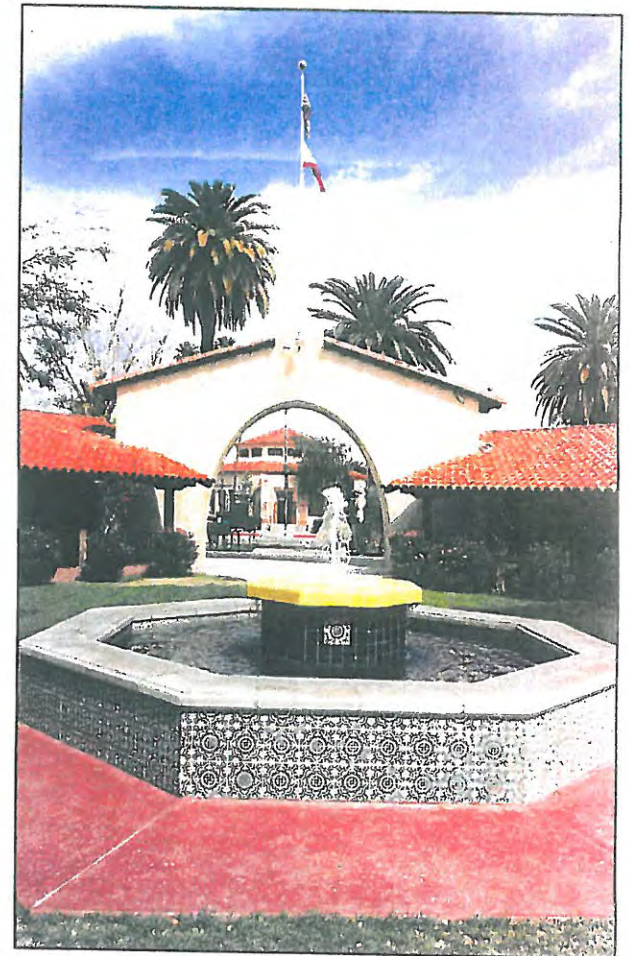
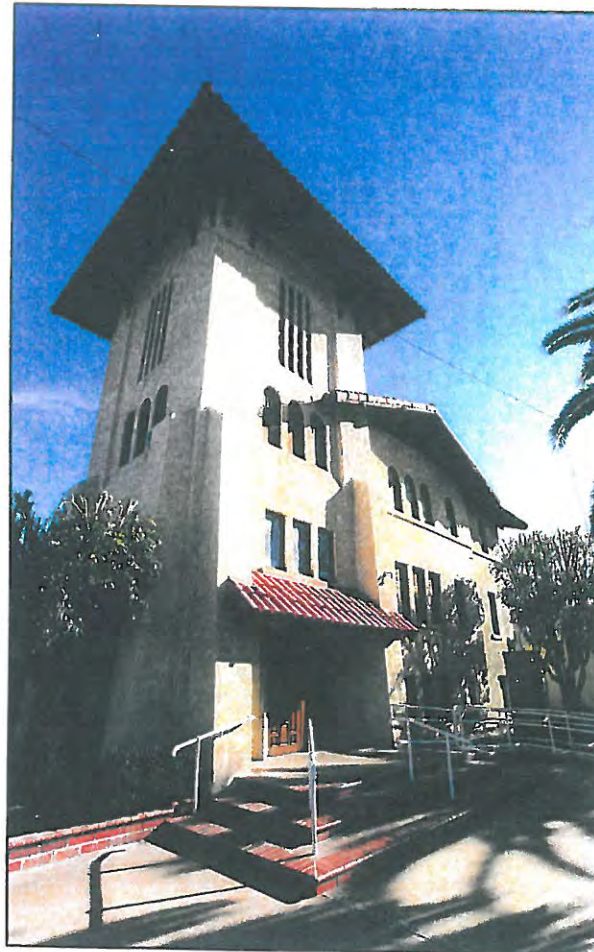


# Brawley Main Street Plan

*A Report to the City of Brawley, California*

February 2007 *Prepared by*  
*Local Government Commission*  
*Glattig Jackson Kercher Anglin*  
*Downtown Solutions*





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*Funding provided through a California Department of Transportation (Caltrans) Environmental Justice: Context Sensitive Planning Grant.*

*Views and opinions presented in this report do not necessarily represent the views or opinions of the California Department of Transportation (Caltrans) or the California Business Transportation and Housing Agency.*

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# BRAWLEY MAIN STREET PLAN

## CHAPTER 1: INTRODUCTION

### Introduction:

Within the next two to four years, the California Department of Transportation (Caltrans) will relinquish portions of Highways 78, 86, and 111 to the City of Brawley as a bypass highway system is completed. This process will begin with the state highway right-of-way (ROW) that includes Brawley's Main Street in its entirety. The relinquished area will include the city's traditional commercial core, Plaza Park, and east and west Main Street.

This project was funded by a Caltrans Transportation Planning Grant, in the Economic Justice category for context-sensitive planning. That grant program's goals are to:

- Strengthen the economy
- Promote infill development and social equity
- Protect the environment
- Encourage efficient development practices
- Promote jobs and affordable housing balance
- Link housing, transportation, and land use planning
- Increase community livability

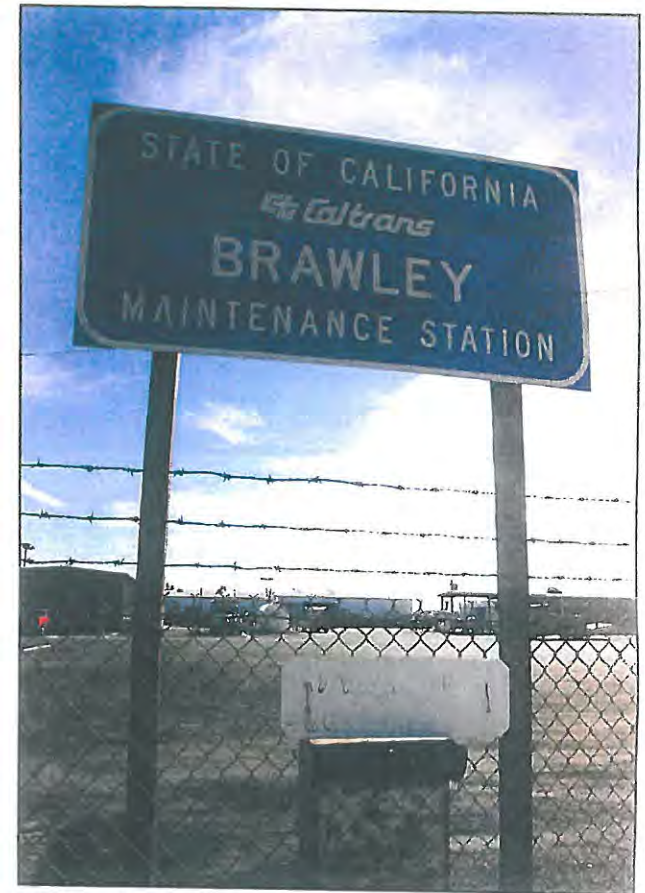
This project and the implementation activities that will follow advance all of these goals. The goals related to infill, affordable housing, and linking jobs and housing were often ignored by transportation planning activities in the past. By including recommendations for changes in land use and zoning in the core area and the eastern and western portions of Main Street, this project advances those goals as well as those related to economic vitality, the environment, and the transportation system.

This effort is focused around Brawley's Main Street, of course, so a description of the community should begin there. Main Street, approximately two miles long, is currently characterized by:

- High office and commercial vacancy rates
- Economic instability
- A deficient pedestrian environment with many sidewalks missing or in poor condition
- Difficulty for pedestrians crossing Main Street
- A complete lack of bicycle facilities
- Heavy volumes of truck traffic (up to several hundred trucks per day)
- Problem intersections with high numbers of vehicle, bicycle, and pedestrian accidents

Anticipating the completion of the Highway 111 Bypass and subsequent reduction in through truck traffic, the City of Brawley sought and received funding from Caltrans for a project to develop a vision for transforming Main Street from a car and truck-oriented highway to an economically-revitalized boulevard that safely accommodates all modes of travel. This was done through a highly participatory process called a charrette that engaged residents, business operators, local elected officials, city staff, and schools. The result is a detailed plan using context-sensitive design principles to redesign this auto-oriented highway into a Main Street that also accommodates transit, pedestrians, and cyclists, and creates a revitalized, lively town center for the residents of Brawley.

Additionally, two school neighborhoods plagued by accidents and vehicle/pedestrian conflicts were evaluated by the design team. Suggestions to improve safety at those locations are included in Chapter 3 of this report.



*This project funded by a Caltrans Community Design grant.*







*Post Office in Plaza Park.*



*Plaza Park area commercial buildings.*



*New development on West Main Street with good sidewalks.*

**Background:**

The City of Brawley lies 25 miles north of the border between the United States and Mexico and about 120 miles east of San Diego, in Imperial County. El Centro, the Imperial County seat, is 15 miles to the south. Brawley has 22,000 residents, roughly 75 percent Latino.

Imperial County’s per capita personal income is well below that of neighboring San Diego County, and is 41% lower than the state average. According to 1999 Bureau of Economic Analysis (BEA) data, per capita personal income in Imperial County stood at \$17,550. According to the California Department of Motor Vehicles, only 13,500 residents of Brawley hold a drivers license. This points to a young population with many children in the community. Access to schools and other locations for these children became a significant component of this design project.

Brawley’s economy is primarily agricultural, but tourist traffic passing through town to nearby desert recreation areas also contributes to a significant portion of local revenues. Imperial Sugar, one of

the major employers in the county, recently filed for Chapter 11 bankruptcy. Unemployment rates rose throughout the area, especially in Brawley.

The study area for this project is the two-mile plus stretch of Main Street in the Highway 111/86/78 corridor that runs east/west through the City of Brawley. The exact distance in the initial grant proposal that secured funding for this project is from Las Flores Drive in the west to Best Road at the eastern city limits. After initial discussions with residents and City staff, the project team extended their design efforts. This report now includes the New River arroyo to the west of Las Flores Drive, and an additional segment of East Main Street between Best Road and the Highway 111 bypass.

