

# City of Santa Fe, New Mexico

**Case #2024-8901 & 8902  
2768 Agua Fria  
Rezoning and Master Plan  
Planning Commission  
June 5th, 2025**

## **Exhibit C**

### **Application Materials**

1. Application Report and Approval Criteria Responses
2. Master Plan Application and Authorization
3. Rezoning Application and Authorization
4. Warranty Deed
5. Certificate of Compliance
6. Rezoning Ordinance 2007-29
7. Utility Service Application
8. SFHP Proposal
9. School Impact Form
10. Water Budget
11. ENN Notes
12. Parking Study
13. TIA



JENKINSGAVIN  
LAND USE | PROJECT MANAGEMENT

August 12, 2024 (*Revised May 15, 2025*)

Joel Cruz-Haber, Senior Planner  
Current Planning Division  
City of Santa Fe Land Use Department  
200 Lincoln Ave.  
Santa Fe, NM 87501

**RE: Letter of Application  
2768 Agua Fria St. Rezone & Master Plan**

Dear Joel:

This letter is respectfully submitted on behalf of Cold Water Development Fund QOZF, LLC (the “Applicant”) in application for a Rezone and Master Plan of the property at 2768 Agua Fria St. The ±4.12-acre subject property is zoned Mixed-Use (MU), with a General Plan Future Land Use designation of Transitional Mixed-Use, and is undeveloped. This submittal includes the following requests:

1. Rezone from MU to C-2, General Commercial
2. Master Plan for 130-unit mixed-use community

**Background**

The subject property was granted approved of a General Plan Amendment on January 25, 2006 from Residential Low Density to Transitional Mixed-Use. The property was subsequently rezoned on August 8, 2007 from R-2 (Residential, two units per acre) to MU. Please see attached Rezone Ordinance 2007-29.

Legal Lot of Record was established via a Certificate of Compliance approved by the Planning Commission on June 6, 2024. The Findings of Fact and Conclusion of Law are included with this application.

**Project Description**

The 4.12-acre property is located directly off Agua Fria Street approximately one-third mile east of Siler Road. This segment of the Agua Fria corridor is a diverse, mixed-use neighborhood that includes a range of residential densities, commercial development, and industrial uses. A Master Plan is submitted with this Rezone application addressing the potential future development of the property as a 130-unit multi-family residential community with a local-serving commercial component. In compliance with the Santa Fe Homes Program, 10% of the units will be affordable and a 5% fee-in-lieu will be contributed to the Affordable Housing Trust Fund.

## Rezone Request

The subject parcel is currently zoned MU and we are requesting a rezone to C-2, General Commercial. Responses to the rezoning approval criteria in SFCC §14-3.5(C) and (D) are detailed below.

(a) *One or more of the following conditions exist:*

(i) *there was a mistake in the original zoning.* N/A

(ii) *there has been a change in the surrounding area, altering the character of the neighborhood to such an extent as to justify changing the zoning.*

Applicant Response: This area has gradually densified over the years resulting in a diverse neighborhood of suburban residential development patterns, multi-family development, and commercial uses. The most significant and relevant change is the housing shortage that Santa Fe is currently facing. Increasing the supply of all types of housing is critical to accommodating projected growth and addressing affordability. In addition, a key component of economic development is an adequate supply of housing to support a robust workforce. The rezone will directly result in an increase of local housing supply and affordability.

(iii) *a different use category is more advantageous to the community, as articulated in the general plan or other adopted city plans.*

Applicant Response: The subject property is an ideal location for greater housing density, served by the Santa Fe Trails bus system, proximate to services and employment, and less than half a mile from the Santa Fe River Trail, providing direct access to downtown. Accordingly, the project aligns with General Plan Themes and Policies, such as Affordable Housing, Transportation Alternatives, Economic Diversity, Urban Form/Higher Densities, Community Oriented Development, and Mixed-Use. Furthermore, the project exemplifies the following elements of the General Plan Land Use Framework: Compact Urban Form, Mix of Uses in All New and Existing Neighborhoods, Mix of Housing Types in All Neighborhoods, and Transit Supportive Development. The applicable Themes and Policies of the General Plan are further summarized below:

### Affordable Housing Policy 4-4-G-7

This increase in housing supply provided by the project will help alleviate the current housing shortage in Santa Fe. In addition, 10% of the units will be set-aside as affordable units and a 5% fee paid to the Affordable Housing Trust Fund to support future affordable housing efforts.

### Economic Development Strategic Plan

The provision of adequate housing opportunities for the workforce is critical to economic development. Furthermore, the project enhances the mixed-use environment of the Agua Fria corridor, whose residents will support local businesses in the vicinity.

#### Urban Form/Higher Densities - Growth Management Methods 4.1

*“In both ‘infill’ and ‘future growth’ areas, the city must encourage higher densities of residential and commercial development than existing zoning often allows. This approach does not necessarily require greater building height but rather greater massing on specifically identified infill sites within the Urban Area.”*

The rezoning supports the General Plan’s emphasis on higher densities and a compact urban form. The requested rezone to C-2 maximizes land use efficiency in an urban setting, reducing urban sprawl, and supporting walkability and transit-oriented development. By promoting higher-density residential development, the rezoning aligns with the city’s vision of creating a more sustainable urban environment.

#### Community-Oriented Development - Growth Management Methods 4-1-G-3

*“Use a full range of growth management methods to achieve a superior quality of life and to ensure a financially and environmentally sustainable community.”*

The project will help meet the community’s housing needs in a sustainable manner. Developing housing in the Agua Fria corridor provides walkable access to services and employment opportunities. Furthermore, the site is served by Route 1 of the Santa Fe Trails bus system.

#### Compact Urban Form 4-3-G-2

Rezoning to C-2 supports a more compact urban form by making more efficient use of the land. This is particularly important for infill sites where existing utility and roadway infrastructure can be leveraged without the need for extensive new development. This efficient use of land and infrastructure is a key goal of the General Plan, helping to reduce the environmental impact of development and supporting more sustainable urban growth.

#### Mix of Housing Types in All Neighborhoods (3.3 Land Use Framework)

*“Future Land Use (Figure 3-2) illustrates neighborhoods with integrated housing types, designed to locate a larger share of residences close to transit and neighborhood centers.”*

The subject property is in a diverse neighborhood of commercial uses and a variety of residential densities. The project adds to this diversity, increasing the housing supply in this mixed-use area. Furthermore, access to public transit, services, and employment make the site an ideal infill location for multi-family development.

(b) *all the rezoning requirements of Chapter 14 have been met.*

Applicant Response: All the rezoning requirements of Chapter 14 have been met.

(c) *the rezoning is consistent with the applicable policies of the general plan, including the future land use map.*

Applicant Response: The requested C-2 zoning complies with the property's designation of Transitional Mixed-Use. Furthermore, the project conforms to the General Plan as outlined below:

Affordable Housing Policy 4-4-G-7

This increase in housing supply provided by the project will help alleviate the current housing shortage in Santa Fe. In addition, 10% of the units will be set-aside as affordable units and a 5% fee paid to the Affordable Housing Trust Fund to support future affordable housing efforts.

Economic Development Strategic Plan

The provision of adequate housing opportunities for the workforce is critical to economic development. Furthermore, the project enhances the mixed-use environment of the Agua Fria corridor, whose residents will support local businesses in the vicinity.

Urban Form/Higher Densities - Growth Management Methods 4.1

*"In both 'infill' and 'future growth' areas, the city must encourage higher densities of residential and commercial development than existing zoning often allows. This approach does not necessarily require greater building height but rather greater massing on specifically identified infill sites within the Urban Area."*

The rezoning supports the General Plan's emphasis on higher densities and a compact urban form. The requested rezone to C-2 maximizes land use efficiency in an urban setting, reducing urban sprawl, and supporting walkability and transit-oriented development. By promoting higher-density residential development, the rezoning aligns with the city's vision of creating a more sustainable urban environment.

Community-Oriented Development - Growth Management Methods 4-1-G-3

*“Use a full range of growth management methods to achieve a superior quality of life and to ensure a financially and environmentally sustainable community.”*

The project will help meet the community’s housing needs in a sustainable manner. Developing housing in the Agua Fria corridor provides walkable access to services and employment opportunities. Furthermore, the site is served by Route 1 of the Santa Fe Trails bus system.

Compact Urban Form 4-3-G-2

Rezoning to C-2 supports a more compact urban form by making more efficient use of the land. This is particularly important for infill sites where existing utility and roadway infrastructure can be leveraged without the need for extensive new development. This efficient use of land and infrastructure is a key goal of the General Plan, helping to reduce the environmental impact of development and supporting more sustainable urban growth.

Mix of Housing Types in All Neighborhoods (3.3 Land Use Framework)

*“Future Land Use (Figure 3-2) illustrates neighborhoods with integrated housing types, designed to locate a larger share of residences close to transit and neighborhood centers.”*

The subject property is in a diverse neighborhood of commercial uses and a variety of residential densities. The project adds to this diversity, increasing the housing supply in this mixed-use area. Furthermore, access to public transit, services, and employment make the site an ideal infill location for multi-family development.

- (d) *the amount of land proposed for rezoning and the proposed use for the land is consistent with city policies regarding the provision of urban land sufficient to meet the amount, rate and geographic location of the growth of the city.*

Applicant Response: General Plan Figure 4-4, Urban Sub-Areas, designates the subject property and surrounding area as an “Infill Area.” The Growth Management Chapter of the General Plan specifically calls for prioritization of infill development in Santa Fe in order to maximize the efficient use of public infrastructure, while meeting the demand for urban land for development and directing new growth towards the historic core of the city rather than on the undeveloped fringes. The proposed infill project is in alignment with these strategic directives and responsive to community needs for housing in this area of the City. General Plan Section 4.1 states, *“In both ‘infill’ and ‘future growth’ areas, the city must encourage higher densities of residential and commercial development than existing zoning often allows” to help “create efficient use of already existing roads and utilities, help ensure cost-efficient public transit, and provide the type of housing that will be in demand...”*

- (e) *the existing and proposed infrastructure, such as the streets system, sewer and water lines, and public facilities, such as fire stations and parks, will be able to accommodate the impacts of the proposed development.*

Applicant Response: The subject property is served by existing roadways and public water and sewer infrastructure. In addition, the site is proximate to the Santa Fe River Trail, providing access to the City's network of urban trails and open space.

- (2) *Unless the proposed change is consistent with applicable general plan policies, the planning commission and the governing body shall not recommend or approve any rezoning, the practical effect of which is to:*

(a) *allow uses or a change in character significantly different from or inconsistent with the prevailing use and character in the area;*

(b) *affect an area of less than two acres, unless adjusting boundaries between districts; or*

(c) *benefit one or a few landowners at the expense of the surrounding landowners or general public.*

Applicant Response: The proposed project aligns well with numerous General Plan policies and principles, as addressed above. Furthermore, it is a model of the type of infill development that the General Plan specifically encourages, adding to the mix of housing types in the neighborhood, providing 13 affordable apartment homes, creating a transition between lower and higher intensity land uses, and creating higher density housing adjacent to a transit corridor.

#### SFCC §14-3.5 (D): Additional Applicant Requirements

- (1) *If the impacts of the proposed development or rezoning cannot be accommodated by the existing infrastructure and public facilities, the city may require the developer to participate wholly or in part in the cost of construction of off-site facilities in conformance with any applicable city ordinances, regulations or policies;*

Applicant Response: The Applicant is prepared to construct necessary infrastructure improvements to accommodate future development on the property in accordance with the Traffic Impact Analysis and applicable City regulations.

- (2) *If the proposed rezoning creates a need for additional streets, sidewalks or curbs necessitated by and attributable to the new development, the city may require the developer to contribute a proportional fair share of the cost of the expansion in addition to impact fees that may be required pursuant to Section 14-8.14.*

Applicant Response: Any requisite infrastructure improvements will be determined at the Development Plan stage and will be implemented as part of the project.

## **Master Plan**

A Master Plan is submitted with this Rezone application addressing the conceptual development program for a 130-unit multi-family community with a local-serving commercial component. Three buildings are proposed with a combination of two and three stories. In keeping with the development patterns along Agua Fria Street, Building 1 adjacent to the road will be two stories and includes the commercial space at the northeast corner. Building 2 is three stories and sited along the west boundary to buffer the residential properties to the east. Similarly, Building 3 also comprises three stories. Courtyards at Buildings 1 and 3 offer outdoor lounge space and recreational areas. In addition, a dog park, clubhouse/fitness center, and pool are located at the south end of the site.

Permissible Uses. Given the neighborhood context, it is appropriate to define and limit the C-2 uses that will be permitted. The proposed permissible uses are as follows:

- Single-Family Residential
- Multi-Family Residential
- Food and Beverage
- Retail
- Studios
- Arts Activities
- Service Establishments

Access and Traffic. The project is accessed directly from Agua Fria St. and a secondary, gated emergency access is provided at Cooks Road at the southwest property corner. Pedestrian access to Cooks Rd. will also be provided. At the City's request, a 42-foot access and utility easement will be granted to support the potential future eastern extension of Cooks Road. Per the attached Traffic Impact Analysis, all intersections analyzed operate at acceptable levels of service. An eastbound right-turn decel lane is warranted at the site access in the PM peak hour.

Parking. 185 parking spaces are required and 160 are provided. In accordance with SFCC §14-8.6(B)(4)(d) and (e), a Parking Demand Study is submitted with this application in request for a parking reduction and shared parking between the residential and commercial uses.

Utilities. Water service to Buildings 1 and 2 will be provided via a new service line connection to the existing waterline in Agua Fria St., with a master meter installed for each building. Building 3 will connect to the waterline in Cooks Rd. with a separate master meter. Sewer service is provided via a new manhole connection to the existing trunk line that traverses the north side of the property and a connection to the existing sewer line in Cooks Rd. Please refer to the Master Utility Plan for more information.

Terrain Management and Landscaping. The site slopes gently from east to west. Stormwater detention is provided in a series of small ponds and passive water harvesting will be provided in the landscaped areas. Landscaping improvements will include street trees along Agua Fria, and

requisite plantings in the parking and open space areas. Please refer to the Preliminary Grading and Landscaping Plans for additional details.

The Master Plan approval criteria in §14-3.9(D) are addressed below:

(a) *The master plan is consistent with the general plan;*

Applicant Response: The proposed Master Plan supports *General Plan Theme 1.7.1 – Affordable Housing*, which calls on the Planning Commission and Governing Body to “actively participate in the creation of affordable housing” by approving development that creates opportunities for housing to serve all income segments in all areas of the city. In addition, the following land use principles in *General Plan Section 3.3* are embodied by the proposal:

- *Compact Urban Form:* As an infill site, the project exemplifies a compact urban form.
- *Mix of Housing Types in All Neighborhoods:* Calls for the integration of diverse housing types close to transit and neighborhood centers. The proposal will enable residential development at a density that will promote a diversity of housing types in the neighborhood.
- *Quality of Life.* The Plan specifically seeks to promote community interests over private interests to ensure the availability of resources, services and amenities to *all* residents. The Master Plan will enable the future development of much needed market rate and affordable housing, which will serve a diversity of Santa Fe residents.
- *Sustainable Growth.* The project will efficiently utilize existing infrastructure and balance resource protection with meeting community needs through residential infill development. Chapter 4 of the General Plan states, “*Promoting infill over development at the periphery of the city is a key component of growth management. Providing for a mix of housing densities and products is essential to promoting a balanced socioeconomic profile for all neighborhoods within the city. Infill development can be designed to be fully compatible and to integrate with surrounding neighborhoods, at densities that support the construction of affordable housing.*” The General Plan specifically calls for a mixture of housing types in all neighborhoods and for the active creation of affordable housing – objectives which this proposal seeks to address by enabling residential development at a density that is compatible with its surroundings and creating the possibility for a diversity of housing types and pricing options.

(b) *The master plan is consistent with the purpose and intent of the zoning districts that apply to, or will apply to, the master plan area, and with the applicable use regulations and development standards of those districts;*

Applicant Response: The C-2 zoning district is a robust mixed-use zoning category that supports both commercial uses and multi-family development at higher densities. The proposed mixed-use development will serve as an appropriate transition from the more intense commercial uses to the west and the residential development patterns to the east.

Furthermore, the Master Plan demonstrates compliance with Chapter 14 development standards with respect to height, lot coverage, parking, open space, terrain management, and landscaping.

*(c) Development of the master plan area will contribute to the coordinated and efficient development of the community; and*

Applicant Response: The Master Plan includes provisions for pedestrian and vehicular connectivity to the surrounding area, as called for in the General Plan. In addition, the subject property makes efficient use of existing infrastructure as an infill site – a value repeatedly emphasized in the General Plan. Furthermore, as stated above, the development program proposed by the Master Plan will serve to achieve a transition between lower intensity residential land uses to the east and the higher intensity commercial uses to the west. Transitions like this are critical to the coordinated development of the community and serve to buffer residential neighborhoods from areas of high intensity land uses.

*(d) The existing and proposed infrastructure, such as the streets system, sewer and water lines, and public facilities, such as fire stations and parks, will be able to accommodate the impacts of the planned development.*

Applicant Response: The existing roadway and utility infrastructure are adequate to serve the project. The Traffic Impact Analysis (TIA) demonstrates that the roadway network has the capacity for the proposed development, with the potential construction of a right-turn decel lane at the site access.

### **Archaeology**

The subject parcel is located in the River and Trails Archaeological District. An archaeology survey will be prepared and submitted with the Development Plan application.

### **Water Budget**

A Conceptual Water Budget is submitted herewith for reference. In accordance with City regulations, water rights will be provided to offset the water demand.

### **Affordable Housing – Santa Fe Homes Program**

As stated above and in accordance with the Santa Fe Homes Program (“SFHP”), 10% of the units will be set aside as affordable and a 5% fee-in-lieu will be contributed to the Affordable Housing Trust Fund.

### **Early Neighborhood Notification**

Two Early Neighborhood Notification Meetings were held on January 24 and April 23, 2024. City staff, Applicant, consultants, and members of the public were in attendance. Please refer to the attached meeting notes for details.

In support of this request, the following documentation is submitted herewith for your reference:

- |  |                                |
|--|--------------------------------|
| 1. Master Plan and Rezone Applications           | 7. SFHP Proposal               |
| 2. Agent Authorization Letter                    | 8. Santa Fe Public School Form |
| 3. Warranty Deed                                 | 9. Conceptual Water Budget     |
| 4. Legal Lot of Record Certificate of Compliance | 10. ENN Meeting Notes          |
| 5. Rezone Ordinance                              | 11. Traffic Impact Analysis    |
| 6. Utility Service Application                   | 12. Master Plan Submittal Set  |

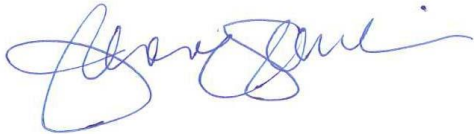
The Development Review Fees are calculated as follows:

Master Plan:	\$500.00
<u>Rezone</u>	<u>\$1,000.00</u>
<b>TOTAL</b>	<b>- \$1,500.00</b>

Please contact me should you have any questions or require additional information.

Thank you for your consideration.

Sincerely,



Jennifer Jenkins, Principal



(date stamp)

# MASTER PLAN APPLICATION

## Parcel Information

Project Name: Agua Fria Multi Family Master Plan

Address: 2768 Agua Fria Street Property Size: 4.12 acres

Current Use of Land: vacant Proposed Use of Land: Residential/ Commercial

Does a Rezoning application accompany this application? YES  NO  Are any variances required? YES  NO

Preapplication Conference Date: 12/07/2023

Early Neighborhood Notice (ENN) meeting date: #1 2/29/24 #2 4/23/24 Zoning: Current: MU Mixed Use Proposed: C-2 General Commercial

## Property Owner Information

Name: Cold Water Development Fund QOZF, LLC

Address: 106 Faithway Street

*Street Address* *Suite/Unit #*

Santa Fe NM 87501

*City* *State* *ZIP Code*

Phone: ( ) E-mail Address: \_\_\_\_\_

## Applicant/Agent Information (if different from owner)

Company Name: JenkinsGavin, Inc.

Name: Jennifer Jenkins

*First* *Last*

Address: 130 Grant Avenue Suite 101

*Street Address* *Suite/Unit #*

Santa Fe NM 87501

*City* *State* *ZIP Code*

Phone: ( 505)820-7444 E-mail Address: jennifer@jenkinsgavin.com / angelica@jenkinsgavin.com

Correspondence Directed to:  Owner  Applicant  Both

## Agent Authorization (if applicable)

I am/We are the owner(s) and record title holder(s) of the property located at: \_\_\_\_\_

I/We authorize <<See attached notarized owner authorization.>> to act as my/our agent to execute this application.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

**Submittal Checklist (Requirements found in Section 14-3.8 SFCC 1987)**

Six (6) 24"x36" plan sets and one (1) CD are required. Please include the following:

<input checked="" type="checkbox"/>	Letter of Application (intent, location, acreage)	<input checked="" type="checkbox"/>	Statement addressing approval criteria	<input checked="" type="checkbox"/>	Legal Lot of Record, Legal Description	<input checked="" type="checkbox"/>	Los Prados Master Plan Set	<input type="checkbox"/>	
<input checked="" type="checkbox"/>	Archaeological Clearance (if applicable)	<input checked="" type="checkbox"/>	Traffic Impact Analysis (if required)	<input checked="" type="checkbox"/>	Proof of Compliance with Conditions of Annexation Approval (if applicable)	<input checked="" type="checkbox"/>	Sewer and Water Plan (including profiles and details)	<input type="checkbox"/>	
<input type="checkbox"/>									

**Master Plan Submittal Requirements, as defined by Section 14-3.9(C) SFCC 1987:**

Applicants for developments that require master plans under this section shall submit plans and other documentation as required by the land use director that show compliance with the applicable provisions of the Santa Fe City Code as provided in Section 14-3.1(C) (Form of Application), including plans that show:

- (a) existing conditions on the site and within the vicinity;
- (b) proposed modifications to the site, including the locations of existing and new structures, grading, landscaping, lighting, pedestrian and vehicular circulation, parking and loading facilities;
- (c) proposed changes to the zoning of land within the master plan area and the types, extent and intensity of land uses that are proposed;
- (d) the proposed boundaries of tracts comprising the various land use areas and development phases;
- (e) proposed modifications to the infrastructure serving the site, including locations of utilities and public and private streets and driveways and traffic control measures;
- (f) the phases of development, if applicable;
- (g) if public or private infrastructure is proposed to be constructed in phases, a plan for the timing, financing and responsibility for infrastructure construction;
- (h) a development water budget as required by Section 14-8.13;
- (i) for master plans involving five or more acres of land, the land use director may require an analysis of the fiscal impact to the city of providing utility and other municipal services to the area.

**Signature**

*I hereby certify that the documents submitted for review and consideration by the City of Santa Fe have been prepared to meet the minimum standards outlined in the Land Development Code, Chapter 14 SFCC 1987. Failure to meet these standards may result in the rejection of my application. I also certify that I have met with the City's Current Planning staff in a preapplication meeting to verify that the attached proposal is in compliance with the City's zoning and development plan requirements.*

Signature:  Date: August 12, 2024

A case manager will be assigned to your project and will notify you within 10 business days if any additional information is needed. After your application has been reviewed by City staff, you will be contacted by us regarding public notice requirements. A packet of information and instructions will be provided regarding the required mailing and sign posting. Thank you, and feel free to contact the Land Use Department staff at (505) 955-6585 with any questions.



(date stamp)

# REZONING APPLICATION 14-3.5

## Parcel Information

Project Name: Agua Fria Multi Family Property Size: 4.12 acres  
 Address: 2768 Agua Fria Street  
 Current Zoning: (MU) Mixed Use Proposed Zoning: (C-2) General Commercial  
 Does a Development Plan application accompany this application? YES  NO   
 Preapplication Conference Date: 12/07/2023 UPC Code Number: 1051097275431000000  
 Early Neighborhood Notice (ENN) meeting date: #1 2/29/24 #2 4/23/24

## Property Owner Information

Name: Cold Water Development Fund QOZF, LLC  
 Address: 106 Faithway Street  
 Street Address: Santa Fe Suite/Unit #: NM 87501  
 City: Santa Fe State: NM ZIP Code: 87501  
 Phone: \_\_\_\_\_ E-mail Address: \_\_\_\_\_

## Applicant/Agent Information (if different from owner)

Company Name: Jenkins Gavin, Inc.  
 Name: Jennifer Jenkins  
 Address: 130 Grant Ave Suite 101  
 Street Address: Santa Fe, NM 87501 Suite/Unit #: \_\_\_\_\_  
 City: Santa Fe State: NM ZIP Code: 87501  
 Phone: 505-820-7444 E-mail Address: jennifer@jenkinsgavin.com / angelica@jenkinsgavin.com  
 Correspondence Directed to:  Owner  Applicant  Both

## Agent Authorization (if applicable)

I am/We are the owner(s) and record title holder(s) of the property located at: \_\_\_\_\_  
 I/We authorize See attached authorization letter to act as my/our agent to execute this application.  
 Signed: \_\_\_\_\_ Date: \_\_\_\_\_  
 Signed: \_\_\_\_\_ Date: \_\_\_\_\_

A case manager will be assigned to your project and will notify you within 10 business days if any additional information is needed. After your application has been reviewed by City staff, we will contact you regarding public notice requirements. A packet of information and instructions will be provided regarding the required mailing and sign posting. Please contact the Land Use Department staff at (505) 955-6585 with any questions.

**Submittal Checklist (Requirements found in Section 14-3.5 SFCC 1987)**

Six (6) 24"x36" or 11"x17" scalable plan sets and 1 CD with a PDF copy are required. Submittal requirements may vary based on the individual application and the requested zoning district. The City reserves the right to request additional information at any time during the review process. See Section 14-4 and 14-5 SFCC 1987 for rezoning regulations related to specific zones. Please include the following and check box to indicate submittal:

<input checked="" type="checkbox"/> Letter of Application (intent, location, acreage)	<input checked="" type="checkbox"/> Narrative addressing approval criteria (see below)	<input checked="" type="checkbox"/> Legal Lot of Record, Legal Description	<input type="checkbox"/> Development Plan (see Section 14-3.8 SFCC 1987)	<input type="checkbox"/> Landscape, Parking and Lighting Plan, Signage Specifications
<input type="checkbox"/> Terrain Management Plans (as required by Section 14-8.2 SFCC 1987)	<input checked="" type="checkbox"/> Traffic Impact Analysis (if required)	<input type="checkbox"/> Archaeological Clearance (if applicable)	<input type="checkbox"/> Sewer and Water Plan (including profiles and details), letter of availability (if applicable)	<input type="checkbox"/> Phasing Plan (if applicable)

**Rezoning Approval Criteria, Sections 14-3.5(C) and (D) SFCC 1987**

**(C) Approval Criteria**

(1) The planning commission and the governing body shall review all rezoning proposals on the basis of the criteria provided in this section, and the reviewing entities must make complete findings of fact sufficient to show that these criteria have been met before recommending or approving any rezoning:

- (a) one or more of the following conditions exist:
  - (i) there was a mistake in the original zoning;
  - (ii) there has been a change in the surrounding area, altering the character of the neighborhood to such an extent as to justify changing the zoning; or
  - (iii) a different use category is more advantageous to the community, as articulated in the general plan or other adopted city plans;
- (b) all the rezoning requirements of Chapter 14 have been met;
- (c) the rezoning is consistent with the applicable policies of the general plan, including the future land use map;
- (d) the amount of land proposed for rezoning and the proposed use for the land is consistent with city policies regarding the provision of urban land sufficient to meet the amount, rate and geographic location of the growth of the city; and
- (e) the existing and proposed infrastructure, such as the streets system, sewer and water lines, and public facilities, such as fire stations and parks, will be able to accommodate the impacts of the proposed development.

(2) Unless the proposed change is consistent with applicable general plan policies, the planning commission and the governing body shall not recommend or approve any rezoning, the practical effect of which is to:

- (a) allow uses or a change in character significantly different from or inconsistent with the prevailing use and character in the area;
- (b) affect an area of less than two acres, unless adjusting boundaries between districts; or
- (c) benefit one or a few landowners at the expense of the surrounding landowners or general public.

**(D) Additional Applicant Requirements**

- (1) If the impacts of the proposed development or rezoning cannot be accommodated by the existing infrastructure and public facilities, the city may require the developer to participate wholly or in part in the cost of construction of off-site facilities in conformance with any applicable city ordinances, regulations or policies;
- (2) If the proposed rezoning creates a need for additional streets, sidewalks or curbs necessitated by and attributable to the new development, the city may require the developer to contribute a proportional fair share of the cost of the expansion in addition to impact fees that may be required pursuant to Section 14-8.14.

**Signature**

I hereby certify that the documents submitted for review and consideration by the City of Santa Fe have been prepared to meet the minimum standards outlined in the Land Development Code, Chapter 14 SFCC 1987. Failure to meet these standards may result in the rejection of my application. I also certify that I have met with the City's Current Planning staff in a preapplication meeting to verify that the attached proposal is in compliance with the City's zoning requirements.

Signature: Jennifer Jenkins Date: August 12, 2024



**WARRANTY DEED**

AGUA FRIA DEVELOPMENT QOZB, LLC, a New Mexico limited liability company, for consideration paid, grants to COLD WATER DEVELOPMENT FUND QOZF, LLC, a New Mexico limited liability company, the address for which is 154 W. Marcy Street, Suite 104, Santa Fe, New Mexico 87501, the following described real property in Santa Fe County, New Mexico:

Lot Thirty-eight (38) as shown on "Boundary Survey Plat Prepared for Department of the Interior Bureau of Land Management, showing Section 33, T17N, R9E, N.M.P.M., Santa Fe County, N.M.," filed in the office of the County Clerk, Santa Fe County, New Mexico on October 18, 1995, in Plat Book 318, page 032, as Document No. 921,975

Subject to: Restrictions, reservations, easements of record and taxes for the year 2023 and thereafter

with warranty covenants

Dated: February 27, 2023

AGUA FRIA DEVELOPMENT QOZB, LLC  
a New Mexico limited liability company

By: PIGEON HAWK QOZF, LLC  
a New Mexico limited liability company

Its: Manager

By   
\_\_\_\_\_  
Marc Bertram, Managing Member

COUNTY OF SANTA FE } STATE OF NEW MEXICO } ss	WARRANTY DEED PAGES: 1
I Hereby Certify That This Instrument Was e-Recorded for Record On The 27TH Day Of February, A.D., 2023 at 01:28:52 PM And Was Duly Recorded as Instrument # 2007233 Of The Records Of Santa Fe County	
Deputy - KVAUGHN	Witness My Hand And Seal Of Office Katharine E. Clark County Clerk, Santa Fe, NM



**ACKNOWLEDGMENT**

STATE OF NEW MEXICO )  
COUNTY OF SANTA FE ) SS.

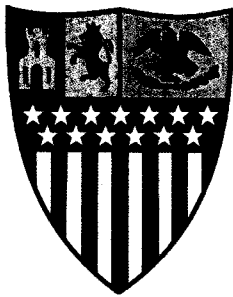
The foregoing instrument was acknowledged before me on January 27<sup>th</sup>, 2023, by Marc Bertram, Managing Member of Pigeon Hawk QOZF, LLC, a New Mexico limited liability company, as Manager of Agua Fria Development QOZB, LLC, a New Mexico limited liability company, on behalf of said limited liability company.

STATE OF NEW MEXICO  
NOTARY PUBLIC  
KATARINA SOMMER  
Commission # 1130609  
My Comm. Exp. Sept. 21, 2024

Katharine Sommer  
Notary Public  
My Commission Expires







# City of Santa Fe, New Mexico

200 Lincoln Avenue, P.O. Box 909, Santa Fe, N.M. 87504-0909

www.santafenm.gov

*Alan Webber, Mayor*

Councilors:

Signe I. Lindell, Mayor Pro Tem, District 1

Alma G. Castro, District 1

Michael J. Garcia, District 2

Carol Romero-Wirth, District 2

Lee Garcia, District 3

Pilar F.H. Faulkner, District 3

Jamie Cassutt, District 4

Amanda Chavez, District 4

## CERTIFICATE OF COMPLIANCE AS LEGAL LOT OF RECORD

**RE: Legal Lot of Record status for a parcel identified as 2768 Agua Fria Street, depicted as Lot 38 on a boundary Survey Plat prepared for Department of the Interior Bureau of Land Management in 1995 recorded in Book 318, Page 32 as instrument number 921.975, records of Santa Fe County, New Mexico on October 18, 1995 (hereinafter, the "Property").**

In compliance with Subsection 14-3.7(A)(7) of the Santa Fe City Code ("SFCC") this Certificate of Compliance documents status as a legal lot of record for the Property.

This Planning Commission ("Commission") considered the following documents:

1. Survey Plat prepared for Richard P. Cook showing the split of Lot 2 into 2-A, 2-B, and the consolidation of Lot 1 with the remainder of Lot 2 to form lot 1-2-C all within a portion of projected section 22, T/17N, R.9E, N.M.P.M. recorded by the Office of the Santa Fe County Clerk on September 16, 1994, recorded in Book 286, Page 2 as Instrument Number 877873.
2. Amended Cook's Industrial Subdivision recorded by the County of Santa Fe August 20, 1985, in Book 156, Page 12 as instrument number 574,639.
3. Lot Line Adjustment of Tract 3 Lot 2, tract 3 Lot 1A and PC 2838 TR. 5 recorded by the County of Santa Fe on May 1, 1998, in Book 385, Page 35, as instrument number 1022556.
4. Quitclaim Deed "Otila M. Quintana, daughter of Inex Montoya, and Juan B. Quintana, her husband for consideration paid, quitclaim to Maria Magdalena B. Montoya (now Arias)" recorded by the County of Santa Fe on August 24, 1962, as instrument number 258,868.
5. Lot Split Survey for Lawrence Boyd of Lot 36 recorded by the County of Santa Fe on September 16, 2008, on September 16, 2008, in Book 690, Page 4 as instrument number 1538,57.
6. Warranty Deed, "Santos I. Montoya, a married man dealing in his sole and separate property and Maclovio Montoya, a married man for consideration paid grant to Santos I. Montoya and Marie Montoya, husband and wife, and Maclovio Montoya and Juanita Montoya, husband and wife as joint tenants" recorded by the County of Santa Fe on April 30, 1998, in Book 1486, Page 202 as instrument 1022377.
7. Warranty Deed, "Maclovio B. Montoya and Juanita T. Montoya for consideration paid grant to Santos I. Montoya" recorded by the County of Santa Fe on August 5, 1974, in Book 314, Page 146.
8. Warranty Deed "Samarkand Properties Ltd. for consideration paid grants to Thanh Long Nguyen and Lan Kim Nguyen, husband and wife" recorded by the County of Santa Fe on May 10, 1994, in Book 1055, Page 112-113 as instrument number 862,179.

SFC CLERK RECORDED 09/11/2024





**EXHIBIT B:**  
**CONDITIONS OF APPROVAL**  
**ORDINANCE NO. 2007-29**

**AGUA FRIA REZONING**

- |                     |  |
|---------------------|--|
| <b>Exhibit B-1:</b> | <b>Engineering Division Traffic Review</b> |
| <b>Exhibit B-2:</b> | <b>Subdivision Engineer</b>                |
| <b>Exhibit B-3:</b> | <b>Solid Waste Division</b>                |
| <b>Exhibit B-4:</b> | <b>Landscaping Review</b>                  |
| <b>Exhibit B-5:</b> | <b>Parks, Trails, and Open Space</b>       |
| <b>Exhibit B-6:</b> | <b>Wastewater Division</b>                 |
| <b>Exhibit B-7:</b> | <b>Office of Affordable Housing</b>        |

# City of Santa Fe, New Mexico

# memo

**DATE:** March 29, 2007

**TO:** Donna Wynant, Planning and Land Use Department

**FROM:** John Romero, Public Works Dpt/Engineering Div/Traffic Impacts Section *JR*

**SUBJECT:** Case #ZA-2007-01, Agua Fria Compound Rezoning

## ISSUE

Request to rezone 4.12 acres from R-2 (Residential, two units per acre) to MU (Mixed Use). The property is located on the south side of Agua Fria Road and west of Harrison Road.

## RECOMMENDED ACTION:

Review comments are based on submittals received on March 14, 2007. The comments below should be considered as Conditions of Approval to be addressed in a satisfactory manner prior to subsequent submittals:

1. A Condition of approval imposed during General Plan Amendment approval recommended that the developer dedicate sufficient right-of-way to accommodate a Clark Road extension from Industrial Road to Agua Fria Road (see attached Traffic memo dated 11/3/2005). The Santa Fe Metropolitan Planning Organization has since determined that the extension of Clark Road to Agua Fria is not a recommended alternative (see attached MPO memo dated 03/29/06). In light of this, the Public Works Department rescinds their initial recommendation of dedicating right-of-way for the Clark Road extension.

If you have any questions or need any more information, feel free to contact me at 955-6638. Thank you.

Attachments: Traffic memo dated 11/3/2005  
MPO memo dated 03/29/06

M:\Traffic Impacts\01-PIAs\2005\Agua Fria Compound\Agua Fria Compound 03-29-07.doc

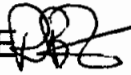
Exhibit *B-1*  
for Ordinance  
No. 2007-29  
Page 1 of 1

# City of Santa Fe, New Mexico

# memo

DATE: April 20, 2007

TO: Donna Wynant, Case Manager

FROM: Risana Zaxus, M.S., PE   
City Engineer

RE: Case # ZA 2007-01  
Agua Fria Compound Rezoning

I reviewed Sheet A-1, "Agua Fria Compound Concept & Landscape Plan," dated March 17, 2007.

This plan sheet does not show drainage ponds as did the previous drawings that I reviewed. Runoff control measures will be required when the property is developed, per Article 14-8.1(F)(2)(c)(ii).

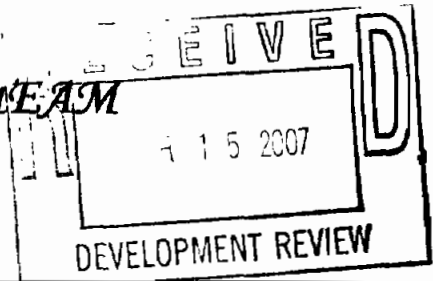
Also of note is that when the property is developed, the Gunnison's Prairie Dogs shall be relocated per Article 14-8.12 of the Land Development Code.

A complete review of this project will be required when it proceeds to the Development Plan phase.

Exhibit <sup>B-2</sup> 2

for Ordinance  
No. 2007-29

DEVELOPMENT REVIEW TEAM  
 TRANSMITTAL FORM



**Case #ZA 2007-01. Agua Fria Compound Rezoning.** Jim Hays and Associates, Inc., agent for Marc Bertram and Eric Enfield, requests rezoning of 4.12 acres from R-2 (Residential, two units per acre) to MU (Mixed Use). The property is located on the south side of Agua Fria Road and west of Harrison Road. (Donna Wynant, case manager)

Name: Jim Hays  
 Hays and Associates, Inc.  
 Submittal date **March 12, 2007**  
 DRT final Comments by **March 22, 2007**

Agent/ Owner # **982-5467** FAX **982-7944**  
 Email **hays@haysinc.com**  
 Planning Commission date **May 03, 2007**

- |                          |                               |                                     |                               |
|--------------------------|-------------------------------|-------------------------------------|-------------------------------|
| <input type="checkbox"/> | PDR Case File/Case Manager    | <input type="checkbox"/>            | Water Division Engineer       |
| <input type="checkbox"/> | Fire Inspector(s)             | <input type="checkbox"/>            | Subdivision Engineer          |
| <input type="checkbox"/> | Traffic Division Engineer     | <input type="checkbox"/>            | Office of Affordable Housing  |
| <input type="checkbox"/> | Waste Water Division Engineer | <input checked="" type="checkbox"/> | Solid Waste Division Engineer |
| <input type="checkbox"/> | PW/ Engineering Division      | <input type="checkbox"/>            | Trails & Open Space           |
| <input type="checkbox"/> | Landscaping                   |                                     |                               |

*3/15/07*

COMMENTS:

*NO SOLID WASTE ISSUES  
 at this time.*

*contact RANDALL MARCO @ 955-2228*

Case Manager: Donna Wynant x6325

Lou Baker x 6656 [lbaker@ci.santa-fe.nm.us](mailto:lbaker@ci.santa-fe.nm.us)  
 Daniel A. Esquibel x 6587 [daesquibel@ci.santa-fe.nm.us](mailto:daesquibel@ci.santa-fe.nm.us)  
 Gary G. Park x 6954 [ggpark@ci.santa-fe.nm.us](mailto:ggpark@ci.santa-fe.nm.us)  
 Charlie D. Gonzales x 6955 [cdgonzales@ci.santa-fe.nm.us](mailto:cdgonzales@ci.santa-fe.nm.us)

Wendy M. Blackwell x 6127 [wblackwell@ci.santa-fe.nm.us](mailto:wblackwell@ci.santa-fe.nm.us)  
 Greg T. Smith x 6957 [gtsmith@ci.santa-fe.nm.us](mailto:gtsmith@ci.santa-fe.nm.us)  
 Donna J. Wynant x 6325 [djwynant@ci.santa-fe.nm.us](mailto:djwynant@ci.santa-fe.nm.us)  
 RB Zaxus x 6658 [rbzaxus-onaxis@ci.santa-fe.nm.us](mailto:rbzaxus-onaxis@ci.santa-fe.nm.us)

Exhibit B-3  
 for Ordinance  
 No. 2007-29

# City of Santa Fe, New Mexico

# memo

**DATE:** April 17, 2007

**TO:** Donna Wynant, Land Use Senior Planner,  
Planning Division

**CC:** R. B. Zaxus, City Subdivision Engineer,  
Engineering Development Review Division

**FROM:** Charlie Gonzales, Land Use Senior Planner, *CHARLIE*  
Engineering Development Review Division

**RE:** **Landscaping Comments for case #ZA 2007-01. Agua Fria  
Compound Rezoning**

---

Below are comments for the Agua Fria Compound Rezoning request. These comments are based on the plan set dated March 17, 2007. A Landscaping Plan shall be submitted, showing compliance with the following:

**Landscaping : Sheet A-1**

1. Show compliance with Section 14-8.4 (E) (1) (4). Water Harvesting and Irrigation Standards. Please provide explanation and coordinate with Grading and Drainage Plan.
2. Show compliance with Section 14-8.4 (F) (2) (a) – (i). Plant Material Standards. More information needs to be submitted in order to conduct a thorough review of the plans. (Preferably on a chart or table)
  - Plant size, (height and caliper, including trees)
  - Mature size, (height and spread).
  - Shrubs to be 5 gallons minimum,
  - 2" of mulch, seed mix and fertilization.
  - Landscaping of stormwater retention/detention ponds.
3. Show compliance with Section 14-8.4 (F) (5). Existing Vegetation. Explain and show how many trees/shrubs will be removed, replaced or added.
4. Show compliance with Section 14-8.4 (G) (2) (b). Street Tree Standards. Provide additional tree on perimeter of the South Boundary.
5. Show compliance with Section 14-8.4 (H). Open Space Landscaping Requirements.

A more complete review will be conducted upon receiving the additional information as mentioned above.

Exhibit *04*  
for Ordinance  
No. 2007-29

**APPLICATION NAME:** Agua Fria Compound Rezoning

**CASE NO.:** ZA 2007-01

**REVIEW DATE:** March 21, 2007

**HEARING DATE:** May 3, 2007

**CASE MANAGER:** Donna Wynant

**REVIEWED BY:** Anne McLaughlin

### **PARKS, OPEN SPACE & TRAILS REVIEW**

No comment.

Exhibit B-5  
for Ordinance  
No. 2007-29

City of Santa Fe



# MEMO

## Wastewater Management Division DEVELOPMENT REVIEW COMMENTS

### E-MAIL DELIVERY

Date: March 21, 2007

To: Donna Wyatt, Planner  
Planning and Land Use

From: Stan Holland, P.E.  
Wastewater Management Division

Subject: Case #ZA 2007-01 Agua Fria Compound Rezoning

---

The Wastewater Division has no objection to the rezoning request. The Wastewater Division will require extension of sewer easements to the property line on the north and east side of the project boundaries on the proposed development plan.

Please contact me at 955-4637 if you have any questions.

cc: Jim Hays  
File

SANTA FE HOMES PROGRAM  
PROPOSAL FOR SALE UNITS

Agua Fria Compound Live Work

This Santa Fe Homes Program Proposal ("SFHP Proposal") is made this 9 day of May, 2007 by Hays and Associates Inc. ("SFHP Developer").

RECITALS

A. SFHP Developer is the developer of 4.12 acres located on the south side of Agua Fria Road Approximately 600 feet west of Maes Road. SFHP Developer proposes to develop the property as described in the document attached hereto as Exhibit 1 (*Development Plan*) incorporated herein by reference, and hereinafter referred to as the "Property".

B. SFHP Developer desires to develop the Property, and seeks from the City, development incentives subject to the terms and conditions hereinafter set forth.

C. It is understood that all representations made herein are material to the City and that the City will rely upon these representations in permitting or approving development of the Property.

PROPOSAL

SFHP Developer proposes to comply with the SFHP requirements as follows:

A. DEVELOPMENT REQUEST.

1. SFHP Developer seeks a Re-zoning approval from R-2 to a Residential Mixed Use designation for thirty two (32) live/work homes.

2. The Property is to be developed with finished homes for rent and for sale.

B. SFHP PLAN. SFHP Developer proposes to build a total of thirty two (32) live work condominiums on 4.12 acres. This results in a SFHP unit requirement of 4.8 affordable

homes. The unit requirement is based on a thirty percent requirement for the “live” portion of the project ( $1/2 \times 32 = 16 \times 30\% = 4.8$  SFHP homes). SFHP Developer proposes to construct four (4) SFHP live/work homes as indicated on the attached SFHP Plan (Exhibit 2). The .8 fraction of the requirement will be satisfied with a forty three thousand six hundred dollar (\$43,600) fractional payment to the City’s Investment Loan Fund (ILF) for affordable housing per the formula in the SFHP Ordinance. The prices stated on the SFHP Pricing Schedule (Exhibit 3) do not include a reduction for homeowner’s dues. Should there be homeowners’ dues, the price shall be reduced accordingly. SFHP Developer proposes to deliver the first two (2) SFHP live/work homes for sale before the first fourteen (14) market rate live/work homes have sold and the second two (2) SFHP live/work homes for sale before the final fourteen (14) live/work homes have been sold

C. SUCCESSORS IN TITLE. SFHP Developer proposes to develop the Property consistent with this SFHP Proposal. In the event that SFHP Developer sells, assigns, leases, conveys, mortgages, or encumbers the Property to any third party, the third party shall be required to execute a SFHP Agreement consistent with this Proposal prior to obtaining any City approvals. SFHP Developer proposes to record applicable regulatory agreements or liens in the public records that will ensure long-term affordability of the SFHP units.

D. REPORTING. SFHP Developer proposes to sign an affidavit declaring that the sale prices did not exceed the amount specified in the SFHP Agreement.

E. MONITORING. SFHP Developer proposes to provide such information and documentation as the City may reasonably require in order to insure that the actual sales were in compliance with the SFHP Agreement.

F. DEVELOPMENT INCENTIVES. SFHP Developer requests a reduction in the amount of submittal fees for development review applications, waivers of the building permit

fees, capital impact fees, and sewer extension fees proportional to the number of SFHP units. SFHP Developer also requests a reduction to the water utility extension fee and an exemption from the retrofit and consumptive water rights requirements for the SFHP units.

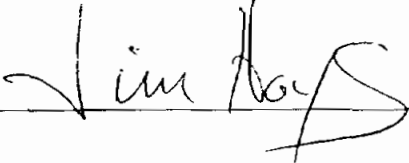
G. REVISIONS, MODIFICATIONS AND SUPPLEMENTATION OF THIS PROPOSAL. In the event that the SFHP Developer or the City make material modifications, including modifications to the number of lots or units or the area covered by the Proposal, a revised SFHP Proposal shall be promptly submitted to the Office of Affordable Housing in order to provide a SFHP Proposal that is current and reflects the intended development.

H. CERTIFICATION. Income Certification of buyers of the SFHP units will be provided by the City's Agent, either Homewise or The Santa Fe Community Housing Trust.

I. ACCESS. SFHP Developer proposes to grant access to the City or its agent to inspect the following records of SFHP Developer for the SFHP units in order to determine compliance with the SFHP Ordinance and the SFHP Agreement: the sales agreement with the SFHP buyer, information relating to when the affordable unit was completed and made available for occupancy, permits and waivers of permits for affordable units and similar types of information regarding the affordable units and the relationship with the market units in terms of similar design and architecture.

IN WITNESS WHEREOF, this Proposal is made the day and year first written above.

SFHP DEVELOPER:



A handwritten signature in black ink, appearing to read "Jim Boyce", is written over a horizontal line.

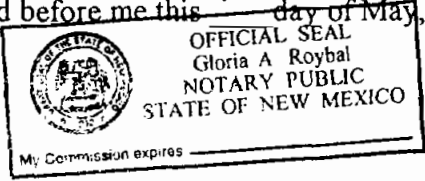
STATE OF NEW MEXICO)

)ss.

