



CITY OF BRAWLEY

SUSTAINABLE COMMUNITIES PLANNING GRANT

**HOUSING ELEMENT REPORT:
INFILL DEVELOPMENT STRATEGY**

November 2019

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A. INTRODUCTION

The California Strategic Growth Council awarded the City of Brawley a Sustainable Communities Planning Grant. All awards are funded through voter-approved Proposition 84 bond allocations. In 2006, California voters passed Proposition 84, the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act, which authorized the Legislature to appropriate funds to support urban greening projects and sustainable community planning.

The Sustainable Communities Planning Grants fund climate action plans, infill development plans, sustainable community strategies, and other planning efforts, all specifically aimed at reducing greenhouse gas emissions consistent with State climate goals. Funded activities are intended to achieve the 12 Program Objectives. Brawley's Infill Development Strategy is intended to contribute to attaining five of the 12 Program Objectives:

- Promote infill and compact development
- Revitalize urban and community centers
- Increase housing affordability
- Reduce automobile usage and fuel consumption
- Promote energy efficiency and conservation

This Report discusses the following:

- Housing/Jobs Balance
- Southern California Association of Government's (SCAG) Jobs Forecast
- Inventory of Infill Sites
- Incentives for Infill Housing Development
- Infill Housing Development Strategy Plan
- Energy Conservation Program
- Climate Change Policies and Implementation Programs: Land Use and Transportation Measures
- Amendments to the Housing Element

B. HOUSING/JOBS DATA BASE

Fewer vehicle miles traveled leads to reducing GHG emissions. A California planning study explained why having housing and jobs in close proximity makes sense:

People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reduction in both vehicle miles traveled and vehicle hours traveled.

Source: California Planning Roundtable, *Deconstructing Jobs-Housing Balance*, 2008, page 6

The proximity of jobs and housing within a community is typically expressed as a ratio. For example:

Jobs-housing ratios express quantitatively the relationship between where people work (the "jobs" side) and where they live (the "housing" side). Whatever community is being

analyzed, the same kinds of inputs are required to construct a jobs-housing ratio, and several kinds of ratios can be constructed. The typical measures of the ratio of jobs to housing include jobs-households, jobs-housing units, and jobs-employed residents

Source: California Planning Roundtable, *Deconstructing Jobs-Housing Balance*, 2008, page 8

These ratios are explained below:

Jobs-households ratio: The most common numerical measure of jobs/housing balance is a ratio between the total job count in a jurisdiction and the total household count, i.e., occupied housing, in the same area.

Jobs-housing units' ratio: Because most local communities have counts of their local housing stock, a different measure from jobs-households is often used: jobs-housing units. But this measure, which uses housing units as the proxy for the labor force side of the ratio, does not take into account the fact that, at any one point in time, some housing units are vacant.

Jobs-employed residents' ratio: This measure uses the count of employed residents (i.e., those in the labor force who are currently working) as a substitute for households or housing units in the denominator of the ratio. It is generally superior to the other two ratios described, and is easier to understand and compare because parity can be expressed as a one-to-one ratio, i.e., one local job to one local worker, notwithstanding that there will be a small proportion of multiple job holders.

There is no one perfect balance. The ratios help to define the direction a community's growth policies should take in the future. In jobs-rich communities more housing should be added while in housing-rich communities more jobs should be added, for example.

The following are Brawley's jobs to household ratios for four time periods:

- 2012 1.125:1 (8,598 jobs/7,638 households)
- 2015 .96:1 (7,300 jobs/7,642 households)
- 2020 .87:1 (10,000 jobs/11,500 households)
- 2035 .92:1 (14,600 jobs/15,800 households)

The workers to jobs ratios for two time periods are noted below:

- 2009: .92:1 (7,305 jobs/7,908 workers)
- 2012: .99:1 (8,598 jobs/8,612 workers)

The ratios reveal that there is approximately one job for each household as well as one job for every resident worker.

National Beef closed its operations in mid-year 2014 and, as a consequence, 1,300 jobs were lost. The 2020 forecast of 10,000 jobs assumes that 500 of these jobs will be recaptured. The 2035 jobs forecast of 14,600 jobs assumes that all lost jobs will be recaptured. This latter forecast is consistent with SCAG's 2035 jobs forecast.

The ratio of jobs is influenced by Brawley’s high unemployment rate which causes fewer workers. If Brawley had the same unemployment rate as California (6.8% in February 2015), there would be an additional 1,134 employed residents (workers).

Adding more jobs to Brawley’s economic base would improve the jobs-housing and jobs-worker ratios.

Having more jobs within the City, though, is no guarantee that those jobs will be filled by local workers. Table 1 shows that Brawley workers filled almost 48% of the local jobs. In rough numbers, the percentages translate to 4,108 Brawley resident workers filling 8,598 of the jobs located in Brawley. Brawley has a higher percentage of residents working within the City limits than Calexico, Holtville and Imperial. As note previously, having job opportunities close to home reduces vehicle miles traveled and helps to reduce GHG emissions.

**Table 1
Imperial County Place of Work by City: 2012**

City	Worked in Place of Residence	Worked Outside Place of Residence
Brawley	47.7%	52.3%
Calexico	35.0%	65.0%
El Centro	55.9%	44.1%
Holtville	32.2%	67.8%
Imperial	22.7%	77.3%

Source: 2011-2013 American Community Survey 3-Year Estimates, Table S0801, Commuting Characteristics

C. SCAG’S JOBS FORECAST

SCAG projects that by 2035 Imperial County will have a population of 288,200 people; 90,600 households; and 59,900 jobs. Brawley will share in this growth as SCAG’s 2035 projections indicate the following:

- A population of 46,800 which translates to a growth of 22,600 persons from the 2008 baseline
- 15,800 households which means a growth of 8,300 households from the 2008 baseline
- 14,600 jobs which are an increase of 7,100 jobs from the 2008 baseline

Refer to Tables 2 and 3 for details on population, household and employment projections.

SCAG’s projections reveal a population gain of 21,850 persons from the 2010 Census count of 24,953 persons to the 2035 projection of 46,800 persons.

**Table 2
Imperial County
Population, Household and Employment Growth: 2008-2035**

Year	Population	Increase	Households	Increase	Employment	Increase
2008	169,800		48,600		61,300	
2020	243,700	73,900	71,600	23,000	101,700	40,400
2035	288,200	118,400	90,600	42,000	121,200	59,900

Source: Source: Southern California Association of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Growth Forecast (adopted by SCAG Regional Council on April 4, 2012)*

**Table 3
City of Brawley
Population, Household and Employment Growth: 2008-2035**

Year	Population	Increase	Households	Increase	Employment	Increase
2008	24,200		7,500		7,500	
2020	36,200	12,000	11,500	4,000	12,300	4,800
2035	46,800	22,600	15,800	8,300	14,600	7,100

Source: Source: Southern California Association of Governments, *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Growth Forecast (adopted by SCAG Regional Council on April 4, 2012)*

SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Growth Forecast* predicts a population increase of 22,600 people between 2008 and 2035. According to SCAG's projections Brawley's population will reach almost 47,000 persons by the year 2035.

D. INVENTORY OF INFILL SITES

Brawley's infill sites are predominantly situated within or adjacent to Downtown. Table 4 lists 34 vacant and eight underutilized sites by location, assessor parcel number, street address and lot size. Table 5 lists the existing uses located on the underutilized parcels. Site #1 has plenty of room to add a residential component. Sites #2 and #4 are ripe for recycling given the incentives of the Downtown Specific Plan. Site #3 is obsolete and is now occupied by far fewer employees than in the past.