This entire corridor is currently a four-lane street with most sections having curbside parking. It lacks bicycle lanes. Crosswalks are in mostly good condition in the commercial core/Plaza area and near newer development. In other locations, they are in need of repair, or missing entirely.

In the middle of the corridor, Main Street cuts through the community’s centrally located Plaza



*Heavy mid-day commercial vehicle traffic.*



*Old theater is a prime renovation opportunity.*



Park, which contains a bandstand gazebo, Post Office, and Sheriff's sub-station on the north, and City Hall and the public library on the south. Other community offices and attractions are located facing the Plaza, such as the Police Department, Chamber of Commerce, Elks Lodge, Elks Youth Building, and satellite City offices. Main Street, with its four lanes of heavy traffic, currently splits Plaza Park into two pieces and makes pedestrian access between those pieces difficult. This issue was a major concern of residents and City staff, and is addressed in this report.

Existing development on the corridor is very mixed. Many once-grand buildings from the turn of the last century are located near the City Hall area, several with the covered arcade sidewalks that are a hallmark of Imperial Valley architecture. One of the most significant, the Ciudad Plaza building at the corner of Highway 111 North and Main Street, has benefited from a recent renovation effort and once again provides an activity center in the core area. Another, the Planters Hotel at Main Street and West Plaza, is now largely vacant. The Newberry's department store in the same stretch of Main Street was recently closed down, as was a former grocery store on West Main. Many other commercial spaces along Main Street are vacant and available for leasing.

The only major grocery stores in town are at the west end of Main Street, but a large lower income residential area lies at the eastern end of the corridor, south of Main Street. With limited automobile ownership, many residents of this neighborhood must walk the length of Main Street's hostile pedestrian environment to buy groceries, and carry them home on foot. Residents who make this trip on bicycle must choose between riding in the vehicle lanes with numerous cars and large trucks, or riding on the sidewalks intended for pedestrians.



### Overview of this Report:

This report consists of five chapters, and two appendices. The first two chapters have information on Brawley, this project, its funding, and issues this project addresses. Chapter 3 is the core of the street design component of this report, outlining the proposal for Main Street block-by-block as well as the two school areas evaluated. Chapter 4 spells out the steps to preparing amendments to the zoning code which will cover east and west Main Street, and bring about significant changes in the core area. Chapter 5 discusses potential funding sources.

The first appendix concisely covers the "Complete Streets" concept — with streets that serve all potential users: young, old, affluent, poor, drivers, bicyclists, pedestrians, ill, and disabled. The second appendix is a compilation of related documents that will assist the community as it implements the details of the recommended plan, from providing bike lanes to selecting street trees.

Turn the page to begin with a description of the process that led to the project team's recommendations for street design and zoning code changes, and the preparation of this report.



## BRAWLEY MAIN STREET PLAN CHAPTER 2: CHARRETTE PROCESS

### Steps in the Brawley Project

Charrettes are an increasingly popular tool for neighborhood and street design programs that should be done with meaningful public input. This format allows residents, users of a street, or whatever population is targeted to be the primary force behind the designs. They are typically pulled together for several sessions over a short period of time, before the charrette project team cleans up the designs and prepares a final report like this one. In the case of this project in Brawley, the first visiting team member arrived on Tuesday and didn't depart until lunch time on the following Wednesday, eight days later.

Most participants in charrettes following this format strongly prefer it to the more conventional approach where a consultant team visits the community, meets with a few chosen officials over a day or two, then returns to a distant place to write up a report which will appear in the mail many months later. The process used for this project in Brawley gives the public more meaningful involvement, and rewards the effort with a glimpse of the final design at the end of the week.

A charrette is a multi-day event that takes months of planning and organizing to bring to life. Aside from obvious things like when and where to hold the events, unseen details are just as critical. For many of these details, the Local Government Commission (LGC) was fortunate to be able to rely on people in the community with a strong interest in seeing a successful design exercise kick-start a renewal of the Main Street corridor.



### Project Team Meetings

Once funding for this program had been secured, the project team met to begin laying out a timeline, choosing a location for the charrette events, and assigning duties for the months ahead.

After initial meetings to set up the structure of the project team, City of Brawley staff, Local Government Commission project managers, private sector representatives from the Brawley community, and consultants communicated via phone and email. This coordination effort eventually grew to include other interested parties in Brawley, such as the local

school districts, the Elks Club, and the Chamber of Commerce.

March 14, 2006 -- Initial Project Team meeting:

- Oscar Rodriquez, City Manager.
- Teri Nava, Community/Economic Development Director.
- Yazmin Arrelano, Public Works Director.
- Gordon Gaste, Planning Director.
- Ted Riley, Main Street Committee.
- Steve Tracy, Local Government Commission.
- Dan Burden, Glatting Jackson and Walkable Communities, Inc.



## Ayúdenos a Transformar la Calle Main en un Centro Más Atractivo de Brawley

### REUNIONES Y TALLERES DE LA COMUNIDAD

- Participe con Dan Burden, un experto a nivel nacional en planeación y diseño, en buscar la manera de mejorar la seguridad del tráfico y peatones, y mejorar la apariencia y economía de la calle Main.
- Participe con sus amigos y vecinos en crear un plan para mejorar las condiciones de la calle Main.



Para más información comuníquese con  
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Organizado por la Local Government Commission, la Ciudad de Brawley, Cámara de Comercio, Comité de Desarrollo Económico, Comité de la calle Main, Brawley Elementary School District, Brawley Union High School District y el Elks Club. Financiado por el Departamento de Transporte de California (Caltrans).

### ¡Favor de Participar!

**jueves, 12 de octubre**  
 APERTURA—REUNIÓN DE LA  
 COMUNIDAD  
 Elks Lodge Hall  
 161 South Plaza  
 6 a 8 de la noche

**sábado, 14 de octubre**  
 CAMINATA DE INVESTIGACION DE LA  
 CALLE MAIN Y TALLER DE DISEÑO  
 Elks Lodge Hall  
 161 South Plaza  
 9 de la mañana a 2 de la tarde  
 ¡Comida, refrescos y rifa!

**martes, 17 de octubre**  
 REUNION DE LA COMUNIDAD PARA VER  
 EL PLAN PARA MEJORAR A BRAWLEY  
 Elks Lodge Hall  
 161 South Plaza  
 5:30 a 6:30 de la noche

CITY COUNCIL PRESENTATION  
 Council Chambers  
 Lions Recreation Center  
 255 A Street  
 7:00 - 7:30 p.m.

Refrescos en todos los eventos.

This meeting laid out responsibilities for all the individuals involved for tasks that included publicity, gathering maps and aerial photographs, collecting City documents, and securing a venue for the charrette events. LGC team members coordinated this information.

Before and after this meeting, Local Government Commission staff and Dan Burden photographed and made a detailed survey of the western and central portions of Main Street, and walked the neighborhoods off Main Street in the core area.

September 11, 2006 — Final Project Team meeting:

- Oscar Rodriguez, City Manager.
- Teri Nava, Community/Economic Development Director.
- Yazmin Arrelano, Public Works Director.
- Gordon Gaste, Planning Director.
- Lorena Savala, Administrative Secretary.
- Ted Riley, Main Street Committee.
- Steve Tracy, Local Government Commission.

This meeting finalized many details, including using the Elks Lodge Hall for the charrette events, and how to provide food and beverages for people attending. The design team secured lodging and working space for the week-long charrette.

### Outreach Efforts

Publicity is critical to getting enough people to a charrette event for the design exercise to be meaningful. This task was shared among the project team members, who also reached out to community organizations and other public entities.

For example: Once “fliers” were prepared in Spanish and English, the Brawley Chamber of Commerce used email to notify the entire membership, asking them to print out the fliers and post them in business windows. Similarly, the Superintendent of the Brawley Elementary School District agreed to distribute several thousand fliers to the families of school children in the community.

The City Manager contacted the media, providing information about the public events for newspaper articles and public service announcements.

Local Government Commission staff gave brief presentations about the upcoming charrette to the Brawley Rotary Club and to a noontime gathering at the Senior Center (also translated into Spanish with the help of Senior Center staff).





## Hidalgo Elementary School Visit

One special outreach opportunity was provided by Brawley Elementary School District Superintendent Terri Decker, Principal Calia Santana, and the teacher and students of Ms. Duarte's 5th Grade class at Hidalgo Elementary School.

At Hidalgo Elementary, a simple exercise with the students was very revealing. They were given large, blank pieces of paper, and each child was asked how they typically get to school, and to please draw the route they take. It is sad that even in a small, gentle town like Brawley, less than half of the students walk or bike to school.

But those that are not driven to school show a much stronger awareness of their surroundings as they get there. Maps drawn by the children who walk or bike were full of details about buildings, homes of friends, stores, and dogs. In contrast, the children who were isolated in cars showed the effects of that distance from their surroundings with simple drawings that often included their house, the school, and a line connecting them.



*Ms. Duarte and students at Hidalgo Elementary.*

## Focus Group Meetings

Several "focus group" meetings were held in Brawley over a period of two days. Focus groups are meetings with individual stakeholder groups.

These groups ranged from five to twenty individuals, a size that allows for comfortable communication about people's personal feelings about Main Street, the downtown area in general, school site traffic, or other issues. Further broadening participation, Spanish translation services were provided at all of these meetings, if called for, by either the project team or members of the community.

Comments made by individuals at these meetings are transcribed in detail in Appendix Two at the end of this report. Those comments are condensed and repeated within the yellow-shaded boxes in Chapter 3. Those boxes highlight residents' issues with each segment of Main Street, the core area of downtown Brawley, and the two school sites evaluated by the design team.



*Fifth grade students drawing their route to school.*

Full lists of the participants of each focus group meeting can be found in Appendix Two, and the meetings are listed below.

