1,928.00'	2° 53' 37"	97.37'	S70° 19' 44"E	97.36'



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**N|V|5**  
5445 Mark Dabbling, Suite 100  
Colorado Springs, CO 80918  
719.268.5800 TEL  
www.nv5.com

ALTAN/NSPS LAND TITLE SURVEY, Site 1 of 2

1921 W. 56th Ave., 5700 Vallejo St., 1901 & 1921 W. 56th Ave., 5751 Pecos St., 5801 Pecos St.  
City of Denver, Adams County, Colorado

PREPARED FOR: Rocky Mountain Prestress

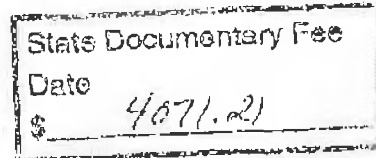
DATE SUBMITTED: September 25, 2018

SHEET NUMBER <b>3</b>
OF <b>15</b> SHEETS
SCALE HORIZONTAL: 1" = 50'
JOB NUMBER 223518-0000060.00



**E-RECORDED**

When recorded return to:  
Fox Rothschild LLP  
1225 17th Street, Suite 2200  
Denver, CO 80202  
Attn: Michael Friedman, Esq.



**SPECIAL WARRANTY DEED**  
[Statutory Form - C.R.S. § 38-30-115]

Rocky Mountain Prestress, LLC, a Colorado limited liability company ("Grantor"), whose street address is 5801 Pecos Street, Denver, CO 80221, for Ten and 00/100 Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby sells and conveys to Pecos Logistics Park, LLLP, a Colorado limited liability limited partnership, whose street address is 4221 Brighton Boulevard, Denver, CO 80216, the real property in the County of Adams and State of Colorado described on Exhibit A attached hereto and made a part hereof, with all its appurtenances, and warrants the title to the same against all persons claiming under Grantor, subject to the matters set forth on Exhibit B attached hereto and made a part hereof.

The street address for the foregoing property is: 5801 Pecos Street, Denver, CO 80221.

Signed as of this 27<sup>th</sup> day of November, 2018.

SIGNATURES ON FOLLOWING PAGES



70572630

**E-RECORDED**

When recorded return to:  
Fox Rothschild LLP  
1225 17th Street, Suite 2200  
Denver, CO 80202  
Attn: Michael Friedman, Esq.

State Documentary Fee	
Date	4071.21
\$	

**SPECIAL WARRANTY DEED**  
[Statutory Form - C.R.S. § 38-30-115]

Rocky Mountain Prestress, LLC, a Colorado limited liability company ("Grantor"), whose street address is 5801 Pecos Street, Denver, CO 80221, for Ten and 00/100 Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, hereby sells and conveys to Pecos Logistics Park, LLLP, a Colorado limited liability limited partnership, whose street address is 4221 Brighton Boulevard, Denver, CO 80216, the real property in the County of Adams and State of Colorado described on Exhibit A attached hereto and made a part hereof, with all its appurtenances, and warrants the title to the same against all persons claiming under Grantor, subject to the matters set forth on Exhibit B attached hereto and made a part hereof.

The street address for the foregoing property is: 5801 Pecos Street, Denver, CO 80221.

Signed as of this 27<sup>th</sup> day of November, 2018.

SIGNATURES ON FOLLOWING PAGES



70572630

Rocky Mountain Prestress, LLC,  
a Colorado limited liability company

By: [Signature]  
Name: V. David Holsteen  
Title: General Manager

By: [Signature]  
Name: Travis W. Gillmore  
Title: Manager

STATE OF COLORADO )  
 ) ss.  
CITY AND COUNTY OF DENVER )

The foregoing instrument was acknowledged before me this 19th day of November, 2018, by V. David Holsteen as General Manager of Rocky Mountain Prestress, LLC, a Colorado limited liability company.

Witness my hand and official seal.

My commission expires: 10/30/2021



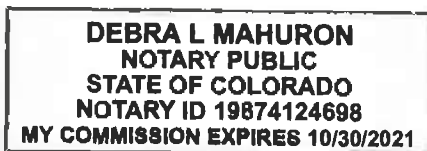
[Signature]  
Notary Public

STATE OF COLORADO )  
 ) ss.  
CITY AND COUNTY OF DENVER )

The foregoing instrument was acknowledged before me this 19th day of November, 2018, by Travis W. Gillmore as Manager of Rocky Mountain Prestress, LLC, a Colorado limited liability company.

Witness my hand and official seal.

My commission expires: 10/30/2021



[Signature]  
Notary Public

**EXHIBIT A  
TO  
SPECIAL WARRANTY DEED**

LEGAL DESCRIPTION  
(see attached)

PARCEL A:

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING, AS AMENDED BY PRESTRESSED-CON SUBDIVISION SECOND FILING - PLAT CORRECTION NO. 1, ACCORDING TO THE PLAT THEREOF RECORDED NOVEMBER 15, 2018 UNDER RECEPTION NO. 2018000092478, COUNTY OF ADAMS, STATE OF COLORADO, EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

PARCEL C:

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

PARCEL D:

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

PARCEL E:

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

PARCEL F:

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN  
DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

PARCEL G:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3  
SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE  
PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF  
SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT

PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS  
CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS  
"THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

**EXHIBIT B  
TO  
SPECIAL WARRANTY DEED**

**TITLE EXCEPTIONS**

1. TAXES FOR THE YEAR 2018, A LIEN NOT YET DUE AND PAYABLE.
2. WATER RIGHTS, CLAIMS OR TITLE TO WATER.
3. RIGHT OF THE PROPRIETOR OF A VEIN OR LODE TO EXTRACT AND REMOVE HIS ORE THEREFROM, SHOULD THE SAME BE FOUND TO PENETRATE OR INTERSECT THE PREMISES HEREBY GRANTED, AND A RIGHT OF WAY FOR DITCHES OR CANALS CONSTRUCTED BY THE AUTHORITY OF THE UNITED STATES, AS RESERVED IN UNITED STATES PATENT RECORDED AUGUST 21, 1897 IN BOOK A67 AT PAGE 272.
4. TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN RESOLUTION OF COMMISSIONERS RECORDED AUGUST 21, 1957 IN BOOK 670 AT PAGE 517 AND MARCH 19, 1958 IN BOOK 702 AT PAGE 107.
5. EASEMENT GRANTED TO PUBLIC SERVICE COMPANY OF COLORADO, FOR GAS PIPELINES, AND INCIDENTAL PURPOSES, BY INSTRUMENT RECORDED JULY 01, 1959, IN BOOK 786 AT PAGE 562.
6. RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF TEJON STREET, RARITAN STREET AND PINKARD DRIVE, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED JUNE 15, 1970 IN BOOK 1605 AT PAGE 266.
7. RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF A PORTION OF RARITAN STREET NORTH OF W. 56TH AVENUE, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED APRIL 28, 1971 IN BOOK 1689 AT PAGE 483 , AND CORRECTION RECORDED JULY 14, 1971 IN BOOK 1714 AT PAGE 369.
8. TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN DEVELOPMENT AGREEMENT RECORDED APRIL 16, 1974 IN BOOK 1924 AT PAGE 492.

9. EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF FELCH SUBDIVISION RECORDED APRIL 16, 1974 UNDER RECEPTION NO. 37717. AFFIDAVIT OF CORRECTION RECORDED JULY 16, 1974 IN BOOK 1942 AT PAGE 492.

10. RESERVATION OF RIGHTS-OF-WAY OR EASEMENTS FOR THE CONTINUED USE OF EXISTING SEWER, GAS, WATER OR SIMILAR PIPE LINES AND APPURTENANCES AND FOR ELECTRIC, TELEPHONE AND SIMILAR LINES AND APPURTENANCES WITHIN THE VACATED RIGHTS OF WAY OF A PORTION OF WEST 56TH PLACE AND RARITAN STREET, BY THE BOARD OF COUNTY COMMISSIONERS, COUNTY OF ADAMS, AS SET FORTH IN RESOLUTION RECORDED FEBRUARY 10, 1981 IN BOOK 2530 AT PAGE 336.

11. EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES ON THE PLAT OF PRESTRESSED - CON SUBDIVISION RECORDED AUGUST 05, 1981 UNDER RECEPTION NO. 336911.

12. TERMS, CONDITIONS, PROVISIONS, BURDENS AND OBLIGATIONS AS SET FORTH IN DEVELOPMENT AGREEMENT RECORDED AUGUST 18, 1981 IN BOOK 2579 AT PAGE 800.

13. TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN PRIVATE WAY LICENSE RECORDED SEPTEMBER 28, 1982 IN BOOK 2681 AT PAGE 765.

14. TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN RIGHT OF WAY AGREEMENT RECORDED JUNE 19, 1984 IN BOOK 2885 AT PAGE 841.

15. TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN UTILITY EASEMENT FOR WATER LINE, SANITARY SEWER AND STORM SEWER RECORDED DECEMBER 10, 1987 IN BOOK 3397 AT PAGE 485.



RECORDING REQUESTED BY AND  
WHEN RECORDED MAIL TO:

Rocky Mountain Prestress, LLC  
c/o David Rich, Esq.  
Minor and Brown  
650 South Cherry Street, Suite 1100  
Denver, Colorado 80246

*Doc Fee \$58.55*

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SPACE ABOVE THIS LINE FOR RECORDER'S USE

**BARGAIN AND SALE DEED**

*[RECORDED TO MEMORIALIZE A TRANSFER THAT OCCURRED ON JANUARY 2, 2006 IN  
CONSIDERATION FOR \$585,507.00, BUT WHICH WAS NOT DULY RECORDED]*

THIS BARGAIN AND SALE DEED is dated as of April 21, 2017, between PHELPS-TOINTON, INC., a Delaware corporation ("Grantor"), whose address is 801 8<sup>th</sup> Street, Suite 200, Greeley, Colorado 80631, and ROCKY MOUNTAIN PRESTRESS, LLC, a Colorado limited liability company ("Grantee"), whose address is 5801 Pecos Street, Denver, Colorado 80221.

WITNESSETH, that Grantor, for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, has granted, bargained, sold and conveyed, and by these presents does grant, bargain, sell, convey and confirm unto Grantee, its successors and assigns forever, all of the following described real property in the County of Adams, State of Colorado, together with all rights, privileges and easements appurtenant thereto and all improvements located thereon (collectively, the "Property"):

See Exhibit A attached hereto,

TOGETHER WITH all and singular the hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever, of Grantor, either in law or equity, of, in and to the Property, with the hereditaments and appurtenances, including without limitation any water rights and well permits.

TO HAVE AND TO HOLD the Property unto Grantee, its successors and assigns forever.

The foregoing conveyance is made without warranty of title but is intended to include any after-acquired title of Grantor in the Property.

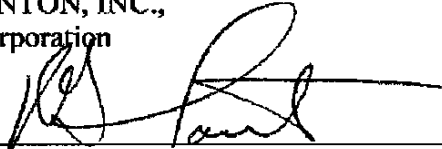
*[remainder of page intentionally blank]*

70523399



IN WITNESS WHEREOF, Grantor has executed this Bargain and Sale Deed as of the day  
and year first written above.

PHELPS-TOINTON, INC.,  
a Delaware corporation

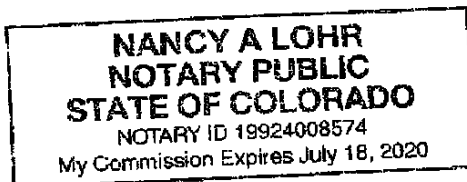
By:   
Name: Robert G. Tointon  
Title: President

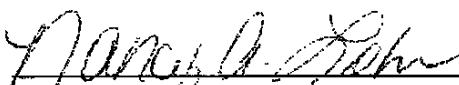
STATE OF COLORADO )  
[CITY AND] COUNTY OF Weld ) ss.

The foregoing instrument was acknowledged before me this 21<sup>st</sup> day of April, 2017, by  
Robert G. Tointon, as President of PHELPS-TOINTON, INC., a Delaware corporation.

Witness my hand and official seal.

My commission expires: 7-18-20



  
Notary Public

**EXHIBIT A  
TO  
BARGAIN AND SALE DEED  
LEGAL DESCRIPTION OF THE PROPERTY**

**PARCEL A:**

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING, COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL B:**

LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING, COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL C:**

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

**PARCEL D:**

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL E:**

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL F:**

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE  
SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION  
LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF  
DESCRIBED IN DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.

*Note: This legal description for Parcel F is the same as the legal description referenced in the  
Personal Representatives Deed recorded on August 8, 2000 at Reception No. C0698515 in Book  
6216 at Page 002-003, but with a correction to the scrivener's errors contained in such Deed that  
(i) incorrectly listed the Range as "RANGE 58 WEST", (ii) incorrectly stated the sixth call as  
"THENCE EAST 202.2 FEET" and (iii) incorrectly listed the last call as "THENCE WEST  
07.20 FEET TO THE TRUE POINT OF BEGINNING".*

**PARCEL G:**

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION  
9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS,  
STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE  
SOUTHWEST 1/4 OF SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION  
LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

*Note: This legal description for Parcel G is the same as the legal description referenced in the  
Personal Representatives Deed recorded on August 8, 2000 at Reception No. C0698515 in Book  
6216 at Page 002-003, but with a correction to the scrivener's errors contained in such Deed that  
incorrectly stated the first call as "THENCE EAST ALONG THE SOUTH SECTION LINE,  
187.20 FEET."*

**PARCEL H:**

A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

**PARCEL I:**

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND SANTA FE RAILROAD COMPANY TO ANT, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE 846, RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. 2009000069014, RECORDS OF ADAMS COUNTY.

**PARCEL J:**

A PARCEL OF LAND LOCATED IN THE SOUTH 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE POINT OF INTERSECTION OF THE SOUTH LINE OF THE NORTHWEST 1/4 OF SAID SECTION 10, AND THE EAST LINE OF HURON ST. WHICH POINT IS 20.0 FEET EAST OF THE WEST ONE-QUARTER CORNER OF SAID SECTION 10;  
THENCE NORTH, ALONG THE EAST LINE OF HURON ST. A DISTANCE OF 347.0 FEET;  
THENCE EAST, PARALLEL WITH THE NORTH LINE OF THE N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 487.09 FEET;  
THENCE NORTH, PARALLEL WITH THE EAST LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 313.0 FEET TO A POINT ON THE NORTH LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE EAST, ALONG THE NORTH LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 154.06 FEET TO THE NORTHEAST CORNER OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE SOUTH, ALONG THE EAST LINE OF SAID N1/2 SW1/4 SW1/4 NW1/4, A DISTANCE OF 330.0 FEET TO THE SOUTHEAST CORNER OF SAID N1/2 SW1/4 SW1/4 NW1/4;  
THENCE EAST, ALONG THE NORTH LINE OF SAID S1/2 S1/2 SW1/4 NW1/4 OF SAID SECTION 10, A DISTANCE OF 660.3 FEET TO THE NORTHEAST CORNER OF SAID S1/2 S1/2 SW1/4 NW1/4;  
THENCE SOUTH, ALONG THE EAST LINE OF SAID S1/2 S1/2 SW1/4 NW1/4, A DISTANCE OF 255.62 FEET TO A POINT ON THE NORTHWESTERLY RIGHT-OF-WAY LINE OF THE DENVER & RIO GRANDE WESTERN RAILROAD COMPANY;  
THENCE SOUTH 58°58' WEST ALONG SAID NORTHWESTERLY RIGHT-OF-WAY LINE, A DISTANCE OF 144.17 FEET TO A POINT ON THE SOUTH LINE OF THE SW1/4 NW1/4 OF SAID SECTION 10;  
THENCE WEST, ALONG THE SOUTH LINE OF THE SW1/4 NW1/4 OF SAID SECTION 10, A DISTANCE OF 1199.55 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

EXCEPT THAT PART DESCRIBED IN DEED RECORDED MAY 25, 2004 UNDER RECEPTION NO. 20040525000402220.

**PARCEL K:**

THE SOUTH ONE-HALF (S1/2) OF THE NORTH ONE-HALF (N1/2) OF THE SOUTHEAST ONE-QUARTER (SE1/4) OF THE SOUTHWEST ONE-QUARTER (SW1/4) OF THE NORTHWEST ONE-QUARTER (NW1/4) OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL L:**

A TRACT OR PARCEL OF LAND WITHIN THE SOUTHEAST 1/4 OF THE NORTHWEST ONE-QUARTER OF SECTION 10, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE WEST LINE OF SAID SE1/4 NW1/4 LOCATED 74.33 FEET NORTH FROM THE SW CORNER THEREOF;  
THENCE NORTH ALONG SAID WEST LINE 209.92 FEET;  
THENCE EAST 30 FEET, MORE OR LESS TO A POINT 10 FEET EASTERLY AT RIGHT ANGLES FROM THE CENTERLINE OF THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY'S I.C.C. TRACK NO. 31C;  
THENCE SOUTHERLY PARALLEL WITH SAID TRACK 200 FEET, MORE OR LESS, TO A POINT IN SAID RAILROAD COMPANY'S NORTHERLY RIGHT-OF-WAY LINE;  
THENCE SOUTHWESTERLY ALONG SAID RIGHT-OF-WAY LINE 23 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

**PARCEL M:**

LOT 1, BLOCK 1, PHELPS-TOINTON 60TH PLACE MINOR SUBDIVISION, COUNTY OF ADAMS, STATE OF COLORADO.

**WHEN RECORDED MAIL TO:**

Rocky Mountain Prestress, LLC  
Bruce Anderson  
1050 17<sup>th</sup> St., Ste. 1700  
Denver, CO 80265

---

**QUITCLAIM DEED**

**THIS DEED**, Made this 3<sup>rd</sup> day of JUNE, 2014, between **BNSF RAILWAY COMPANY**, a Delaware corporation, (formerly known as The Burlington Northern and Santa Fe Railway Company and formerly known as Burlington Northern Railroad Company), of 2500 Lou Menk Drive, Fort Worth, Texas 76131-2830, hereinafter called "Grantor", and **ROCKY MOUNTAIN PRESTRESS, LLC**, a Colorado limited liability company of 1050 17<sup>th</sup> St., Ste. 1700, Denver, Colorado 80265, hereinafter called "Grantee".

**WITNESSETH:** That the said Grantor, for Ten and No/100 Dollars (\$10.00) and other good and valuable consideration, to the said Grantor in hand paid by the said Grantee, the receipt whereof is hereby confessed and acknowledged, hath remised, released, sold, conveyed and quitclaimed, and by these presents doth remise, release, sell, convey and quitclaim, without any covenants of warranty whatsoever and without recourse to the Grantor, its successors and assigns, unto the said Grantee, its successors and assigns, forever, all the right, title, interest, claim and demand, if any, which the said Grantor hath in and to the following described property (exclusive of any improvements thereon), subject, however, to all existing interests, including but not limited to all reservations, rights-of-way and easements of record or otherwise, located in Adams County, Colorado, hereinafter called "Property", being more particularly described on **EXHIBIT "A"** attached hereto and by this reference made a part hereof.