ACKNOWLEDGEMENT

The foregoing instrument was acknowledged before me this 10th day of May, 2007,

by Jim Hays



My Commission Expires:  
9-21-2010

NOTARY PUBLIC  
Gloria A. Roybal

REVIEWED BY:

J. Pacheco  
OFFICE OF AFFODABLE HOUSING

5/11/07  
DATE

- Attach:
- Exhibit 1 - Subdivision layout (proposed)
  - Exhibit 2 - Pricing Schedule
  - Exhibit 3 - SFHP unit obligation calculation worksheet
  - Exhibit 4 - Unit types and requirements

Exhibit B7  
p 4 of 7  
For Ordinance NO. 2007-29

# SANTA FE HOMES PROGRAM

## PRICING SCHEDULE

Effective August 25, 2005\*

Refer to Section 26-1.16 (B) and the SFHP Administrative Procedures  
For specific requirements contact The Office of Affordable Housing

Income Range	Affordable Home Price Studio	Affordable Home Price 1 Bedroom	Affordable Home Price 2 Bedroom	Affordable Home Price 3 Bedroom	Affordable Home Price 4 Bedroom
Income Range 2	\$74,500	\$85,000	\$97,000	\$109,000	\$122,000
Income Range 3	\$100,500	\$111,000	\$126,000	\$142,000	\$158,000
Income Range 4	\$125,500	\$136,000	\$155,000	\$175,000	\$194,000

\*Prices are revised according to the most recent area median income published by HUD.  
Household income based upon HUD area median incomes as of 2/24/2005.

### AFFORDABLE PRICES AND BEDROOM SIZES REQUIRED

Income Range	Affordable Home Price 2 bedroom	Affordable Home Price 3 Bedroom	Affordable Home Price 4 Bedroom
Income Range 2	One Unit \$97,500		
Income Range 3		Two Units \$142,000	
Income Range 4			One Unit \$194,000

*Exhibit B-7*  
*p. 5 of 7*  
*for Ordinance NO. 2007-29*

SFHP FOR SALE UNIT CALCULATION WORKSHEET

The project is proposed in a Transitional Mixed Use zoning district.

The project has an area of approximately 4.12 acres.

The project is proposing 32 live/work homes with the affordable homes requirement based on 30% of 16 homes (the "live" portion of the project).

Calculate SFHP Obligation

1. Total number of all units to be built in development	16
2. Multiply number from line 1 by 30%	<u>4.8</u>
3. Enter whole number result of line 2 calculation. <b>This is the total number of SFHP units that must be built in the development</b>	<u>4</u>

4. Determine how many units are required in each applicable Income Range. Divide number from line 3 by 3. Enter the **whole** number result in each of the following Income Ranges:

4a. Income Range 2:	<u>1</u>
4b. Income Range 3:	<u>2</u>
4c. Income Range 4:	<u>1</u>

5. If the total of lines 4a, 4b and 4c does not equal the total required from line 3, add one unit to the requirement for Income Range 3 (line 4b). If the new total still does not equal the total required from line 3, add one unit to the requirement for Income Range 2 (line 4a). Enter new totals on lines 5a, 5b and 5c. The total of lines 5a, 5b, and 5c must equal this total from line 3. **This is the total number of SFHP units that must be provided in each Income Range.**

5a. Income Range 2:	<u>1</u>
5b. Income Range 3:	<u>2</u>
5c. Income Range 4:	<u>1</u>

6. Determine fractional fee. Enter the remaining fraction resulting from the calculation in line 2:	<u>.8</u>
7. Multiply the fraction from line 6 by \$54,500*. <b>This is the total fractional fee that is owed:</b>	<u>\$43,600</u>

\*The base fractional fee is updated when the AMI is updated and is equal to one-half the price of a 3 bedroom home for Income Range 2.

*Exhibit B-7  
p. 6 of 7  
for Ordinance No. 2007-29*

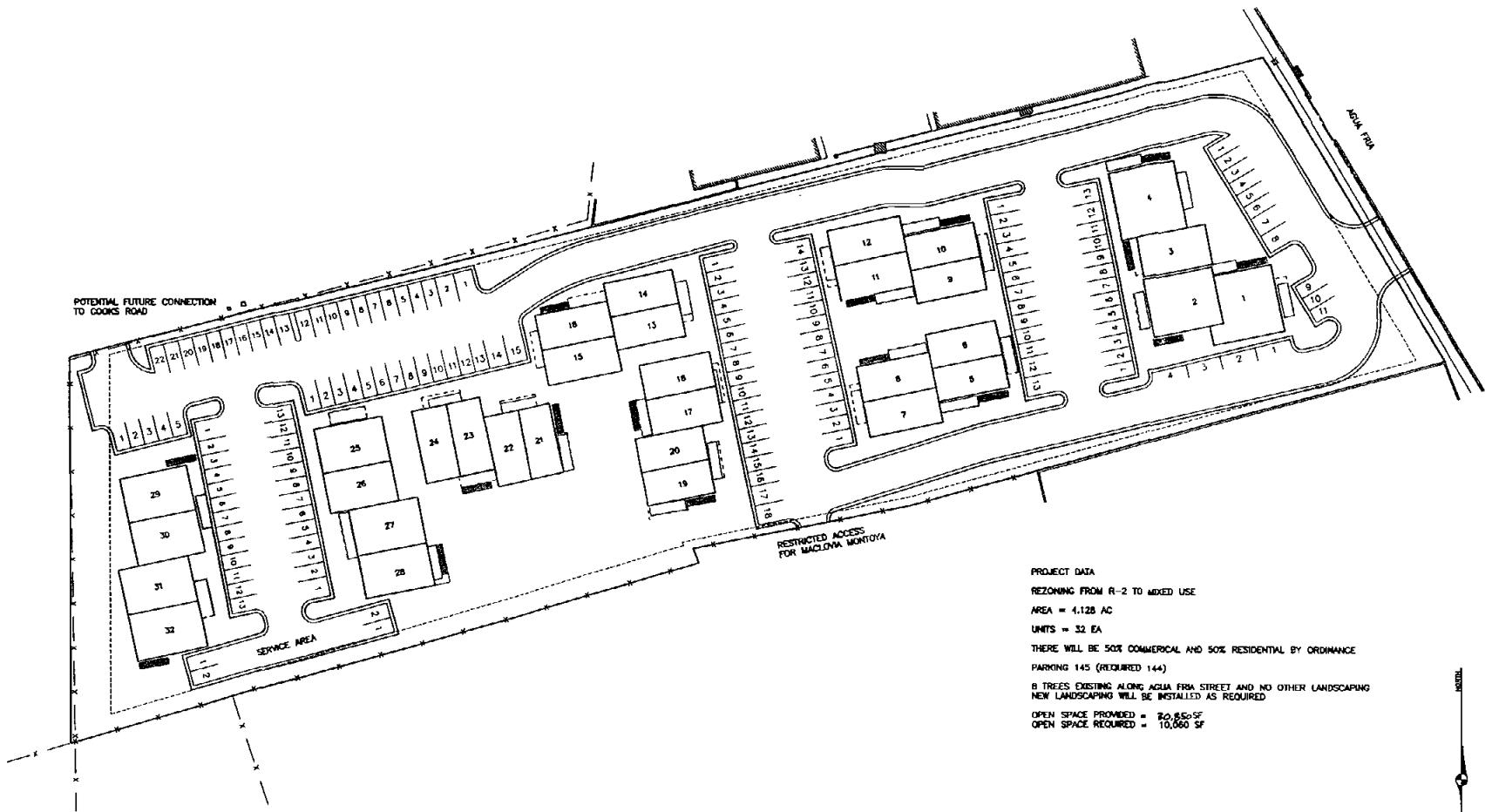
## SANTA FE HOMES PROGRAM

### UNIT TYPES AND REQUIREMENTS

Refer to Section 26-1.17 and the SFHP Administrative Procedures  
For specific requirements contact The Office of Affordable Housing

- |  |   |
|--|---|
| 1. Total number of required SFHP Units   | 4 |
| 2. Required distribution: Apply the following percentages to the total from line 1 to determine the required number of units of each type. If a fraction results, round up for .5 or over, round down for .4 or under  |   |
| 2a. Studio/One bedroom/Two Bedroom. 25% x Line 1   | 1 |
| 2 b. Three Bedroom: 50% x Line 1   | 2 |
| 2 c. Four Bedroom: 25% x Line 1  | 1 |
| 3. The sum of lines 2a, 2b, and 2c should equal the total from Line 1. If this total is greater than the total from line 1, drop one unit from Line 2a (Studio/One Bedroom/Two Bedroom). If the new total is still greater than the total from line 1, drop one unit from line 2c (Four Bedroom). This is the required distribution of unit sizes that must be provided, unless an alternate distribution is approved by the Office of Affordable Housing. |   |
| 3a. Studio/One Bedroom/Two Bedroom. 25% x Line 1*  | 1 |
| 3b. Three Bedroom: 50% x Line 1  | 2 |
| 3c. Four Bedroom: 25% x Line 1   | 1 |

\* The Office of Affordable Housing shall have the authority to further specify the required percentage of Studio, One Bedroom and Two Bedroom homes, taking into consideration the type of non-SFHP units offered for sale in the development.



PROJECT DATA  
 REZONING FROM R-2 TO MIXED USE  
 AREA = 4.128 AC  
 UNITS = 32 EA  
 THERE WILL BE 50% COMMERCIAL AND 50% RESIDENTIAL BY ORDINANCE  
 PARKING 145 (REQUIRED 144)  
 8 TREES EXISTING ALONG AGUA FRIA STREET AND NO OTHER LANDSCAPING  
 NEW LANDSCAPING WILL BE INSTALLED AS REQUIRED  
 OPEN SPACE PROVIDED = 20,650 SF  
 OPEN SPACE REQUIRED = 10,660 SF



REVISIONS		CONCEPTUAL SITE PLAN / MASTERPLAN	
NO.	BY	AGUA FRIA COMPOUND	
		SCALE: 1"=30'	DATE: MARCH 12, 2007
		DRAWN BY: YP	
		C.R. WALBRIDGE & ASSOCIATES, LLC	
		1421 LUISA STREET SUITE E	
		SANTA FE NEW MEXICO	
		(505) 982-9711	

Exhibit C  
 for Ordinance  
 NO. 2007-29

**City of Santa Fe, New Mexico  
UTILITY SERVICE APPLICATION**

**\*Fill in all highlighted fields on this application. Applicant must sign and date application.**

- Check one only:**
- Sewer Service Technical Evaluation Request
  - Water Service Technical Evaluation Request
  - Agreement for Metered Service (AMS)
  - Agreement to Construct and Dedicate Public Improvements (ACD)
  - Annexation Application Water Budget
  - Water Offset Program/Water Rights Compliance Evaluation Request

**WORK ORDER #** \_\_\_\_\_

**Applicant Name:** Cold Water Development Fund QOZF, LLC

**Project Address:** 2768 Agua Fria Street

**\*Required - Attach a Plat of the Property (legal lot of record and proposed development)**

\* Certificate of Compliance: Approved at PC on 6.6.24

**Plat Filing Information:** Year \_\_\_\_\_ Book \_\_\_\_\_ Page \_\_\_\_\_ Township, Range, Section: S33 T17N R 9E

**Location:** (check one only) Inside Corporate City Limits  Outside Corporate City Limits \_\_\_\_\_

**Property Uniform Property Code:** \_\_\_\_\_ **Existing Well:** Yes \_\_\_\_\_ No

**Legal Description including lot size:** LOT 38, 4.22 AC, S33 T17N R 9E, UPC 1051097275431000000

**Short Description of Project:** Master Plan and Rezone of a residential development with a small commercial space

**Construction Start Date:** 2025

**\*RESIDENTIAL PROJECT - Complete the following**

<b>1. Type of project:</b> (i.e. Single Family Residence, Subdivision, Lot split, Apartments)	Mixed Multi Family Residential/ Commercial
<b>2. Total number of lots approved on final plat/development plan:</b>	_____
<b>3. Total number of homes existing or under construction:</b>	N/A
<b>4. Size of service requested:</b> (5/8", 3/4", 1" or 2")	0

**\*Please fill in all categories below that apply for which water service is requested:**

**--- COMPLETED BY APPLICANT ---**

**Number of  
Lots or Units**

- \_\_\_\_\_ Single Family Dwelling Unit, lot size less than 6,000 sq. ft.
- \_\_\_\_\_ Single Family Dwelling Unit, lot size 6,000-10,890 sq. ft
- \_\_\_\_\_ Single Family Dwelling Unit, lot size greater than 10,890 sq. ft.
- \_\_\_\_\_ Mobile Home (in Mobile home park)
- \_\_\_\_\_ Accessory Dwelling Unit
- 130 Apartment/Condominium
- \_\_\_\_\_ Senior Complex

130 **Total**

**--- COMPLETED BY STAFF ---**

**Water Use  
Factors**                      **Annual Water  
Demand**

- .15 afy per d.u.
- .17 afy per d.u.
- .25 afy per d.u.
- .17 afy per d.u.
- .09 afy per d.u.
- .16 afy per d.u.
- .12 afy per d.u.

**Total Residential Water Demand** \_\_\_\_\_ **AFY**

City of Santa Fe, New Mexico  
**UTILITY SERVICE APPLICATION**

**\*COMMERCIAL PROJECT - Complete the following**

Type of Project: (i.e. Office, Retail, Mixed, etc.) Mixed: Multi Family + Small Scale Commercial Serving

Total gross floor area of building: Retail 1,450 square feet

Total area of lot, tract or parcel: 4.12 acres

Automatic Fire Sprinkler System:  Yes  No

Building Construction Type: \_\_\_\_\_

Building Square Footage: 115,250 sf

Site Plan Attached:  Yes  No

\*Please check all use categories below that are planned for the building and the gross floor areas of each use within the proposed building.

**---- COMPLETED BY APPLICANT ----**

<u>Check Type of Use</u>	<u>Gross Floor Area</u>
<b><u>Commercial</u></b>	

<input type="checkbox"/> Office – Non-medical	_____
<input type="checkbox"/> Medical Office	_____
<input type="checkbox"/> Office – City/State	_____
<input type="checkbox"/> Research and Development Lab	_____
<input type="checkbox"/> Manufacturing – Goods	_____
<input type="checkbox"/> Manufacturing – Consumables	_____
<input type="checkbox"/> Laundromat, Commercial	_____
<input type="checkbox"/> Laundromat, Other	_____
<input type="checkbox"/> Drycleaner	_____
<input type="checkbox"/> Plant Nursery	_____
<input type="checkbox"/> Gyms with showers	_____
<input type="checkbox"/> Gyms without showers	_____
<input type="checkbox"/> Salons	_____
<input type="checkbox"/> Pet Grooming	_____
<input type="checkbox"/> Pet Daycare	_____
<input type="checkbox"/> Retail, Large (Individual stores or shopping areas > 75,000 sq ft)	_____
<input type="checkbox"/> Neighborhood Center/Medium Retail (Individual stores or shopping areas 75,000-25,000 sq ft)	_____
<input checked="" type="checkbox"/> Retail, Small (Individual stores or shopping areas < 25,000 sq ft)	<u>1,450 sf</u>
<input type="checkbox"/> Gallery	_____
<input type="checkbox"/> Grocery Store	_____
<input type="checkbox"/> Restaurant (full service)	_____
<input type="checkbox"/> Restaurant (limited service)	_____
<input type="checkbox"/> Gasoline Station w/ Car Wash	_____

**---- COMPLETED BY STAFF ----**

<u>Water Use Factors</u>	<u>Annual Water Demand</u>
--------------------------	----------------------------

(0.70 afy per 10,000 s.f.)	_____
(0.72 afy per 10,000 s.f.)	_____
(0.58 afy per 10,000 s.f.)	_____
(1.18 afy per 10,000 s.f.)	_____
(0.21 afy per site)	_____
(2.33 afy per site)	_____
(0.78 afy per machine)	_____
(0.22 afy per machine)	_____
(0.41 afy per site)	_____
(0.56 afy per 10,000 s.f.)	_____
(8.94 afy per site)	_____
(0.77 afy per site)	_____
(0.21 afy per site)	_____
(0.52 afy per site)	_____
(0.11 afy per site)	_____
(0.45 afy per 10,000 s.f.)	_____
(0.43 afy per 10,000 s.f.)	_____
(0.06 afy per site)	_____
(0.60 afy per site)	_____
(1.27 afy per 10,000 s.f.)	_____
(0.02 afy per seat)	_____
(1.63 afy per Site)	_____
(6.56 afy per Site)	_____

\_\_\_\_\_ Gasoline Station \_\_\_\_\_ (0.88 afy per Site) \_\_\_\_\_

**City of Santa Fe, New Mexico  
UTILITY SERVICE APPLICATION**

_____ Car Wash (full service)	_____	(5.66 afy per Site)	_____
_____ Car Wash (limited service)	_____	(0.94 afy per Wash Bay)	_____
_____ Auto Repair	_____	(0.12 afy per site)	_____
_____ Car Rental	_____	(0.12 afy per site)	_____
_____ Car Sales	_____	(0.07 afy per 10,000 s.f.)	_____
_____ Self Storage	_____	(0.13 afy per site)	_____
_____ Wholesale, Warehousing	_____	(0.4 afy per 10,000 s.f.)	_____
_____ Industrial, Manufacturing	_____	(applicant estimate of water use)	_____
_____ Church w/ day care or school)	_____	(1.3 afy per Site)	_____
_____ Church w/o day care or school)	_____	(0.6 afy per Site)	_____
_____ Hotel	No. of rooms _____	(.13 afy per room)	_____
_____ Motel	No. of rooms _____	(.09 afy per room)	_____

**Public Services**

_____ School, Elementary		(0.53 afy per 100 students)	_____
_____ School, Middle or Junior High		(1.68 afy per 100 students)	_____
_____ School, Senior High		(2.64 afy per 100 students)	_____
_____ Schools, Daycare		(0.85 afy per 100 kids)	_____
_____ Places of Worship		(0.15 afy per site)	_____
_____ With Daycare and school		(0.95 afy per site)	_____
_____ Parks		(1.48 afy per acre)	_____
_____ <b>Other</b> (not listed above) Please attach		(with attachment)	_____

\_\_\_\_\_ water demand calculations and assumptions used

**Total Floor Area** \_\_\_\_\_

APARTMENT BUILDING:	
1ST FLOOR HEATED:	42,200 SF
2ND FLOOR HEATED:	42,200 SF
3RD FLOOR HEATED:	27,000 SF
TOTAL APARTMENT:	111,400 SF
RETAIL/FITNESS (2-STORY): 2,600 SF	
(retail bottom floor, 1,450 sf)	
(fitness upper floor, 1,150 sf)	
CLUBHOUSE (1-STORY):	1,250 SF
TOTAL PROJECT HEATED:	115,250 SF

**Total Commercial Water Demand** \_\_\_\_\_ AFY

**Total Residential Water Demand** \_\_\_\_\_ AFY

**TOTAL PROJECT WATER DEMAND** \_\_\_\_\_ AFY

City of Santa Fe, New Mexico  
UTILITY SERVICE APPLICATION

<b>OWNER:</b> Cold Water Development Fund QOZF, LLC <b>Mailing Address:</b> 106 Faithway Street Santa Fe, NM 87501 <b>Phone Number:</b> <b>Mobile Number:</b>	<b>*Only If Applicable</b> <b>AGENT:</b> JenkinsGavin Inc. Angelica Reed <b>Title:</b> Project Assistant <b>Mailing Address:</b> 130 Grant Ave Suite 101 Santa Fe, NM 87501 <b>Phone Number:</b> 505-820-7444 <b>Mobile Number:</b> 505-386-6343
---	--

**Information Provided By:** Check one: Owner \_\_\_\_\_ Agent   
**Signature:** *Angelica Reed* **Date:** August 12, 2024

Technical Evaluation to be Sent to: Check one: Owner \_\_\_\_\_ Agent

COMMENTS: Water budget presented is conceptual

**APPLICANTS, PLEASE NOTE:**

- Ordinance 2008-53, prohibits new connections outside the presumptive city limits including the Agua Fria traditional historic community (AFTHC) unless specific conditions are met. Applications for service outside the presumptive city limits and AFTHC must include documentation showing these conditions are met or the application will be rejected. The documents required are shown below.
- A map of the proposed project in relation to the existing city limits and the presumptive city limits
- A detailed description of the proposed development including the type and size of proposed land uses
- The health, safety and welfare or other legal reason for the connection
- A site water budget
- Documentation from the County of Santa Fe that county water service is not available
- Documentation from the wastewater division regarding sewer availability
- A certified Santa Fe Homes Proposal as set forth in Section 14-8.11 SFCC 1987 if applicable

**SANTA FE HOMES PROGRAM**

**RENTAL PROPOSAL**

**“Cold Water Development Fund QOZF, LLC”**

**Santa Fe, New Mexico**

This Santa Fe Homes Program Proposal (“SFHP Proposal”) is made this \_\_\_\_ day of \_\_\_\_\_, 2024 by Cold Water Development Fund QOZF, LLC (“SFHP Developer”).

**RECITALS**

- A. SFHP Developer is the developer of 2768 Agua Fria Multi Family hereinafter referred to as the “Property”.
- B. SFHP Developer desires to develop the Property.
- C. It is understood that all representations made herein are material to the City and that the City will rely upon these representations in permitting or approving development of the Property.

**PROPOSAL**

SFHP Developer proposes to comply with the SFHP requirements as follows:

- A. **DEVELOPMENT REQUEST.**
  - 1. SFHP Developer seeks **Master Plan and Rezone** approval.
  - 2. The Property is to be developed as a mixed-use project, which includes **130** rental units as described below:

Studio:	34 Units
1Bedroom:	76 Units
2 Bedroom:	18
3 Bedroom:	02 Units
<u>Total</u>	<u>130 Multi Family Units</u>

B. SFHP PLAN. Developer is proposing an alternate means of compliance with the Santa Fe Homes Program ordinance by setting aside 10% of the Project's total units for income-qualified tenants. Rents will be restricted to rates affordable to those earning no more than 80% of the Area Median Income (AMI), as determined by the Department of Housing and Urban Development (HUD)'s annual AMI statistic. The set-aside units will be substantially proportionate in bedroom type to the market rate units, with some flexibility permitted in response to market conditions, with rents calculated as described in **Exhibit 2**.

C. SUCCESSORS IN TITLE. SFHP Developer proposes to develop the Property consistent with this SFHP Proposal. In the event that SFHP Developer sells, assigns, leases, conveys, mortgages, or encumbers the Property to any third party, the third party shall be required to execute a SFHP Agreement consistent with this Proposal prior to obtaining any City approvals. SFHP Developer proposes to record applicable regulatory agreements or liens in the public records that will ensure long-term affordability of the SFHP units or fulfillment of the proposed alternate compliance.

D. DEVELOPMENT INCENTIVES. SFHP Developer requests the following development incentives:

Waiver of 100% of the following fees as calculated for the entire Project:

Development Review Application Fees, Construction Permit Fees, Impact Fees, and Utility Expansion Charges. In addition, water offsets will be waived for the **13** affordable units per SFCC §14-8.13(B)(5).

E. MONITORING. SFHP Developer proposes to provide such information and documentation as the City may reasonably require in order to ensure that the actual rental

agreements were in compliance with the SFHP Agreement.

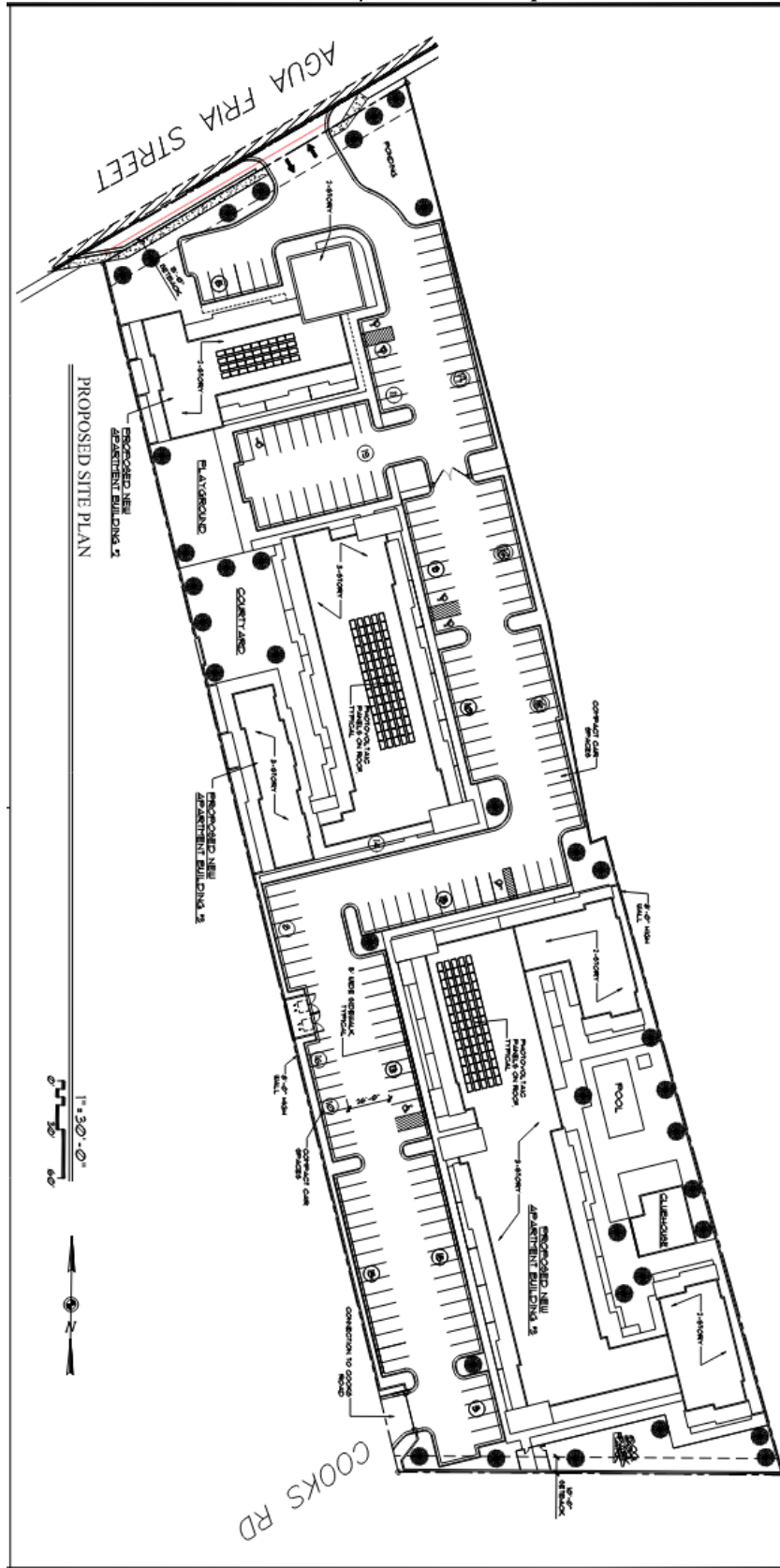
F. REVISIONS, MODIFICATIONS AND SUPPLEMENTATION OF THIS PROPOSAL.

In the event that the SFHP Developer or the City make material modifications, including modifications to the number of lots or units or the area covered by the Proposal, a revised SFHP Proposal shall be promptly submitted to the Office of Affordable Housing in order to provide a SFHP Proposal that is current and reflects the intended development.

G. ACCESS. SFHP Developer proposes to grant access to the City or its agent to inspect the records of SFHP Developer for the SFHP units in order to determine compliance with the SFHP Ordinance and the SFHP Agreement.



Site Plan/Location Map



## SFHP RENTAL UNIT CALCULATION WORKSHEET

The project is proposed as a ***C2-General Commercial zoning*** district, permitting ***no maximum*** units per acre. The project has an area of approximately ***4.12*** acres. The project is proposing ***130*** rental homes; studio ***34***, one-bedroom units ***76***, two-bedroom units ***18***, and ***2*** three-bedroom units. There are not additional land use requirements for this site.

**The SFHP requirement is calculated below:**

Total number of units multiplied by (0.15) = the number of SFHP rental units required

130 total units x 0.15 = 19.50 SFHP unit(s) is/are required.

**13 SFHP units** will be provided and a fractional fee paid for the **0.60 units**.

### SFHP Rent/Unit Distribution

	HH Size	Max. Rent	80% AMI	Total # Units	# of Affordable Units
Studio	1	\$ 1,065	\$42,600	34	5
1 BR	1	\$ 1,065		76	12
2 BR	2	\$ 1,216	\$48,650	18	3
3 BR	3	\$ 1,318	\$54,750	2	0
4 BR	4+	\$ 1,464	\$60,800	0	0

## FRACTIONAL FEE-IN-LIEU CALCULATION WORKSHEET

**In addition to providing affordable rental units, the Developer proposes to comply with SFHP through the payment of a fee based on 5% of the total units as per Ordinance 2019-30.**

**Proposed Project**

<b>Unit Type</b>	<b>% of Total</b>	<b># of Units</b>	<b><u>Steps for Calculation</u></b>
Studio	26.2%	34	<b>1. enter # of each unit type</b> <b>2. multiply # of units by 5%</b> <b>3. multiply # of affordable units by fee/unit/month</b> <b>4. multiply fee/month by 24 (months) = Project Fee</b> <b>5. Sum Project Fee to get Total Project Fee</b>
1 BR	58.5%	76	
2 BR	13.8%	18	
3 BR	1.5%	2	
<b>TOTAL</b>	<b>100%</b>	<b>130</b>	

**Affordability Gap Voucher Calculation**

<b>Bedrooms</b>	<b># Units</b>	<b>Aff'd Units (5%)</b>	<b>Fee/Unit</b>	<b>Total Fee</b>
0	34	5.1	\$ 413	\$50,551.20
1	76	11.4	\$ 656	\$179,481.60
2	18	2.7	\$ 763	\$49,442.40
3	2	0.3	\$ 1,204	\$8,668.80
<b>TOTAL</b>	<b>130</b>	<b>19.5</b>		<b>\$288,144.00</b>

**NOTE: The rents and fee schedule are modified by the City according to Section 8.7.3 of the SFHP Administrative Procedures to reflect annual changes in the median income levels. The current schedule in effect at the time the fees are paid, determines the amount of the fee. The prices are updated annually.**



# Santa Fe Public Schools


## Property & Asset Management

### Residential Development Impact Information Form

#### School Notification as required by City Ordinance 14-8.18 AFCC 1987

1. Project Name: \_\_\_\_\_
2. Location of Property: \_\_\_\_\_
3. Owner/Agent Name: \_\_\_\_\_  
Mailing Address: \_\_\_\_\_  
Phone & Fax: \_\_\_\_\_

4. Unit Matrix

PROJECT EFFECT ON STUDENT POPULATION		
Unit Type	Unit Quantity	Average Price
Single Family (detached) Single Family (attached) Townhome/ Apartment Multi-Family Commercial		

5. Elementary School Zone for Proposed Development: \_\_\_\_\_
6. Middle School Zone for Proposed Development: \_\_\_\_\_
7. High School Zone for Proposed Development: \_\_\_\_\_
8. Build out Rates (Year/s; #/yr): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Educational Services Center**  
610 Alta Vista  
Santa Fe, NM 87505  
Telephone (505) 467-2000  
www.sfps.info

For questions & submittal, contact:  
Santa Fe Public Schools, Property & Asset Management,  
2195 Zia Road, Santa Fe NM 87505  
505 467 3400

**Agua Fria Master Plan and Rezone**  
**Preliminary Water Budget**  
 August 12, 2024

110 Apartments  
 1.25 Residents/unit  
 138 Residents

18 Apartments  
 1.5 Residents/ Units  
 27 Residents

2 Apartments  
 2.0 Residents/unit  
 4 Residents

**TOTALS**

130 Units  
 169 Residents  
 1.30 Residents/unit

<b>USAGE PER UNIT</b>	<b>GPY</b>	<b>AFY</b>
5 FLUSHES/DAY @ 1.26 GAL EACH	2,980.5	0.009
SHOWER - 10 MINUTES/DAY @ 1.5 GPM	7,096.4	0.022
BATHROOM SINK - 5 MIN/DAY @ 2.2 GPM	5,204.1	0.016
LAUNDRY - 0.3 LOADS /DAY @ 20 GAL/LOAD	3,154.0	0.010
DISHWASHER - 0.3 LOADS/DAY @ 13 GAL/LOAD	2,050.1	0.006
KITCHEN SINK - 10 MIN/DAY @ 2.0 GPM	9,461.9	0.029
<i>SUBTOTAL PER UNIT</i>	<i>29,947.0</i>	<i>0.092</i>
TOTAL DOMESTIC USAGE FOR 130 UNITS	3,893,108.3	11.95
LEASING OFFICE & COMMON AREAS	500,000.0	1.53
LANDSCAPE IRRIGATION	TBD	AFY
<b>ANNUAL WATER BUDGET</b>	<b>4,393,108.3</b>	<b>13.48</b>
<b>9.8% Contingency per SFCC §14-8.13(E)(1)</b>	<b>430,524.6</b>	<b>1.32</b>
<b>TOTAL</b>	<b>4,823,632.9</b>	<b>14.80</b>
ANNUAL WATER BUDGET PER DWELLING UNIT	37,104.9	0.114



**AGUA FRIA MULTI FAMILY REZONE AND MASTER PLAN  
EARLY NEIGHBORHOOD NOTIFICATION MEETING NOTES**

Date: January 24, 2024  
Time: 5:30 to 6:30 PM  
Location: Virtual Meeting held via Zoom  
Attendees: City Land Use Department Representative (Maggie Moore) (Daniel Alvarado)  
JenkinsGavin, Inc. (Jennifer Jenkins) (Angelica Reed)  
Project Team  
±20 Attendees

A presentation was given by Jennifer Jenkins of JenkinsGavin, Inc. regarding upcoming Rezone and Master Plan application to the City of Santa Fe for the property located at 2768 Agua Fria Street.

Following the presentation, a Question & Answer session was held. The following notes capture the questions and concerns raised and the responses by the Project Team.

<b>Questions/Comments</b>	<b>Responses</b>
(Screen Share: Video of Scrap Yard) There is an industrial metal complex right against your project. EPA needs to shut this place down, it's not safe. It's polluted and full of toxic waste. They have had several violation notices.	Thank you for the information.  Daniel Alvarado: Agua Fria is a transitional neighborhood and is quickly creating more residential properties. The city does not have the jurisdiction to regulate Capitol Scrap.  Jennifer Jenkins: The residents are of the utmost importance and we are looking at all our options. We have a tall wall around the property to buffer against non-residential uses. This is a very diverse part of town.
Will there be ADA parking?	Absolutely, and it is already reflected in the plans for the commercial and residential.
Will you be paying the fee in lieu?	We are still addressing this and getting a better sense of the cost. We are looking at doing a fee in lieu or maybe even a mix.
As residents here we ask that you be a good neighbor and respect the surrounding neighborhoods.	Agua Fria Road is a very distinct location as it has several mixed uses from industrial, commercial and residential. We want to make sure we are respecting our neighbors while also creating housing, it's a balancing act.

<p>As the President of the las Cienegita HOA, I represent over 250 households it's unfair to have the ENN online. We prefer face to face meetings. Most of the residents can't access this online due to age, technology or the time of day it is held.</p>	<p>Daniel Alvarado: Since Covid we found that doing these online is much more accessible for residents. Tech can be a barrier but even our phones have access to connect to Zoom.</p>
<p>The TIA is a very important process as the traffic on Agua Fria and Siler is already out of control. We have spoken up about it and nothing is ever done.</p>	<p>Noted.</p>
<p>There are Acequia's on the property that need to be cared for, this is too high a density for the area and it's not affordable for anyone local.</p>	<p>Maggie Moore: Just for clarity affordable homes are never advertised at the affordable rate. They are advertised at market rate and the affordability takes place behind the scenes so not as to effect the Market.</p>
<p>Are these for sale or rent?</p>	<p>These are rentals</p>
<p>This project is way out of line and this needs to stop. The Acequia Lofts were already too much and this is over the top. 3 stories is crazy and R-20 max.</p>	<p>Noted.</p>
<p>Our family owns the property to the east side and we worry about the height of the building. It needs to come down for privacy.</p>	<p>We hear your concerns and we would also love to discuss the height of the wall that will be near your home to make sure we give as much privacy as we possibly can. The wall can be anywhere from 5-6 Ft. or 8ft if you want to go taller.</p>
<p>We used to play baseball in that field and we would call it El Llanito. Maybe you can name it that?</p>	<p>We like that, thank you.</p>
<p>I am opposed to the 3story and density of this project. Most of us can't afford to live in the town we were born in and we are what add to the City Different. These need to be made affordable.</p>	<p>Noted.</p>
<p>Why the rezone?</p>	<p>We all know that more housing is needed in Santa Fe. The rezone will allow us to have a greater quantity of housing, as well as have the residential/ commercial space.</p>
<p>Can we see a copy of the Traffic Study?</p>	<p>Once we submit to the City of Santa Fe everything will be public record and at your disposal.</p>
<p>There is a huge difference between 2 and 3 stories, it needs to come down to 2 stories. It will fit the neighborhood better.</p>	<p>Thank you!</p>
<p></p>	<p></p>





**AGUA FRIA MULTI FAMILY REZONE AND MASTER PLAN  
EARLY NEIGHBORHOOD NOTIFICATION MEETING NOTES**

Date: April 23, 2024  
Time: 5:30 to 6:30 PM  
Location: Virtual Meeting held via Zoom  
Attendees: City Land Use Department Representative (Maggie Moore) (Daniel Alvarado)  
JenkinsGavin, Inc. (Jennifer Jenkins) (Angelica Reed)  
Project Team  
±17 Attendees

A presentation was given by Jennifer Jenkins of JenkinsGavin, Inc. regarding upcoming Rezone and Master Plan application to the City of Santa Fe for the property located at 2768 Agua Fria Street.

Following the presentation, a Question & Answer session was held. The following notes capture the questions and concerns raised and the responses by the Project Team.

<b>Questions/Comments</b>	<b>Responses</b>
Is there affordable housing provided?	This is a combo where 10% (13) affordable houses and a 5% fee in lieu.
There are concerns about the location of this project and the industrial site to the west.	We took that into consideration and shifted the buildings to give a better buffer.
Will the Traffic Impact Analysis be made public? You should look at Osage as well.	When we submit to the City of Santa Fe everything will become public record. We will be looking at the Agua Fria and Siler intersection. Noted.
There are several traffic issues on Agua Fria that need to be addressed.	There is a road redesign that has been adopted for Agua Fria that includes road improvements but I don't have a precise date on when that is to begin.
Daniel Alvarado: Can you let people know what a Conceptual Plan is and its intent?	A Conceptual Plan creates an envelope for what is acceptable to be developed in the area. It's a high level/ conceptual level.
Could the street be named El Llanito?	Noted, we like that.
What is the closest transit and trail connectivity?	Frenchie's Park is ½ mile, which is a bike able distance. There is also an existing bike lane on Agua Fria and you can connect to the River trail via Siler Rd. Bus transit is Route 1, East to West.

What will the sizes of these apartments be?	Likely there will be a variety of studio, 1, 2 & a few 3 bedroom apartments.
What size will the affordable housing apartments be?	They will match in proportion of the market rate units.
Who had this zoned Transitional Mixed Use?	The previous owner did so in 2007 with a plan to develop however the recession hit and it did not move forward.
Why are we switching from Transitional Mixed Use to C-2?	For the unit count, we can only achieve this density for our housing needs with a C-2 zoning. It also includes the neighborhood/commercial aspect for us to utilize.
Could you have done a variance?	We cannot do a variance for density.
This is an opportunity zone how does that help the project?	Yes, it incentivizes projects to generate economic developments, there are great tax benefits after 10 years.
How are you handling the industrial side of this?	We are proposing a significant wall on the South and West side as well as placing the parking on the West side nearest the industrial yard.
Does the 3 story building meet the criteria for this neighborhood?	Context is important, this is a very diverse neighborhood and we want to respect our neighbors. But because this is a residential and industrial it's a balancing act.
What is the highest point for the building?	C2 Zoning is 42' and our building will be between 36-38'.
Why was R29 not acceptable for this?	C2 does not have a maximum density and it will allow for the commercial space which R29 does not.
What will the rental rate be?	That depends, we are about 3 years away from that. We will need to see what the market is doing at that time.
The Cooks Road connection is not maintained by the city, this a concern for more congestion on the street.	Thank you we will research further.



# ***2768 Agua Fria Street Parking Demand Study***

PREPARED FOR: COLD WATER DEVELOPMENT FUND

PREPARED BY: BOHANNAN HUSTON INC

# CONTENTS

Introduction .....	2
Proposed and Required Parking .....	3
Santa Fe Context.....	4
Site Characteristics and Location Benefits .....	6
Parking Management Strategies.....	10
Parking Demand Estimate .....	12
Conclusion .....	14
Appendix A: Site Plan.....	16

# INTRODUCTION

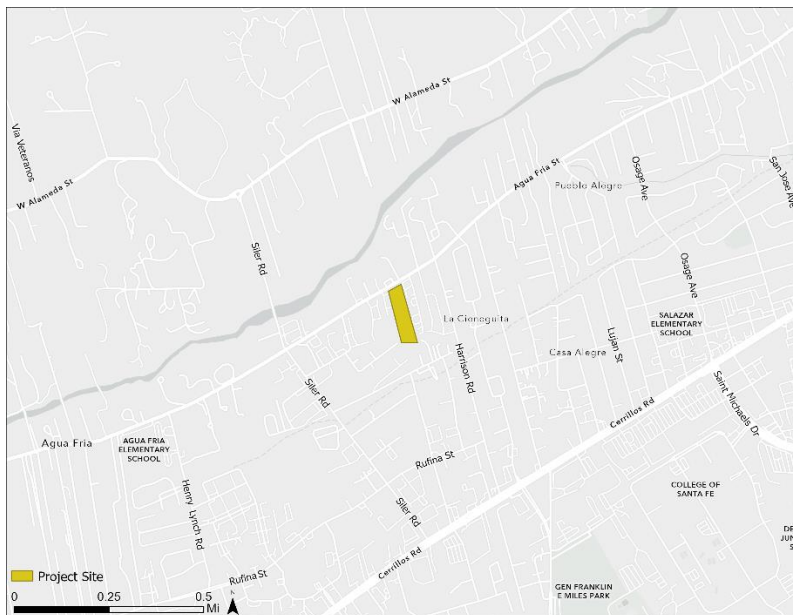
This parking study supports Cold Water Development Fund’s multi-family residential development at 2768 Agua Fria Street in Santa Fe, New Mexico (referred to in this study as the Agua Fria Development). Although the development plans include 31 fewer parking spaces than are required by the City of Santa Fe’s Municipal Code, the City allows parking to be supplied below required minimums if supported by a parking demand study.<sup>1</sup> This study estimates the future parking demand at the site taking into account parking generation rates, the planning and policy context within the City of Santa Fe, the site’s proximity to multimodal transportation options, and parking demand reduction strategies that will be included within the development.

## Background

The Agua Fria Development will be a three-story multifamily housing complex consisting of three buildings and outdoor amenities for residents. There will be 25 studio units, 70 one-bedroom units, 19 two-bedroom units, and 16 three-bedroom units for a total of 130 units. There will also be a small 1000 square foot retail space.

Development plans for site lay out 160 parking spaces. However, the developer is providing a roadway easement at the south end of the site. If the roadway is built, it would remove six parking spaces. For the purposes of this parking study, the amount of provided parking is assumed to be 154 spaces to estimate parking needs if the easement is needed in the future. Figure 1 shows the location of the project site.

Figure 1: 2768 Agua Fria Development Location Map



<sup>1</sup> Santa Fe Municipal Code 14-8.6 (B)(4)

## Study Considerations

This study considers the following factors in assessing potential future parking demand:

- **Santa Fe’s Context:** Santa Fe has a severe housing shortage.<sup>2</sup> Higher than necessary parking requirements decrease the supply of housing while increasing housing costs. Santa Fe plans and policies support increasing the supply of housing while decreasing space set aside for parking.
- **Site Characteristics and Location Benefits:** Due to the site’s proximity to transit and bicycle facilities, as well as the numerous employment opportunities and destinations within walking distance, residents have ample transportation options that reduce their need for owning vehicles and visitors can access the site without driving. In addition, demographic data show higher rates of zero-vehicle households near the project site and low rates of households owning more than two vehicles, indicating that future residents may also have low rates of vehicle ownership.
- **Parking Management Strategies:** Strategies that will be included in the Agua Fria Development - such as unbundling parking costs from rent costs, providing affordable units, and shared parking - are proven strategies that can reduce the demand for parking and allow for more efficient use of space.
- **ITE Parking Generation Rates:** This study includes parking generation rates from the Institute of Transportation Engineers’ (ITE) Parking Generation Manual (6<sup>th</sup> Edition). These estimates show that the developer’s parking plan will exceed expected demand at the site.

Parking generation rates, coupled with an analysis of the site’s context, demonstrate that the proposed parking supply of 154 spaces will be sufficient and appropriate for the Agua Fria Development.

## PROPOSED AND REQUIRED PARKING

The Santa Fe municipal code sets parking requirements for multifamily housing based on the square footage of the unit. Table 1 demonstrates Santa Fe’s parking minimums as applied to the Agua Fria Development.

---

<sup>2</sup> Draft City of Santa Fe Five Year Affordable Housing Strategic Plan. 2024.

**Table 1: Santa Fe Parking Minimums for 2768 Agua Fria Street Development**

	<b>Units &lt;800 SF</b>	<b>Units 800 SF – 1199 SF</b>	<b>Units 1200 SF and over</b>	<b>Retail</b>
<b>Number of Units</b>	95	19	16	1000 SF NLA
<b>Parking Spaces Required per Unit</b>	1.25	1.5	2	1 per 200 SF NLA*
<b>Required Parking Spaces</b>	118.75	28.5	32	5
<b>Total Required Parking Spaces</b>	<b>185**</b>			

\*Net Leasable Area

\*\*Rounded up to the nearest whole number

Table 2 describes the difference between required and proposed parking spaces. The developer plans to provide 31 fewer parking spaces than are required, or 17% below requirements.

**Table 2: Required and Proposed Parking Spaces at 2768 Agua Fria Street Development**

<b>Dwelling Units</b>	130
<b>Required Parking</b>	185
<b>Provided Parking</b>	154
<b>Percent Below Requirements</b>	17%

## SANTA FE CONTEXT

Santa Fe has a severe housing shortage: from 2015 -2021, the City of Santa Fe added 6,462 households but only 4,925 housing units. By 2030, the city will need at least 1,045 more rental units to accommodate household growth.

The housing shortage is especially acute for low-income households. There is a shortage of 1,210 units affordable for households with income at 30% Area Median Income (AMI) or below, and a shortage of 1,087 units affordable for households with income between 30% and 50% AMI.<sup>3</sup>

As of June 2023, Santa Fe had a 4% rental vacancy rate, with an even lower rate (3%) for rental units priced below \$2000. According to the City of Santa Fe Five Year Affordable Housing Strategic Plan, “low vacancy rates reflect the inability of supply to keep pace with demand for housing across the region.” In Santa Fe, the lack of supply causes higher-income households to occupy homes affordable to lower-income households, which further exacerbates the affordable housing crisis.<sup>4</sup>

The Agua Fria Development will help ease the affordable housing crisis by setting aside 10 percent of its units as affordable. In addition, the market-rate units can address the housing shortage and affordability issues by increasing the overall supply of housing.

However, parking costs can drive up the cost of housing development, which are passed on to renters through higher rents and decreased housing supply. Providing one parking space per unit increases

<sup>3</sup> Draft City of Santa Fe Five Year Affordable Housing Strategic Plan. 2024.

<sup>4</sup> Ibid

development costs by 12.5% and providing two spaces per unit increases the cost by 25%.<sup>5</sup> Meanwhile, parking lots at many locations are rarely, if ever, full.

While much of Santa Fe’s land uses and roadways are auto-oriented, the City is shifting towards a more multi-modal environment that provides better walking, biking, and transit facilities. Overly large parking lots contribute to sprawl and make multi-modal environments difficult to implement. Reducing the size of the parking lot will support a multi-modal environment and allow Cold Water Development Fund to construct more housing units, which are needed to address Santa Fe’s housing shortage.

The following Santa Fe plans and policies support parking management and appropriately sized parking areas at the Agua Fria Development.

## Multimodal Transition Plan (2022)

The Santa Fe Multimodal Transition Plan provides strategies to reduce auto dependency and move towards a multimodal transportation system. The Parking Strategy Plan (2022) recommends adjusting parking space requirements to better match current parking demand patterns. The Plan further recommends implementing parking minimum reductions for projects that include other mobility strategies. As the Agua Fria Development provides mobility strategies in the form of unbundled parking, shared parking, and affordable housing, parking minimum reductions would be appropriate for the site under the Multimodal Transition Plan’s recommendations.

## Santa Fe General Plan (1999)

The Santa Fe General Plan identifies themes that guide policy development and planning within the City. Two of the themes support the idea of reduced parking for infill housing developments:

- **Transportation alternatives:** Reduce automobile dependence and dominance.
- **Urban form:** Promote a compact urban form and encourage sensitive/compatible infill development.

The development at Agua Fria Development will promote transportation alternatives through parking management practices and providing residents with options to walk, bike, and take transit. As an infill development with an appropriately sized parking area, the project also represents progress towards developing a compact urban form.

## City of Santa Fe Land Use & Urban Design Plan

The City of Santa Fe Land Use & Urban Design Plan recommends reducing minimum parking requirements and states that “One of the biggest contributors to sprawl and poor land management can be found in the amount of land devoted to massive parking lots that are rarely, if ever, full.”

---

<sup>5</sup> Todd Litman. *Parking Requirement Impacts on Housing Affordability*. Victoria Transport Policy Institute. 2021.

# City of Santa Fe Five Year Affordable Housing Strategic Plan (2024)

The City of Santa Fe Affordable Housing Plan identifies outdated parking restrictions as a barrier to housing production.