- Schools — Both public school districts, PTA and Site Council groups, and parents.
- Chamber of Commerce Board of Directors/ Business Community representatives — Both groups, and Brawley Beautification, Inc. at back-to-back meetings.
- Hispanic Groups — American Citizens Club and Hidalgo Society.
- Transportation Agencies—Caltrans, Imperial Valley Association of Governments (IVAG), and Imperial County.
- Emergency Responders— Brawley City Manager, Brawley Fire Department, and Police Department.

Additionally, design team members made multiple visits to the areas near Willer Elementary School, Barbara Worth Jr. High School, and Brawley Union High School during peak student arrival times, lunch breaks, and the end of the school day.

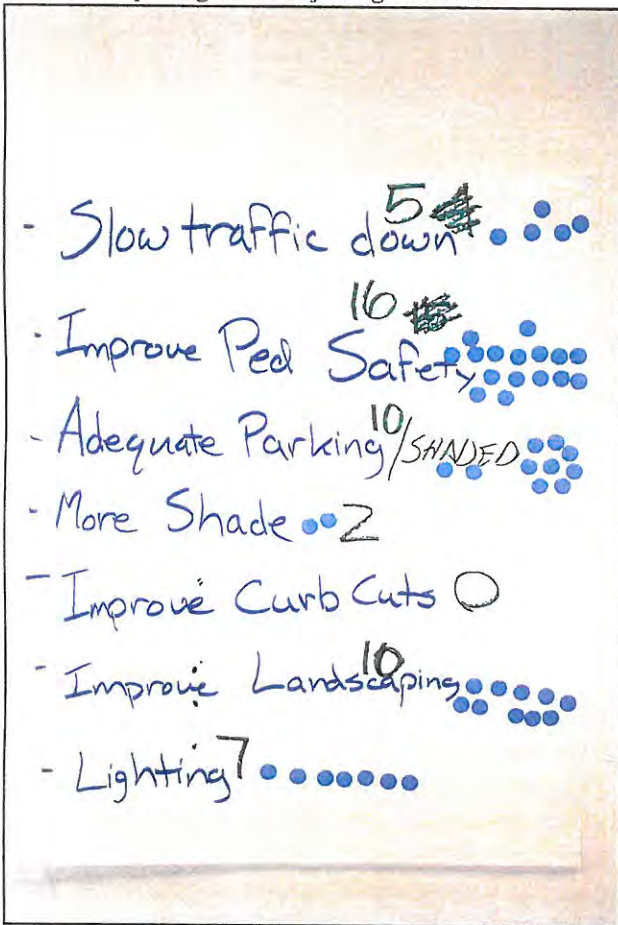


*Morning rush hour at Brawley Union High School.*





Opening session of design charrette.



Opening session tally of votes for street characteristics.

## Public Charrette Events

*Opening Session* — On Thursday evening, October 12, 2006, the Brawley Main Street Program opened with the first public event, held at the Elks Lodge Hall. LGC Program Director Paul Zykofsky gave an overview of what lies ahead in the project, and a short overview on the techniques and benefits of traffic calming and complete streets that work for everyone, not just drivers.

The 40 or so participants were then asked to take part in two simple exercises. First, they used

### BRAWLEY RESIDENTS' DESIRED STREET DESIGN FEATURES

Comment	Votes
• Improve pedestrian safety	16
• High visibility crosswalks	14
• Close through traffic on Plaza	12
• Gateways at entries to town	12
• Business façade improvement	11
• Improve landscaping	10
• Adequate parking (shaded)	10
• Lighting	8
• Pascos to parking in rear	7
• Improve crossing at railroad	6
• Study road diet	6
• Better code enforcement	6
• Slow traffic down	5
• Landscape medians	5
• Attractive, readable signs	5
• Mixed use housing	4
• More shade	2
• Improve curb cuts	0
• Better looking sidewalks	0

October 12, 2006 Opening Session of Main Street Charrette

sticky notes to write down the values they think are critical for a community and stick them in similar groupings on a wall in the auditorium. The high level of agreement on the values that a successful, happy community needs was pleasing to see.

In the second exercise, participants were asked to call out things they would like to see changed or improved on Main Street, while a moderator recorded their issues on a large easel tablet. Those sheets of paper were then taped to the auditorium wall.

Next, participants were each given half a dozen adhesive dots to use as votes for the values they feel are the most important. They were allowed only one dot per item, no doubling of votes. The results are shown in the sidebar to the left.

This information was used by the design team as recommendations for a revitalized Main Street and downtown were prepared. These comments and those made in the focus group meetings are highlighted in the yellow-shaded boxes that appear at the beginning of the section of Chapter 3 that covers each intersection on Main Street and the other areas of Brawley reviewed by the team.



Residents at the opening session.



*Design Session* — On Saturday morning, October 14, 2006, three dozen charrette participants gathered for a review of street design principles, a walking tour of downtown Brawley, lunch, and a hands-on design session.

The most important piece of this week-long process is this session, where the “public” part of public participation becomes real. Simply put — residents of Brawley designed their own Main Street.

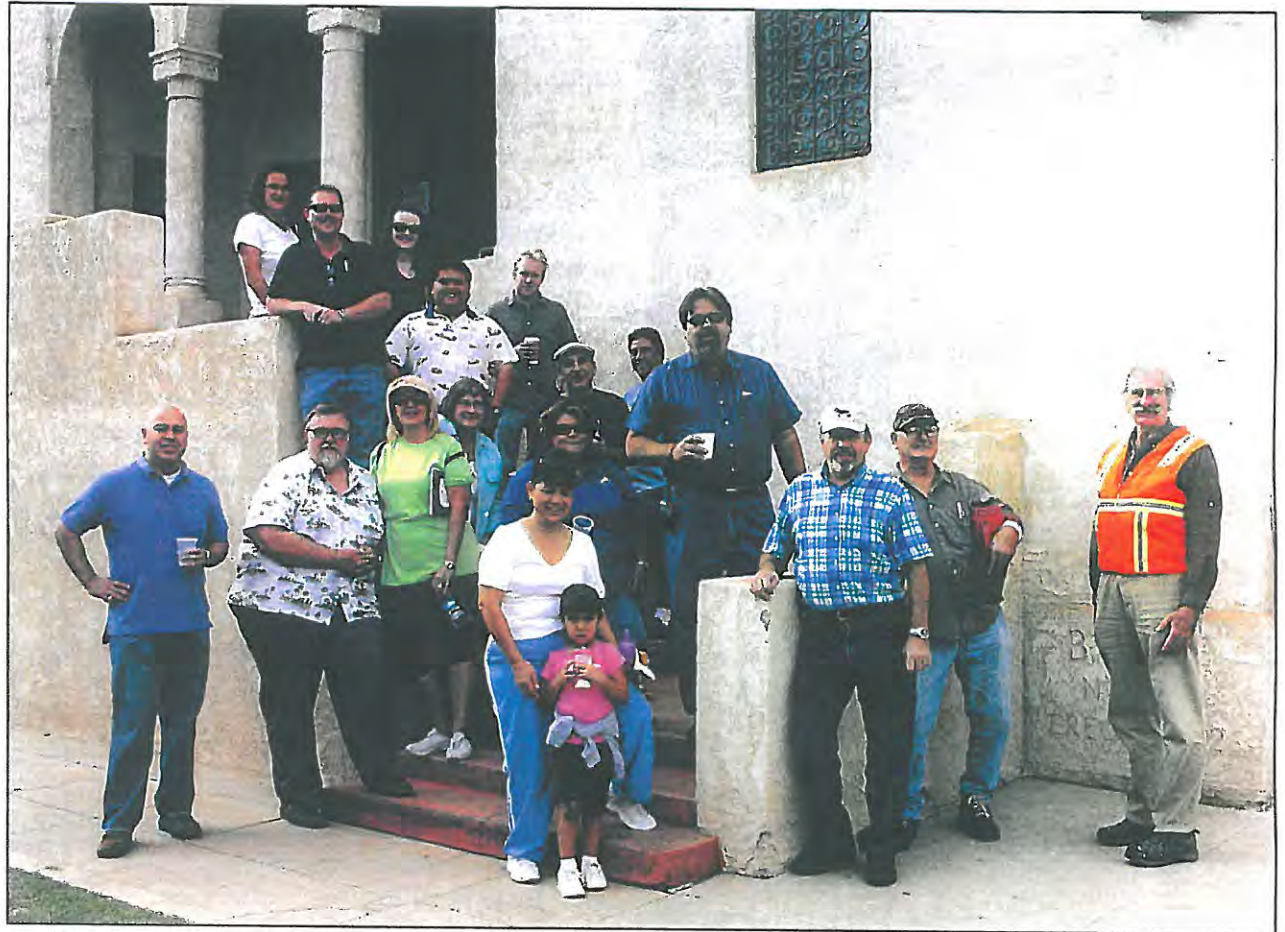
The day began in the Elks Lodge Hall with a quick review of the street design principles from the opening session, and a review of successful redesign projects in other communities.

Participants then walked around central Main Street to review sidewalks, landscaping, medians, buildings, alleys, crosswalks, and especially vehicle activity and driver behavior.

Among the things noted by participants and the design team are:

- Even in the central portion of Brawley, sidewalks are deficient in places.
- Crosswalks are faintly striped and too often end at vertical curbs without ramps.
- Vehicles speed around corners in the Plaza area.
- The shaded arcades are impacted by the noise of heavy vehicles close to the sidewalks.
- The potential for parking behind businesses is limited by the shabby appearance of the alleys.
- Even the light traffic of a Saturday morning is a serious hazard crossing Main Street in the Plaza.
- Except for sidewalks, the emphasis is all on motor vehicles, not pedestrians or bicyclists.

After the walking tour, participants carried this fresh knowledge back to the Elks Lodge Hall for



*Charrette participants prepare for the walking audit of Main Street and the Plaza area with Dan Burden (right).*

snacks and some design work. Participants broke out into two large design groups, each with a complete set of large-scale aerial photographs of Main Street to work with.

