Memorandum

To: *Kern COG & Stakeholders*

From: *CDM Smith*

Date: *March 18, 2015*

Subject: *Task 3: Proposed Transit Center Sites*

The purpose of this memorandum is to provide an initial selection of proposed transit center sites for the Metropolitan Bakersfield area. This memo documents the logic behind the selection of each site and offers a starting point for examining each location and its potential for Transit Oriented Development (TOD). The information gathered from the mapping exercises for the socioeconomic data was also utilized in determining the transit center locations. There were ten transit center locations identified:

1. Bakersfield College
2. Downtown Transit Center
3. Southwest Transit Center
4. California State University Bakersfield
5. Downtown Train Station
    a. Amtrak Station (without HSR)
    b. High Speed Rail Station (with HSR)
6. Niles and Mt. Vernon Avenue
7. Panama Lane and Highway 99
8. Mt. Vernon Avenue and Highway 178
9. F Street and Golden State Avenue (Locally Generated Alternative)

Of the ten locations, several would be suitable for near-term (Year 2020) transit center locations while others would be more suitable for the long-term (Year 2040) locations.

Demographic and Transit Maps

Demographic maps for the Metro Bakersfield are shown in the figures below including existing Low-Income Populations, Households with No Vehicles, Minority Populations, Senior Populations, Youth Populations, and Population and Employment projections for 2020, 2035, and 2040. In

addition, existing Land Use and Transit Maps are included. These were mapped to provide perspective on the geographic locations of the demographics of Metro Bakersfield; specifically, the relationship between existing transit lines and the demographics of the adjacent areas. Employment and population projections were mapped to understand where growth is anticipated to occur for planning of future transit centers.

In general, population and employment in the long-term is expected to grow outward from the center of Metro Bakersfield with high concentrations of employment in the center. Dense youth and minority populations are observed to be in the same vicinities and households with no vehicles are more common in the center of Metro Bakersfield. The Demographic and Transit Maps are shown below in the following pages in Figures 1-13.