## SITE CHARACTERISTICS AND LOCATION BENEFITS

The Agua Fria Development's location is well-suited for residents and visitors who prefer multi-modal transportation options. Due to the site's proximity to transit, biking facilities, daily destinations, and employment opportunities, residents will be able to own fewer cars, reducing the demand for parking at the site. Research has shown that employment density and access to destinations is associated with reduced parking demand at multifamily developments.<sup>6</sup>

### Walking

Residents of the Agua Fria Development will be able to access many daily destinations within a 20-minute walk. Figure 2 depicts public facilities that can be accessed within a five-, ten-, and twenty-minute walk from the site. In addition, within a twenty-minute walk, residents can access:

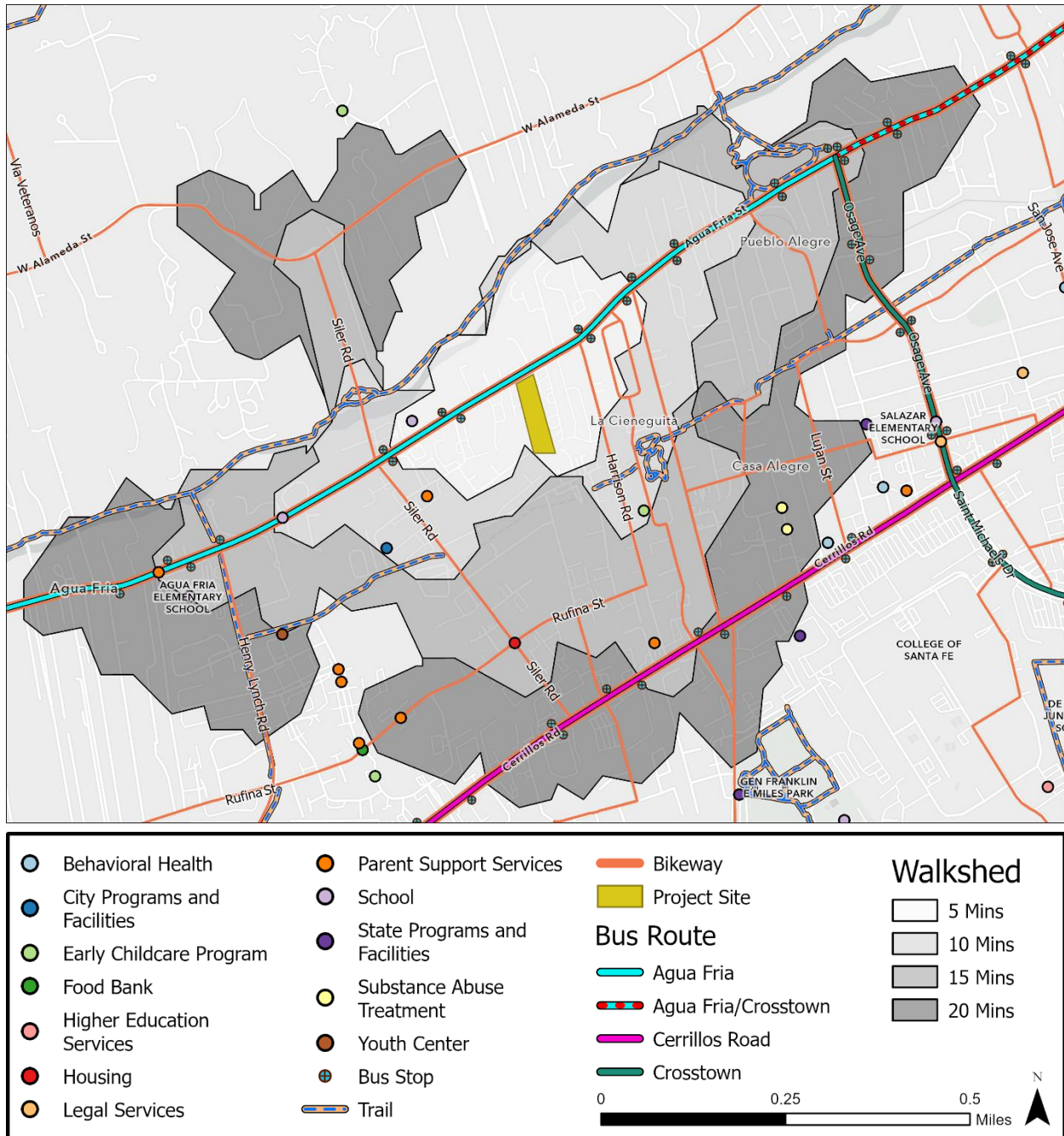
- Several restaurants and breweries
- Latinos Unidos Mini Market
- CVS pharmacy
- Three city parks

---

<sup>6</sup> McCahill, C. (2017). Factors affecting residential parking occupancy in Madison, Wisconsin. *Transportation Research Record*, 2651(1), 71-79.

Rowe, D., Morse, S., Ratchford, C., Haas, P., & Becker, S. (2014). Modeling of multifamily residential parking use in King County, Washington. *Transportation Research Record*, 2469(1), 57-64.

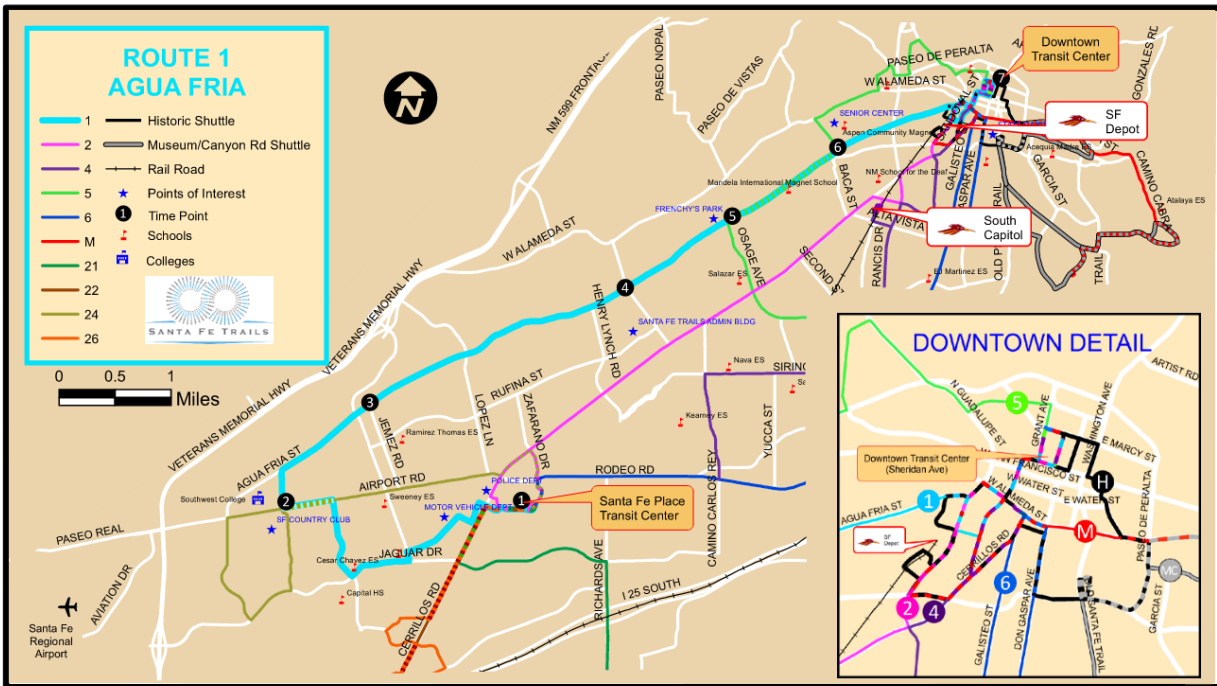
Figure 2: Walkshed and Transportation Map



## Transit

The development will be located within a three-minute walk of bus stops on Agua Fria Street (Santa Fe Trails Route 1). Route 1 provides hourly bus service from 8:30 am to 6:00 pm every day of the week, with on-demand service from 7:00 am to 8:00 am and 6:30 pm to 7:30 pm. The route runs from the Downtown Transit Center along Agua Fria Street to the Santa Fe Place Transit Center (see Figure 3).

Figure 3: Santa Fe Trails Route 1 Map



In addition, 2768 Agua Fria Street is located about a twenty-minute walk from Route 2 bus stops. Route 2 provides more frequent transit service along Cerrillos Road, running every 30 minutes from 7:00 am to 8:00 pm daily.

## Biking

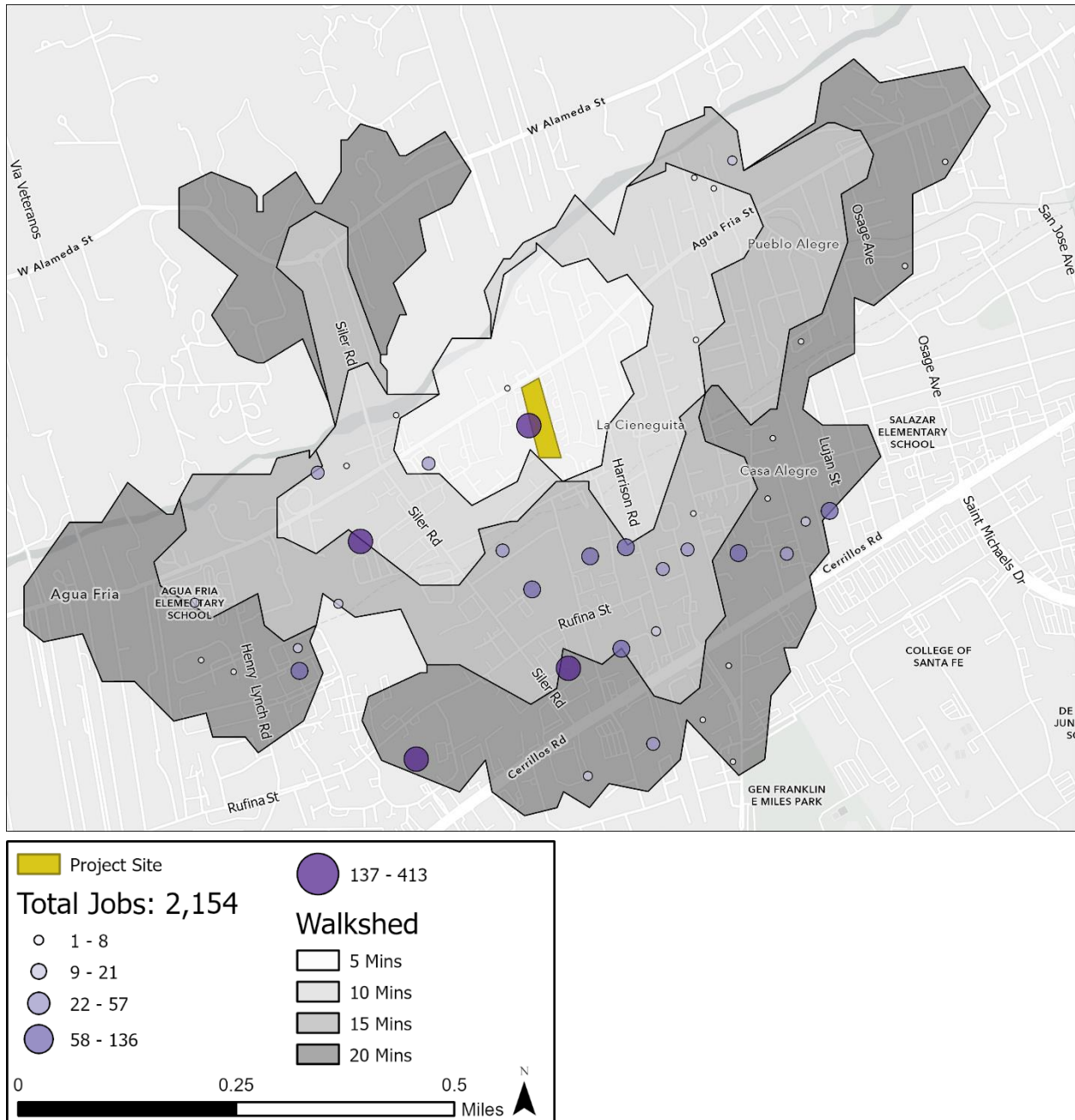
The Agua Fria Development is ideally located for bicycle travel. Comfortable and high-quality bicycle facilities allow residents to access a wide range of destinations in Santa Fe.

Agua Fria Street has bike lanes from Siler Road to Saint Francis Drive. The River Trail, a high-quality multi-use trail separated from cars, can be accessed via a five-minute bike ride on the bike lanes on Agua Fria Street. The River Trail connects three miles further to downtown Santa Fe. There are also many neighborhood bike routes that can be taken to connect to destinations, such as Wal-Mart and Smith's, along Cerrillos Road and further south.

## Employment Access

Future residents of the Agua Fria Development will be able to access employment opportunities within walking distance, further reducing the need for vehicle ownership. Figure 4 shows employment density within walking distance of the Agua Fria Development. There are 2,154 jobs within a 20-minute walk of the project site, including a large cluster directly adjacent to the site.

Figure 4: Employment Access Map



## Vehicle Availability

Vehicle availability is directly related to parking demand, as households with low vehicle availability require fewer parking spaces for their vehicles. The Agua Fria Development is in Census Tract 12.02, which has lower vehicle availability for renter-occupied households than the City of Santa Fe as a whole. 14 percent of renter-occupied households do not have a vehicle (4 percent higher than the City of Santa Fe). Renters in Census Tract 12.02 are also less likely to have access to three or more vehicles (4 percent for Census Tract 12.02 vs 8 percent for the City of Santa Fe).

**Table 3: Vehicles Available, Renter-Occupied Households**

	Census Tract 12.02		Santa Fe	
	Count	Percent	Count	Percent
<b>No Vehicle Available</b>	230	14%	1,448	10%
<b>1 Vehicle Available</b>	829	51%	8,134	54%
<b>2 Vehicles Available</b>	504	31%	4,297	28%
<b>3 or More Vehicles Available</b>	60	4%	1,261	8%
<b>Total Renter-Occupied Housing Units</b>	1,623		15,140	

Source: Social Explorer Tables: ACS 2023 (5-Year Estimates)(SE), ACS 2023 (5-Year Estimates), Social Explorer; U.S. Census Bureau

## PARKING MANAGEMENT STRATEGIES

### Shared Parking

Shared parking allows for adjacent uses with offset peak hours to share parking facilities, reducing the total number of parking spaces needed to meet demand for both uses. The five spaces required for the Agua Fria Development’s retail space can be shared between shoppers and residents because of offset peak hours. Residential peak hours are from 10 pm to 7 am, when most residents are at home. Retail peak hours are from 1 pm to 6 pm, when many residential parking spaces will be vacant.<sup>7</sup> For a detailed analysis of shared parking at the site, reference the Parking Demand Estimate section.

### Affordable Housing

Affordable housing tends to have lower parking demand than market-rate housing. As 10 percent of the Agua Fria Development will be affordable units, lower parking demand can be expected at the site.

Affordable housing developments have been shown to have significantly lower parking demand than market-rate housing. A study from San Diego conducted in 2011 researched how income levels, transit access, land use context, and housing size contribute to vehicle ownership and parking demand. The study found that:

- Parking demand for affordable projects is about one half of typical rental units in San Diego.
- Parking demand is lower in areas with many walkable destinations and more transit service.
- In all of the projects studied, the amount of peak overnight parking used was less than the amount supplied.<sup>8</sup>

<sup>7</sup> ITE Parking Generation Manual, 6<sup>th</sup> Edition. Land Use Code 220 and 814 Time of Day Distributions.

<sup>8</sup> Willson, R., O’connor, T., & Hajjiri, S. (2012). Parking at affordable housing: Study results in San Diego, California. *Transportation research record*, 2319(1), 13-20.

A 2014 study in King County, Washington, came to a similar conclusion, finding that as the percentage of affordable units in a development went up, parking use went down.<sup>9</sup>

## Unbundled Parking Costs

Costs for parking spaces can be unbundled from rent costs to create a more equitable fee structure for tenants and can reduce parking demand at residential developments.<sup>10</sup> Parking costs can be unbundled either by charging renters an additional fee per parking space, or by offering a discount to residents who do not need a parking space. Unbundling parking costs can reduce parking demand by 10% - 20%<sup>11</sup>, as residents may choose to not own a vehicle, or own fewer vehicles, to save money on housing costs. Providing tenants the option to opt out of paying for parking not only reduces parking demand, but also improves housing affordability and provides a more equitable fee structure.

## Induced Demand

Research on transportation behavior indicates that supplying high amounts of parking leads to an increase in vehicle ownership. A study based in San Francisco analyzed the relationship between parking availability and vehicle ownership at affordable housing developments. Researchers selected apartment complexes that use affordable housing lotteries, meaning that residents were assigned housing randomly and did not select it based on parking availability or other transportation-related preferences.

The study found that tenants at apartment buildings with less parking owned fewer vehicles, and that parking availability did not affect employment or job mobility.<sup>12</sup> Figure 5 shows that the percent of households who owned a vehicle increased with parking availability.

---

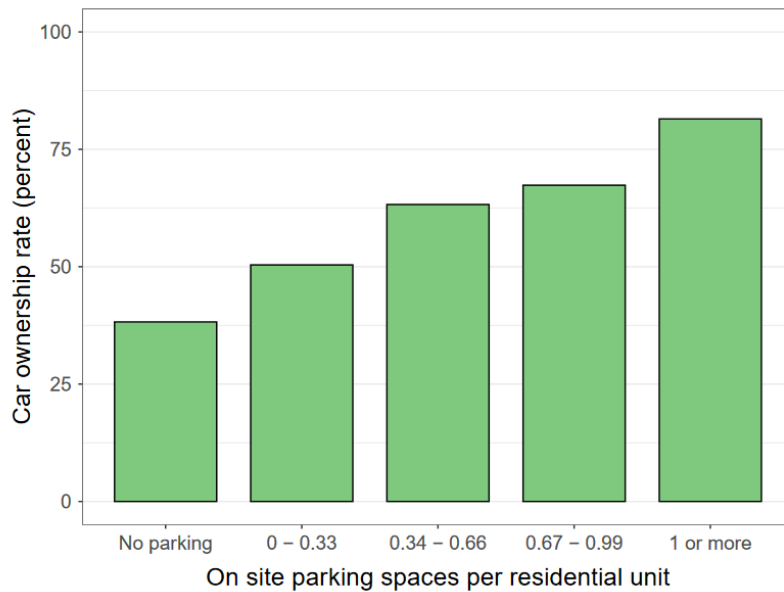
<sup>9</sup> Rowe, D., Morse, S., Ratchford, C., Haas, P., & Becker, S. (2014). Modeling of multifamily residential parking use in King County, Washington. *Transportation Research Record*, 2469(1), 57-64.

<sup>10</sup> Ibid

<sup>11</sup> Litman, Todd. *Parking Management: Strategies, Evaluation and Planning*. Victoria Transport Policy Institute, 2023.

<sup>12</sup> Millard-Ball, A., West, J., Rezaei, N., & Desai, G. *What do residential lotteries show us about transportation choices?*. 2022. *Urban Studies*, 59(2), 434-452.

Figure 5: Car Ownership by Parking Availability



Source: Millard-Ball et al., 2022

Demand for parking is flexible, as residents will change their transportation behaviors based on parking availability. The result of providing fewer parking spaces at the Agua Fria Development will likely be reduced rates of vehicle ownership and higher use of alternative transportation modes such as walking, biking, or riding transit.

## PARKING DEMAND ESTIMATE

The ITE Parking Generation Manual (6<sup>th</sup> Edition) compiles parking studies for a wide variety of land uses and contexts in order to provide parking demand estimates. Parking demand for multifamily residential uses can be estimated using either the number of dwelling units or the number of bedrooms. This study uses bedrooms to calculate parking demand, as parking generation rates tend to be more accurate when assessed on a per-bedroom rate rather than by unit.<sup>13</sup>

Table 4 shows the number of bedrooms at the Agua Fria Development and Table 5 describes ITE parking generation rates for the development.

Table 4: Agua Fria Street Development Bedrooms

	Studio Units	One-Bedroom Units	Two-Bedroom Units	Three-Bedroom Units	Total
<b>Number of Units</b>	25	70	19	16	130
<b>Number of Bedrooms</b>	25	70	38	48	181

<sup>13</sup> Smith, Mary S. Shared Parking. 3rd ed. Washington, DC: Urban Land Institute, ICSC, and National Parking Association, 2020.

Table 5: ITE Parking Demand Estimates for Agua Fria Development (181 Bedrooms)

<b>Weighted Average</b>	123 spaces
<b>Fitted Curve</b>	119 space
<b>85<sup>th</sup> Percentile</b>	156 spaces
<b>Average Rate</b>	0.68 spaces per bedroom

*ITE Land Use Code 220: Multifamily Housing 2+ Bedrooms (Low-Rise), General Urban/Suburban Context, not close to rail transit*

**The average parking demand for a multifamily residential development with 181 bedrooms is 123 spaces.** The developer plans on providing 154 spaces at the development, 31 more spaces than the ITE’s estimated average parking demand. The development will provide parking at rates close to the conservative 85<sup>th</sup> percentile estimated parking demand.

The development will also include a small retail space, which could generate additional parking demand. The ITE Parking Generation Manual does include parking demand estimates for retail land uses; however, studies are limited and data quality is poor for small retail spaces like the one proposed at the Agua Fria Development. For this analysis, Santa Fe’s parking requirement of five spaces was used to assess retail demand.

## Shared Parking

Parking can be shared between the residential use and the retail use due to offset peak hours. Table 6 estimates the parking demand at the site at various times of day. ITE parking generation rates were used to estimate demand at the site for residential uses, and Santa Fe’s requirement of five parking spaces was used to estimate demand for the retail use.<sup>14</sup>

---

<sup>14</sup> Land Use Code 220 (Low-Rise Multifamily Residential) was used to calculate residential parking generation rates and utilization rates. Utilization rates for Land Use Code 814 (Variety Store) was used for the shared parking analysis. Due to the lack of studies on small retail spaces, ITE parking generation rates were not used to estimate retail parking demand. Instead, the analysis assumes that the five required parking spaces will reflect demand for the retail use. Weekend rates were omitted due to low data quality.

**Table 6: Estimated Parking Utilization By Time of Day**

Hour	Residential (123 spaces)		Retail (5 spaces)		Total Utilized Parking Spaces
	Weekday Utilization Rate	Utilized Parking Spaces	Weekday Utilization Rate	Utilized Parking Spaces	
<b>12:00-4:00 AM</b>	97%	119	—	0	119
<b>5:00 AM</b>	100%	123	—	0	123
<b>6:00 AM</b>	96%	118	3%	0	118
<b>7:00 AM</b>	85%	105	5%	0	105
<b>8:00 AM</b>	67%	82	22%	1	84
<b>9:00 AM</b>	54%	66	58%	3	69
<b>10:00 AM</b>	48%	59	56%	3	62
<b>11:00 AM</b>	45%	55	64%	3	59
<b>12:00 PM</b>	45%	55	63%	3	59
<b>1:00 PM</b>	42%	52	80%	4	56
<b>2:00 PM</b>	42%	52	88%	4	56
<b>3:00 PM</b>	47%	58	81%	4	62
<b>4:00 PM</b>	49%	60	81%	4	64
<b>5:00 PM</b>	56%	69	100%	5	74
<b>6:00 PM</b>	64%	79	78%	4	83
<b>7:00 PM</b>	72%	89	49%	2	91
<b>8:00 PM</b>	77%	95	41%	2	97
<b>9:00 PM</b>	85%	105	32%	2	106
<b>10:00 PM</b>	92%	113	—	0	113
<b>11:00 PM</b>	95%	117	—	0	117

**Peak demand hours between the two uses do not overlap; no more than 123 spaces are needed at any given time of day to meet demand for both uses.** The peak demand time at the site is at 5:00 am, when the retail space is likely to be closed.

## CONCLUSION

Although the proposed site plan for the Agua Fria Development has 31 fewer parking spaces than are required by Santa Fe Municipal Code, this study demonstrates that there will be ample parking to meet the needs of residents and retail customers.

1. Santa Fe’s policies and plans support appropriately-sized parking lots and aim to increase housing supply and affordability. As an infill, mixed-use development, the Agua Fria Street Development will help the City meet their housing, land-use, and transportation goals.
2. The project’s location provides residents with multimodal transportation options, including walking, transit, and biking. The site is especially well-suited for bicycle transportation.

3. There are currently high rates of zero-vehicle renter households in the development's census tract, and low rates of renter households that own more than two vehicles.
4. The developer is employing parking management strategies that will reduce parking demand, including setting aside 10 percent of the units as affordable housing, sharing parking with the retail use, and unbundling parking costs from rent costs. These strategies have been shown through robust academic research to reduce parking demand.
5. ITE parking demand estimates indicate that an average of 123 spaces and a conservative 85<sup>th</sup> percentile rate of 156 spaces will be needed. These estimates indicate that the site plan's 154 parking spaces will be appropriate for the site's needs.
6. As retail hours do not overlap with peak parking demand hours for residential uses, the five spaces required for the retail use can be effectively shared with residents.

By building an appropriately-sized parking lot, the Agua Fria Development will help contribute to Santa Fe's goals of building infill development that addresses the City's housing needs.

## APPENDIX A: SITE PLAN

DO NOT SCALE DRAWINGS  
CONTRACTOR TO VERIFY  
ALL EXISTING CONDITIONS AND  
DIMENSIONS. NOTIFY ARCHITECT  
OF ANY DISCREPANCIES PRIOR  
TO BEGINNING CONSTRUCTION.

THIS DRAWING AND THE PROJECT IS THE PROPERTY OF ARCHITECTURAL ALLIANCE LLC AND SHALL BE THE PROPERTY OF ARCHITECTURAL ALLIANCE LLC. NO PART OF THIS PROJECT CAN BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.

NO.	REVISION/SUBMISSIONS	DATE

STAMP

PROJECT TITLE

MASTER PLAN

2768 AGUA FRIA STREET  
SANTA FE, NM 87505

PROJECT NO. 97-15

CHECKED BY HR DATE 03/20/23

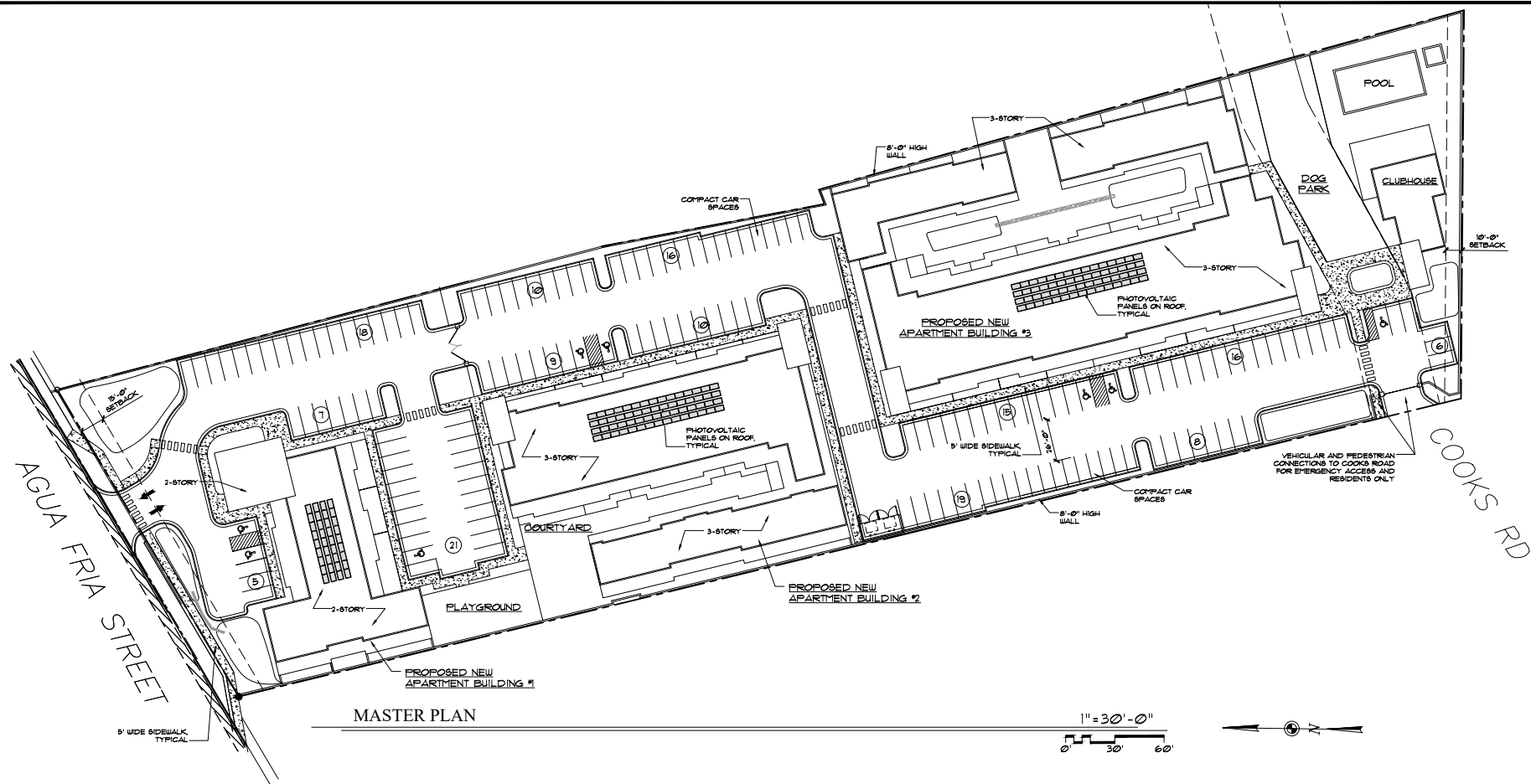
DRAWN BY HR DATE 03/20/23

SHEET TITLE

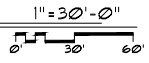
MASTER PLAN

SHEET NO.

C-2



MASTER PLAN



PERMISSIBLE USES:

- RESIDENTIAL:**  
SINGLE FAMILY RESIDENTIAL  
MULTI-FAMILY RESIDENTIAL
- COMMERCIAL:**  
FOOD AND BEVERAGE  
RETAIL  
STUDIO  
ARTS ACTIVITIES  
SERVICE ESTABLISHMENTS

GENERAL NOTES:

- PROPERTY WILL BE SUBJECT TO THE WATER ALLOCATION AND/OR WATER OFFSET RETROFIT PROVISIONS OF ORDINANCE NO. 2009-19 AND RESOLUTION 2009-39 AT THE TIME OF PERMIT APPLICATION OR WATER HOOKUP REQUEST. COMPLIANCE SHALL BE ACHIEVED BY USE OF RETROFIT CREDITS OR WATER TRANSFERS, IF APPLICABLE.
- COMPLIANCE WITH PROVISIONS OF GUNNISON'S PRAIRIE DOG ORDINANCE SHALL BE COMPLETED PRIOR TO GRADING OPERATIONS.
- AMERICANS WITH DISABILITIES ACT (ADA) INSPECTION SHALL BE CONDUCTED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE CONTRACTOR SHALL CONTACT CITY STAFF TO SCHEDULE AN INSPECTION.
- FENCES, WALLS, OR OTHER OBSTRUCTIONS SHALL NOT BE PLACED OR CONSTRUCTED ACROSS PUBLIC SANITARY SEWER EASEMENTS.
- UTILITY EXPANSION CHARGES (UEC) SHALL BE PAID AT THE TIME OF BUILDING PERMIT APPLICATION FOR EACH LOT.
- CONTACT THE CITY OF SANTA FE PERMIT AND DEVELOPMENT REVIEW DIVISION TO PAY THESE CHARGES.
- ALL PROPOSED CHANGES TO THE APPROVED IMPROVEMENT PLANS SHALL RECEIVE PRIOR APPROVAL BY THE CITY OF SANTA FE.
- COMPLY WITH THE CURRENT COOP WATER CONSERVATION STAGE.
- LANDSCAPE DESIGN SHALL COMPLY WITH APPLICABLE PROVISIONS OF 9FCC SECTION 14-8.4.
- PROPERTY DEVELOPMENT IS SUBJECT TO THE PROVISIONS OF SECTION 14-8.4(F)(3), PLANT ATERIAL STANDARDS, WHEREIN PRESERVATION OF SIGNIFICANT TREES IS REQUIRED.
- PROPERTY DEVELOPMENT IS REQUIRED TO COMPLY WITH THE PROVISIONS OF COOP ORDINANCE NO. 2008-02 (IMPACT FEES).
- PROPERTY DEVELOPMENT, BOTH PUBLIC AND PRIVATE OWNERSHIP, SHALL COMPLY WITH THE COOP ORDINANCE NO. 2007-30 (TERRAIN AND STORMWATER MANAGEMENT) AT THE TIME OF BUILDING PERMIT APPLICATION.
- PROPERTY DEVELOPMENT IS REQUIRED TO COMPLY WITH APPLICABLE PROVISIONS OF CHAPTER 14, LAND DEVELOPMENT CODE, 9FCC 19B1 AND SUBSEQUENT AMENDMENTS.
- PROPERTY DEVELOPMENT IS REQUIRED TO COMPLY WITH THE PROVISIONS OF EACH APPLICABLE CITY OF SANTA FE ORDINANCE ADOPTED PRIOR TO SUBMITTAL WITH BUILDING PERMIT APPLICATION THAT MODIFIES ANY PROVISIONS OF REQUIREMENTS CALLED FOR IN CHAPTER 14, LAND DEVELOPMENT CODE, 9FCC 19B1 AND SUBSEQUENT AMENDMENTS.
- FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED THROUGHOUT ALL DEVELOPMENT CONSTRUCTION PHASES AS PER IFC 1401.
- AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS FEASIBLE ON THE SITE AS PER IFC 1401.
- PERMANENT TRAFFIC CONTROL DEVICES SHALL BE INSTALLED PER APPROVED PLAN BY THE DEVELOPER.
- THIS DEVELOPMENT LIES OUTSIDE OF A CITY OF SANTA FE HISTORIC DISTRICT.
- THE LAYOUT SHOWN HEREON IS CONCEPTUAL AND MAY BE MODIFIED AS PART OF DEVELOPMENT PLAN PROCESS WITHOUT THE NEED FOR MASTER PLAN AMENDMENT.

SITE DATA:

PROPOSED ZONING: C2

LOT SIZE  
4,194 ACRES (179,445,263.5 SQ. FT.)

FOOTPRINT  
TOTAL FOOTPRINT: 61,190 SF

LOT COVERAGE  
REQUIRED 60% MAXIMUM  
PROVIDED 40%

OPEN SPACE  
REQUIRED: 250 SF PER GROUND FLOOR DWELLING UNIT FOR MIXED-USE PROJECTS PER 9FCC 14-13(D)(8)(c)  
(49) GROUND FLOOR DWELLING UNITS X 250 = 12,250

PROVIDED: COMMON OPEN SPACE = 32,010 SF  
PRIVATE OPEN SPACE = 19,159 SF  
TOTAL OPEN SPACE = 51,169 SF (23%)

BUILDING HEIGHT:  
C-2 ZONING MAXIMUM ALLOWABLE HEIGHT: 45'  
MAXIMUM PROPOSED BUILDING HEIGHT: 45'

UNIT COUNT:

STUDIO/SMALL 1 BR: 25 UNITS  
1-BEDROOM: 70 UNITS  
2-BEDROOM: 19 UNITS  
3-BEDROOM: 16 UNITS  
TOTAL UNITS: 130 UNITS

PARKING CALCS

RETAIL: 1/200 SQ. FT.  
RESIDENTIAL: OVER 5 UNITS (LESS THAN 800 SQ.FT.)  
RESIDENTIAL: 1 ASSIGNED AND 0.25 UNASSIGNED  
RESIDENTIAL: OVER 5 UNITS (800 -1200 SQ. FT.)  
RESIDENTIAL: 1 ASSIGNED AND 0.5 UNASSIGNED

COMMERCIAL 1,000 NLA SQ. FT./200 = 5  
RESIDENTIAL LESS THAN 800 SQ. FT. 95 UNITS X 1.25 = 118.75  
RESIDENTIAL 800-1200 SQ. FT. 19 UNITS X 1.5 = 28.5  
RESIDENTIAL OVER 1200 SQ. FT. 16 UNITS X 2 = 32

TOTAL PARKING SPACES REQUIRED 185  
PROVIDED 160 NC, 8 H-CAF

# 2768 AGUA FRIA STREET PARKING DEMAND SUPPLEMENTAL RESPONSE

This supplement was prepared in response to City of Santa Fe comments on the 2768 Agua Fria Street Parking Demand Study. It includes an analysis of peer city parking practices, availability of on-demand rideshare and delivery services, and an explanation of how ITE’s parking generation methodology is context-sensitive and reflects the characteristics of Santa Fe.

## PEER CITY PARKING PRACTICES

While academic research on residential parking demand is largely focused on dense, urban cities, hundreds of smaller communities have eliminated or reduced parking requirements. More small cities and towns have eliminated parking minimums than large or mid-sized cities (see Figure 1). Many of these communities have low densities and are without high-frequency transit service.

Figure 1: Count of US Jurisdictions that have eliminated parking minimums

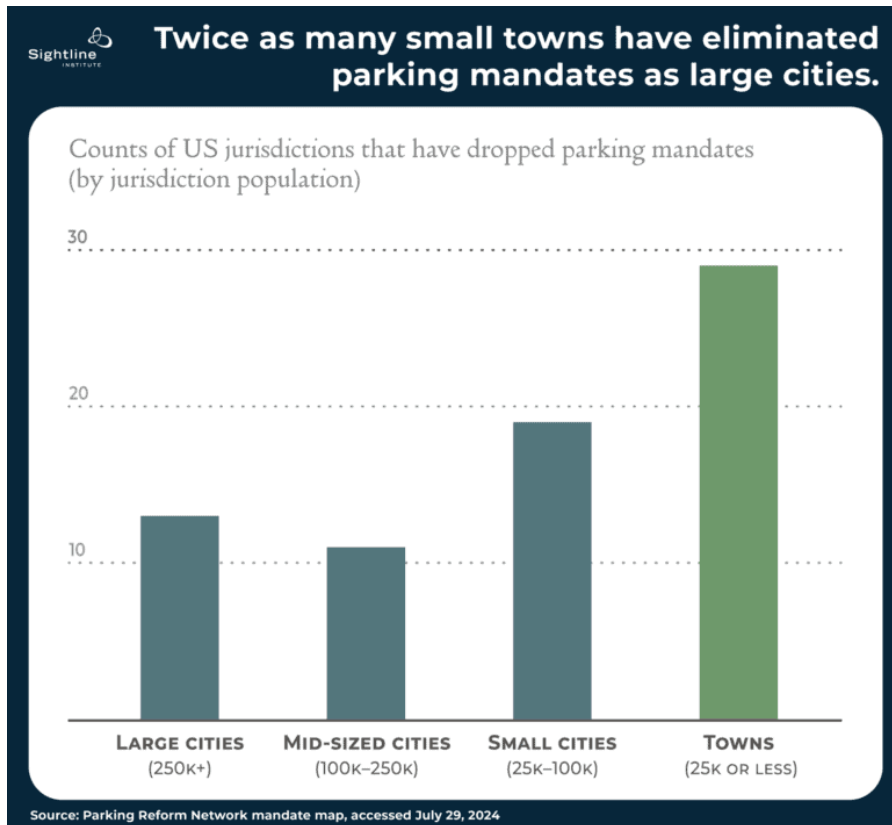


Chart source: Sightline Institute: <https://www.sightline.org/2024/09/04/twice-as-many-small-towns-have-eliminated-parking-mandates-as-large-cities/>

Table 1 shows parking minimums for peer cities. All of the cities included in the table have eliminated parking minimums, with the exception of Sandpoint, which has lower residential parking minimums than Santa Fe.<sup>1</sup>

**Table 1: Population, Population Density, and Transit for Cities with Reduced or Eliminated Parking Minimums**

City	Population	Population Density (residents per square mile)	Fixed- Route Transit Availability	Highest-Frequency Transit Service
<b>Santa Fe, NM</b>	~89,000	1,689	Yes	30 min
<b>Sandpoint, ID</b>	~10,000	2,161	Yes	Hourly
<b>Jackson, TN</b>	~68,000	1,147	Yes	30 min
<b>Lansing, KS</b>	~11,000	913	No	None
<b>Bend, OR</b>	~100,000	2,949	Yes	30 min
<b>Portsmouth, OH</b>	~18,000	1,701	No	None
<b>Ecorse, MI</b>	~9,000	3,279	No	None
<b>Chattahoochee Hills, GA</b>	~3,000	48	No	None
<b>Seabrook, NH</b>	~8,000	936	No	None
<b>Gastonia, NC</b>	~84,000	1,600	Yes	Hourly
<b>Rogers, AR</b>	~70,000	1,800	Yes	30 min

Many of the cities presented have lower population densities than Santa Fe. None of the cities have more frequent transit service than Santa Fe, and several of the cities have no fixed-route transit at all. Reducing or eliminating parking minimums is not only possible, but is becoming common practice among smaller communities with low population density and limited transit availability.

## ON-DEMAND SERVICES

On-demand services in Santa Fe include rideshare such as Uber and Lyft and grocery delivery services.

- Uber and Lyft both provide rides on-demand and can be utilized 24/7 depending on the availability of drivers.
- Food delivery services available in Santa Fe include Uber Eats, DoorDash, and GrubHub.
- Grocery delivery services are provided by Instacart, DoorDash, Wal-Mart, and Uber Eats.

The availability of on-demand rideshare and food delivery services provides more options for Santa Fe residents who do not own vehicles or who share a vehicle with others in their household. These services can reduce the need for car ownership at the Agua Fria Development.

<sup>1</sup> 1 space required per unit <12,000 sf; 1.4 spaces required for units >12,000 sf

## ITE PARKING GENERATION RATES

The ITE Parking Generation peak hour demand estimate is context-sensitive and backed by a large number of parking studies.

The ITE Parking Generation Manual is a compilation of parking count studies taken in a variety of land use contexts. On average, a development of the same size and in the same land use context as the Agua Fria Development will need 123 spaces to accommodate peak hour parking demand. The Agua Fria Development's proposed parking plan will have 31 more spaces than are estimated to be needed. This weighted average peak hour parking demand estimate reflects industry best practice in determining how many spaces will be needed.

The original parking study submittal also included the 85<sup>th</sup> percentile parking demand estimate of 156 spaces. Of the sites studied by ITE, 85 percent had peak hour parking demand of less than 156 spaces. Only 15 percent of developments had peak hour parking demand higher than 156 spaces. ITE does not recommend using the 85<sup>th</sup> percentile estimate as a tool to determine the level of parking that should be supplied. The 85<sup>th</sup> percentile estimate was included to show that the vast majority of developments have peak hour parking demand below this level.

Only studies taken from contexts similar to Santa Fe's were used in generating the ITE estimate, and the parking demand estimate is aligned with Santa Fe's land use and transportation context. Parking counts from 97 sites with the same context factors were compiled by ITE to generate the peak hour parking demand estimate. The three context factors used for the analysis are described below:

1. Type of development
  - a. Low-rise (2-3 levels) multifamily housing with at least one dwelling unit with two or more bedrooms
2. Proximity to rail transit
  - a. Not within ½ mile of rail transit
3. Land use context

- a. General urban/suburban (see call-out box for detailed description)

*General Urban/Suburban Land Use Context*

An area associated with **almost homogeneous vehicle-centered access**. Nearly all person trips that enter or exit a development site are by personal passenger or commercial vehicle. The area can be fully developed (or nearly so) at low-medium density with a mix of residential and commercial uses. The commercial land uses are typically concentrated at intersections or spread along commercial corridors, often surrounded by low-density, almost entirely residential development. Most commercial buildings are located behind the parking area or surrounded by parking. The mixing of land uses is only in terms of their proximity, not in terms of function. A retail land use may focus on serving a regional clientele whereas a service land use may target motorists or pass-by vehicle trips for its customers. Even if the land uses are complementary, **a lack of pedestrian, bicycling, and transit facilities or services limit non-vehicle travel.**

The Agua Fria Street Development's location is more multi-modal than the general urban/suburban context used for the ITE analysis, as described in the Locations Benefits section of the parking study submittal. In addition, parking demand reduction strategies (unbundled parking and affordable housing) will reduce demand at the site further. **Given these factors, it is reasonable to expect that parking demand at the site will be below the average peak hour demand estimate of 123 spaces.**

# AGUA FRIA LOT 38 DEVELOPMENT

## TRAFFIC IMPACT ANALYSIS

FINAL SUBMITTAL

OCTOBER 17, 2024

Prepared For:

Cold Water Development Fund QOZF, LLC

106 Faithway St

Santa Fe, NM 87501

Prepared By:

**Bohannon**  **Huston**

Engineering

Spatial Data

Advanced Technologies



# AGUA FRIA, LOT 38 DEVELOPMENT TRAFFIC IMPACT ANALYSIS

FINAL SUBMITTAL

Date:

**October 17, 2024**

Prepared by:

**Bohannon Huston, Inc.**

7500 Jefferson St NE

Courtyard Two

Albuquerque, NM 87109

Prepared for:

**Cold Water Development Fund QOZF, LLC**

106 Faithway St

Santa Fe, NM 87501

---

Carl D. Vermillion, PE, PTOE, RSP1

Date

TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY ..... 1

    A. Study Purpose ..... 1

    B. Executive Summary ..... 1

        1. Site Location and Study Area ..... 1

        2. Principal Findings ..... 2

        3. Recommendations ..... 2

II. PROPOSED DEVELOPMENT..... 5

    A. Land Use and Intensity ..... 5

    B. Development Phasing and Timing ..... 5

III. STUDY AREA CONDITIONS ..... 5

    A. Study Area ..... 5

    B. Site Accessibility ..... 5

    C. Data Sources..... 6

IV. EXISTING CONDITIONS ANALYSIS ..... 7

    A. Background..... 7

        1. Adjacent Roadways ..... 7

        2. Multi-Modal Conditions ..... 7

    B. Existing Traffic Conditions..... 8

    C. Level of Service Definitions ..... 8

    D. Existing Intersection Capacity Analysis..... 9

V. PROJECTED TRAFFIC ..... 11

    A. Site Traffic Forecasting ..... 11

        1. Trip Generation..... 11

        2. Trip Distribution and Assignment ..... 12

        3. Traffic Projections ..... 12

VI. TRAFFIC AND IMPROVEMENT ANALYSIS ..... 14

    1. 2027 No Build Intersection Capacity Analysis ..... 14

    2. 2027 Build Intersection Capacity Analysis ..... 17

    3. 2042 No Build Intersection Capacity Analysis ..... 20

    4. 2042 Build Intersection Capacity Analysis ..... 23

B. Turn Lane Evaluation ..... 26

VII. CONCLUSIONS AND RECOMMENDATIONS..... 28

A. Conclusions ..... 28

B. Recommendations..... 28

**FIGURES**

Figure 1 | Vicinity Map and Proposed Site Plan ..... 4

Figure 2 | Existing Traffic Volumes..... 10

Figure 3 | Trip Distribution Percentages ..... 13

Figure 4 | 2027 No Build Traffic Volumes..... 16

Figure 5 | 2027 Build Traffic Volumes..... 19

Figure 6 | 2042 No Build Traffic Volumes..... 22

Figure 7 | 2042 Horizon Year Build Traffic Volumes ..... 25

**TABLES**

Table 1 | LOS Definitions ..... 8

Table 2 | Existing Signalized Intersection Results ..... 9

Table 3 | Existing Unsignalized Intersection Results ..... 9

Table 4 | Trip Generation ..... 11

Table 5 | 2027 No Build Signalized Intersection Results ..... 14

Table 6 | 2027 No Build Unsignalized Intersection Results ..... 15

Table 7 | 2027 Build Signalized Intersection Results ..... 17

Table 8 | 2027 Build Unsignalized Intersection Results ..... 18

Table 9 | 2042 Horizon Year No Build Signalized Intersection Results ..... 20

Table 10 | 2042 Horizon Year No Build Unsignalized Intersection Results ..... 21

Table 11 | 2042 Horizon Year Build Signalized Intersection Results ..... 23

Table 12 | 2042 Horizon Year Build Unsignalized Intersection Results ..... 24

## APPENDICES

Appendix A Existing Data

Appendix B 2024 Existing Intersection Capacity Analysis

Appendix C Turning Movement Development

Appendix D 2027 No Build Intersection Capacity Analysis

Appendix E 2027 Build Intersection Capacity Analysis

Appendix F 2042 No Build Intersection Capacity Analysis

Appendix G 2042 Build Intersection Capacity Analysis

## I. INTRODUCTION AND SUMMARY

Cold Water Development Fund QOZF proposes to develop Lot 38, situated southwest of the Agua Fria and Broadmoor Blvd intersection. The proposed development will include 130 multi-family housing units.

### A. STUDY PURPOSE

The purpose of the traffic study is to determine the impacts of the proposed development on the surrounding roadway network, evaluate the operation of the proposed site entrances, and to recommend any mitigation measures that may be necessary to support additional traffic generated by the new development.

### B. EXECUTIVE SUMMARY

#### 1. SITE LOCATION AND STUDY AREA

The site is located northeast of the Agua Fria and Siler intersection in Santa Fe, New Mexico. A vicinity map and proposed site plan are shown in Figure 1.

The study area consists of the following intersections:

- Agua Fria Street and Siler Road (existing 4-way signalized intersection)
- Agua Fria Street and Harrison Road (existing 4-way unsignalized intersection)
- Agua Fria Street and Siler Park Lane (existing 3-way unsignalized intersection)
- Siler Road & Siler Park Lane (existing 3-way unsignalized intersection)
- Agua Fria Street and North Site Entrance (future 3-way unsignalized intersection)

The intersection evaluations include analysis for the AM and PM peak hours for the following traffic conditions:

- Existing traffic (2024)
- 2027 Completion Year without the proposed site development (2027 No Build)
- 2027 Completion Year with the proposed site development (2027 Build)
- 2042 Horizon Year without the proposed site development (2042 No Build)
- 2042 Horizon Year with the proposed side development (2042 Build)

## 2. PRINCIPAL FINDINGS

The traffic analysis found that all intersections operate overall acceptably in the 2024 Existing, 2027 No Build and 2027 Build conditions.