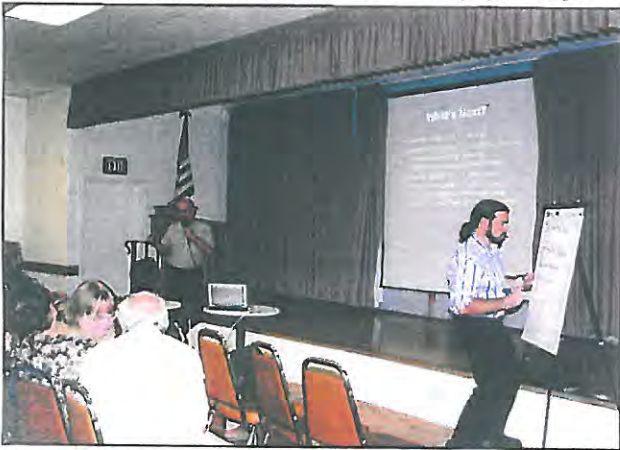
Participants drew specific design features on the images, and made notes in the margins explaining their intention. After each table had discussed the entire length of Main Street, a spokesperson from each table shared the group’s comments and recommendations with the room. Those comments are repeated at length at the end of this chapter.

The sharing of design recommendations concluded the Saturday event, as the design team collected maps and other materials. For the next 3-1/2 days, the team worked in space provided at the Brawley Inn to refine the Main Street design, develop solutions for school areas, and explore land use recommendations for the central district. Multiple trips were made back to the streets and neighborhoods the project covers to photograph, observe vehicle traffic, and take measurements. By Tuesday afternoon, the recommendations were taking shape, and a final presentation was prepared that would give the community an overview.





*Design Team Dan Burden, Kendra Stevens, Paul Zykofsky, Tony Leonard, and Steve Tracy (from left).*



*Recording comments on desired features for Main Street.*



*Closing Session* — Tuesday evening, October 17, 2006, the charrette concluded with two closing presentations of preliminary design recommendations: one at the Elks Lodge Hall to charrette participants, and the second to the Brawley City Council at a regularly scheduled meeting. The entire City Council was also present at the Elks Lodge presentation, which had been announced as a special meeting of the Council (although they conducted no business.)

Once these wrap-up events were finished, the design team departed. Then began many long hours to refine the details of the recommendations, produce the large-scale images that grace Chapter 3 of this report, and write the text that describes the process and the design.

### Resident Design Table Recommendations

The following material is gleaned from the margin notes on the large-scale aerial photographs that the two design groups drew their recommendations on, and their presentations to the room that explained their design features and reasoning. As will be the progression for the rest of this report, these details are discussed west-to-east along Main Street.

#### *Las Flores Drive*

Table One:

- Begin western entrance features and flashing warning lights in median at the bottom of the New River arroyo dip.
- Minority opinion to place narrowing features at the outside edge of the roads instead of the center.
- Slow vehicles before they get into town by reducing speed limit to 35 MPH west of Las Flores.

- Install large, visible "Welcome to Brawley" gateway just west of Las Flores.
- Begin narrowing of curb-side lanes at appropriate spot on west edge of town using 10 inch white stripe and colorization.
- Continue this colorization all the way to 1st Street, possibly as a bike lane.

Table Two:

- Landscaped median from New River arroyo bottom to Vons.
- "Welcome to Brawley" sign at the top of the hill coming up out of the arroyo, with drop in speed limit at that point.
- Directional signs along Main Street to Post Office, Police Station, etc. to let people know there's a lot here.
- Add bike lane all along Main Street beginning at Las Flores and continuing east.

#### *Marjorie Avenue*

Table One:

- Install median to prevent left turns into westernmost driveway to Von's for eastbound traffic.
- "Jog" straight north from Marjorie into Von's parking lot is OK.
- Install safe pedestrian crossing features at the west side of this intersection using that median as soon as possible.
- Reduce speed limit at Von's.
- Begin road diet at Von's.
- Begin striping bike lane at Von's.

Table Two:

- Install safe pedestrian crossing features at the west side of this intersection using that median as soon as possible.



### *Rio Vista Avenue*

Table One:

- Install high visibility crosswalks.
- Continue reduced speed, road diet, and bike lane.

### *El Cerrito Drive*

Table One

- Continue reduced speed, road diet, and bike lane.

### *Western Avenue*

Table One:

- Continue reduced speed, road diet, and bike lane.
- Install high visibility crosswalks.

### *First Street/Highway 86 South*

Table One:

- Continue reduced speed, road diet, and bike lane.
- Install diagonal parking from here to 8th Street.
- Remove center medians to gain room for pedestrian and bike access, and more parking.
- Install high visibility crosswalks at all intersections from here to 8th Street.
- Begin curb extensions at 1st Street and carry them east from here.

### *Third Street*

Table One:

- Continue reduced speed, road diet, and bike lane.



*Table One finds inspiration in converting Main Street through central Plaza to parking and festival area.*

- From this point to tracks mark all crosswalks with high visibility treatment.
- Future—possible roundabout here and at other intersections if bypass removes enough heavy traffic.

Table Two:

- Begin facade and lighting improvement program from here to 8th Street.

### *West Plaza*

Table One:

- Continue reduced speed, road diet, and bike lane.
- Install raised, high visibility, crosswalk with flashers between Post Office and City Hall.
- Modify ADA ramps around Plaza to meet code.
- Install countdown pedestrian signals at intersections.





*Table One explains their recommendations.*



*Table Two follows with their solutions.*



*Hands-on designers during Saturday charrette session.*

- Mark bike route through Plaza area.
- Future lighting in colonnades, plaza, and around windows; street lighting improvements.
- When ROW is City-owned, convert plaza to angle parking on both sides with turn-around in center.
- Preserve focus on City Hall and Post Office buildings designed to front onto Main Street.
- If Plaza is closed, install traffic circles at both ends and middle of Plaza, at 2nd Street by the church, and at 6th Street.

**Table Two:**

- Remove Truck Route sign.
- Install high visibility crosswalks on west and south sides of intersection, and between Post Office and City Hall.

*North Plaza*

**Table One:**

- Install traffic islands.

**Table Two:**

- Install curb extensions at 5th and North Imperial.
- Landscape back alley parking lots.
- Install angle of straight-in parking on northeast side and between E Street and North Imperial.

*South Plaza*

**Table Two:**

- High visibility crosswalks at G and 5th Streets.
- Install angled or straight-in parking.
- Install curb extensions at G, South Imperial, and 5th.
- Maybe a traffic island at south tip of Plaza.

*West Plaza*

**Table One:**

- Need workshop and gallery spaces for artists.
- Improve façades of existing buildings.
- Add paseos between alleys and Main Street through appropriate spaces north and south in 500 block.
- Improve parking areas in back alleys (lighting, landscaping).
- Investigate ownership of possible parking locations.
- Consider removing medians in 500 and 600 blocks to move traffic farther from sidewalks and arcades.
- 1st to 8th and Plaza area, require 7 foot sidewalks with 2 foot shy zone, and 5 foot where shy zone not required.
- Pull sidewalks back from curbs.

**Table Two:**

- Add high visibility crosswalks on north, east, and south sides of intersection.
- Add paseos to rear parking in 500 block.
- Improve parking areas in back alleys (lighting, landscaping).

*Railroad Tracks*

**Table One:**

- Continue to stripe all crosswalks from here to the east gateway.

*Eastern Avenue*

**Table Two:**

- Install proper sidewalks from Eastern Avenue to Best Road.



## Highway 111 Bypass

Tables One and Two:

- Move forward with eastern gateway as soon as possible (Caltrans).

## Summary of Charrette

Visual images of the resulting designs are spread throughout the next Chapter of this report. The residents, officials, and City staff who contributed their time and expertise to this project deserve the gratitude of the entire Brawley community.



*One fifth grader's map for getting to school.*



# BRAWLEY MAIN STREET PLAN

## CHAPTER 3: STREET DESIGN

### Overview

The design recommendations are the heart of this report. This section details the current status of Main Street, and recommendations for short and long term designs, for the entire length — over two miles from the New River arroyo to the new Highway 111 bypass. Particular attention has been paid to the area near the Plaza.

Although design improvements away from Main Street were not originally part of this project, the design team also evaluated two problem areas after listening to parents and educators. Those areas — Brawley Union High School and Witter Elementary School — are discussed at the end of this section.

The design plan for Main Street is described in a methodical fashion, from the New River arroyo at the western end of Brawley, block by block, through downtown to the new Highway 111 bypass at the eastern edge of town. All of the critical areas are featured in the accompanying images that detail design recommendations. These recommendations are not the product of the design team working in isolation. Factors leading to these recommendations include:

- Most important, the suggestions made by Brawley residents at the Saturday design session.
- Effective solutions used in similar situations in other cities.
- Current and projected traffic volumes.
- Accident types and frequency.
- Flexibility for future changes.
- Simplicity and cost.

The discussion of each section of Main Street begins with a short description of the current situation. This information will include:

- Section Width — the measurement across the street, curb to curb.
- Average Daily Traffic (ADT) — recent 24 hour weekday vehicle counts in both directions on Main Street.
- Accident history — from January 1, 2005 to March 31, 2006, City of Brawley data.
- Issues — comments made by residents in the charrette sessions.
- Resident recommendations — made by design table groups at the Saturday workshop.

Short-term solutions should be undertaken as soon as possible by the City of Brawley, in coordination with Caltrans. Most of these solutions can be accomplished by simply removing existing lane striping and reapplying paint to match the new configuration. This is quick and inexpensive, and consistent with City policies and plans. After striping, concrete blocks can be placed to separate travel lanes from bike lanes through the arroyo and outline median areas everywhere. The medians will be mostly symbolic until raised and landscaped medians can be installed.

Planning and budgeting for the long-term solutions should also begin immediately. This will have the City prepared for action once the right-of-way for Main Street has been turned over by Caltrans, and as funding becomes available. Possible funding sources are discussed in Chapter 5 of this report.