Figure 1: Low-Income Population by TAZ

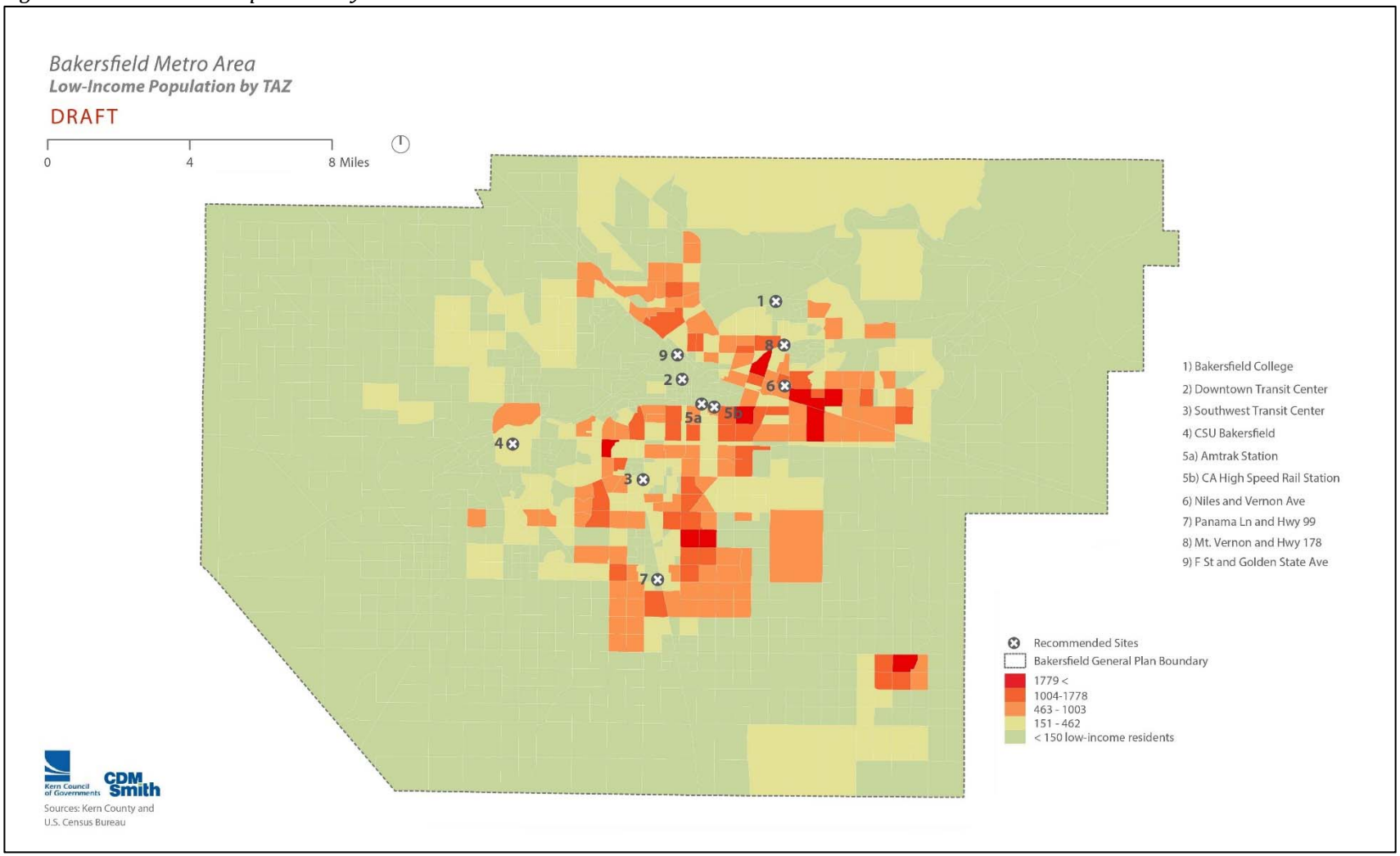


Figure 2: Households with No Vehicles by TAZ

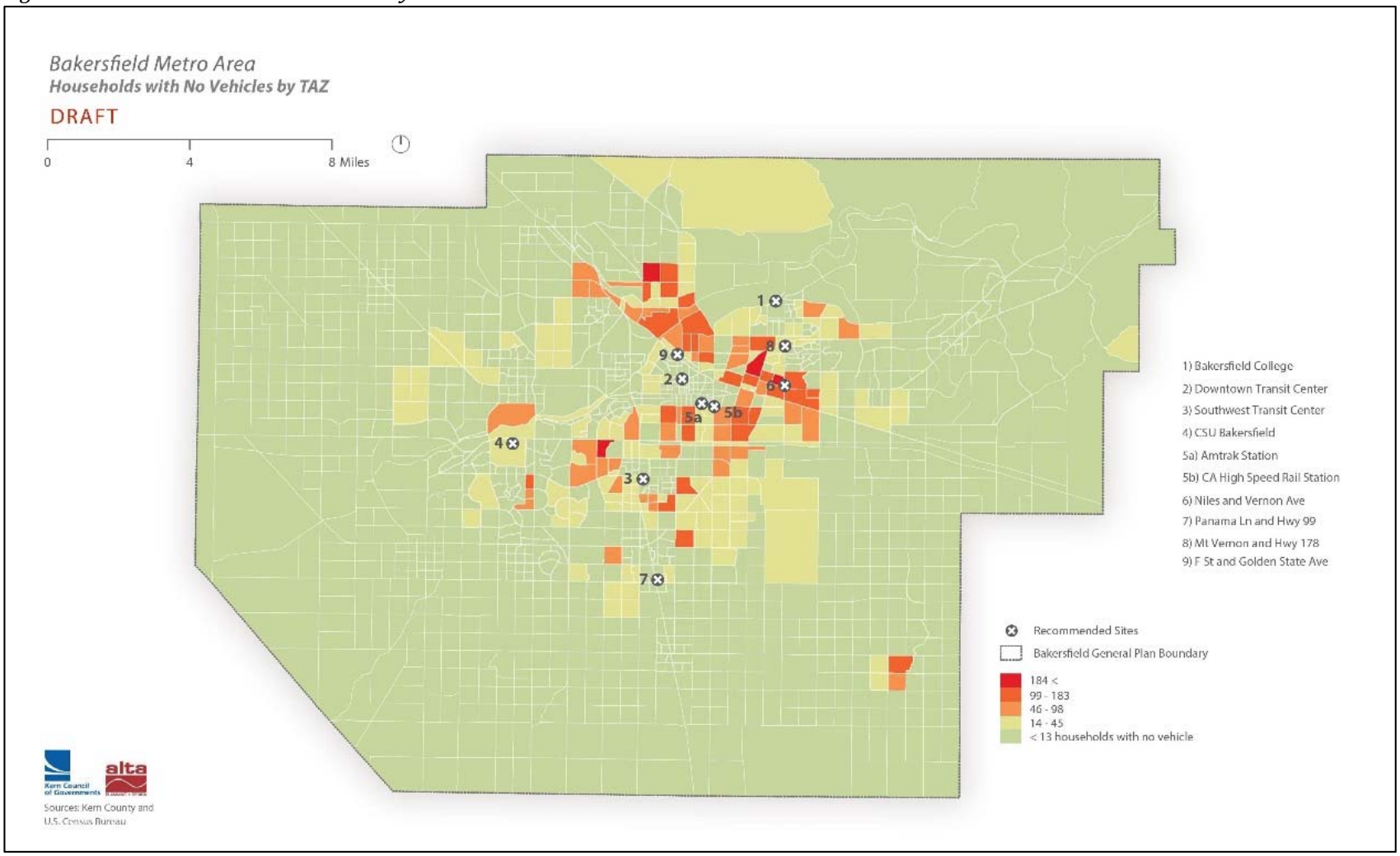


Figure 3: Minority Population by TAZ

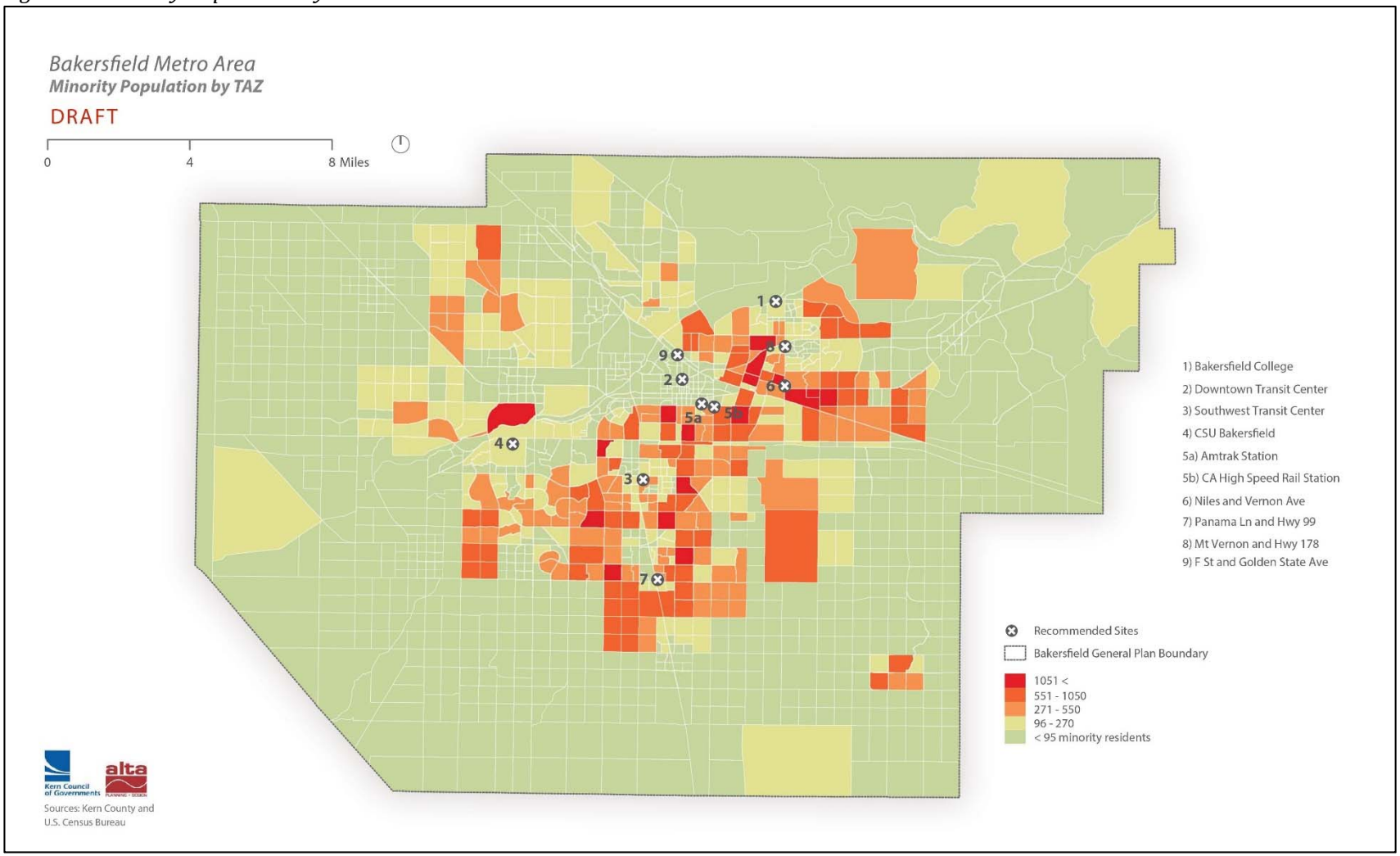