In the 2042 No Build and Build scenarios, the westbound thru movement at the signalized intersection, Agua Fria and Siler, will operate at LOS F in the PM peak hour. Since the first occurrence of this appears in the no build scenario, the development is not responsible for this and further assessments as the horizon year nears is recommended.

A dedicated right turn lane was evaluated based on the SAMM, the Santa Fe TIA Guidelines, and AASHTO. A right turn lane on Agua Fria and the proposed access point is required based on the SAMM, but is not required based on the Santa Fe TIA Guidelines. Based on AASHTO requirements, if a turn lane is provided it specifies a desirable deceleration distance of 205 feet for a speed of 35 MPH. It also describes that it is not practical on many facilities to provide the full length of deceleration length in the turn lane due to constraints such as right-of-way, distance available between adjacent intersections, and storage needs. As right-of-way constraints exist along Agua Fria, this concern was evaluated to determine a length of right turn deceleration distance that could be included along the frontage of the development property. From the edge of the property to the access point an approximately 110-foot-long deceleration lane would be able to be constructed. If the adjacent properties are ever developed in the future, the City of Santa Fe may extend this turn lane to the full 205 feet if determined appropriate at that time. It is our professional recommendation that a right turn lane should be constructed at the access point of the proposed development and that this deceleration lane should be 110 feet in length.

Additionally left turn lanes were evaluated based on the SAMM, Santa Fe TIA Guidelines, and AASHTO. The westbound left on Agua Fria at the proposed access point does not meet the SAMM volumes during the AM peak hour but does meet the guidance in the PM peak hour. The Santa Fe TIA Guidelines show this left turn lane being warranted due to the high volume on Agua Fria in this area. As a two-way left turn lane is present along Agua Fria to serve the accesses along it, the existing lanes should remain so that all access points in the vicinity may be served.

## 3. RECOMMENDATIONS

- Installation of the proposed access point at Agua Fria should include the two-way left turn lane at the intersection. This two-way left turn lane should remain in place to serve the westbound left users into the site.

- An eastbound dedicated right turn lane is recommended at the proposed access point. This right turn lane shall be 110 feet in length along the frontage of the proposed development property.
- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Santa Fe requirements.



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

## II. PROPOSED DEVELOPMENT

### A. LAND USE AND INTENSITY

The proposed development is a 130-unit multi-family residential subdivision.

The development is located east of the Agua Fria and Siler intersection. The study area is not developed.

### B. DEVELOPMENT PHASING AND TIMING

The project is expected to be developed by 2027.

## III. STUDY AREA CONDITIONS

### A. STUDY AREA

The study area consists of the following intersections:

- Agua Fria Street and Siler Road (existing 4-way signalized intersection)
- Agua Fria Street and Harrison Road (existing 3-way unsignalized intersection)
- Agua Fria Street and Siler Park Lane (existing 3-way unsignalized intersection)
- Siler Road & Siler Park Lane (existing 3-way unsignalized intersection)
- Agua Fria Street and North Site Entrance (future 3-way unsignalized intersection)

### B. SITE ACCESSIBILITY

The development will include the main access on Agua Fria Street, approximately 0.3 miles east of the Agua Fria and Siler intersection. The development will also have a gated emergency access off of Cooks Road. This emergency access will not have assigned use as part of this study. The site access location on Agua Fria Street is an existing roadway with one lane in each direction and center two-way left turning lane, future 3-way intersection.

The primary routes to the site are anticipated to be either Agua Fria Street, Siler Road or Harrison Road.

C. DATA SOURCES

The data used in this report consist of the traffic volumes described below, aerial photography and mapping from Google Earth®, as well as information provided by Cleland Traffic Counts.

## IV. EXISTING CONDITIONS ANALYSIS

### A. BACKGROUND

Roadway federal classification is updated approximately every four years. The classification process involves local governments, the Mid Region Council of Governments (MRCOG), New Mexico Department of Transportation (NMDOT), and the Federal Highway Administration (FHWA). The 2024 MRCOG Roadway Functional Classification Map classifies roadways based on their function. Roadways are subject to design guidance based on their functional classification, design speed, or based on Comprehensive Plan corridor designations.

#### 1. ADJACENT ROADWAYS

The following are adjacent roadways:

- Agua Fria Street is a minor arterial with one lane in each direction and a two-way left turn lane. Agua Fria has a posted speed limit of 35 miles per hour (MPH). Agua Fria provides regional connectivity within the greater Santa Fe area, serving as a link between major/minor roadways which travel north-south directions, including Highway 285 and I-25. Sidewalks and bicycle lanes exist along Agua Fria in this area.
- Siler Road is a minor arterial, with one lane in each direction and a two-way left turn lane. Siler Road has a posted speed limit of 30 MPH. Siler provides regional connectivity within Santa Fe, serving as a connector roadway to NM 14 which leads to Tijeras and I-40 to the south, or I-25 to the south, or US 285 to the northeast. Sidewalks and bicycle lanes exist along Agua Fria in this area.
- Harrison Road is a local roadway with speedhumps no centerline striping. Harrison Road has a posted speed limit of 25 MPH. Sidewalk, curb and gutter exist along Harrison Road in this area.
- Siler Park Lane is a local roadway with no centerline striping or posted speed limit. It has an assumed speed limit of 25 MPH. Siler Park Lane has curb and gutter. No sidewalk or bike paths exist along Siler Park Lane.
- Cooks Road is a local roadway with no centerline striping or posted speed limit. Cooks Road has sidewalk, curb and gutter. Bike lanes/paths do not exist along Cooks Road.

#### 2. MULTI-MODAL CONDITIONS

The Santa Fe Bikeways and Trails map includes designated bicycle lanes on both sides of Agua Fria from Siler to Avenida Cristobal Colon. This map also includes Agua Fria

as a shared use-higher traffic roadway where it does not denote bike lanes or shoulders. Siler Road also includes a bike lane/shoulders from Cerrillos Road to Alameda. Additionally, the bikeways and trails map shows Rufina and Harrison as shared use with lower traffic/speed.

The Santa Fe river trail is located along the north banks of the Santa Fe river, which runs parallel to the north of Agua Fria through the project limits. The nearest access to this trail is currently at Siler Road with many additional access points along the 10 mile trail. Additional access points are in discussion at the City but are not yet under construction.

The Santa Fe Trails bus system currently has an active route along Agua Fria Street, which passes the proposed development. The system map denotes this route as route 1 with the nearest bus stop being located east of the intersection of Agua Fria and Siler.

Additionally, Cerrillos Road has route 2 running along it within a mile of the proposed development. This route has the closest bus stop located at Cerrillos Road and Siler.

**B. EXISTING TRAFFIC CONDITIONS**

Traffic counts for the intersections analyzed in the study area were collected on March 19, 2024, and March 20, 2024. Existing traffic counts are included in Appendix A. The counts included 6-hour turning movement counts. Build traffic for the proposed subdivisions was estimated by counting the houses, developing trip generation, and distributing those trips onto the Build roadway network, similar to a normal traffic study.

**C. LEVEL OF SERVICE DEFINITIONS**

The *Highway Capacity Manual Seventh Edition (HCM)* defines Level of Service (LOS) for signalized and un-signalized intersections in Table 1 as follows:

Table 1   LOS Definitions			
Level of Service	Definition	Signalized (sec/veh)	Unsignalized (sec/veh)
A	Most vehicles do not stop	<10	<10
B	Some vehicles stop	>10 and <20	>10 and <15
C	Significant numbers of vehicles stop	>20 and <35	>15 and <25
D	Many vehicles stop	>35 and <55	>25 and <35
E	Limit of acceptable delay	>55 and <80	>35 and <50
F	Unacceptable delay	>80	>50

The City of Santa Fe has established LOS D as the generally acceptable level of service in urban areas. When intersections operate below this level, improvements are considered, where feasible. Other critical movements are also desired to have LOS D or better if possible.

**D. EXISTING INTERSECTION CAPACITY ANALYSIS**

The traffic volume for all existing intersections were analyzed using Highway Capacity Software version 7 (HCS7), which uses the intersection methodology from the Seventh Edition of the Highway Capacity Manual (HCM). Existing traffic volumes are shown in Figure 2. Individual intersection output for the existing conditions analysis is included in Appendix B. The results are summarized in Table 2 and Table 3.

The signalized intersection of Agua Fria Street and Siler Road operates at an acceptable level of service in the AM and PM peak hours.

<b>Table 2   Existing Signalized Intersection Results</b>						
	<b>2024 AM Peak</b>			<b>2024 PM Peak</b>		
<b>Intersection/Movement</b>	<b>Delay (sec)</b>	<b>V/C</b>	<b>LOS</b>	<b>Delay (sec)</b>	<b>V/C</b>	<b>LOS</b>
Agua Fria & Siler	21.8	0.80	C	28.1	0.88	C
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment						

The unsignalized intersections operate at acceptable levels of service in the AM and PM peak hours with a LOS no worse than C. The Results for the unsignalized intersections are shown in Table 3.

<b>Table 3   Existing Unsignalized Intersection Results</b>								
<b>Intersection/Movement</b>	<b>2024 AM Peak</b>				<b>2024 PM Peak</b>			
	<b>Delay (sec)</b>	<b>V/C</b>	<b>Queue* (ft)</b>	<b>LOS</b>	<b>Delay (sec)</b>	<b>V/C</b>	<b>Queue* (ft)</b>	<b>LOS</b>
Agua Fria & Harrison								
Eastbound Approach	8.1	0.00	0	A	8.8	0.01	0	A
Westbound Approach	8.9	0.04	25	A	8.9	0.05	25	A
Northbound Approach	14.1	0.11	25	B	15.3	0.23	25	C
Southbound Approach	13.3	0.04	25	B	17.0	0.03	25	C
Agua Fria & Siler Park Lane								
Westbound Approach	8.7	0.01	0	A	8.7	0.01	0	A
Northbound Approach	12.2	0.02	25	B	12.3	0.02	25	B
Siler Road & Siler Park Lane								
Westbound Approach	16.4	0.13	25	C	19.0	0.23	25	C
Southbound Approach	0.4	0.01	0	A	0.4	0.01	0	A
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment								

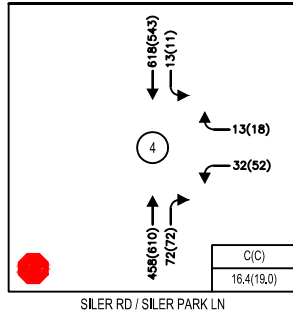
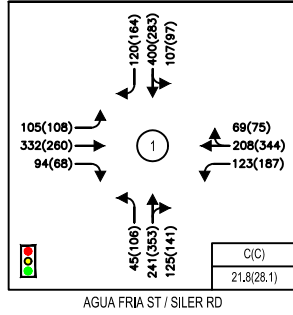
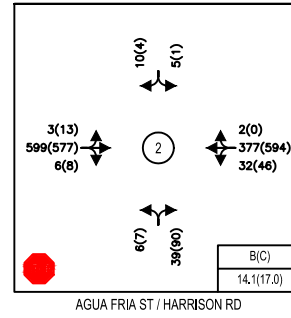
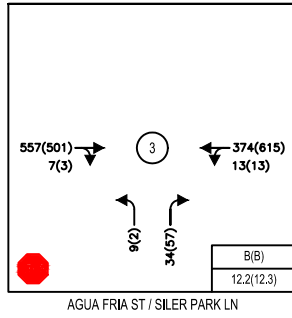
# LEGEND

↑↑↑ Thru Lanes  
(# as indicated)

↙↘ Turning Lanes  
(# as indicated)

1234(1234) AM(PM) Traffic Counts

X(X) AM(PM) Level of Service (LOS)



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

V. PROJECTED TRAFFIC

A. SITE TRAFFIC FORECASTING

1. TRIP GENERATION

Generated trips are broken down into three types; 1) primary, 2) pass-by trips, and 3) diverted link. The Trip Generation report defines these trips as follows:

- **Primary Trips** – These trips are made for the specific purpose of visiting the generator. The stop at that generator is the primary reason for the trip. For example, a home to shopping to home combination of trips is a primary trip set.
- **Pass-by Trips** – These trips are made as intermediate stops on the way from an origin to a primary trip generation. Pass-by trips are attracted from the traffic passing the site on an adjacent street that contains direct access to the generator site. These trips do not require a diversion from another roadway. For example, stopping at the store on the way home from work is an example of a pass-by trip. No pass-by trips were used in this analysis.
- **Diverted Linked Trips** – These trips are attracted from the traffic volume on the roadway within the vicinity of the generator, but which require a diversion from that roadway to another roadway to gain access to the site. The roadways could include streets or freeways adjacent to the generator, but without access to the generator. For this study, the diverted link trips have been included in with the primary trips.

This study evaluates primary trips only.

The trip generation based on the 10<sup>th</sup> Edition of the Institute of Transportation engineer's (ITE) Trip Generation Manual is shown in Table 4 below with the following considerations. The trip generation is based on the peak hour of the adjacent street traffic.

Table 4   Trip Generation							
Land Use	ITE Code	Size	Daily	AM Enter	AM Exit	PM Enter	PM Exit
Multi-Family Housing (Low-Rise)	220	130	909	15	48	48	28

## 2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution was determined using a modified gravity model that considered a region-wide travel shed for employment trips. As the development is residential, standard traffic analysis assumes the trips in the peak hour to be primarily employment trips, so the destinations for the AM trips are employment locations, with the origins the site. In the PM peak hour, the destination is the site, and the origins are the employment locations.

The gravity model uses the locations of employment, which are weighted by the number of jobs in the Subareas in the Albuquerque and Santa Fe Metropolitan area divided by their distance from the site. This means that employment locations closer to the site are considered more likely, with those farther away to be less likely, depending on how many jobs are in each Subarea.

The gravity model utilized socioeconomic data obtained from the Mid Region Council of Governments (MRCOG), which included population and employment estimates for each subarea within the Albuquerque and Santa Fe Metropolitan Planning Area to develop the trip distribution.

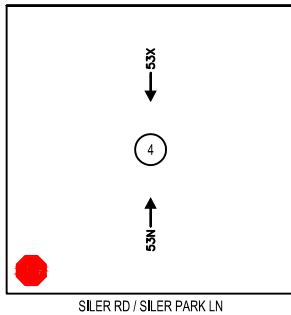
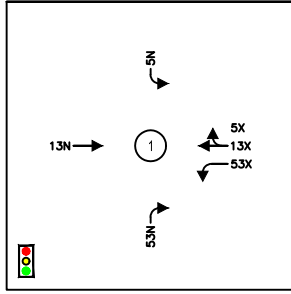
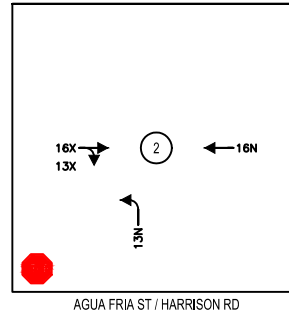
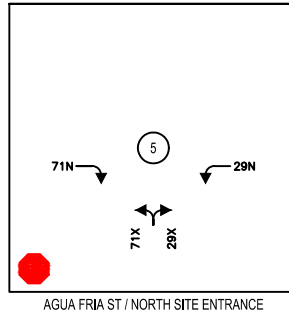
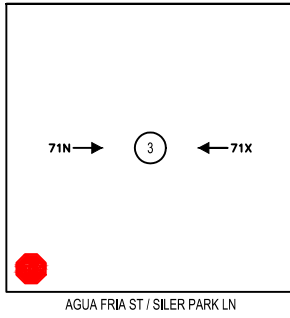
Spreadsheets showing the development of the trip distribution are included in Appendix C. Trip distribution percentages are shown in Figure 3.

## 3. TRAFFIC PROJECTIONS

A background growth rate of 1% was applied to provide an estimate of potential future growth of traffic at all intersections evaluated. The growth rate determination and data are summarized in the spreadsheets included in Appendix C.

# LEGEND

- ↑↑↑ Thru Lanes (# as indicated)
- ↩↪ Turning Lanes (# as indicated)
- N Entering
- X Exiting



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

**VI. TRAFFIC AND IMPROVEMENT ANALYSIS**

The following section will discuss the results of the future year traffic analysis. The intersection capacity analysis was completed using HCS7 which implements the Highway Capacity Manual procedures.

1. 2027 NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2027 No Build analysis assumes that the proposed development is not completed in the 2027 and 2042 time periods. Figure 4 shows the 2027 No Build Results. Table 5 and Table 6 show the No Build results. The HCS outputs are included in Appendix D.

The study found that the signalized intersection, Agua Fria Street and Siler Road, operates at acceptable levels of service, LOS C in the AM and PM peak hours for the 2027 No Build condition.

For the 2027 No Build scenario the signalized intersection of Agua Fria Street and Siler operates at LOS C in both the AM and PM peak hours. Table 5 shows the No Build Signalized Results.

Table 5   2027 No Build Signalized Intersection Results						
Intersection	2027 AM Peak			2027 PM Peak		
	Delay	V/C	LOS	Delay	V/C	LOS
Agua Fria & Siler	22.6	0.81	C	30.0	0.90	C
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment						

The study found that all unsignalized intersections operate at acceptable levels of service in the 2027 No Build condition with all movements at LOS C or better for both AM and PM peak hours.

For the 2027 No Build condition, the Agua Fria and Harrison intersection has eastbound and westbound approaches that are expected to operate at a LOS A in the AM and PM peak hours. The northbound and southbound approaches are expected to operate at a LOS B in the AM peak hour and LOS C in the PM peak hour.

The Agua Fria and Siler Park Lane intersection produced results that the westbound approach is expected to operate at a LOS A in the AM and PM peak hour while the northbound approach is expected to operate at a LOS B during both peak hours.

The Siler and Siler Park Lane intersection is expected to operate at a LOS C for the westbound approach in both the AM and PM peak hour. The Southbound approach is expected to operate at a LOS A in both the AM and PM peak hour.

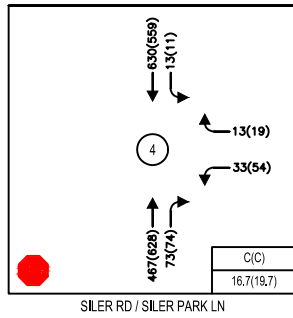
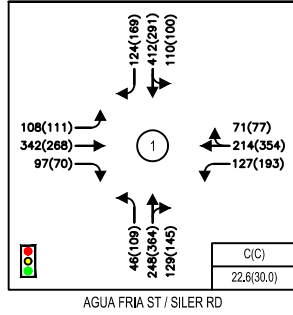
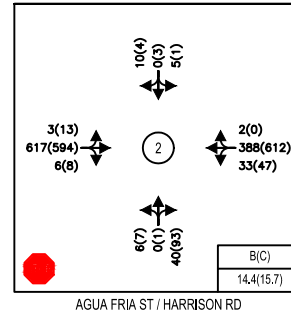
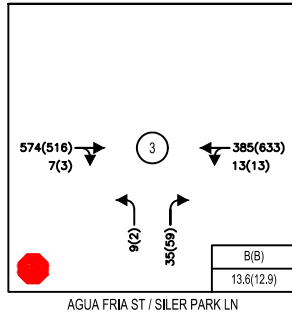
Table 6 | 2027 No Build Unsignalized Intersection Results

Intersection/Movement	2027 AM Peak				2027 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Agua Fria & Harrison								
Eastbound Approach	8.1	0.00	0	A	8.9	0.01	0	A
Westbound Approach	9.0	0.04	25	A	9.0	0.05	25	A
Northbound Approach	14.4	0.11	25	B	15.7	0.24	25	C
Southbound Approach	13.6	0.04	25	B	17.4	0.03	25	C
Agua Fria & Siler Park Lane								
Westbound Approach	8.8	0.01	0	A	8.6	0.01	0	A
Northbound Approach	13.6	0.10	25	B	12.9	0.13	25	B
Siler Road & Siler Park Lane								
Westbound Approach	16.7	0.14	25	C	19.7	0.25	50	C
Southbound Approach	8.7	0.01	0	A	0.4	0.01	0	A

\* – HCM 95<sup>th</sup> percentile queue rounded to next 25-foot increment

# LEGEND

- Thru Lanes  
(# as indicated)
- Turning Lanes  
(# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

2. 2027 BUILD INTERSECTION CAPACITY ANALYSIS

The trips generated by the site (Table 4) were assigned to the intersections using the trip percentages and associated volumes, shown in Figure 3. These trips were added to the 2027 No Build traffic projections.

The study found that the signalized intersection, Agua Fria and Siler will operate at acceptable levels of service in the 2027 Build condition with a LOS C in both the AM and PM peak hour.

The 2027 Build capacity analysis is shown in Table 7 and Table 8. The individual intersection output is included in Appendix E.

<b>Table 7   2027 Build Signalized Intersection Results</b>						
<b>Intersection</b>	<b>2027 AM Peak</b>			<b>2027 PM Peak</b>		
	<b>Delay</b>	<b>V/C</b>	<b>LOS</b>	<b>Delay</b>	<b>V/C</b>	<b>LOS</b>
Agua Fria & Siler	23.4	0.82	C	32.1	0.92	C
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment						

For the 2027 Build condition at Agua Fria and Harrison Road, the eastbound and westbound approaches are expected to operate at LOS A in the AM and PM peak hour. The northbound and southbound movements are expected to operate at LOS B in the AM peak hour and LOS C in the PM peak hour.

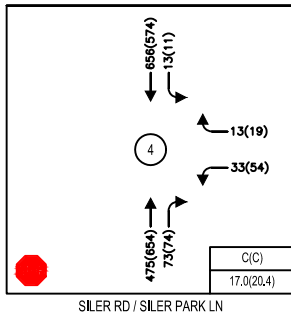
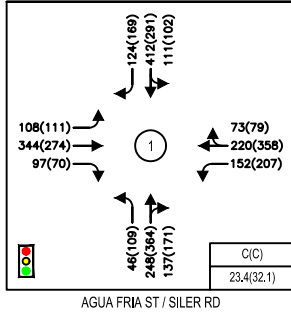
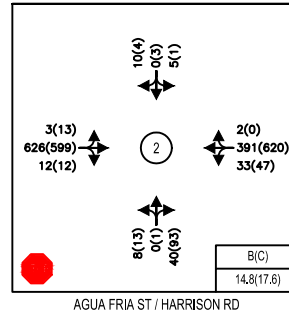
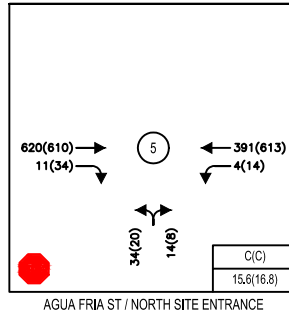
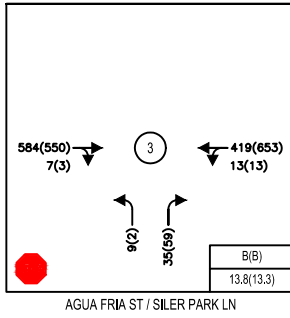
Under the 2027 Build condition at Agua Fria and Siler Park Lane the westbound approach is expected to operate at a LOS A in both the AM and PM peak hour while the northbound approach is expected to operate at LOS B in both the AM and PM peak hours.

At the Siler Road & Siler Park Lane intersection the westbound approach is expected to degrade to LOS C in the PM peak hour. All other movements operate at acceptable Levels of Service in both the AM and PM peak hour.

Table 8   2027 Build Unsignalized Intersection Results								
Intersection/Movement	2027 AM Peak				2027 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Agua Fria & Harrison								
Eastbound Approach	8.1	0.00	0	A	8.9	0.01	0	A
Westbound Approach	9.1	0.04	25	A	9.0	0.05	25	A
Northbound Approach	14.8	0.12	25	B	16.9	0.27	50	C
Southbound Approach	13.7	0.04	25	B	17.6	0.03	25	C
Agua Fria & Siler Park Lane								
Westbound Approach	8.8	0.01	0	A	8.7	0.01	0	A
Northbound Approach	13.8	0.10	25	B	13.3	0.13	25	B
Siler Road & Siler Park Lane								
Westbound Approach	17.0	0.14	25	C	20.4	0.26	25	C
Southbound Approach	8.7	0.01	0	A	9.4	0.01	0	A
Agua Fria & North Site Entrance								
Westbound Approach	8.9	0.00	0	A	9.0	0.02	0	A
Northbound Approach	15.6	0.13	25	C	16.8	0.09	25	C
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment								

# LEGEND

- Thru Lanes  
(# as indicated)
- Turning Lanes  
(# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



3. 2042 NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2042 Horizon Year No Build analysis assumes the proposed development is completed in the 2027 time period. Figure 6 shows the 2042 Horizon Year No Build Results. Table 9 and Table 10 show a summary of the No Build results. The HCS outputs are included in Appendix F.

The traffic analysis found that the signalized intersection, Agua Fria Street and Siler Road operate overall acceptably for the 2042 No Build condition in the AM and PM peak hours however, during the PM peak hour the westbound movement degrades to LOS F due to the background traffic growth. This decline in operation is not due to the development traffic.

<b>Table 9   2042 Horizon Year No Build Signalized Intersection Results</b>						
<b>Intersection</b>	<b>2042 AM Peak</b>			<b>2042 PM Peak</b>		
	<b>Delay</b>	<b>V/C</b>	<b>LOS</b>	<b>Delay</b>	<b>V/C</b>	<b>LOS</b>
Agua Fria & Siler	31.8	0.87	C	51.9	1.16	D**
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment						
** - Movements of LOS F						

The traffic analysis found in the 2042 No Build condition all unsignalized intersections operate at acceptable Levels of Service in both the AM and PM peak hours.

For the 2042 No Build condition the Agua Fria Street and Harrison Road is expected to continue to operate at acceptable conditions. All movements at this intersection are expected to continue to operate at acceptable levels of service.

For the Agua Fria Street and Siler Park Lane intersection also continues to operate acceptably. All movement continue to operate at acceptable level of service.

The Siler Road & Siler Park Lane intersection continues to operate with all movements operating at acceptable Levels of Service in both the AM and PM peak hours.

Table 10 | 2042 Horizon Year No Build Unsignalized Intersection Results

Intersection/Movement	2042 AM Peak				2042 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Agua Fria & Harrison								
Eastbound Approach	8.3	0.00	0	A	9.3	0.02	25	A
Westbound Approach	9.5	0.05	25	A	9.5	0.07	25	A
Northbound Approach	16.6	0.15	25	C	19.2	0.33	50	C
Southbound Approach	15.4	0.05	25	C	20.6	0.04	25	C
Agua Fria & Siler Park Lane								
Westbound Approach	9.1	0.02	25	A	8.9	0.02	25	A
Northbound Approach	15.3	0.14	25	C	14.4	0.17	25	B
Siler Road & Siler Park Lane								
Westbound Approach	19.6	0.19	25	C	22.3	0.26	25	C
Southbound Approach	9.1	0.02	25	A	9.9	0.02	25	A

\* – HCM 95<sup>th</sup> percentile queue rounded to next 25-foot increment

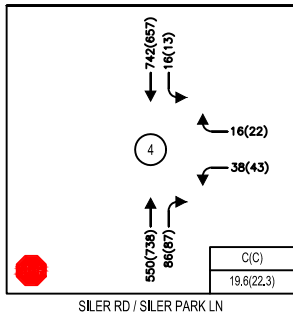
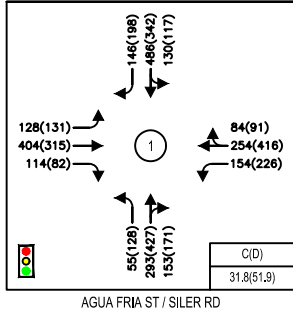
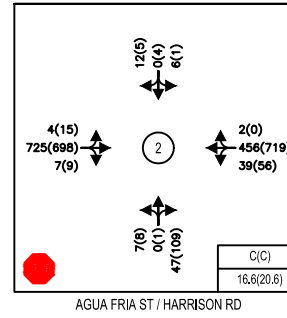
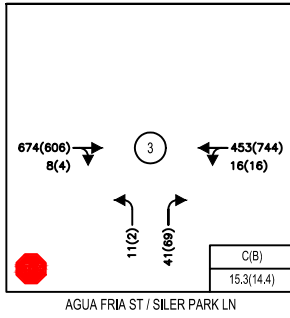
# LEGEND

↑↑↑ Thru Lanes  
(# as indicated)

↙↘ Turning Lanes  
(# as indicated)

1234(1234) AM(PM) Traffic Counts

X(X) AM(PM) Level of Service (LOS)



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

4. 2042 BUILD INTERSECTION CAPACITY ANALYSIS

The trips generated by the site (Table 4) were assigned to the intersections using the trip percentages and associated volumes, shown in Figure 3. These trips were added to the 2042 Horizon Year No Build traffic projections shown in Appendix G 2042 Build Intersection Capacity Analysis. Figure 7 shows the 2042 Build Traffic Volumes and a summary of the results are shown in Table 11 and Table 12. The individual intersection output is included in Appendix G.

The 2042 Horizon Year Build traffic analysis found that the signalized intersection, Agua Fria and Siler continues to have a deficient movement during the PM peak hour. The westbound thru movement operates at a LOS F in the PM peak hour with a delay of 151.4 seconds per vehicle. This deficiency is also noted in the No build scenario and therefore is not caused by the development traffic.

Table 11   2042 Horizon Year Build Signalized Intersection Results						
Intersection	2042 AM Peak			2042 PM Peak		
	Delay	V/C	LOS	Delay	V/C	LOS
Agua Fria & Siler	33.2	0.88	C	56.8	1.20	E**
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment						
** - Movements of LOS F						

For the 2042 Build condition, the study found that all unsignalized intersections operate at an acceptable Level of Service in both the AM and PM peak hours.

The eastbound and westbound approaches at the Agua Fria and Harrison intersection operate at a LOS A in the AM and PM peak hour. The northbound and southbound approaches operate at a LOS C in the AM and PM peak hour.

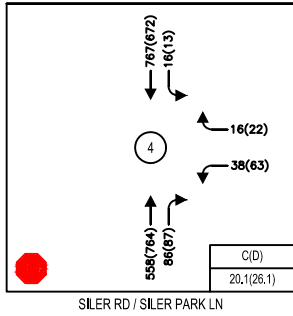
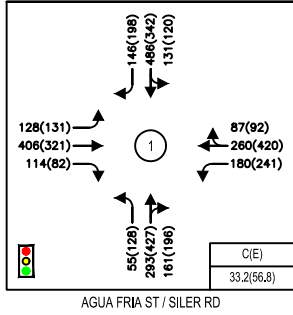
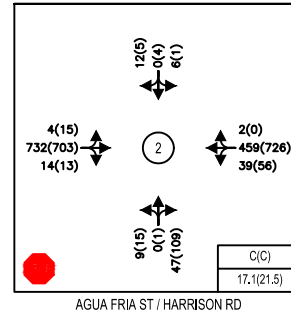
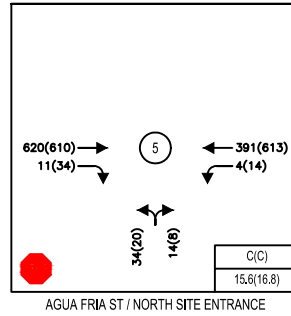
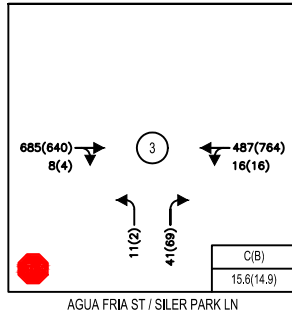
At the Agua Fria Street and Siler Park Lane intersection, all movements operate at acceptable Levels of Service in both the AM and PM peak hours.

At the Siler Road & Siler Park Lane intersection, the westbound approach is expected to degrade to LOS D in the PM peak hour. All other movements operate better than LOS D in both the AM and PM peak hours.

Table 12   2042 Horizon Year Build Unsignalized Intersection Results								
Intersection/Movement	2042 AM Peak				2042 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Agua Fria & Harrison								
Eastbound Approach	8.3	0.00	0	A	9.3	0.02	25	A
Westbound Approach	9.5	0.05	25	A	9.5	0.07	25	A
Northbound Approach	17.1	0.17	25	C	21.5	0.38	50	C
Southbound Thru Approach	15.5	0.05	25	C	20.9	0.04	25	C
Agua Fria & Siler Park Lane								
Westbound Approach	9.2	0.02	25	A	9.0	0.02	25	A
Northbound Approach	15.6	0.14	25	C	14.9	0.17	25	B
Siler Road & Siler Park Lane								
Westbound Approach	20.1	0.20	25	C	26.1	0.36	50	D
Southbound Approach	9.1	0.02	25	A	10.0	0.02	25	A
Agua Fria & North Site Entrance								
Westbound Approach	8.9	0.00	0	A	9.0	0.02	25	A
Northbound Approach	15.6	0.13	25	C	16.8	0.09	25	C
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment								

# LEGEND

- Thru Lanes  
(# as indicated)
- Turning Lanes  
(# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)



C:\Users\CVERMILLION\AppData\Local\Temp\AcPublish\_13736\20240415\_Figures.dwg Aug 12, 2024 - 2:21pm

## B. TURN LANE EVALUATION

Analyses of the state access management manual (SAMM), comparisons to Transportation Impact Analysis (TIA) Guidelines by the City of Santa Fe, and AASHTO documentation were completed to determine the need to install new right turn or left turn lanes at several of the intersections included in the study area.

Included in decision making for these deceleration lanes was the safety analysis for the Agua Fria Street Corridor Study that was recently completed. This section of the study is included in Appendix C for reference. This safety analysis showed 308 accidents over a 10-year period with 71% of those accidents being rear-end collisions. The FHWA Highway Safety Programs suggests countermeasures that address specific types of crashes. A counter measure that is suggested to help address rear end crashes attributed to turning vehicles hit from behind is providing turning lanes at intersections. As the turn lane evaluation looked at several guidance documents based on national standards, New Mexico standards, and City of Santa Fe standards, a recommendation will take all available information and follow a best practice to help decrease the amount of rear end collisions along Agua Fria creating a safer environment for the traveling public.

Agua Fria has a posted speed limit of 35 MPH, and the development will see a volume of 11 vehicles in the AM peak hour and 34 vehicles during the PM peak hour taking an eastbound right into the site. During both peak hours, a dedicated right turn lane is required based on the SAMM criteria. The Santa Fe TIA Guidelines have different vehicle volumes for the requirement of dedicated right turn lanes, and therefore the major road volume criteria is not met for a right turn lane for a two-lane roadway at 35 MPH. For this right turn lane, the deceleration length is calculated based on AASHTO recommendations. With a speed of 35 MPH, AASHTO states that a deceleration distance of 205 feet is needed. The Santa Fe guidelines and AASHTO also state that a moderate amount of deceleration within the through lanes is acceptable. Due to existing right-of-way constraints along Agua Fria, the length from the edge of the property to the access point is the limiting factor without requiring right of way acquisitions to adjacent property owners. The length of deceleration lane, which includes the taper, that would fit into this area is approximately 110 feet. This would mean that a vehicle would slow to 25 MPH in the through lane with the remainder of deceleration occurring in the dedicated right turn lane. Since the SAMM criteria warrants this right turn lane, it is recommended to install this dedicated right turn lane with a length of 110 feet along the frontage of the proposed development. If development of the adjacent property occurs in the future, the City of Santa Fe may recommend extending this turn lane to the full 205-foot requirement.

The development will also see a volume of 4 vehicles in the AM peak hour and 14 vehicles during the PM peak hour entering the development via a westbound left movement. The AM peak hour does not require a dedicated turn lane although the

PM peak hour does meet the threshold requiring a left turn lane per the SAMM. The Santa Fe TIA Guidelines show the volume criteria is met for a left turn lane for a two-lane roadway at 35 MPH. As a two way left turn lane is present along Agua Fria to serve the accesses along it, the existing lanes should remain so that all access points in the vicinity may be served.

The signalized intersection of Agua Fria and Siler Road was also looked at closer to determine the need for dedicated right turning lanes. The SAMM states that one of the purposes of speed change lanes at signalized intersections are to improve intersection operational efficiency. The intersection operates acceptably during the opening year of 2027 but the westbound includes declines in 2042 due to background growth even without the additional traffic generated by the development. In the horizon year it may be beneficial to take a closer look at this movement to determine if a dedicated westbound right turning lane should be installed at this intersection. Using the Santa Fe TIA Guidelines, the major road volume criteria is not met for a right turn lane for a two-lane roadway at 35 MPH. Alternative mitigation efforts should be explored prior to 2042.

According to the SAMM, the intersection of Siler Road and Siler Park Lane meets the threshold for a dedicated northbound right turning lane in existing conditions during both AM and PM peak hours. The Santa Fe TIA Guidelines show the major road volume criteria is not met for a right turn lane for a two-lane roadway at 35 MPH. Since this turn lane is not required based on the Santa Fe TIA Guidelines, we recommend this not be installed. Additionally, since this is in existing conditions this right turn lane should not be the responsibility of the developer.

Agua Fria and Siler Park Lane was also evaluated and does not require an eastbound dedicated right turn lane at the intersection based on the SAMM. A westbound dedicated left turn lane is required based on the SAMM. There is an existing westbound left turn lane at this intersection with a length of approximately 50 feet. Additionally, this area includes a two way left turn lane that could be used to extend this left turn lane if needed. The Santa Fe TIA Guidelines for turning lane requirements indicated the major road volume criteria is not met for a right turn lane for a two-lane roadway at 35 MPH. The traffic volume is met for a dedicated left turn lane for a two-way roadway at 35 MPH. The operational analysis shows that the westbound left at this location will not see a queue develop during either peak hour. The Santa Fe TIA Guidelines state that the minimum turn bay length of 50 feet shall be provided. Since this is met for the westbound left turn lane, additional length is not required. Additionally, no trips associated with the development are assigned to this movement, so these turn lanes at this intersection should not be the responsibility of the developer.

The applicable tables from the SAMM and Santa Fe TIA Guidelines criteria is included in Appendix C for reference

## VII. CONCLUSIONS AND RECOMMENDATIONS

### A. CONCLUSIONS

The traffic analysis found that all intersections operate overall acceptably in the 2024 Existing, 2027 No Build and 2027 Build conditions.

In the 2042 No Build and Build scenarios, the westbound thru movement at the signalized intersection, Agua Fria and Siler, will operate at LOS F in the PM peak hour. Since the first occurrence of this appears in the no build scenario, the development is not responsible for this and further assessments as the horizon year nears is recommended.

A dedicated right turn lane was evaluated based on the SAMM, the Santa Fe TIA Guidelines, and AASHTO. A right turn lane on Agua Fria and the proposed access point is required based on the SAMM, but is not required based on the Santa Fe TIA Guidelines. AASHTO requirements state that if a turn lane is provided it specifies a desirable deceleration distance of 205 feet for a speed of 35 MPH. It states that it is not practical on many facilities to provide the full length of deceleration length in the turn lane due to constraints such as right-of-way, distance available between adjacent intersections, and storage needs. As right-of-way constraints exist along Agua Fria, this concern was evaluated to determine a length of right turn deceleration distance that could be included along the frontage of the development property. From the edge of the property to the access point an approximately 110-foot-long deceleration lane would be able to be constructed. If the adjacent properties are ever developed in the future, the City of Santa Fe may extend this turn lane to the full 205 feet if determined appropriate at that time. It is our professional recommendation that a right turn lane should be constructed at the access point of the proposed development and that this deceleration lane should be 110 feet in length.

Additionally left turn lanes were evaluated based on the SAMM, Santa Fe TIA Guidelines, and AASHTO. The westbound left on Agua Fria at the proposed access point does not meet the SAMM volumes during the AM peak hour but does meet the guidance in the PM peak hour. The Santa Fe TIA Guidelines show this left turn lane being warranted due to the high volume on Agua Fria in this area. As a two-way left turn lane is present along Agua Fria to serve the accesses along it, the existing lanes should remain so that all access points in the vicinity may be served.

### B. RECOMMENDATIONS

- Installation of the proposed access point at Agua Fria should include the two-way left turn lane at the intersection. This two-way left turn lane should remain in place to serve the westbound left users into the site.

- An eastbound dedicated right turn lane is required at the proposed access point. This right turn lane shall be 110 feet in length along the frontage of the proposed development property.
- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Santa Fe requirements.

**APPENDIX A  
EXISTING DATA**

# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

Counter R.C.

File Name : Agua Fria St. and Siler Rd.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 1

Groups Printed- Cars - Trucks - Buses

Start Time	Agua Fria St. Eastbound						Agua Fria St. Westbound						Siler Rd. Northbound						Siler Rd. Southbound						Int. Total	
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total		
06:00 AM	2	15	2	0	0	19	1	4	2	0	1	8	3	7	10	0	0	20	1	7	2	0	0	10	57	
06:15 AM	8	21	12	0	0	41	5	9	6	0	0	20	2	6	7	0	0	15	1	22	4	0	0	27	103	
06:30 AM	5	25	19	0	0	49	9	9	3	0	0	21	1	27	8	0	0	36	5	22	5	0	0	32	138	
06:45 AM	9	44	13	0	0	66	7	14	5	0	0	26	3	14	18	0	0	35	10	26	5	0	0	41	168	
<b>Total</b>	<b>24</b>	<b>105</b>	<b>46</b>	<b>0</b>	<b>0</b>	<b>175</b>	<b>22</b>	<b>36</b>	<b>16</b>	<b>0</b>	<b>1</b>	<b>75</b>	<b>9</b>	<b>54</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>106</b>	<b>17</b>	<b>77</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>466</b>	
07:00 AM	11	25	7	0	0	43	11	17	5	0	0	33	3	27	13	0	0	43	9	36	10	0	0	55	174	
07:15 AM	8	51	17	0	0	76	20	25	13	0	0	58	6	32	21	0	0	59	15	45	15	0	0	75	268	
07:30 AM	27	54	21	0	0	102	21	33	15	0	0	69	9	57	30	0	0	96	17	73	18	0	0	108	375	
07:45 AM	25	89	23	0	0	137	35	63	16	0	1	115	11	64	28	0	0	103	26	99	35	1	1	162	517	
<b>Total</b>	<b>71</b>	<b>219</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>358</b>	<b>87</b>	<b>138</b>	<b>49</b>	<b>0</b>	<b>1</b>	<b>275</b>	<b>29</b>	<b>180</b>	<b>92</b>	<b>0</b>	<b>0</b>	<b>301</b>	<b>67</b>	<b>253</b>	<b>78</b>	<b>1</b>	<b>1</b>	<b>400</b>	<b>1334</b>	
08:00 AM	25	77	23	0	0	125	33	46	16	0	0	95	11	52	27	0	1	91	32	112	33	0	0	177	488	
08:15 AM	23	79	27	0	0	129	25	52	18	0	0	95	12	65	25	0	0	102	31	102	24	0	0	157	483	
08:30 AM	32	87	21	0	0	140	30	47	19	1	0	97	11	60	45	0	0	116	18	87	28	0	0	133	486	
08:45 AM	29	78	16	0	0	123	24	42	6	1	0	73	14	69	41	0	1	125	20	72	18	0	0	110	431	
<b>Total</b>	<b>109</b>	<b>321</b>	<b>87</b>	<b>0</b>	<b>0</b>	<b>517</b>	<b>112</b>	<b>187</b>	<b>59</b>	<b>2</b>	<b>0</b>	<b>360</b>	<b>48</b>	<b>246</b>	<b>138</b>	<b>0</b>	<b>2</b>	<b>434</b>	<b>101</b>	<b>373</b>	<b>103</b>	<b>0</b>	<b>0</b>	<b>577</b>	<b>1888</b>	
*** BREAK ***																										
03:00 PM	35	60	15	0	0	110	40	78	13	1	1	133	19	82	38	0	0	139	18	75	33	0	0	126	508	
03:15 PM	35	53	19	0	0	107	43	85	19	1	0	148	29	74	43	1	0	147	18	61	30	0	0	109	511	
03:30 PM	21	67	12	0	0	100	40	72	18	0	0	130	15	65	38	0	0	118	19	93	37	0	0	149	497	
03:45 PM	19	72	24	0	0	115	30	65	13	0	0	108	27	69	36	0	0	132	28	92	35	1	0	156	511	
<b>Total</b>	<b>110</b>	<b>252</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>432</b>	<b>153</b>	<b>300</b>	<b>63</b>	<b>2</b>	<b>1</b>	<b>519</b>	<b>90</b>	<b>290</b>	<b>155</b>	<b>1</b>	<b>0</b>	<b>536</b>	<b>83</b>	<b>321</b>	<b>135</b>	<b>1</b>	<b>0</b>	<b>540</b>	<b>2027</b>	
04:00 PM	16	76	13	0	0	105	38	74	17	0	0	129	18	67	39	0	0	124	24	77	19	0	0	120	478	
04:15 PM	22	66	21	0	0	109	38	83	15	0	0	136	25	87	40	0	0	152	24	67	40	0	0	131	528	
04:30 PM	25	77	11	0	0	113	36	77	18	0	0	131	21	81	43	0	1	146	21	56	40	0	0	117	507	
04:45 PM	31	59	23	1	0	114	57	88	15	0	0	160	26	79	31	2	1	139	23	87	37	0	0	147	560	
<b>Total</b>	<b>94</b>	<b>278</b>	<b>68</b>	<b>1</b>	<b>0</b>	<b>441</b>	<b>169</b>	<b>322</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>556</b>	<b>90</b>	<b>314</b>	<b>153</b>	<b>2</b>	<b>2</b>	<b>561</b>	<b>92</b>	<b>287</b>	<b>136</b>	<b>0</b>	<b>0</b>	<b>515</b>	<b>2073</b>	
05:00 PM	24	63	14	0	0	101	38	92	16	1	0	147	33	91	38	0	0	162	29	64	36	0	0	129	539	
05:15 PM	28	61	20	0	0	109	56	87	26	0	0	169	26	102	29	0	1	158	24	76	51	0	0	151	587	
05:30 PM	30	54	18	0	0	102	43	78	14	0	0	135	21	76	38	0	0	135	22	68	36	1	0	127	499	
05:45 PM	30	63	8	0	0	101	45	85	16	0	0	146	16	62	35	1	0	114	19	55	21	0	0	95	456	
<b>Total</b>	<b>112</b>	<b>241</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>413</b>	<b>182</b>	<b>342</b>	<b>72</b>	<b>1</b>	<b>0</b>	<b>597</b>	<b>96</b>	<b>331</b>	<b>140</b>	<b>1</b>	<b>1</b>	<b>569</b>	<b>94</b>	<b>263</b>	<b>144</b>	<b>1</b>	<b>0</b>	<b>502</b>	<b>2081</b>	
<b>Grand Total</b>	<b>520</b>	<b>1416</b>	<b>399</b>	<b>1</b>	<b>0</b>	<b>2336</b>	<b>725</b>	<b>1325</b>	<b>324</b>	<b>5</b>	<b>3</b>	<b>2382</b>	<b>362</b>	<b>1415</b>	<b>721</b>	<b>4</b>	<b>5</b>	<b>2507</b>	<b>454</b>	<b>1574</b>	<b>612</b>	<b>3</b>	<b>1</b>	<b>2644</b>	<b>9869</b>	
Apprch %	22.3	60.6	17.1	0	0		30.4	55.6	13.6	0.2	0.1		14.4	56.4	28.8	0.2	0.2		17.2	59.5	23.1	0.1	0			
Total %	5.3	14.3	4	0	0	23.7	7.3	13.4	3.3	0.1	0	24.1	3.7	14.3	7.3	0	0.1	25.4	4.6	15.9	6.2	0	0	26.8		
Cars	517	1404	395	1	0	2317	722	1315	324	5	3	2369	356	1402	706	4	5	2473	451	1557	610	3	1	2622	9781	
% Cars	99.4	99.2	99	100	0	99.2	99.6	99.2	100	100	100	99.5	98.3	99.1	97.9	100	100	98.6	99.3	98.9	99.7	100	100	99.2	99.1	

# Cleland Counts

1441 Camino Cerritos S.E.  
 Albuquerque, New Mexico 87123  
 (505) 414-0465

File Name : Agua Fria St. and Siler Rd.  
 Site Code : 03192024  
 Start Date : 3/19/2024  
 Page No : 2

Groups Printed- Cars - Trucks - Buses

	Agua Fria St. Eastbound						Agua Fria St. Westbound						Siler Rd. Northbound						Siler Rd. Southbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
Trucks	2	4	3	0	0	9	0	1	0	0	0	1	5	12	5	0	0	22	1	15	0	0	0	16	48
% Trucks	0.4	0.3	0.8	0	0	0.4	0	0.1	0	0	0	0	1.4	0.8	0.7	0	0	0.9	0.2	1	0	0	0	0.6	0.5
Buses	1	8	1	0	0	10	3	9	0	0	0	12	1	1	10	0	0	12	2	2	2	0	0	6	40
% Buses	0.2	0.6	0.3	0	0	0.4	0.4	0.7	0	0	0	0.5	0.3	0.1	1.4	0	0	0.5	0.4	0.1	0.3	0	0	0.2	0.4

# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

File Name : Agua Fria St. and Siler Rd.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 3

Start Time	Agua Fria St. Eastbound				Agua Fria St. Westbound				Siler Rd. Northbound				Siler Rd. Southbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 AM to 12:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	25	89	23	137	35	63	16	114	11	64	28	103	26	99	35	160	514
08:00 AM	25	77	23	125	33	46	16	95	11	52	27	90	32	112	33	177	487
08:15 AM	23	79	27	129	25	52	18	95	12	65	25	102	31	102	24	157	483
08:30 AM	32	87	21	140	30	47	19	96	11	60	45	116	18	87	28	133	485
Total Volume	105	332	94	531	123	208	69	400	45	241	125	411	107	400	120	627	1969
% App. Total	19.8	62.5	17.7		30.8	52	17.2		10.9	58.6	30.4		17.1	63.8	19.1		
PHF	.820	.933	.870	.948	.879	.825	.908	.877	.938	.927	.694	.886	.836	.893	.857	.886	.958
Cars	103	329	92	524	123	207	69	399	45	239	121	405	105	396	119	620	1948
% Cars	98.1	99.1	97.9	98.7	100	99.5	100	99.8	100	99.2	96.8	98.5	98.1	99.0	99.2	98.9	98.9
Trucks	2	2	2	6	0	0	0	0	0	2	2	4	1	4	0	5	15
% Trucks	1.9	0.6	2.1	1.1	0	0	0	0	0	0.8	1.6	1.0	0.9	1.0	0	0.8	0.8
Buses	0	1	0	1	0	1	0	1	0	0	2	2	1	0	1	2	6
% Buses	0	0.3	0	0.2	0	0.5	0	0.3	0	0	1.6	0.5	0.9	0	0.8	0.3	0.3
Peak Hour Analysis From 12:15 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	25	77	11	113	36	77	18	131	21	81	43	145	21	56	40	117	506
04:45 PM	31	59	23	113	57	88	15	160	26	79	31	136	23	87	37	147	556
05:00 PM	24	63	14	101	38	92	16	146	33	91	38	162	29	64	36	129	538
05:15 PM	28	61	20	109	56	87	26	169	26	102	29	157	24	76	51	151	586
Total Volume	108	260	68	436	187	344	75	606	106	353	141	600	97	283	164	544	2186
% App. Total	24.8	59.6	15.6		30.9	56.8	12.4		17.7	58.8	23.5		17.8	52	30.1		
PHF	.871	.844	.739	.965	.820	.935	.721	.896	.803	.865	.820	.926	.836	.813	.804	.901	.933
Cars	108	259	68	435	186	342	75	603	106	353	138	597	97	281	164	542	2177
% Cars	100	99.6	100	99.8	99.5	99.4	100	99.5	100	100	97.9	99.5	100	99.3	100	99.6	99.6
Trucks	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0.7	0.2	0	0	0	0	0.0
Buses	0	1	0	1	1	2	0	3	0	0	2	2	0	2	0	2	8
% Buses	0	0.4	0	0.2	0.5	0.6	0	0.5	0	0	1.4	0.3	0	0.7	0	0.4	0.4

# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

Counter R.C.