One long-term solution should wait a bit longer, to a date that is not certain at this time. Until the Highway 111 bypass is completed, there will likely still be a significant volume of truck traffic from the Highway 86 expressway on the west side of Salton



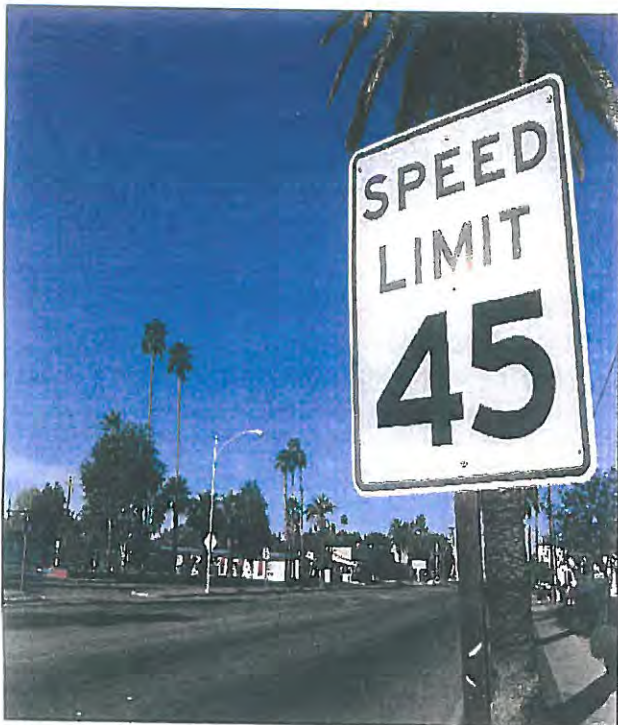
*City Hall and Post Office — prominent public buildings.*



*It's difficult to cross from one to the other.*







*Main Street speed limits are too high for urban areas.*



*Trucks enter Brawley at highway speeds...*

Sea passing through Brawley. Once a large portion of that traffic is diverted, West Main Street can be narrowed to two lanes through the last few blocks from the New River arroyo to 1st Street. This is a sound recommendation for the following reasons:

- Considerable through truck traffic will use the new bypass.
- Much of the remaining truck traffic on Highway 86 will be oriented to Interstate 8 via Road S30.
- The lane reduction will provide the type of street that will foster redevelopment and reuse of the west end of Main Street into a vibrant, walkable, storefront environment.

Although this recommendation is not diagrammed in this report, it can be achieved by extending the configuration recommended east of 1st Street (Figure 3-5) to the western edge of town.

#### **Street design highlights include:**

- Continuous pedestrian walkways from the western edge of the New River arroyo to the Highway 111 bypass.
- Repairs and upgrades to existing sidewalks, for compliance with Americans with Disability Act (ADA) standards.
- Curb extensions to reduce pedestrians' vulnerability when crossing streets.
- A complete set of highly visible crosswalks at every intersection the full length of Main Street.
- Seven foot wide bicycle lanes the full length of Main Street except for: a) the block between Marjorie Avenue and Rio Vista Avenue where they are reduced to six feet wide to allow for a 4 foot median, and b) in the mid-Plaza parking area (long term recommendation) where bicycles will share space with vehicles. (Note: An approximately one-foot wide stripe to separate the bike lane is included in the width.)

- The speed limit reduced to 25 miles per hour the entire length of Main Street.
- Vehicle lanes narrowed to 11 feet wide.
- The vehicle lane count reduced to one through lane in each direction from First Street to the Highway 111 bypass.
- Ultimately, this two-lane-with-turn-lane configuration can be extended through the remaining (western) portion of Main Street when the Highway 111 bypass is completed.
- Improved landscaping along Main Street, including landscaped medians which will ultimately grace the entire length of the street.
- Improved street furniture such as street lighting, shaded bus shelters, resting benches, public art, and trash and recycling receptacles.
- Attractive directional signs to public buildings and facilities such as schools, Cattle Call Park, City Hall, Lions Field, etc.
- Prominent gateways at the East Main and West Main entries into Brawley.



*...encouraged by the open highway look of Main Street.*



## WEST MAIN STREET

### 1. New River Arroyo Gateway (Figure 3-1)

- Section Width — 90 feet.
- ADT — 19,000.
- Accidents — None in the 15-month data period Jan 2005 through Mar 2006.
- Issues — Speed. Not designed for bicyclists or pedestrians.
- Resident recommendations — West gateway in arroyo, slow vehicles before they get into town, narrow vehicle lanes, add bike lanes.

#### Discussion

Dangerously high speeds dominate people's concerns about this area. In particular, people fear heavy trucks traveling at near-highway speeds. While there are no reported accidents in the arroyo in the 15-month history provided by the City, vehicles speeding eastbound through this section have caused accidents in the past.

Therefore, this section of Main Street is very critical. It must be designed as a transition zone between the rural highway and the city street network. It must provide subtle features and bold signals that tell drivers they are entering an active urban zone and must slow down. Nothing in the current roadway at this time gives those signals. In fact, the down slope on the west side of the arroyo serves as a counter to slowing that would otherwise occur as drivers lift off the throttle entering Brawley. The residents working in the design session agreed that the rural appearance of Main Street must change at the top of the slope on the west side of the arroyo.

#### Short Term Solution

This begins by defining a roadway that is consistent with the lane dimensions at Las Flores Drive. At that point the pavement is 90 feet across, the same width as the New River bridge. The difference is that sidewalks near Las Flores are off the roadway behind curbs, while on the bridge they must be accommodated within the roadway. This isn't a problem, given the 90 foot width of the existing bridge structure.

Through the arroyo and over the bridge, the recommended short-term configuration of Main Street west of Las Flores should include:

- Two 8-foot pedestrian ways at the edge of the existing pavement, 16 feet total.
- Two 8-foot wide bike lanes (including 1 foot wide separator stripes with low concrete blocks), 16 feet total.
- Two 11-foot wide travel lanes in each direction, 44 feet total.
- A 14-foot wide median, boldly striped.



Figure 3-1: Example for Western Gateway at New River Arroyo.





*Gateway example from Holtville.*



*Trucks also increase speed leaving town...*

Beginning at the western side of the arroyo, vehicle travel lanes should be narrowed two feet from the open highway lane width of 13 feet. The bike lanes and pedestrian walkways at this point should be separated from the vehicle lanes not just by paint, but also by low cement bumpers like those in the photo below. This is necessary for safety reasons, because of the expected higher speeds of the adjacent traffic, but will not prevent those areas from being used for emergency parking. Between the bridge and Las Flores Drive, curbs will eventually appear. At that point pedestrians will move off the pavement shoulder walkway and onto sidewalks behind the curbs.

The median will grow at this same point to take up the width vacated as the pedestrian walkways become sidewalks. This will cause the vehicle lanes to shift 8 feet to adjust. This type of chicane treatment is commonly used to catch drivers' attention and reduce speeds.

Except for the addition of low concrete blocks to outline the future median and to separate vehicle lanes from non-vehicle space, these short-term changes require only simple application of paint.



*...as they see open highway ahead.*

## Long Term Solution

In time, the short-term design will be improved by a raised median, full landscaping, artwork, flashing warning lights, and an attractive entryway treatment. Figure 3-1 shows one example, although it depicts the four-lane short term configuration of the vehicle lanes. The exact nature of the entryway can be determined later, after community discussion. It should be located to the west of Las Flores, with a design that clearly signals the beginning of town. Monuments in medians are the most typical design, but overhead archways are also common. They are eye-catching, and more effective at reducing vehicle speeds. An overhead obstruction, even one with more than sufficient clearance, somehow induces most motorists to slow down.

Whatever design for the gateway is selected, it will be matched at the far east end of Main Street near the Highway 111 bypass. This same theme could also be used for gateways on north 8th Street/ Highway 111, and near the hospital on Highway 86 South.



*Low concrete pucks can enhance bike lane visibility.*



## 2. Las Flores Drive (Figures 3-2 and 3-3)

- Section Width — 90 feet on the west, 100 feet on the east.
- ADT — 19,000.
- Accidents from January 2005 through March 2006 — One.
- Issues — High speeds, seniors crossing with canes and wheelchairs, very wide lanes, wide street.
- Resident recommendations — Improve pedestrian crossing safety with better crosswalk warnings, add directional signs (Post Office, schools, etc.) all along Main Street, landscaped medians.

### Discussion

The intersection of Las Flores Drive with Main Street is one of the more complicated areas evaluated in this project. As discussed above, there are long-standing safety issues related to vehicles carrying near-highway speeds into this developed portion of Brawley as they enter town from the west. Similarly, the design team repeatedly observed eastbound drivers between the Vons market and Las Flores Drive accelerating well above the in-town speed limit as they headed for the open highway.

There are also design complications with the physical layout of the intersection. The segments of Las Flores Drive north and south of Main Street do not line up, but are offset 35 feet. This requires drivers crossing Main Street on Las Flores Drive to weave as they cross, and complicates crosswalk

designs. Also, the curbs on the north side of Main Street are ten feet closer to the center line of the street on the west side of Las Flores Drive than on the east side.

East of Las Flores Drive, Main Street gradually tapers down from the 100-foot width to the approximately 70-foot width that it carries through most of Brawley.

### Short Term Solution (Figure 3-2)

In the short term, and before Las Flores Drive can be realigned as described below, the excessive width still represents a problem for pedestrians. At the same time new striping is laid down for vehicle travel lanes and bike lanes, full crosswalks at the intersection and a mid-block crossing should be striped and prominently signed. The mid-block crossing in front of the Brawley Inn, shown in Figure 3-2, addresses an extreme danger. Seniors from the housing facility on the south side of Main Street cross to Vons market and other attractions north of Main Street. During their time in Brawley, the design team witnessed frequent hazardous journeys at this location by individuals slowed by age, wheelchairs, or canes.

Providing this crosswalk away from the intersection brings pedestrians farther into Brawley where vehicle speeds are lower. It also removes them from the complication of vehicles crossing or turning on or off of Main Street at Las Flores Drive. This crossing should be offset 10 or 20 feet in the median like the example in the photo on the next page and shown in Figure 3-2, so that drivers and pedestrians have eye-to-eye contact before the pedestrian completes the second leg of the crossing.