Figure 4: Senior Population by TAZ

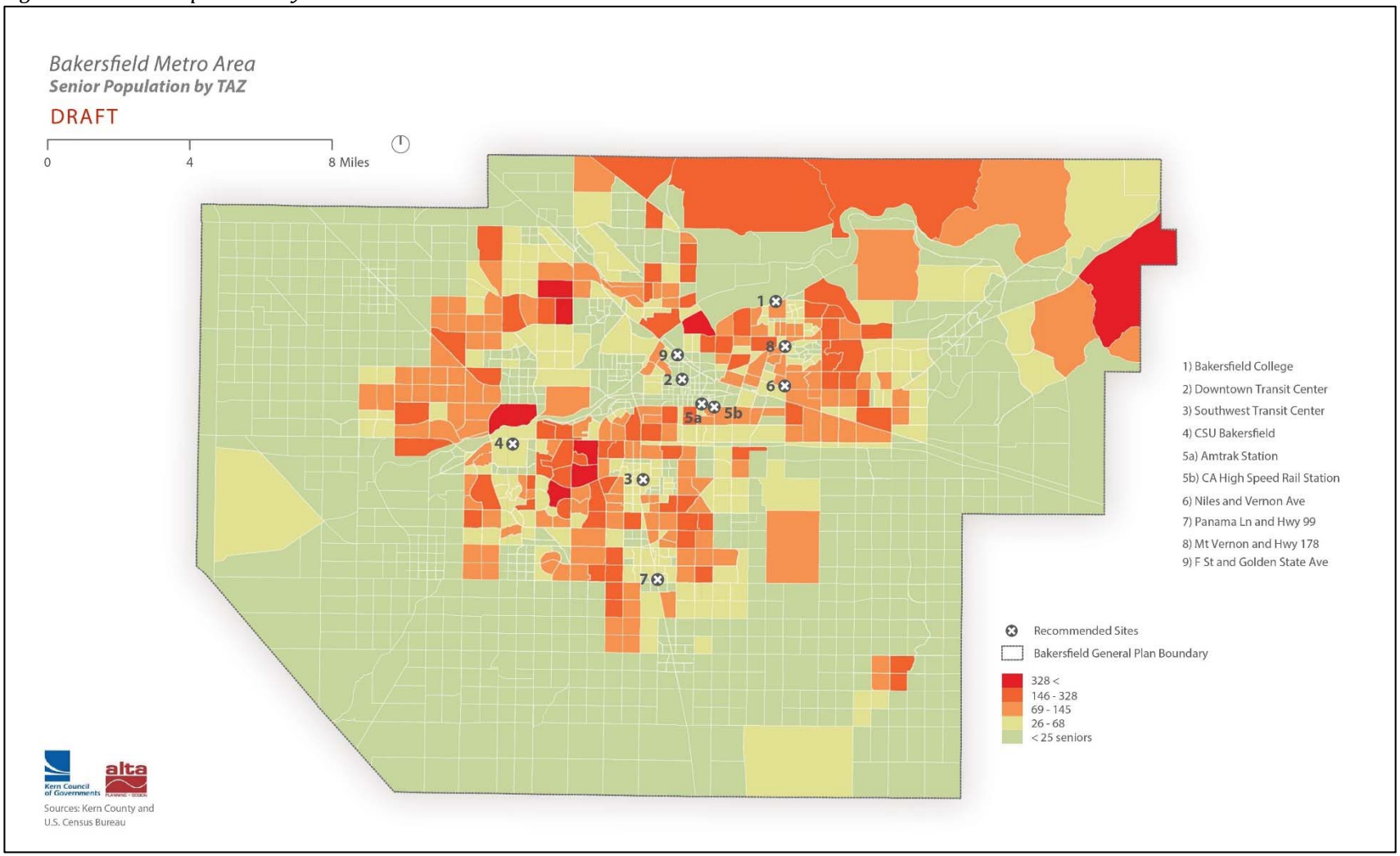


Figure 5: Youth Population by TAZ

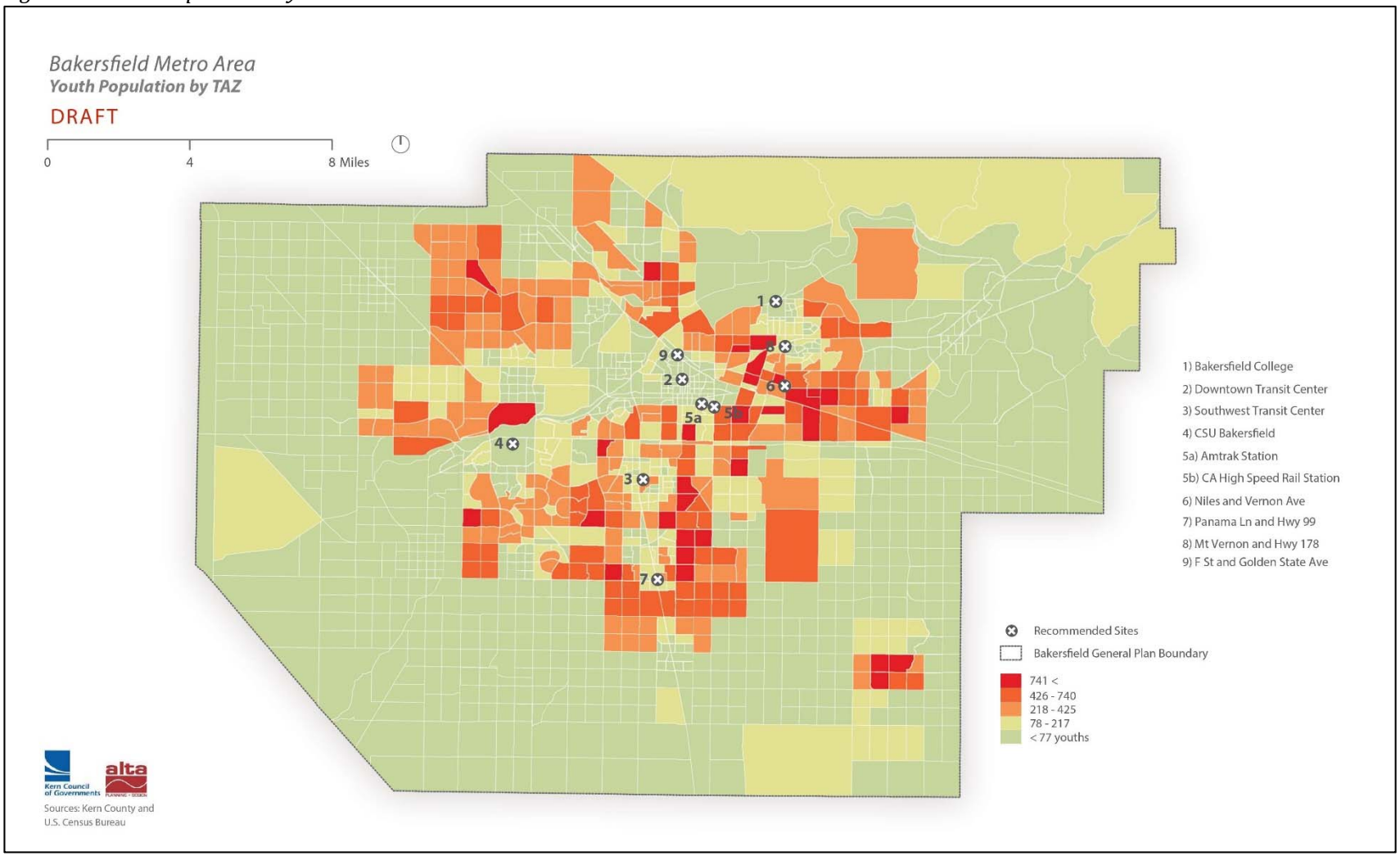


Figure 6: Projected 2020 Population by TAZ

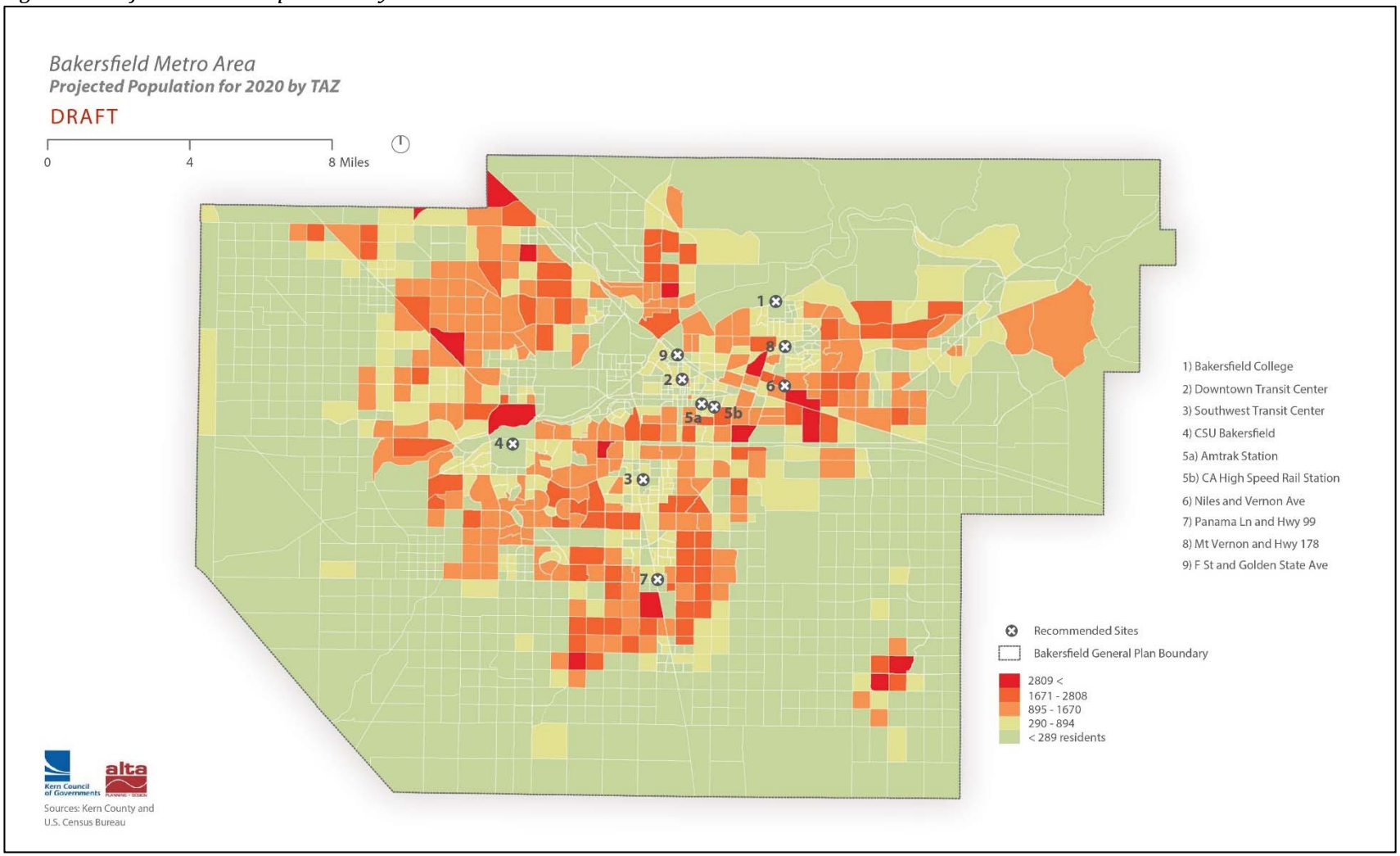


Figure 7: Projected 2035 Population by TAZ