Grantee covenants and agrees as follows:

(a) Grantee's interest shall be subject to the rights and interests of Grantor, Grantor's licensees, permittees and other third parties in and to all existing driveways, roads, utilities, fiber optic lines, tracks, wires and easements of any kind whatsoever on the Property whether owned, operated, used or maintained by the Grantor, Grantor's licensees, permittees or other third parties and whether or not of public record. Grantor



does hereby reserve a perpetual easement on the Property for the use of such existing driveways, roads, utilities, fiber optic lines, tracks, wires and easements by Grantor and Grantor's licensees, permittees and customers. Also, Grantor does hereby reserve a non-exclusive easement for the construction, maintenance and operation of one or more pipelines or fiber optic lines and any and all communications facilities as may be located in the future on the Property within 60 feet of the center line of any Main Track on or adjacent to the Property and as may be presently located on the Property.

(b) Grantee's interest shall further be subject to, and Grantor does hereby specifically reserve, all coal, oil, gas, casing-head gas and all ores and minerals of every kind and nature including sand and gravel underlying the surface of the Property, together with the full right, privilege and license at any and all times to explore, or drill for and to protect, conserve, mine, take, remove and market any and all such products in any manner which will not damage structures on the surface of the Property, together with the right of access at all times to exercise said rights.

(c) Any improvements constructed or altered on the Property after the date Grantor quitclaims its interest to Grantee shall be constructed or altered in such a manner to provide adequate drainage of water away from any of Grantor's railroad tracks on nearby property.

(d) **GRANTOR RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, IN PERPETUITY, ANY AND ALL NON-RIPARIAN WATER AND WATER RIGHTS ASSOCIATED WITH THE PROPERTY, INCLUDING BUT NOT LIMITED TO, ANY AND ALL DITCHES AND DITCH RIGHTS, WATER WELLS, SPRINGS, DIVERSION WORKS, WATER LINES, PIPES, PUMPS, MOTORS, GENERATORS, ELECTRICAL GEAR AND WIRES, AND ANY RELATED EQUIPMENT AND IMPROVEMENTS WHATSOEVER, HISTORICALLY USED UPON OR ASSOCIATED WITH THE PROPERTY, INCLUDING ALL MUTUAL WATER COMPANY SHARES, DITCH SHARES, WATER SERVICE AGREEMENTS AND CONTRACTS, AND WATER CLAIMS, AND INCLUDING BUT NOT LIMITED TO, ALL UNAPPROPRIATED, UNDEVELOPED OR UNUSED WATER AND WATER RIGHTS ASSOCIATED WITH OR UNDERLYING THE PROPERTY, AND THE EXCLUSIVE RIGHT TO DEVELOP AND TAKE WATER FROM THE PROPERTY BY ANY MEANS, AND INCLUDING ALL APPROPRIATIONS, PRIORITIES, PERMITS AND CERTIFICATES WHICH ARE APPURTENANT TO, ASSOCIATED WITH, USED UPON, FLOWING OVER, UNDER, OR LYING ON, IN, OR UNDER THE PROPERTY, TOGETHER WITH THE PERPETUAL RIGHT TO CONSTRUCT, INSTALL, OPERATE, REPLACE, REWORK, RECONSTRUCT, REHABILITATE AND MAINTAIN ANY AND ALL WATER DIVERSION, PRODUCTION, AND TRANSPORTATION STRUCTURES, EQUIPMENT, IMPROVEMENTS AND PIPING, INCLUDING BUT NOT LIMITED TO, HEADGATES, DIVERSION STRUCTURES, WATER WELLS, WATER WELL HOUSES, WATER WELL CASING, WATER WELL SCREENS, SPRING**

**COLLECTION GALLERIES, SUMPS, WATER PIPES, AND RELATED ELECTRICAL GEAR AND WIRES, AND TO CONSTRUCT, INSTALL, OPERATE AND MAINTAIN WATER PUMPS AND HYDROELECTRIC GENERATION EQUIPMENT AND ALL EQUIPMENT NECESSARY, CONVENIENT OR RELATED TO THE PRODUCTION, TRANSPORTATION OR DELIVERY OF WATER FROM, ON, UNDER OR ACROSS THE PROPERTY, OR ANY PORTION THEREOF.**

(e) **RESERVING**, however, unto said Grantor, its successors and assigns, and any designees, a 20 foot wide non-exclusive roadway easement upon, over and across the Southerly 20 feet of the hereinbelow described Property, for the construction, maintenance and use of a roadway thereon for ingress and egress by the Grantor, its successors and assigns, and any designees, together with the Grantee, to and from adjacent property of the Grantor. To have and to hold said easement for so long as same shall be used for roadway purposes and until said Grantor, its successors or assigns, shall cease use for roadway purposes with the intent to abandon said easement.

(f) Grantee has been allowed to make an inspection of the Property. **GRANTEE IS PURCHASING THE PROPERTY ON AN "AS-IS WITH ALL FAULTS" BASIS WITH ANY AND ALL PATENT AND LATENT DEFECTS, INCLUDING THOSE RELATING TO THE ENVIRONMENTAL CONDITION OF THE PROPERTY, AND IS NOT RELYING ON ANY REPRESENTATION OR WARRANTIES, EXPRESS OR IMPLIED, OF ANY KIND WHATSOEVER FROM GRANTOR AS TO ANY MATTERS CONCERNING THE PROPERTY**, including, but not limited to the physical condition of the Property; zoning status; tax consequences of this transaction; utilities; operating history or projections or valuation; compliance by the Property with Environmental Laws (defined below) or other laws, statutes, ordinances, decrees, regulations and other requirements applicable to the Property; the presence of any Hazardous Substances (defined below), wetlands, asbestos, lead, lead-based paint or other lead containing structures, urea formaldehyde, or other environmentally sensitive building materials in, on, under, or in proximity to the Property; the condition or existence of any of the above ground or underground structures or improvements, including tanks and transformers in, on or under the Property; the condition of title to the Property, and the leases, easements, permits, orders, licenses, or other agreements, affecting the Property (collectively, the **"Condition of the Property"**). Grantee represents and warrants to Grantor that Grantee has not relied and will not rely on, and Grantor is not liable for or bound by, any warranties, guaranties, statements, representations or information pertaining to the Property or relating thereto (including specifically, without limitation, Property information packages distributed with respect to the Property) made or furnished by Grantor, the manager of the Property, or any real estate broker or agent representing or purporting to represent Grantor, to whomever made or given, directly or indirectly, orally or in writing. Grantee assumes the risk that Hazardous Substances or other adverse matters may affect the Property that were not revealed by Grantee's

inspection and indemnifies, holds harmless and hereby waives, releases and discharges forever Grantor and Grantor's officers, directors, shareholders, employees and agents (collectively, "**Indemnitees**") from any and all present or future claims or demands, and any and all damages, Losses, injuries, liabilities, causes of actions (including, without limitation, causes of action in tort or asserting a constitutional claim) costs and expenses (including, without limitation fines, penalties and judgments, and attorneys' fees) of any and every kind or character, known or unknown, arising from or in any way related to the Condition of the Property or alleged presence, use, storage, generation, manufacture, transport, release, leak, spill, disposal or other handling of any Hazardous Substances in, on or under the Property. Losses shall include without limitation (a) the cost of any investigation, removal, remedial, restoration or other response action that is required by any Environmental Law, that is required by judicial order or by order of or agreement with any governmental authority, or that is necessary or otherwise is reasonable under the circumstances, (b) capital expenditures necessary to cause the Grantor remaining property or the operations or business of the Grantor on its remaining property to be in compliance with the requirements of any Environmental Law, (c) Losses for or related to injury or death of any person, (d) Losses for or related to injury or damage to animal or plant life, natural resources or the environment, and (e) Losses arising under any Environmental Law enacted after transfer. The rights of Grantor under this section shall be in addition to and not in lieu of any other rights or remedies to which it may be entitled under this document or otherwise. This indemnity specifically includes the obligation of Grantee to remove, close, remediate, reimburse or take other actions requested or required by any governmental agency concerning any Hazardous Substances on the Property. The term "**Environmental Law**" means any federal, state or local statute, regulation, code, rule, ordinance, order, judgment, decree, injunction or common law relating in any way to human health, occupational safety, natural resources, plant or animal life or the environment, including without limitation, principles of common law and equity, the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation and Liability Act, the Toxic Substances Control Act, and any similar or comparable state or local law. The term "**Hazardous Substance**" means any hazardous, toxic, radioactive or infectious substance, material or waste as defined, listed or regulated under any Environmental Law, and includes without limitation petroleum oil and any of its fractions.

The covenants and agreements set forth in paragraphs (a) through (f), above, shall be binding upon Grantee and its heirs, successors and assigns, and shall be covenants running with the land benefiting Grantor and its heirs, successors and assigns.

**TO HAVE AND TO HOLD** the Property unto the said Grantee, its successors and assigns, forever.

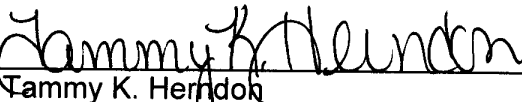
**IN WITNESS WHEREOF**, the said Grantor has caused this instrument to be signed by its authorized representative, attested by its Assistant Secretary, and its corporate seal to be affixed hereto on the day and year first above written.

**BNSF RAILWAY COMPANY,**  
a Delaware corporation

By:   
Kurt Geringer  
Its: General Director Real Estate



**ATTEST:**

By:   
Tammy K. Herndon  
Its: Assistant Secretary

STATE OF TEXAS       §  
                                  § ss.  
COUNTY OF TARRANT §

The foregoing instrument was acknowledged before me this 3<sup>rd</sup> day of JUNE, 2014, by Kurt Geringer as General Director Real Estate, and Tammy K. Herndon as Assistant Secretary of **BNSF RAILWAY COMPANY**, a Delaware corporation.

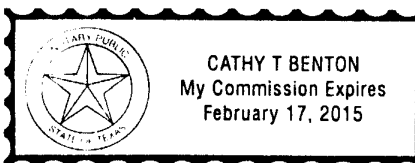
**WITNESS** my hand and official seal.

Cathy T. Benton  
Notary Public

My Commission Expires Feb, 17, 2015

**This Instrument Prepared by:**

BNSF Railway Company  
LAW Department  
2500 Lou Menk Drive, AOB 3  
Fort Worth, Texas 76131-2830



**FORM APPROVED BY LAW**

APPROVED DESCRIPTION	<u>KRA</u>
APPROVED FORM	<u>CB</u>
APPROVED	<u>[Signature]</u>

**EXHIBIT "A"**

**LEGAL DESCRIPTION**

A parcel of land in the County of Adams, State of Colorado, lying in SW¼ of Section 9, Township 3 South, Range 68 West, Sixth Principal Meridian, being that portion of that certain 12 acre tract of land described in deed dated August 15, 1870 to The Colorado Central Railroad Company, recorded August 15, 1870 in Book 28, page 266, records of Arapahoe County, bounded Westerly by the Easterly boundary of that certain parcel of land described in deed dated February 24, 1998 from The Burlington Northern and Santa Fe Railway Company to ANT, LLC, recorded December 10, 1999 in Book 5978, Page 846, records of Adams county, and bounded Easterly by the Westerly boundary of that certain 0.215 acre parcel of land described in deed dated September 11, 2009 from BNSF Railway Company to Adams County, Colorado, recorded September 16, 2009 as Reception Number 2009000069014, records of Adams county.

TD Pgs: 2 Stan Martin, Adams County, CO.

Rocky Mountain Prestress, LLC, a Colorado limited liability company  
5801 Pecos St.  
Denver, CO 80221

**SPECIAL WARRANTY DEED**

(2)

THIS DEED, Made on September 18, 2018 between

The County of Adams, State of Colorado, a Body Politic

of the County of Adams, State of Colorado, grantor(s), and

Rocky Mountain Prestress, LLC, a Colorado limited liability company

whose legal address is 5801 Pecos St., Denver, CO 80221

of the County of Adams and State of Colorado, grantee(s):

**WITNESSETH**, That the grantor(s) for and in consideration of the sum of Three Hundred Thirty Thousand And No/100 DOLLARS (\$330,000.00), the receipt and sufficiency of which are hereby acknowledged, has granted, bargained, sold and conveyed and by these presents does grant, bargain, sell, convey and confirm, unto the grantee(s), their heirs and assigns forever, all the real property, together with improvements, if any, situate, lying and being in the County of Adams, State of Colorado, described as follows:

LEGAL DESCRIPTION ATTACHED HERETO AS EXHIBIT "A" AND MADE A PART HEREOF

also known by street and number 5855 Pecos Street, Denver, CO 80221  
as:

**TOGETHER** with all and singular the hereditaments and appurtenances thereto belonging, or in anywise appertaining and the reversion and reversions, remainder and remainders, rents, issues and profits thereof; and all the estate, right, title, interest, claim and demand whatsoever of the grantor, either in law or equity, of, in and to the above bargained premises, with the hereditaments and appurtenances.

**TO HAVE AND TO HOLD** the said premises above bargained and described with the appurtenances, unto the grantee(s), their heirs and assigns forever. And the grantor(s), for themselves, their heirs, and personal representatives or successors, do covenant and agree that they shall and will WARRANT AND FOREVER DEFEND the above bargained premises in the quiet and peaceable possession of the grantee(s), their heirs and assigns, against all and every person or person claiming the whole or any part thereof, by, through or under the grantor(s), except:

for general taxes and assessments for the year 2018 and subsequent years; and subject to those items as set forth on Exhibit "B" attached hereto and made a part hereof.

Wherever used herein, the plural references shall be construed to be singular references and singular references shall be construed to be plural references where the context requires and all references of gender and person shall be construed to refer to the grantor or grantors identified herein regardless of the context.

**IN WITNESS WHEREOF**, The grantor(s) has executed this deed on the date set forth above.

The County of Adams, State of Colorado, a Body Politic

BY: [Signature]  
NAME: Charles "Chad" Tedesco  
TITLE: Vice Chair

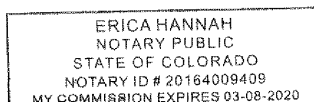
State of Colorado  
County of Adams

On September 18, 2018 before me, the undersigned a Notary Public in and for said County and State, personally appeared Charles "Chad" Tedesco as Vice Chair of The County of Adams, State of Colorado, a Body Politic personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature: [Signature]  
Notary Public

My Commission expires: March 8, 2020



Name and Address of Person Creating Newly Created Legal Description (38-35-106.5, C.R.S.)



35100-18-10142

APPROVED AS TO FORM  
COUNTY ATTORNEY

[Signature]

**EXHIBIT A**

A TRACT OF LAND NO. 6A-R(1), BEING A PORTION OF PROPERTY DESCRIBED IN THE RECORDS OF THE ADAMS COUNTY CLERK AND RECORDER IN BOOK 16 AT PAGE 514, LOCATED IN THE SW 1/4 SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT WHENCE THE CENTER QUARTER CORNER OF SAID SECTION 9 BEARS N 02°58'29" E, A DISTANCE OF 924.33 FEET, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE S 00°55'39" E, A DISTANCE OF 297.64 FEET TO A POINT ON THE NORTHERLY LINE OF LOT 1, BLOCK 2, PRESTRESSED-CON SUBDIVISION, SECOND FILING;
2. THENCE ALONG SAID PROPERTY LINE N 74°58'42" W, A DISTANCE OF 646.21 FEET;
3. THENCE N 02°26'59" E, A DISTANCE OF 86.25 FEET;
4. THENCE N 85°55'00" E, A DISTANCE OF 617.91 FEET, TO THE TRUE POINT OF BEGINNING.

BASIS OF BEARINGS: BEARINGS ARE BASED ON THE EAST LINE OF THE SW 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, BEING NORTH 00°03'19" EAST. THE CENTER QUARTER CORNER OF SAID SECTION IS A 3 1/4" ALUMINUM CAP (STAMPED LS 16401) IN A RANGE BOX. THE SOUTH QUARTER CORNER OF SAID SECTION IS MONUMENTED BY A WITNESS CORNER, OFFSET 5.00 FEET TO THE WEST ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION, BEING A 2 1/2" ALUMINUM CAP (STAMPED PLS 11372) IN A RANGE BOX.

LEGAL DESCRIPTION PREPARED BY:  
MICHAEL L. BOIUCHARD, PLS#24941  
FOR AND ON BEHALF OF  
FARNSWORTH GROUP, INC.  
4755 FORGE ROAD, SUITE 150  
COLORADO SPRINGS, CO 80907



## **EXHIBIT B**

### Exceptions

1. Right of way for ditches or canals constructed by the authority of the United states as reserved in Untied States Patent recorded August 21, 1897 in Book 771 at Page 360, City and County of Denver records.
2. Right of way for ditches or canals constructed by the authority of the United states as reserved in Untied States Patent recorded August 21, 1897 in Book A67 at Page 272.
3. The right of the proprietor of a vein or lode to extract or remove his ore, should the same be found to penetrate or intersect the premises thereby granted and rights of way for ditches and canals as reserved in the United States Patent recorded August 21, 1897 in Book A67 at Page 272, and any and all assignments thereof or interests therein.
4. Reservations as contained in Deed recorded June 30, 1955 in Book 556 at Page 284.
5. Terms, conditions, provisions, agreements and obligations specified under the Order of the Organization of North Pecos Water and Sanitation District recorded January 7, 1974 in Book 1907 at Page 665.
6. Terms, conditions, provisions, agreements and obligations specified under the Resolution recorded January 25, 1974 in Book 1910 at Page 805.
7. Terms, conditions, provisions, agreements and obligations specified under the Private Way License recorded September 28, 1982 in Book 2681 at Page 768.
8. The effect of the inclusion of the subject property in the Order for Inclusion of Hyland Hills Park and Recreation District, as disclosed by the instrument recorded August 23, 1998 in Book 3712 at Page 402.
- 9 Terms, conditions, provisions, agreements and obligations specified under the Underground Facilities Information recorded March 15, 1993 in Book 4038 at Page 101.
10. Terms, conditions, provisions, agreements and obligations specified under the Resolution Accepting Deed from Southern Pacific Transportation Company for the Dedication of Street Right of Way recorded March 13, 1995 in Book 4479 at Page 984.
11. Reservations as contained in QuitClaim Deed recorded August 11, 2009 at Reception No. 2009000059721.
12. Reservations as contained in QuitClaim Deed recorded August 11, 2009 at Reception No. 2009000059722.