*Las Flores Drive entryway can be improved.*



*Streetscape is more rural highway than city street.*



*Little attention is given to pedestrian safety.*



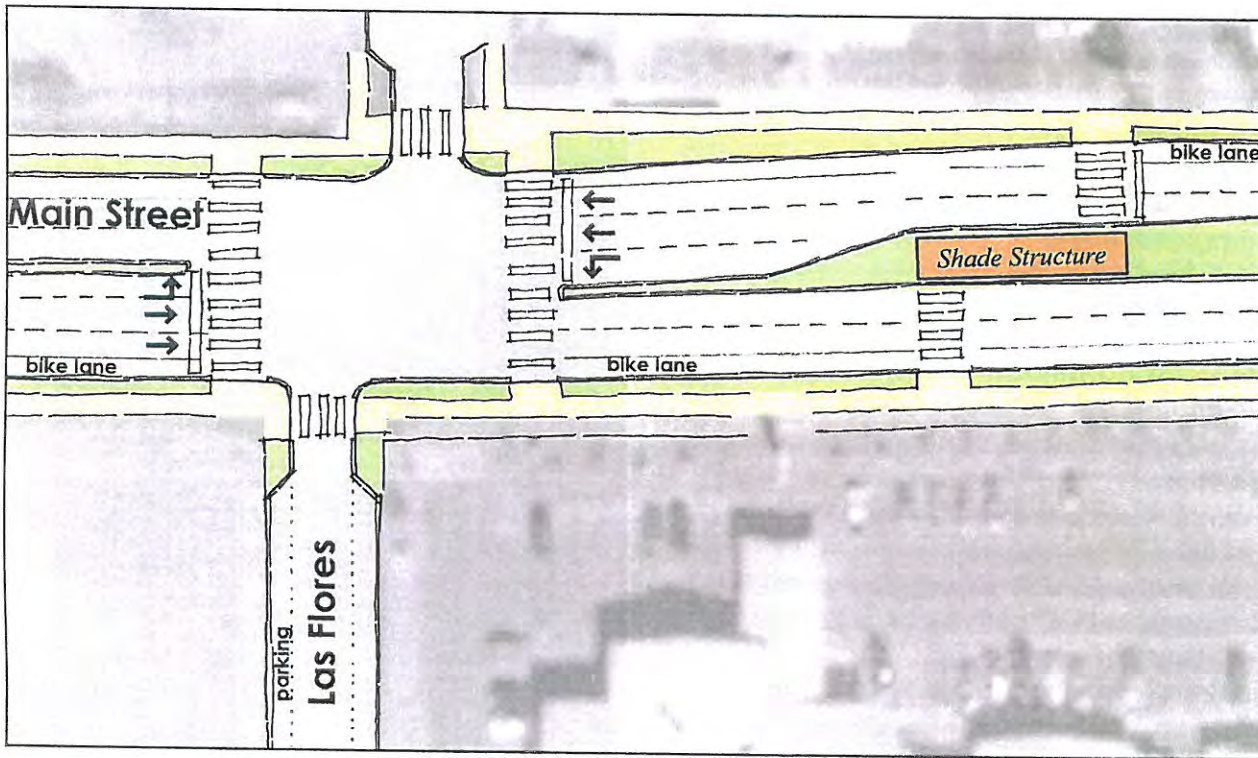


Figure 3-2: Short-term recommendation for Las Flores Drive intersection.



Offset crosswalks like this one on loan from Tucson, Arizona, force pedestrians to face oncoming traffic.

### Long Term Solution (Figure 3-3)

Correcting the misalignment of Las Flores Drive is a fairly simple task. The property at the northwest corner of this intersection is currently undeveloped, and used intermittently for overflow parking from events at the Brawley Inn complex. Curving Las Flores Drive across this vacant lot 35 feet to the west will correct the misalignment. A land swap will provide room for the new Las Flores Drive alignment, and give the Brawley Inn owners paved property immediately adjacent to the restaurant and meeting hall that can be restriped for parking free of dust and mud.

A curb extension on the northeast corner of the realigned intersection will reduce pedestrian crossing distance and line up with the configuration west of the intersection.

After the realignment, this intersection should be configured as it appears in Figure 3-3, with curb extensions, raised medians, and crosswalks with the full complement of signs, flashers, and paint connecting all four corners.

The 10 foot wide parking area indicated on Figure 3-3 should be striped for parking, possibly restricted to large trucks and RVs. A less useful alternative would be to fill in that space with sidewalk and landscaping, moving the curbs out 10 feet to line up with those west of the intersection, as shown in Figure 3-2.

The width of the vehicle and bike lanes will remain unchanged from Las Flores Drive to Marjorie Avenue. As the curbs come closer together, the north side parking will disappear and the median will shrink.



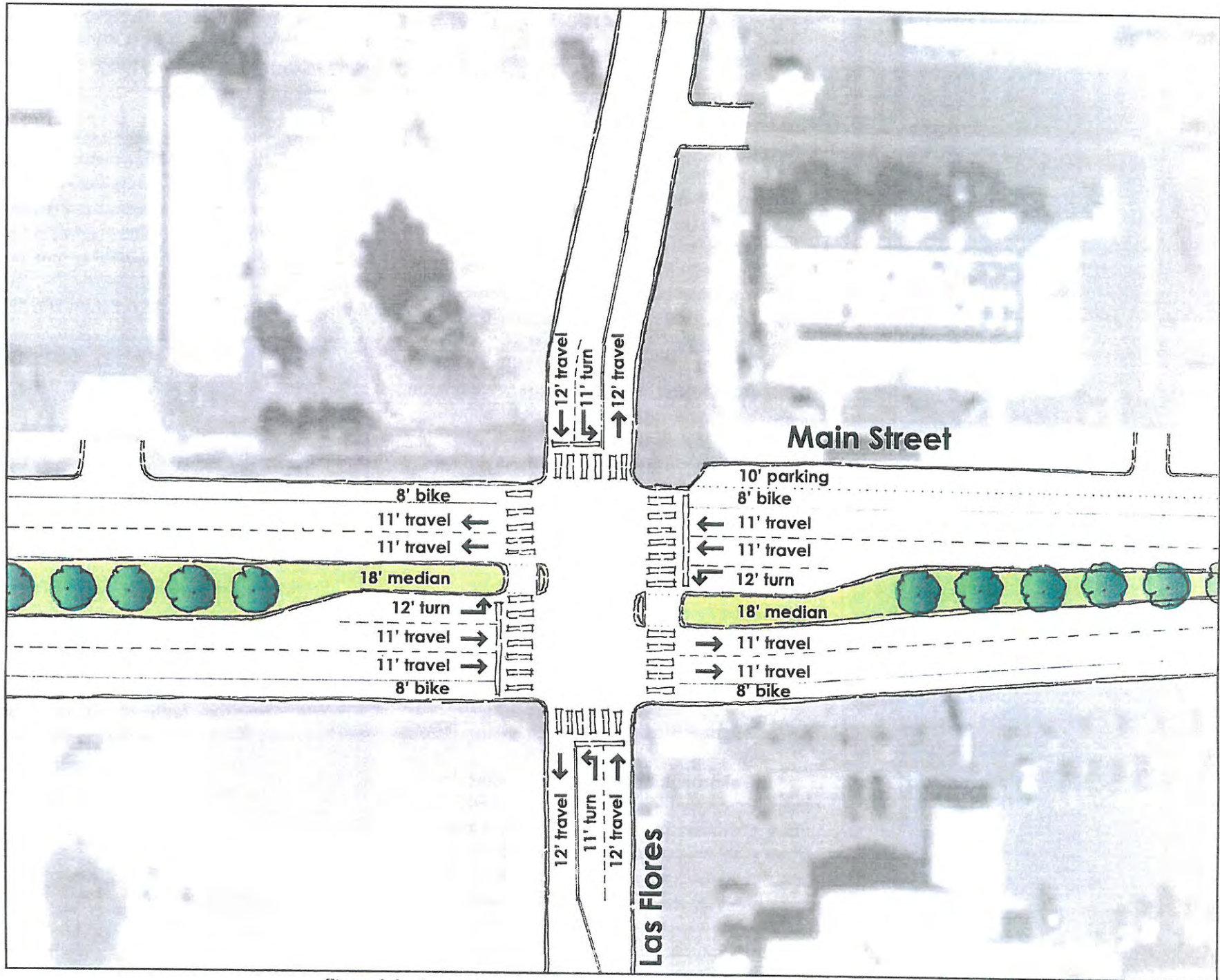


Figure 3-3: Long-term recommendation with realignment of Las Flores Drive.





Marjorie Avenue does not line up with the Vons driveway...



...so vehicles turning into driveway block left turn lane...



...and cross oncoming traffic speeding up leaving town.

### 3. Marjorie Avenue - Rio Vista Avenue (Figure 3-4)

- Section Width — 70 feet.
- ADT — 19,000.
- Accidents from January 2005 through March 2006 — Three.
- Issues — Speeding, especially trucks. Dangerous offset between Marjorie Avenue and Vons market driveway.
- Resident recommendations — Prevent left turns into western Vons driveway, install crosswalks at Marjorie, reduce number of lanes, lower speed limit, add bike lanes on Main Street.

This section of Main Street begins the configuration that will extend east to the junction of southbound Highway 86 at First Street. It is complicated only by the unsafe driver behavior caused by the awkward offset of Marjorie Avenue and the western driveway into the Vons market parking lot.

The only viable solution for that problem is the continuous median, as shown in Figure 3-4. Pedestrians would have improved crosswalk access at Marjorie Avenue. Drivers would be directed to the eastern driveway and the protected left turn lane to wait in until oncoming traffic clears.

#### Short Term Solution

In the short term, the configuration in Figure 3-4 should be created with paint and the median outlined with concrete blocks. Only in the area in front of the western driveway into the Von's Market parking lot are more substantial features required. A long oval of curb-height concrete blocks (common in parking lots) can block left turns from Marjorie Avenue, and left turns into and out of the parking lot. This oval should extend at least 25 feet beyond the edges of the driveway

and Marjorie Avenue, or about 150 feet. This isn't the most attractive solution, but it will solve this particular problem until funds become available for full landscaped medians.