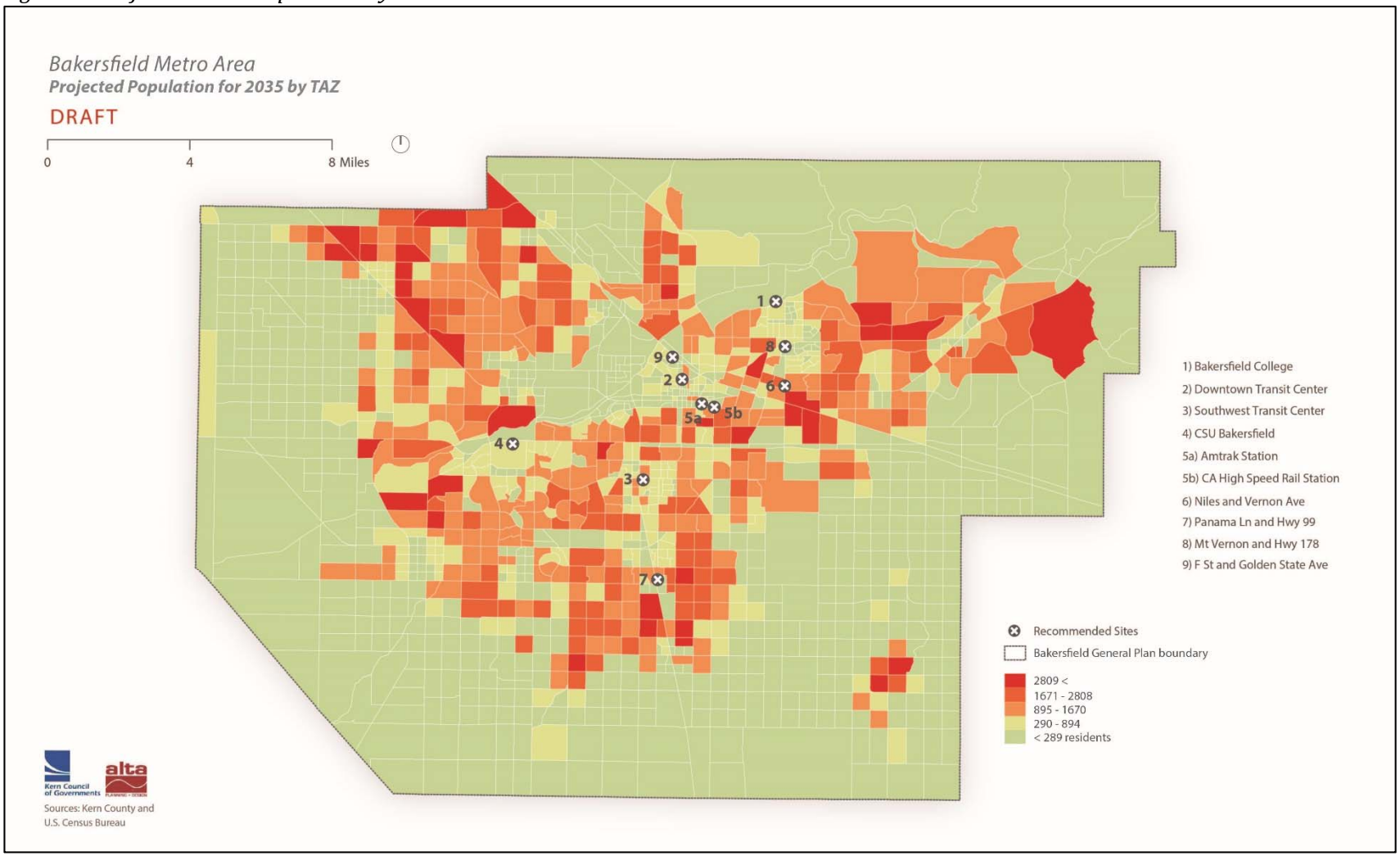


Figure 8: Projected 2040 Population by TAZ

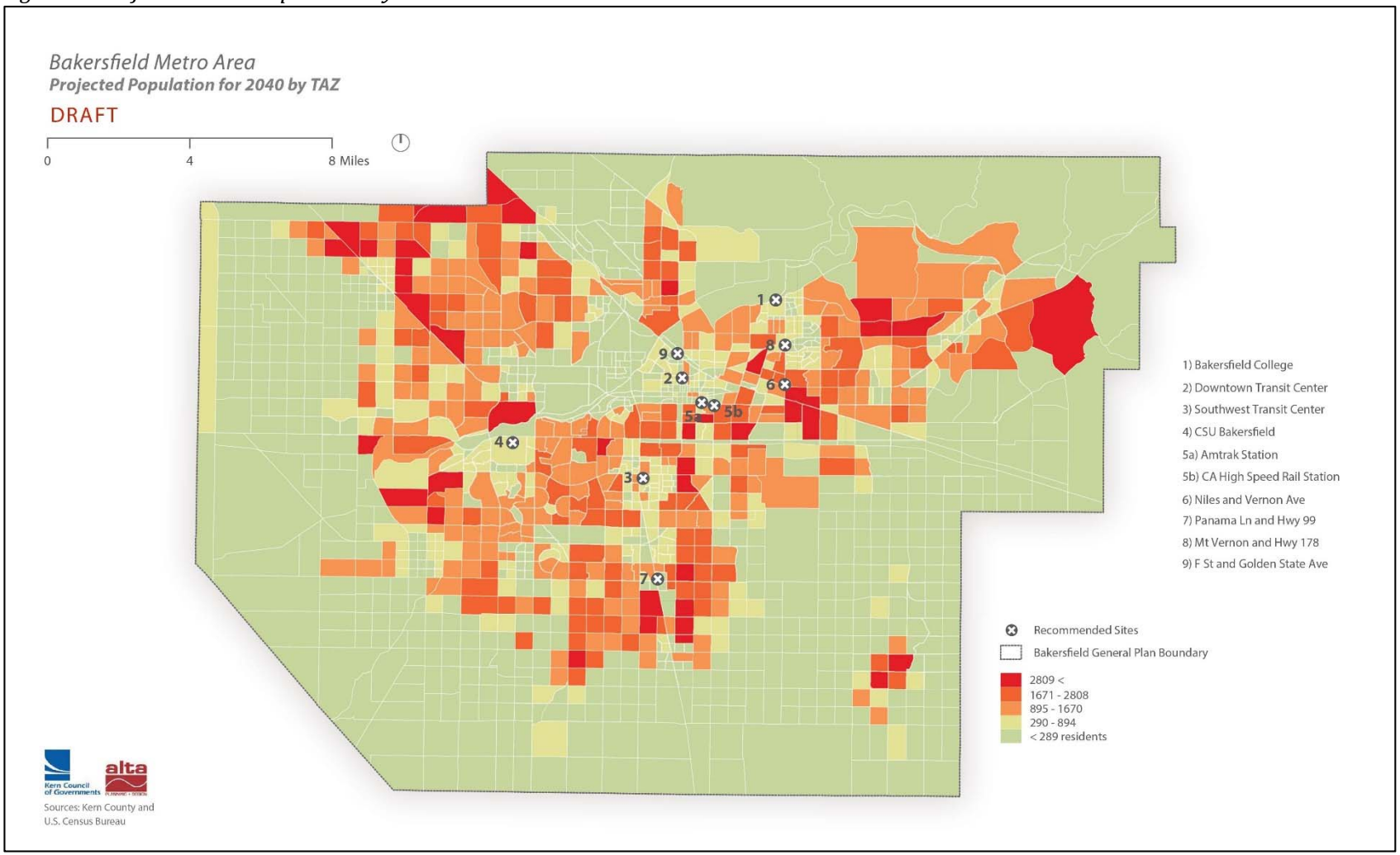


Figure 9: Projected Employment 2020 by TAZ

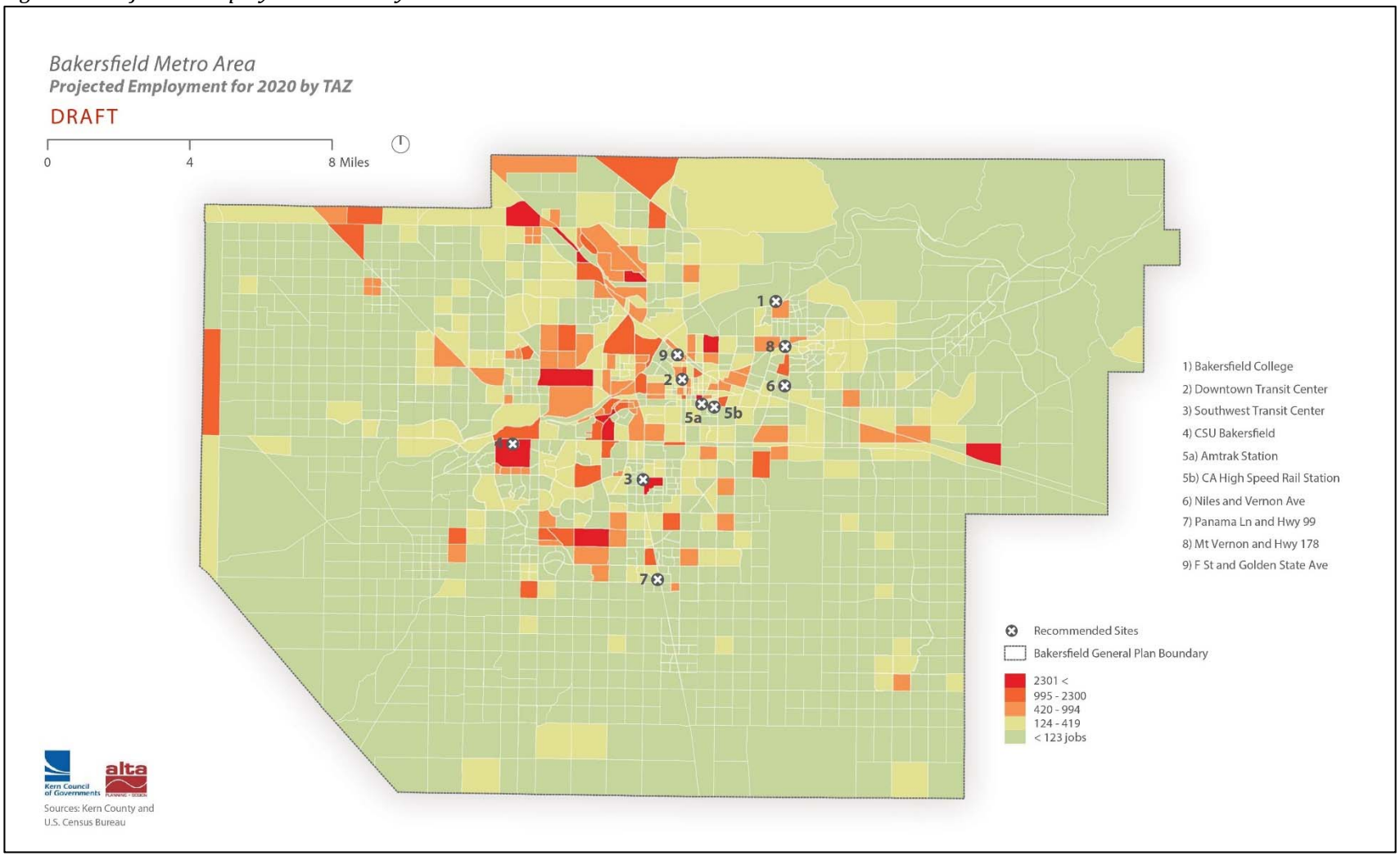


Figure 10: Projected Employment 2035 by TAZ