These parcels are ripe for recycling and infill development because of 1) the densities permitted in the Downtown and 2) the impetus of an improving economy. Allowing densities this high coupled with an improving economy and the infill development strategies that the City will adopt all should help to encourage and facilitate the recycling of the underutilized parcels.

Following Tables 4 and 5 are the following Exhibits:

- Exhibit 1: Downtown Districts
- Exhibit 2: West Village District Vacant Sites
- Exhibit 3: Civic Center and East Village Vacant Sites
- Exhibit 4: West Village Potentially Under Utilized Sites
- Exhibit 5: Civic Center and East Village Potentially Under Utilized Sites

**Table 4
Vacant and Underutilized Sites in Brawley Downtown
General Plan Designation: Mixed Use
Zoning Designation: Specific Plan**

Frontage Type	Assessor Parcel Number	Street Address	Lot Size	Status
West Village District				
West Village Neighborhood	046-212-004-000	234 E	7,725	Vacant
West Village Neighborhood	046-212-005-000	236 E	8,078	Vacant
West Village Main Street and West Village Neighborhood	046-212-020-000	283 Main	110,392	Underutilized
Civic Center District				
Civic Center Main Street	046-213-006-000	217 Imperial	6,769	Vacant
Civic Center Main Street	046-213-010-000		8,702	Vacant
Civic Center Main Street	046-214-005-000		7,010	Vacant
Civic Center Neighborhood	048-062-006-000		15,558	Vacant
Civic Center Neighborhood	048-062-007-000		3,025	Vacant
Civic Center Neighborhood	047-331-015-000		11,124	Vacant
Civic Center Main Street	047-342-025-000	124 Plaza	7,408	Vacant
Civic Center Main Street	047-342-026-000		7,432	Vacant
Civic Center Neighborhood	047-342-004-000		8,336	Vacant
Civic Center Neighborhood	047-345-002-000	150 6th	9,194	Vacant
Civic Center Neighborhood	047-345-017-000	150 St 610 E	5,727	Vacant
Civic Center Neighborhood	047-345-003-000	620-624 E	21,419	Vacant*
Civic Center Neighborhood	047-345-004-000		4,136	Vacant
Civic Center Main Street	047-345-015-000	619 Main	6,429	Vacant
Civic Center Main Street	047-345-016-000	601 Main	11,281	Vacant
Civic Center Neighborhood	049-012-007-000	205 5th	4,248	Vacant
Civic Center Neighborhood	049-012-008-000	213 5th	5,264	Vacant
Civic Center Neighborhood	049-022-003-000	536 G	7,342	Vacant
Civic Center Neighborhood	049-024-004-000		8,087	Vacant
Civic Center Neighborhood	046-213-012-000	361 363 365 367 381 383 E	15,880	Underutilized
Civic Center Neighborhood	046-213-013-000		2,471	Underutilized
Civic Center Neighborhood	046-213-014-000	351-351 1/2 East E	9,685	Underutilized
Civic Center Neighborhood	046-213-015-000	347-347 1/2 349 East	10,160	Underutilized
Civic Center Neighborhood	046-213-016-000		32,355	Underutilized
Civic Center Neighborhood	046-214-010-000	302 306 312	20,089	Underutilized
Civic Center Neighborhood	046-214-011-000	320 E	7,126	Underutilized

**Table 4 continued
Vacant and Underutilized Sites in Brawley Downtown
General Plan Designation: Mixed Use
Zoning Designation: Specific Plan**

Frontage Type	Assessor Parcel Number	Street Address	Lot Size	Status
East Village District				
East Village Neighborhood	047-353-004-000	956 E	7,580	Vacant
East Village Neighborhood	047-353-027-000	986 E	7,387	Vacant
East Village Neighborhood	049-041-017-000	959-965 E G	7,925	Vacant
East Village Neighborhood	049-041-018-000	955 G	7,847	Vacant
East Village Neighborhood	049-041-019-000	947-949 East G	7,985	Vacant
East Village Neighborhood	049-041-020-000	945 G	7,891	Vacant
East Village Neighborhood	049-041-024-000	194 9 th	5,591	Vacant
East Village Neighborhood	049-041-025-000	156 162 166 174 182 So 9 th	8,208	Vacant
East Village Neighborhood	049-042-001-000		15,586	Vacant
East Village Neighborhood	049-042-003-000	914 G	15,344	Vacant
East Village Neighborhood	049-042-029-000	942 944 946 948 E G	7,795	Vacant
East Village Neighborhood	049-042-010-000	980-980 ½ East G	7,531	Vacant
East Village Neighborhood	049-042-011-000	986-992 East G	7,164	Vacant

**Table 5
Brawley Downtown Underutilized Sites – Existing Conditions**

Site#	Segment	Tax ID	Universal Land Use	Lot Sq Ft	Field Notes/Conditions
1	West Village District	046-212-020-000	Retail Trade	110,392	Dollar Tree/Little Ceasers/Check Cashing Building is 45 years old
2	Civic Center District	046-214-010-000	Apartment ¹	20,089	Older residential building
	Civic Center District	046-214-011-000	Apartment ¹	7,126	Older residential building
3	Civic Center District	046-213-016-000	ATT Building	32,355	Downsize in the number of employees and building is obsolete; building is 56 years old
4	Civic Center District	046-213-012-000	Duplexes	15,880	2 Duplexes Units – 61 years and 65 years old
	Civic Center District	046-213-013-000	Residential Lot ²	2,471	
	Civic Center District	046-213-014-000	SFR ²	9,685	SFR
	Civic Center District	046-213-015-000	SFR	10,160	Duplex

