

Project Study Report (PSR)

To Request Funding from the 2024 HCAOG Special Studies Funding for:

- Traffic/Circulation Study



Rio Dell Avenues Neighborhood Traffic Study City of Rio Dell

APPROVED:

Kyle Knopp, Rio Dell City Manager

Date

1. INTRODUCTION

The purpose of this project is to evaluate potential traffic circulation alternatives for improved emergency vehicle response access (Traffic Study). The traffic study is limited to the “Avenues Neighborhood,” bound by Wildwood Avenue, Davis Street, US-101, and Edwards Drive as shown in Attachment A. The traffic study will focus on First and Second Avenues. Both streets are narrow and constrained by resident parking, which impacts emergency response vehicle traffic. The City of Rio Dell (City) is seeking funding assistance from HCAOG to complete the traffic study.

Project Limits	The Avenues Neighborhood bounded by Davis St, Wildwood Ave, Edwards Dr, and US 101.
Funding Source	HCAOG Overall Work Program & Budget (OWP) Funding
Type of Facility	First Avenue – Minor Collector Second Avenue – Minor Collector

2. BACKGROUND

The City has received a proposal from W-Trans, see Attachment B, to prepare a circulation study for First and Second Avenues following discussions with the City Fire Department about making one or both streets one-way, and possibly restricting parking on one side of the street. Access for emergency vehicles has been identified as a significant concern by both the City and local Fire Department and evaluating solutions to improving emergency vehicle access is the primary purpose of the traffic study.

3. PURPOSE AND NEED

Purpose:

The purpose of the traffic study is to evaluate potential solutions to improve emergency vehicle access within the Avenues neighborhood, specifically on First and Second Avenues. The traffic study will collect data to better understand the limitations of current traffic patterns and determine methods to enhance traffic circulation and multi-modal safety within the project area. Traffic volume data, collision history, road geometry, parking occupancy, and site observations will be the basis for recommendations to achieve adequate traffic circulation.

Need:

The City has identified First and Second Avenues as having insufficient capacity to accommodate current residential parking and emergency vehicle access. The right-of-way width of each road varies from approximately 30 to 45 feet including parking on both sides, two-way travel, and limited sidewalk coverage. These narrow right-of-way widths limit emergency access to the Avenues Neighborhood, a populated area of the City bound by US-101, Edwards Drive, and Monument Road. As a densely populated area of the City that makes up the majority of Census Tract 011100, it houses approximately 8-9 percent of the total housing units of Rio Dell on First and Second Avenues alone. Adequate emergency vehicle access is critical for the residents in the congested project area. Preliminary discussions between the City and the City Fire Department have included the possibility of creating a one-way couplet for the two streets. The traffic study will be the basis of determining if a one-way couplet is a feasible solution for improved traffic circulation.

4. DEFICIENCIES

First Avenue and Second Avenue both run parallel to Wildwood Avenue. First Avenue connects Elko Street to the north and Edwards Drive to the south, while Second Avenue connects Davis Street to the north and Atlanta Street to the south. These avenues intersect

via Atlanta Street, making First Avenue the primary minor collector for the neighborhood, conveying traffic to Edwards Drive and Wildwood Avenue. Any congestion issues on Second Avenue can affect First Avenue and Atlanta Street because of the proximity and traffic conveyance, which could lead to delays in emergency response times.

Parking is permitted on both sides of the street, with each side occupying approximately 7 feet, leaving approximately 15 to 30 feet for two-way travel and pedestrian movement, depending on the road width. The lack of continuous ADA-compliant sidewalks on both streets forces pedestrians into the road, creating obstacles for emergency vehicles trying to navigate the street quickly and safely. Individuals with disabilities may have difficulty using the sidewalks and could force them into the street, leaving them vulnerable to fast-moving emergency vehicles.

Additionally, the tight turn radii off each intersecting street further complicate maneuverability, particularly under two-way traffic conditions. This can lead to delays as vehicles struggle to navigate the constrained space efficiently. Separating two directional travel using a pair of one-way streets could decrease the possibilities for conflicts and unnecessary delays.

These factors highlight the need for a traffic study to address the narrow road widths and improve emergency response times for residents.

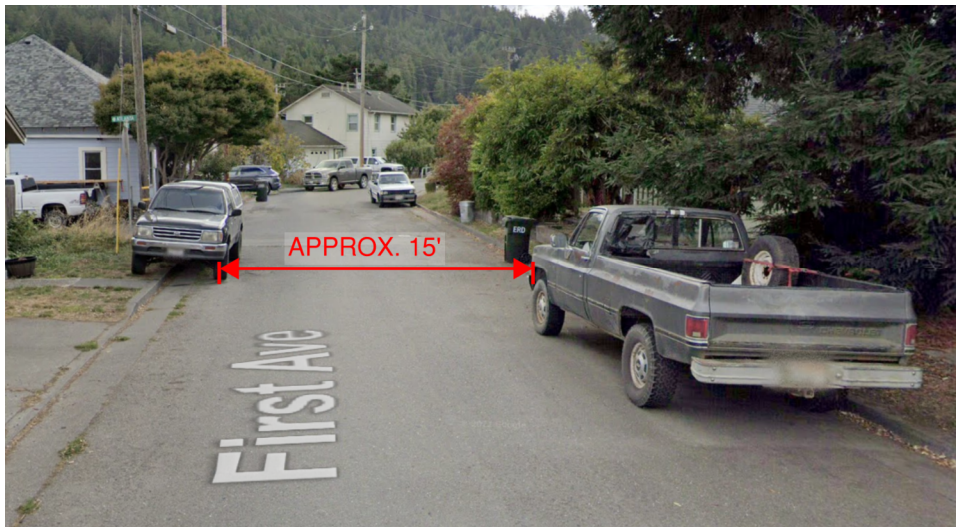


Figure 1: 2017 street view image of typical roadway of First Ave.