Recorded at \_\_\_\_\_ o'clock \_\_\_\_\_ M., \_\_\_\_\_  
Reception No. : \_\_\_\_\_ Recorder

**WHEN RECORDED MAIL TO:**

Larry M. LaFollette  
Rocky Mountain Prestress, Inc.  
5801 Pecos Street  
Denver, Colorado 80221

**C0961556**  
4/29/2002 10:09:28  
PG: 0001-004  
20.00 DOC FEE: 0.00  
CAROL SNYDER  
ADAMS COUNTY

4

**QUITCLAIM DEED**

**THIS DEED**, Made this 10th day of December, 1999, between **ANT, LLC**, a Delaware limited liability company, doing business in the State of Colorado as **ANT PROPERTIES, LLC**, whose address is 201 Mission Street, 2<sup>nd</sup> Floor, San Francisco, California 94105, ("Grantor") and **ROCKY MOUNTAIN PRESTRESS, INC.**, a Delaware corporation, whose address is 5801 Pecos Street, Denver, Colorado 80221, ("Grantee").

**WITNESS**, that the Grantor, for and in consideration of Ten and No/100 Dollars (\$10.00), and other good and valuable consideration, to the said Grantor in hand paid by the said Grantee, the receipt whereof is hereby confessed and acknowledged, hath remised, released, sold, conveyed and quitclaimed, and by these presents doth remise, release, sell, convey and quitclaim, without any covenants of warranty whatsoever and without recourse to the Grantor, its successors and assigns, unto the said Grantee, its successors and assignees, forever, all the right, title, interest, claim and demand, if any, which the said Grantor hath in real estate and improvements Property located in Adams County, Colorado, as such real property ("Premises") is more particularly described in Exhibit "A", consisting of one (1) page (s), attached hereto and made a part hereof.

**SUBJECT**, however, to all valid existing interests, including but not limited to, reservations, rights of way and other encumbrances of record or otherwise.

**TO HAVE AND TO HOLD** the same unto Grantee, and its successors and assignees, forever.

IN WITNESS WHEREOF, the said Grantor has caused this instrument to be signed by its authorized representative, attested by its Assistant Secretary, on the day and year first above written.

**ANT, LLC, a Delaware limited liability company, doing business in the State of Colorado as ANT PROPERTIES, LLC**

By: The South Portal Company, a Delaware corporation, its sole member

By: James A. Ball  
James A. Ball  
Director

ATTEST:

By: Sydney Freeman  
Sydney Freeman  
Assistant Secretary

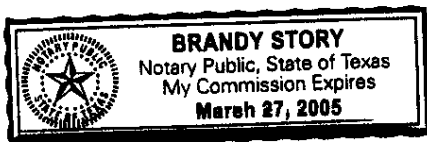
STATE OF TEXAS

§  
§ ss.  
§

COUNTY OF DALLAS

The foregoing instrument was acknowledged before me this 12<sup>th</sup> day of April, 2002, by James A. Ball, as Director, and Sydney Freeman as Assistant Secretary of ANT, LLC, a Delaware limited liability company doing business in the State of Colorado as ANT Properties, LLC, by The South Portal Company, a Delaware corporation, its sole member.

WITNESS my hand and official seal.



Brandy Story  
Notary Public

My Commission Expires: 3/27/05

## **EXHIBIT "A"**

### **Parcel # 0162**

All that portion of The Burlington Northern and Santa Fe Railway Company's (formerly Colorado and Southern Railway Company) 100.0 foot wide Branch Line right of way, being 50.0 feet wide on each side of said Railway Company's Main Track centerline, as originally located and constructed upon, over, and across those lands conveyed to said Railway Company by Deed Recorded August 15, 1870 in Book 28 at Page 266, Records of Arapahoe County, Colorado and situated in the SW¼ of Section 9, Township 3 South, Range 68 West of the Sixth Principal Meridian, Adams County, Colorado bounded on the Easterly side by a line drawn at right angles to said Main Track centerline distant 545.0 feet Westerly of the centerline of Pecos Street, as measured along a line drawn parallel with and distant 50.0 Southerly of, as measured at right angles from said Main Track centerline, and bounded on the Westerly side by a line drawn parallel with the East line of said SW¼ of Section 9 and distant 1,405.0 feet Westerly of said centerline of Pecos Street, as measured along said line drawn parallel with and distant 50.0 feet Southerly of, as measured at right angles from said Main Track centerline.

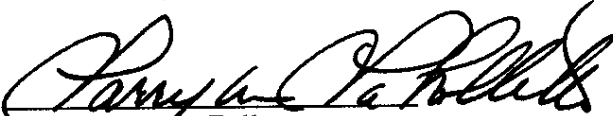
#### **APPROVED AS TO FORM**

APPROVED LEGAL	SP
APPROVED FORM	SE
APPROVED	SP

ACCEPTED BY:

**ROCKY MOUNTAIN PRESTRESS, INC.**

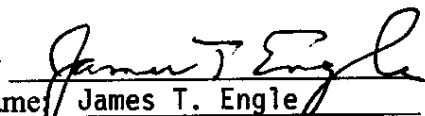
a Delaware corporation

By 

Name: Larry M. LaFollette

Title: President

ATTEST:

By 

Name: James T. Engle

Title: Vice President

STATE OF COLORADO

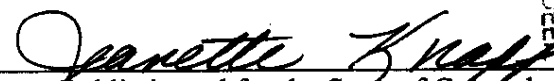
§  
§ ss.  
§

COUNTY OF ADAMS

I, the undersigned, a Notary Public in and for said County and State, do hereby certify that Larry M. LaFollette, President and James T. Engle, Vice President of **ROCKY MOUNTAIN PRESTRESS, INC.**, a Delaware corporation, personally known to me to be the same persons whose names are subscribed to the foregoing instrument, and to me personally known to be respectively the President and Vice President of said corporation, appeared before me this day in person and severally acknowledged that they signed, sealed and accepted said instrument as their free and voluntary act, and as the free and voluntary act of said corporation, being thereunto duly authorized for the uses and purposes therein set forth.

Given under my hand and seal this 24th day of April, 2002.



  
Notary Public in and for the State of Colorado  
My commission expires: 11/23/04

My Commission Expires 11-23-04

Parcel # 162, Denver, CO.

**RECORDING REQUESTED BY AND  
WHEN RECORDED, RETURN TO:**

Rocky Mountain Prestress, LLC  
5801 N. Pecos Street  
Denver, Colorado 80221

State Documentary Fee
Date 2/28/2019
\$ 40.71

(Space Above for Recorder's Use Only)

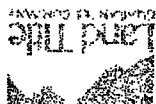
2312-77

**QUITCLAIM DEED**

**UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation ("Grantor"), in consideration of the sum of Ten Dollars (\$10.00), and other valuable consideration to it duly paid, the receipt whereof is hereby acknowledged, does hereby REMISE, RELEASE, SELL and forever QUITCLAIM unto **ROCKY MOUNTAIN PRESTRESS, LLC**, a Colorado limited liability company ("Grantee"), whose address is 5801 N. Pecos Street, Denver, Colorado 80221, and unto its successors and assigns forever, all of Grantor's right, title, interest, estate, claim and demand, both at law and in equity, of, in, and to the real estate ("Property") situated in Adams County, State of Colorado, as more particularly described in **Exhibit A**, attached hereto and made a part hereof, together with all after-acquired title of Grantor therein.

EXCEPTING from this quitclaim and RESERVING unto Grantor, its successors and assigns, forever, all minerals and all mineral rights of every kind and character now known to exist or hereafter discovered underlying the Property, including without limiting the generality of the foregoing, oil and gas and rights thereto, together with the sole, exclusive and perpetual right to explore for, remove and dispose of said minerals by any means or methods suitable to Grantor, its successors and assigns, but without entering upon or using the surface of the Property, and in such manner as not to damage the surface of the Property, or to interfere with the use thereof by Grantee, its successors and assigns.

It is expressly understood that the subjacent support of the Property may have been impaired by mining operations heretofore carried on beneath the surface thereof, and the quitclaiming of the Property is upon the condition that Grantor, its successors and assigns, shall not be liable for damages resulting therefrom.



70606952

The Property is quitclaimed by Grantor subject to the following covenants, conditions and restrictions, which Grantee, by the acceptance of this Quitclaim Deed, covenants for itself, its successors and assigns, faithfully to keep, observe and perform:

(a) Railroad Proximity.

(i) Grantee acknowledges that the property abutting the Westerly boundary line of the Property is dedicated and used for railroad purposes, that railroad operations may create noise, vibrations, emissions, fumes and odors twenty-four (24) hours a day, and that the amount, nature and intensity of railroad operations may increase or change (collectively, the "Permitted Effects"). Grantee accepts the Property subject to the existence of the Permitted Effects. By acceptance of the Property, Grantee agrees that, at Grantee's sole cost and expense, as part of the development of the Property, Grantee shall design and install and/or construct and thereafter maintain improvements to reduce or limit the Permitted Effects and to comply with all governmental requirements, if any, which may be imposed as a condition to the development and use of the Property because of the Permitted Effects.

(ii) Grantee shall not, and hereby waives all rights to, (A) institute legal proceedings against Grantor to reduce or lessen the Permitted Effects, and (B) directly or indirectly participate in petition drives, lobbying efforts or other activities seeking the enactment of federal, state or local laws or ordinances to reduce or lessen the Permitted Effects. Any party breaching such covenant shall reimburse Grantor for all costs incurred by Grantor to comply with any such orders, laws or ordinances, including, without limitation, attorney fees and court costs.

(iii) If Grantee sells or leases all or any portion of the Property, Grantee shall require all purchasers and tenants to acknowledge the location of the railroad operations abutting the Property and the existence of the Permitted Effects, and to agree in writing, for the benefit of Grantor, to comply with the above covenants.

(b) Restriction on Use. The Property must not be used for (i) residential, (ii) lodgings or accommodations (including, without limitation, hotels, motels, boarding houses, dormitories, hospitals, nursing homes, or retirement centers), or (iii) educational or child-care facilities (including, without limitation, schools, kindergartens or day-care centers).

The foregoing and following covenants, conditions and restrictions shall run with the Property, the burdens of which will be binding on the successors and assigns of Grantee, and the benefits of which will inure to the successors and assigns of Grantor. A breach of the foregoing and following covenants, conditions and restrictions, or the continuance thereof, may, at the option of Grantor, its successors or assigns, be enjoined, abated or remedied by appropriate proceedings.

**Environmental Covenants:**

(a) "As Is" Sale. Grantee, for itself, its successors and assigns, including any successor owner of any interest in the Property, acknowledges and agrees that the Property has been sold and quitclaimed to and accepted by Grantee in an "AS IS" condition, with all faults, and Grantee acknowledges that the Property may have been used for railroad and/or industrial purposes, among other uses. Grantee acknowledges and agrees that any information Grantee may have received from Grantor or its agents concerning the Property (including, but not limited to, any lease or other document, engineering study or environmental assessment) was furnished on the condition that Grantee would make an independent verification of the accuracy of the information. Grantor does not make any representations or warranties of any kind whatsoever, either express or implied, with respect to the Property; in particular, without limitation, Grantor makes no representations or warranties with respect to the use, condition, title, occupation or management of the Property, or compliance with applicable statutes, laws, codes, ordinances, regulations, requirements (collectively, "Condition of the Property"). Grantee acknowledges and agrees that the Property has been sold and quitclaimed on the basis of Grantee's own independent investigation of the physical and environmental conditions of the Property. Grantee assumes the risk that adverse physical and environmental conditions may not have been revealed by its investigation.

(b) Release and Indemnity. GRANTEE, FOR ITSELF, ITS SUCCESSORS AND ASSIGNS, INCLUDING ANY SUCCESSOR OWNER OF ANY INTEREST IN THE PROPERTY, HEREBY RELEASES GRANTOR, AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, INDEMNIFIES, DEFENDS AND SAVES HARMLESS GRANTOR, ITS AFFILIATES, THEIR EMPLOYEES, AGENTS, OFFICERS, SUCCESSORS AND ASSIGNS, FROM AND AGAINST ANY AND ALL SUITS, ACTIONS, CAUSES OF ACTION, LEGAL OR ADMINISTRATIVE PROCEEDINGS, CLAIMS, DEMANDS, FINES, PUNITIVE DAMAGES, LOSSES, COSTS, LIABILITIES AND EXPENSES, INCLUDING ATTORNEYS' FEES, IN ANY WAY ARISING OUT OF OR CONNECTED WITH THE KNOWN OR UNKNOWN CONDITION OF THE PROPERTY (INCLUDING, WITHOUT LIMITATION, ANY CONTAMINATION IN, ON, UNDER OR ADJACENT TO THE PROPERTY BY ANY HAZARDOUS OR TOXIC SUBSTANCE OR MATERIAL), OR ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE OR REGULATION APPLICABLE THERETO, INCLUDING, WITHOUT LIMITATION, THE TOXIC SUBSTANCES CONTROL ACT, THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT, AND THE RESOURCE CONSERVATION AND RECOVERY ACT. THE FOREGOING WILL APPLY REGARDLESS OF ANY NEGLIGENCE OR STRICT LIABILITY OF GRANTOR, ITS AFFILIATES, OR THEIR EMPLOYEES, AGENTS OR OFFICERS.



IN WITNESS WHEREOF, Grantor has caused this Quitclaim Deed to be duly  
executed as of the 27<sup>th</sup> day of February, 2019.

Attest:

**UNION PACIFIC RAILROAD COMPANY,  
a Delaware corporation**

B.J. Kubat

Assistant Secretary

By:

Chris Doble

Printed Name: Chris D. Goble

Title: Assistant Vice President – Real Estate

(Seal)

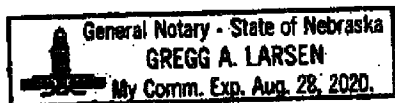
STATE OF NEBRASKA )

) ss.

COUNTY OF DOUGLAS )

The foregoing instrument was acknowledged before me this 27<sup>th</sup> day of  
February, 2019, by Chris D. Goble and B.J. Kubat, Assistant Vice  
President – Real Estate and Assistant Secretary of UNION PACIFIC RAILROAD COMPANY,  
a Delaware corporation, on behalf of the corporation.

WITNESS my hand and official seal.



Gregg A. Larsen  
Notary Public

(Seal)

Grantee hereby accepts this Quitclaim Deed and agrees for itself, its successors and assigns, to be bound by the covenants set forth herein.

Dated this 28<sup>th</sup> day of February, 2019.

**ROCKY MOUNTAIN PRESTRESS, LLC,**  
a Colorado limited liability company


By: [Signature]  
Printed Name: David Holsteen  
Title: General Manager

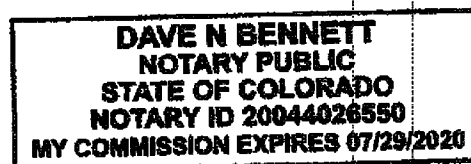
STATE OF COLORADO )  
 ) ss.  
COUNTY OF DENVER )

The foregoing instrument was acknowledged before me this 26 day of February, 2019, by J. David Holsteen, as General Manager of ROCKY MOUNTAIN PRESTRESS, LLC, a Colorado limited liability company.

WITNESS my hand and official seal.

My commission expires: 07-29-2020

  
Notary Public



## QUIT CLAIM DEED EXHIBIT A

Being a portion of a parcel of land recorded by Warranty Deed between Miers Fisher (Grantor) and The Denver, Northwestern and Pacific Railway Company (Grantee) at Book 16 Page 514 on August 21, 1906 in the records of the Adams County Clerk & Recorder's Office, State of Colorado situated in the East one-half of the Southwest one-quarter of Section 9, Township 3 South, Range 68 West of the 6th Principal Meridian, Adams County, State of Colorado, more particularly described as follows:

**BASIS OF BEARINGS:** Bearings are based upon the East line of the Southwest quarter of said Section 9. The Southerly point of said line is a point which is offset 5.00 feet to the East from a found 2½-inch aluminum cap witness corner stamped "2016 PLS 37601" in a range box. The Northerly point of said line is a found 2-inch aluminum cap stamped "Jacobs Engineering 2016 PLS 24942". The Basis of Bearings between said points is assumed to bear North 00° 00' 00" East a distance of 2,646.62 feet.

**COMMENCING** at the Southerly point of the Basis of Bearings;

**THENCE** along the East line of said Southwest one-quarter North 00° 00' 00" East a distance of 1,163.68 feet;

**THENCE** departing said East line North 90° 00' 00" West a distance of 30.00 feet to the Northeast corner of a parcel of land recorded at Reception Number (R.N.) 2009000069014 on September 16, 2009 in the records of said county;

**THENCE** along the North line of said parcel at R.N. 2009000069014 on a non-tangent curve to the left having a radius of 2,028.00 feet, a central angle of 02° 15' 24", and a length of 79.88 feet. The chord of said curve bears North 70° 48' 21" West a distance of 79.87 feet to a point being:

- The Northwest corner of said parcel at R.N. 2009000069014;
- The Northeast corner of Parcel I as recorded at R.N. 2017000035300 on April 24, 2017 in the records of said county;
- The Southwest corner of a parcel as recorded at R.N. 2009000059721 on August 11, 2009, also in the records of said county, and the **POINT OF BEGINNING**;

**THENCE** along the North line of Parcels H & I as recorded at R.N. 2017000035300, also being the South line of said parcel described at Book 16 Page 514, the following three (3) courses:

1. On a compound tangent curve to the left having a radius of 2,028.00 feet, a central angle of 03° 05' 57" and a length of 109.70 feet. The chord of said curve bears North 73° 29' 01" West a distance of 109.68 feet;
2. North 75° 02' 00" West a distance of 300.28 feet to the Northwest corner of said Parcel I, also being the Northeast corner of said Parcel H;
3. North 75° 02' 00" West a distance of 657.94 feet;

**THENCE** departing the North line of said Parcel H North 01° 28' 00" West a distance of 46.67 feet to the Southwest corner of a parcel of land described as Parcel B and recorded at R.N. 2017000035300 on April 24, 2017 in the records of said county;

**THENCE** along the South line of said Parcel B the following three (3) courses:

1. South 75° 02' 00" East a distance of 600.00 feet;
2. South 14° 58' 00" West a distance of 13.50 feet;
3. South 75° 02' 00" East a distance of 481.10 feet to the Northwest corner of said parcel described at R.N. 2009000059721;

**THENCE** departing the South line of said Parcel B South 15° 01' 04" West a distance of 34.23 feet along the West line of said parcel at R.N. 2009000059721 to the **POINT OF BEGINNING**.

The parcel described herein contains 41,707 square feet or 0.957 acres, more or less.

I, Eric R. White, a duly registered Land Surveyor under the laws of the State of Colorado, do hereby certify that this legal description was prepared by me or under my direct supervision and that it is correct to the best of my knowledge and belief. It is not to be construed, nor does it represent a monumented land survey.