¹Same ownership ²Same ownership

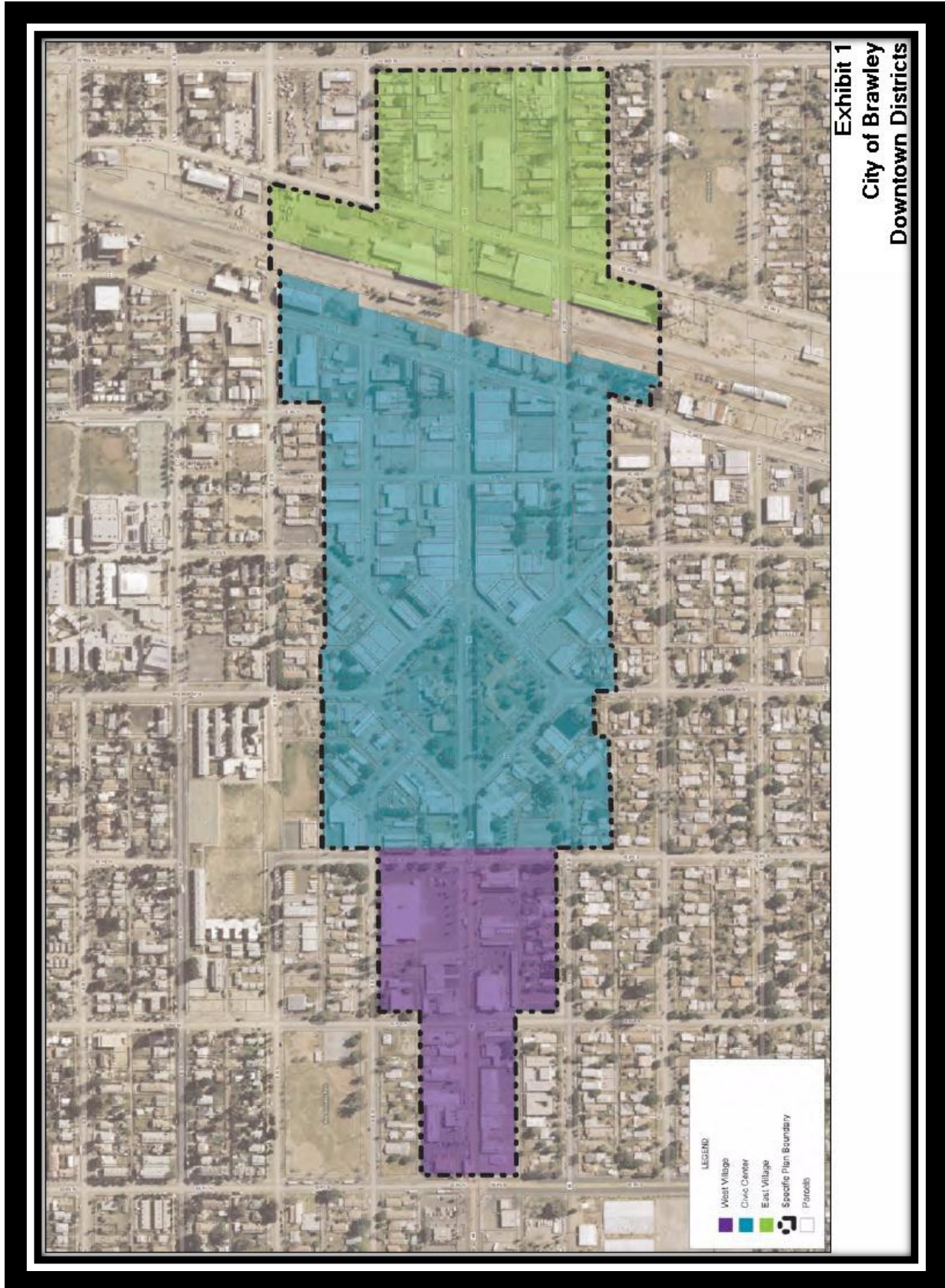


Exhibit 2: West Village District Vacant Sites



Exhibit 3: Civic Center and East Village Vacant Sites

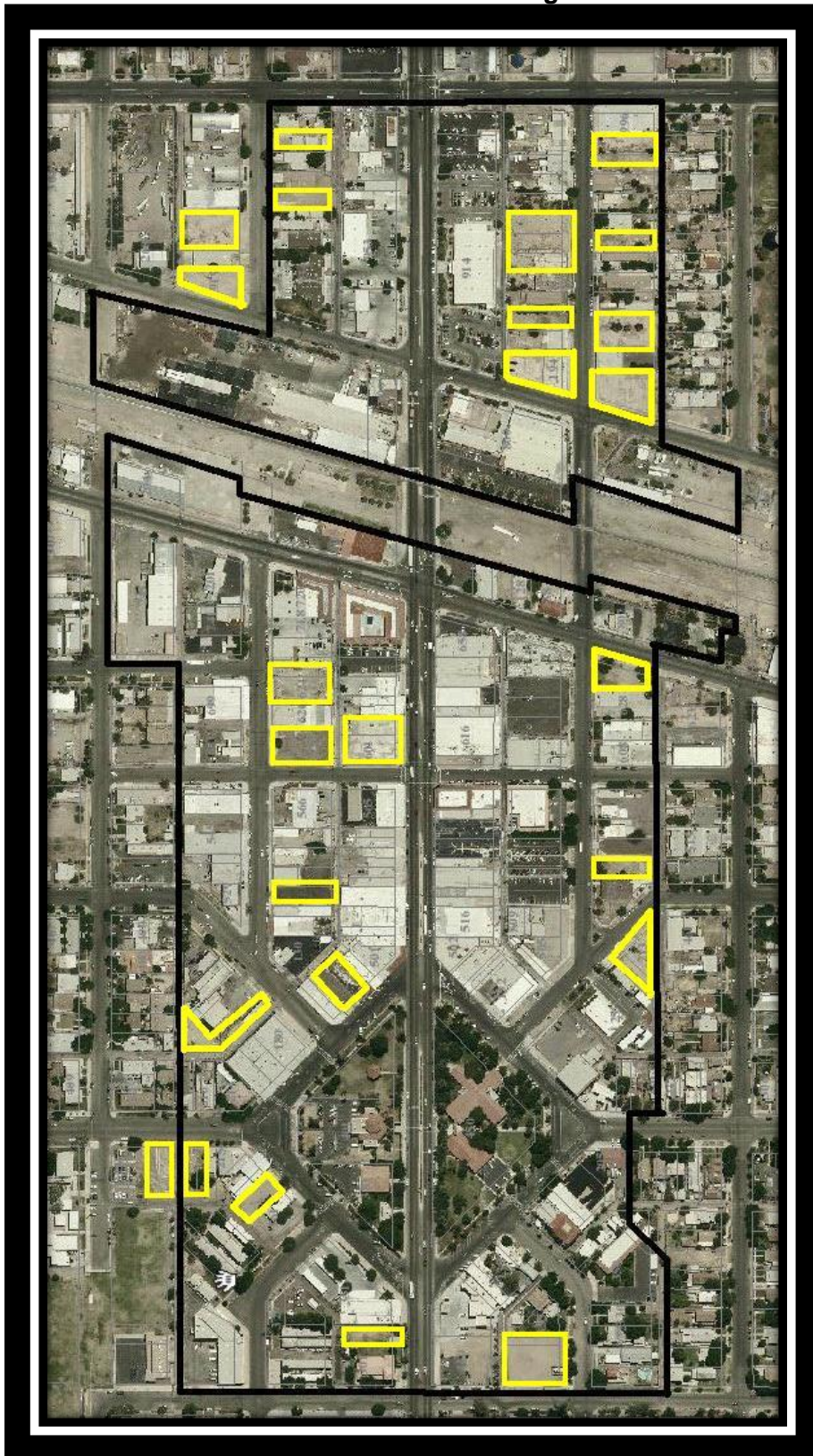


Exhibit 4: West Village Potentially Under Utilized Sites

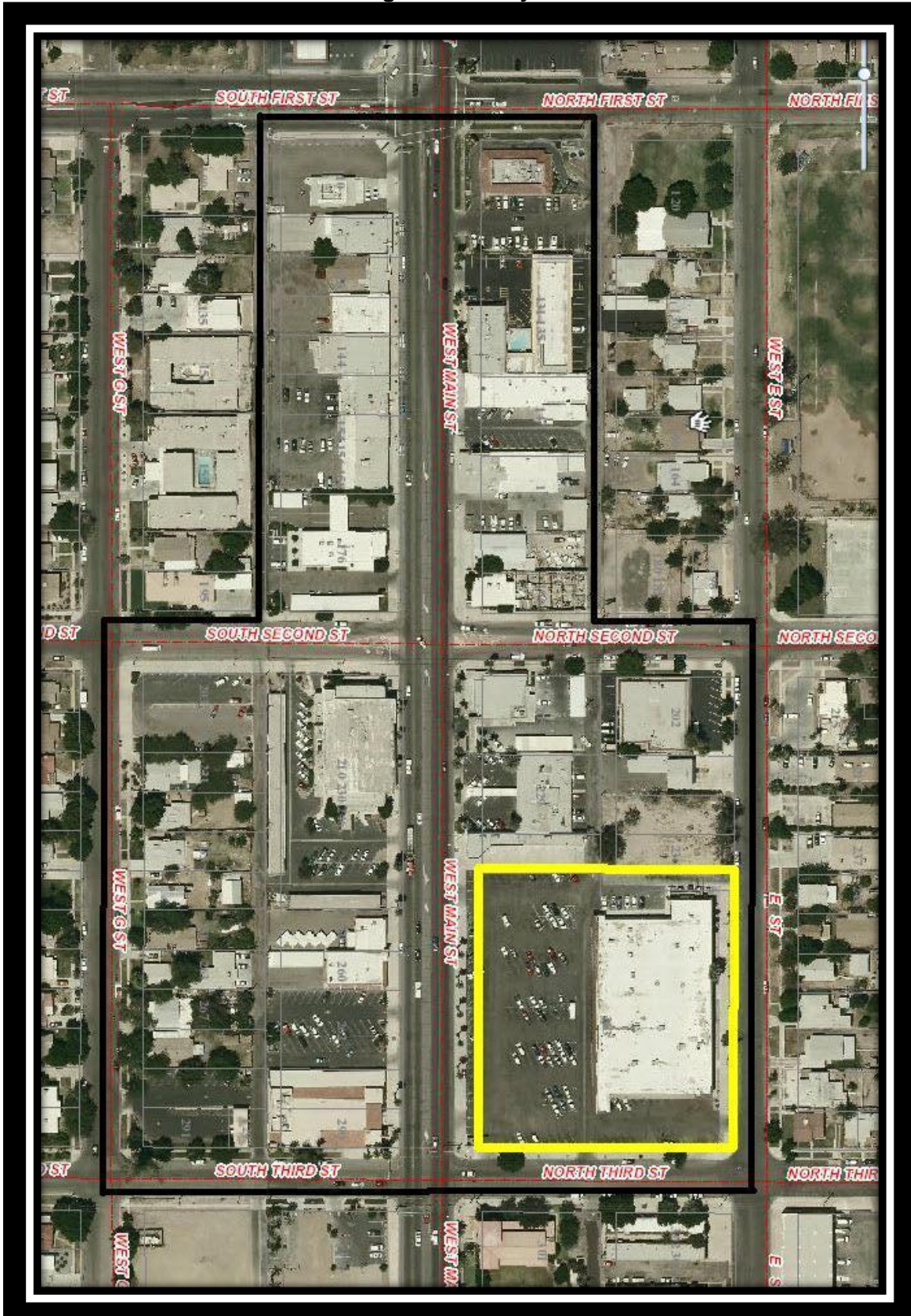
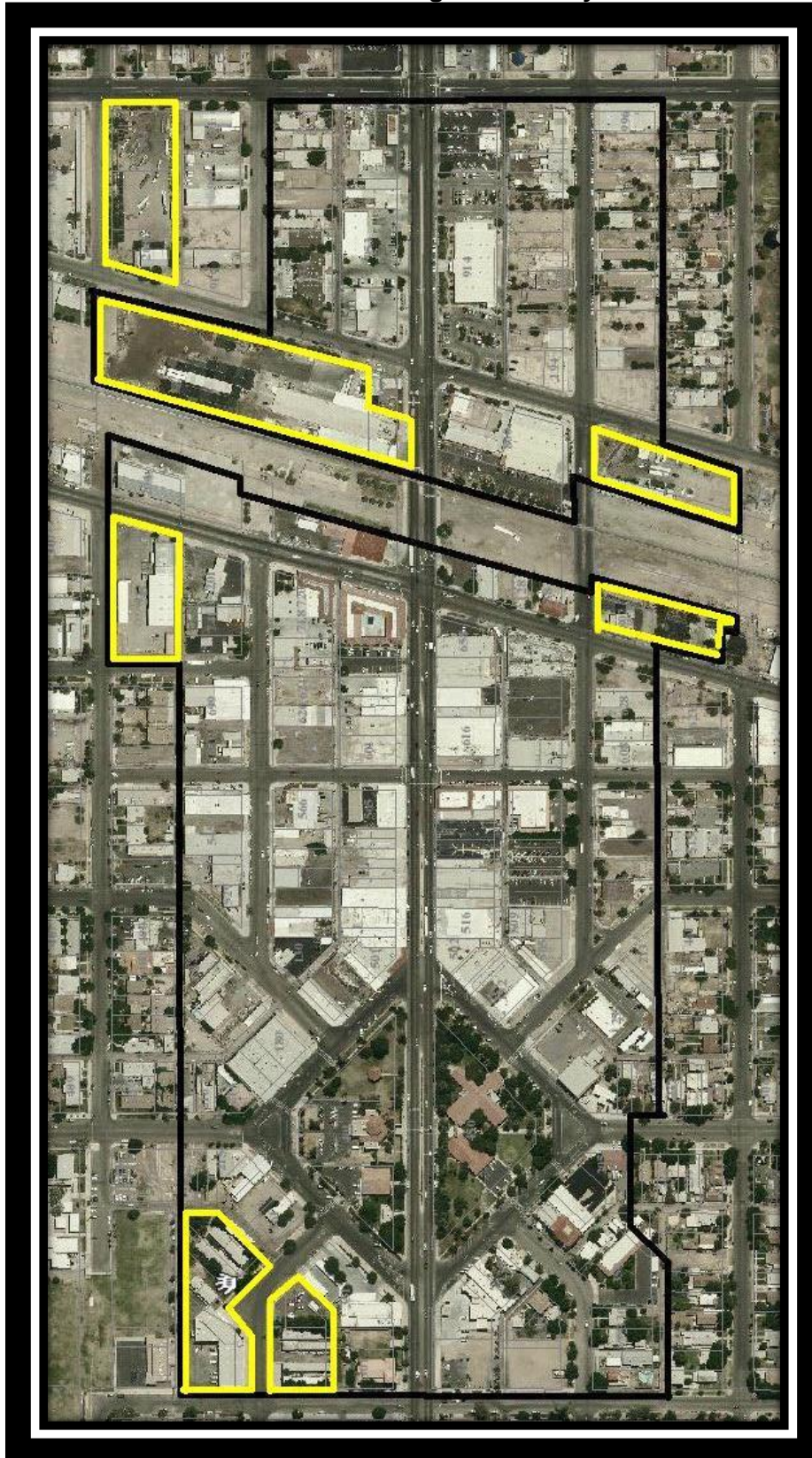


Exhibit 5: Civic Center and East Village Potentially Under Utilized Sites



E. INCENTIVES FOR INFILL HOUSING DEVELOPMENT

The California Office of Planning and Research explains that:

The term “infill development” refers to building within unused and underutilized lands within existing development patterns, typically but not exclusively in urban areas. Infill development is critical to accommodating growth and redesigning our cities to be environmentally and socially sustainable.

An inventory was completed of infill development incentives adopted by southern California cities. Among these cities were: Brea, Glendora, Hermosa Beach, Moreno Valley, Palm Desert, Riverside, Stanton, Temple City, West Hollywood and Tustin. Each of these cities has areas that have been bypassed and are in need of infill development.