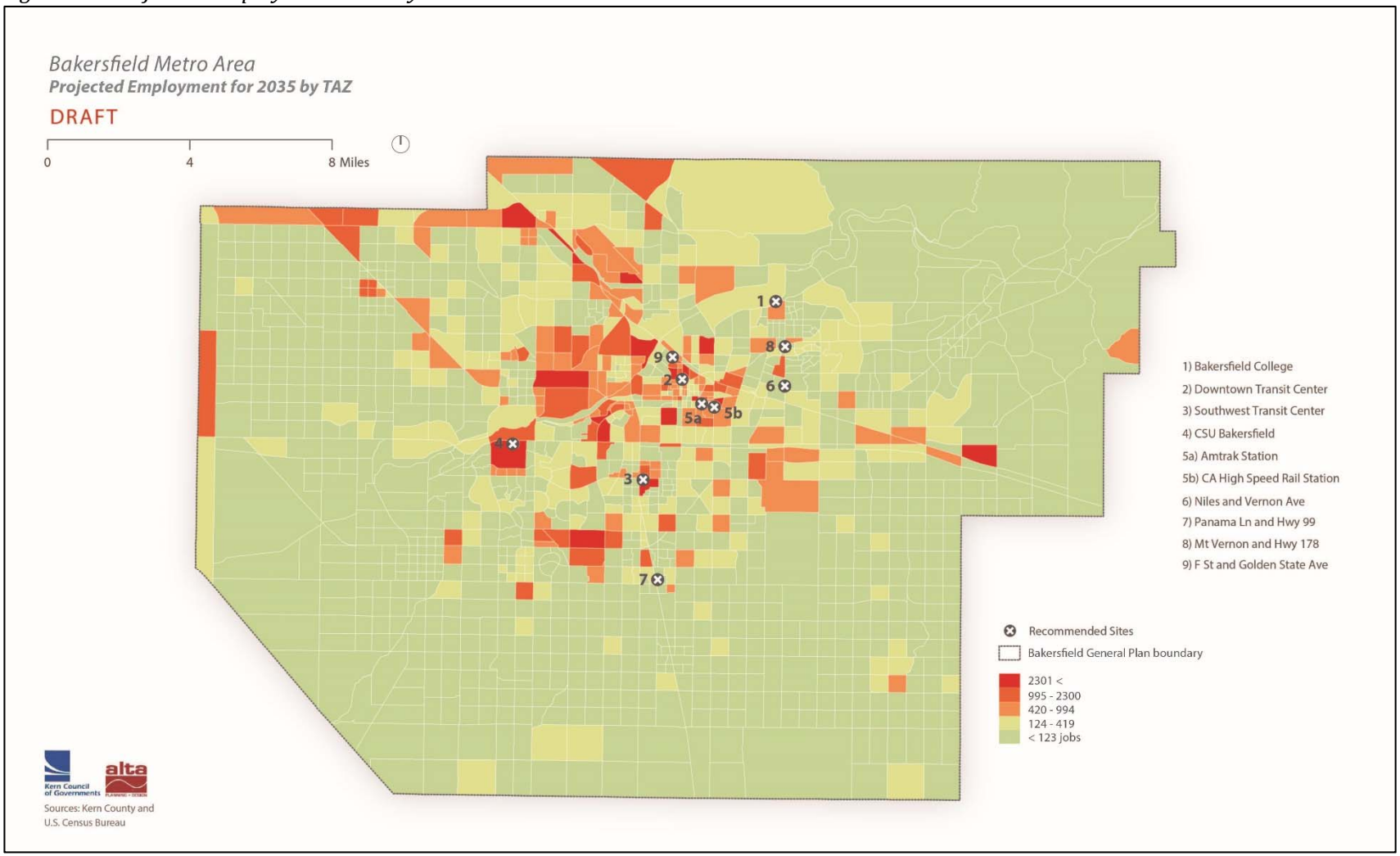


Figure 11: Projected Employment 2040 by TAZ

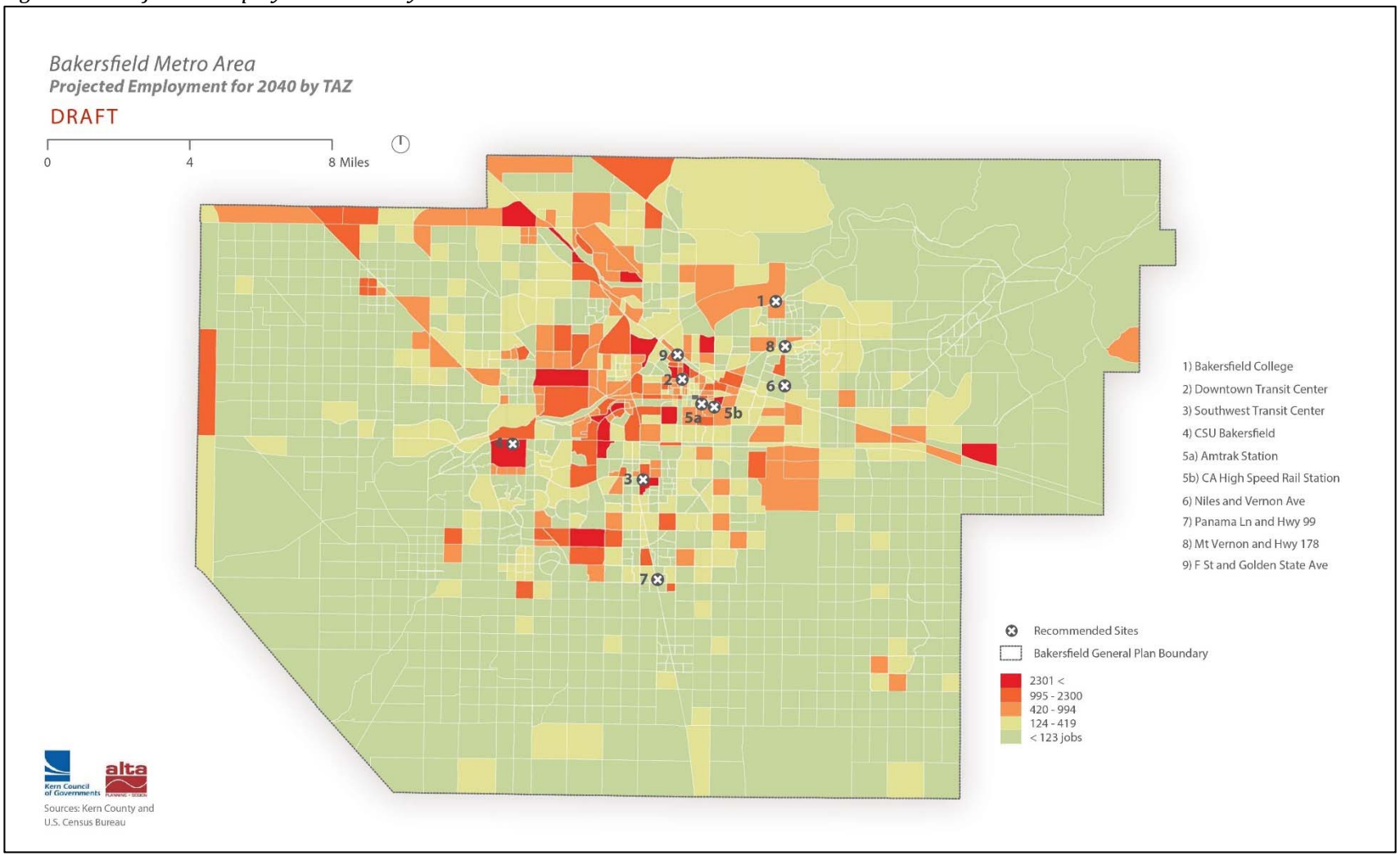


Figure 12: Existing Land Use

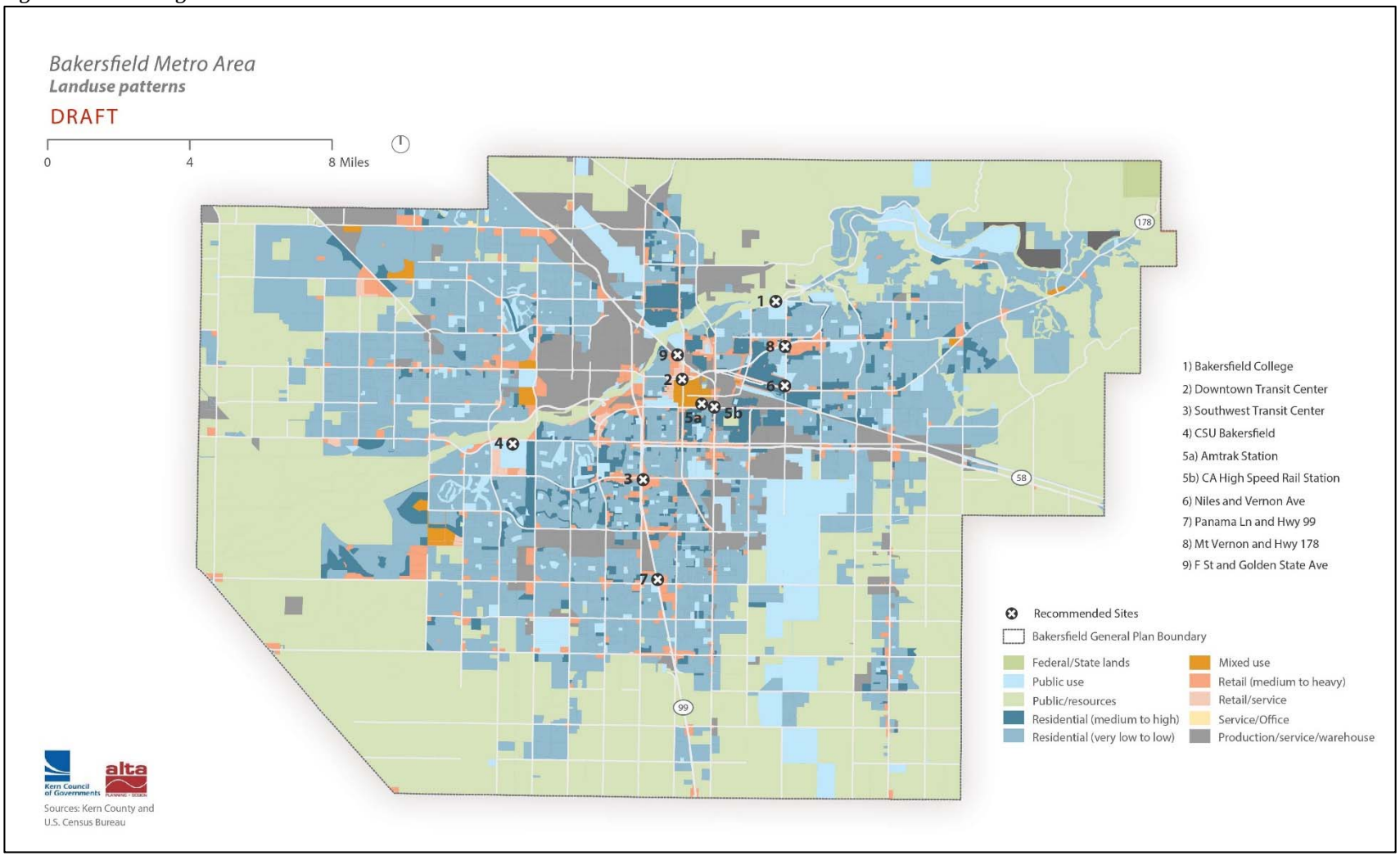
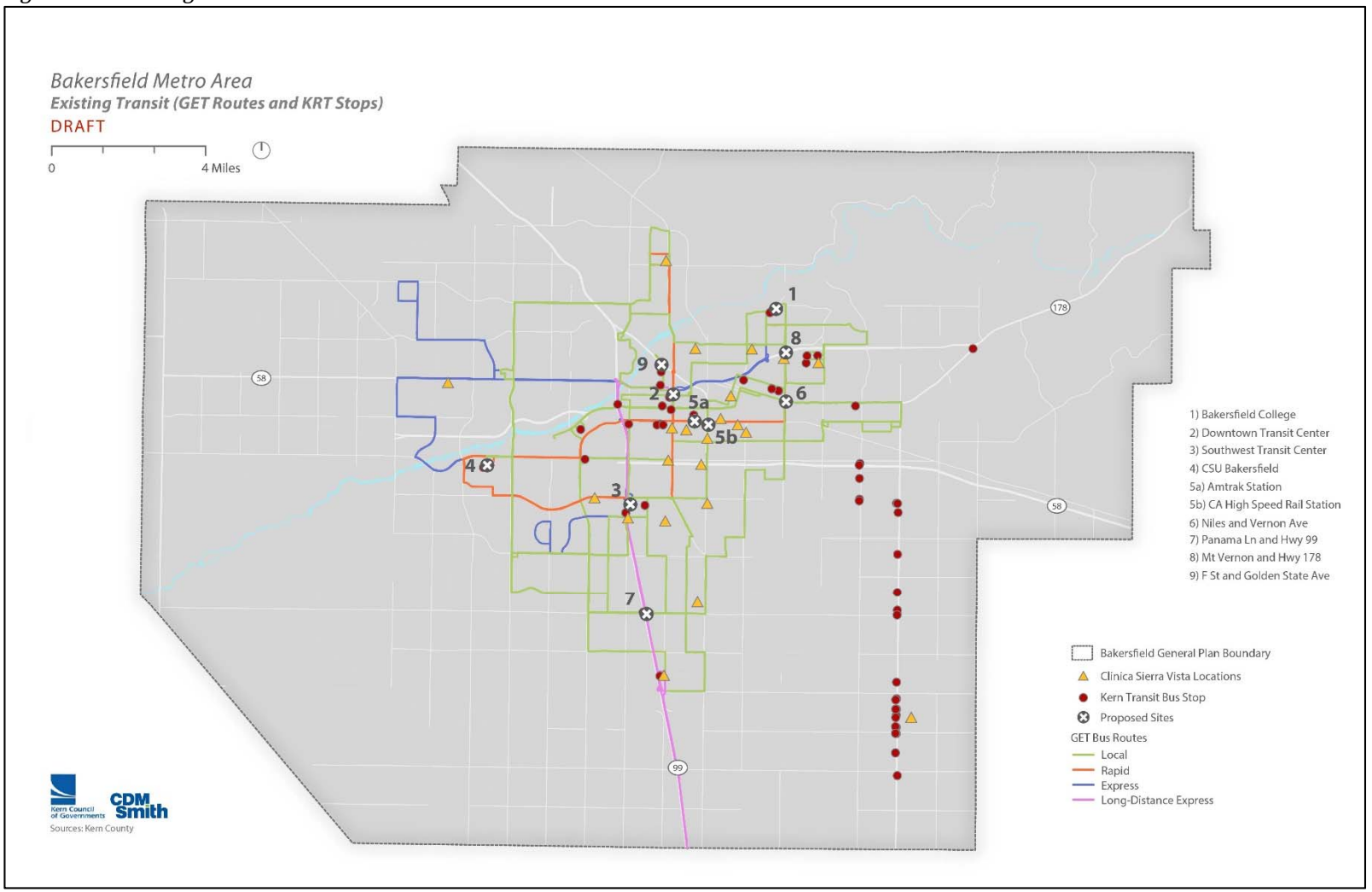