File Name : Agua Fria St. and Harrison Rd.  
Site Code : 03202024  
Start Date : 3/20/2024  
Page No : 1

Groups Printed- Cars - Trucks - Buses

Start Time	Agua Fria St. Eastbound						Agua Fria St. Westbound						Harrison Rd. Northbound						Boylan Ln. Southbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
06:00 AM	1	16	0	0	0	17	0	14	0	0	0	14	2	0	0	0	0	2	0	0	0	0	0	0	33
06:15 AM	1	27	0	0	0	28	1	15	0	0	0	16	0	0	2	0	0	2	0	0	0	0	0	0	46
06:30 AM	0	35	2	0	0	37	0	15	1	0	0	16	0	0	1	0	0	1	0	0	0	0	0	0	54
06:45 AM	9	48	0	0	0	57	0	36	1	0	0	37	1	0	4	0	0	5	1	0	2	0	0	3	102
<b>Total</b>	<b>11</b>	<b>126</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>139</b>	<b>1</b>	<b>80</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>83</b>	<b>3</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>235</b>
07:00 AM	5	46	0	0	0	51	4	37	1	0	0	42	1	1	1	0	0	3	1	0	0	0	0	1	97
07:15 AM	1	76	1	0	0	78	4	46	1	0	0	51	0	0	4	0	0	4	3	0	3	0	0	6	139
07:30 AM	0	70	0	0	0	70	3	48	0	0	0	51	1	0	6	0	0	7	1	0	5	0	0	6	134
07:45 AM	2	151	2	0	0	155	13	97	1	0	0	111	3	0	9	0	0	12	1	0	4	0	0	5	283
<b>Total</b>	<b>8</b>	<b>343</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>354</b>	<b>24</b>	<b>228</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>255</b>	<b>5</b>	<b>1</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>26</b>	<b>6</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>653</b>
08:00 AM	0	148	1	0	0	149	8	94	0	0	0	102	0	0	13	0	0	13	2	0	3	0	0	5	269
08:15 AM	1	132	1	0	0	134	6	93	0	0	0	99	1	0	6	0	0	7	1	0	3	0	0	4	244
08:30 AM	0	168	2	0	0	170	5	93	1	1	0	100	2	0	11	0	0	13	1	0	0	1	0	2	285
08:45 AM	1	150	2	0	0	153	7	83	0	0	0	90	2	0	9	0	0	11	0	0	1	0	0	1	255
<b>Total</b>	<b>2</b>	<b>598</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>606</b>	<b>26</b>	<b>363</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>391</b>	<b>5</b>	<b>0</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>44</b>	<b>4</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>0</b>	<b>12</b>	<b>1053</b>
*** BREAK ***																									
03:00 PM	2	125	1	0	0	128	5	108	0	0	0	113	0	1	12	0	0	13	0	0	1	0	0	1	255
03:15 PM	4	108	3	0	0	115	8	133	1	0	0	142	3	0	13	0	0	16	0	0	1	0	0	1	274
03:30 PM	9	130	2	0	0	141	7	149	2	0	0	158	3	1	10	0	0	14	3	0	6	0	0	9	322
03:45 PM	2	129	2	0	1	134	8	135	2	0	0	145	2	0	15	0	0	17	2	0	4	0	0	6	302
<b>Total</b>	<b>17</b>	<b>492</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>518</b>	<b>28</b>	<b>525</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>558</b>	<b>8</b>	<b>2</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>60</b>	<b>5</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>1153</b>
04:00 PM	1	141	4	0	0	146	16	133	1	0	0	150	0	0	16	0	0	16	0	1	4	0	0	5	317
04:15 PM	0	131	1	1	0	133	7	159	0	0	0	166	2	0	12	0	0	14	0	0	2	0	0	2	315
04:30 PM	0	131	2	0	0	133	7	150	0	0	0	157	1	1	24	0	0	26	0	1	1	0	0	2	318
04:45 PM	11	141	3	0	0	155	13	126	0	0	0	139	1	0	29	0	0	30	1	0	0	0	0	1	325
<b>Total</b>	<b>12</b>	<b>544</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>567</b>	<b>43</b>	<b>568</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>612</b>	<b>4</b>	<b>1</b>	<b>81</b>	<b>0</b>	<b>0</b>	<b>86</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>1275</b>
05:00 PM	2	150	1	0	0	153	12	156	0	1	1	170	3	0	20	0	0	23	0	0	0	0	0	0	346
05:15 PM	0	155	2	0	0	157	14	162	0	0	1	177	2	0	17	0	0	19	0	2	3	0	0	5	358
05:30 PM	0	128	4	1	0	133	3	121	0	0	1	125	2	1	13	0	0	16	0	0	0	0	0	0	274
05:45 PM	0	114	2	0	0	116	7	114	0	1	0	122	1	0	8	0	0	9	0	0	0	0	0	0	247
<b>Total</b>	<b>2</b>	<b>547</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>559</b>	<b>36</b>	<b>553</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>594</b>	<b>8</b>	<b>1</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>67</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>1225</b>
<b>Grand Total</b>	<b>52</b>	<b>2650</b>	<b>38</b>	<b>2</b>	<b>1</b>	<b>2743</b>	<b>158</b>	<b>2317</b>	<b>12</b>	<b>3</b>	<b>3</b>	<b>2493</b>	<b>33</b>	<b>5</b>	<b>255</b>	<b>0</b>	<b>0</b>	<b>293</b>	<b>17</b>	<b>4</b>	<b>43</b>	<b>1</b>	<b>0</b>	<b>65</b>	<b>5594</b>
Apprch %	1.9	96.6	1.4	0.1	0		6.3	92.9	0.5	0.1	0.1		11.3	1.7	87	0	0		26.2	6.2	66.2	1.5	0		
Total %	0.9	47.4	0.7	0	0	49	2.8	41.4	0.2	0.1	0.1	44.6	0.6	0.1	4.6	0	0	5.2	0.3	0.1	0.8	0	0	1.2	
Cars	52	2620	37	2	1	2712	158	2294	12	3	3	2470	33	5	251	0	0	289	17	4	43	1	0	65	5536
% Cars	100	98.9	97.4	100	100	98.9	100	99	100	100	100	99.1	100	100	98.4	0	0	98.6	100	100	100	100	0	100	99

# Cleland Counts

1441 Camino Cerritos S.E.  
 Albuquerque, New Mexico 87123  
 (505) 414-0465

File Name : Agua Fria St. and Harrison Rd.  
 Site Code : 03202024  
 Start Date : 3/20/2024  
 Page No : 2

Groups Printed- Cars - Trucks - Buses

	Agua Fria St. Eastbound						Agua Fria St. Westbound						Harrison Rd. Northbound						Boylan Ln. Southbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
Trucks	0	11	1	0	0	12	0	7	0	0	0	7	0	0	1	0	0	1	0	0	0	0	0	0	20
% Trucks	0	0.4	2.6	0	0	0.4	0	0.3	0	0	0	0.3	0	0	0.4	0	0	0.3	0	0	0	0	0	0	0.4
Buses	0	19	0	0	0	19	0	16	0	0	0	16	0	0	3	0	0	3	0	0	0	0	0	0	38
% Buses	0	0.7	0	0	0	0.7	0	0.7	0	0	0	0.6	0	0	1.2	0	0	1	0	0	0	0	0	0	0.7



# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

Counter R.C.

File Name : Agua Fria St. and Siler Park Ln.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 1

Groups Printed- Cars - Trucks - Buses

Start Time	Agua Fria St. Eastbound						Agua Fria St. Westbound						Siler Park Ln. Northbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
06:00 AM	0	23	0	0	0	23	0	7	0	0	0	7	0	0	0	0	0	0	30
06:15 AM	0	34	0	0	0	34	0	22	0	0	0	22	0	0	0	0	0	0	56
06:30 AM	0	43	1	0	1	45	1	23	0	0	0	24	0	0	2	0	0	2	71
06:45 AM	0	60	7	0	0	67	3	24	0	0	0	27	0	0	1	0	0	1	95
Total	0	160	8	0	1	169	4	76	0	0	0	80	0	0	3	0	0	3	252
07:00 AM	0	42	6	0	0	48	4	38	0	0	0	42	1	0	2	0	0	3	93
07:15 AM	0	88	0	0	0	88	3	64	0	0	0	67	1	0	0	0	0	1	156
07:30 AM	0	96	2	0	2	100	5	75	0	0	0	80	0	0	3	0	0	3	183
07:45 AM	0	149	0	0	0	149	3	102	0	0	0	105	1	0	9	0	0	10	264
Total	0	375	8	0	2	385	15	279	0	0	0	294	3	0	14	0	0	17	696
08:00 AM	0	132	3	0	0	135	5	100	0	0	0	105	2	0	9	0	0	11	251
08:15 AM	0	134	2	0	0	136	3	88	0	0	0	91	3	0	7	0	0	10	237
08:30 AM	0	142	2	0	0	144	2	84	0	1	0	87	3	0	9	0	0	12	243
08:45 AM	0	139	2	0	1	142	4	78	0	0	0	82	1	0	10	0	0	11	235
Total	0	547	9	0	1	557	14	350	0	1	0	365	9	0	35	0	0	44	966
*** BREAK ***																			
03:00 PM	0	108	1	0	0	109	4	136	0	1	0	141	2	0	6	0	0	8	258
03:15 PM	0	116	2	0	1	119	6	149	0	2	0	157	3	0	10	0	0	13	289
03:30 PM	0	123	1	0	2	126	5	132	0	1	0	138	0	0	18	0	0	18	282
03:45 PM	0	146	1	0	0	147	5	99	0	0	0	104	6	0	13	0	0	19	270
Total	0	493	5	0	3	501	20	516	0	4	0	540	11	0	47	0	0	58	1099
04:00 PM	0	138	3	0	0	141	4	138	0	0	0	142	9	0	19	0	0	28	311
04:15 PM	0	127	2	0	1	130	5	151	0	0	0	156	1	0	16	0	0	17	303
04:30 PM	0	140	0	0	2	142	3	147	0	0	0	150	0	0	16	0	1	17	309
04:45 PM	0	104	2	1	0	107	4	141	0	0	0	145	1	0	7	0	0	8	260
Total	0	509	7	1	3	520	16	577	0	0	0	593	11	0	58	0	1	70	1183
05:00 PM	0	130	0	1	0	131	1	156	0	1	0	158	0	0	17	0	0	17	306
05:15 PM	0	127	1	0	1	129	5	171	0	0	0	176	1	0	17	0	1	19	324
05:30 PM	0	130	1	0	0	131	1	154	0	0	0	155	0	0	5	0	0	5	291
05:45 PM	0	119	1	0	1	121	2	127	0	0	0	129	2	0	6	0	1	9	259
Total	0	506	3	1	2	512	9	608	0	1	0	618	3	0	45	0	2	50	1180
Grand Total	0	2590	40	2	12	2644	78	2406	0	6	0	2490	37	0	202	0	3	242	5376
Apprch %	0	98	1.5	0.1	0.5		3.1	96.6	0	0.2	0		15.3	0	83.5	0	1.2		
Total %	0	48.2	0.7	0	0.2	49.2	1.5	44.8	0	0.1	0	46.3	0.7	0	3.8	0	0.1	4.5	
Cars	0	2562	40	2	12	2616	78	2392	0	6	0	2476	37	0	200	0	3	240	5332
% Cars	0	98.9	100	100	100	98.9	100	99.4	0	100	0	99.4	100	0	99	0	100	99.2	99.2

# Cleland Counts

1441 Camino Cerritos S.E.  
 Albuquerque, New Mexico 87123  
 (505) 414-0465

File Name : Agua Fria St. and Siler Park Ln.  
 Site Code : 03192024  
 Start Date : 3/19/2024  
 Page No : 2

Groups Printed- Cars - Trucks - Buses

	Agua Fria St. Eastbound						Agua Fria St. Westbound						Siler Park Ln. Northbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
Trucks	0	7	0	0	0	7	0	2	0	0	0	2	0	0	2	0	0	2	11
% Trucks	0	0.3	0	0	0	0.3	0	0.1	0	0	0	0.1	0	0	1	0	0	0.8	0.2
Buses	0	21	0	0	0	21	0	12	0	0	0	12	0	0	0	0	0	0	33
% Buses	0	0.8	0	0	0	0.8	0	0.5	0	0	0	0.5	0	0	0	0	0	0	0.6

# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

File Name : Agua Fria St. and Siler Park Ln.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 3

Start Time	Agua Fria St. Eastbound				Agua Fria St. Westbound				Siler Park Ln. Northbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 AM to 12:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	0	149	0	149	3	102	0	105	1	0	9	10	264
08:00 AM	0	132	3	135	5	100	0	105	2	0	9	11	251
08:15 AM	0	134	2	136	3	88	0	91	3	0	7	10	237
08:30 AM	0	142	2	144	2	84	0	86	3	0	9	12	242
Total Volume	0	557	7	564	13	374	0	387	9	0	34	43	994
% App. Total	0	98.8	1.2		3.4	96.6	0		20.9	0	79.1		
PHF	.000	.935	.583	.946	.650	.917	.000	.921	.750	.000	.944	.896	.941
Cars	0	548	7	555	13	373	0	386	9	0	34	43	984
% Cars	0	98.4	100	98.4	100	99.7	0	99.7	100	0	100	100	99.0
Trucks	0	5	0	5	0	0	0	0	0	0	0	0	5
% Trucks	0	0.9	0	0.9	0	0	0	0	0	0	0	0	0.5
Buses	0	4	0	4	0	1	0	1	0	0	0	0	5
% Buses	0	0.7	0	0.7	0	0.3	0	0.3	0	0	0	0	0.5
Peak Hour Analysis From 12:15 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	0	140	0	140	3	147	0	150	0	0	16	16	306
04:45 PM	0	104	2	106	4	141	0	145	1	0	7	8	259
05:00 PM	0	130	0	130	1	156	0	157	0	0	17	17	304
05:15 PM	0	127	1	128	5	171	0	176	1	0	17	18	322
Total Volume	0	501	3	504	13	615	0	628	2	0	57	59	1191
% App. Total	0	99.4	0.6		2.1	97.9	0		3.4	0	96.6		
PHF	.000	.895	.375	.900	.650	.899	.000	.892	.500	.000	.838	.819	.925
Cars	0	497	3	500	13	611	0	624	2	0	57	59	1183
% Cars	0	99.2	100	99.2	100	99.3	0	99.4	100	0	100	100	99.3
Trucks	0	0	0	0	0	1	0	1	0	0	0	0	1
% Trucks	0	0	0	0	0	0.2	0	0.2	0	0	0	0	0.1
Buses	0	4	0	4	0	3	0	3	0	0	0	0	7
% Buses	0	0.8	0	0.8	0	0.5	0	0.5	0	0	0	0	0.6

# Cleland Counts

1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

Counter R.C.

File Name : Siler Rd. and Siler Park Ln.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 1

Groups Printed- Cars - Trucks - Buses

Start Time	Siler Park Ln. Westbound						Siler Rd. Northbound						Siler Rd. Southbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
06:00 AM	0	0	0	0	0	0	0	24	3	0	0	27	0	11	0	0	0	11	38
06:15 AM	0	0	0	0	0	0	0	18	3	0	0	21	2	34	0	0	0	36	57
06:30 AM	1	0	3	0	0	4	0	36	5	0	0	41	3	50	0	0	0	53	98
06:45 AM	1	0	0	0	0	1	0	38	7	0	1	46	2	47	0	0	0	49	96
Total	2	0	3	0	0	5	0	116	18	0	1	135	7	142	0	0	0	149	289
07:00 AM	2	0	0	0	0	2	0	44	9	0	0	53	0	55	0	0	0	55	110
07:15 AM	3	0	0	0	0	3	0	66	4	0	0	70	1	78	0	0	0	79	152
07:30 AM	6	0	0	0	0	6	0	103	9	0	1	113	0	117	0	0	0	117	236
07:45 AM	8	0	3	0	0	11	0	121	17	0	0	138	4	153	0	0	0	157	306
Total	19	0	3	0	0	22	0	334	39	0	1	374	5	403	0	0	0	408	804
08:00 AM	5	0	3	0	0	8	0	97	15	0	2	114	5	165	0	0	0	170	292
08:15 AM	9	0	4	0	0	13	0	99	16	0	1	116	2	149	0	0	0	151	280
08:30 AM	10	0	3	0	0	13	0	141	24	0	0	165	2	151	0	0	0	153	331
08:45 AM	7	0	2	0	0	9	0	121	16	0	3	140	3	103	0	0	0	106	255
Total	31	0	12	0	0	43	0	458	71	0	6	535	12	568	0	0	0	580	1158
*** BREAK ***																			
03:00 PM	15	0	5	0	0	20	0	143	19	0	0	162	7	121	0	0	0	128	310
03:15 PM	15	0	3	0	0	18	0	146	19	1	2	168	2	122	0	0	0	124	310
03:30 PM	20	0	3	0	0	23	0	127	21	0	0	148	5	143	0	0	0	148	319
03:45 PM	13	0	4	0	0	17	0	136	16	0	0	152	1	134	0	1	0	136	305
Total	63	0	15	0	0	78	0	552	75	1	2	630	15	520	0	1	0	536	1244
04:00 PM	18	0	6	0	0	24	0	135	14	0	0	149	5	130	0	0	0	135	308
04:15 PM	18	0	7	0	0	25	0	147	14	0	1	162	6	119	0	0	0	125	312
04:30 PM	17	0	3	0	0	20	0	143	21	0	0	164	4	114	0	0	0	118	302
04:45 PM	7	0	7	0	0	14	0	144	15	1	2	162	1	158	0	1	0	160	336
Total	60	0	23	0	0	83	0	569	64	1	3	637	16	521	0	1	0	538	1258
05:00 PM	13	0	3	0	0	16	0	172	19	1	1	193	1	122	0	0	0	123	332
05:15 PM	15	0	5	0	0	20	0	151	17	0	1	169	5	149	0	0	0	154	343
05:30 PM	14	0	2	0	0	16	0	146	3	0	0	149	2	128	0	1	0	131	296
05:45 PM	5	0	1	0	0	6	0	113	9	0	1	123	1	102	0	0	0	103	232
Total	47	0	11	0	0	58	0	582	48	1	3	634	9	501	0	1	0	511	1203
Grand Total	222	0	67	0	0	289	0	2611	315	3	16	2945	64	2655	0	3	0	2722	5956
Apprch %	76.8	0	23.2	0	0		0	88.7	10.7	0.1	0.5		2.4	97.5	0	0.1	0		
Total %	3.7	0	1.1	0	0	4.9	0	43.8	5.3	0.1	0.3	49.4	1.1	44.6	0	0.1	0	45.7	
Cars	219	0	64	0	0	283	0	2582	311	3	13	2909	63	2630	0	3	0	2696	5888
% Cars	98.6	0	95.5	0	0	97.9	0	98.9	98.7	100	81.2	98.8	98.4	99.1	0	100	0	99	98.9

# Cleland Counts

1441 Camino Cerritos S.E.  
 Albuquerque, New Mexico 87123  
 (505) 414-0465

File Name : Siler Rd. and Siler Park Ln.  
 Site Code : 03192024  
 Start Date : 3/19/2024  
 Page No : 2

Groups Printed- Cars - Trucks - Buses

	Siler Park Ln. Westbound						Siler Rd. Northbound						Siler Rd. Southbound						Int. Total
	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	Left	Thru	Right	Bikes	Peds	App. Total	
Trucks	3	0	3	0	0	6	0	18	3	0	3	24	1	19	0	0	0	20	50
% Trucks	1.4	0	4.5	0	0	2.1	0	0.7	1	0	18.8	0.8	1.6	0.7	0	0	0	0.7	0.8
Buses	0	0	0	0	0	0	0	11	1	0	0	12	0	6	0	0	0	6	18
% Buses	0	0	0	0	0	0	0	0.4	0.3	0	0	0.4	0	0.2	0	0	0	0.2	0.3

# Cleland Counts

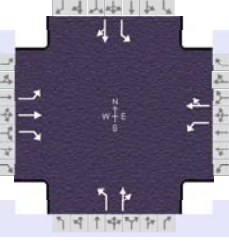
1441 Camino Cerritos S.E.  
Albuquerque, New Mexico 87123  
(505) 414-0465

File Name : Siler Rd. and Siler Park Ln.  
Site Code : 03192024  
Start Date : 3/19/2024  
Page No : 3

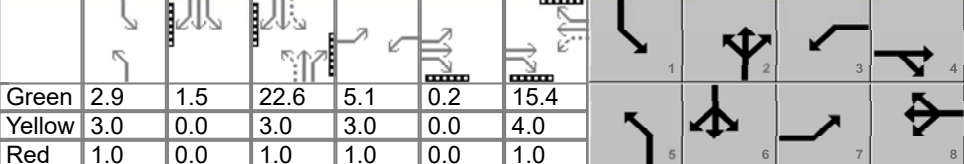
Start Time	Siler Park Ln. Westbound				Siler Rd. Northbound				Siler Rd. Southbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 06:00 AM to 12:00 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:45 AM													
07:45 AM	8	0	3	11	0	121	17	138	4	153	0	157	306
08:00 AM	5	0	3	8	0	97	15	112	5	165	0	170	290
08:15 AM	9	0	4	13	0	99	16	115	2	149	0	151	279
08:30 AM	10	0	3	13	0	141	24	165	2	151	0	153	331
Total Volume	32	0	13	45	0	458	72	530	13	618	0	631	1206
% App. Total	71.1	0	28.9		0	86.4	13.6		2.1	97.9	0		
PHF	.800	.000	.813	.865	.000	.812	.750	.803	.650	.936	.000	.928	.911
Cars	31	0	12	43	0	452	72	524	13	614	0	627	1194
% Cars	96.9	0	92.3	95.6	0	98.7	100	98.9	100	99.4	0	99.4	99.0
Trucks	1	0	1	2	0	4	0	4	0	4	0	4	10
% Trucks	3.1	0	7.7	4.4	0	0.9	0	0.8	0	0.6	0	0.6	0.8
Buses	0	0	0	0	0	2	0	2	0	0	0	0	2
% Buses	0	0	0	0	0	0.4	0	0.4	0	0	0	0	0.2
Peak Hour Analysis From 12:15 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	17	0	3	20	0	143	21	164	4	114	0	118	302
04:45 PM	7	0	7	14	0	144	15	159	1	158	0	159	332
05:00 PM	13	0	3	16	0	172	19	191	1	122	0	123	330
05:15 PM	15	0	5	20	0	151	17	168	5	149	0	154	342
Total Volume	52	0	18	70	0	610	72	682	11	543	0	554	1306
% App. Total	74.3	0	25.7		0	89.4	10.6		2	98	0		
PHF	.765	.000	.643	.875	.000	.887	.857	.893	.550	.859	.000	.871	.955
Cars	52	0	18	70	0	608	72	680	11	539	0	550	1300
% Cars	100	0	100	100	0	99.7	100	99.7	100	99.3	0	99.3	99.5
Trucks	0	0	0	0	0	0	0	0	0	1	0	1	1
% Trucks	0	0	0	0	0	0	0	0	0	0.2	0	0.2	0.1
Buses	0	0	0	0	0	2	0	2	0	3	0	3	5
% Buses	0	0	0	0	0	0.3	0	0.3	0	0.6	0	0.5	0.4

**APPENDIX B**  
**2024 EXISTING INTERSECTION CAPACITY ANALYSIS**

## HCS Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	BHI			Duration, h	0.250	
Analyst	MG	Analysis Date	Apr 9, 2024	Area Type	Other	
Jurisdiction	SANTA FE	Time Period	EXISTING AM PEAK HOUR	PHF	0.96	
Urban Street	Agua Fria Street	Analysis Year	2024	Analysis Period	1 > 7:00	
Intersection	Agua Fria & Siler Road	File Name	1_EXAM AF-S.xus			
Project Description	EXISTING					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h	105	332	94	123	208	69	45	241	125	107	400	120

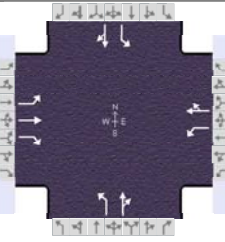
Signal Information																								
Cycle, s	64.6	Reference Phase	2	Green	2.9	1.5	22.6	5.1	0.2	15.4	Yellow	3.0	0.0	3.0	3.0	0.0	4.0	Red	1.0	0.0	1.0	1.0	0.0	1.0
Offset, s	0	Reference Point	End	Uncoordinated	Yes	Simult. Gap E/W	On	Force Mode	Fixed	Simult. Gap N/S	On													

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	9.3	20.6	9.1	20.4	6.9	26.6	8.3	28.0
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.3	4.1	4.3	4.2	4.4	4.2	4.4
Queue Clearance Time ( g <sub>s</sub> ), s	5.9	13.1	5.4	11.3	3.0	13.5	4.5	19.4
Green Extension Time ( g <sub>e</sub> ), s	0.2	2.5	0.3	2.6	0.1	4.6	0.3	4.5
Phase Call Probability	0.86	1.00	0.90	1.00	0.57	1.00	0.87	1.00
Max Out Probability	0.00	0.14	0.00	0.09	0.00	0.00	0.00	0.01

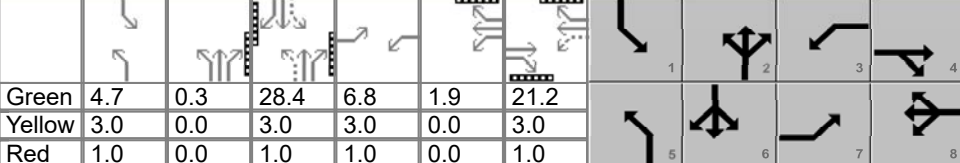
Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	109	346	98	128	289		47	381		111	542	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1818		1810	1776		1781	1810	
Queue Service Time ( g <sub>s</sub> ), s	3.9	11.1	3.2	3.4	9.3		1.0	11.5		2.5	17.4	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	3.9	11.1	3.2	3.4	9.3		1.0	11.5		2.5	17.4	
Green Ratio ( g/C )	0.08	0.24	0.24	0.32	0.24		0.40	0.35		0.42	0.37	
Capacity ( c ), veh/h	147	455	383	297	434		256	621		404	674	
Volume-to-Capacity Ratio ( X )	0.744	0.760	0.256	0.431	0.665		0.183	0.614		0.276	0.804	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	85	212	52	60	175		18	200		43	284	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	3.3	8.4	2.0	2.4	7.0		0.7	8.0		1.7	11.3	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	0.68	1.69	0.42	0.50	1.46		0.14	1.49		0.48	3.16	
Uniform Delay ( d <sub>1</sub> ), s/veh	29.1	22.9	19.9	17.7	22.3		14.8	17.5		12.9	18.2	
Incremental Delay ( d <sub>2</sub> ), s/veh	7.2	2.6	0.3	1.0	2.1		0.3	1.2		0.4	2.3	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	36.3	25.5	20.2	18.7	24.5		15.2	18.7		13.3	20.5	
Level of Service ( LOS )	D	C	C	B	C		B	B		B	C	
Approach Delay, s/veh / LOS	26.7			C			22.7			C		
Intersection Delay, s/veh / LOS	21.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.92	B	1.90	B	2.09	B
Bicycle LOS Score / LOS	1.40	A	1.18	A	1.19	A	1.57	B

## HCS Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	BHI			Duration, h	0.250	
Analyst	MG	Analysis Date	Apr 9, 2024	Area Type	Other	
Jurisdiction	SANTA FE	Time Period	PM PEAK HOUR	PHF	0.93	
Urban Street	Agua Fria Street	Analysis Year	2024	Analysis Period	1 > 7:00	
Intersection	Agua Fria & Siler Road	File Name	1_EXPM AF-S.xus			
Project Description	EXISTING					

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	108	260	68	187	344	75	106	353	141	97	283	164

Signal Information															
Cycle, s	79.3	Reference Phase	2	Green	4.7	0.3	28.4	6.8	1.9	21.2	Yellow	3.0	0.0	3.0	3.0
Offset, s	0	Reference Point	End	Red	1.0	0.0	1.0	1.0	0.0	1.0	Uncoordinated	Yes	Simult. Gap E/W	On	
Force Mode	Fixed	Simult. Gap N/S	On												

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	10.8	25.2	12.7	27.2	9.0	32.7	8.7	32.4
Change Period, ( $Y+R_c$ ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( $MAH$ ), s	4.1	4.4	4.1	4.4	4.2	4.5	4.2	4.5
Queue Clearance Time ( $g_s$ ), s	7.1	12.3	8.3	20.6	5.1	23.4	4.9	21.0
Green Extension Time ( $g_e$ ), s	0.2	3.0	0.5	1.6	0.3	5.2	0.3	5.3
Phase Call Probability	0.92	1.00	0.99	1.00	0.92	1.00	0.90	1.00
Max Out Probability	0.00	0.16	0.01	0.98	0.00	0.03	0.00	0.02

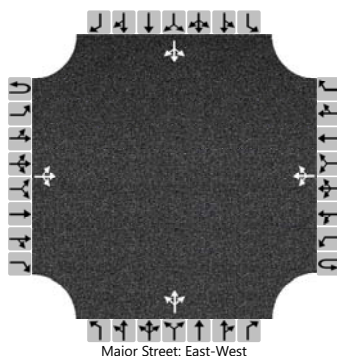
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( $v$ ), veh/h	116	280	73	201	451		114	531		104	481	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1781	1885	1585	1810	1841		1810	1793		1781	1768	
Queue Service Time ( $g_s$ ), s	5.1	10.3	2.9	6.3	18.6		3.1	21.4		2.9	19.0	
Cycle Queue Clearance Time ( $g_c$ ), s	5.1	10.3	2.9	6.3	18.6		3.1	21.4		2.9	19.0	
Green Ratio ( $g/C$ )	0.09	0.26	0.26	0.37	0.28		0.42	0.36		0.42	0.36	
Capacity ( $c$ ), veh/h	153	481	405	430	515		314	649		255	633	
Volume-to-Capacity Ratio ( $X$ )	0.761	0.581	0.181	0.467	0.875		0.363	0.819		0.409	0.759	
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)	112	202	48	115	365		57	352		54	312	
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)	4.4	8.0	1.9	4.6	14.6		2.3	14.0		2.1	12.4	
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)	0.89	1.61	0.38	0.96	3.04		0.42	2.61		0.60	3.46	
Uniform Delay ( $d_1$ ), s/veh	35.5	25.9	23.1	18.8	27.3		16.8	23.0		18.1	22.5	
Incremental Delay ( $d_2$ ), s/veh	7.6	1.1	0.2	0.8	13.3		0.7	3.1		1.1	1.9	
Initial Queue Delay ( $d_3$ ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( $d$ ), s/veh	43.1	27.0	23.3	19.6	40.6		17.5	26.1		19.2	24.4	
Level of Service (LOS)	D	C	C	B	D		B	C		B	C	
Approach Delay, s/veh / LOS	30.4		C	34.1		C	24.6		C	23.5		C
Intersection Delay, s/veh / LOS	28.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.92	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.26	A	1.56	B	1.55	B	1.45	A

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2024			North/South Street	HARRISON ROAD		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	599	6		32	377	2		6	0	39		5	0	10
Percent Heavy Vehicles (%)		2				1				4	4	4		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.11				7.14	6.54	6.24		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.21				2.21				3.54	4.04	3.34		3.50	4.00	3.30

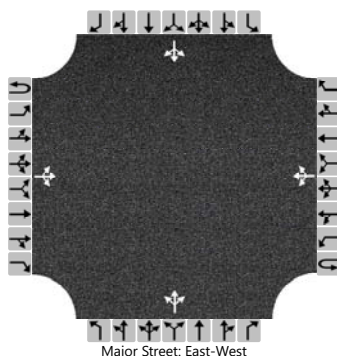
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				34					47					16	
Capacity, c (veh/h)		1162				950					442					449	
v/c Ratio		0.00				0.04					0.11					0.04	
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.1					0.4					0.1	
95% Queue Length, Q <sub>95</sub> (ft)											10.3					2.5	
Control Delay (s/veh)		8.1	0.0	0.0		8.9	0.4	0.4			14.1					13.3	
Level of Service (LOS)		A	A	A		A	A	A			B					B	
Approach Delay (s/veh)	0.1				1.1				14.1				13.3				
Approach LOS	A				A				B				B				

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2024			North/South Street	HARRISON ROAD		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		13	577	8		46	594	0		7	1	90		1	3	4
Percent Heavy Vehicles (%)		1				1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.11				4.11				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.21				3.50	4.00	3.30		3.50	4.00	3.30

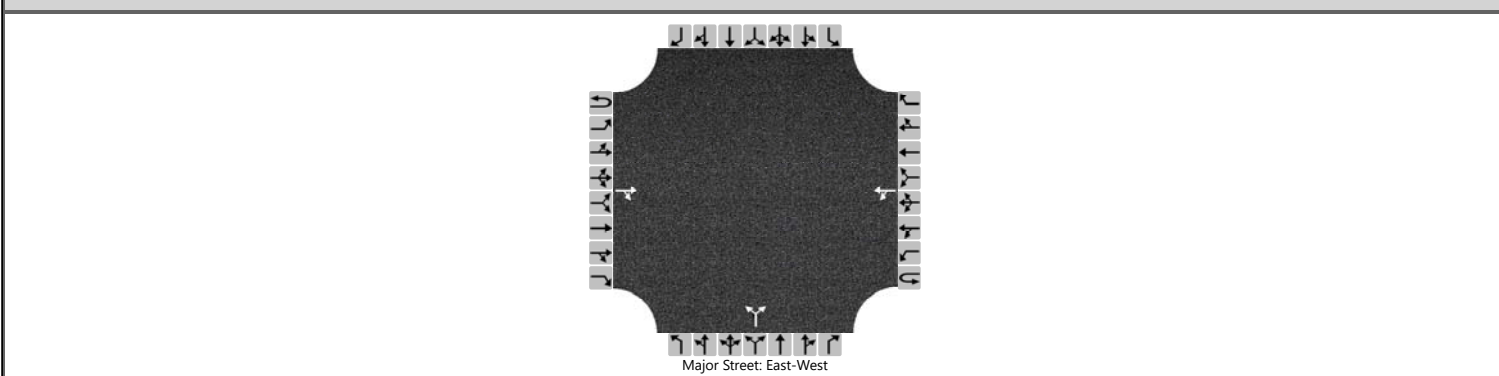
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		14				49				104				9		
Capacity, c (veh/h)		958				964				452				309		
v/c Ratio		0.01				0.05				0.23				0.03		
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2				0.9				0.1		
95% Queue Length, Q <sub>95</sub> (ft)										22.5				2.5		
Control Delay (s/veh)		8.8	0.2	0.2		8.9	0.7	0.7		15.3				17.0		
Level of Service (LOS)		A	A	A		A	A	A		C				C		
Approach Delay (s/veh)	0.4				1.3				15.3				17.0			
Approach LOS	A				A				C				C			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2024			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0	
Configuration				TR		LT					LR						
Volume (veh/h)			557	7		13	374			0		9					
Percent Heavy Vehicles (%)						0				0		0					
Proportion Time Blocked																	
Percent Grade (%)										0							
Right Turn Channelized																	
Median Type   Storage					Left + Thru						1						

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

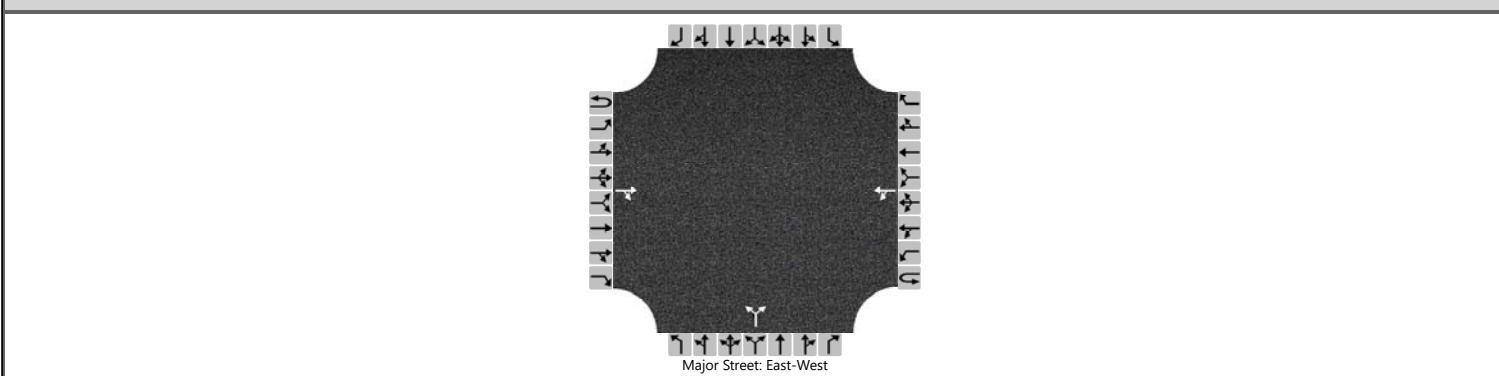
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						10				
Capacity, c (veh/h)						985						507				
v/c Ratio						0.01						0.02				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.1				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						2.5				
Control Delay (s/veh)						8.7	0.2					12.2				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)						0.4					12.2					
Approach LOS						A					B					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2024			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.93		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			557	7		13	374			0		9				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage							Left + Thru									1

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

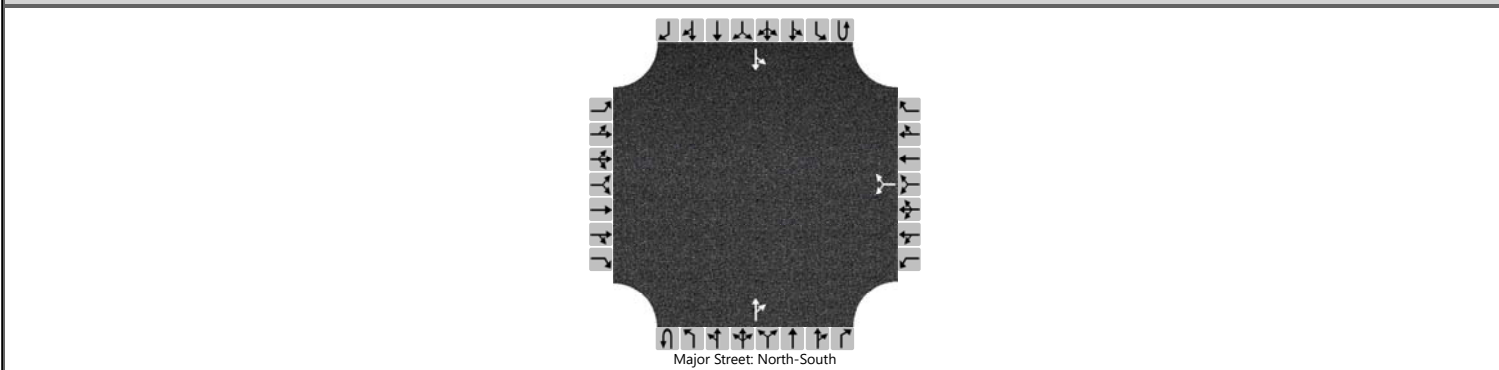
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						10				
Capacity, c (veh/h)						980						503				
v/c Ratio						0.01						0.02				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.1				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						2.5				
Control Delay (s/veh)						8.7	0.2					12.3				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)								0.4					12.3			
Approach LOS								A					B			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2024			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration							LR					TR		LT			
Volume (veh/h)						32		13			458	72		13	618		
Percent Heavy Vehicles (%)						1		1						1			
Proportion Time Blocked																	
Percent Grade (%)						0											
Right Turn Channelized																	
Median Type   Storage						Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1		
Critical Headway (sec)						6.41		6.21							4.11		
Base Follow-Up Headway (sec)						3.5		3.3							2.2		
Follow-Up Headway (sec)						3.51		3.31							2.21		

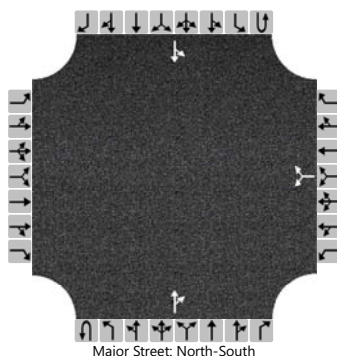
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						49									14		
Capacity, c (veh/h)						366									999		
v/c Ratio						0.13									0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.5									0.0		
95% Queue Length, Q <sub>95</sub> (ft)						12.6									0.0		
Control Delay (s/veh)						16.4									8.7	0.2	
Level of Service (LOS)						C									A	A	
Approach Delay (s/veh)						16.4								0.4			
Approach LOS						C								A			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	SILER ROAD & SILER PARK LANE				
Agency/Co.	BHI	Jurisdiction	SANTA FE				
Date Performed	4/5/2024	East/West Street	SILER ROAD				
Analysis Year	2024	North/South Street	SILER PARK LANE				
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.91				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	EXISTING						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						52		18			610	72		11	543	
Percent Heavy Vehicles (%)						0		0						1		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

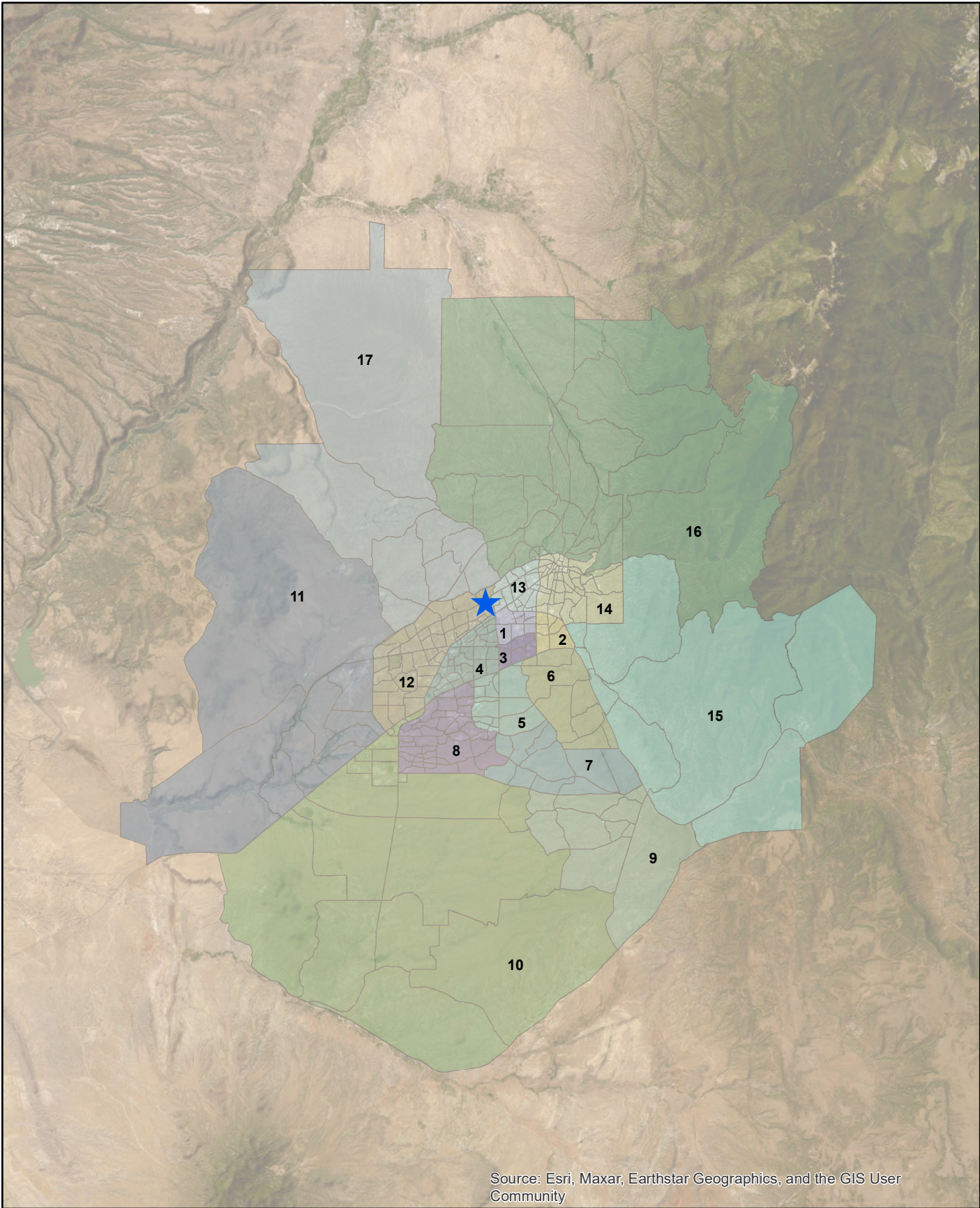
## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.21		

## Delay, Queue Length, and Level of Service

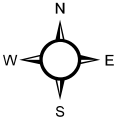
Flow Rate, v (veh/h)						77								12		
Capacity, c (veh/h)						334								866		
v/c Ratio						0.23								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.9								0.0		
95% Queue Length, Q <sub>95</sub> (ft)						22.6								0.0		
Control Delay (s/veh)						19.0								9.2	0.2	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)					19.0								0.4			
Approach LOS					C								A			

**APPENDIX C**  
**TURNING MOVEMENT DEVELOPMENT**



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

**Bohannon**  **Huston**  
 www.bhinc.com 800.877.5332



0 13,750 27,500 Feet  
 1 in = 27,992 ft

**Agua Fria**  
**Santa Fe Region**  
**Traffic Analysis Zones**

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	% 2024	Agua Fria Road - To/From East % Employment/D		
	2015	2040	2024				% Utilizing	Dist. Utilizing	EMP/Dist
1	3,453	2,540	3,149	1.41	2,233	11.53%	5%	0.58%	112
2	1,986	1,822	1,931	2.88	671	3.46%			
3	1,298	1,776	1,457	2.25	648	3.35%			
4	4,183	8,318	5,561	2.34	2,377	12.27%			
5	325	417	356	4.03	88	0.46%			
6	248	345	280	5.02	56	0.29%			
7	42	38	41	7.09	6	0.03%			
8	1,350	1,792	1,497	5.57	269	1.39%			
9	655	654	655	11.01	59	0.31%	15%	0.05%	9
10	1,082	1,094	1,086	10.13	107	0.55%			
11	399	1,984	927	7.4	125	0.65%			
12	6,827	8,904	7,519	3.25	2,314	11.95%			
13	5,956	4,456	5,456	1.39	3,925	20.27%	30%	6.08%	1,178
14	23,927	18,392	22,082	3.76	5,873	30.33%	30%	9.10%	1,762
15	552	551	552	7.18	77	0.40%	30%	0.12%	23
16	2,748	2,613	2,703	5.65	478	2.47%	20%	0.49%	96
17	326	376	343	6.07	56	0.29%			
TOTALS =	55,357	56,072	55,595		19,362	100.00%		16%	

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	% 2024	Agua Fria Road - To/From West % Employment/D		
	2015	2040	2024				% Utilizing	Dist. Utilizing	EMP/Dist
1	3,453	2,540	3,149	1.41	2,233	11.53%			
2	1,986	1,822	1,931	2.88	671	3.46%			
3	1,298	1,776	1,457	2.25	648	3.35%			
4	4,183	8,318	5,561	2.34	2,377	12.27%	25%	3.07%	594
5	325	417	356	4.03	88	0.46%			
6	248	345	280	5.02	56	0.29%	5%	0.01%	3
7	42	38	41	7.09	6	0.03%			
8	1,350	1,792	1,497	5.57	269	1.39%	60%	0.83%	161
9	655	654	655	11.01	59	0.31%			
10	1,082	1,094	1,086	10.13	107	0.55%	80%	0.44%	86
11	399	1,984	927	7.4	125	0.65%	65%	0.42%	81
12	6,827	8,904	7,519	3.25	2,314	11.95%	65%	7.77%	1,504
13	5,956	4,456	5,456	1.39	3,925	20.27%			
14	23,927	18,392	22,082	3.76	5,873	30.33%			
15	552	551	552	7.18	77	0.40%			
16	2,748	2,613	2,703	5.65	478	2.47%			
17	326	376	343	6.07	56	0.29%	70%	0.20%	40
TOTALS =	55,357	56,072	55,595		19,362	100.00%		13%	