An in-depth review of each city’s Land Use Element, Specific Plans and Zoning Code revealed that the incentives most commonly adopted included the following:

- Density bonuses
- Reducing on-site property development standards (relaxed height limits, parking reductions, relaxed setbacks, etc.)
- Consolidation of parcels to encourage more viable development opportunities
- Mixed use incentives
- Deferral, reduction, or waiver of fees
- Expedited processing
- Adoption of infill development guidance

F. INFILL HOUSING DEVELOPMENT STRATEGY PLAN

Brawley Downtown is the priority area for infill development. Downtown Brawley consists of approximately 110 acres, 265 parcels, and approximately 1 million square feet of existing civic, commercial, institutional and industrial uses. An estimated 179 dwellings also exist within the Downtown, represented by a mixture of single-family residential and multi-family homes. A purpose of the Specific Plan for Downtown Brawley is to implement the following Land Use Element Policy:

Encourage in-fill of vacant parcels in areas already predominately developed.

Another purpose of the Specific Plan is to:

Diversify the City’s housing options by providing urban housing opportunities for a range of socio-economic levels.

The purpose of the *Brawley Downtown Infill Development Strategy* is to transform the area into a vibrant neighborhood that offers a variety of housing options in close proximity to stores, shops, work places and transportation.

The Brawley Downtown Specific Plan regulates the development of properties based on the type of building frontage for the property. The Specific Plan establishes development standards for eight frontage types of which six permit residential uses. Table 7 lists the residential density standards and height limits for six frontage types.

Table 6 illustrates that the combined housing capacity of the three districts is 200 housing units.

**Table 6
Brawley Downtown: Housing Capacity by District**

District	Permitted Dwelling Units Per Acre (DU)	Maximum # of Dwelling Units¹	Height Limits
Civic Center (I)	25	150	5 stories
West Village (II)	20	20	3 stories
East Village (III)	18	30	4 stories
Total	N/A	200	

¹Maximum # of Dwelling Units (DU) was determined by the Downtown Brawley Specific Plan based on total combined acres of parcels designated by one of the “Neighborhood” frontage types.

Downtown Brawley has examples of high density residential development. The Ciudad Plaza – located at the northwest corner of North 8th Street and Main Street – is three stories high and contains 60 housing units on a lot that is 14,300 square feet.

The infill development strategy –

- Encourages mixed use development on parcels having street frontage, including attached single-family and multi-family residential allowed only on the upper floors
- Permits density bonuses so housing can be developed at 25, 27 and 34 dwelling units per acre

Table 7
Brawley Downtown Residential Development Standards by Frontage Type
General Plan Designation: Mixed Use
Zoning Designation: Specific Plan

Residential Permitted by Right or in Specific Locations	Base Residential Density Standards	Maximum Height
Civic Center Main Street		
Attached Single-Family and Multi-Family Residential Units: residential units are only allowed on upper floors or within ground floor locations that do not have street frontage	Base Residential Density: 18.5 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 25 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	5 stories maximum; however, the fifth story facade shall not project past the property line maximum.
Civic Center Neighborhood		
Attached Single-Family and Multi-Family Residential Units (by right)	Base Residential Density: 25 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 34 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	4 stories maximum
West Village Main Street		
Attached Single-Family and Multi-Family Residential Units: residential units are only allowed on upper floors or within ground floor locations that do not have street frontage	Base Residential Density: 18.5 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 25 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	3 stories maximum

Table 7 continued
Brawley Downtown Residential Development Standards by Frontage Type
General Plan Designation: Mixed Use
Zoning Designation: Specific Plan

Residential Permitted by Right or in Specific Locations	Base Residential Density Standards	Maximum Height
West Village Neighborhood		
Attached Single-Family and Multi-Family Residential Units (by right)	Base Residential Density: 20 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 27 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	3 stories maximum
East Village Main Street		
Attached Single-Family and Multi-Family Residential Units: residential units are only allowed on upper floors or within ground floor locations that do not have street frontage	Base Residential Density: 18.5 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 25 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	4 stories maximum
East Village Neighborhood		
Attached Single-Family and Multi-Family Residential Units (by right)	Base Residential Density: 18 units per acre Density Bonus: Density bonuses of up to 35% (maximum of 25 units per acre) are allowed per the requirements of Article XXI (Density Bonus Program) of the Zoning Ordinance.	3 stories maximum

G. ENERGY CONSERVATION PROGRAM

According to the California Department of Housing and Community Development (HCD):

The housing element update can provide an effective mechanism to adopt new efficient land-use strategies such as infill, mixed-use, or downtown revitalization. It can also provide a vehicle for local governments to adopt housing and land-use strategies to address climate change and the reduction of green house gas emissions.

HCD has compiled an inventory of programs and policies being used by local government to not only meet housing element requirements, but make significant contributions to reducing greenhouse gas emissions and promote energy conservation.

Table 8 describes the programs in the HCD inventory which while relating to infill development also contribute to energy conservation and a reduction in GHG emissions. Many of programs and ideas in HCD's inventory have been incorporated in the incentives to encourage and facilitate infill development in Brawley Downtown.

Table 8
Housing Element Policies and Programs Addressing Climate Change

<ul style="list-style-type: none"> ▪ Increase infill development opportunities along commercial corridors by facilitating site assemblage to create larger more viable sites.
<ul style="list-style-type: none"> ▪ Promote infill and intensify land uses consistent with existing neighborhood or commercial district patterns in developed areas currently served by municipal services.
<ul style="list-style-type: none"> ▪ Based on the land-use strategy developed in the City’s land-use and circulation element (LUCE) identify areas of future residential development near existing and proposed transit connections and adopt tools or policies to successfully develop housing that is served by nearby retail uses and services.
<ul style="list-style-type: none"> ▪ Direct growth into compact patterns of development, where living and working environments are within walkable distances. Apply the “Transit Oriented Development Design Guidelines” which are designed to reduce auto trips to work, roadway expansion and air pollution. These guidelines will maximize availability of open spaces, diversify housing and populations, as well as improve upon new and existing public transit, convenience and availability.
<ul style="list-style-type: none"> ▪ Traditional Neighborhood Design (TND) Ordinance. Provides for a 30% reduction in transportation fees charged to the developer in return for pedestrian-oriented design features, and another possible 30% cut for transit-friendly design.
<ul style="list-style-type: none"> ▪ Promote design and development of inter-connected streets and traffic calming features.
<ul style="list-style-type: none"> ▪ Facilitate mixed-use development opportunities along commercial corridors served by high quality transit.
<ul style="list-style-type: none"> ▪ Revitalize the Downtown by upzoning sites.
<ul style="list-style-type: none"> ▪ Rezone sites for higher density use.
<ul style="list-style-type: none"> ▪ Promote Infill Housing Development by (a) funding of an infill coordinator position that develops and directs the infill program; (b) providing incentives for infill development including financial incentives: (c) amending the zoning code to provide for a new mixed-use zone; (d) adopting a new development code to facilitate medium and high density development along commercial corridors; (e) developing and utilizing "ready-made" plans to promote infill projects.

Source: California Department of Housing and Community Development, *Housing Element Policies and Programs Addressing Climate Change*, February 2009, pages 7-9

H. CLIMATE CHANGE POLICIES AND IMPLEMENTATION PROGRAMS: LAND USE AND TRANSPORTATION MEASURES

Brawley's *Plan to Reduce GHG Emissions* re-enforces the efforts to encourage and facilitate infill development. The *Plan* includes land use and transportation measures designed to attain the goals of infill development.