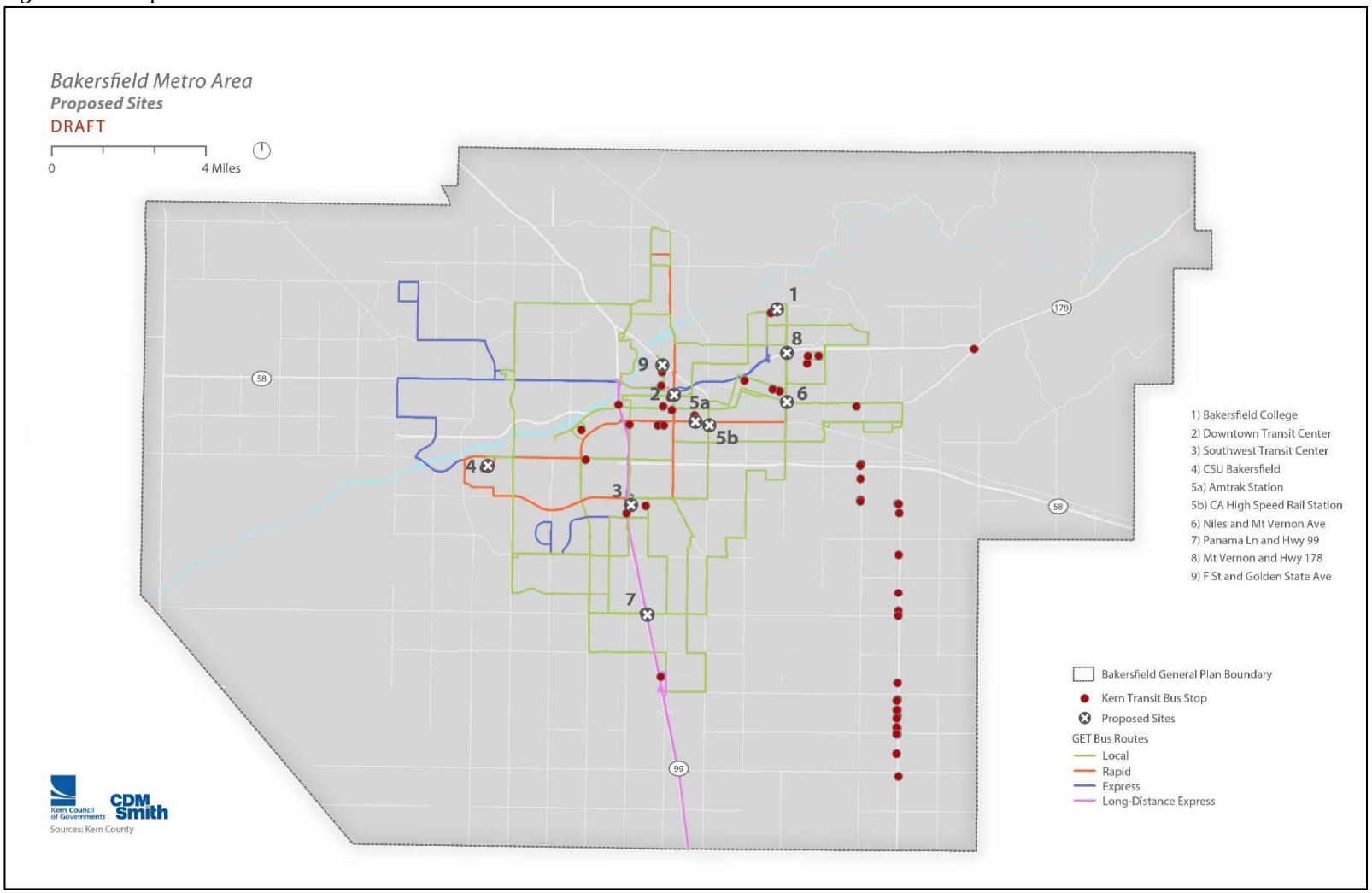
Figure 13: Existing Transit



Recommended Site Locations

A total of ten sites were identified including existing and proposed locations (shown below in Figure 14). Each site is described in further detail in the following section; sites are not listed in order of priority. Existing transit center locations are included for a baseline comparison against potential future locations and for evaluating the potential for Transit Oriented Development (TOD). Proposed transit center locations are based on several factors including, the plans and goals outlined in the Bakersfield Transit System Long-Range Plan (LRTP), City of Bakersfield Bicycle Transportation Plan, California High Speed Rail Station Area Plans, existing and planned transit routes, land uses and demographics of surrounding potential sites, first and last mile connections, potential for TOD, and population and employment growth trends.

Figure 14: Proposed Sites



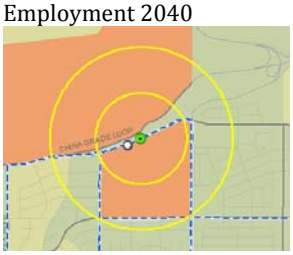
Existing Sites

#1 Bakersfield College

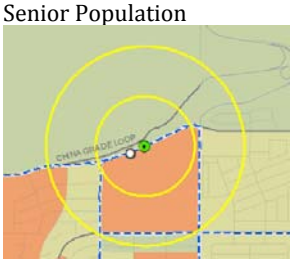
The Bakersfield College is included as a potential transit center site due to the high trip attraction of the college. The Bakersfield College was identified in the Bakersfield LRTP as a location planned for fast and frequent service. The site provides access to six GET bus routes (21, 41, 43, 44, 61, and the 81) and three of the Kern Transit bus routes (100, 140, and 150). First and last mile connections are provided with existing Class 1 and Class 2 bike routes and two future Class 2 and five Class 3 routes are planned in the City of Bakersfield Bicycle Transportation Plan. While there is not a significant amount of transit dependent populations such as youth, senior, or households with no vehicles, there is a moderate low-income and minority population.[1] In addition, employment is expected to be moderately high in the short-term and long-term (see employment and senior population figures to the right) with dense employment within a ¼ mile. Similar to the California State University Bakersfield site, this site is also comprised of primarily public land use making it an ideal site for a transit center to improve access to public facilities such as the college.

Employment 2020

Employment 2040



Senior Population



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	87 (42%)	102 (50%)	38 (18%)	40 (19%)	2 (2%)
1/2 Mile	548 (37%)	505 (34%)	345 (23%)	238 (16%)	28 (5%)

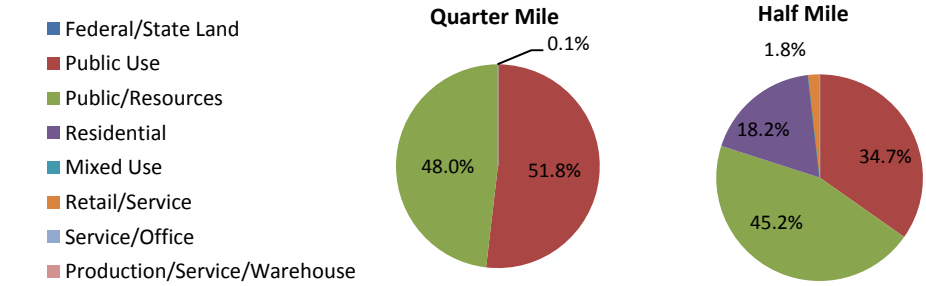
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	357	2,141	357	2,227	1,604	2,312
1/2 Mile	1,557	1,506	1,613	1,558	3,120	1,645

Note: Units presented are density (people/jobs per square mile).

Land Use

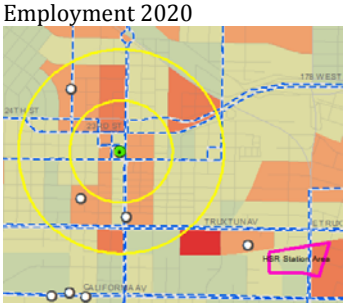


[1] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for employment higher than 995 and senior populations higher than 146.

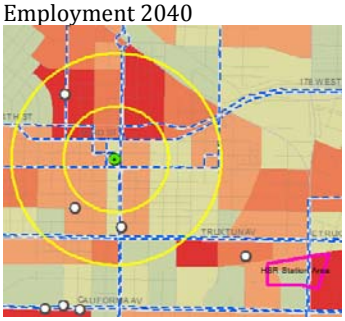
#2 Downtown Transit Center

The Downtown Transit Center was identified in the Bakersfield LRTP as an existing transit center that would be phased out in the midterm (2021-2025) and long-term (2026-2035) service plans. However, the site itself can be utilized for the potential for Transit Oriented Development (TOD) due to its access to transit and the high amount of mixed-use land use surrounding the site to allow for compact and dense development. In addition, the site is located near the California High Speed Rail Station Plan Area to further enhance access. The site is nearby nine of the GET bus routes (22, 42, 43, 45, 81, 82, 83, 84, and 92) and seven Kern Transit bus routes (100, 110, 115, 120, 130, 140, and 150). Two existing bike routes are present with three additional routes planned in the City's Bicycle Transportation Plan. Among the transit dependent populations, a moderately high concentration of low-income and minority populations are present while other populations are relatively low. Population is expected to become significantly denser in the short-term and continue to grow in the long-term; employment is also expected to grow between the short and long-term (see figures to the right).[2]

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	113 (63%)	94 (53%)	24 (13%)	15 (8%)	18 (29%)
1/2 Mile	699 (60%)	519 (45%)	168 (15%)	111 (10%)	106 (21%)

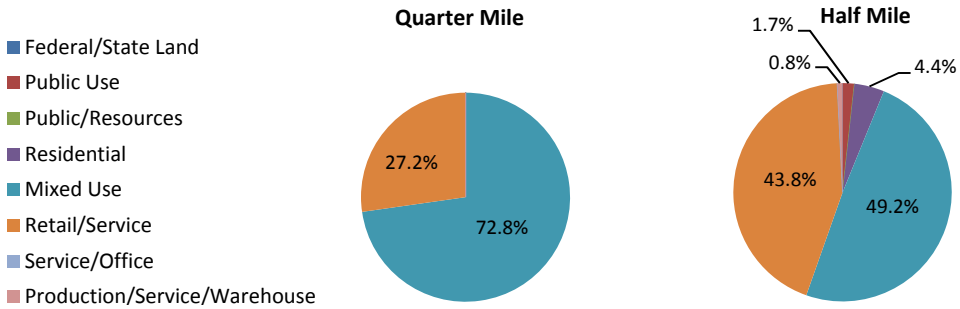
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	1,391	17,888	11,549	18,077	12,666	26,894
1/2 Mile	1,448	14,806	8,694	14,912	9,882	26,725

Note: Units presented are density (people/jobs per square mile).

Land Use



[2] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for employment higher than 995.

#3 Southwest Transit Center

The Southwest Transit Center is also identified in the Bakersfield LRTP as a transit center that will be phased out in the midterm (2021-2025) and long-range (2026-2035) service plans, similar to the Downtown Transit Center. Also similar to the Downtown Transit Center site, the Southwest Transit Center site can be utilized for TOD potential. The site provides access to eight GET bus routes (22, 41, 42, 44, 62, 81, 83, and 92) and two Kern Transit bus routes (130 and 145) within a ¼ mile walking distance. Within a ½ mile there is an additional Kern Transit bus route (110) and a Community Health Center (Clinica Sierra Site). An existing Class 2 bike route is adjacent to the site with an additional Class 2 bike route planned in the City's Bicycle Transportation Plan, providing first and last mile connections. The Valley Plaza shopping mall is also immediately adjacent which further enhances TOD potential. However, since the Valley Plaza shopping mall currently has several large retailers on the site, a relocation of the existing transit center site to the south at the shopping center at the southwest corner of Wilson Road and Wible Road could optimize TOD potential by providing a higher variety in dense land uses. The existing transit center is used primarily for transfers and is not a destination station. This existing nature of the transit center indicates that a relocation of the site would not inhibit existing GET routes and service. In addition, the length of the existing bus bays cannot accommodate newer articulated buses. The site is also suitable as high concentrations of employment are expected in the short-term (2020) and those projections will more than double by the long-term (2040), which can help support transit center activity.[3] A moderate amount of transit dependent populations are also present with low-income, minority, and youth populations.

Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	515 (52%)	516 (52%)	417 (42%)	84 (8%)	20 (7%)
1/2 Mile	2,590 (55%)	2,126 (45%)	1,750 (37%)	405 (9%)	133 (9%)

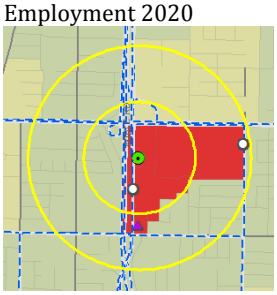
Note: Percentages indicate proportion of total population or households.