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	% 2024	Siler Road - To/From North % Employment/D		
	2015	2040	2024				% Utilizing	Dist. Utilizing	EMP/Dist
1	3,453	2,540	3,149	1.41	2,233	11.53%			
2	1,986	1,822	1,931	2.88	671	3.46%			
3	1,298	1,776	1,457	2.25	648	3.35%			
4	4,183	8,318	5,561	2.34	2,377	12.27%			
5	325	417	356	4.03	88	0.46%			
6	248	345	280	5.02	56	0.29%			
7	42	38	41	7.09	6	0.03%			
8	1,350	1,792	1,497	5.57	269	1.39%			
9	655	654	655	11.01	59	0.31%			
10	1,082	1,094	1,086	10.13	107	0.55%			
11	399	1,984	927	7.4	125	0.65%	5%	0.03%	6
12	6,827	8,904	7,519	3.25	2,314	11.95%	5%	0.60%	116
13	5,956	4,456	5,456	1.39	3,925	20.27%	5%	1.01%	196
14	23,927	18,392	22,082	3.76	5,873	30.33%	5%	1.52%	294
15	552	551	552	7.18	77	0.40%	10%	0.04%	8
16	2,748	2,613	2,703	5.65	478	2.47%	80%	1.98%	383
17	326	376	343	6.07	56	0.29%	30%	0.09%	17
TOTALS =	55,357	56,072	55,595		19,362	100.00%		5%	

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	% 2024	Siler Road - To/From South % Employment/D		
	2015	2040	2024				% Utilizing	Dist. Utilizing	EMP/Dist
1	3,453	2,540	3,149	1.41	2,233	11.53%	50%	5.77%	1,117
2	1,986	1,822	1,931	2.88	671	3.46%	70%	2.42%	469
3	1,298	1,776	1,457	2.25	648	3.35%	70%	2.34%	453
4	4,183	8,318	5,561	2.34	2,377	12.27%	60%	7.36%	1,426
5	325	417	356	4.03	88	0.46%	70%	0.32%	62
6	248	345	280	5.02	56	0.29%	75%	0.22%	42
7	42	38	41	7.09	6	0.03%	70%	0.02%	4
8	1,350	1,792	1,497	5.57	269	1.39%	25%	0.35%	67
9	655	654	655	11.01	59	0.31%	60%	0.18%	36
10	1,082	1,094	1,086	10.13	107	0.55%	15%	0.08%	16
11	399	1,984	927	7.4	125	0.65%	25%	0.16%	31
12	6,827	8,904	7,519	3.25	2,314	11.95%	25%	2.99%	578
13	5,956	4,456	5,456	1.39	3,925	20.27%	60%	12.16%	2,355
14	23,927	18,392	22,082	3.76	5,873	30.33%	60%	18.20%	3,524
15	552	551	552	7.18	77	0.40%	55%	0.22%	42
16	2,748	2,613	2,703	5.65	478	2.47%			
17	326	376	343	6.07	56	0.29%			
<b>TOTALS =</b>	<b>55,357</b>	<b>56,072</b>	<b>55,595</b>		<b>19,362</b>	<b>100.00%</b>		<b>53%</b>	

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	% 2024	Harrison Road - To/From South % Employment/D		
	2015	2040	2024				% Utilizing	Dist. Utilizing	EMP/Dist
1	3,453	2,540	3,149	1.41	2,233	11.53%	45%	5.19%	1,005
2	1,986	1,822	1,931	2.88	671	3.46%	30%	1.04%	201
3	1,298	1,776	1,457	2.25	648	3.35%	30%	1.00%	194
4	4,183	8,318	5,561	2.34	2,377	12.27%	15%	1.84%	356
5	325	417	356	4.03	88	0.46%	30%	0.14%	26
6	248	345	280	5.02	56	0.29%	20%	0.06%	11
7	42	38	41	7.09	6	0.03%	30%	0.01%	2
8	1,350	1,792	1,497	5.57	269	1.39%	15%	0.21%	40
9	655	654	655	11.01	59	0.31%	25%	0.08%	15
10	1,082	1,094	1,086	10.13	107	0.55%	5%	0.03%	5
11	399	1,984	927	7.4	125	0.65%	5%	0.03%	6
12	6,827	8,904	7,519	3.25	2,314	11.95%	5%	0.60%	116
13	5,956	4,456	5,456	1.39	3,925	20.27%	5%	1.01%	196
14	23,927	18,392	22,082	3.76	5,873	30.33%	5%	1.52%	294
15	552	551	552	7.18	77	0.40%	5%	0.02%	4
16	2,748	2,613	2,703	5.65	478	2.47%			
17	326	376	343	6.07	56	0.29%			
TOTALS =	55,357	56,072	55,595		19,362	100.00%		13%	

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

**AGUA FRIA RESIDENTIAL TRIP DISTRIBUTION  
EMPLOYMENT BY AGGREGATED TAZ  
2024**

Aggregated TAZ's	Employees			DISTANCE (D)	EMP./DIST. 2024	%			
	2015	2040	2024						
1	3,453	2,540	3,149	1.41	2,233	11.53%	11.53%	0.00%	100%
2	1,986	1,822	1,931	2.88	671	3.46%	3.46%	0.00%	100%
3	1,298	1,776	1,457	2.25	648	3.35%	3.35%	0.00%	100%
4	4,183	8,318	5,561	2.34	2,377	12.27%	12.27%	0.00%	100%
5	325	417	356	4.03	88	0.46%	0.46%	0.00%	100%
6	248	345	280	5.02	56	0.29%	0.29%	0.00%	100%
7	42	38	41	7.09	6	0.03%	0.03%	0.00%	100%
8	1,350	1,792	1,497	5.57	269	1.39%	1.39%	0.00%	100%
9	655	654	655	11.01	59	0.31%	0.31%	0.00%	100%
10	1,082	1,094	1,086	10.13	107	0.55%	0.55%	0.00%	100%
11	399	1,984	927	7.4	125	0.65%	0.65%	0.00%	100%
12	6,827	8,904	7,519	3.25	2,314	11.95%	11.95%	0.00%	100%
13	5,956	4,456	5,456	1.39	3,925	20.27%	20.27%	0.00%	100%
14	23,927	18,392	22,082	3.76	5,873	30.33%	30.33%	0.00%	100%
15	552	551	552	7.18	77	0.40%	0.40%	0.00%	100%
16	2,748	2,613	2,703	5.65	478	2.47%	2.47%	0.00%	100%
17	326	376	343	6.07	56	0.29%	0.29%	0.00%	100%
TOTALS =	55,357	56,072	55,595		19,362	100.00%	100.00%	0.00%	0%

2015 and 2040 Santa Fe Tmodel Socioeconomic Forecasts

ABQ values from MRCOG 2040 Forecasts - Distance adjusted to reflect estimated percentage from Albuquerque

<b>Record</b>	1 of 1	<b>Goto Record</b>	10
Location ID	22874	MPO ID	181811
Type	SPOT	HPMS ID	
On NHS	No	On HPMS	No
LRS ID	FL4735P	LRS Loc Pt.	2.501431
SF Group	09	Route Type	Two-Way Roadway
AF Group	09	Route	FL4735
GF Group	09	Active	Yes
Class Dist Grp	09	Category	
Seas Class Grp	Statewide		
WIM Group	FC-NOT-1		
QC Group	Perm		
Fractl Class	(4) Minor Arterial	Milepost	
Located On	AGUA FRIA ST		
Loc On Alias	JCT. MAEZ		

**STATION DATA** [Show Data](#)

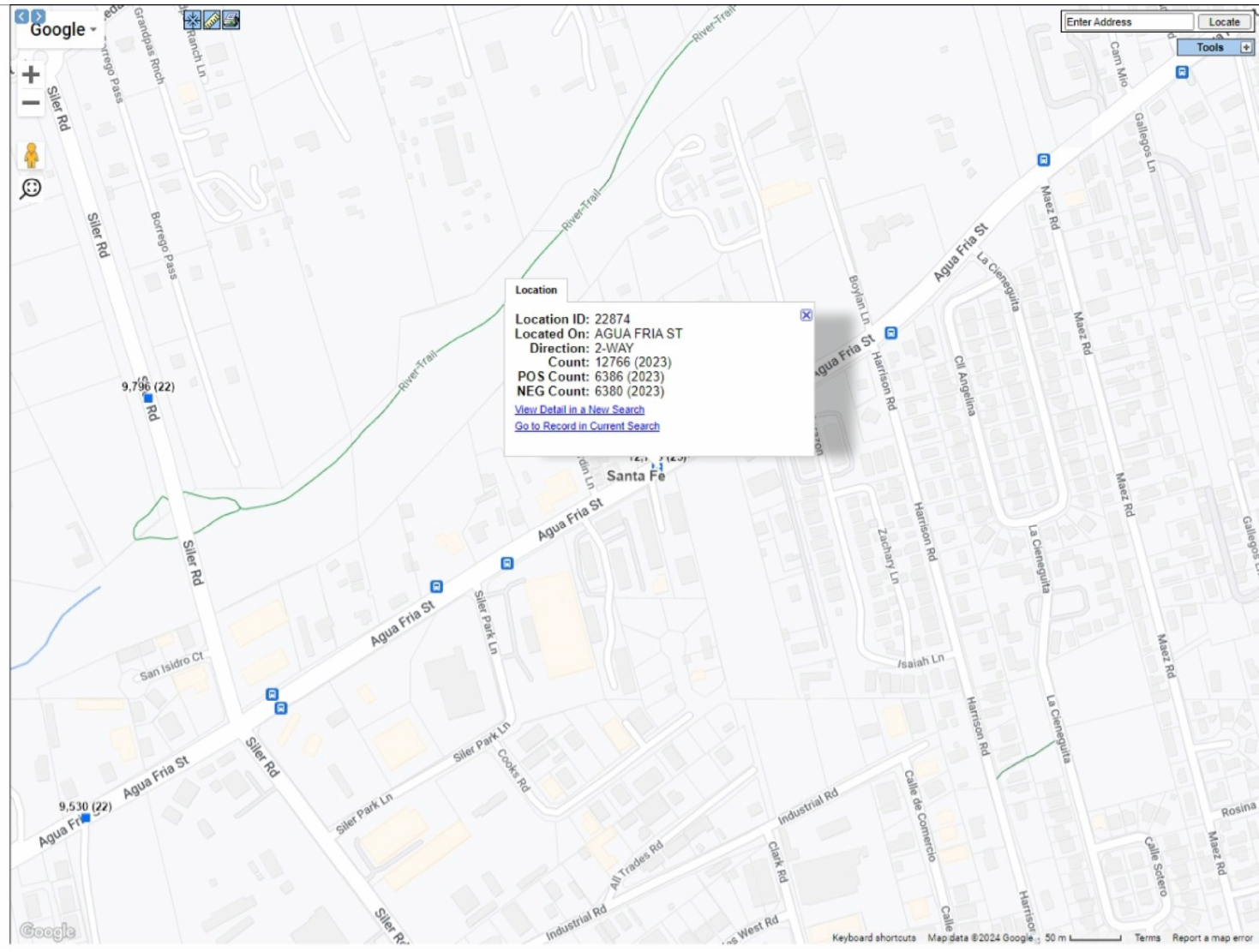
Directions: **2-WAY** **NEG** **POS**

Year	AAAT	DHV-30	K %	D %	PA	BC	Src
2022	10,417	1,166	11	52	9,782 (94%)	635 (6%)	
2021	11,217	1,180	11	50	10,578 (94%)	639 (6%)	
2020	10,021	1,120	11	52	9,320 (93%)	701 (7%)	
2019	11,705			53	11,213 (96%)	492 (4%)	
2018	11,416	1,236	11	53	11,019 (97%)	397 (3%)	

Model Year	Model AADT	AM PHV	AM PPV	MD PHV	MD PPV	PM PHV	PM PPV	NT PHV	NT PPV

Date	Int	Total
Sun 4/30/2023	15	12,459
Sun 4/23/2023	15	12,088
Sun 4/16/2023	15	12,508
Sun 4/9/2023	15	10,864
Sat 4/8/2023	15	14,235
Wed 3/29/2023	15	12,766
Tue 3/28/2023	15	12,725
Mon 3/27/2023	15	12,421
Sun 3/26/2023	15	7,825
Sat 3/25/2023	15	10,093

Year	Annual Growth
2022	-7%
2021	12%
2020	-14%
2019	3%
2018	-6%
2017	-13%
2016	21%
2015	0%
2014	-3%
2013	-7%



**Location**

Location ID: 22874  
 Located On: AGUA FRIA ST  
 Direction: 2-WAY  
 Count: 12766 (2023)  
 POS Count: 6386 (2023)  
 NEG Count: 6380 (2023)

[View Detail in a New Search](#)  
[Go to Record in Current Search](#)

**AGUA FRIA, LOT 38 DEVELOPMENT  
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Agua Fria Street & Siler Road

AM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound Siler			Southbound Siler		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>	105	332	94	123	208	69	45	241	125	107	400	120
Background Growth	3	10	3	4	6	2	1	7	4	3	12	4
<b>No Build (2027)</b>	108	342	97	127	214	71	46	248	129	110	412	124
Entering		2							8	1		
Exiting				25	6	2						
<b>Build (2027)</b>	108	344	97	152	220	73	46	248	137	111	412	124
Background Growth	19	62	17	27	40	13	8	45	25	20	74	22
<b>No Build (2042 Horizon Year)</b>	128	404	114	154	254	84	55	293	153	130	486	146
Entering		2							8	1		
Exiting				25	6	2						
<b>Build (2042 Horizon Year)</b>	128	406	114	180	260	87	55	293	161	131	486	146
<i>PHF</i>	0.96			0.96			0.96			0.96		
<i>HV %</i>	1.3			0.3			1.5			1.1		

PM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound Siler			Southbound Siler		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>	108	260	68	187	344	75	106	353	141	97	283	164
Background Growth	3	8	2	6	10	2	3	11	4	3	8	5
<b>No Build (2027)</b>	111	268	70	193	354	77	109	364	145	100	291	169
Entering		6							25	2		
Exiting				15	4	1						
<b>Build (2027)</b>	111	274	70	207	358	79	109	364	171	102	291	169
Background Growth	19	47	12	34	62	14	19	64	25	17	51	30
<b>No Build (2042 Horizon Year)</b>	131	315	82	226	416	91	128	427	171	117	342	198
Entering		6							25	2		
Exiting				15	4	1						
<b>Build (2042 Horizon Year)</b>	131	321	82	241	420	92	128	427	196	120	342	198
<i>PHF</i>	0.93			0.93			0.93			0.93		
<i>HV %</i>	0.2			0.5			0.5			0.4		
growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter		13.0%							53.0%	5.0%		
Trip Distribution % Exit				53.0%	13.0%	5.0%						

**AGUA FRIA, LOT 38 DEVELOPMENT**  
**EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Agua Fria Street & Harrison Road

AM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound Harrison			Southbound Harrison		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>	3	599	6	32	377	2	6		39	5		10
Background Growth		18	0	1	11	0	0		1	0		
<b>No Build (2027)</b>	3	617	6	33	388	2	6		40	5		10
Entering					2		2					
Exiting		8	6									
<b>Build (2027)</b>	3	625	12	33	391	2	8		40	5		10
Background Growth	1	108	1	6	68		1		7	1		2
<b>No Build (2042 Horizon Year)</b>	4	725	7	39	456	2	7		47	6		12
Entering					2		2					
Exiting		8	6									
<b>Build (2042 Horizon Year)</b>	4	732	14	39	459	2	9		47	6		12
<i>PHF</i>	0.95			0.95			0.95			0.95		
<i>HV %</i>	1.5			1.4			4.4			0		

PM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound Harrison			Southbound Harrison		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>	13	577	8	46	594		7	1	90	1	3	4
Background Growth		17		1	18				3			
<b>No Build (2027)</b>	13	594	8	47	612		7	1	93	1	3	4
Entering					8		6					
Exiting		4	4									
<b>Build (2027)</b>	13	599	12	47	620		13	1	93	1	3	4
Background Growth	2	104	1	8	107		1		16		1	1
<b>No Build (2042 Horizon Year)</b>	15	698	9	56	719	0	8	1	109	1	4	5
Entering					8		6					
Exiting		4	4									
<b>Build (2042 Horizon Year)</b>	15	703	13	56	726	0	15	1	109	1	4	5
<i>PHF</i>	0.94			0.94			0.94			0.94		
<i>HV %</i>	0.5			0.8			0			0		
growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter					16.0%		13.0%					
Trip Distribution % Exit		16.0%	13.0%									



**AGUA FRIA, LOT 38 DEVELOPMENT  
EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Siler Road & Siler Park Lane

AM Peak Hour

	Eastbound Siler Park			Westbound Siler Park			Northbound Siler			Southbound Siler		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>				32		13		458	72	13	618	
Background Growth				1				9	1		12	
<b>No Build (2027)</b>				33		13		467	73	13	630	
Entering								8				
Exiting											25	
<b>Build (2027)</b>				33		13		475	73	13	656	
Background Growth				6		2		82	13	2	111	
<b>No Build (2042 Horizon Year)</b>				38		16		550	86	16	742	
Entering								8				
Exiting											25	
<b>Build (2042 Horizon Year)</b>				38		16		558	86	16	767	

PHF 0.91 0.91 0.91 0.91  
 HV % 4.4 1.2 2 0.6

PM Peak Hour

	Eastbound Siler Park			Westbound Siler Park			Northbound Siler			Southbound Siler		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2024)</b>				52		18		610	72	11	543	
Background Growth				2		1		18	2	0	16	
<b>No Build (2027)</b>				54		19		628	74	11	559	
Entering								25				
Exiting											15	
<b>Build (2027)</b>				54		19		654	74	11	574	
Background Growth				9		3		110	13	2	98	
<b>No Build (2042 Horizon Year)</b>				63		22		738	87	13	657	
Entering								25				
Exiting											15	
<b>Build (2042 Horizon Year)</b>				63		22		764	87	13	672	

PHF 0.96 0.96 0.96 0.96  
 HV % 0 0.3 2 0.7

growth rates 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0% 1.0%

Trip Distribution % Enter								53.0%				
Trip Distribution % Exit											53.0%	

**AGUA FRIA, LOT 38 DEVELOPMENT**  
**EXISTING & PROJECTED TURNING MOVEMENTS**

INTERSECTION: Agua Fria & North Site Entrance

AM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound North Site Entrance			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2024)		608			383							
Background Growth		12			8							
<b>No Build (2027)</b>		620			391							
Entering			11	4								
Exiting							34		14			
<b>Build (2027)</b>		620	11	4	391		34		14			
Background Growth												
<b>No Build (2042 Horizon Year)</b>		620			391							
Entering			11	4								
Exiting							34		14			
<b>Build (2042 Horizon Year)</b>		620	11	4	391		34		14			
<i>PHF</i>	<i>0.94</i>			<i>0.94</i>			<i>0.94</i>			<i>0.94</i>		
<i>HV %</i>		2			2			2			2	

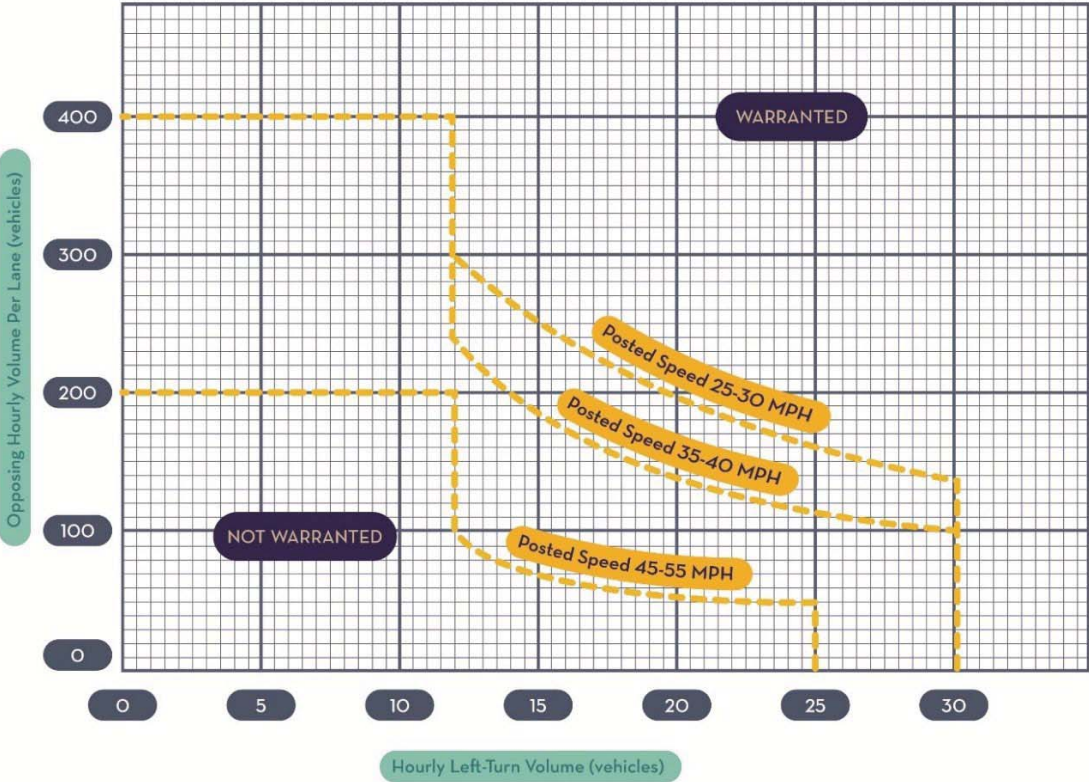
PM Peak Hour

	Eastbound Agua Fria			Westbound Agua Fria			Northbound North Site Entrance			Southbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2024)		598			601							
Background Growth		12			12							
<b>No Build (2027)</b>		610			613							
Entering			34	14								
Exiting							20		8			
<b>Build (2027)</b>		610	34	14	613		20		8			
Background Growth												
<b>No Build (2042 Horizon Year)</b>		610	0	0	613		0		0			
Entering			34	14								
Exiting							20		8			
<b>Build (2042 Horizon Year)</b>		610	34	14	613		20		8			
<i>PHF</i>	<i>0.96</i>			<i>0.96</i>			<i>0.96</i>			<i>0.96</i>		
<i>HV %</i>		2			2			2			2	
growth rates	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Trip Distribution % Enter			71.0%	29.0%								
Trip Distribution % Exit							71.0%		29.0%			

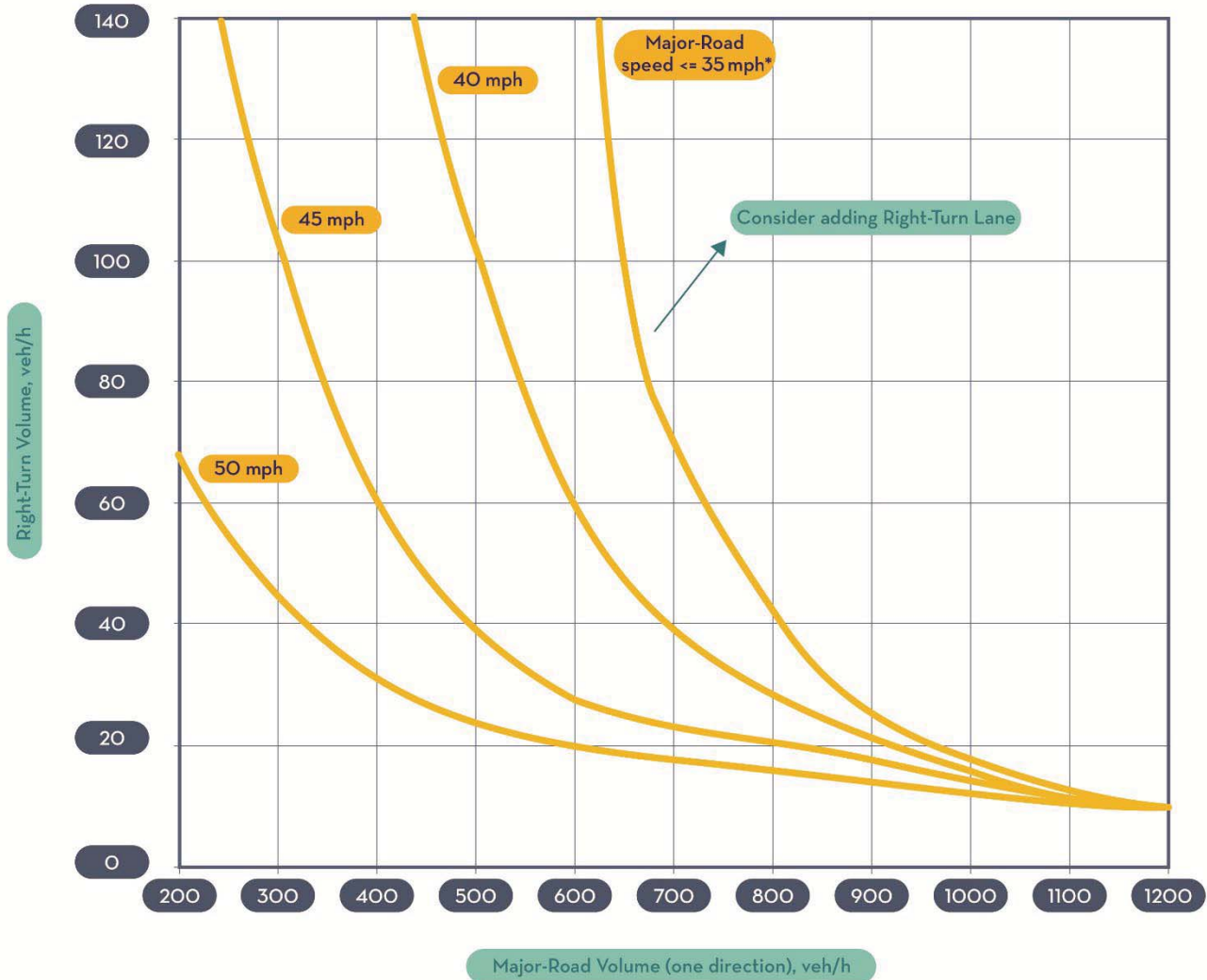
**Table 17.B-1  
Criteria for Deceleration Lanes on  
URBAN TWO-LANE HIGHWAYS**

Turning Volume <sup>1</sup> (vph)	LEFT-TURN DECELERATION LANE			RIGHT-TURN DECELERATION LANE		
	Minimum Directional Volume in the Through Lane (vphpl) <sup>2</sup>			Minimum Directional Volume in the Through Lane (vphpl) <sup>2</sup>		
	≤ 30 mph	35 to 45 mph	45 to 55 mph	≤ 30 mph	35 to 40 mph	45 to 55 mph
< 5	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
5	510	450	330	1,080	610	360
10	390	330	210	700	400	240
15	320	250	150	500	280	170
20	270	200	120	380	210	140
25	230	160	100	300	180	120
30	200	130	Required	250	160	110
35	170	110	Required	220	150	100
40	150	Required	Required	200	140	Required
45	130	Required	Required	190	Required	Required
≥ 46	Required	Required	Required	Required	Required	Required
	<p><i>Left-turn Deceleration Lanes are Required on Urban Two-lane Highways for the following Left-turn Volumes:</i></p> <ul style="list-style-type: none"> <li>• ≤ 30 mph : 46 vph or more</li> <li>• 35 to 40 mph : 36 vph or more</li> <li>• 45 to 55 mph : 26 vph or more</li> </ul>			<p><i>Right-turn Deceleration Lanes are Required on Urban Two-lane Highways for the following Right-turn Volumes:</i></p> <ul style="list-style-type: none"> <li>• ≤ 30 mph : 46 vph or more</li> <li>• 35 to 40 mph : 41 vph or more</li> <li>• 45 to 55 mph : 36 vph or more</li> </ul>		
<p><i>Notes:</i></p> <ol style="list-style-type: none"> <li>1. Use linear interpolation for turning volumes between 5 and 45 vph.</li> <li>2. The directional volume in the through lane includes through vehicles and turning vehicles.</li> </ol>						

FIGURE 1. LEFT TURN LANE WARRANT CRITERIA



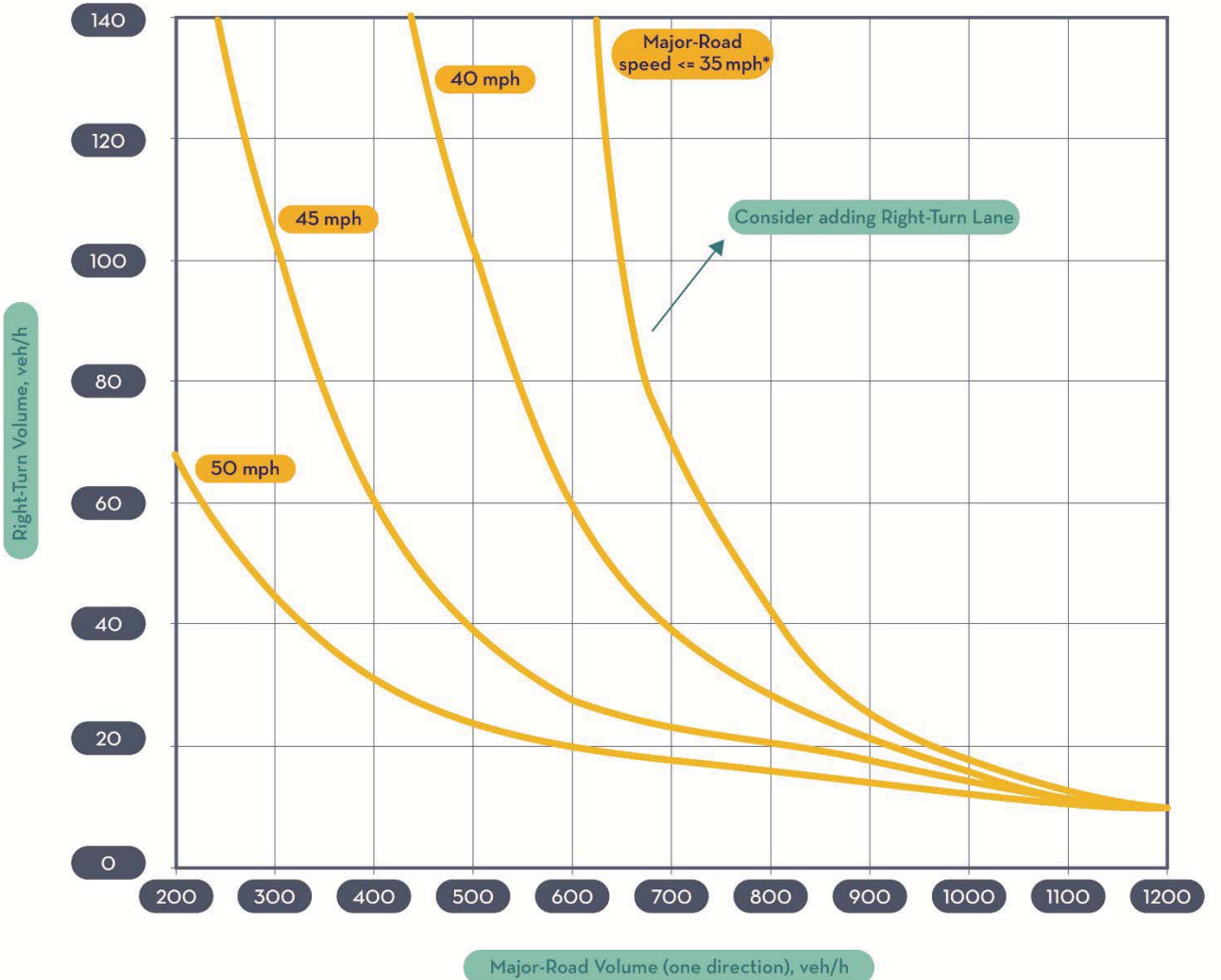
**FIGURE 2. RIGHT TURN LANE CRITERIA FOR TWO-LANE ROADWAY**



\*Right-turn lanes are not typically considered for roadways posted at 25 mph, but certain circumstances may warrant their consideration:

- Right-turning volume of 50 vph or greater
- At the City Traffic Engineer, or designee's discretion

**FIGURE 3. RIGHT TURN LANE CRITERIA FOR FOUR+ LANE ROADWAY**



\*Right-turn lanes are not typically considered for roadways posted at 25 mph, but certain circumstances may warrant their consideration:

- Right-turning volume of 50 vph or greater
- At the City Traffic Engineer, or designee's discretion

## Turn Lane Dimensions

The minimum turn lane width is 10 feet unless approved by City Staff. A separate turn lane consists of a taper plus a full width auxiliary lane. The design of turn lanes is to be based on the speed at which drivers turn into the lane, the speed to which drivers must reduce to turn into the driveway, and the required vehicular storage length. Other special considerations include the volume of trucks that will use the turn lane and the steepness of an ascending or descending grade. The TIA should recommend turn lane location and provide the required turn lane length associated with each, demonstrating that turn lane design objectives can be achieved within known current and future anticipated constraints.

Required turn lane length elements are outlined in **Table 1**.

**TABLE 1. TURN LANE LENGTH REQUIREMENTS**

Posted speed limit	Left turn deceleration lane	Right turn deceleration lane
<40mph (See Note 1.)	Taper + storage	Taper + storage
≥40mph (See Note 2.)	Decel. Length	Decel. Length

### Notes for Table 1:

**Note 1:** Storage length should be provided from operational analyses. Storage length should be provided from operational analyses. Storage length should be calculated as the 95<sup>th</sup> percentile queue length rounded up to the nearest 25 feet with a 50-foot minimum length.

When operational analyses are not applicable (e.g., for turning movements that are uncontrolled), utilize the deceleration distance for the auxiliary lane length. Using guidance from the latest AASHTO Green Book for “Deceleration Lanes”, accept a moderate amount of deceleration within the through lanes and utilize the taper length as part of the deceleration within the through lanes. Deceleration rates greater than 6.5 ft/s<sup>2</sup> may be used where practical. A minimum bay length of 50 feet shall be provided.

**Note 2:** Deceleration length should be calculated based on the distance required to brake from the posted speed of the roadway to a stop and includes the appropriate taper based upon the posted speed. Utilize recommended deceleration distances for “Lane Change and Deceleration Distance” provided by the latest AASHTO Green Book.

If the noted design requirements for full movement access spacing and/or turn lanes cannot be met, driveway turning movement restrictions may be imposed. The restriction may be for left-turn movements in or out of the driveway or right-turns in or out. Turning restrictions may be imposed for driveways that are too close to signalized intersections, or where existing driveways or roadway characteristics may increase accident potential or at locations with a history of high accident rates.

## 17. MULTIMODAL REVIEW

The 2022 City of Santa Fe Multimodal Transition Plan includes two overarching goals:

**Goal 1.** Move Santa Fe towards a city where all elements of an active life can be achieved without the need for a private automobile.



## 2.3 Safety Analysis

### 2.3.1 Crash Records (2010-2020)

Historical crash data was provided by the City of Santa Fe for the most recent ten years available (2010 to 2020). The crash data requested was for the study area on Agua Fria Street from Siler Road to Osage Avenue. The crash data was analyzed to identify any crash trends within the study limits.

There was a total of 308 reported crashes within the study limits. **Table 9** summarizes the total crash severity. The full crash data can be found in **Appendix C**.

Table 9: Total Crashes (2010-2020)

Year	Crash Severity			Total
	Fatal	Injury	PDO*	
2010	0 (0%)	10 (33%)	20 (67%)	30 (100%)
2011	0 (0%)	12 (37%)	20 (63%)	32 (100%)
2012	0 (0%)	5 (28%)	13 (72%)	18 (100%)
2013	0 (0%)	6 (29%)	15 (71%)	21 (100%)
2014	0 (0%)	4 (17%)	19 (83%)	23 (100%)
2015	0 (0%)	17 (53%)	15 (47%)	32 (100%)
2016	0 (0%)	23 (42%)	32 (58%)	55 (100%)
2017	0 (0%)	7 (30%)	16 (70%)	23 (100%)
2018	0 (0%)	6 (21%)	22 (79%)	28 (100%)
2019	0 (0%)	9 (35%)	17 (65%)	26 (100%)
2020	0 (0%)	4 (20%)	16 (80%)	20 (100%)
<b>Total</b>	<b>0 (0%)</b>	<b>103 (33%)</b>	<b>205 (67%)</b>	<b>308 (100%)</b>

\*PDO – Property Damage Only

The following observations were concluded from the historical crash data:

- Out of the total crashes in the ten-year period, none of them resulted in a fatal crash, 33% (103 crashes) resulted in injury with no fatalities and 67% (205 crashes) resulted in property damage only (PDO).
- Approximately 88% (272 crashes) of all the crashes had as classification collision with other vehicle, and 7% (21 crashes) were classified as collision with a fixed object.
- About 80% (246 crashes) of all the crashes occurred during daylight conditions, 11% (35 crashes) occurred during dark-lighted conditions, 3% (11 crashes) occurred in unknown conditions, 3% (10 crashes) occurred during dusk conditions, 2% (5 crashes) occurred during dark-not-lighted conditions, and 1% (1 crashes) occurred during dawn conditions.
- Close to 94% (290 crashes) of all crashes occurred during clear weather conditions, 3% (9 crashes) occurred in unknown weather conditions, 1.3% (4 crashes) occurred in snowing weather conditions, 1.3% (4 crashes) occurred in raining weather conditions, and 0.4% (1 crashes) occurred in other weather conditions.
- From the total crashes, 6% (18 crashes) were alcohol related and 1% (2 crashes) were related to drug involvement.

Physical conditions during crashes such as lighting, and weather did not indicate any strong influence on crashes.



Table 10: Lighting Conditions

Lighting Conditions	Crash Count
Daylight	246 (80%)
Dark & Low Light*	51 (17%)
Unknown	11 (3%)
<b>Total</b>	<b>308 (100%)</b>

\*Dark & Low Light include the following light conditions: Dark-Not Lighted, Dark-Lighted, Dawn and Dusk.

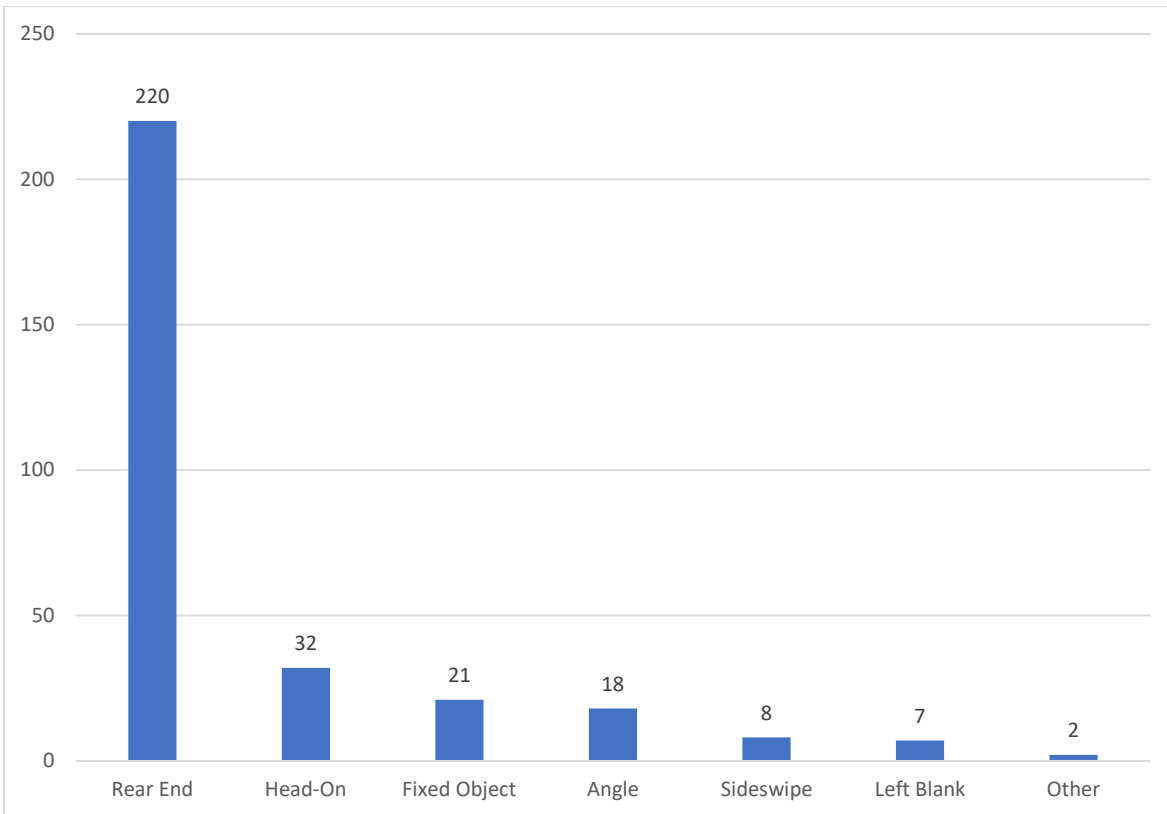


Figure 7: Crash Type Summary



Figure 8: Crash Heat Map



## Agua Fria Street Corridor Study

The following intersections were analyzed further based on the historical crash data provided:

1. Agua Fria Street and Siler Road
2. Agua Fria Street and Siler Park Lane
3. Agua Fria Street and Harrison Road
4. Agua Fria Street and La Cieneguita
5. Agua Fria Street and Maez Road
6. Agua Fria Street and Camino Carlos Rael
7. Agua Fria Street and Calle Carmilita
8. Agua Fria Street and Ferguson Lane
9. Agua Fria Street and Camino de Chelly
10. Agua Fria Street and Osage Avenue

In addition, sight triangles were analyzed for Intersections #2 through #8. The AASHTO 2018 *Policy on Geometric Design of Highways and Streets, 7th Edition*, has standards for departure sight triangles. Measured from the stop bar on the side street for instance on one end and to the center of the through lane on the other end. These were used to determine if a stopped vehicle on a minor roadway has sufficient sight distance from the intersection to enter or cross a major roadway.

### Intersection #1 – Agua Fria Street and Siler Road

The intersection of Agua Fria Street and Siler Road had a total of 130 reported crashes. From the crash data, it was reported that 83 of the crashes were rear end and 27 crashes were angle. The pedalcyclist car crash happened in 2015 and was contributed to following too closely, it occurred on a clear day during daylight, information provided did not indicate any strong influences. From the total, 88 of the collisions were reported as property damage only and 42 were injury only. Seven crashes at this intersection were alcohol related.

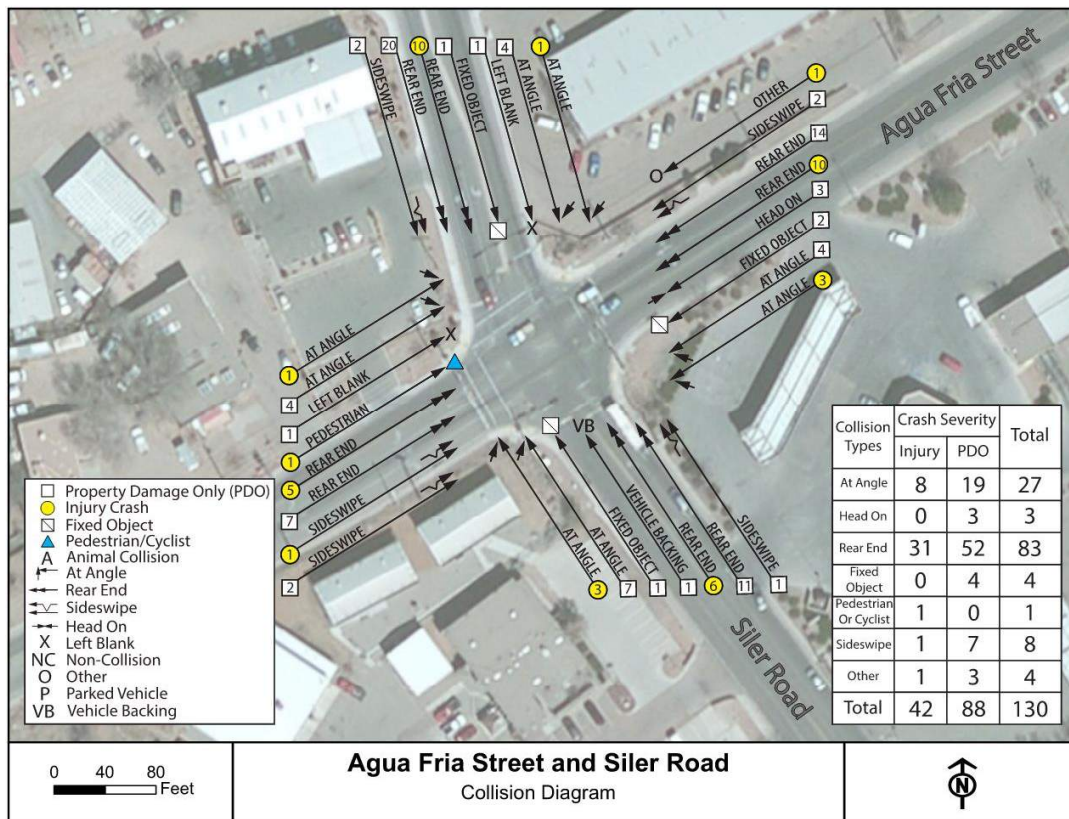




Figure 9: Intersection #1 – Agua Fria Street and Siler Road – Crash Types and Crash Severity

## Intersection #2 – Agua Fria Street and Siler Park Lane

Five crashes were reported at the intersection of Agua Fria Street and Siler Park Lane, two were reported as rear end, one as entering at an angle, one as head-on and one as a collision with a parked vehicle. Two crashes were reported as injury with no fatalities and three were reported as property damage only. Two crashes at this intersection were alcohol related.



Figure 10: Intersection #2 – Agua Fria Street and Siler Park Lane – Crash Types and Crash Severity

## Intersection #2 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance since according to AASHTO, “if the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient distance to anticipate and avoid collisions.” Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Siler Park Lane. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Agua Fria Street  
Corridor Study



Figure 11 shows the sight triangles for the Siler Park Lane northbound approach. The vegetation at the corner reduces and inhibits the view of the sight triangle.

**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 11 shows the sight triangles for the Siler Park Lane northbound approach. There are trees and a fence at the corner property that obstructs the sight triangle (see Figure 37).

It is recommended that objects within the sight triangle will need to be kept below 3-ft.

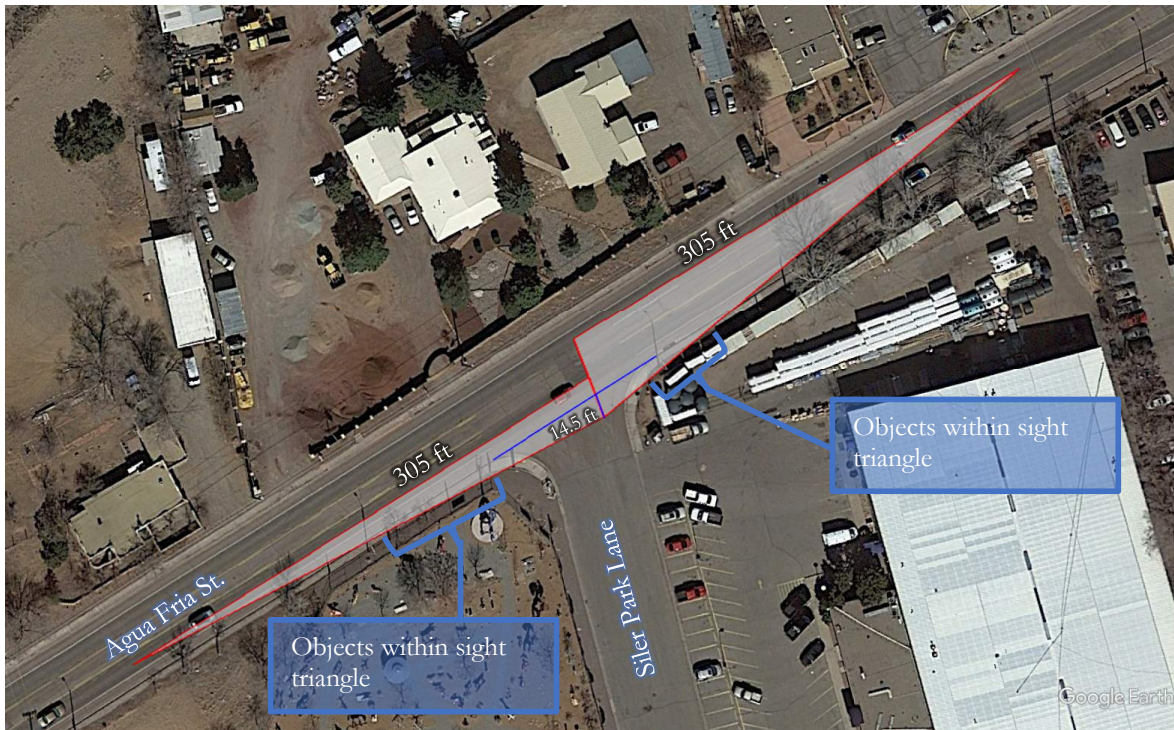


Figure 11: Intersection #2 – Agua Fria Street and Siler Park Lane Northbound Approach Sight Distance



### Intersection #3 – Agua Fria Street and Harrison Road

Six total crashes were reported at the intersection of Agua Fria Street and Harrison Road, three were reported as rear end, one as a collision with a fixed object, one as head-on, and one as a collision with a parked vehicle. The crash involving a cyclist was in 2013 and contributed to the driver disregarding the traffic signal, it occurred on a clear day during daylight, information provided did not indicate any strong influences. Two crashes were reported as injury with no fatalities and four were reported as property damage only. For this intersection, none of the crashes were alcohol related.