Eric R. White  
Colorado Professional Land Surveyor, License Number 38278  
February 6, 2019

NV5, Inc.  
5445 Mark Dabling Blvd., Suite 100  
Colorado Springs, CO 80918  
Tel: (719) 268-8500





**BERKELEY WATER AND SANITATION DISTRICT  
4455 WEST 58<sup>th</sup> AVENUE, UNIT A  
ARVADA, COLORADO 80002  
303-477-1914  
Fax: 303-433-1939  
Email: berkeleywater@gmail.com**

September 7, 2018

**WESTFIELD COMPANY INC.**  
4221 Brighton Boulevard  
Denver, CO 80216

Re: 1921 West 56<sup>th</sup> Avenue, Denver, CO 80221  
Availability of sanitary sewer services

Dear WESTFIELD COMPANY INC.:

This conditional will serve letter confirms that Berkeley Water and Sanitation District ("District") has the capacity to provide sewer services to above described property (the "Property"), under the following terms and conditions:

1. The District owns an 8" sewer main on the north side of this property that is available for tapping for sewer service. The property owner may be required to install sewer main extensions, feeding into this present system, to facilitate development, depending upon design.

2. Each unit served must have its own sewer service lines, on its own land or easement. The engineering design and/or plans must be submitted and approved by the District prior to installation of any sewer service lines or tapping into any District sewer mains.

3. The property owner will be required to pay tap fees, review fees and costs, and all other applicable fees and charges prior to receiving sewer service from the District. The District may require a review deposit for District costs, including engineering and legal reviews, contract development, construction, observation and inspections. If the Developer makes a review deposit with the District, over payments will be refunded and shortages will be billed to the property owner.

4. If the extension of sewer mains is required, the District's engineering firm must review and approve the designs. The District's review and approval of the construction contract for the extension is also required before the work can commence. A contract must be developed, appropriate Certificates of Insurance presented, and



Warranty and Performance Bonds must be posted. In addition, the property owner will be required to dedicate easements for any public improvements.

5. The design specifications for the Project must comply with the District's Rules and Regulations, Adams County Fire Protection District regulations, and Adams County regulations. All sewer service will be subject to the District's Rules and Regulations.

6. Sewer tap fees will be payable to the District, which also collects Metro Wastewater's "connection fees." Fees to all agencies will be at prevailing rates at the time of application.

7. No representations are made regarding the availability of water service to the Property.

To reiterate, all costs incurred by the District and fees charged by the District, including without limitation tap fees, review costs, contract development, construction, observation and inspections, are the responsibility of the property owner as a condition of receipt of sewer service.

This conditional will serve letter is valid through August 21, 2019. If tap fees are not paid by that date, this agreement to service must be renewed through the District.

We look forward to providing services to the Property.

Sincerely,

A handwritten signature in blue ink, appearing to read "B. F. Fitch", is written over a horizontal line.

District Manager  
BERKELEY WATER AND SANITATION DISTRICT

## Application Information

<b>Status :</b>	Pending	<b>Type :</b>	New Construction
<b>Application Number :</b>	02517218	<b>Reason :</b>	Commercial
<b>Created Date :</b>	2018-09-07		

## Summary of Orders

Order Number	Type	Status
02238689	Commercial Electric	Pending
02238690	Commercial Gas	Pending

## Service Location Address

<b>House # :</b>	5801	<b>Unit Type :</b>	
<b>Dir Prefix :</b>		<b>City :</b>	DENVER
<b>Street Name :</b>	PECOS	<b>State :</b>	CO
<b>Street Type :</b>	ST	<b>County :</b>	ADAMS
<b>Dir Suffix :</b>		<b>Zip Code :</b>	80221
<b>Unit Number :</b>			
<b>Comments :</b>			

## Building / Lot

## Information

<b>Setback :</b>	<b>Foundation</b>
	<b>Dug Date :</b>
<b>Square Feet :</b>	6000-10000
<b>Type :</b>	Other

## Rural

## Urban

<b>Section :</b>	<b>Lot Number :</b>	1
<b>Township :</b>	<b>Block # :</b>	2
<b>Range :</b>	<b>Subdivision :</b>	PRESTRESSED-CON
<b>Directions :</b>	<b>Directions :</b>	SUB:PRESTRESSED-CON 2ND BLK:1 LOT:1 EXC RD (REC NO 2009000061475)
<b>Cross Streets:</b>	<b>Cross Streets :</b>	PECOS ST. & 56TH AVE.
<b>Latitude :</b>		
<b>Longitude :</b>		



**Project Contacts**

**Do you want to use your  
existing Xcel Energy  
account number? :**

No

**Role :**

**Bill To**

**Last Name :**

MILLER

**First Name :**

JASON

**Customer Number :**

**Company :**

WESTFIELD

**Email :**

jmiller@westfield-co.com

**Phone :**

(303) 917-7549

**Address :**

4221 BRIGHTON BLVD. DENVER  
CO 80216  
USA

**Role :**

**Primary Contact**

**Last Name :**

MILLER

**First Name :**

JASON

**Customer Number :**

**Company :**

WESTFIELD

**Email :**

jmiller@westfield-co.com

**Phone :**

(303) 917-7549

**Address :**

4221 BRIGHTON BLVD. DENVER  
CO 80216  
USA

## Order 1 - Commercial Electric

### Order Info

<b>Order Number :</b> 02238689	<b>Order Status :</b> Pending	<b>Order Record Type :</b> Electric
<b>Residential/Commercial :</b> Commercial	<b>Premise Number :</b>	<b>SAP Service Number :</b>

### Service Information

<b>Service Type :</b> Underground		
<b>Phase Requested :</b> 3 PH	<b>Service Amps :</b> 6000	
<b>Voltage Required :</b> 277/000	<b>Type of Outdoor Light :</b>	<b>Number of Outdoor Lights :</b>

### Meter Information

<b>Connected Load :</b>	<b>Meter Side :</b>
<b>Number of Meters :</b>	<b>Meter Location :</b> OUTSIDE

### Service Date

**Desired Install Date :** 12/01/2019

### Additional Comments for Electrical Service

**Comments :** SERVICES REQUESTED TO APPROX. 9 SEPARATE BUILDINGS

### Equipment

Equipment Type	Units	Notes	Load
----------------	-------	-------	------

## Order 2 - Commercial Gas

### Order Info

**Order Number :** 02238690

**Order Status :** Pending

**Order Record Type :** Gas

**Residential/Commercial :**  
Commercial

**Premise Number :**

**SAP Service Number :**

### Service Information

**Total Gas BTU :** 20M

**Delivery Service Presssure :** 2 lb

### Meter Information

**Feet From Corner :**

**Meter Side :**

**Number of Meters :**

**Meter Location :** OUTSIDE

### Service Date

**Desired Install Date :** 12/01/2019

### Additional Comments for Gas Service

**Comments :** SERVICE TO BE REQUESTED FOR APPRX. 9 SEPARATE BUILDINGS

### Equipment

Equipment Type	Units	Notes	Load
----------------	-------	-------	------

## Application Information

<b>Status :</b>	Pending	<b>Type :</b>	Change to Existing Service
<b>Application Number :</b>	02517262	<b>Reason :</b>	Converting Overhead/Underground Relocation
<b>Created Date :</b>	2018-09-07		

## Summary of Orders

<b>Order Number</b>	<b>Type</b>	<b>Status</b>
02238732	Commercial Electric	Pending

## Service Location Address

<b>House # :</b>	1921	<b>Unit Type :</b>	
<b>Dir Prefix :</b>	W	<b>City :</b>	DENVER
<b>Street Name :</b>	56TH	<b>State :</b>	CO
<b>Street Type :</b>	AVE	<b>County :</b>	ADAMS
<b>Dir Suffix :</b>		<b>Zip Code :</b>	80221
<b>Unit Number :</b>			
<b>Comments :</b>			

## Building / Lot

**Setback :**

**Square Feet :** 2300-3500

**Type :** Other

## Information

**Foundation**

**Dug Date :**

## Rural

**Section :**

**Township :**

**Range :**

## Urban

**Lot Number :**

**Block # :**

**Subdivision :**

**Directions :**

**Directions :**

SECT,TWN,RNG:9-3-68  
DESC: BEG 127/20 FT  
E AND 40 FT N OF SW  
OCR SE4 SW4 SEC 9  
TH N 145 FT TH E 110  
FT TH S 145 FT TH W

110 FT TO BEG 0/37A  
\*\*1921 W 56TH AVE\*\*

**Cross Streets:** 56TH AVE &  
PECOS ST **Cross Streets :**

**Latitude :**

**Longitude :**

### Project Contacts

**Do you want to use your  
existing Xcel Energy  
account number? :** No

**Role :** **Bill To**

**Last Name :** MILLER

**First Name :** JASON

**Customer Number :**

**Company :** WESTFIELD

**Email :** jmiller@westfield-co.com

**Phone :** (303) 917-7549

**Address :** 4221 BRIGHTON BLVD. DENVER  
CO 80216  
USA

**Role :** **Primary Contact**

**Last Name :** MILLER

**First Name :** JASON

**Customer Number :**

**Company :** WESTFIELD

**Email :** jmiller@westfield-co.com

**Phone :** (303) 917-7549

**Address :** 4221 BRIGHTON BLVD. DENVER  
CO 80216  
USA

## Order 1 - Commercial Electric

### Order Info

<b>Order Number :</b> 02238732	<b>Order Status :</b> Pending	<b>Order Record Type :</b> Electric
<b>Residential/Commercial :</b> Commercial	<b>Premise Number :</b>	<b>SAP Service Number :</b>

### Service Information

<b>Service Type :</b> Underground		
<b>Phase Requested :</b> 3 PH	<b>Service Amps :</b> 6000	
<b>Voltage Required :</b> 277/000	<b>Type of Outdoor Light :</b>	<b>Number of Outdoor Lights :</b>

### Meter Information

<b>Connected Load :</b>	<b>Meter Side :</b>
<b>Number of Meters :</b>	<b>Meter Location :</b> OUTSIDE

### Service Date

**Desired Install Date :** 12/01/2019

### Additional Comments for Electrical Service

**Comments :** REQUEST IS ONLY FOR OVERHEAD CONVERSION TO UNDERGROUND

### Equipment

Equipment Type	Units	Notes	Load
----------------	-------	-------	------

08-2018  
BERKELEY

**Berkeley Water and Sanitation**  
4455 West 58th Avenue Unit A  
Arvada, CO 80002

303-477-1914

ROCKY MTN PRESTRESS  
5801 PECOS ST  
DENVER, CO 80221

Account Number: 0048

Premise Number: 0048

Service Address: 5801 PECOS ST.

**Due Date: 8/31/2018**

Date	Description	Charge	Amount
	Beginning Balance		0.00
8/1/2018	MIN CALC 2018-08-01	MONTHLY; COMMER. CLASS - SEWER	664.97
<b>Balance Due:</b>			<b>664.97</b>

7330 4010-90

RECEIVED  
AUG 03 2018  
ROCKY MOUNTAIN PRESTRESS INC

August Sewer Bill

To assure proper credit, please write your account number on your check.

Return This Portion with Payment

Account # 0048  
Premise # 0048

ROCKY MTN PRESTRESS  
5801 PECOS ST  
DENVER, CO 80221

**Balance Due: \$664.97**

After 8/31/2018 Please Pay \$679.97

PAY YOUR BILLS ONLINE AT  
WWW.BERKELEYWATERSANITATION.COM. IF YOU WOULD  
LIKE TO RECEIVE YOUR BILL VIA EMAIL, PLEASE CALL OR  
EMAIL US AT BERKELEYWATER@GMAIL.COM WITH YOUR  
EMAIL INFORMATION.

Make checks payable and mail to:  
Berkeley Water and Sanitation  
4455 West 58th Avenue Unit A  
Arvada, CO 80002

U1-2417  
BERKELEY

**Berkeley Water and Sanitation**  
4455 West 58th Avenue Unit A  
Arvada, CO 80002

303-477-1914

ROCKY MTN PRESTRESS  
5801 PECOS ST  
DENVER, CO 80221

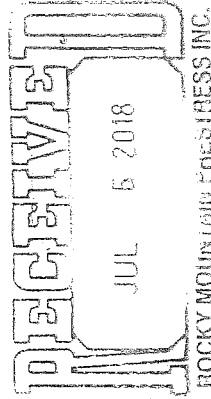
Account Number: 0048      Premise Number: 0048

Service Address: 5801 PECOS ST.

7330 4010-90

Due Date: 7/31/2018

Date	Description	Charge	Amount
	Beginning Balance		0.00
7/1/2018	MIN CALC 2018-07-02	MONTHLY; COMMER. CLASS - SEWER	664.97
		<b>Balance Due:</b>	<b>664.97</b>



Berkeley Sewer Bill

PAID  
601870

To assure proper credit, please write your account number on your check.



07-2018  
BERKELEY

**Berkeley Water and Sanitation**  
4455 West 58th Avenue Unit A  
Arvada, CO 80002

303-477-1914

ROCKY MOUNTAIN PRESTRESS  
5801 PECOS ST.  
DENVER, CO 80221

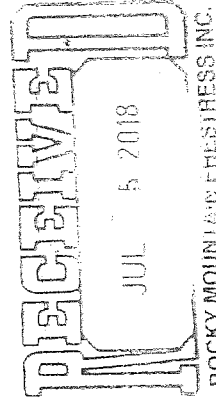
Account Number: 0126      Premise Number: 0126

Service Address: 1921 W 56TH AVE

9851 4900-90

Due Date: 9/30/2018

Date	Description	Charge	Amount
	Beginning Balance		0.00
7/1/2018	MIN CALC 2018-07-02	QTR; Residential Class - SEWER	53.84
		<b>Balance Due:</b>	<b>53.84</b>



Berkeley Sewer Bills

UNPAID  
7/20/18

To assure proper credit, please write your account number on your check.

00-2010  
BERKELEY

**Berkeley Water and Sanitation**  
4455 West 58th Avenue Unit A  
Arvada, CO 80002

8-10-18 303-477-1914

PHELPS, INC.  
5801 PECOS ST.  
DENVER, CO 80221

Account Number: 1079 Premise Number: 1079

Service Address: 5700 VALLEJO ST.

Due Date: 10/31/2018

Date	Description	Charge	Amount
	Beginning Balance		53.84
		<b>Balance Due:</b>	<b>53.84</b>

7330 4010-90

RECEIVED  
AUG 10 2018  
ROCKY MOUNTAIN POWER SERVICE DISTRICT

3rd Quarter Sewer Bill

PAID  
8/19/18

To assure proper credit, please write your account number on your check.

# DENVER WATER 100 YEARS

BILLING DATE  
8/19/2018  
CUSTOMER ID  
1488210000

ACCOUNT NUMBER  
0844210000  
DUE DATE  
Sep 4, 2018

AMOUNT DUE  
\$34.29

## Account Summary

Previous Balance	30.51
Payment Received - 7/24/18	Thank You
Current Charges	34.29

## Please pay this amount

\$34.29

Payments must be received and posted to the account by 9/10/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.

5701 RARITAN ST

7330 4010-90

## Water Charges

RATE: Commercial Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 9,000 Gallons

BILLING PERIOD: 7/13/2018 - 8/13/2018

DAYS: 32

METER NO. 262789 CURRENT READ 2,441 PREVIOUS READ 2,436 MULTIPLIER x 1000 CONSUMPTION 5,000 Gal

Consumption Charge (5,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals used	0-9	10-36	Over 36
Price per 1,000	5	\$5.29	\$6.05

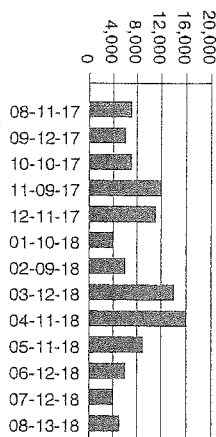
Charge \$18.90 = 18.90

Fixed Monthly Charge, 3/4" meter 15.39

Water Charges \$34.29

denverwater.org

## Monthly Consumption



	Aug 2017	Aug 2018
Total gallons used	7,000	5,000
Days in billing period	30	32
Average daily use (gallons)	233	156

This graph shows your consumption water use for each month. Use only what you need and save water and money.

## Questions About Your Bill?

¿Preguntas Sobre Su Cuenta?  
303-893-2444  
Monday - Friday  
7:30 a.m. - 5:30 p.m.

Visit Us Online  
www.denverwater.org  
Email: customercare@denverwater.org

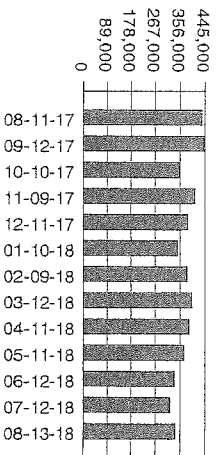
Denver Water, Correspondence  
1600 W. 12th Ave.  
Denver, CO 80204-3412

1982

DUE DATE	AMOUNT DUE
Sep 4, 2018	\$1,520.78

**\$1,520.70**

Monthly Consumption



733D 4010-9D

**AVERAGE WINTER CONSUMPTION** (calculated using Jan-Mar bills): 378,000 Gallons  
**BILLING PERIOD:** 7/13/2018 - 8/13/2018      **DAYS:** 32

**DAYS: 32**

Consumption Charge (338,000 Gallons)

Tier 1	Tier 2	Tier 3
0-378	379-1512	Over 1512

1,000 Gals used	338		
Price per 1,000	x \$3.78	\$5.29	\$6.05
Charge	\$1277.64		
		=	1,277.64

**Water Charges** **\$1,520.78**

denverwater.org

	Aug 2017	Aug 2018
Total gallons used	435,000	338,000
Days in billing period	30	32
Average daily use (gallons)	14,500	10,563

This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
**¿Preguntas Sobre Su Cuenta?**

**303-893-2444**  
*Monday - Friday*  
*7:30 a.m. - 5:30 p.m.*

**Visit Us Online**  
www.denverwater.org  
Email: [customer@denverwater.org](mailto:customer@denverwater.org)

Denver Water, Correspondence  
1600 W. 12th Ave.  
Denver, CO 80204-3412

BILLING DATE  
8/13/2018  
CUSTOMER ID  
1902910000

ACCOUNT NUMBER  
5865810000  
DUE DATE  
Sep 4, 2018

AMOUNT DUE  
\$28.71

**Account Summary**

Previous Balance	28.71
Payment Received - 7/24/18	Thank You
Current Charges	-28.71
	28.71

**Please pay this amount**

**\$28.71**

Payments must be received and posted to the account by 9/10/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.