1. Land Use Measures: Facilitate Infill Development

a. Goal

One of the goals of the *Plan to Reduce GHG Emissions* is to:

Contribute to a reduction of vehicle miles traveled (VMT) through land use and zoning measures.

This goal can be partially met by facilitating infill development through implementation of the *Brawley Downtown Specific Plan*. The Planning Department has the primary responsibility for implementation of the Specific Plan.

b. Program Description and GHG Emissions Reduction Potential

Increased densities allowed by the Specific Plan reduce GHG emissions associated with VMT traveled in many ways. Density is usually measured in terms of persons, jobs or dwellings per unit. Increased densities affect the distance people travel and provide greater options for the mode of travel they choose. Also, transit ridership increases with density, which justifies enhanced transit service.

Additionally, having different types of land uses near one another decreases VMT because trips between land uses types are shorter and can be accommodated by non-auto modes of travel. A resident does not need to travel outside the neighborhood to meet his or her trip needs.

Infill development in Downtown Brawley meets one of the major objectives of the Sustainable Communities Planning Program. Downtown Brawley has a potential for the development of 200 housing units at densities ranging from 18 to 25 dwellings per acre in buildings three, four and five stories high.

The Specific Plan encourages mixed use development on parcels having street frontage, including attached single-family and multi-family residential allowed only on the upper floors. Density bonuses permit housing to be developed at 25, 27 and 34 dwelling units per acre.

Once the housing in Downtown is built and occupied, there will be an opportunity for workers to walk to the Transit Transfer Station and commute by bus to work. Assuming 20 workers commuted by bus to a job located in Calexico there would be a decrease in VMT and gasoline consumed. Overall, 200 trips would be taken weekly (20 workers X 2 daily trips X 5 days a week). Over the course of a year, approximately 10,000 to 10,500 fewer gallons of gasoline would be consumed. With work weeks ranging from 48 to 50 weeks, the annual reduction would range from 89 to 93 metric tons of CO₂e.

Additional reductions in VMT would result as Downtown residents walked or biked to school, shopping, church or parks. Within one half mile of the center of the Downtown Specific Plan area are the following amenities and services:

Schools

- Brawley Junior College
- Barbara Worth Jr. High School
- Reid School
- Sacred Heart School
- Desert Valley High School (just outside ½ mile)
- Witter Elementary School (just outside ½ mile)
- Miguel Hidalgo Elementary School (just outside ½ mile)

Churches

- Eighteen Churches of various denominations

Parks

- Plaza Park (located at the center of the Downtown Specific Plan area)
- Abe Gonzales Park
- Hinojosa Park
- Lions Field
- Meserve Park
- Warner Park (just outside ½ mile)

Post Office

- Brawley Post Office located in the Plaza Park

Library

- Brawley Public Library located in the Plaza Park

Additionally, some Downtown residents also would use the Gold Line for doctor and hospital trips and shopping trips to WalMart.

2. Transportation Measures: Brawley Transit Transfer Station and Imperial Valley Transit

a. Goal

One of the goals of the *Plan to Reduce GHG Emissions* is:

Reduce the vehicle mile traveled (VMT) by encouraging alternative modes of transportation such as walking, biking, and bus transit and acquisition of fuel efficient or zero emission vehicles.

Promoting the use of the Imperial Valley Transit will result in replacing some automobile trips with bus transit.

The Public Works Department is primarily responsible for implementation of transportation measures.

b. Program Description and GHG Emissions Reduction Potentials

The replacement of vehicle trips by bus trips for some activities reduces vehicle miles traveled and, therefore, the gasoline consumption. The reduction in gasoline consumption, in turns, contributes to a reduction in CO₂e emissions.

Efforts by the City have resulted in the development of the Brawley Transit Transfer Station, located at the SEC of 5th Street and S. Plaza. Located within the Downtown core, the Brawley Transit Transfer Station is situated on a 0.3-acre parcel, and contains six bus bays, security cameras, photovoltaic lighting, shade canopies, a restroom building, bike racks, pedestrian lighting, and xeriscaped landscaping. The Transit Station along with the adopted Brawley Downtown Specific Plan promotes walkable, mixed-use and mixed-income development. As noted in the Transit Transfer Station funding application, these are important factors in evolving a sustainable community and healthier living conditions. They will support creating economic and pedestrian activity around the Transit Station to capitalize on key opportunities for achieving sustainable development.

The relationship between jobs and housing is an issue in Brawley and the Imperial Valley. Most workers commute via an automobile and are isolated from their work and shopping/service areas. With available vacant parcels and increased allowable capacity/density in the Downtown, there are expanding opportunities for more housing and diverse business opportunities near the newly operational Transit Station.

Most importantly, the Transit Station is also the home base for the Brawley Gold Line, the community's first shuttle service with 28 total stops in the City. This expanded service allows riders to have to have access to notable places such as Pioneer's Memorial Hospital, doctor's offices and Wal-Mart. By providing convenient access to these places, there has an undoubtedly been a reduction in VMT.

This mitigation measures suggest that the City work with IVT to promote bus ridership by the community's workers, even if it were only occasionally. If 5% of the City's workers commuted to work by bus one day a week, it would result an annual reduction of nearly 300 metric tons of CO₂e, as explained below.

According to 2012 American Community Survey (ACS) data some 5,840 Brawley workers drove alone to work. Other ACS data stated that more than one in five (20.6% or about 1,600) commuters had commute times between 30 and 34 minutes. Using Google Maps with the Brawley Transit Center as the starting point and the Calexico 3rd Street and Paulin stop as the end point, the distance is 23.7 miles with an estimated drive time of 32 minutes compared to a 40-minute bus ride.

According to Census 2010 and using Circular Area Profiles (CAPS) software provided online by the Missouri Census Data Center, there are approximately 3,015 people 16 years or older within ½ mile of the Transit Transfer Station . Within one mile of the Transit Transfer Station there is about 11,740 persons 16 years or older. While walking a mile to the Transit Transfer Station may not be practicable, a worker could ride a bike or get dropped off by a family member.

In the event some drive alone commuters took a bus once a week at a job located in Calexico, a reduction in greenhouse gas emissions would result. Table 9 shows the potential GHG emission reductions if 5% of the drove alone commuters took the bus once per week.

Table 9
City of Brawley
Weekly Greenhouse Gas Emissions Reductions Due to Bus Commuting

Total Drive Alone Workers	5,840
Percentage Taking Bus to Commute Once Per Week	5.0%
Number Taking Bus to Commute Once Per Week	292
Total Trips Per Worker	2
Total Number of Trips	584
Brawley Transit to Calexico Last Stop (Miles)	23.7
Total Vehicle Miles Traveled (VMT)	13,841
Average Miles Per Gallon	22.5
Total Number of Gallons Consumed	615
CO ₂ Emissions Factor per Gallon (kg CO ₂ /Gallon)	8.78
CO ₂ Emissions	5,400.99
kg to Metric Ton Conversions Factor	0.001
Metric Tons of CO ₂	5.40
N ₂ O Gasoline Passenger Car Emissions Factor g/gallon	0.08
N ₂ O Emissions (Grams)	49.21
N ₂ O Global Warming Potential (GWP)	298
Grams of CO ₂ e	14,665.10
Grams to Metric Ton Conversion Factor	0.000001
Metric Tons of CO ₂ e	0.01
CH ₄ Gasoline Passenger Car Emissions Factor g/gallon	0.38
CH ₄ Emissions (Grams)	233.76
CH ₄ Global Warming Potential (GWP)	25
Grams of CO ₂ e	5,843.89
Grams to Metric Ton Conversion Factor	0.000001
Metric Tons of CO ₂ e	0.01
TOTAL METRIC TONS OF CO₂e	5.42

Nearly five and one half metric tons of CO₂e would not be produced in a single week. With work weeks ranging from 48 to 50 weeks, the annual reduction would range from about 260 to 271 metric tons of CO₂e.