At this time, the design team is recommending that left turns be allowed out of this eastern driveway. This requires incoming and outgoing drivers to be alert and share crossing opportunities that gaps in westbound traffic create. If this proves problematic, this driveway should be restricted to inbound vehicles only. Then drivers departing the Vons lot heading east on Main Street would be directed

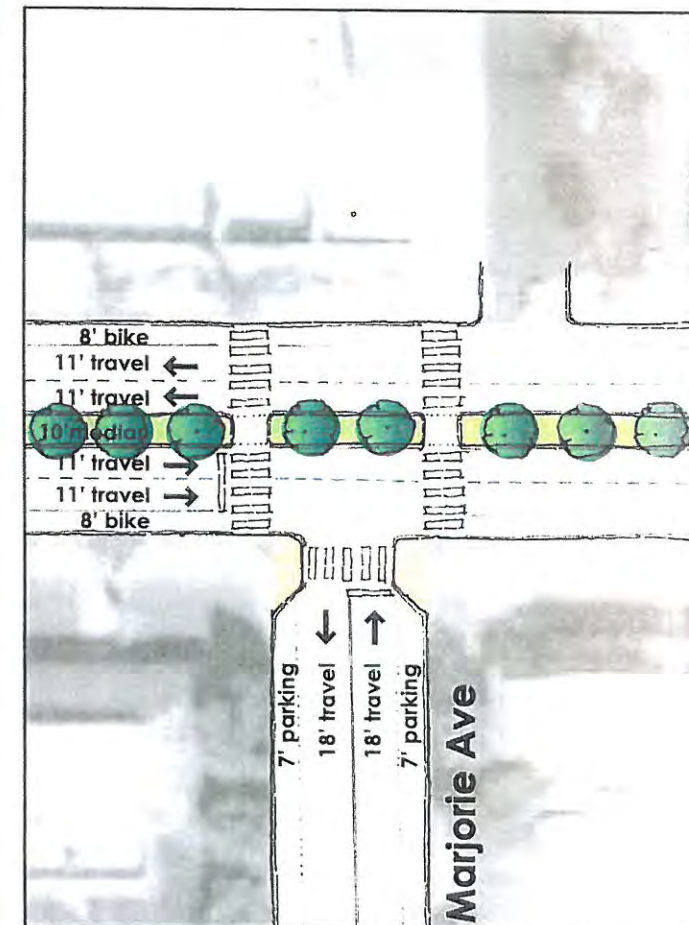


Figure 3-4 (portion).



to exit the parking lot to the east and access Main Street at the Rio Vista Avenue signals. The median would then be expanded to the full width from the inbound left turn pocket to the beginning of the left turn lane for northbound Rio Vista Avenue.

The 8-foot wide (with 1-foot stripe) bicycle lanes that began on the west side of the New River arroyo must be narrowed to only six feet wide a bit east of Marjorie Avenue. This width still exceeds the five foot minimum standard for Class II bicycle facilities. Until the lane reduction is done for this section of Main Street, it will have to suffice.

### Long Term Solution

In time, all the features shown on Figure 3-4 should be installed. The temporary barrier blocking left turns into the Vons driveway will be replaced with a full median. The design shown for Main Street at Rio Vista Avenue will continue eastward past El Cerrito Drive and Western Avenue to 1st Street. Those two intersections were the scenes of 7 accidents in the 15 months of available data. Resident comments for these intersections repeat the themes of speeding vehicles, unsafe pedestrian conditions, and no bike lanes. Design table groups

recommended familiar solutions for these locations: speed reduction measures, lane reductions, adding bicycle lanes, and improved crosswalks.

In the long term, bypass highway solutions will reduce vehicle traffic on Highway 86, especially heavy truck traffic. At that time, Main Street west of First Street should be reconfigured for only one lane in each direction, matching the recommended configuration for the rest of Main Street. Then the bicycle lanes could be restored to the full 8-foot width, including striping, and curbside parking added.

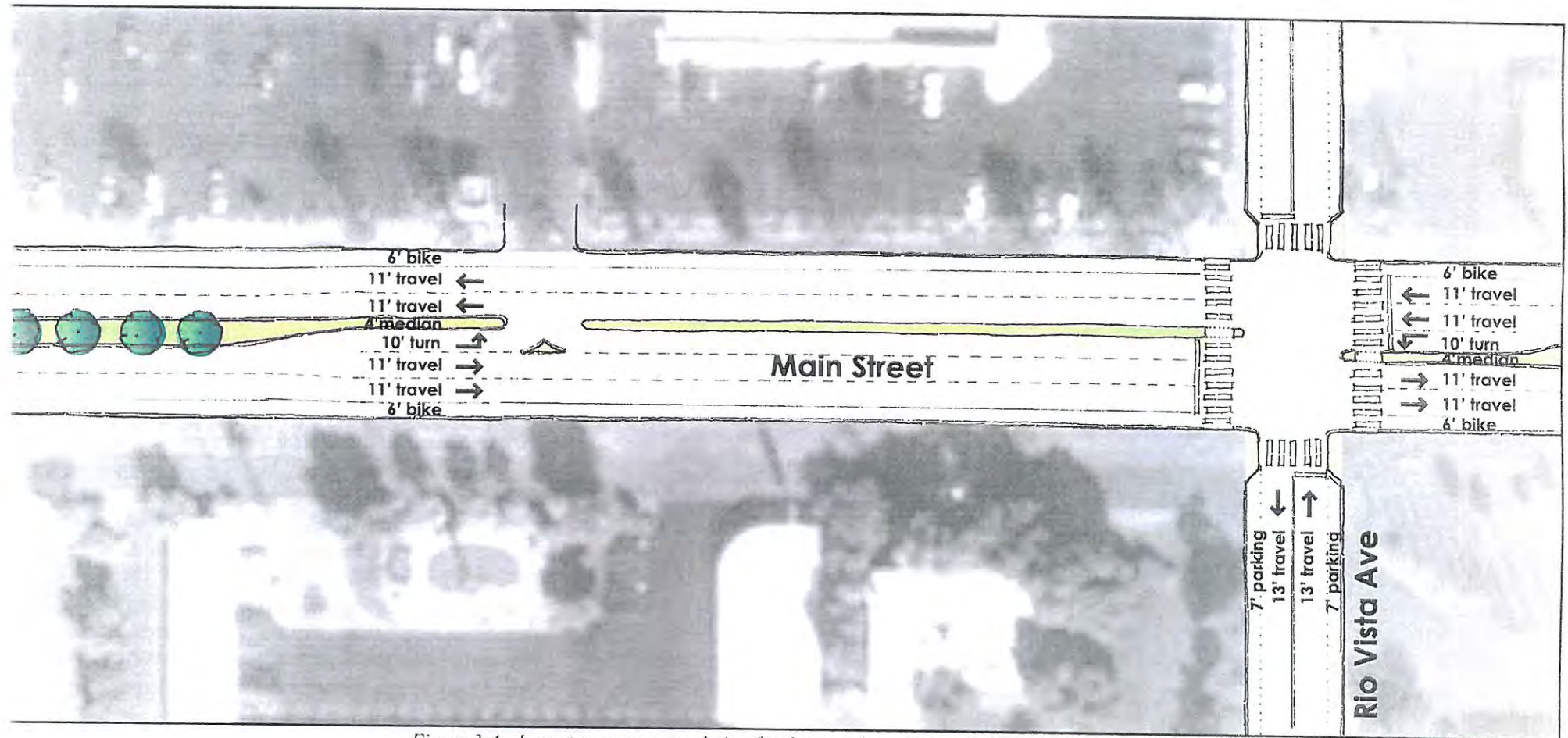


Figure 3-4: Long-term recommendation for the area from Marjorie Avenue to Rio Vista Avenue.





*First Street/Highway 86 South intersection.*



*Left turns onto Highway 86 South.*



*This portion of Main Street will get lane reduction.*

#### 4. First Street/Highway 86 South (Figure 3-5)

- Section Width — 72 feet west of 1st, 70 feet east.
- ADT — 21,000.
- Accidents from January 2005 through March 2006 — Three.
- Issues — Speed, pedestrian safety.
- Resident recommendations — Road diet, reduce speeds, add bike lanes; add diagonal parking, highly visible crosswalks, and curb extensions from 1st to 8th Street; remove medians to add parking (conflict with road diet solution).

#### Short Term Solution

As Figure 3-5 shows, the design team recommends a dramatic change in the configuration of Main Street at this point. Beginning at the 1st Street intersection and continuing to the east, through lanes are reduced to one in each direction. This



*Many school-age children use the First Street crossing.*

frees up sufficient room within the existing curbs to create a “complete street” that will serve all users of this public space. As stated earlier, these changes can initially be done just with the application of fresh paint. There are so many benefits to this lane reduction that it should be done as soon as possible.

Here are the details:

- For eastbound vehicle traffic, the right hand lane will require a forced right turn onto 1st Street/Highway 86 south. Through traffic in the center lane will proceed eastward.
- Westbound vehicle traffic will have two lanes available, once west of 1st Street. Signage, the street design, and enforcement will continue to remind drivers that reduced speeds are still the rule between this point and the open highway beyond the arroyo.
- Curbside parking on both sides of Main Street will be marked with 8 foot wide spaces.
- Bicyclists will benefit from the redesign in two ways. First, the bike lanes will be two feet wider from this point eastward. Second, the speed and intensity of vehicle traffic to their left will be reduced with the single-lane design. Both factors will make for safer and more pleasant bicycle travel.

A glance at the design for 1st Street shown on Figure 3-5 shows features not typical of the other side street intersection designs along Main Street. Because 1st Street/Highway 86 will still handle more truck traffic than most other side streets, lane widths are increased near the intersection with Main Street. Once away from the intersection, lane widths should be reduced to 11 feet. This is a width



more suitable for urban areas, and endorsed by national street engineering groups.