1921 W 56TH AVE

9851 4900-9D

**Water Charges**

RATE: Residential Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 5,000 Gallons

BILLING PERIOD: 7/13/2018 - 8/13/2018 DAYS: 32

METER NO.	CURRENT READ	PREVIOUS READ	X	MULTIPLIER	=	CONSUMPTION
297445	895	891		1000		4,000 Gal

Consumption Charge (4,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals	0-5	6-20	Over 20

1,000 Gals used 4

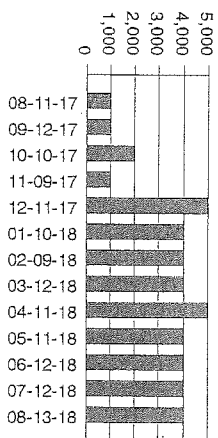
Price per 1,000 x \$3.33 \$5.99 \$7.99

Charge \$13.32 = 13.32

Fixed Monthly Charge, 5/8" meter 15.39

**Water Charges \$28.71**

**Monthly Consumption**



	Aug 2017	Aug 2018
Total gallons used	1,000	4,000
Days in billing period	30	32
Average daily use (gallons)	33	125

This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
*¿Preguntas Sobre Su Cuenta?*

303-893-2444  
Monday - Friday  
7:30 a.m. - 5:30 p.m.

**Visit Us Online**

www.denverwater.org  
Email: customercare@denverwater.org

Denver Water, Correspondence  
1600 W. 12th Ave.  
Denver, CO 80204-3412

1921 W 56TH AVE  
9851 4900-9D

BILLING DATE  
8/13/2018  
CUSTOMER ID  
5212310000

ACCOUNT NUMBER  
6767210000  
DUE DATE  
Sep 4, 2018

AMOUNT DUE  
\$38.03

**Account Summary**

Previous Balance 38.03  
Payment Received - 7/24/18 Thank You -38.03  
Current Charges 38.03

**Please pay this amount**

**\$38.03**

*Payments must be received and posted to the account by 9/10/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.*

5700 VALLEJO ST

**Water Charges**

RATE: Residential Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 3,000 Gallons

BILLING PERIOD: 7/13/2018 - 8/13/2018

DAYS: 32

METER NO.	CURRENT READ	PREVIOUS READ	MULTIPLIER	CONSUMPTION
269338	1,133	1,127	1000	6,000 Gal

Consumption Charge (6,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals used	0-5*	6-20	Over 20

1,000 Gals used	5	1	
Price per 1,000	x \$3.33	x \$5.99	\$7.99
Charge	\$16.65	+ \$5.99	=

\*Tier 1 minimum allowance is 5,000 gallons.

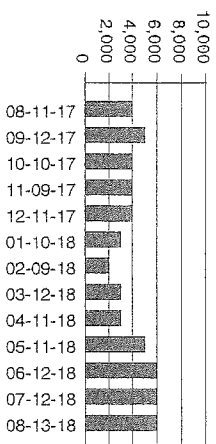
Fixed Monthly Charge, 5/8" meter

**Water Charges**

**\$38.03**

**denverwater.org**

**Monthly Consumption**



	Aug 2017	Aug 2018
Total gallons used	4,000	6,000
Days in billing period	30	32
Average daily use (gallons)	133	188

This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
*¿Preguntas Sobre Su Cuenta?*

303-993-2444  
Monday - Friday  
7:30 a.m. - 5:30 p.m.

**Visit Us Online**  
www.denverwater.org  
Email: customercare@denverwater.org

Denver Water, Correspondence  
1600 W. 12th Ave.  
Denver, CO 80204-3412

6767210000

BILLING DATE 7/12/2018  
 ACCOUNT NUMBER 0844210000  
 CUSTOMER ID 1488210000  
 DUE DATE Aug 2, 2018  
 AMOUNT DUE \$30.51

**Account Summary**

Previous Balance	38.07
Payment Received - 6/26/18	-38.07
Current Charges	30.51

**Please pay this amount**

**\$30.51**

Payments must be received and posted to the account by 8/8/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.

5701 RARITAN ST  
 Water Charges

7330 4010-90

RATE: Commercial Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 9,000 Gallons

BILLING PERIOD: 6/13/2018 - 7/12/2018

DAYS: 30

METER NO.	CURRENT READ	PREVIOUS READ	x	MULTIPLIER	=	CONSUMPTION
262789	2,436	2,432		1000		4,000 Gal

Consumption Charge (4,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals used	0-9	10-36	Over 36
1,000 Gals used	4		
Price per 1,000	x \$3.78	\$5.29	\$6.05
Charge	\$15.12		

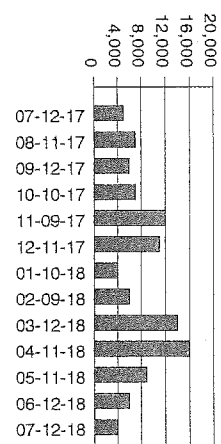
Fixed Monthly Charge, 3/4" meter

Water Charges

15.39  
 \$30.51

denverwater.org

**Monthly Consumption**



	Jul 2017	Jul 2018
Total gallons used	5,000	4,000
Days in billing period	30	30
Average daily use (gallons)	167	133

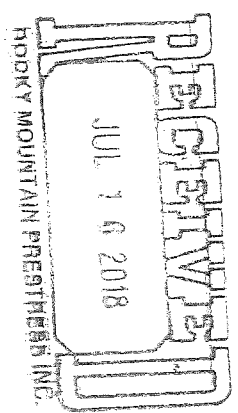
This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
 ¿Preguntas Sobre Su Cuenta?

303-893-2444  
 Monday - Friday  
 7:30 a.m. - 5:30 p.m.

**Visit Us Online**  
[www.denverwater.org](http://www.denverwater.org)  
 Email: [customer@denverwater.org](mailto:customer@denverwater.org)

Denver Water, Correspondence  
 1600 W. 12th Ave.  
 Denver, CO 80204-3412



**BILLING DATE** 7/12/2018  
**CUSTOMER ID** 5708210000  
**ACCOUNT NUMBER** 2473210000  
**DUE DATE** Aug 2, 2018  
**AMOUNT DUE** \$1,452.74

### Account Summary

Previous Balance	1,513.22
Payment Received - 6/26/18	Thank You
Current Charges	-1,513.22
	1,452.74

**Please pay this amount**

Payments must be received and posted to the account by 6/8/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.

5801 PECOS ST  
 Water Charges

7330 4010-90

RATE: Industrial Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 378,000 Gallons

BILLING PERIOD: 6/13/2018 - 7/12/2018

DAYS: 30

METER NO.	WATER DEMAND LEVEL	CURRENT READ	PREVIOUS READ	MULTIPLIER	CONSUMPTION
456895	High	5653	5574	1000	79,000 Gal
	Intermediate	4487	4246	1000	241,000 Gal

Consumption Charge (320,000 Gallons)

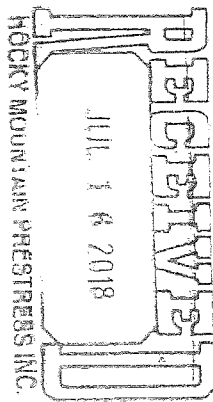
	Tier 1	Tier 2	Tier 3
1,000 Gals	0-378	379-1512	Over 1512
1,000 Gals used	320		
Price per 1,000	X \$3.78	\$5.29	\$6.05
Charge	\$1209.60		

Fixed Monthly Charge, 4" meter

243.14

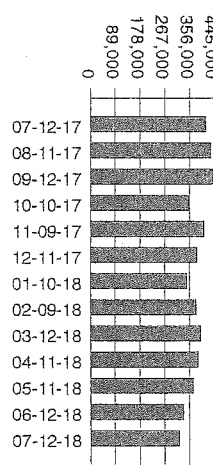
Water Charges

\$1,452.74



denverwater.org

### Monthly Consumption



	Jul 2017	Jul 2018
Total gallons used	415,000	320,000
Days in billing period	30	30
Average daily use (gallons)	13,833	10,667

This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
 ¿Preguntas Sobre Su Cuenta?

303-893-2444  
 Monday - Friday  
 7:30 a.m. - 5:30 p.m.

**Visit Us Online**  
[www.denverwater.org](http://www.denverwater.org)  
 Email: [customercafe@denverwater.org](mailto:customercafe@denverwater.org)

Denver Water, Correspondence  
 1600 W. 12th Ave.  
 Denver, CO 80204-3412





**Account Summary**

Previous Balance	28.71
Payment Received - 6/26/18	Thank You
Current Charges	-28.71
	28.71

**Please pay this amount**

Payments must be received and posted to the account by 8/8/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.

1921 W 56TH AVE

**Water Charges**

RATE: Residential Water (Total Service)

AVERAGE WINTER CONSUMPTION (calculated using Jan-Mar bills): 5,000 Gallons  
 BILLING PERIOD: 6/13/2018 - 7/12/2018

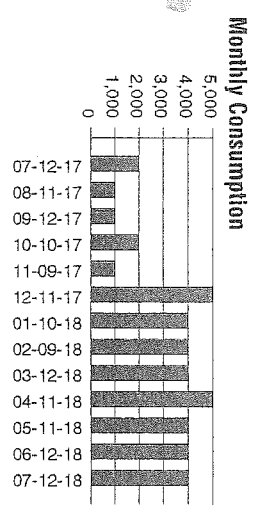
METER NO.	CURRENT READ	PREVIOUS READ	x	MULTIPLIER	=	CONSUMPTION
297445	891	887		1000		4,000 Gal

Consumption Charge (4,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals	0-5	6-20	Over 20
1,000 Gals used	4		
Price per 1,000	x \$3.33	\$5.99	\$7.99
Charge	\$13.32		
			=

Fixed Monthly Charge, 5/8" meter

Water Charges	\$28.71
---------------	---------



	Jul 2017	Jul 2018
Total gallons used	2,000	4,000
Days in billing period	30	30
Average daily use (gallons)	67	133

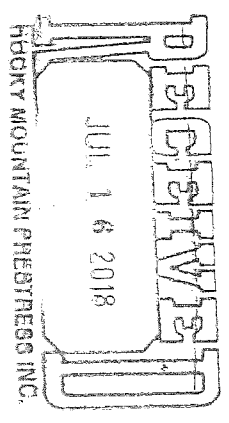
This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
 ¿Preguntas Sobre Su Cuenta?

303-893-2444  
 Monday - Friday  
 7:30 a.m. - 5:30 p.m.

**Visit Us Online**  
[www.denverwater.org](http://www.denverwater.org)  
 Email: [customer@denverwater.org](mailto:customer@denverwater.org)

Denver Water, Correspondence  
 1600 W. 12th Ave.  
 Denver, CO 80204-3412



**BILLING DATE**  
7/12/2018  
**CUSTOMER ID**  
5212310000

**ACCOUNT NUMBER**  
6767210000  
**DUE DATE**  
Aug 2, 2018

**AMOUNT DUE**  
\$38.03

**Account Summary**

Previous Balance	38.03
Payment Received - 6/26/18	-38.03
Current Charges	38.03

**Please pay this amount**

**\$38.03**

*Payments must be received and posted to the account by 8/8/18 to avoid a delinquency charge. A 5% delinquency charge (maximum \$250.00) will apply to any unpaid balance on the next billing cycle after the charge is incurred.*

**5700 VALLEJO ST**

9851 4900-90

**Water Charges**

**RATE:** Residential Water (Total Service)  
**AVERAGE WINTER CONSUMPTION** (calculated using Jan-Mar bills): 3,000 Gallons  
**BILLING PERIOD:** 6/13/2018 - 7/12/2018  
**DAYS:** 30

METER NO.	CURRENT READ	PREVIOUS READ	X	MULTIPLIER	=	CONSUMPTION
269338	1,127	1,121		1000		6,000 Gal

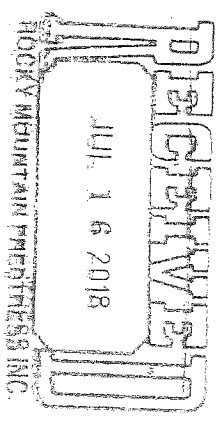
Consumption Charge (6,000 Gallons)

	Tier 1	Tier 2	Tier 3
1,000 Gals used	0-5*	6-20	Over 20
Price per 1,000	X \$3.33	X \$5.99	\$7.99
Charge	\$16.65	+ \$5.99	=
			22.64

\*Tier 1 minimum allowance is 5,000 gallons.

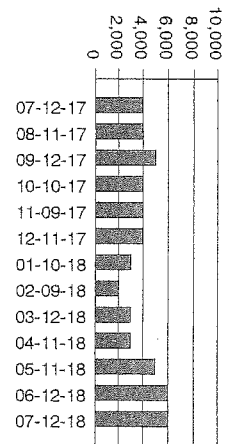
Fixed Monthly Charge, 5/8" meter 15.39

**Water Charges \$38.03**



**denverwater.org**

**Monthly Consumption**



	Jul 2017	Jul 2018
Total gallons used	4,000	6,000
Days in billing period	30	30
Average daily use (gallons)	133	200

This graph shows your consumption water use for each month. Use only what you need and save water and money.

**Questions About Your Bill?**  
*¿Preguntas Sobre Su Cuenta?*

303-893-2444  
Monday - Friday  
7:30 a.m. - 5:30 p.m.

**Visit Us Online**  
www.denverwater.org  
Email: customercare@denverwater.org

Denver Water, Correspondence  
1600 W. 12th Ave.  
Denver, CO 80204-3412

**ENTERED**  
100880

08-2018  
NORTHPEC

NORTH PECOS WATER & SANITATION  
6900 N PECOS STREET  
DENVER, CO. 80221 (303) 429-5770  
www.NorthPecosWater.org

Phelps-Tointon Inc.  
5801 Pecos Street

Stmt Date  
07/31/2018

Customer #  
318.1

Denver CO 80221

301 W 60th PI

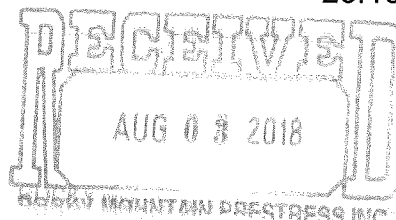
\*\*\*Fold Here Return Top Portion with Payment\*\*

Date	Meter Nbr	Current Reading	Prior Reading	Usage	Mult
07/31/2018	1471383930	75,099	75,060	39	1

7330 4020-90

Date	Description	Usage	Unit Price	Amount
06/30/2018	Previous Balance			632.26
07/16/2018	Payments			632.26 CR
	Adjustments			
07/31/2018	Water Usage	39		207.87

Water Base	66.14	66.14
Sewer Usage		195.00
Sewer Base	25.00	25.00
Fireline	28.18	28.18
Excess Surcharge		
Reconnect Fee		
Interest Water		
Interest Sewer		



All Water usage is billed in thousand gallon increments, so if the usage says 1 this is for 1,000 gallons used.

ENTERED  
193

Deposit	Past Due	Interest	Current	Balance Due
			522.19	522.19

07-2018  
NORTHPEC

NORTH PECOS WATER & SANITATION  
6900 N PECOS STREET  
DENVER, CO. 80221 (303) 429-5770  
www.NorthPecosWater.org

Phelps-Tointon Inc.  
5801 Pecos Street

Stmt Date  
06/30/2018

Customer #  
318.1

Denver CO 80221

301 W 60th Pl

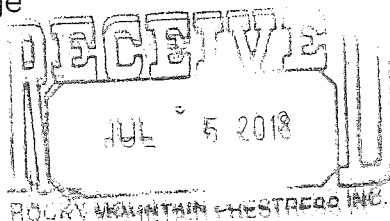
\*\*\*Fold Here Return Top Portion with Payment\*\*

Date	Meter Nbr	Current Reading	Prior Reading	Usage	Mult
06/29/2018	1471383930	75,060	75,012	48	1

7330 4020-90

Date	Description	Usage	Unit Price	Amount
05/31/2018	Previous Balance			889.09
06/18/2018	Payments			889.09 CR
	Adjustments			
06/30/2018	Water Usage	48		272.94

Water Base	66.14	66.14
Sewer Usage		240.00
Sewer Base	25.00	25.00
Fireline	28.18	28.18
Excess Surcharge		
Reconnect Fee		
Interest Water		
Interest Sewer		



All Water usage is billed in thousand gallon increments, so if the  
usage says 1 this is for 1,000 gallons used.

ENTERED  
632.26

Deposit	Past Due	Interest	Current	Balance Due
			632.26	632.26

**PARCEL A:**

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. [2009000061475](#).

**PARCEL B:**

LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. [2009000061475](#).

**PARCEL C:**

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION  
9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF  
ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS  
FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF  
THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

**PARCEL D:**

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION,  
COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL E:**

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF  
COLORADO.

**PARCEL F:**

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF  
SECTION 9, TOWNSHIP 3  
SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF  
COLORADO, MORE  
PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN  
DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE [387](#).

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. [C0698515](#) IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

**PARCEL G:**

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE

LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. [C0698515](#) IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS "THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

**PARCEL H:**

A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE [266](#), RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

**PARCEL I:**

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE [266](#), RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND

SANTA FE RAILROAD COMPANY TO ANT, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE [846](#), RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. [2009000069014](#), RECORDS OF ADAMS COUNTY.

**Union Pacific Strip Legal Description:**

A PARCEL OF LAND BEING A PORTION OF LAND IN WARRANTY DEED RECORDED AUGUST 21, 1906 IN BOOK 16 AT PAGE 514 IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER'S OFFICE, STATE OF COLORADO, SITUATED IN THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE NORTH POINT OF SAID LINE IS A FOUND 2-INCH ALUMINUM CAP STAMPED "JACOBS ENGINEERING 2016 PLS 24942". THE SOUTH POINT OF SAID LINE IS A FOUND 2 1/2-INCH ALUMINUM CAP STAMPED CAP STAMPED "W.C. 5.00 2016 PLS 37601" IN A RANGE BOX MARKED "SURVEY". THE WITNESS CORNER IS 5.00 FEET WEST OF AND ON LINE TO THE WEST 1/16 CORNER OF SAID SECTION 9. THE MEASURED BEARING BETWEEN SAID POINTS IS SOUTH 00° 02' 51" WEST A DISTANCE OF 2,646.62 FEET. HOWEVER, THE BASIS BEARINGS HAS BEEN ROTATED COUNTERCLOCKWISE 00° 02' 51" TO MATCH THE BASIS OF BEARINGS USED ON THE PLAT PRESTRESSED-CON SUBDIVISION, SECOND FILING, RECORDED AT SURVEY DEPOSIT FILE NO. 14, MAP NO. 765, AUGUST 5, 1981 UNDER RECEPTION NO. B336912 IN THE RECORDS OF SAID COUNTY. THE BASIS OF BEARINGS ON THIS AND THE REFERENCE PLAT IS NORTH 00° 02' 51" EAST.