I. AMENDMENTS TO THE HOUSING ELEMENT

The *2013-2021 Housing Element* was adopted by the City Council on December 3, 2013 and certified by the State Department of Housing and Community Development on December 20, 2013.

The adopted Housing Element can be amended in order to 1) recommend additional incentives to foster infill development and 2) describe additional energy conservation measures that can be incorporated in the current Housing Element Energy Conservation Program.

1. Lot Consolidation Incentives

Program #2 of the *2013-2021 Housing Element* is an Infill Housing Development Strategy. The program description indicated that ideas to incentivize infill development would be formulated during the course of preparing this Housing Element Report.

In order to encourage the assembly of smaller existing lots into larger lots in Brawley Downtown, which can be more efficiently developed into a mixed use project, the *2013-2021 Housing Element* will be amended in the future to offer the following incentives:

- Increase in maximum floor area ratio (FAR), up to a maximum of 10%
- Density bonuses
- Reduction in required parking for a mixed use project
- Reduction in common and/or private open space requirements, up to a maximum of 10% percent
- Financial incentives such as fee permit assistance subject to available resources
- A height bonus subject to review and approval of the Planning Director

In order to further encourage and facilitate infill development, the City will post on its website:

- Aerials and maps of the infill sites
- Assessor information
- Descriptions of the infill development incentives
- Descriptions of the lot consolidation incentives
- Prototypical plans of potential infill, mixed use developments
- Prototypical plans of possible lot consolidations
- Flowchart showing expedited processing for infill developments

2. Energy Conservation Measures

Program #19 of the *2013-2021 Housing Element* is the Energy Conservation Program. That program will be amended to account for the energy conservation measures incorporated in the *Plan to Reduce GHG Emissions*. In this way, the goals and programs adopted in the *Plan to Reduce GHG Emissions* will be re-enforced by the General Plan Housing Element.

The *2013-2021 Housing Element* will be amended to include the *Plan's* Weatherization and HERO Programs.

a. Weatherization Program

The Weatherization Assistance Program (WAP) is a federal program designed to increase the energy efficiency of homes which are owned or occupied by low-income persons, to reduce their total residential expenditures such as heating and cooling bills, and to improve the health and safety of families. The process of making homes more energy efficient, thereby reducing energy usage and costs is called *weatherization*. Weatherization services can help a family, struggling to make ends meet, reduce their energy consumption by up to 35%, and save them more than \$400 on their heating and cooling bills in the first year alone.

Common types of weatherization include, but are not limited, to:

- Sealing the holes and cracks around windows, doors and pipes
- Ensuring proper levels of insulation
- Fixing or replacing windows
- Putting an insulated blanket around a water heater
- Making sure heating and air conditioning systems are working properly

Locally, the WAP is administered Campesinos Unidos, Inc., a nonprofit 501(c)(3) organization located in Brawley, as a subgrantee to the State of California. The 2014 State Plan allocates \$191,370 to Campesinos Unidos, Inc. Based on the statewide average cost per dwelling unit of \$1,911; the allocated funds could support the weatherization of 100 homes.

Short- and long-term performance assumes that Federal funding will continue to be allocated to the State and that Campesino Unidos, Inc. or another local non-profit will administer the program so that 100 homes can be weatherized per year. Based on a 20% participation rate, Brawley's share of all weatherized homes would be 20 per year and 400 for period 2015-2035.

The State Department of Community Services and Development estimates a 30.5 MBTU of total annual energy savings resulting from the weatherization of a home. Based on this annual savings, each home would produce 0.16 less metric tons of CO₂e each year. Assuming 400 homes participated in the program by 2035, there would be a reduction of about 64 MT CO₂e.

The Imperial Valley Housing Authority also has completed weatherization of housing located in Brawley. These efforts have included, for example, foam roofing, A/C replacement, low flow showerheads, water saving toilets, and energy efficient interior lighting, at Austin-Thomas Housing, Eastern Avenue Homes, and Brawley Homes. Other energy efficient improvements are planned for 2015.

Source: State of California, Department of Community Services and Development, *Weatherization Assistance Program for Low-Income Persons: 2014 State Plan and Application to the U.S. Department*, June 26, 2014

b. Promote the Brawley HERO Program

The HERO Program which allows homeowners to borrow money to fund an array of conservation and renewable energy projects including water efficiency projects as well as the installation of electric vehicle charging infrastructure.

Homeowners have access to funds to improve the energy and water efficiency of their homes. The amount borrowed can be financed over a 5-, 10-, 15-, 20- or 25-year period and is paid through annual installments collected on their property tax bill.

On October 1, 2013 the City Council approved a resolution enabling the California Home Energy Retrofit Program (HERO) Program to be available to owners of property within Brawley to finance renewable energy efficiency and water efficiency improvements and vehicle charging infrastructure. Typical projects include: solar photovoltaic (PV) systems; energy efficient space heating, air cooling and ventilation (HVAC); cool roof systems; energy efficient windows, skylights, and doors; solar thermal water heating; air sealing and weatherization; insulation; water heating; indoor energy efficient light fixtures; and water efficiency measures.

The US Department of Energy has a website created by the Lawrence Berkeley Laboratory that provides estimates of cost savings and GHG reductions based on several typical home energy upgrades. The on-line calculator is specific to a zip code, year the home was built and the number of occupants. The website can be found at <http://homeenergysaver.lbl.gov/consumer>.

Based on 2011-2013 American Community Survey data, the median year built for owner occupied housing was 1974 while the average household size was 3.17. This data was entered in to the on-line calculator. The results indicated that with whole home upgrades there was a potential for \$866 in yearly savings in addition to a reduction of 5,249 kWh of electricity and 69 Therms. This would result in a reduction of 4,264 pounds of CO₂ or nearly two (1.93) metric tons of CO₂ per dwelling unit.

It is assumed that the HERO Program may attract the same number of homeowner participants as the weatherization program during the period 2015-2035. Therefore, by 2035, 400 homes would produce approximately 772 MT of CO₂e less than they would without the energy savings improvements.