Future

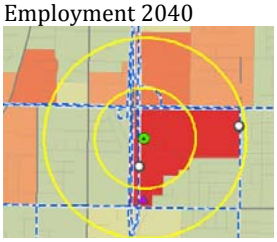
Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	3,159	8,929	3,587	9,000	10,236	22,300
1/2 Mile	5,706	4,621	5,575	4,452	10,096	12,274

Note: Units presented are density (people/jobs per square mile).

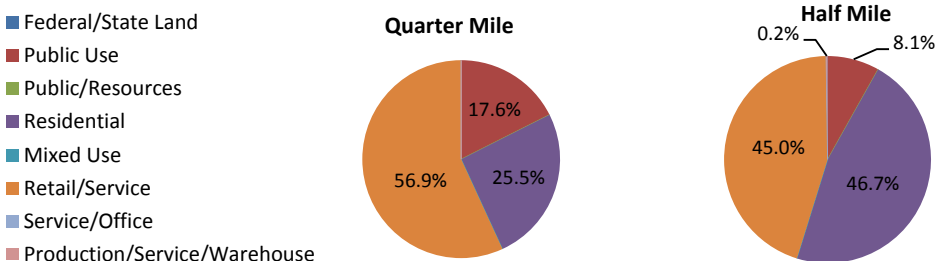
Employment 2020



Employment 2040



Land Use



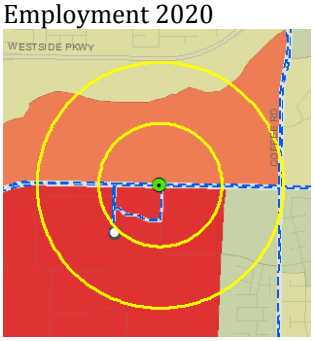
[3] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for employment higher than 995.

Proposed Sites

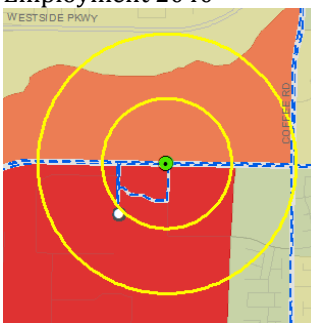
#4 California State University Bakersfield

California State University Bakersfield is a suitable location for a transit center as it has already been identified in the Bakersfield LRTP as a transit center. The site includes access within a ¼ mile to four GET Bus Routes (21, 22, 61, and 82) and the California State University Bakersfield Kern Transit bus stop (120). First and last mile connections are supported with an existing Class 2 bike route and two Class 1 routes; a future Class 1 route is planned in the City of Bakersfield Bicycle Transportation Plan. In addition, the Bicycle Transportation Plan also recommends this site as a potential bike share location. While there is not a high concentration of existing transit dependent populations (minority, youth, senior, and households with no vehicles), existing employment is high (see employment figures to the right) and is anticipated to remain high in the short-term and long-term. [4] The surrounding land use is primarily public use (mostly due to the University) in which a transit center can improve access to the University.

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	64 (32%)	52 (26%)	19 (10%)	14 (7%)	9 (10%)
1/2 Mile	284 (28%)	309 (30%)	174 (17%)	101 (10%)	40 (10%)

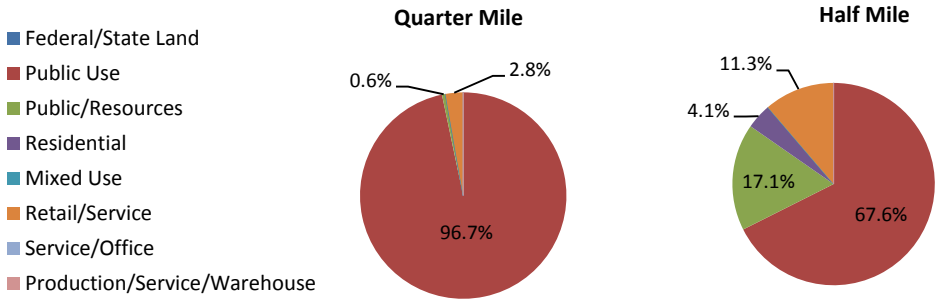
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	163	3,433	163	3,458	621	3,458
1/2 Mile	647	3,103	708	3,138	1,366	3,138

Note: Units presented are density (people/jobs per square mile).

Land Use



[4] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentration of employment is shown in orange to red (995 and higher), medium concentrations are in orange (between 420 and 994), and yellow to green symbolizes low concentrations (less than 419).

#5 Downtown Train Station

The Downtown Train Station pertains to the planning area for the California High Speed Rail (HSR). The goal of this site location is to leverage the opportunities, such as TOD, of the planned HSR station. In order to maximize functionality and mutual benefit, California HSR stations and surrounding development need to be designed with an eye to each other. If not carefully planned, conventional transit design can separate transit stations from the adjacent community it is intended to serve.[5] For these reasons, it is important to evaluate all aspects of the California HSR and the potential opportunities that are included with relation to TOD.

There are many opportunities presented by the California HSR and its potential for TOD which can include location, land use, and transportation. Location can attract employers to the area, such as Los Angeles-based employers taking advantage of the fast travel time between the two regions (approximately 54 minutes) and looking for less expensive office space while still being able to maintain a presence in Los Angeles. The area surrounding the California HSR station planning area offers potential for TOD with vacant and publicly-owned parcels. Lastly, the planned Bakersfield Hybrid HSR station is unique in that it will be the only station where both HSR and Amtrak will meet at the same station enhancing connectivity and acting as a major regional and statewide hub.[6]

In order to leverage the opportunities associated with the Bakersfield Hybrid HSR station, two options are presented for a Downtown Train Station including the existing Amtrak station and the proposed HSR station. In the interim, until the HSR station is implemented the Amtrak station would be a suitable site for a transit center in the short-term; alternatively, a suitable site can also be located at the HSR station upon implementation in the long-term. These two scenarios are described in the following section.

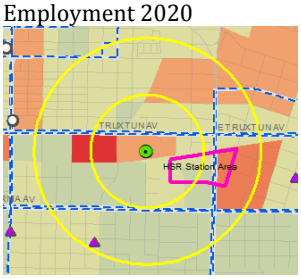
The City of Bakersfield has proposed locating the Bakersfield HSR station at the F Street and Golden State Avenue potential transit center site (Site #9). This proposal has been designated the Locally Generated Alternative to the CAHSR Authority's Bakersfield Hybrid HSR station site.

[5] Urban Design Guidelines California High-Speed Train Project. March 2011. California High-Speed Rail Authority
[6] Planning Transit-Oriented Development around High-Speed Rail Stations in Fresno and Bakersfield. December 2010. Daniel Krause

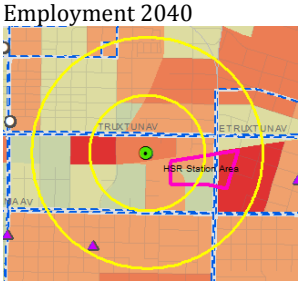
#5a Amtrak Station (Short-Term)

The Amtrak Station is included as a potential site due to its regional access. Users of the Amtrak Station are able to access the 45 GET bus route and four Kern Transit bus routes (100, 120, 130, and 150) within a ¼ mile walking distance; within a ½ mile users can also access the 44 GET bus route and a Women, Infants, and Children (WIC) program (Clinica Sierra Site). First and last mile connections are included with an existing Class 2 bike route with Class 1 and Class 3 bike routes planned in the City's Bicycle Transportation Plan. Station improvements are also included in the Bicycle Transportation Plan and the Kern COG 2014 Regional Transportation Plan. In addition, the California High Speed Rail (HSR) Bakersfield Station Planning Area is located immediately south of the Amtrak Station. While it is likely the California HSR Station will replace the Amtrak Station as a major transit center, the site of the Amtrak Station could be utilized as TOD with a growing high concentration of employment and a mixture of land uses in the surrounding area.[7] The area surrounding the site is also comprised of a high amount of transit dependent populations such as low-income, minority populations, and households with no access to a vehicle.

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	195 (75%)	168 (65%)	53 (21%)	34 (13%)	36 (36%)
1/2 Mile	1,660 (68%)	1,119 (46%)	475 (19%)	268 (11%)	175 (25%)

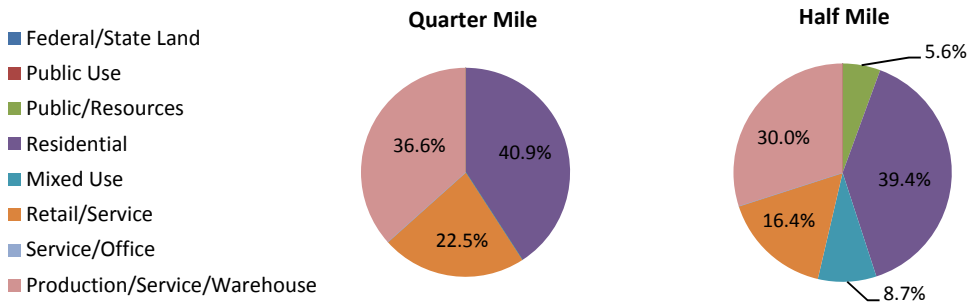
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	825	20,368	4,014	28,370	6,255	37,156
1/2 Mile	1,909	12,411	7,511	15,800	9,566	22,113

Note: Units presented are density (people/jobs per square mile).

Land Use

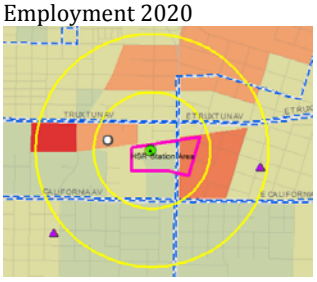


[7] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for employment higher than 995.

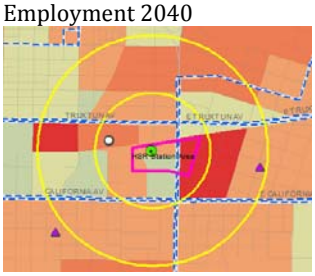
#5b California High Speed Rail Hybrid Station (Long-Term)

The California High Speed Rail (HSR) Hybrid Station is located immediately south of the Amtrak Station across from the rail road tracks. This location makes a suitable site due to its connectivity to the planned California HSR system providing regional and statewide access. Similar to the Amtrak station, users are provided GET and Kern Transit bus routes within walking distance including the 45 GET bus route and four Kern Transit bus routes (100, 120, 130, and 150) within a ¼ mile walking distance; within a ½ mile users can also access the 44 GET bus route and a Women, Infants, and Children (WIC) program (Clinica Sierra Site). First and last mile transit connections consist of the existing Class 2 bike route along with planned Class 1 and Class 3 bike routes in the City's Bicycle Transportation Plan to increasing connectivity. High concentrations of transit dependent populations (low-income, minority, and households with no vehicle) are present in the surrounding area, further supporting this site as a suitable location for a transit center and/or a TOD site.[8] Employment density is also anticipated to drastically intensify by the long-term year 2040. Additionally, a high portion of the surrounding land uses are identified as mixed-use, allowing for dense and compact development.