COMMENCING AT THE SOUTH POINT OF THE BASIS OF BEARINGS;  
THENCE NORTH 00° 00' 00" EAST A DISTANCE OF 1,163.68 ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 9;  
THENCE NORTH 90° 00' 00" WEST A DISTANCE OF 30.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTH PECOS STREET, ALSO BEING THE SOUTHEAST CORNER OF A PARCEL OF LAND RECORDED AUGUST 11, 2009 UNDER RECEPTION NO. 2009000059721 AND THE NORTHEAST CORNER OF A PARCEL OF LAND RECORDED SEPTEMBER 16, 2009 UNDER RECEPTION NO. 2009000069014 IN THE RECORDS OF SAID COUNTY;  
THENCE ON A NON-TANGENT ARC TO THE LEFT, ON THE COMMON BOUNDARY



BETWEEN SAID PARCELS AT RECEPTION NUMBERS 2009000059721 AND 2009000069014, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 02° 15' 24" AND AN ARC LENGTH OF 79.88 FEET. THE CHORD OF SAID CURVE BEARS NORTH 70° 48' 21" WEST A DISTANCE OF 79.87 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL AT RECEPTION NO. 2009000059721 AND THE NORTHWEST CORNER OF SAID PARCEL RECEPTION NUMBER 2009000069014 AND THE POINT OF BEGINNING:  
THENCE CONTINUING ON A NON-TANGENT ARC TO THE LEFT, ON THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "I" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 03°05'57" AND AN ARC LENGTH OF 109.70 FEET, THE CHORD OF SAID CURVE BEARS NORTH 73°29'01" WEST A DISTANCE OF 109.68 FEET;  
THENCE CONTINUING ALONG THE NORTH LINE OF SAID PARCEL "I" NORTH 75°02'00" WEST A DISTANCE OF 300.28 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "I";  
THENCE NORTH 75°02'00" WEST A DISTANCE OF 657.94 FEET ALONG THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "H" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;  
THENCE DEPARTING SAID NORTH LINE OF PARCEL "H" NORTH 01°28'00" WEST A DISTANCE OF 46.67 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED AS PARCEL "B" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;  
THENCE ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 600.00 FEET;  
THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 14°58'00" WEST A DISTANCE OF 13.50 FEET;  
THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 481.10 FEET TO THE NORTHWEST CORDER OF SAID PARCEL AT RECEPTION NUMBER 2009000059721;  
THENCE DEPARTING SAID SOUTH LINE OF PARCEL "B" SOUTH 15°01'04" WEST A DISTANCE OF 34.23 FEET ALONG THE WEST LINE OF SAID PARCEL AT RECEPTION NUMBER 2009000059721 TO THE POINT OF BEGINNING.  
LEGAL DESCRIPTION PREPARED BY:  
ERIC ROBERT WHITE, PLS #38278  
FOR/ON BEHALF OF:  
NVS, INC.  
5445 MARK DABLING BLVD., #100  
COLORADO SPRINGS, CO 80918  
DATED: SEPTEMBER 17, 2018  
JOB NO. 223518-0000060.00

**Adams County Parcel Legal Description:**

A TRACT OR PARCEL OF LAND NO. 6A-R(1), BEING A PORTION OF PROPERTY DESCRIBED IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER IN BOOK 16, PAGE 514, LOCATED IN THE SW 1/4 SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT WHENCE THE CENTER QUARTER CORNER OF SAID SECTION 9 BEARS N. 02°58'29" E., A DISTANCE OF 924.33 FEET, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE S. 00°55'39" E., A DISTANCE OF 297.64 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT 1, BLOCK 2, PRESTRESSED-CON SUBDIVISION, SECOND FILING;

2. THENCE ALONG SAID PROPERTY LINE N. 74°58'42" W., A DISTANCE OF 646.21 FEET;

3. THENCE N. 02°26'59" E., A DISTANCE OF 86.25 FEET;

4. THENCE N. 85°55'00" E., A DISTANCE OF 617.19 FEET, TO THE TRUE POINT OF BEGINNING.

BASIS BEARINGS: BEARINGS ARE BASED ON THE EAST LINE OF THE SW 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, BEING NORTH 00°03'19" EAST. THE CENTER QUARTER CORNER OF SAID SECTION IS A 3 1/4" ALUMINUM CAP (STAMPED LS 16401) IN A RANGE BOX. THE SOUTH QUARTER CORNER OF SAID SECTION IS MONUMENTED BY A WITNESS CORNER, OFFSET 5.00 FEET TO THE WEST ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION, BEING A 2 1/2" ALUMINUM CAP (STAMPED PLS 11372) IN A RANGE BOX.

LEGAL DESCRIPTION PREPARED BY:

MICHAEL L. BOUCHARD, PLS #24941

FOR AND ON BEHALF OF FARNSWORTH GROUP=, INC.

4755 FORGE ROAD, SUITE 150

COLORADO SPRINGS, CO 80907

ACCOUNT # R0103414  
PARCEL # 0182509314001  
TAX DISTRICT: 480

PROPERTY TAX NOTICE  
2018 TAXES DUE IN 2019

LISA L. CULPEPPER, JD  
ADAMS COUNTY TREASURER  
4430 S. ADAMS COUNTY PARKWAY, SUITE C2436  
BRIGHTON, COLORADO 80601 (720) 523-6160



TAX AUTHORITY	TAX LEVY	TEMP TAX CREDIT	GENERAL TAX	VALUATION	ACTUAL	ASSESSED
RANGEVIEW LIBRARY DISTRICT	3.66600	0.00000	\$1,851.15	LAND	\$374,688	\$108,660.00
BERKELEY WATER & SANITATION DISTR	3.37400	0.00000	\$1,703.70	BUILDINGS/IMPROVE	\$1,366,526	\$396,290.00
ADAMS COUNTY FIRE PROTECTION DIST	16.65000	0.00000	\$8,407.42	PERSONAL	\$0	\$0.00
ADAMS COUNTY	26.86400	0.00000	\$13,564.97	TOTAL	\$1,741,214	\$504,950.00
HYLAND HILLS PARK & RECREATION	5.41300	0.00000	\$2,733.29	SR EXEMPTION	\$0	\$0.00
RTD	0.00000	0.00000	\$0.00	NET TOTAL	\$1,741,214	\$504,950.00
SD 50	66.51400	0.00000	\$33,586.25			
URBAN DRAINAGE SOUTH PLATTE	0.09400	0.00500	\$47.47			
URBAN DRAINAGE & FLOOD CONTROL	0.72600	0.00400	\$366.59			
MESSAGES						
SATELLITE OFFICE 11860 PECOS STREET, SUITE 2481 WESTMINSTER, CO 80234 MONDAY - THURSDAY 7:30 am - 5 pm						
TOTAL	NET LEVY-->	LATE FILING FEE	\$62,260.84			
		SPECIAL ASSESSMENT	\$0.00			
		SENIOR HOMESTEAD EXEMP	\$0.00			
		GRAND TOTAL	\$0.00			
			\$62,260.84			
SB 25 - In absence of State Legislative Funding, your school mill levy would have been:				136.3780000		
LEGAL DESCRIPTION OF PROPERTY				Unpaid prior year taxes:		
SUB:PRESTRESSED-CON 2ND BLK:2 LOT:1 EXC RD (REC NO 2009000061475)				No		
				PAYMENT	DUE DATE	AMOUNT
				FIRST HALF	FEB 28, 2019	\$31,130.42
				SECOND HALF	JUNE 15, 2019	\$31,130.42
				FULL PAYMENT	ARP 30, 2019	\$62,260.84
SITUS ADDRESS: 5801 PECOS ST				PAYMENT OPTIONS FOR CURRENT YEAR TAXES		
				VISA MasterCard DISCOVER AMERICAN EXPRESS ELECTRONIC CHECK		

11-20-18\_v1

ROCKY MOUNTAIN PRESTRESS LLC  
5801 PECOS ST

DENVER, CO 80221-6644



Make Checks Payable To: Adams County Treasurer  
POST DATED CHECKS ARE NOT ACCEPTED  
If you have sold this property, please forward this statement to the new owner or return to this office marked "property sold."  
IF YOUR TAXES ARE PAID BY A MORTGAGE COMPANY, KEEP THIS NOTICE FOR YOUR RECORDS.  
County Treasurer is not responsible for erroneous payments.  
Please see reverse side of this form for additional information.

RETAIN TOP PORTION FOR YOUR RECORDS

2018 TAXES DUE IN 2019



Unpaid prior year taxes:

No

☐ Check this box for address correction. Make changes on reverse side.

RETURN THIS COUPON FOR SECOND HALF PAYMENTS (Due by June 17th)

2nd Half Coupon

2



PAY TAXES ONLINE AT: WWW.ADCOTAX.COM

Return this coupon with payment to:  
ADAMS COUNTY TREASURER  
P.O. BOX 869  
BRIGHTON, COLORADO 80601-0869

ACCOUNT NUMBER

R0103414

PROPERTY OWNER OF RECORD  
R0103414  
ROCKY MOUNTAIN PRESTRESS LLC  
5801 PECOS ST

DENVER, CO 80221-6644

PAYMENTS MUST BE IN U.S. FUNDS

SECOND HALF DUE BY JUNE 15, 2019 [ ] \$31,130.42

2018 TAXES DUE IN 2019



Unpaid prior year taxes:

No

☐ Check this box for address correction. Make changes on reverse side.

RETURN THIS COUPON WITH FIRST HALF PAYMENT (DUE FEB. 28TH) OR FULL PAYMENT (DUE APRIL 30TH)

Full Payment or 1st Half Coupon

1



PAY TAXES ONLINE AT: WWW.ADCOTAX.COM

Return this coupon with payment to:  
ADAMS COUNTY TREASURER  
P.O. BOX 869  
BRIGHTON, COLORADO 80601-0869

ACCOUNT NUMBER

R0103414

PROPERTY OWNER OF RECORD  
R0103414  
ROCKY MOUNTAIN PRESTRESS LLC  
5801 PECOS ST

DENVER, CO 80221-6644

PAYMENTS MUST BE IN U.S. FUNDS

FIRST HALF DUE BY FEB 28, 2019 [ ] \$31,130.42

FULL AMOUNT DUE BY APR 30, 2019 [ ] \$62,260.84

LISA L. CULPEPPER, JD  
ADAMS COUNTY TREASURER  
4430 S. ADAMS COUNTY PARKWAY, SUITE C2436  
BRIGHTON, COLORADO 80601  
(720) 523-6160



THE TAXING PROCESS

Assessor calculates **valuation**. Contact the Assessor at (720) 523-6038.  
Governing boards for tax authorities determine **mill levy**.  
Treasurer collects **tax amount due**.

PAYMENT DUE DATES

First Half	Second Half	Full Amount
February 28	June 15	April 30

POSTMARKS ARE ACCEPTED ON CURRENT YEAR TAXES.

If the date for filing any tax payment falls on a Saturday, Sunday, or legal holiday, it shall be considered on time if filed the next business day.

PAYMENT OPTIONS:

- **Online** - [www.adcotax.com](http://www.adcotax.com)
- **Over the Phone** - (720) 523-6160 Option #2
- **Mail** - P.O. Box 869, Brighton, Colorado 80601
- **In Person** - 4430 S. Adams County Parkway, Suite C2436  
Brighton, Colorado 80601  
(after hours Dropbox in front of building)

OR  
ADAMS COUNTY HUMAN SERVICES CENTER  
11860 PECOS STREET, SUITE 2481  
WESTMINSTER, CO 80234  
MON - THUR 7:30 am - 5 pm

WE ACCEPT:

- **Cash**
- **E-Check**
  - All E-check payments (online/phone) are **FREE**
  - A \$20 fee will be charged for all returned and insufficient fund E-Checks
- **Checks**
  - A \$20.00 fee will be charged for all returned and insufficient fund checks
- **Credit Cards**
  - All Credit card payments are subject to a vendor fee of 2.5% of the total payment made or minimum of \$3.95



- **Money Orders**

Total taxes less than \$25.00 must be paid using the Full Tax Option.

Advertising, additional fees, and other legal collection actions may occur after June 15.

Do you have a mortgage?

Please contact your mortgage company to verify that they are paying your taxes. Mortgage companies will contact the Treasurer's Office for payment information on accounts for which they are responsible.

The Delinquent Tax process:

Calculate delinquent interest on current year taxes made after due date as listed in the table below:

Required Date of Payment	Last Day of February	June 15	April 30
Month Paid	Half Tax Option		Full Tax Option*
	1st Installment	2nd Installment	
March	1%	----	----
April	2%	----	----
May	3%	----	1%
June 1-15	4%	----	2%
June 16-30	4%	1%	2%
July	5%	2%	3%
August	6%	3%	4%
September	7%	4%	5%
October	8%	5%	6%
November	9%	6%	7%
December	10%	7%	8%

FINAL PAYMENT DATES TO AVOID PUBLICATION:

August 31 – Mobile Homes and Business Personal Property

September 1 – Real Estate

As of October 1, all delinquent Business Personal Property and Mobile Homes become subject to distraint, seizure and sale.

Unpaid Real Estate and Mobile Home taxes will be sold at a tax lien sale in November.

ATTENTION MOBILE HOME TAXPAYERS:

This property may not be moved without a valid permit or prorated tax receipt and a transportable manufactured home permit from the county Treasurer's office. **Violators shall be prosecuted.**

ADDITIONAL INFORMATION

Tax bills are mailed to the property owner only at the most current address on the County's tax roll.

If this property is covered under a bankruptcy filing, keep this notice for your records. Failure to receive a tax notice does not relieve the owner's responsibility to or liability of paying taxes on time or excuse them from paying the interest due.

Receipts are available online at [www.adcotax.com](http://www.adcotax.com)

Prior year taxes must be paid with cash or certified funds.

IF YOU WISH TO MAKE A CHANGE IN YOUR MAILING ADDRESS, PLEASE COMPLETE THE AREA BELOW, SIGN YOUR NAME AND RETURN TO TREASURER'S OFFICE.

NEW ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SIGNATURE X \_\_\_\_\_ RETURN WITH YOUR PAYMENT

TELEPHONE NO. \_\_\_\_\_

By signing this form, I understand that all future Notices of Value, Notice of Determination (in case of a protest in value), and Property Tax Notices, as well as any other notices being sent from Adams County, will be sent to the address shown above.

Change of  
Address

IF YOU WISH TO MAKE A CHANGE IN YOUR MAILING ADDRESS, PLEASE COMPLETE THE AREA BELOW, SIGN YOUR NAME AND RETURN TO TREASURER'S OFFICE.

NEW ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SIGNATURE X \_\_\_\_\_ RETURN WITH YOUR PAYMENT

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Change of  
Address



ACCOUNT # P0000874  
PARCEL # 0182509314001  
TAX DISTRICT: 480

PROPERTY TAX NOTICE  
2018 TAXES DUE IN 2019

LISA L. CULPEPPER, JD  
ADAMS COUNTY TREASURER  
4430 S. ADAMS COUNTY PARKWAY, SUITE C2436  
BRIGHTON, COLORADO 80601 (720) 523-6160



TAX AUTHORITY	TAX LEVY	TEMP TAX CREDIT	GENERAL TAX	VALUATION	ACTUAL	ASSESSED
RANGEVIEW LIBRARY DISTRICT	3.66600	0.00000	\$5,065.28	LAND	\$0	\$0.00
BERKELEY WATER & SANITATION DISTR	3.37400	0.00000	\$4,661.82	BUILDINGS/IMPROVE	\$0	\$0.00
ADAMS COUNTY FIRE PROTECTION DIST	16.65000	0.00000	\$23,005.14	PERSONAL	\$4,764,456	\$1,381,690.0
ADAMS COUNTY	26.86400	0.00000	\$37,117.71	TOTAL	\$4,764,456	0
HYLAND HILLS PARK & RECREATION	5.41300	0.00000	\$7,479.09	SR EXEMPTION	\$0	\$1,381,690.0
RTD	0.00000	0.00000	\$0.00	NET TOTAL	\$4,764,456	0
SD 50	66.51400	0.00000	\$91,901.73			\$0.00
URBAN DRAINAGE SOUTH PLATTE	0.09400	0.00500	\$129.88			
URBAN DRAINAGE & FLOOD CONTROL	0.72600	0.00400	\$1,003.11			

TOTAL	NET LEVY-->	LATE FILING FEE	\$170,363.76
		SPECIAL ASSESSMENT	\$0.00
		SENIOR HOMESTEAD EXEMP	\$0.00
		GRAND TOTAL	\$0.00
			\$170,363.76
SB 25 - In absence of State Legislative Funding, your school mill levy would have been:			136.3780000

MESSAGES

SATELLITE OFFICE  
11860 PECOS STREET, SUITE 2481  
WESTMINSTER, CO 80234  
MONDAY - THURSDAY  
7:30 am - 5 pm

LEGAL DESCRIPTION OF PROPERTY	Unpaid prior year taxes:		
SITUS ADDRESS: 5801 PECOS ST 000000000	No		
	PAYMENT	DUE DATE	AMOUNT
	FIRST HALF	FEB 28, 2019	\$85,181.88
	SECOND HALF	JUNE 15, 2019	\$85,181.88
	FULL PAYMENT	ARP 30, 2019	\$170,363.76
PAYMENT OPTIONS FOR CURRENT YEAR TAXES			
<div><div>VISA</div><div>MasterCard</div><div>DISCOVER</div><div>AMERICAN EXPRESS</div><div>ELECTRONIC CHECK</div></div>			

ROCKY MOUNTAIN PRESTRESS INC  
C/O JENNIFER SHUTE  
5801 PECOS ST  
DENVER, CO 80221-6644



Make Checks Payable To: Adams County Treasurer  
POST DATED CHECKS ARE NOT ACCEPTED  
If you have sold this property, please forward this statement to the new owner or return to this office marked "property sold."  
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County Treasurer is not responsible for erroneous payments.  
Please see reverse side of this form for additional information.

2018 TAXES DUE IN 2019

Unpaid prior year taxes: No

Check this box for address correction. Make changes on reverse side.

RETURN THIS COUPON FOR SECOND HALF PAYMENTS (Due by June 17th)

2nd Half Coupon 2

VISA MasterCard DISCOVER AMERICAN EXPRESS ELECTRONIC CHECK

PAY TAXES ONLINE AT: WWW.ADCOTAX.COM

Return this coupon with payment to:  
ADAMS COUNTY TREASURER  
P.O. BOX 869  
BRIGHTON, COLORADO 80601-0869

ACCOUNT NUMBER  
P0000874

PROPERTY OWNER OF RECORD P0000874  
ROCKY MOUNTAIN PRESTRESS INC  
C/O JENNIFER SHUTE  
5801 PECOS ST  
DENVER, CO 80221-6644

PAYMENTS MUST BE IN U.S. FUNDS  
SECOND HALF DUE BY JUNE 15, 2019 [ ] \$85,181.88

2018 TAXES DUE IN 2019

Unpaid prior year taxes: No

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RETURN THIS COUPON WITH FIRST HALF PAYMENT (DUE FEB. 28TH) OR FULL PAYMENT (DUE APRIL 30TH)

Full Payment or 1st Half Coupon 1

VISA MasterCard DISCOVER AMERICAN EXPRESS ELECTRONIC CHECK

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ADAMS COUNTY TREASURER  
P.O. BOX 869  
BRIGHTON, COLORADO 80601-0869

ACCOUNT NUMBER  
P0000874

PROPERTY OWNER OF RECORD P0000874  
ROCKY MOUNTAIN PRESTRESS INC  
C/O JENNIFER SHUTE  
5801 PECOS ST  
DENVER, CO 80221-6644

PAYMENTS MUST BE IN U.S. FUNDS  
FIRST HALF DUE BY FEB 28, 2019 [ ] \$85,181.88  
FULL AMOUNT DUE BY APR 30, 2019 [ ] \$170,363.76

LISA L. CULPEPPER, JD  
ADAMS COUNTY TREASURER  
4430 S. ADAMS COUNTY PARKWAY, SUITE C2436  
BRIGHTON, COLORADO 80601  
(720) 523-6160



THE TAXING PROCESS

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OR  
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11860 PECOS STREET, SUITE 2481  
WESTMINSTER, CO 80234  
MON - THUR 7:30 am - 5 pm

WE ACCEPT:

- **Cash**
- **E-Check**
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  - All Credit card payments are subject to a vendor fee of 2.5% of the total payment made or minimum of \$3.95



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Prior year taxes must be paid with cash or certified funds.