Figure 12: Intersection #3 – Agua Fria Street and Harrison Road – Crash Types and Crash Severity

### Intersection #3 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Harrison Road. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

#### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 13 shows the sight triangles for the Harrison Road northbound approach. There are no objects within the sight triangle. Figure 14 shows the sight triangles for the Boylan Lane southbound approach. There are no objects within the sight triangle.



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

**Figure 13** shows the sight triangles for the Harrison Road northbound approach. There are no objects within the sight triangle. **Figure 14** shows the sight triangles for the Boylan Lane southbound approach. A bus stop sign can be found within the sight triangle that is over 3-ft in height, however, it does not block the view of the driver.

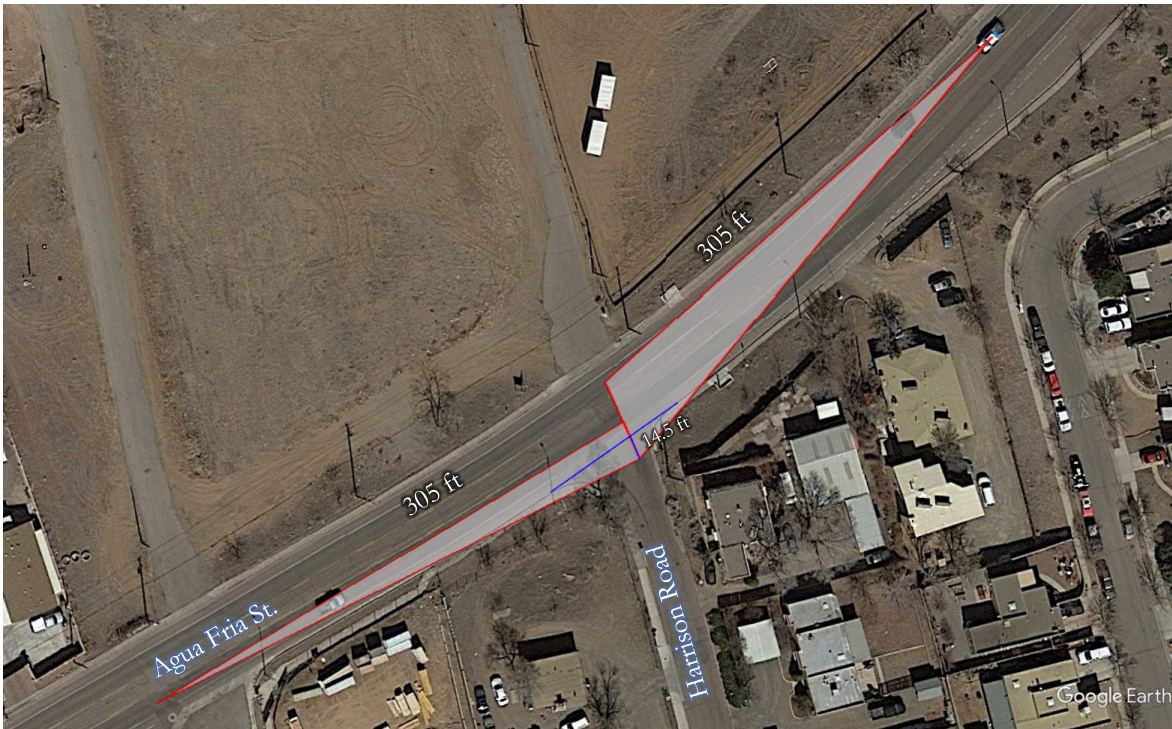


Figure 13: Intersection #3 – Agua Fria Street and Harrison Road Southbound Approach Sight Distance

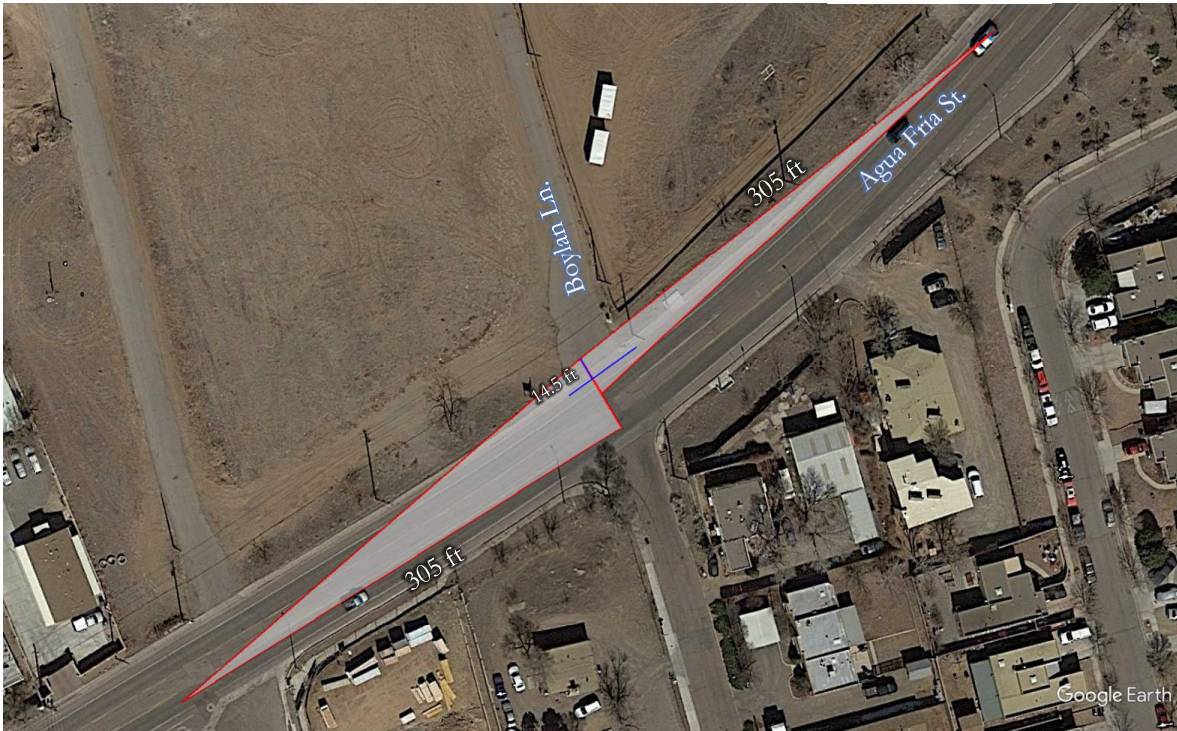


Figure 14: Intersection #3 – Agua Fria Street and Boylan Ln. Southbound Approach Sight Distance



## Intersection #4 – Agua Fria Street and La Cieneguita

Four total crashes were reported at the Agua Fria Street and La Cieneguita intersection, one was reported as rear end, one as head-on and one crash with no information regarding crash classification or analysis (left blank), and one as a collision with a parked vehicle. One crash was reported as injury with no fatalities and three were reported as property damage only. For this intersection, none of the crashes were alcohol related.



Figure 15: Intersection #4 – Agua Fria Street and La Cieneguita– Crash Types and Crash Severity

## Intersection #4 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and La Cieneguita. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 16 shows the sight triangles for the La Cieneguita northbound approach. There are no objects within the sight triangle.



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

**Figure 16** shows the sight triangles for the La Cieneguita northbound approach. There are no objects within the sight triangle.

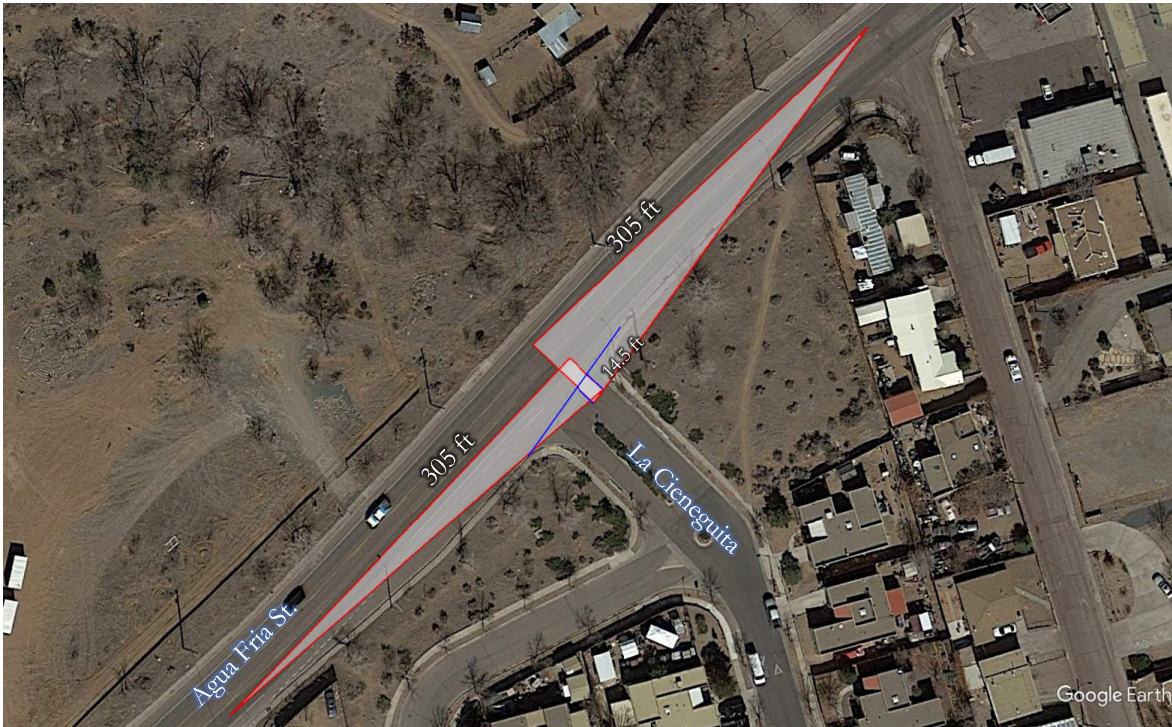


Figure 16: Intersection #4 – Agua Fria Street and La Cieneguita Northbound Approach Sight Distance



## Intersection #5 – Agua Fria Street and Maez Road

The intersection of Agua Fria Street and Maez Road had a total of sixteen (16) crashes. Seven crashes were reported as entering at an angle, five as rear end, two as sideswipe, one as a collision with a pedalcyclist and one crashes with no information regarding crash classification or analysis (left blank). The crash that involved a cyclist happened in 2016 with a contributing factor of driver inattention, it occurred on a clear day during daylight, information provided did not indicate any strong influences. Eight of these collisions were property damage only and eight were injury only. For this intersection, none of the crashes were alcohol related.

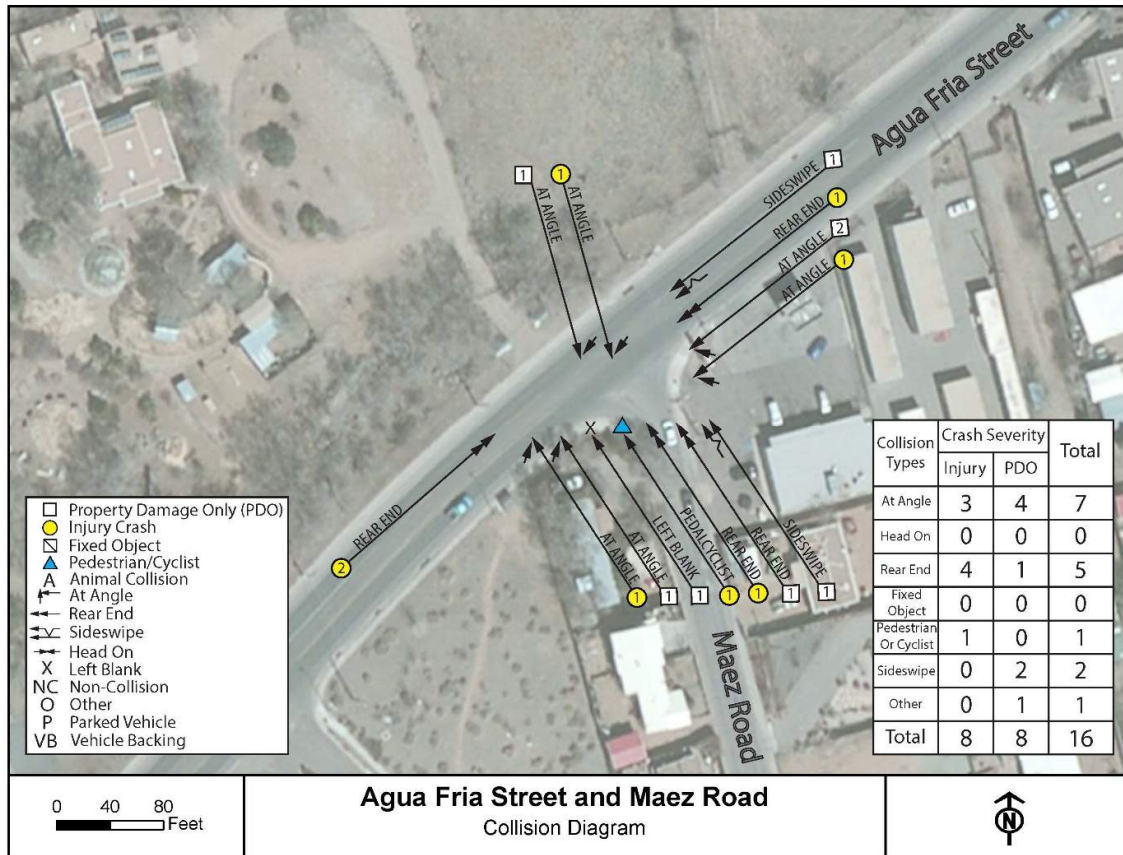


Figure 17: Intersection #5 – Agua Fria Street and Maez Road – Crash Types and Crash Severity

## Intersection #5 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Maez Road. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 18 shows the sight triangles for the Maez Road northbound approach. There are no objects within the sight triangle.



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

**Figure 18** shows the sight triangles for the Maez Road northbound approach. There are objects over 3-ft in height within the sight triangle, which reduces and inhibits the view of the sight triangle.



Figure 18: Intersection #5 – Agua Fria Street and Maez Road Northbound Approach Sight Distance



## Intersection #6 – Agua Fria Street and Camino Carlos Rael

Two crashes were observed at the intersection of Agua Fria Street and Camino Carlos Rael, one was reported as a rear end collision, and one as a collision with a fixed object. Both crashes were reported as property damage only. One of the crashes was alcohol related.



Figure 19: Intersection #6 – Agua Fria Street and Camino Carlos Rael – Crash Types and Crash Severity

## Intersection #6 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Camino Carlos Rael. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 20 shows the sight triangles for the Camino Carlos Rael southbound approach. There is a rock wall at the corner property that obstructs the sight triangle.

Agua Fria Street  
Corridor Study



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

**Figure 20** shows the sight triangles for the Camino Carlos Rael southbound approach. There is a wood fence at the corner property that obstructs the sight triangle (see **Figure 39**).

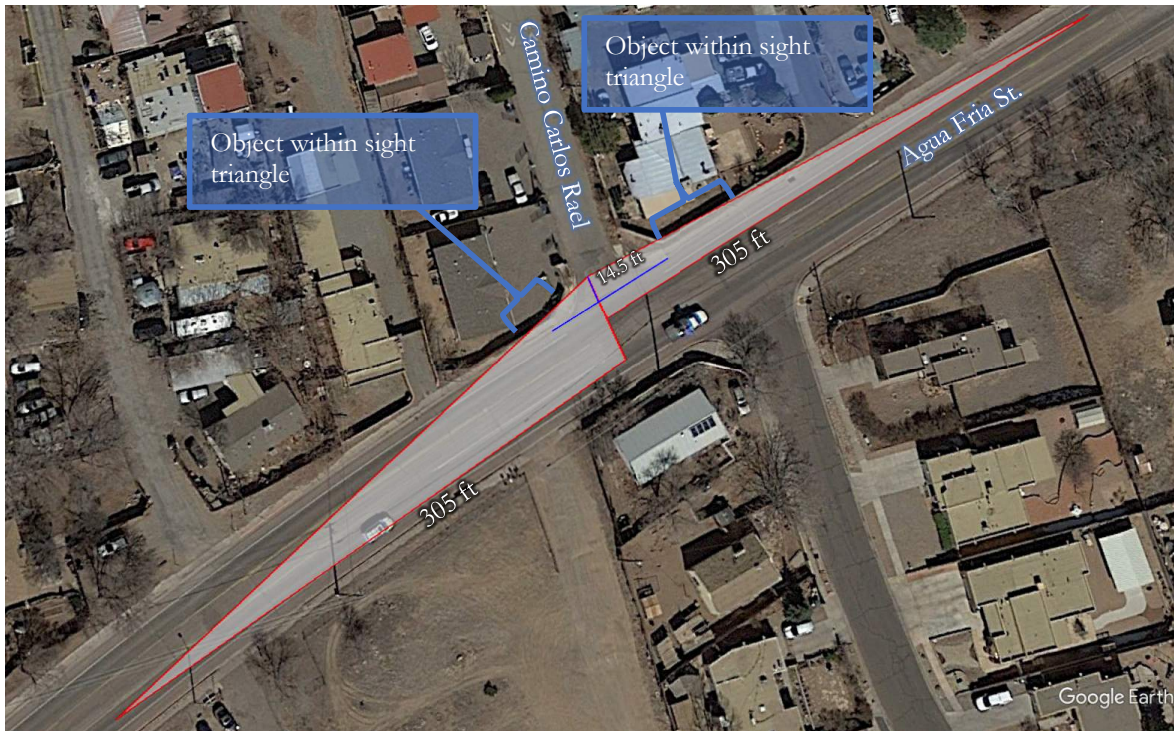


Figure 20: Intersection #6 – Agua Fria Street and Camino Carlos Rael Southbound Approach Sight Distance



## Intersection #7 – Agua Fria Street and Calle Carmilita

Six crashes were reported at the intersection of Agua Fria Street and Calle Carmilita. Two were reported as rear end, one as sideswipe, one as head-on, one as a collision with a fixed object and one crash had no information regarding crash classification or analysis (left blank). Five crashes were reported as injury with no fatalities and one was reported as property damage only. One crash at this intersection was alcohol related.

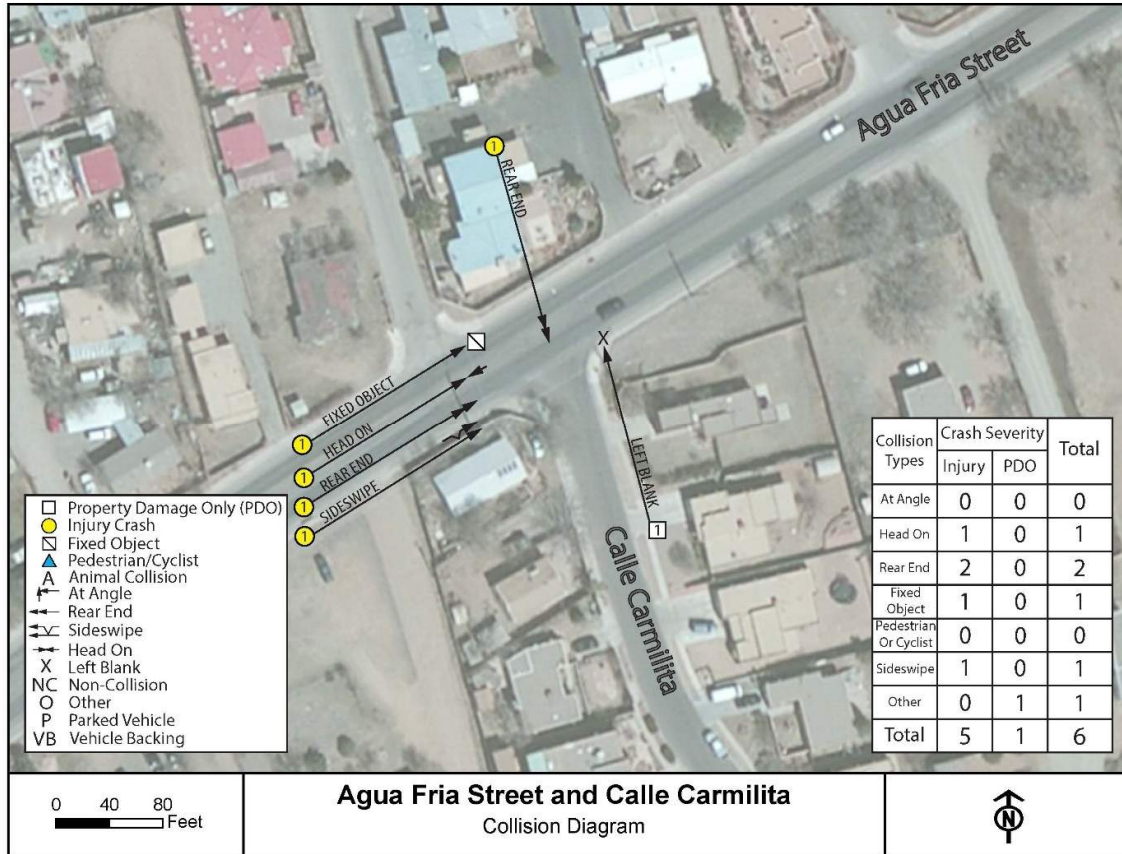


Figure 21: Intersection #7 – Agua Fria Street and Calle Carmilita – Crash Types and Crash Severity

## Intersection #7 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Calle Carmilita. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 22 shows the sight triangles for the Calle Carmilita northbound approach. There are no objects within the sight triangle.

Agua Fria Street  
Corridor Study



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 22 shows the sight triangles for the Calle Carmilita northbound approach. There is a concrete wall at the corner property that obstructs the sight triangle (see Figure 40).



Figure 22: Intersection #7 – Agua Fria Street and Calle Carmilita. Northbound Approach Sight Distance



## Intersection #8 – Agua Fria Street and Ferguson Lane

No crashes were reported at this intersection during the ten-year timeframe that was analyzed.

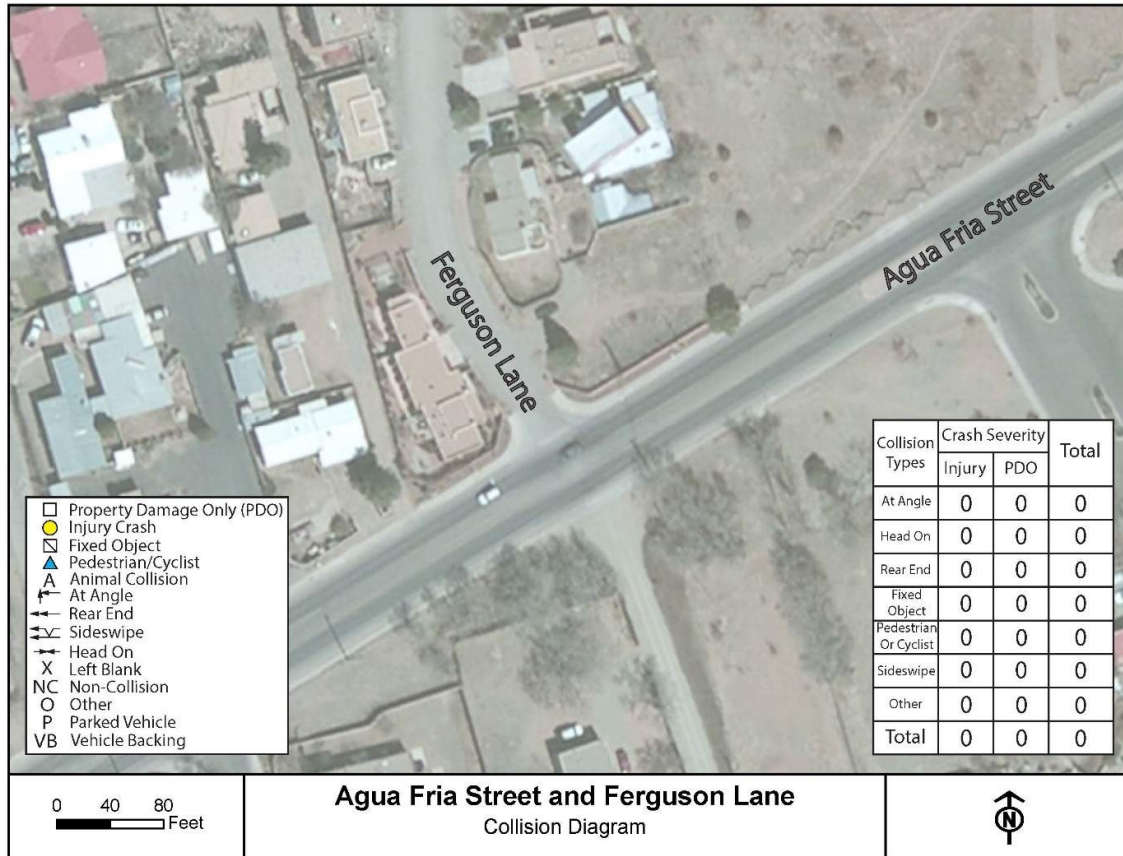


Figure 23: Intersection #8 – Agua Fria Street and Ferguson Lane – Crash Types and Crash Severity

## Intersection #8 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Ferguson Lane. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 24 shows the sight triangles for the Ferguson Lane southbound approach. There is a block wall that obstructs the sight triangle (see Figure 41). Figure 25 shows the sight triangles for the Agua Fria Street northbound approach.

### Case B2 – Right Turn from Stop

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Agua Fria Street  
Corridor Study



Figure 24 shows the sight triangles for the Ferguson Lane southbound approach. There is a block wall within the sight triangle. Figure 25 shows the sight triangles for the Agua Fria Street northbound approach. There are no objects within the sight triangle.



Figure 24: Intersection #8 – Agua Fria Street and Ferguson Lane Southbound Approach Sight Distance



Figure 25: Intersection #8 – Agua Fria Street and Agua Fria Street Northbound Approach Sight Distance



## Intersection #9 – Agua Fria Street and Camino de Chelly

The intersection of Agua Fria Street and Camino de Chelly had a total of fifteen (15) crashes. It was reported that 11 of the crashes were classified as rear end, two as sideswipe and two as a collision with a fixed object. Eight of the crashes were classified as injury crash only and seven as property damage crashes. For this intersection, none of the crashes were alcohol related.

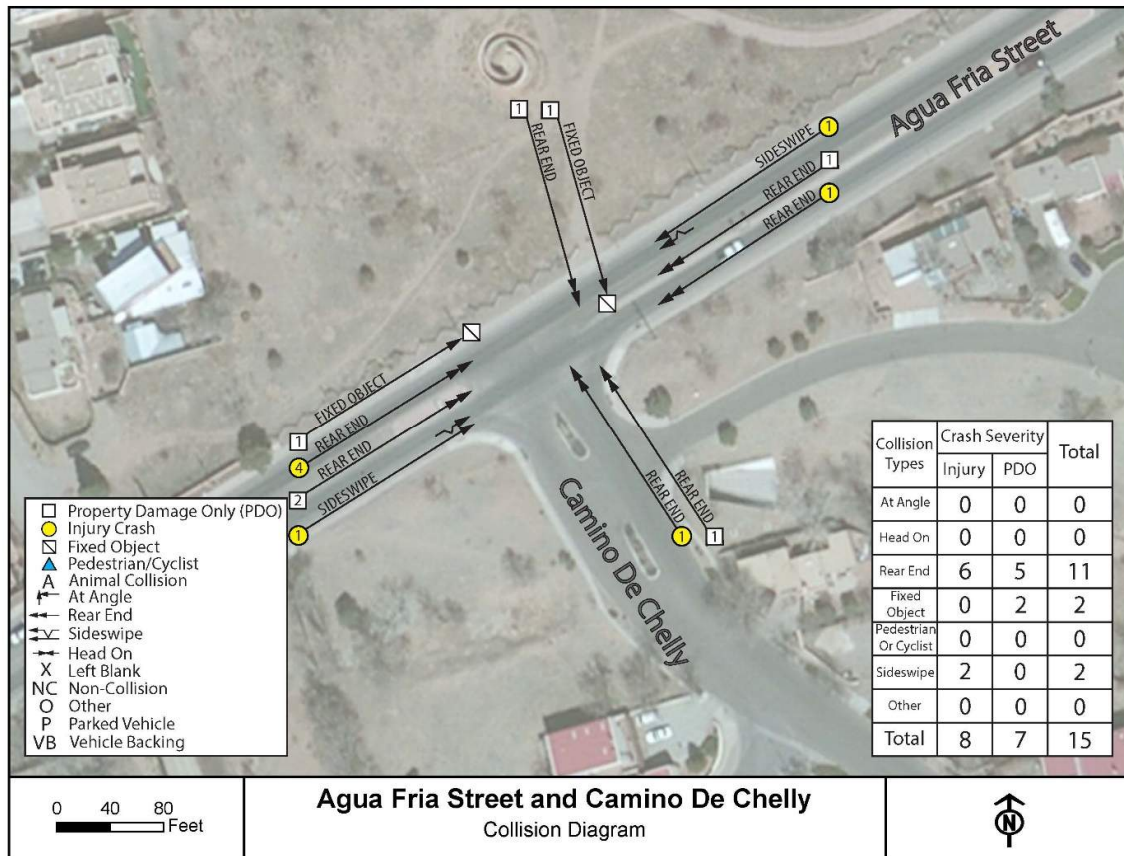


Figure 26: Intersection #9 – Agua Fria Street and Camino de Chelly – Crash Types and Crash Severity

## Intersection #9 - Sight Distance Analysis

Stopping sight distance was used instead of the intersection sight distance. Intersection Control Case B was used to determine the sight triangles at the intersection of Agua Fria Street and Camino de Chelly. The vertex of the sight triangle is measured 14.5-ft from the edge of traveled way as described in AASHTO.

### Case B1 – Left Turn from Stop

Case B1 is for a vehicle stopped at a minor street, trying to make a left-turn onto the major street. According to AASHTO (Table 9-7), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 27 shows the sight triangles for the Camino De Chelly northbound approach. There are no objects within the sight triangle.



**Case B2 – Right Turn from Stop**

Case B2 is for a vehicle stopped at a minor street, trying to make a right-turn onto the major street. According to AASHTO (Table 9-9), the stopping sight distance for a passenger car should be at least 305-ft for a roadway with a design speed of 40 mph.

Figure 27 shows the sight triangles for the Camino De Chelly northbound approach. There are no objects within the sight triangle.



Figure 27: Intersection #9 – Agua Fria Street and Camino De Chelly Northbound Approach Sight Distance



## Intersection #10 – Agua Fria Street and Osage Avenue

The intersection of Agua Fria Street and Osage Avenue had a total of 86 reported crashes. From the crash data, it was reported that 68 of the crashes were rear end, eight crashes were entering at an angle, six crashes were with fixed objects, and two had no information regarding crash classification or analysis (left blank). Out of the total crashes, 63 of the crashes were reported at property damage only and 23 were reported at injury only. Six crashes at this intersection were alcohol related.

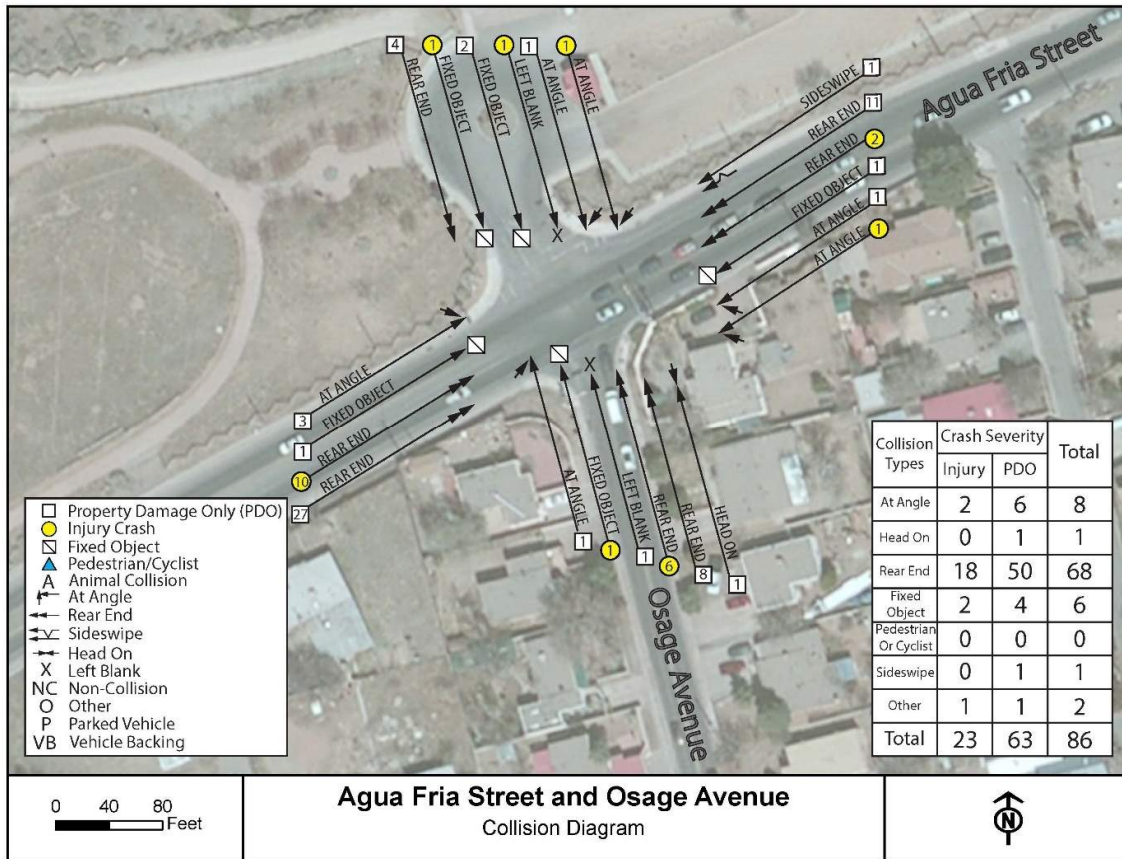
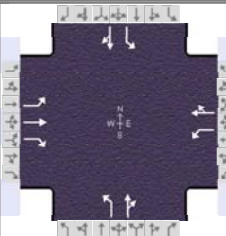


Figure 28: Intersection #10 – Agua Fria Street and Osage Avenue – Crash Types and Crash Severity

**APPENDIX D**  
**2027 NO BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	BHI			Duration, h	0.250		
Analyst	MG	Analysis Date	Apr 9, 2024	Area Type	Other		
Jurisdiction	SANTA FE	Time Period	AM PEAK HOUR	PHF	0.96		
Urban Street	Agua Fria Street	Analysis Year	2027	Analysis Period	1 > 7:00		
Intersection	Agua Fria & Siler Road	File Name	1_2027NBAM AF-S.xus				
Project Description	NO BUILD						



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	108	342	97	127	214	71	46	248	129	110	412	124

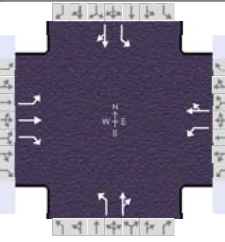
Signal Information				Signal Timing (s)												
Cycle, s	67.5	Reference Phase	2													
Offset, s	0	Reference Point	End	Green	3.0	1.5	24.1	5.5	0.2	16.3						
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.0	0.0	3.0	3.0	0.0	4.0						
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0	1.0	1.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	9.7	21.5	9.5	21.3	7.0	28.1	8.4	29.6
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.3	4.1	4.3	4.2	4.4	4.2	4.4
Queue Clearance Time ( g <sub>s</sub> ), s	6.2	13.9	5.6	12.0	3.1	14.4	4.7	20.8
Green Extension Time ( g <sub>e</sub> ), s	0.2	2.5	0.3	2.6	0.1	4.8	0.3	4.7
Phase Call Probability	0.88	1.00	0.92	1.00	0.59	1.00	0.88	1.00
Max Out Probability	0.00	0.19	0.00	0.12	0.00	0.00	0.00	0.01

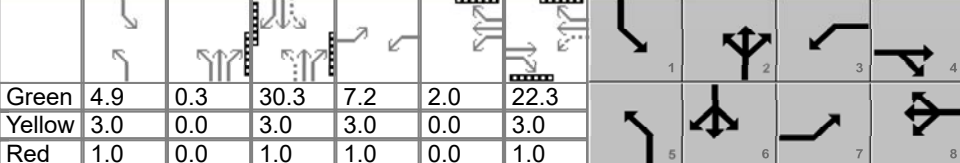
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	113	356	101	132	297		48	393		115	558	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1818		1810	1776		1781	1810	
Queue Service Time ( g <sub>s</sub> ), s	4.2	11.9	3.5	3.6	10.0		1.1	12.4		2.7	18.8	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.2	11.9	3.5	3.6	10.0		1.1	12.4		2.7	18.8	
Green Ratio ( g/C )	0.08	0.24	0.24	0.32	0.24		0.40	0.36		0.42	0.38	
Capacity ( c ), veh/h	151	460	387	293	438		250	635		399	686	
Volume-to-Capacity Ratio ( X )	0.747	0.774	0.261	0.451	0.678		0.192	0.618		0.287	0.813	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	91	228	56	66	190		20	214		46	304	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	3.6	9.0	2.2	2.6	7.6		0.8	8.5		1.8	12.1	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	0.73	1.82	0.45	0.55	1.59		0.15	1.58		0.51	3.38	
Uniform Delay ( d <sub>1</sub> ), s/veh	30.3	23.9	20.7	18.4	23.3		15.3	17.9		13.3	18.9	
Incremental Delay ( d <sub>2</sub> ), s/veh	7.2	3.1	0.4	1.1	2.2		0.4	1.2		0.4	2.4	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	37.5	26.9	21.0	19.5	25.5		15.7	19.1		13.7	21.3	
Level of Service ( LOS )	D	C	C	B	C		B	B		B	C	
Approach Delay, s/veh / LOS	27.9		C	23.7		C	18.8		B	20.0		B
Intersection Delay, s/veh / LOS	22.6						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.92	B	1.90	B	2.09	B
Bicycle LOS Score / LOS	1.43	A	1.20	A	1.21	A	1.60	B

## HCS Signalized Intersection Results Summary

General Information					Intersection Information					
Agency	BHI				Duration, h	0.250				
Analyst	MG	Analysis Date	Apr 9, 2024		Area Type	Other				
Jurisdiction	SANTA FE	Time Period	PM PEAK HOUR		PHF	0.93				
Urban Street	Agua Fria Street		Analysis Year	2027	Analysis Period	1 > 7:00				
Intersection	Agua Fria & Siler Road		File Name	1_2027NBPM AF-S.xus						
Project Description	NO BUILD									

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	111	268	70	193	354	77	109	364	145	100	291	169

Signal Information													
Cycle, s	83.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
	Green	4.9	0.3	30.3	7.2	2.0	22.3						
	Yellow	3.0	0.0	3.0	3.0	0.0	3.0						
	Red	1.0	0.0	1.0	1.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	11.2	26.3	13.3	28.3	9.2	34.5	8.9	34.3
Change Period, ( $Y+R_c$ ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( $MAH$ ), s	4.1	4.4	4.1	4.4	4.2	4.5	4.2	4.5
Queue Clearance Time ( $g_s$ ), s	7.5	13.2	8.8	22.1	5.3	25.1	5.1	22.5
Green Extension Time ( $g_e$ ), s	0.3	3.0	0.5	1.1	0.3	5.4	0.3	5.5
Phase Call Probability	0.94	1.00	0.99	1.00	0.93	1.00	0.92	1.00
Max Out Probability	0.00	0.20	0.01	1.00	0.00	0.05	0.00	0.03

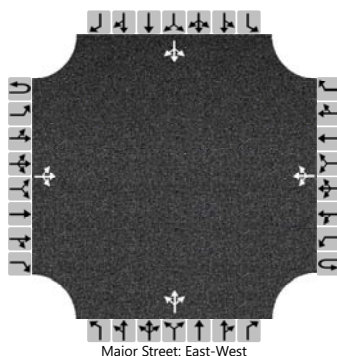
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( $v$ ), veh/h	119	288	75	208	463		117	547		108	495	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1781	1885	1585	1810	1841		1810	1793		1781	1768	
Queue Service Time ( $g_s$ ), s	5.5	11.2	3.1	6.8	20.1		3.3	23.1		3.1	20.5	
Cycle Queue Clearance Time ( $g_c$ ), s	5.5	11.2	3.1	6.8	20.1		3.3	23.1		3.1	20.5	
Green Ratio ( $g/C$ )	0.09	0.26	0.26	0.37	0.28		0.43	0.37		0.42	0.36	
Capacity ( $c$ ), veh/h	156	484	407	424	517		309	660		250	645	
Volume-to-Capacity Ratio ( $X$ )	0.767	0.596	0.185	0.489	0.897		0.380	0.829		0.431	0.767	
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)	120	217	52	126	404		61	378		58	333	
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)	4.7	8.6	2.0	5.0	16.2		2.4	15.0		2.3	13.2	
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)	0.96	1.73	0.42	1.05	3.37		0.45	2.80		0.65	3.70	
Uniform Delay ( $d_1$ ), s/veh	37.1	27.1	24.1	19.7	28.8		17.5	23.9		18.9	23.3	
Incremental Delay ( $d_2$ ), s/veh	7.7	1.3	0.2	0.9	16.8		0.8	3.5		1.2	2.0	
Initial Queue Delay ( $d_3$ ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( $d$ ), s/veh	44.8	28.4	24.4	20.5	45.6		18.2	27.4		20.1	25.3	
Level of Service (LOS)	D	C	C	C	D		B	C		C	C	
Approach Delay, s/veh / LOS	31.8		C	37.9		D	25.8		C	24.3		C
Intersection Delay, s/veh / LOS	30.0						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.92	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.28	A	1.59	B	1.58	B	1.48	A

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	HARRISON ROAD		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		3	617	6		33	388	2		6	0	40		5	0	10
Percent Heavy Vehicles (%)		2				1				4	4	4		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.11				7.14	6.54	6.24		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.21				2.21				3.54	4.04	3.34		3.50	4.00	3.30

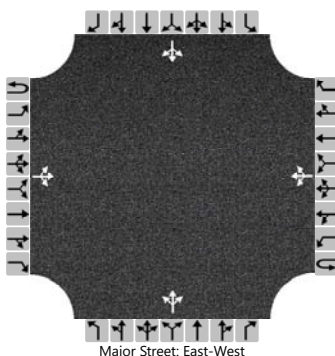
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				35					48					16
Capacity, c (veh/h)		1151				934					431					437
v/c Ratio		0.00				0.04					0.11					0.04
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.1					0.4					0.1
95% Queue Length, Q <sub>95</sub> (ft)											10.3					2.5
Control Delay (s/veh)		8.1	0.0	0.0		9.0	0.4	0.4			14.4					13.6
Level of Service (LOS)		A	A	A		A	A	A			B					B
Approach Delay (s/veh)		0.1			1.1					14.4			13.6			
Approach LOS		A			A					B			B			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	HARRISON ROAD		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		13	594	8		47	612	0		7	1	93		1	3	4
Percent Heavy Vehicles (%)		1				1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.11				4.11				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.21				3.50	4.00	3.30		3.50	4.00	3.30

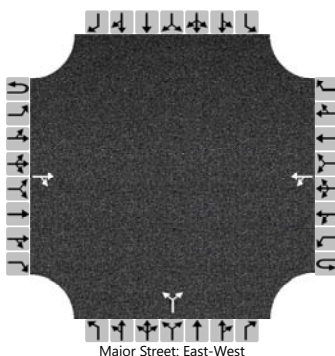
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		14				50					107					9
Capacity, c (veh/h)		942				950					442					299
v/c Ratio		0.01				0.05					0.24					0.03
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2					0.9					0.1
95% Queue Length, Q <sub>95</sub> (ft)											22.5					2.5
Control Delay (s/veh)		8.9	0.2	0.2		9.0	0.7	0.7			15.7					17.4
Level of Service (LOS)		A	A	A		A	A	A			C					C
Approach Delay (s/veh)		0.4				1.3				15.7				17.4		
Approach LOS		A				A				C				C		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			574	7		13	385			9		35				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.10				6.40		6.20				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.20				3.50		3.30				

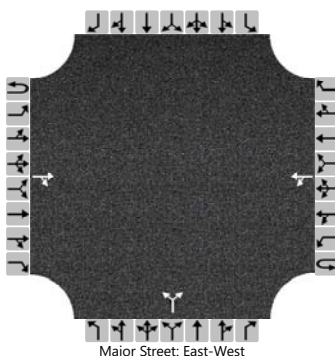
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						47				
Capacity, c (veh/h)						970						467				
v/c Ratio						0.01						0.10				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.3				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						7.5				
Control Delay (s/veh)						8.8	0.2					13.6				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)					0.4				13.6							
Approach LOS					A				B							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.93		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			516	3		13	633			2		59				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

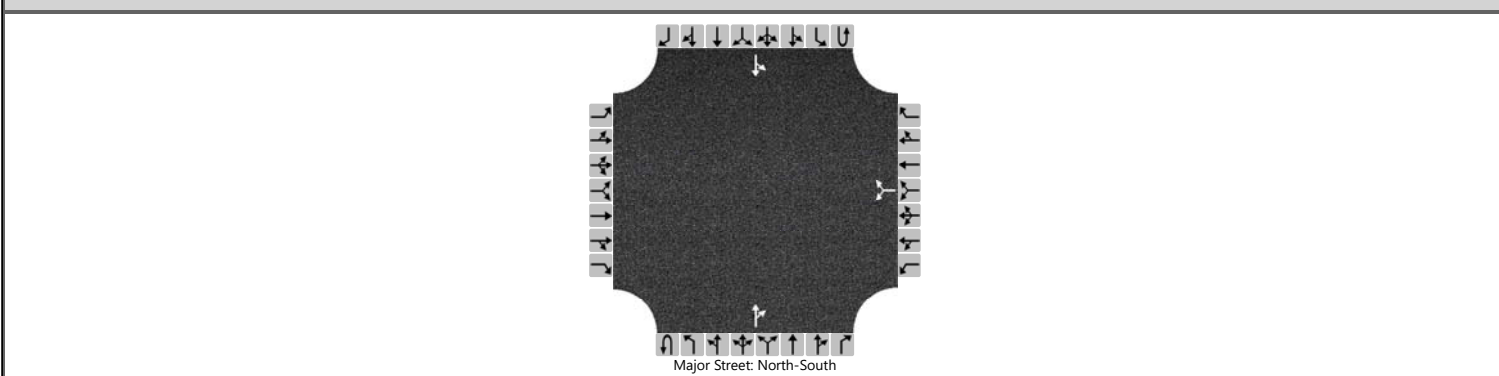
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						66				
Capacity, c (veh/h)						1021						523				
v/c Ratio						0.01						0.13				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.4				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						10.0				
Control Delay (s/veh)						8.6	0.2					12.9				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)						0.4					12.9					
Approach LOS						A					B					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	SILER ROAD & SILER PARK LANE				
Agency/Co.	BHI	Jurisdiction	SANTA FE				
Date Performed	4/5/2024	East/West Street	SILER ROAD				
Analysis Year	2027	North/South Street	SILER PARK LANE				
Time Analyzed	AM PEAK HOUR	Peak Hour Factor	0.91				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						33		13			467	73		13	630	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.41		6.21						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.51		3.31						2.21		

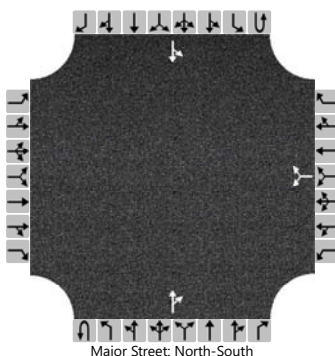
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						51								14		
Capacity, c (veh/h)						359								990		
v/c Ratio						0.14								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.5								0.0		
95% Queue Length, Q <sub>95</sub> (ft)						12.6								0.0		
Control Delay (s/veh)						16.7								8.7	0.2	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)					16.7								0.4			
Approach LOS					C								A			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						54		19			628	74		11	559	
Percent Heavy Vehicles (%)						0		0						1		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type   Storage						Left + Thru									1	

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.21		

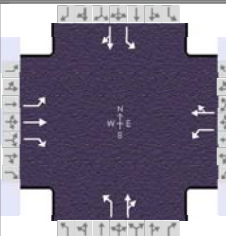
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						80								12		
Capacity, c (veh/h)						325								850		
v/c Ratio						0.25								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						1.0								0.0		
95% Queue Length, Q <sub>95</sub> (ft)						25.1								0.0		
Control Delay (s/veh)						19.7								9.3	0.2	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)						19.7								0.4		
Approach LOS						C								A		

**APPENDIX E**  
**2027 BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS Signalized Intersection Results Summary

General Information					Intersection Information			
Agency	BHI				Duration, h	0.250		
Analyst	MG	Analysis Date	Apr 9, 2024		Area Type	Other		
Jurisdiction	SANTA FE	Time Period	AM PEAK HOUR		PHF	0.96		
Urban Street	Agua Fria Street		Analysis Year	2027	Analysis Period	1 > 7:00		
Intersection	Agua Fria & Siler Road		File Name	1_2027BAM AF-S.xus				
Project Description	BUILD							



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	108	344	97	152	220	73	46	248	137	111	412	124