It should also be noted that 1st Street/Highway 86 to the south is shown on Figure 3-5 with only one through lane in each direction. This lane reduction is appropriate in this urban setting, even for a state highway. Traffic volumes are well below levels requiring the four existing lanes, and are projected to remain so in the future. Reducing the lane count on this street is also critical to improving safety at two very dangerous intersections a few blocks to the south — K Street and Malan Street — which are discussed later in this report.

### Long Term Solution

Curbside extensions will be added to all corners of the intersection. These will be a regular feature at intersections from this point eastward, serving to restrict vehicle space to the proper width, and reduce the time and distance for pedestrians to cross the street.

Curbside extensions on the west side of 1st Street will not protrude into Main Street beyond the existing curbs until the lane reduction is extended west from 1st Street. East of the intersection, and beyond, most crosswalks will feature curbside extensions the same width as the curbside parking stalls.

The full set of streetscape features shown on Figure 3-5 will create a boulevard feel that will be carried through the core of downtown Brawley. While the basic reconfiguration can be done with paint, the complete set of improvements is necessary to finish the treatment. Full raised medians, landscaping, curbside extensions, and other improvements can be done in stages as funding becomes available.

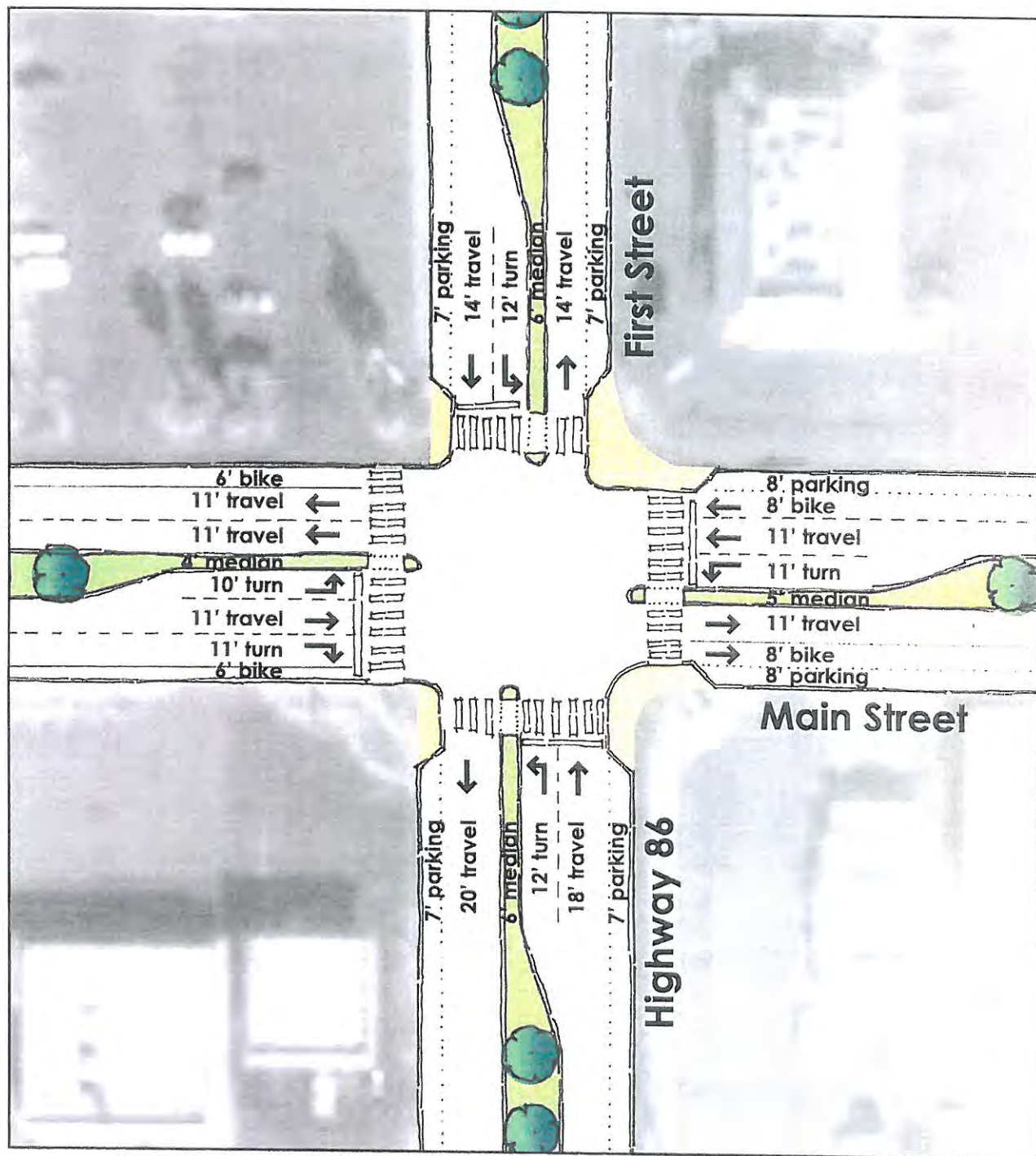


Figure 3-5: First Street (Highway 86) transition between 4 through lanes and 2 through lanes.



## CENTRAL MAIN STREET PLAZA PARK & COMMERCIAL CORE

### 5. Second Street to Plaza Park (Figure 3-6)

- Section Width — 70 feet.
- ADT — 20,000.
- Accidents from January 2005 through March 2006 — Seven.
- Issues — Left turns are now prohibited.
- Resident recommendations — Continue road diet treatment.

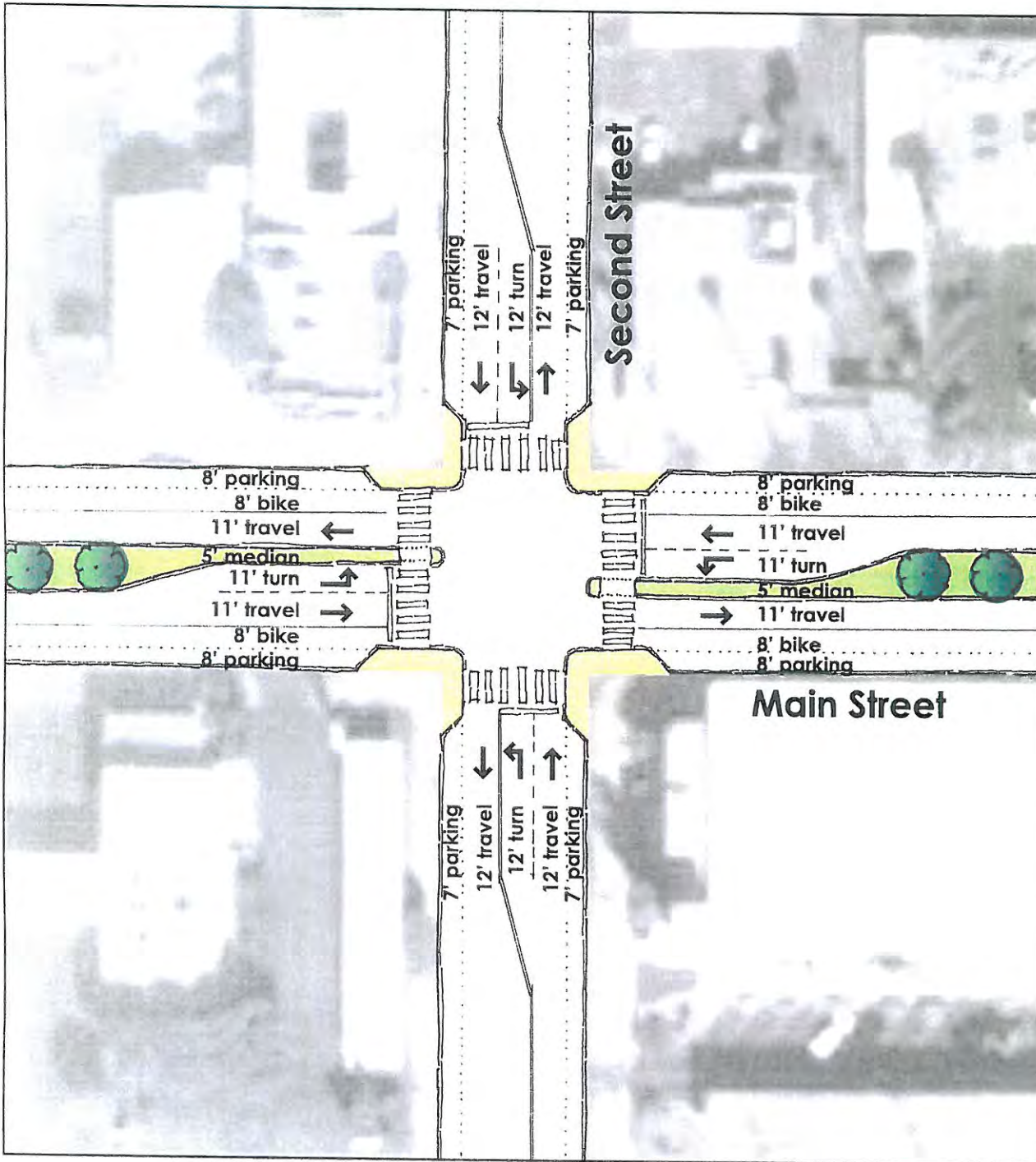


Figure 3-6: Second Street intersection after removal of left turn barriers.

#### Short Term Solution

Implement the lane reduction configuration in Figure 3-6 immediately by restriping the street without more expensive improvements such as landscaped medians and curb extensions. The City should also consider removing the recently installed islands that prevent left turns from Second Street onto Main Street and painting left turn lanes as shown. Although the recent accident history clearly demonstrates the safety issues at this intersection, the lane reduction design will reduce through traffic speeds and make these left turn movements safe again.

#### Long Term Solution

Continue the design started at First Street with the lane reduction, bicycle lanes, improved crosswalks, and fully landscaped medians. The design shown on Figure 3-6 should be extended to Plaza Park and beyond as soon as funding for the full improvements can be found.