Attachment A

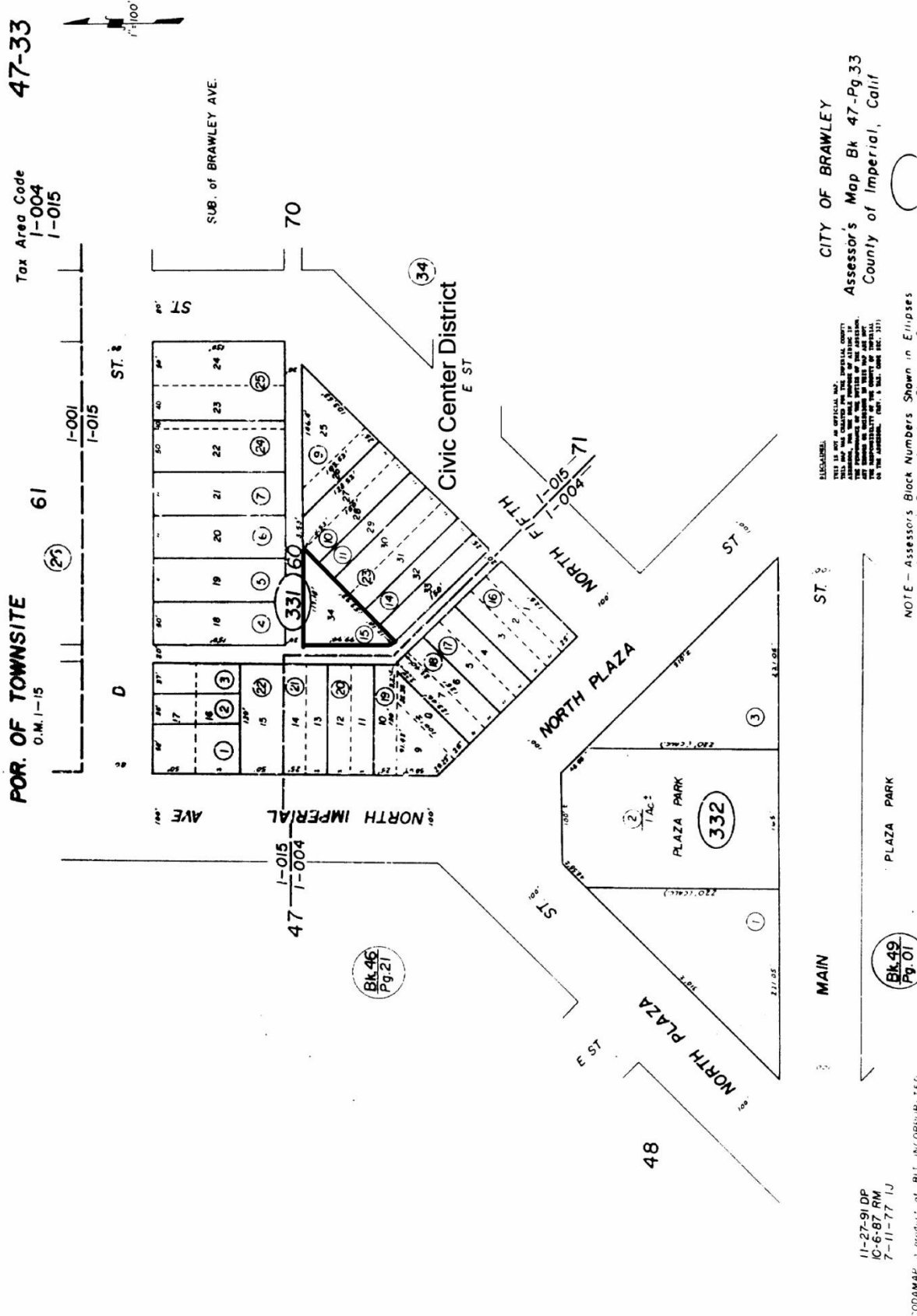
Assessor Parcel Maps

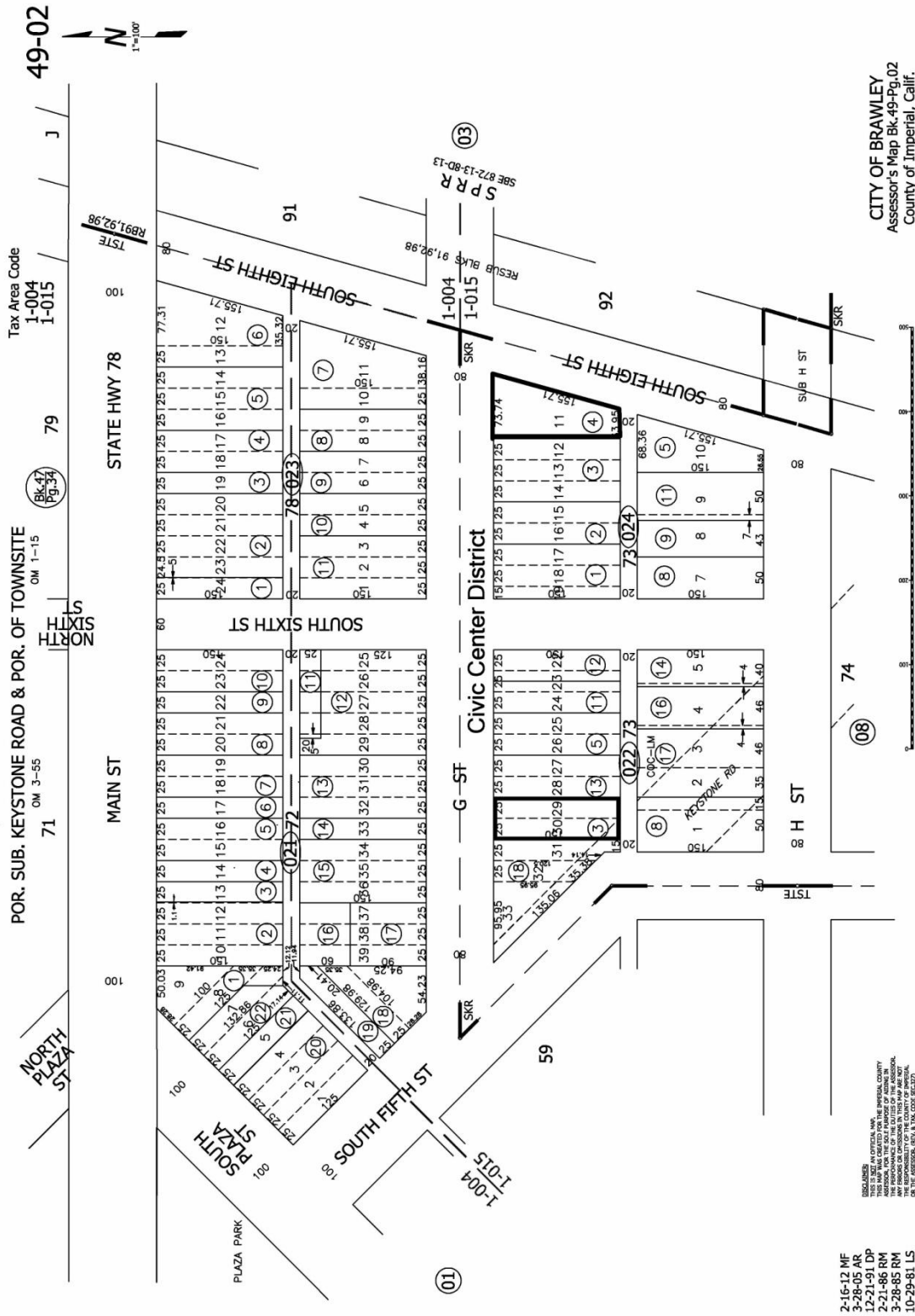


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2-22-11 MF
03-30-10 LC
12-11-91 DP
9-23-77 JJ
7-12-77 JJ

CITY OF BRAWLEY
Assessor's Map Bk. 46-Pg. 06
County of Imperial, Calif.





2-16-12 MF
3-28-05 AR
12-21-91 DP
2-21-86 RM
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10-29-81 LS

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CITY OF BRAWLEY
Assessor's Map Bk. 49-Pg. 02
County of Imperial, Calif.