Signal Information				Phase Timing (s)													
Cycle, s	70.0	Reference Phase	2	Green	3.0	1.6	24.8	5.9	0.7	18.0	Yellow	3.0	0.0	3.0	3.0	3.0	3.0
Offset, s	0	Reference Point	End	Red	1.0	0.0	1.0	1.0	0.0	1.0	Red	1.0	0.0	1.0	1.0	1.0	1.0
Uncoordinated	Yes	Simult. Gap E/W	On														
Force Mode	Fixed	Simult. Gap N/S	On														

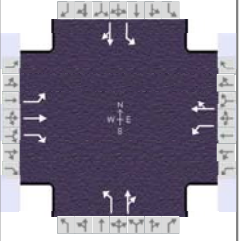
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	9.9	22.0	10.6	22.7	7.0	28.8	8.6	30.4
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.3	4.1	4.3	4.2	4.4	4.2	4.4
Queue Clearance Time ( g <sub>s</sub> ), s	6.3	14.5	6.5	12.6	3.1	15.3	4.8	21.5
Green Extension Time ( g <sub>e</sub> ), s	0.2	2.4	0.4	2.6	0.1	4.9	0.3	4.8
Phase Call Probability	0.89	1.00	0.95	1.00	0.61	1.00	0.90	1.00
Max Out Probability	0.00	0.22	0.00	0.14	0.00	0.01	0.00	0.02

Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	113	358	101	158	305		48	401		116	558	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1818		1810	1772		1781	1810	
Queue Service Time ( g <sub>s</sub> ), s	4.3	12.5	3.6	4.5	10.6		1.1	13.3		2.8	19.5	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	4.3	12.5	3.6	4.5	10.6		1.1	13.3		2.8	19.5	
Green Ratio ( g/C )	0.08	0.24	0.24	0.34	0.25		0.40	0.35		0.42	0.38	
Capacity ( c ), veh/h	150	458	385	340	460		243	628		385	683	
Volume-to-Capacity Ratio ( X )	0.749	0.782	0.262	0.465	0.664		0.197	0.638		0.301	0.818	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	95	240	59	81	198		21	228		49	317	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	3.7	9.5	2.3	3.2	7.9		0.8	9.0		1.9	12.6	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	0.76	1.92	0.47	0.67	1.65		0.15	1.68		0.55	3.52	
Uniform Delay ( d <sub>1</sub> ), s/veh	31.4	24.8	21.5	18.2	23.6		16.0	18.9		14.0	19.7	
Incremental Delay ( d <sub>2</sub> ), s/veh	7.3	3.7	0.4	1.0	2.0		0.4	1.3		0.4	2.5	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	38.7	28.5	21.8	19.2	25.6		16.4	20.2		14.4	22.2	
Level of Service ( LOS )	D	C	C	B	C		B	C		B	C	
Approach Delay, s/veh / LOS	29.3	C		23.4	C		19.8	B		20.8	C	
Intersection Delay, s/veh / LOS	23.4						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.92	B	1.90	B	2.09	B
Bicycle LOS Score / LOS	1.43	A	1.25	A	1.23	A	1.60	B

## HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BHI			Duration, h	0.250
Analyst	MG	Analysis Date	Apr 9, 2024	Area Type	Other
Jurisdiction	SANTA FE	Time Period	PM PEAK HOUR	PHF	0.93
Urban Street	Agua Fria Street	Analysis Year	2027	Analysis Period	1 > 7:00
Intersection	Agua Fria & Siler Road	File Name	1_2027BPM AF-S.xus		
Project Description	BUILD				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	111	274	70	207	358	79	109	364	171	102	291	169

Signal Information				Signal Timing Diagram															
Cycle, s	87.2	Reference Phase	2																
Offset, s	0	Reference Point	End																
Uncoordinated	Yes	Simult. Gap E/W	On																
Force Mode	Fixed	Simult. Gap N/S	On																
		Green		5.1	0.2	33.0	7.6	2.6	22.6										
		Yellow		3.0	0.0	3.0	3.0	0.0	3.0										
		Red		1.0	0.0	1.0	1.0	0.0	1.0										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	11.6	26.6	14.2	29.3	9.3	37.3	9.1	37.0
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.4	4.1	4.4	4.2	4.5	4.2	4.5
Queue Clearance Time ( g <sub>s</sub> ), s	7.7	14.2	9.7	23.6	5.4	27.7	5.2	23.1
Green Extension Time ( g <sub>e</sub> ), s	0.3	2.9	0.5	0.6	0.3	5.5	0.3	5.7
Phase Call Probability	0.94	1.00	1.00	1.00	0.94	1.00	0.93	1.00
Max Out Probability	0.00	0.26	0.02	1.00	0.00	0.08	0.00	0.04

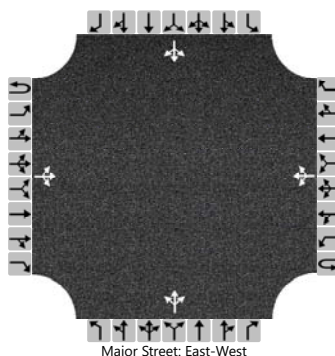
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	119	295	75	223	470		117	575		110	495	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1840		1810	1783		1781	1768	
Queue Service Time ( g <sub>s</sub> ), s	5.7	12.2	3.3	7.7	21.6		3.4	25.7		3.2	21.1	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	5.7	12.2	3.3	7.7	21.6		3.4	25.7		3.2	21.1	
Green Ratio ( g/C )	0.09	0.25	0.25	0.37	0.28		0.44	0.38		0.44	0.38	
Capacity ( c ), veh/h	155	467	393	414	512		320	680		241	670	
Volume-to-Capacity Ratio ( X )	0.772	0.630	0.191	0.538	0.918		0.366	0.846		0.455	0.738	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	127	236	56	144	444		63	421		61	340	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	5.0	9.4	2.2	5.8	17.8		2.5	16.7		2.4	13.5	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	1.02	1.89	0.45	1.20	3.70		0.46	3.12		0.68	3.78	
Uniform Delay ( d <sub>1</sub> ), s/veh	39.0	29.3	25.9	20.8	30.6		17.5	24.7		19.7	23.4	
Incremental Delay ( d <sub>2</sub> ), s/veh	7.9	1.9	0.2	1.1	21.1		0.7	4.8		1.3	1.6	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	47.0	31.1	26.2	21.9	51.6		18.2	29.5		21.0	25.0	
Level of Service ( LOS )	D	C	C	C	D		B	C		C	C	
Approach Delay, s/veh / LOS	34.2		C	42.1		D	27.6		C	24.3		C
Intersection Delay, s/veh / LOS	32.1						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.92	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.29	A	1.63	B	1.63	B	1.48	A

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	HARRISON ROAD		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		3	626	12		33	391	2		8	0	40		5	0	10	
Percent Heavy Vehicles (%)		2				1				4	4	4		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type   Storage					Left + Thru								1				

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.11				7.14	6.54	6.24		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.21				2.21				3.54	4.04	3.34		3.50	4.00	3.30

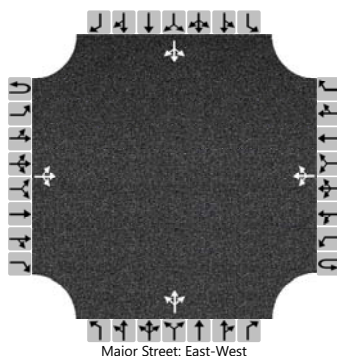
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		3				35					51					16
Capacity, c (veh/h)		1148				922					416					432
v/c Ratio		0.00				0.04					0.12					0.04
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.1					0.4					0.1
95% Queue Length, Q <sub>95</sub> (ft)											10.3					2.5
Control Delay (s/veh)		8.1	0.0	0.0		9.1	0.4	0.4			14.8					13.7
Level of Service (LOS)		A	A	A		A	A	A			B					B
Approach Delay (s/veh)		0.1			1.1					14.8			13.7			
Approach LOS		A			A					B			B			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	HARRISON ROAD		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0	
Configuration			LTR				LTR				LTR				LTR		
Volume (veh/h)		13	599	12		47	620	0		13	1	93		1	3	4	
Percent Heavy Vehicles (%)		1				1				0	0	0		0	0	0	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type   Storage					Left + Thru						1						

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.11				4.11				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.21				3.50	4.00	3.30		3.50	4.00	3.30

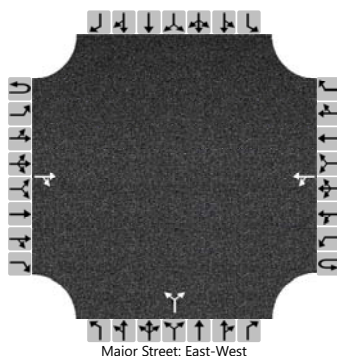
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		14				50					114					9	
Capacity, c (veh/h)		936				942					414					295	
v/c Ratio		0.01				0.05					0.27					0.03	
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2					1.1					0.1	
95% Queue Length, Q <sub>95</sub> (ft)											27.5					2.5	
Control Delay (s/veh)		8.9	0.2	0.2		9.0	0.8	0.8			16.9					17.6	
Level of Service (LOS)		A	A	A		A	A	A			C					C	
Approach Delay (s/veh)		0.4				1.3				16.9					17.6		
Approach LOS		A				A				C					C		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			584	7		13	419			9		35				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

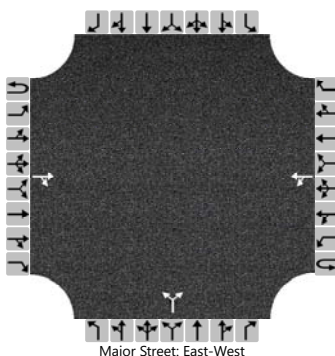
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						47				
Capacity, c (veh/h)						962						458				
v/c Ratio						0.01						0.10				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.3				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						7.5				
Control Delay (s/veh)						8.8	0.2					13.8				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)					0.4				13.8							
Approach LOS					A				B							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.93		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			550	3		13	653			2		59				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.10				6.40		6.20				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.20				3.50		3.30				

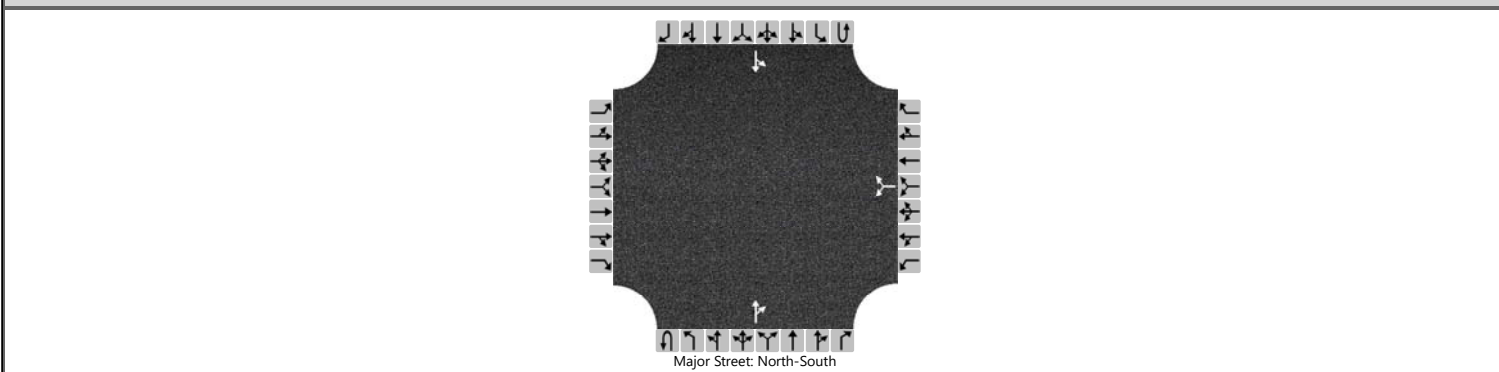
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						14						66				
Capacity, c (veh/h)						990						499				
v/c Ratio						0.01						0.13				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.5				
95% Queue Length, Q <sub>95</sub> (ft)						0.0						12.5				
Control Delay (s/veh)						8.7	0.2					13.3				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)					0.4				13.3							
Approach LOS					A				B							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						33		13			475	73		13	656	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type   Storage						Left + Thru						1				

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.41		6.21						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.51		3.31						2.21		

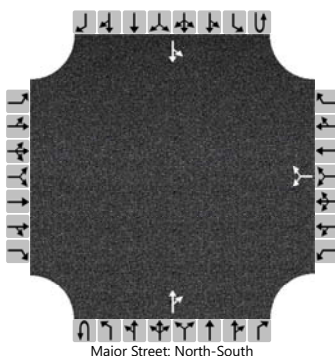
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						51								14		
Capacity, c (veh/h)						350								982		
v/c Ratio						0.14								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.5								0.0		
95% Queue Length, Q <sub>95</sub> (ft)						12.6								0.0		
Control Delay (s/veh)						17.0								8.7	0.2	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)						17.0								0.4		
Approach LOS						C								A		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2027			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration							LR					TR		LT			
Volume (veh/h)						54		19			654	74		11	574		
Percent Heavy Vehicles (%)						0		0						1			
Proportion Time Blocked																	
Percent Grade (%)						0											
Right Turn Channelized																	
Median Type   Storage						Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.40		6.20						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.50		3.30						2.21		

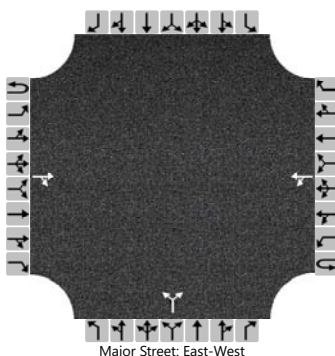
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						80								12		
Capacity, c (veh/h)						314								829		
v/c Ratio						0.26								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						1.0								0.0		
95% Queue Length, Q <sub>95</sub> (ft)						25.1								0.0		
Control Delay (s/veh)						20.4								9.4	0.2	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)						20.4								0.4		
Approach LOS						C								A		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA-NORTH SITE ENTRANCE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	NORTH SITE ENTRANCE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			620	11		4	391			34		14				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.12					6.42		6.22			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

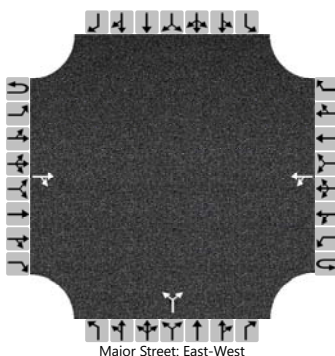
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					4						51					
Capacity, c (veh/h)					919						390					
v/c Ratio					0.00						0.13					
95% Queue Length, Q <sub>95</sub> (veh)					0.0						0.4					
95% Queue Length, Q <sub>95</sub> (ft)					0.0						10.2					
Control Delay (s/veh)					8.9	0.1					15.6					
Level of Service (LOS)					A	A					C					
Approach Delay (s/veh)					0.1						15.6					
Approach LOS					A						C					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA-NORTH SITE ENTRANCE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2027			North/South Street	NORTH SITE ENTRANCE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			610	34		14	613			20		8				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage						Left Only										1

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

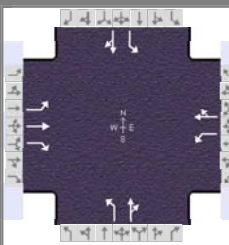
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					15					30						
Capacity, c (veh/h)					908					335						
v/c Ratio					0.02					0.09						
95% Queue Length, Q <sub>95</sub> (veh)					0.0					0.3						
95% Queue Length, Q <sub>95</sub> (ft)					0.0					7.6						
Control Delay (s/veh)					9.0	0.2				16.8						
Level of Service (LOS)					A	A				C						
Approach Delay (s/veh)					0.4				16.8							
Approach LOS					A				C							

**APPENDIX F**  
**2042 NO BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	BHI			Duration, h	0.250
Analyst	MG	Analysis Date	Apr 9, 2024	Area Type	Other
Jurisdiction	SANTA FE	Time Period	AM PEAK HOUR	PHF	0.96
Urban Street	Agua Fria Street	Analysis Year	2042	Analysis Period	1 > 7:00
Intersection	Agua Fria & Siler Road	File Name	1_2042NBAM AF-S.xus		
Project Description	NO BUILD				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( $v$ ), veh/h	128	404	114	154	254	84	55	293	153	130	486	146

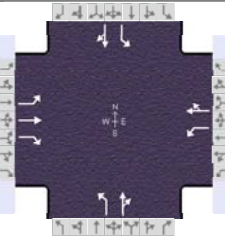
Signal Information				Phase Diagrams											
Cycle, s	87.8	Reference Phase	2												
Offset, s	0	Reference Point	End	Green	3.8	2.3	34.4	7.9	0.5	21.9	1	2	3	4	
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	3.0	0.0	3.0	3.0	0.0	4.0	5	6	7	8	
Force Mode	Fixed	Simult. Gap N/S	On	Red	1.0	0.0	1.0	1.0	0.0	1.0					

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	12.4	27.5	11.9	26.9	7.8	38.4	10.1	40.7
Change Period, ( $Y+R_c$ ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( $MAH$ ), s	4.1	4.3	4.1	4.3	4.2	4.4	4.2	4.4
Queue Clearance Time ( $g_s$ ), s	8.4	20.8	7.6	17.8	3.6	21.0	5.9	31.3
Green Extension Time ( $g_e$ ), s	0.3	1.6	0.4	2.3	0.1	5.9	0.4	5.3
Phase Call Probability	0.96	1.00	0.98	1.00	0.75	1.00	0.96	1.00
Max Out Probability	0.00	1.00	0.00	0.56	0.00	0.03	0.00	0.14

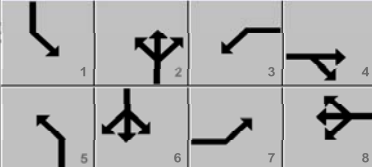
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( $v$ ), veh/h	133	421	119	160	352		57	465		135	658	
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln	1781	1885	1585	1810	1819		1810	1776		1781	1810	
Queue Service Time ( $g_s$ ), s	6.4	18.8	5.3	5.6	15.8		1.6	19.0		3.9	29.3	
Cycle Queue Clearance Time ( $g_c$ ), s	6.4	18.8	5.3	5.6	15.8		1.6	19.0		3.9	29.3	
Green Ratio ( $g/C$ )	0.10	0.26	0.26	0.34	0.25		0.44	0.39		0.46	0.42	
Capacity ( $c$ ), veh/h	171	482	406	263	455		209	696		369	756	
Volume-to-Capacity Ratio ( $X$ )	0.780	0.872	0.293	0.610	0.775		0.275	0.668		0.367	0.870	
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)	142	383	90	110	300		31	311		71	478	
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)	5.6	15.2	3.6	4.4	12.0		1.2	12.4		2.8	19.0	
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)	1.13	3.06	0.72	0.92	2.50		0.23	2.31		0.79	5.32	
Uniform Delay ( $d_1$ ), s/veh	38.9	31.3	26.3	23.7	30.7		19.7	22.0		16.1	23.4	
Incremental Delay ( $d_2$ ), s/veh	7.5	13.7	0.4	2.3	6.7		0.7	1.3		0.6	6.3	
Initial Queue Delay ( $d_3$ ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( $d$ ), s/veh	46.4	45.0	26.7	26.0	37.4		20.4	23.4		16.7	29.7	
Level of Service (LOS)	D	D	C	C	D		C	C		B	C	
Approach Delay, s/veh / LOS	42.1		D	33.8		C	23.0		C	27.5		C
Intersection Delay, s/veh / LOS	31.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.92	B	1.93	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.60	B	1.33	A	1.35	A	1.80	B

## HCS Signalized Intersection Results Summary

General Information					Intersection Information							
Agency	BHI				Duration, h	0.250						
Analyst	MG	Analysis Date	Apr 9, 2024		Area Type	Other						
Jurisdiction	SANTA FE		Time Period	PM PEAK HOUR	PHF	0.93						
Urban Street	Agua Fria Street		Analysis Year	2042	Analysis Period	1 > 7:00						
Intersection	Agua Fria & Siler Road		File Name	1_2042NBPM AF-S.xus								
Project Description	NO BUILD											

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	131	315	82	226	416	91	128	427	171	117	342	198

Signal Information													
Cycle, s	97.8	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
	Green	6.1	0.3	39.7	9.7	2.6	23.4						
	Yellow	3.0	0.0	3.0	3.0	0.0	3.0						
	Red	1.0	0.0	1.0	1.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	13.7	27.4	16.2	30.0	10.4	44.0	10.1	43.7
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.4	4.1	4.4	4.2	4.5	4.2	4.5
Queue Clearance Time ( g <sub>s</sub> ), s	9.6	18.5	11.7	27.0	6.3	34.3	6.0	30.4
Green Extension Time ( g <sub>e</sub> ), s	0.3	2.5	0.5	0.0	0.3	5.7	0.4	6.2
Phase Call Probability	0.98	1.00	1.00	1.00	0.98	1.00	0.97	1.00
Max Out Probability	0.01	0.69	0.07	1.00	0.00	0.28	0.00	0.18

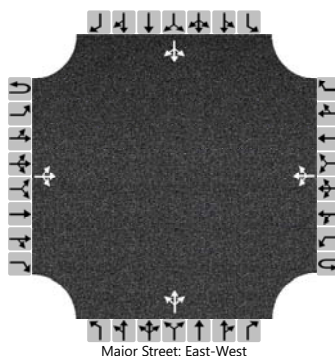
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	141	339	88	243	545		138	643		126	581	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1841		1810	1793		1781	1768	
Queue Service Time ( g <sub>s</sub> ), s	7.6	16.5	4.4	9.7	25.0		4.3	32.3		4.0	28.4	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	7.6	16.5	4.4	9.7	25.0		4.3	32.3		4.0	28.4	
Green Ratio ( g/C )	0.10	0.23	0.23	0.36	0.26		0.47	0.41		0.47	0.41	
Capacity ( c ), veh/h	176	432	363	363	470		291	734		231	718	
Volume-to-Capacity Ratio ( X )	0.801	0.784	0.243	0.669	1.159		0.473	0.876		0.544	0.809	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	168	327	78	189	838		81	536		77	456	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	6.6	13.0	3.1	7.6	33.5		3.2	21.2		3.0	18.1	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	1.34	2.61	0.62	1.58	6.98		0.60	3.97		0.86	5.07	
Uniform Delay ( d <sub>1</sub> ), s/veh	43.1	35.4	30.8	25.1	36.4		19.7	26.6		21.9	25.7	
Incremental Delay ( d <sub>2</sub> ), s/veh	8.1	7.5	0.3	2.1	92.9		1.2	8.4		2.0	4.4	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	51.3	42.9	31.1	27.2	129.3		20.9	35.0		23.9	30.1	
Level of Service ( LOS )	D	D	C	C	F		C	D		C	C	
Approach Delay, s/veh / LOS	43.1		D	97.9		F	32.5		C	29.0		C
Intersection Delay, s/veh / LOS	51.9						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.93	B	1.93	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.42	A	1.79	B	1.78	B	1.65	B

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	HARRISON ROAD		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	725	7		39	456	2		7	0	47		6	0	12
Percent Heavy Vehicles (%)		2				1				4	4	4		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.11				7.14	6.54	6.24		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.21				2.21				3.54	4.04	3.34		3.50	4.00	3.30

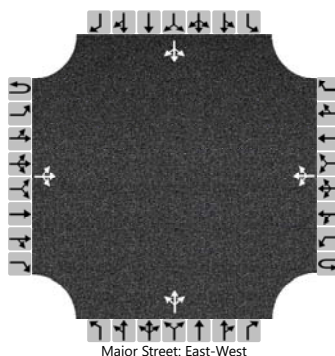
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4				41					57				19	
Capacity, c (veh/h)		1083				847					368				366	
v/c Ratio		0.00				0.05					0.15				0.05	
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2					0.5				0.2	
95% Queue Length, Q <sub>95</sub> (ft)											12.9				5.0	
Control Delay (s/veh)		8.3	0.1	0.1		9.5	0.6	0.6			16.6				15.4	
Level of Service (LOS)		A	A	A		A	A	A			C				C	
Approach Delay (s/veh)		0.1			1.3			16.6			15.4					
Approach LOS		A			A			C			C					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	HARRISON ROAD		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		15	698	9		56	719	0		8	1	109		1	4	5
Percent Heavy Vehicles (%)		1				1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.11				4.11				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.21				3.50	4.00	3.30		3.50	4.00	3.30

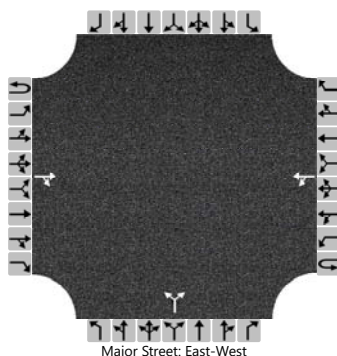
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16				60					126					11	
Capacity, c (veh/h)		855				863					377					241	
v/c Ratio		0.02				0.07					0.33					0.04	
95% Queue Length, Q <sub>95</sub> (veh)		0.1				0.2					1.4					0.1	
95% Queue Length, Q <sub>95</sub> (ft)											35.0					2.5	
Control Delay (s/veh)		9.3	0.3	0.3		9.5	1.1	1.1			19.2					20.6	
Level of Service (LOS)		A	A	A		A	A	A			C					C	
Approach Delay (s/veh)	0.5				1.7				19.2				20.6				
Approach LOS	A				A				C				C				

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			674	8		16	453			11		41				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

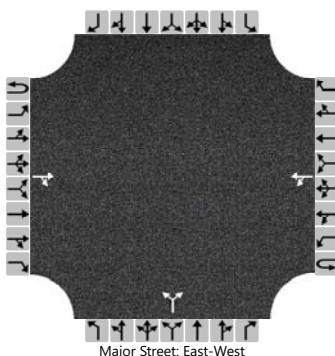
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						17						55				
Capacity, c (veh/h)						885						404				
v/c Ratio						0.02						0.14				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.5				
95% Queue Length, Q <sub>95</sub> (ft)						2.5						12.5				
Control Delay (s/veh)						9.1	0.2					15.3				
Level of Service (LOS)						A	A					C				
Approach Delay (s/veh)					0.5				15.3							
Approach LOS					A				C							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.93		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			606	4		16	744			2		69				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

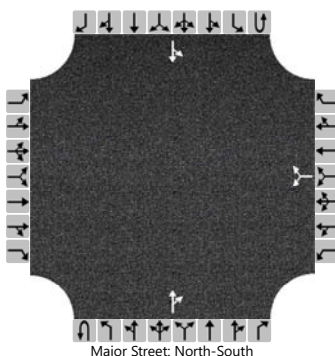
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						17						76				
Capacity, c (veh/h)						940						461				
v/c Ratio						0.02						0.17				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.6				
95% Queue Length, Q <sub>95</sub> (ft)						2.5						15.0				
Control Delay (s/veh)						8.9	0.3					14.4				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)					0.5				14.4							
Approach LOS					A				B							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						38		16			550	86		16	742	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.41		6.21						4.11		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.51		3.31						2.21		

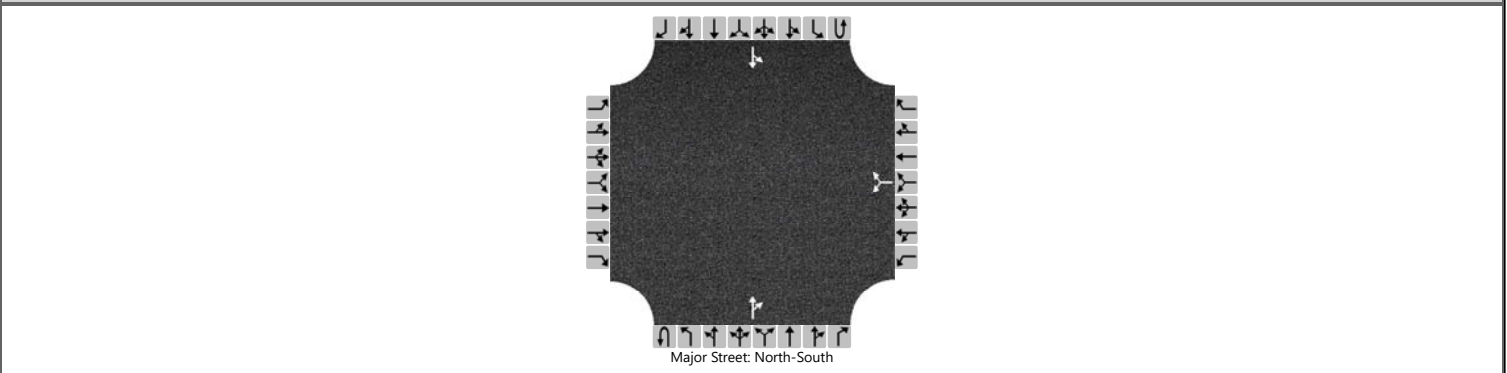
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						59								18		
Capacity, c (veh/h)						305								904		
v/c Ratio						0.19								0.02		
95% Queue Length, Q <sub>95</sub> (veh)						0.7								0.1		
95% Queue Length, Q <sub>95</sub> (ft)						17.7								2.5		
Control Delay (s/veh)						19.6								9.1	0.3	
Level of Service (LOS)						C								A	A	
Approach Delay (s/veh)					19.6								0.5			
Approach LOS					C								A			

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	NO BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0	
Configuration							LR					TR		LT			
Volume (veh/h)						43		22			738	87		13	657		
Percent Heavy Vehicles (%)						0		0						1			
Proportion Time Blocked																	
Percent Grade (%)						0											
Right Turn Channelized																	
Median Type   Storage						Left + Thru								1			

## Critical and Follow-up Headways

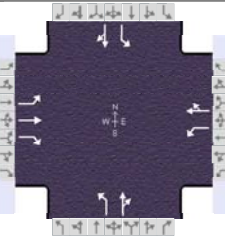
Base Critical Headway (sec)						7.1		6.2							4.1		
Critical Headway (sec)						6.40		6.20							4.11		
Base Follow-Up Headway (sec)						3.5		3.3							2.2		
Follow-Up Headway (sec)						3.50		3.30							2.21		

## Delay, Queue Length, and Level of Service

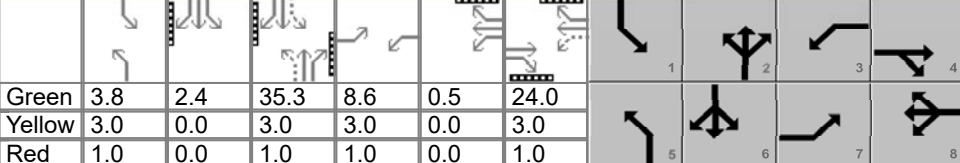
Flow Rate, v (veh/h)						71									14		
Capacity, c (veh/h)						279									756		
v/c Ratio						0.26									0.02		
95% Queue Length, Q <sub>95</sub> (veh)						1.0									0.1		
95% Queue Length, Q <sub>95</sub> (ft)						25.1									2.5		
Control Delay (s/veh)						22.3									9.9	0.3	
Level of Service (LOS)						C									A	A	
Approach Delay (s/veh)						22.3								0.5			
Approach LOS						C								A			

**APPENDIX G**  
**2042 BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS Signalized Intersection Results Summary

General Information					Intersection Information								
Agency	BHI				Duration, h	0.250							
Analyst	MG	Analysis Date	Apr 9, 2024		Area Type	Other							
Jurisdiction	SANTA FE	Time Period	AM PEAK HOUR		PHF	0.96							
Urban Street	Agua Fria Street	Analysis Year	2042		Analysis Period	1 > 7:00							
Intersection	Agua Fria & Siler Road	File Name	1_2042BAM AF-S.xus										
Project Description	BUILD												

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	128	406	114	180	260	87	55	293	161	131	486	146

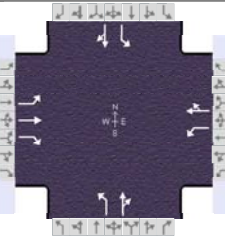
Signal Information													
Cycle, s	90.7	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
	Green	3.8	2.4	35.3	8.6	0.5	24.0						
	Yellow	3.0	0.0	3.0	3.0	0.0	3.0						
	Red	1.0	0.0	1.0	1.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	12.6	28.0	13.2	28.5	7.8	39.3	10.2	41.7
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.3	4.1	4.3	4.2	4.4	4.2	4.4
Queue Clearance Time ( g <sub>s</sub> ), s	8.6	21.6	8.8	18.7	3.7	22.2	6.1	32.3
Green Extension Time ( g <sub>e</sub> ), s	0.3	1.4	0.4	2.2	0.1	6.0	0.4	5.3
Phase Call Probability	0.97	1.00	0.99	1.00	0.76	1.00	0.97	1.00
Max Out Probability	0.00	1.00	0.01	0.67	0.00	0.04	0.00	0.17

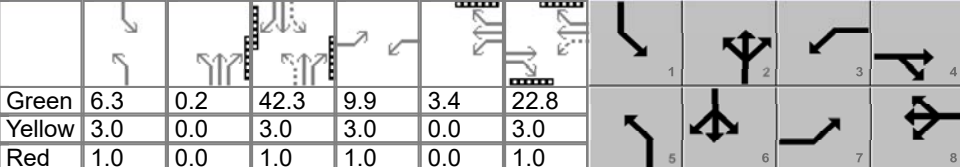
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	133	423	119	188	361		57	473		136	658	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1818		1810	1772		1781	1810	
Queue Service Time ( g <sub>s</sub> ), s	6.6	19.6	5.5	6.8	16.7		1.7	20.2		4.1	30.3	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	6.6	19.6	5.5	6.8	16.7		1.7	20.2		4.1	30.3	
Green Ratio ( g/C )	0.10	0.25	0.25	0.36	0.26		0.43	0.39		0.46	0.42	
Capacity ( c ), veh/h	170	479	402	299	472		203	689		356	752	
Volume-to-Capacity Ratio ( X )	0.784	0.883	0.295	0.627	0.766		0.283	0.686		0.384	0.875	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	146	403	94	132	314		32	331		75	499	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	5.8	16.0	3.7	5.3	12.6		1.3	13.1		2.9	19.8	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	1.17	3.22	0.75	1.10	2.62		0.24	2.45		0.83	5.55	
Uniform Delay ( d <sub>1</sub> ), s/veh	40.2	32.6	27.3	23.7	31.1		20.5	23.1		16.9	24.4	
Incremental Delay ( d <sub>2</sub> ), s/veh	7.7	15.6	0.4	2.2	6.9		0.8	1.5		0.7	7.0	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	47.9	48.2	27.7	25.8	38.0		21.2	24.6		17.6	31.4	
Level of Service ( LOS )	D	D	C	C	D		C	C		B	C	
Approach Delay, s/veh / LOS	44.5		D	33.8		C	24.2		C	29.0		C
Intersection Delay, s/veh / LOS	33.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.93	B	1.93	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.60	B	1.39	A	1.36	A	1.80	B

## HCS Signalized Intersection Results Summary

General Information					Intersection Information								
Agency	BHI				Duration, h	0.250							
Analyst	MG	Analysis Date	Apr 9, 2024		Area Type	Other							
Jurisdiction	SANTA FE		Time Period	PM PEAK HOUR	PHF	0.93							
Urban Street	Agua Fria Street		Analysis Year	2042	Analysis Period	1> 7:00							
Intersection	Agua Fria & Siler Road		File Name	1_2042BPM AF-S.xus									
Project Description	BUILD												

Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand ( v ), veh/h	131	321	82	241	420	92	128	427	196	120	342	198

Signal Information													
Cycle, s	100.8	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
	Green	6.3	0.2	42.3	9.9	3.4	22.8						
	Yellow	3.0	0.0	3.0	3.0	0.0	3.0						
	Red	1.0	0.0	1.0	1.0	0.0	1.0						

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	7	4	3	8	5	2	1	6
Case Number	2.0	3.0	1.1	4.0	1.1	4.0	1.1	4.0
Phase Duration, s	13.9	26.8	17.3	30.1	10.5	46.5	10.3	46.3
Change Period, ( Y+R <sub>c</sub> ), s	4.0	5.0	4.0	5.0	4.0	4.0	4.0	4.0
Max Allow Headway ( MAH ), s	4.1	4.4	4.1	4.4	4.2	4.5	4.2	4.5
Queue Clearance Time ( g <sub>s</sub> ), s	9.8	19.7	12.8	27.2	6.3	37.1	6.1	30.6
Green Extension Time ( g <sub>e</sub> ), s	0.3	2.0	0.5	0.0	0.3	5.3	0.4	6.4
Phase Call Probability	0.98	1.00	1.00	1.00	0.98	1.00	0.97	1.00
Max Out Probability	0.01	0.86	0.15	1.00	0.00	0.40	0.00	0.20

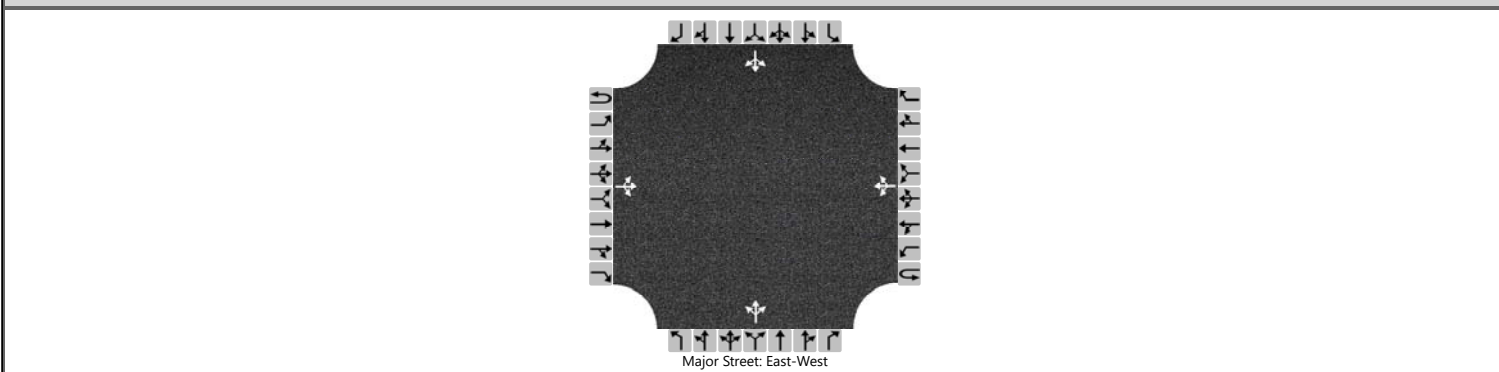
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate ( v ), veh/h	141	345	88	259	551		138	670		129	581	
Adjusted Saturation Flow Rate ( s ), veh/h/ln	1781	1885	1585	1810	1840		1810	1784		1781	1768	
Queue Service Time ( g <sub>s</sub> ), s	7.8	17.7	4.7	10.8	25.2		4.3	35.1		4.1	28.6	
Cycle Queue Clearance Time ( g <sub>c</sub> ), s	7.8	17.7	4.7	10.8	25.2		4.3	35.1		4.1	28.6	
Green Ratio ( g/C )	0.10	0.22	0.22	0.36	0.25		0.48	0.42		0.48	0.42	
Capacity ( c ), veh/h	175	407	342	352	459		303	752		224	742	
Volume-to-Capacity Ratio ( X )	0.803	0.849	0.258	0.737	1.200		0.455	0.891		0.577	0.783	
Back of Queue ( Q ), ft/ln ( 95 th percentile)	173	363	82	212	914		81	582		80	457	
Back of Queue ( Q ), veh/ln ( 95 th percentile)	6.8	14.4	3.2	8.5	36.6		3.3	23.1		3.2	18.2	
Queue Storage Ratio ( RQ ) ( 95 th percentile)	1.39	2.90	0.66	1.76	7.62		0.60	4.31		0.89	5.08	
Uniform Delay ( d <sub>1</sub> ), s/veh	44.5	38.0	32.9	26.3	37.9		19.4	27.0		22.6	25.3	
Incremental Delay ( d <sub>2</sub> ), s/veh	8.3	12.4	0.4	4.1	109.2		1.1	10.4		2.3	4.0	
Initial Queue Delay ( d <sub>3</sub> ), s/veh	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Control Delay ( d ), s/veh	52.8	50.4	33.2	30.4	147.1		20.5	37.4		25.0	29.3	
Level of Service ( LOS )	D	D	C	C	F		C	D		C	C	
Approach Delay, s/veh / LOS	48.3		D	109.8		F	34.5		C	28.5		C
Intersection Delay, s/veh / LOS	56.8						E					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.93	B	1.93	B	1.91	B	2.10	B
Bicycle LOS Score / LOS	1.44	A	1.82	B	1.82	B	1.66	B

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	HARRISON ROAD		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.95		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		4	732	14		39	459	2		9	0	47		6	0	12
Percent Heavy Vehicles (%)		2				1				4	4	4		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.12				4.11				7.14	6.54	6.24		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.21				2.21				3.54	4.04	3.34		3.50	4.00	3.30

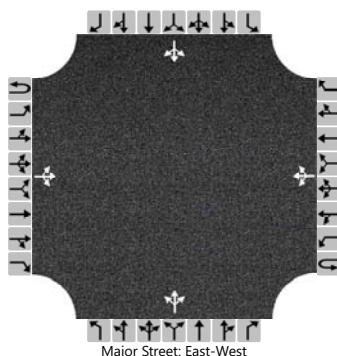
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		4				41					59					19
Capacity, c (veh/h)		1080				836					356					362
v/c Ratio		0.00				0.05					0.17					0.05
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2					0.6					0.2
95% Queue Length, Q <sub>95</sub> (ft)											15.5					5.0
Control Delay (s/veh)		8.3	0.1	0.1		9.5	0.6	0.6			17.1					15.5
Level of Service (LOS)		A	A	A		A	A	A			C					C
Approach Delay (s/veh)		0.1				1.3				17.1				15.5		
Approach LOS		A				A				C				C		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & HARRISON		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	HARRISON ROAD		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0
Configuration			LTR				LTR				LTR				LTR	
Volume (veh/h)		15	703	13		56	726	0		15	1	109		1	4	5
Percent Heavy Vehicles (%)		1				1				0	0	0		0	0	0
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.11				4.11				7.10	6.50	6.20		7.10	6.50	6.20
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.20				2.21				3.50	4.00	3.30		3.50	4.00	3.30

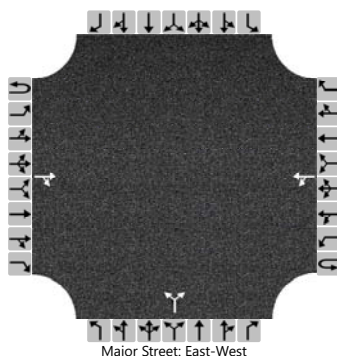
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		16				60					133					11	
Capacity, c (veh/h)		850				856					350					237	
v/c Ratio		0.02				0.07					0.38					0.04	
95% Queue Length, Q <sub>95</sub> (veh)		0.1				0.2					1.7					0.1	
95% Queue Length, Q <sub>95</sub> (ft)											42.5					2.5	
Control Delay (s/veh)		9.3	0.3	0.3		9.5	1.2	1.2			21.5					20.9	
Level of Service (LOS)		A	A	A		A	A	A			C					C	
Approach Delay (s/veh)	0.5				1.8				21.5				20.9				
Approach LOS	A				A				C				C				

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			685	8		16	487			11		41				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

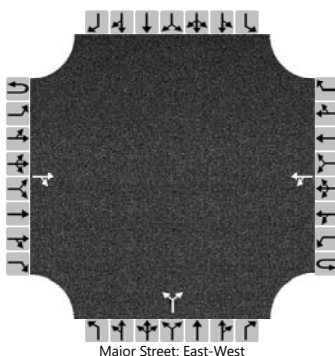
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						17						55				
Capacity, c (veh/h)						876						396				
v/c Ratio						0.02						0.14				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.5				
95% Queue Length, Q <sub>95</sub> (ft)						2.5						12.5				
Control Delay (s/veh)						9.2	0.3					15.6				
Level of Service (LOS)						A	A					C				
Approach Delay (s/veh)					0.5				15.6							
Approach LOS					A				C							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.93		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			640	4		16	764			2		69				
Percent Heavy Vehicles (%)						0				0		0				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage					Left + Thru								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.10					6.40		6.20			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.20					3.50		3.30			

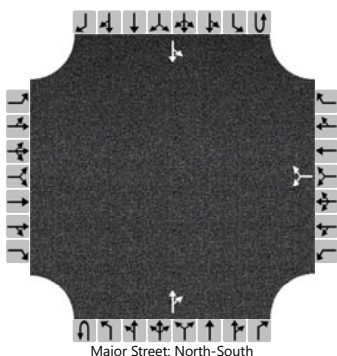
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						17						76				
Capacity, c (veh/h)						911						439				
v/c Ratio						0.02						0.17				
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.6				
95% Queue Length, Q <sub>95</sub> (ft)						2.5						15.0				
Control Delay (s/veh)						9.0	0.3					14.9				
Level of Service (LOS)						A	A					B				
Approach Delay (s/veh)					0.5				14.9							
Approach LOS					A				B							

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						38		16			558	86		16	767	
Percent Heavy Vehicles (%)						1		1						1		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type   Storage						Left + Thru									1	

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1		
Critical Headway (sec)						6.41		6.21							4.11		
Base Follow-Up Headway (sec)						3.5		3.3							2.2		
Follow-Up Headway (sec)						3.51		3.31							2.21		

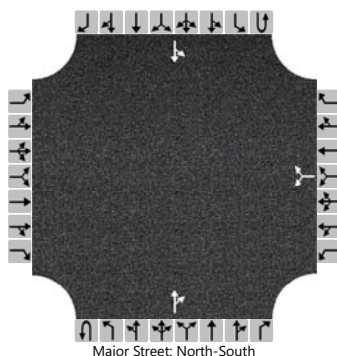
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						59									18		
Capacity, c (veh/h)						297									897		
v/c Ratio						0.20									0.02		
95% Queue Length, Q <sub>95</sub> (veh)						0.7									0.1		
95% Queue Length, Q <sub>95</sub> (ft)						17.7									2.5		
Control Delay (s/veh)						20.1									9.1	0.3	
Level of Service (LOS)						C									A	A	
Approach Delay (s/veh)						20.1									0.5		
Approach LOS						C									A		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	SILER ROAD & SILER PARK LANE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	SILER ROAD		
Analysis Year	2042			North/South Street	SILER PARK LANE		
Time Analyzed	PM PEAK HOUR			Peak Hour Factor	0.91		
Intersection Orientation	North-South			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						63		22			764	87		13	672	
Percent Heavy Vehicles (%)						0		0						1		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type   Storage						Left + Thru									1	

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1		
Critical Headway (sec)						6.40		6.20							4.11		
Base Follow-Up Headway (sec)						3.5		3.3							2.2		
Follow-Up Headway (sec)						3.50		3.30							2.21		

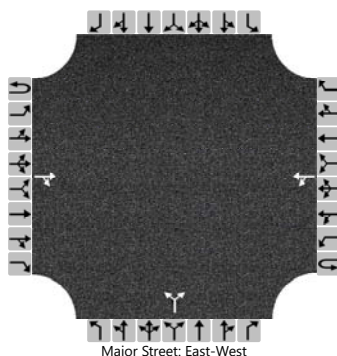
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						93									14		
Capacity, c (veh/h)						262									738		
v/c Ratio						0.36									0.02		
95% Queue Length, Q <sub>95</sub> (veh)						1.5									0.1		
95% Queue Length, Q <sub>95</sub> (ft)						37.6									2.5		
Control Delay (s/veh)						26.1									10.0	0.3	
Level of Service (LOS)						D									A	A	
Approach Delay (s/veh)						26.1									0.5		
Approach LOS						D									A		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	AGUA FRIA-NORTH SITE ENTRANCE		
Agency/Co.	BHI			Jurisdiction	SANTA FE		
Date Performed	4/5/2024			East/West Street	AGUA FRIA STREET		
Analysis Year	2042			North/South Street	NORTH SITE ENTRANCE		
Time Analyzed	AM PEAK HOUR			Peak Hour Factor	0.94		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			620	11		4	391			34		14				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.12					6.42		6.22			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

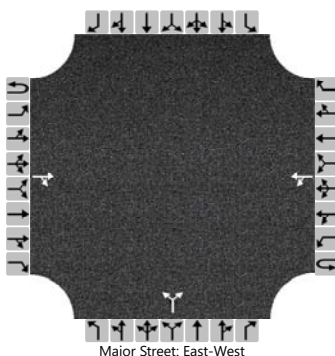
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					4						51					
Capacity, c (veh/h)					919						390					
v/c Ratio					0.00						0.13					
95% Queue Length, Q <sub>95</sub> (veh)					0.0						0.4					
95% Queue Length, Q <sub>95</sub> (ft)					0.0						10.2					
Control Delay (s/veh)					8.9	0.1					15.6					
Level of Service (LOS)					A	A					C					
Approach Delay (s/veh)					0.1						15.6					
Approach LOS					A						C					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	AGUA FRIA-NORTH SITE ENTRANCE				
Agency/Co.	BHI	Jurisdiction	SANTA FE				
Date Performed	4/5/2024	East/West Street	AGUA FRIA STREET				
Analysis Year	2042	North/South Street	NORTH SITE ENTRANCE				
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.94				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	BUILD						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			610	34		14	613			20		8				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage	Left Only								1							

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					15					30						
Capacity, c (veh/h)					908					335						
v/c Ratio					0.02					0.09						
95% Queue Length, Q <sub>95</sub> (veh)					0.0					0.3						
95% Queue Length, Q <sub>95</sub> (ft)					0.0					7.6						
Control Delay (s/veh)					9.0	0.2				16.8						
Level of Service (LOS)					A	A				C						
Approach Delay (s/veh)					0.4				16.8							
Approach LOS					A				C							