IF YOU WISH TO MAKE A CHANGE IN YOUR MAILING ADDRESS, PLEASE COMPLETE THE AREA BELOW, SIGN YOUR NAME AND RETURN TO TREASURER'S OFFICE.

NEW ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SIGNATURE X \_\_\_\_\_ RETURN WITH YOUR PAYMENT

TELEPHONE NO. \_\_\_\_\_

By signing this form, I understand that all future Notices of Value, Notice of Determination (in case of a protest in value), and Property Tax Notices, as well as any other notices being sent from Adams County, will be sent to the address shown above.

Change of  
Address

IF YOU WISH TO MAKE A CHANGE IN YOUR MAILING ADDRESS, PLEASE COMPLETE THE AREA BELOW, SIGN YOUR NAME AND RETURN TO TREASURER'S OFFICE.

NEW ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SIGNATURE X \_\_\_\_\_ RETURN WITH YOUR PAYMENT

TELEPHONE NO. \_\_\_\_\_

By signing this form, I understand that all future Notices of Value, Notice of Determination (in case of a protest in value), and Property Tax Notices, as well as any other notices being sent from Adams County, will be sent to the address shown above

Change of  
Address



# Statement Of Taxes Due

Account Number R0103414

Assessed To

Parcel 0182509314001

ROCKY MOUNTAIN PRESTRESS LLC  
5801 PECOS ST  
DENVER, CO 80221-6644

**Legal Description**

SUB:PRESTRESSED-CON 2ND BLK:2 LOT:1 EXC RD (REC NO 2009000061475)

**Situs Address**

5801 PECOS ST

Year	Tax	Interest	Fees	Payments	Balance
<b>Tax Charge</b>					
2018	\$62,260.84	\$0.00	\$0.00	(\$62,260.84)	\$0.00
Total Tax Charge					\$0.00
<b>Grand Total Due as of 03/04/2019</b>					<b>\$0.00</b>

Tax Billed at 2018 Rates for Tax Area 480 - 480

Authority	Mill Levy	Amount	Values	Actual	Assessed
RANGEVIEW LIBRARY DISTRICT	3.6660000	\$1,851.15	WAREHOUSE/STG	\$570,857	\$165,550
BERKELEY WATER & SANITATION	3.3740000	\$1,703.70	IND LND	\$374,688	\$108,660
ADAMS COUNTY FIRE PROTECTIO	16.6500000	\$8,407.42	MANUF/PROC		
GENERAL	22.6400000	\$11,432.06	MANUFACT/PROCES	\$795,669	\$230,740
HYLAND HILLS PARK & RECREAT	5.4130000	\$2,733.29	Total	\$1,741,214	\$504,950
RETIREMENT	0.3140000	\$158.55			
ROAD/BRDGE	1.3000000	\$656.44			
DEVELOPMENTALLY DISABLED	0.2570000	\$129.77			
SD 50 BOND	12.6760000	\$6,400.75			
SD 50 GENERAL	53.8380000	\$27,185.50			
URBAN DRAINAGE SOUTH PLATTE	0.0940000*	\$47.47			
URBAN DRAINAGE & FLOOD CONT	0.7260000*	\$366.59			
SOCIAL SERVICES	2.3530000	\$1,188.15			
Taxes Billed 2018	123.3010000	\$62,260.84			

\* Credit Levy

Tax amounts are subject to change due to endorsement, advertising, or fees.

Please call the office to confirm amount due after August 1st.

All Tax Lien Redemption payments must be made with cash or cashier's check.

Adams County Treasurer  
4430 S Adams County Parkway Suite C2436  
Brighton, CO 80601  
720-523-6160

**NEW SATELLITE OFFICE**

11860 Pecos Street  
Westminster, CO 80234  
Mon, Tue, Wed, Thur 7:30 am - 5 pm

<b>Account</b>	<b>As of Date</b>	<b>Parcel Number</b>	<b>Owner</b>
R0103414	03/04/2019	0182509314001	ROCKY MOUNTAIN PRESTRESS LLC

**Legal:** SUB:PRESTRESSED-CON 2ND BLK:2 LOT:1 EXC RD (REC NO  
2009000061475)

**Situs  
Address:** 5801 PECOS ST

<b>Year</b>	<b>Tax</b>	<b>Total Due</b>
Total	\$0.00	\$0.00

---



CERTIFICATION OF NOTICE TO MINERAL ESTATE OWNERS

I/We, Matt Mitchell, Pecor Logistics Park, LLC  
(the "Applicant") by signing below, hereby declare and certify as follows:

With respect to the property located at:

Physical Address: 5751 - 5801 Pecor St

Legal Description: see exhibit

Parcel #(s): see exhibit

(PLEASE CHECK ONE):

☒

On the 4<sup>th</sup> day of March, 2019, which is not less than thirty days before the initial public hearing, notice of application for surface development was provided to mineral estate owners pursuant to section 24-65.5-103 of the Colorado Revised Statutes;

or

☐ I/We have searched the records of the Adams County Tax Assessor and the Adams County Clerk and Recorder for the above identified parcel and have found that no mineral estate owner is identified therein.

Date: 3/4/19 Applicant: Matt Mitchell, Pecor Logistics Park, LLC

By: [Signature]

Print Name: Matt Mitchell

Address: 4221 Brighton Blvd  
Denver, CO 80216

STATE OF COLORADO )

)

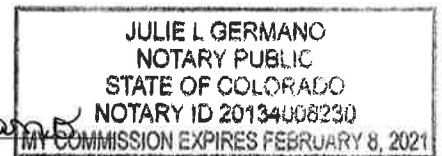
COUNTY OF ADAMS )

Subscribed and sworn to before me this 4<sup>th</sup> day of March, 2019, by  
Matt Mitchell

Witness my hand and official seal.

My Commission expires: 2/8/21

[Signature]  
Notary Public



After Recording Return To:

Name and Address of Person Preparing Legal Description:

**A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department with all applicable land use applications.**

**Tax Parcel ID #:**

- 0182509313001,
- 0182509314001,
- 0182509300058,
- 0182509309001,
- 0182509300056,
- 0182509300063,
- 0182509300023,
- 0182509312001,
- 0182509312002,
- also account no. R0184678
- also account no. R0179027

**Legal Description:**

**PARCEL A:**

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL B:**

LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

**PARCEL C:**

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION  
9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF  
ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS  
FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF  
THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

**PARCEL D:**

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION,  
COUNTY OF ADAMS, STATE OF COLORADO.

**PARCEL E:**

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF  
COLORADO.

**PARCEL F:**

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF  
SECTION 9, TOWNSHIP 3  
SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF  
COLORADO, MORE  
PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 312 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

PARCEL G:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 63 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE

LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. 00699518 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS "THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

PARCEL H:

A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

PARCEL I:

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND

SANTA FE RAILROAD COMPANY TO ANI, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5878 AT PAGE 346, RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. 2009000069014, RECORDS OF ADAMS COUNTY.

**Former Union Pacific Strip Legal Description:**

A PARCEL OF LAND BEING A PORTION OF LAND IN WARRANTY DEED RECORDED AUGUST 21, 1906 IN BOOK 16 AT PAGE 514 IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER'S OFFICE, STATE OF COLORADO, SITUATED IN THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE NORTH POINT OF SAID LINE IS A FOUND 2-INCH ALUMINUM CAP STAMPED "JACOBS ENGINEERING 2016 PLS 24942". THE SOUTH POINT OF SAID LINE IS A FOUND 2 1/2-INCH ALUMINUM CAP STAMPED CAP STAMPED "W.C. 5.00 2016 PLS 37601" IN A RANGE BOX MARKED "SURVEY". THE WITNESS CORNER IS 5.00 FEET WEST OF AND ON LINE TO THE WEST 1/16 CORNER OF SAID SECTION 9. THE MEASURED BEARING BETWEEN SAID POINTS IS SOUTH 00° 02' 51" WEST A DISTANCE OF 2,646.62 FEET. HOWEVER, THE BASIS BEARINGS HAS BEEN ROTATED COUNTERCLOCKWISE 00° 02' 51" TO MATCH THE BASIS OF BEARINGS USED ON THE PLAT PRESTRESSED-CON SUBDIVISION, SECOND FILING, RECORDED AT SURVEY DEPOSIT FILE NO. 14, MAP NO. 765, AUGUST 5, 1981 UNDER RECEPTION NO. B336912 IN THE RECORDS OF SAID COUNTY. THE BASIS OF BEARINGS ON THIS AND THE REFERENCE PLAT IS NORTH 00° 02' 51" EAST.

COMMENCING AT THE SOUTH POINT OF THE BASIS OF BEARINGS;

THENCE NORTH 00° 00'00" EAST A DISTANCE OF 1,163.68 ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 9;

THENCE NORTH 90° 00' 00" WEST A DISTANCE OF 30.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTH PECOS STREET, ALSO BEING THE SOUTHEAST CORNER OF A PARCEL OF LAND RECORDED AUGUST 11, 2009 UNDER RECEPTION NO. 2009000059721 AND THE NORTHEAST CORNER OF A PARCEL OF LAND RECORDED SEPTEMBER 16, 2009 UNDER RECEPTION NO. 2009000069014 IN THE RECORDS OF SAID COUNTY;

THENCE ON A NON-TANGENT ARC TO THE LEFT, ON THE COMMON BOUNDARY BETWEEN SAID PARCELS AT RECEPTION NUMBERS 2009000059721 AND 2009000069014, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 02° 15' 24" AND AN ARC LENGTH OF 79.88 FEET. THE CHORD OF SAID CURVE BEARS

NORTH 70° 48' 21" WEST A DISTANCE OF 79.87 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL AT RECEPTION NO. 2009000059721 AND THE NORTHWEST CORNER OF SAID PARCEL RECEPTION NUMBER 2009000069014 AND THE POINT OF BEGINNING:

THENCE CONTINUING ON A NON-TANGENT ARC TO THE LEFT, ON THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "I" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 03°05'57" AND AN ARC LENGTH OF 109.70 FEET, THE CHORD OF SAID CURVE BEARS NORTH 73°29'01" WEST A DISTANCE OF 109.68 FEET;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID PARCEL "I" NORTH 75°02'00" WEST A DISTANCE OF 300.28 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "I";

THENCE NORTH 75°02'00" WEST A DISTANCE OF 657.94 FEET ALONG THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "H" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE DEPARTING SAID NORTH LINE OF PARCEL "H" NORTH 01°28'00" WEST A DISTANCE OF 46.67 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED AS PARCEL "B" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 600.00 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 14°58'00" WEST A DISTANCE OF 13.50 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 481.10 FEET TO THE NORTHWEST CORDER OF SAID PARCEL AT RECEPTION NUMBER 2009000059721;

THENCE DEPARTING SAID SOUTH LINE OF PARCEL "B" SOUTH 15°01'04" WEST A DISTANCE OF 34.23 FEET ALONG THE WEST LINE OF SAID PARCEL AT RECEPTION NUMBER 2009000059721 TO THE POINT OF BEGINNING.

**Former Adams County Parcel Legal Description:**

A TRACT OR PARCEL OF LAND NO. 6A-R(1), BEING A PORTION OF PROPERTY DESCRIBED IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER IN BOOK 16, PAGE 514, LOCATED IN THE SW 1/4 SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT WHENCE THE CENTER QUARTER CORNER OF SAID SECTION 9 BEARS N. 02°58'29" E., A DISTANCE OF 924.33 FEET, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE S. 00°55'39" E., A DISTANCE OF 297.64 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT 1, BLOCK 2, PRESTRESSED-CON SUBDIVISION, SECOND FILING;
2. THENCE ALONG SAID PROPERTY LINE N. 74°58'42" W., A DISTANCE OF 646.21 FEET;
3. THENCE N. 02°26'59" E., A DISTANCE OF 86.25 FEET;
4. THENCE N. 85°55'00" E., A DISTANCE OF 617.19 FEET, TO THE TRUE POINT OF BEGINNING.

BASIS BEARINGS: BEARINGS ARE BASED ON THE EAST LINE OF THE SW 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, BEING NORTH 00°03'19" EAST. THE CENTER QUARTER CORNER OF SAID SECTION IS A 3 1/4" ALUMINUM CAP (STAMPED LS 16401) IN A RANGE BOX. THE SOUTH QUARTER CORNER OF SAID SECTION IS MONUMENTED BY A WITNESS CORNER, OFFSET 5.00 FEET TO THE WEST ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION, BEING A 2 1/2" ALUMINUM CAP (STAMPED PLS 11372) IN A RANGE BOX.



APPLICANT'S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT,  
PURSUANT TO C.R.S. §24-65.5-103.3 (1)(b)

I/We, Matt Mitchell, Pecor Logistics Park, LLC  
(the "Applicant") by signing below, hereby declare and certify as follows:

Concerning the property located at:

Physical Address: 5751 - 5801 Pecor St

Legal Description: see exhibit

Parcel #(s): see exhibit

With respect to qualifying surface developments, that (PLEASE CHECK ONE):



No mineral estate owner has entered an appearance or filed an objection to the proposed application for development within thirty days after the initial public hearing on the application; or



The Applicant and any mineral estate owners who have filed an objection to the proposed application for development or have otherwise filed an entry of appearance in the initial public hearing regarding such application no later than thirty days following the initial public hearing on the application have executed a surface use agreement related to the property included in the application for development, the provisions of which have been incorporated into the application for development or are evidenced by a memorandum or otherwise recorded in the records of the clerk and recorder of the county in which the property is located so as to provide notice to transferees of the Applicant, who shall be bound by such surface use agreements; or



The application for development provides:

- (i) Access to mineral operations, surface facilities, flowlines, and pipelines in support of such operations existing when the final public hearing on the application for development is held by means of public roads sufficient to withstand trucks and drilling equipment or thirty-foot-wide access easements;
- (ii) An oil and gas operations area and existing well site locations in accordance with section 24-65.5-103.5 of the Colorado Revised Statutes; and
- (iii) That the deposit for incremental drilling costs described in section 24-65.5-103.7 of the Colorado Revised Statutes has been made.

Date: 3/4/19 Applicant: Matt Mitchell, Pecor Logistics Park, LLC

After Recording Return To:

By: [Signature]  
Print Name: Matt Mitchell  
Address: 4221 Brighton Blvd  
Denver, CO 80216

STATE OF COLORADO    )  
  )  
COUNTY OF ADAMS    )

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by  
\_\_\_\_\_.

Witness my hand and official seal.

My Commission expires: \_\_\_\_\_  
Notary Public

*Name and Address of Person Preparing Legal Description:*

**A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department within thirty days after the initial public hearing on all applicable land use applications.**

**Tax Parcel ID #:**

- 0182509313001,
- 0182509314001,
- 0182509300058,
- 0182509309001,
- 0182509300056,
- 0182509300063,
- 0182509300023,
- 0182509312001,
- 0182509312002,
- also account no. R0184678
- also account no. R0179027

**Legal Description:**

PARCEL A:

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

PARCEL B:

LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

PARCEL C:

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION  
9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF  
ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS  
FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF  
THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

PARCEL D:

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION,  
COUNTY OF ADAMS, STATE OF COLORADO.

PARCEL E:

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF  
COLORADO.

PARCEL F:

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF  
SECTION 9, TOWNSHIP 3  
SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF  
COLORADO, MORE  
PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN  
DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. 00698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

PARCEL G:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE

LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. 00698915 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS "THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

PARCEL H:

A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

PARCEL I:

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND

SANTA FE RAILROAD COMPANY TO ANT, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE 246, RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. 2009000069014, RECORDS OF ADAMS COUNTY.

**Former Union Pacific Strip Legal Description:**

A PARCEL OF LAND BEING A PORTION OF LAND IN WARRANTY DEED RECORDED AUGUST 21, 1906 IN BOOK 16 AT PAGE 514 IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER'S OFFICE, STATE OF COLORADO, SITUATED IN THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE NORTH POINT OF SAID LINE IS A FOUND 2-INCH ALUMINUM CAP STAMPED "JACOBS ENGINEERING 2016 PLS 24942". THE SOUTH POINT OF SAID LINE IS A FOUND 2 1/2-INCH ALUMINUM CAP STAMPED CAP STAMPED "W.C. 5.00 2016 PLS 37601" IN A RANGE BOX MARKED "SURVEY". THE WITNESS CORNER IS 5.00 FEET WEST OF AND ON LINE TO THE WEST 1/16 CORNER OF SAID SECTION 9. THE MEASURED BEARING BETWEEN SAID POINTS IS SOUTH 00° 02' 51" WEST A DISTANCE OF 2,646.62 FEET. HOWEVER, THE BASIS BEARINGS HAS BEEN ROTATED COUNTERCLOCKWISE 00° 02' 51" TO MATCH THE BASIS OF BEARINGS USED ON THE PLAT PRESTRESSED-CON SUBDIVISION, SECOND FILING, RECORDED AT SURVEY DEPOSIT FILE NO. 14, MAP NO. 765, AUGUST 5, 1981 UNDER RECEPTION NO. B336912 IN THE RECORDS OF SAID COUNTY. THE BASIS OF BEARINGS ON THIS AND THE REFERENCE PLAT IS NORTH 00° 02' 51" EAST.