Figure 2: 2017 street view image of typical roadway of Second Ave.

5. CORRIDOR AND SYSTEM COORDINATION

W-Trans has provided a proposed scope of work to conduct the traffic study. This includes a field visit to take roadway measurements, travel speeds, average daily traffic, and limited traffic counts. They will also research collision records to identify patterns and calculate collision rates. Parking data will be analyzed to determine the peak number of parked vehicles based on field observations. Recommendations for improved circulation will be made by considering all the gathered information. An estimated maximum fee of \$7,250 on a time and materials basis is quoted in the attached proposal.

The City of Rio Dell completed the 2019 Safe Routes to School project in 2020, which significantly enhanced pedestrian safety and access in the area. Planned pedestrian connectivity improvements for Painter Street, Ireland Street, and Center Street will further help connect the central area of Rio Dell with the two schools on Center Street. The items included in this application build on those previous improvements by improving safety, accessibility, and mobility just south of the Rio Dell Elementary School District.

6. FUNDING AND PROGRAMMING

Humboldt County Association of Governments (HCAOG) has set aside funding for small studies in the region. The estimated maximum fee of \$7,250 is proposed to be allocated to conduct the traffic study for the City of Rio Dell.

7. EXTERNAL AGENCY COORDINATION

The project will require external agency coordination with W-Trans.

8. ATTACHMENTS

- A. Location Map
- B. W-Trans Proposal

Attachment A

Location Map



Avenues Neighborhood

Attachment B

W-Trans Proposal



June 10, 2024

Mr. Kevin Caldwell
Community Development Director
City of Rio Dell
675 Wildwood Avenue
Rio Dell, CA 95562

Proposal to Prepare a Circulation Study for First and Second Avenues

Dear Mr. Caldwell;

W-Trans is pleased to provide this proposal to evaluate potential circulation alternatives to improve access, particularly for emergency response vehicles, along First and Second Avenues. It is understood that both streets are relatively narrow and are further constrained by parking. The following scope of services is suggested based on our experience with similar transportation studies.

Study Area and Periods

The study area will consist of the sections of First and Second Avenues within the neighborhood bounded by Davis Street, Wildwood Avenue, Edwards Drive and US 101.

Tasks

1. A field review of the study area will be conducted. While evaluating street-level photography on-line is useful, to gain a true understanding of current conditions, a site visit is recommended. Note that we will combine the trip for this work with other work in Humboldt County, if possible, to minimize the cost for this project.
2. During the site visit measurements will be taken at least once for every block and travel speeds will be documented for as many vehicles as can be captured during the site review. Parking conditions and occupancy as well as the presence or lack of sidewalk will also be documented.
3. Traffic counts for First and Second Avenues will be obtained for a period of 24 hours. Note that if this work is done in conjunction with obtaining data for Engineering and Traffic Surveys the fee for travel could be spread between the two projects, making each more cost-effective.
4. Collision records for the study segments will be reviewed for any trends or patterns, and the segment collision rates calculated.
5. Temporal parking data for residential land uses will be applied to determine the likely peak number of parked vehicles based on the number observed during the field reconnaissance.
6. Based on the volume data, collision history, geometry, parking occupancy, and site observations recommendations will be developed to achieve adequate circulation. Consideration will be given to eliminating parking on one or both sides in conjunction with potentially creating a one-way couplet. If one-way travel on both streets is deemed the best option, the direction of travel that would best suit the couplet will be identified.

7. A draft letter report that provides details of the analysis, findings, and copies of counts will be prepared and submitted for your review.
8. Comments from City staff will be addressed, and a final letter report submitted.

Exclusions – The scope of services includes only those items that are specifically identified above. Any additional services, such as meetings or hearings, requests for analysis not included in this scope, multiple rounds of comments, or responding to peer review comments, if needed could be provided on a time and materials basis after receiving written authorization for the extra work.

Schedule and Budget

The draft report can be submitted for your comments within approximately eight to ten weeks following receipt of the signed contract. Our services will be conducted on a time and materials basis at the rates indicated on the enclosed sheet. Monthly invoices will be provided electronically unless a hard copy via mail is requested. The estimated maximum fee for this work is \$7,250. Note that if performed in combination with the speed surveys and or if the site visit can be combined with another project, the fee as invoiced would be less.

Enclosed is a copy of our standard contract. Please sign and return it if you wish to initiate work. This proposal will remain a firm offer for 90 days from the date of this letter. Thank you for giving us the opportunity to propose on these services.

Sincerely,

Dalene J. Whitlock, PE (Civil, Traffic), PTOE
Senior Principal

DJW/djw/RDE005.P1

Enclosure: 2024 Fee Schedule