COMMENCING AT THE SOUTH POINT OF THE BASIS OF BEARINGS;

THENCE NORTH 00° 00'00" EAST A DISTANCE OF 1,163.68 ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 9;

THENCE NORTH 90° 00' 00" WEST A DISTANCE OF 30.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTH PECOS STREET, ALSO BEING THE SOUTHEAST CORNER OF A PARCEL OF LAND RECORDED AUGUST 11, 2009 UNDER RECEPTION NO. 2009000059721 AND THE NORTHEAST CORNER OF A PARCEL OF LAND RECORDED SEPTEMBER 16, 2009 UNDER RECEPTION NO. 2009000069014 IN THE RECORDS OF SAID COUNTY;

THENCE ON A NON-TANGENT ARC TO THE LEFT, ON THE COMMON BOUNDARY BETWEEN SAID PARCELS AT RECEPTION NUMBERS 2009000059721 AND 2009000069014, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 02° 15' 24" AND AN ARC LENGTH OF 79.88 FEET. THE CHORD OF SAID CURVE BEARS

NORTH 70° 48' 21" WEST A DISTANCE OF 79.87 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL AT RECEPTION NO. 2009000059721 AND THE NORTHWEST CORNER OF SAID PARCEL RECEPTION NUMBER 2009000069014 AND THE POINT OF BEGINNING:

THENCE CONTINUING ON A NON-TANGENT ARC TO THE LEFT, ON THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "I" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 03°05'57" AND AN ARC LENGTH OF 109.70 FEET, THE CHORD OF SAID CURVE BEARS NORTH 73°29'01" WEST A DISTANCE OF 109.68 FEET;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID PARCEL "I" NORTH 75°02'00" WEST A DISTANCE OF 300.28 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "I";

THENCE NORTH 75°02'00" WEST A DISTANCE OF 657.94 FEET ALONG THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "H" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE DEPARTING SAID NORTH LINE OF PARCEL "H" NORTH 01°28'00" WEST A DISTANCE OF 46.67 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED AS PARCEL "B" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 600.00 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 14°58'00" WEST A DISTANCE OF 13.50 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 481.10 FEET TO THE NORTHWEST CORDER OF SAID PARCEL AT RECEPTION NUMBER 2009000059721;

THENCE DEPARTING SAID SOUTH LINE OF PARCEL "B" SOUTH 15°01'04" WEST A DISTANCE OF 34.23 FEET ALONG THE WEST LINE OF SAID PARCEL AT RECEPTION NUMBER 2009000059721 TO THE POINT OF BEGINNING.



**Former Adams County Parcel Legal Description:**

A TRACT OR PARCEL OF LAND NO. 6A-R(1), BEING A PORTION OF PROPERTY DESCRIBED IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER IN BOOK 16, PAGE 514, LOCATED IN THE SW 1/4 SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT WHENCE THE CENTER QUARTER CORNER OF SAID SECTION 9 BEARS N. 02°58'29" E., A DISTANCE OF 924.33 FEET, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE S. 00°55'39" E., A DISTANCE OF 297.64 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT 1, BLOCK 2, PRESTRESSED-CON SUBDIVISION, SECOND FILING;
2. THENCE ALONG SAID PROPERTY LINE N. 74°58'42" W., A DISTANCE OF 646.21 FEET;
3. THENCE N. 02°26'59" E., A DISTANCE OF 86.25 FEET;
4. THENCE N. 85°55'00" E., A DISTANCE OF 617.19 FEET, TO THE TRUE POINT OF BEGINNING.

BASIS BEARINGS: BEARINGS ARE BASED ON THE EAST LINE OF THE SW 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, BEING NORTH 00°03'19" EAST. THE CENTER QUARTER CORNER OF SAID SECTION IS A 3 1/4" ALUMINUM CAP (STAMPED LS 16401) IN A RANGE BOX. THE SOUTH QUARTER CORNER OF SAID SECTION IS MONUMENTED BY A WITNESS CORNER, OFFSET 5.00 FEET TO THE WEST ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION, BEING A 2 1/2" ALUMINUM CAP (STAMPED PLS 11372) IN A RANGE BOX.

APPLICANT'S CERTIFICATION CONCERNING QUALIFYING SURFACE DEVELOPMENT,  
PURSUANT TO C.R.S. §24-65.5-103.3 (1)(b)

I, Matt Mitchell, Pecor Logistics Park, LLP (the "Applicant") by signing below, hereby declare and certify as follows concerning the property located at:

**Physical Address:**

Legal Description: see attached

Parcel # (s): see attached

With respect to qualifying surface developments:

Access to existing and proposed mineral operations, surface facilities, flowlines, and pipelines in support of such existing and proposed operations for oil and gas exploration and production, including provisions for public roads sufficient to withstand trucks and drilling equipment or thirty-foot-wide access easements, were provided for in a "\_\_\_\_\_" area as recorded in Reception # None Existing, Requested, or Anticipated on \_\_\_\_\_.

Date: 3/4/19 Applicant: Matt Mitchell, Pecor Logistics Park, LLP  
By: [Signature]  
Address: 4221 Brighton Blvd, Denver, CO 80216

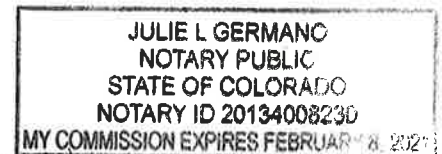
STATE OF COLORADO    )  
  )  
COUNTY OF ADAMS    )

Subscribed and sworn to before me this 4<sup>th</sup> day of March, 2019, by  
Matt Mitchell.

Witness my hand and official seal.

My Commission expires: 2/8/21

[Signature]  
Notary Public



*After Recording Return To:*

*Name and Address of Person Preparing Legal Description:*

**A recorded copy of this Certification shall be submitted to the Adams County Community and Economic Development Department with all applicable land use applications.**

**Tax Parcel ID #:**

- 0182509313001,
- 0182509314001,
- 0182509300058,
- 0182509309001,
- 0182509300056,
- 0182509300063,
- 0182509300023,
- 0182509312001,
- 0182509312002,
- also account no. R0184678
- also account no. R0179027

**Legal Description:**

PARCEL A:

LOT 1, BLOCK 1, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "A" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

PARCEL B:

LOT 1, BLOCK 2, PRESTRESSED - CON SUBDIVISION SECOND FILING,  
COUNTY OF ADAMS, STATE OF COLORADO.  
EXCEPT THAT PART DESCRIBED AS EXHIBIT "B" IN DEED RECORDED  
AUGUST 18, 2009 UNDER RECEPTION NO. 2009000061475.

PARCEL C:

THAT PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION  
9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF  
ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS  
FOLLOWS:

COMMENCING AT A POINT 664.4 FEET EAST AND 660.0 FEET NORTH OF  
THE SOUTHWEST CORNER OF SAID SECTION;  
THENCE EAST 10 FEET TO THE POINT OF BEGINNING;  
THENCE CONTINUING EAST 125 FEET;  
THENCE NORTH 125 FEET;  
THENCE WEST 125 FEET;  
THENCE SOUTH 125 FEET TO THE POINT OF BEGINNING.

PARCEL D:

LOTS 1 AND 2 INCLUSIVE, BLOCK 1, PRESTRESSED - CON SUBDIVISION,  
COUNTY OF ADAMS, STATE OF COLORADO.

PARCEL E:

LOT 2, BLOCK 1, FELCH SUBDIVISION, COUNTY OF ADAMS, STATE OF  
COLORADO.

PARCEL F:

THAT PART OF THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF  
SECTION 9, TOWNSHIP 3  
SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF  
COLORADO, MORE  
PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SAID SECTION 9, THENCE EAST ALONG SAID SECTION LINE 60 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 10 FEET;  
THENCE WEST 30 FEET;  
THENCE NORTH 308 FEET;  
THENCE EAST 302.2 FEET;  
THENCE SOUTH 318 FEET;  
THENCE WEST 95 FEET;  
THENCE NORTH 145 FEET;  
THENCE WEST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 67.20 FEET TO THE TRUE POINT OF BEGINNING.  
EXCEPT THE NORTH 35 FEET THEREOF AND EXCEPT THE EAST 1 FOOT THEREOF DESCRIBED IN DEED RECORDED AUGUST 31, 1978 IN BOOK 2270 AT PAGE 387.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL F IS THE SAME AS THE LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT (I) INCORRECTLY LISTED THE RANGE AS "RANGE 58 WEST", (II) INCORRECTLY STATED THE SIXTH CALL AS "THENCE EAST 202.2 FEET" AND (III) INCORRECTLY LISTED THE LAST CALL AS "THENCE WEST 07.20 FEET TO THE TRUE POINT OF BEGINNING".

PARCEL G:

A PARCEL OF LAND IN THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:  
COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SAID SECTION 9, THENCE EAST ALONG THE SOUTH SECTION LINE, 127.20 FEET;  
THENCE NORTH 40 FEET TO THE TRUE POINT OF BEGINNING;  
THENCE NORTH 145 FEET;  
THENCE EAST 110 FEET;  
THENCE SOUTH 145 FEET;  
THENCE WEST 110 FEET TO THE POINT OF BEGINNING.

NOTE: THIS LEGAL DESCRIPTION FOR PARCEL G IS THE SAME AS THE

LEGAL DESCRIPTION REFERENCED IN THE PERSONAL REPRESENTATIVES DEED RECORDED ON AUGUST 8, 2000 AT RECEPTION NO. C0698515 IN BOOK 6216 AT PAGE 002-003, BUT WITH A CORRECTION TO THE SCRIVENERS ERRORS CONTAINED IN SUCH DEED THAT INCORRECTLY STATED THE FIRST CALL AS "THENCE EAST ALONG THE SOUTH SECTION LINE, 187.20 FEET."

PARCEL H:

A PARCEL OF LAND LOCATED IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL THAT PORTION OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY'S (FORMERLY COLORADO AND SOUTHERN RAILWAY COMPANY) 100.0 FOOT WIDE BRANCH LINE RIGHT OF WAY, BEING 50.0 FEET WIDE ON EACH SIDE OF SAID RAILWAY COMPANY'S MAIN TRACK CENTERLINE, AS ORIGINALLY LOCATED AND CONSTRUCTED UPON, OVER, AND ACROSS THOSE LANDS CONVEYED TO SAID RAILWAY COMPANY BY DEED RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, COLORADO AND SITUATED IN THE SW1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE SIXTH PRINCIPAL MERIDIAN, ADAMS COUNTY, COLORADO BOUNDED ON THE EASTERLY SIDE BY A LINE DRAWN AT RIGHT ANGLES TO SAID MAIN TRACK CENTERLINE DISTANT 545.0 FEET WESTERLY OF THE CENTERLINE OF PECOS STREET, AS MEASURED ALONG A LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE, AND BOUNDED ON THE WESTERLY SIDE BY A LINE DRAWN PARALLEL WITH THE EAST LINE OF SAID SW1/4 OF SECTION 9 AND DISTANT 1,405.0 FEET WESTERLY OF SAID CENTERLINE OF PECOS STREET, AS MEASURED ALONG SAID LINE DRAWN PARALLEL WITH AND DISTANT 50.0 FEET SOUTHERLY OF, AS MEASURED AT RIGHT ANGLES FROM SAID MAIN TRACK CENTERLINE.

PARCEL I:

A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH P.M., COUNTY OF ADAMS, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BEING THAT PORTION OF THAT CERTAIN 12 ACRE TRACT OF LAND DESCRIBED IN DEED DATED AUGUST 15, 1870 TO THE COLORADO CENTRAL RAILROAD COMPANY, RECORDED AUGUST 15, 1870 IN BOOK 28 AT PAGE 266, RECORDS OF ARAPAHOE COUNTY, BOUNDED WESTERLY BY THE EASTERLY BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED DATED FEBRUARY 24, 1998 FROM THE BURLINGTON NORTHERN AND

SANTA FE RAILROAD COMPANY TO ANI, LLC, RECORDED DECEMBER 10, 1999 IN BOOK 5978 AT PAGE 846, RECORDS OF ADAMS COUNTY AND BOUNDED EASTERLY BY THE WESTERLY BOUNDARY OF THAT CERTAIN 0.215 ACRE PARCEL OF LAND DESCRIBED IN DEED DATED SEPTEMBER 11, 2009 FROM BNSF RAILWAY COMPANY TO ADAMS COUNTY, COLORADO RECORDED SEPTEMBER 16, 2009 AT RECEPTION NO. 2009000069014, RECORDS OF ADAMS COUNTY.

**Former Union Pacific Strip Legal Description:**

A PARCEL OF LAND BEING A PORTION OF LAND IN WARRANTY DEED RECORDED AUGUST 21, 1906 IN BOOK 16 AT PAGE 514 IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER'S OFFICE, STATE OF COLORADO, SITUATED IN THE EAST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (2011). THE BASIS OF BEARINGS IS THE EAST LINE OF THE SOUTHWEST ONE-QUARTER OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST OF THE 6TH PRINCIPAL MERIDIAN. THE NORTH POINT OF SAID LINE IS A FOUND 2-INCH ALUMINUM CAP STAMPED "JACOBS ENGINEERING 2016 PLS 24942". THE SOUTH POINT OF SAID LINE IS A FOUND 2 1/2-INCH ALUMINUM CAP STAMPED CAP STAMPED "W.C. 5.00 2016 PLS 37601" IN A RANGE BOX MARKED "SURVEY". THE WITNESS CORNER IS 5.00 FEET WEST OF AND ON LINE TO THE WEST 1/16 CORNER OF SAID SECTION 9. THE MEASURED BEARING BETWEEN SAID POINTS IS SOUTH 00° 02' 51" WEST A DISTANCE OF 2,646.62 FEET. HOWEVER, THE BASIS BEARINGS HAS BEEN ROTATED COUNTERCLOCKWISE 00° 02' 51" TO MATCH THE BASIS OF BEARINGS USED ON THE PLAT PRESTRESSED-CON SUBDIVISION, SECOND FILING, RECORDED AT SURVEY DEPOSIT FILE NO. 14, MAP NO. 765, AUGUST 5, 1981 UNDER RECEPTION NO. B336912 IN THE RECORDS OF SAID COUNTY. THE BASIS OF BEARINGS ON THIS AND THE REFERENCE PLAT IS NORTH 00° 02' 51" EAST.

COMMENCING AT THE SOUTH POINT OF THE BASIS OF BEARINGS;

THENCE NORTH 00° 00'00" EAST A DISTANCE OF 1,163.68 ALONG THE EAST LINE OF THE SW1/4 OF SAID SECTION 9;

THENCE NORTH 90° 00' 00" WEST A DISTANCE OF 30.00 FEET TO A POINT ON THE WEST RIGHT-OF-WAY LINE OF NORTH PECOS STREET, ALSO BEING THE SOUTHEAST CORNER OF A PARCEL OF LAND RECORDED AUGUST 11, 2009 UNDER RECEPTION NO. 2009000059721 AND THE NORTHEAST CORNER OF A PARCEL OF LAND RECORDED SEPTEMBER 16, 2009 UNDER RECEPTION NO. 2009000069014 IN THE RECORDS OF SAID COUNTY;

THENCE ON A NON-TANGENT ARC TO THE LEFT, ON THE COMMON BOUNDARY BETWEEN SAID PARCELS AT RECEPTION NUMBERS 2009000059721 AND 2009000069014, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 02° 15' 24" AND AN ARC LENGTH OF 79.88 FEET. THE CHORD OF SAID CURVE BEARS

NORTH 70° 48' 21" WEST A DISTANCE OF 79.87 FEET TO THE SOUTHWEST CORNER OF SAID PARCEL AT RECEPTION NO. 2009000059721 AND THE NORTHWEST CORNER OF SAID PARCEL RECEPTION NUMBER 2009000069014 AND THE POINT OF BEGINNING:

THENCE CONTINUING ON A NON-TANGENT ARC TO THE LEFT, ON THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "I" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY, HAVING A RADIUS OF 2028.00 FEET, A CENTRAL ANGLE OF 03°05'57" AND AN ARC LENGTH OF 109.70 FEET, THE CHORD OF SAID CURVE BEARS NORTH 73°29'01" WEST A DISTANCE OF 109.68 FEET;

THENCE CONTINUING ALONG THE NORTH LINE OF SAID PARCEL "I" NORTH 75°02'00" WEST A DISTANCE OF 300.28 FEET TO THE NORTHWEST CORNER OF SAID PARCEL "I";

THENCE NORTH 75°02'00" WEST A DISTANCE OF 657.94 FEET ALONG THE NORTH LINE OF A PARCEL OF LAND DESCRIBED AS PARCEL "H" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE DEPARTING SAID NORTH LINE OF PARCEL "H" NORTH 01°28'00" WEST A DISTANCE OF 46.67 FEET TO THE SOUTHWEST CORNER OF A PARCEL OF LAND DESCRIBED AS PARCEL "B" IN RECEPTION NUMBER 2017000035300 ON APRIL 24, 2017 IN THE RECORDS OF SAID COUNTY;

THENCE ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 600.00 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 14°58'00" WEST A DISTANCE OF 13.50 FEET;

THENCE CONTINUING ALONG SAID SOUTH LINE OF PARCEL "B" SOUTH 75°02'00" EAST A DISTANCE OF 481.10 FEET TO THE NORTHWEST CORDER OF SAID PARCEL AT RECEPTION NUMBER 2009000059721;

THENCE DEPARTING SAID SOUTH LINE OF PARCEL "B" SOUTH 15°01'04" WEST A DISTANCE OF 34.23 FEET ALONG THE WEST LINE OF SAID PARCEL AT RECEPTION NUMBER 2009000059721 TO THE POINT OF BEGINNING.



**Former Adams County Parcel Legal Description:**

A TRACT OR PARCEL OF LAND NO. 6A-R(1), BEING A PORTION OF PROPERTY DESCRIBED IN THE RECORDS OF THE ADAMS COUNTY CLERK & RECORDER IN BOOK 16, PAGE 514, LOCATED IN THE SW 1/4 SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF ADAMS, STATE OF COLORADO, SAID TRACT OR PARCEL BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT WHENCE THE CENTER QUARTER CORNER OF SAID SECTION 9 BEARS N. 02°58'29" E., A DISTANCE OF 924.33 FEET, SAID POINT ALSO BEING THE TRUE POINT OF BEGINNING;

1. THENCE S. 00°55'39" E., A DISTANCE OF 297.64 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT 1, BLOCK 2, PRESTRESSED-CON SUBDIVISION, SECOND FILING;

2. THENCE ALONG SAID PROPERTY LINE N. 74°58'42" W., A DISTANCE OF 646.21 FEET;

3. THENCE N. 02°26'59" E., A DISTANCE OF 86.25 FEET;

4. THENCE N. 85°55'00" E., A DISTANCE OF 617.19 FEET, TO THE TRUE POINT OF BEGINNING.

BASIS BEARINGS: BEARINGS ARE BASED ON THE EAST LINE OF THE SW 1/4 OF SECTION 9, TOWNSHIP 3 SOUTH, RANGE 68 WEST, OF THE 6TH PRINCIPAL MERIDIAN, BEING NORTH 00°03'19" EAST. THE CENTER QUARTER CORNER OF SAID SECTION IS A 3 1/4" ALUMINUM CAP (STAMPED LS 16401) IN A RANGE BOX. THE SOUTH QUARTER CORNER OF SAID SECTION IS MONUMENTED BY A WITNESS CORNER, OFFSET 5.00 FEET TO THE WEST ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION, BEING A 2 1/2" ALUMINUM CAP (STAMPED PLS 11372) IN A RANGE BOX.