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	251 (65%)	201 (52%)	80 (21%)	39 (10%)	34 (29%)
1/2 Mile	1,910 (66%)	1,174 (40%)	623 (21%)	240 (8%)	137 (19%)

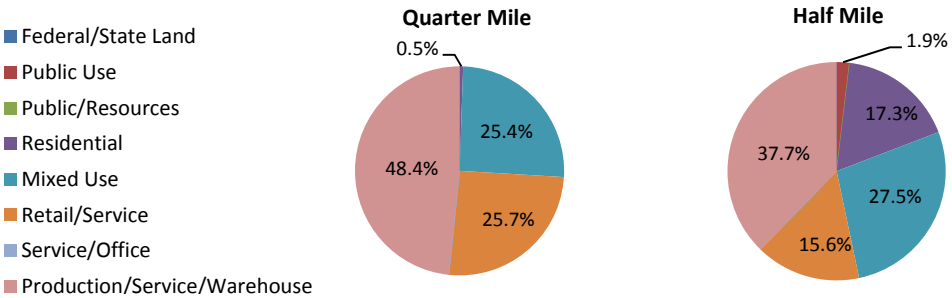
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	210	1,117	392	2,265	666	4,036
1/2 Mile	1,630	8,448	4,038	11,103	5,823	16,441

Note: Units presented are density (people/jobs per square mile).

Land Use

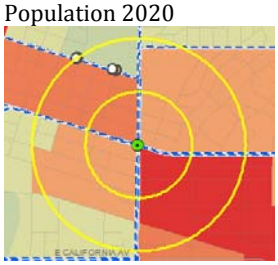


[8] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for employment higher than 995.

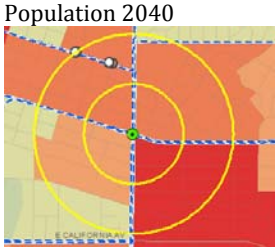
#6 Niles and Mt Vernon Avenue

The parcels immediately adjacent to the intersection of Niles Street and Mt Vernon Avenue makes a suitable transit center location with access to transit and a high concentration of transit dependent populations. A transit center could be located on any of the four quadrants of the intersection. The site includes access to three GET bus routes (21, 41, and 45) and three Kern Transit bus routes (100, 140, and 150); first and last mile connections will be enhanced with a future Class 3 and three future Class 2 bike routes that have been identified in the City's Bicycle Transportation Plan. In addition, the East Bakersfield High School and Kern Medical Center are both within a ½ mile. Although the land use surrounding the site is primarily residential and does not allow for mixed-use development, the area is densely populated with low-income, minority, youth, and households with no vehicles (transit dependent users) making this site an ideal location for a transit center.[9] Population is anticipated to remain relatively consistent in the short and long-term with small growth in employment by the long-term year 2040. While a significant amount of growth is not anticipated, this site is still an ideal location for a transit center as it improves accessibility for transit dependent populations in a densely populated area.

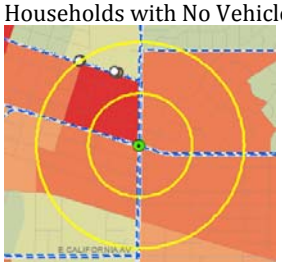
Population 2020



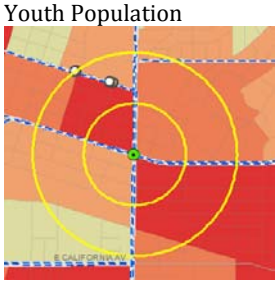
Population 2040



Households with No Vehicles



Youth Population



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	1,368 (66%)	1,012 (49%)	743 (36%)	72 (3%)	162 (28%)
1/2 Mile	4,490 (66%)	3,455 (51%)	2,609 (38%)	476 (4%)	527 (30%)

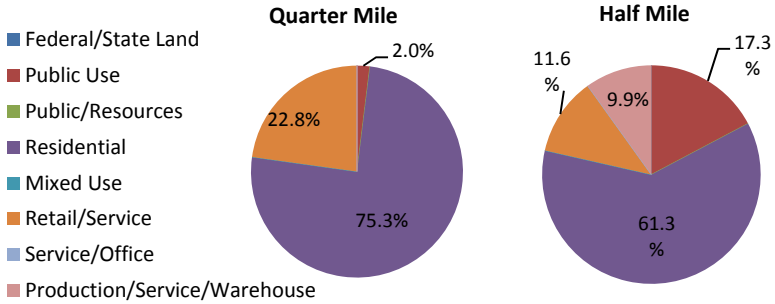
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	10,041	276	10,041	292	11,448	482
1/2 Mile	8,620	780	8,640	798	10,209	983

Note: Units presented are density (people/jobs per square mile).

Land Use

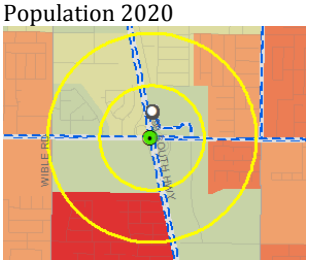


[9] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for minority populations higher than 548, youth populations higher than 425, and households with no vehicle higher than 98.

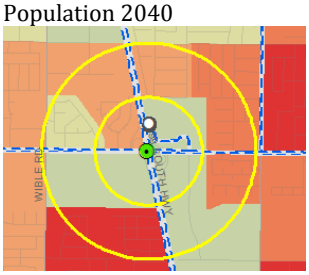
#7 Panama Lane and Hwy 99

While not located in the center of Metro Bakersfield, the intersection of Panama Lane and Highway 99 is a site location for a potential transit center. The site is anticipated to double in population density between the short and long-term years and provides access to multiple transit lines. Regional and local access is available with six GET bus routes (41, 42, 47, 61, 62, and 92) and two Kern Transit bus routes (130 and 145). First and last mile connections to the transit center are offered with proposed future Class 2 and Class 1 routes in the City's Bicycle Transportation Plan. The demographics for the surrounding area include a moderately high amount of low-income, minority, and youth populations (transit dependent populations).[10] Although the land uses for the site are primarily retail and residential, the demographics for the area indicate the population is transit dependent with a moderately high amount of low-income, minority, and youth populations. A transit center at this location can improve upon the existing accessibility for these users and assist with the population growth between short and long-term years.

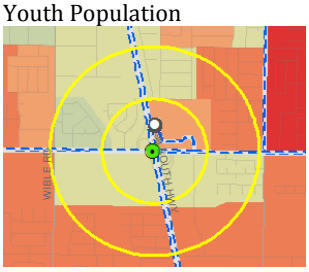
Population 2020



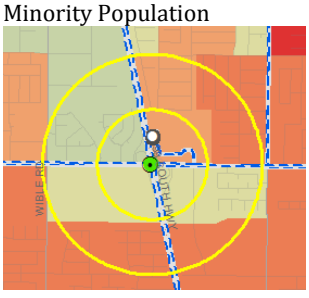
Population 2040



Youth Population



Minority Population



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	610 (57%)	530 (49%)	360 (33%)	51 (5%)	18 (7%)
1/2 Mile	2,329 (55%)	2,065 (48%)	1,414 (33%)	225 (5%)	58 (5%)

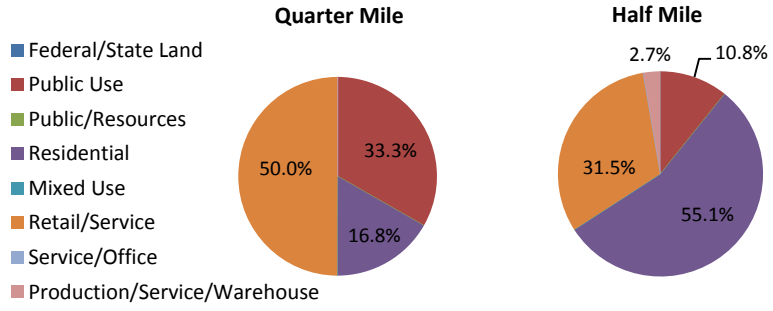
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	616	1,861	820	197	1,745	197
1/2 Mile	4,233	835	5,655	1,077	9,353	1,491

Note: Units presented are density (people/jobs per square mile).

Land Use

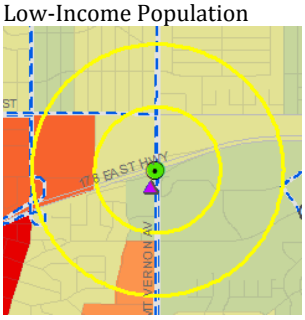


[10] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for populations higher than 1,670, minority populations higher than 548, and youth populations higher than 425.

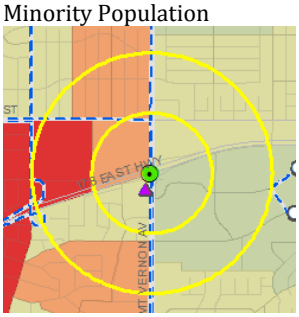
#8 Mt Vernon Ave and Hwy 178

South along Mount Vernon Avenue at the intersection of Highway 178 is a site location for a potential transit center. This location is an ideal site for a potential transit center as it is within close proximity of the East Hills Shopping Mall. Regional and local access is available with three GET bus routes (21, 43, and 44) within a ¼ mile radius and a Women, Infants, and Children (WIC) program (Clinica Sierra Site) is within close proximity. First and last mile connections to the transit center are enhanced with an existing Class 2 bike routes and an additional future Class 2 route proposed in the City's Bicycle Transportation Plan. Although population density between the short and long-term years remain relatively constant, a moderately high amount of low-income, minority, and youth populations (transit dependent populations (transit dependent populations) are within the surround areas.[11] The land uses for the site are primarily retail and residential with a mixture of public use. The site's adjacent location to the East Hills Shopping Mall and its concentration of transit dependent populations enhances its potential to become eligible for TOD. A transit center at this location can improve access for neighboring populations and assist in providing access to the East Hills Shopping Mall.

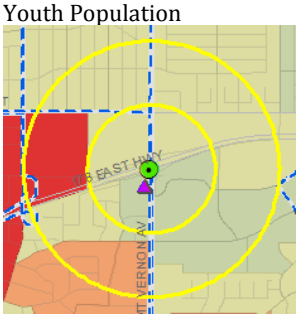
Low-Income Population



Minority Population



Youth Population



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	657 (53%)	554 (45%)	403 (32%)	146 (12%)	60 (15%)
1/2 Mile	2,530 (48%)	2,174 (41%)	1,588 (30%)	594 (11%)	201 (12%)

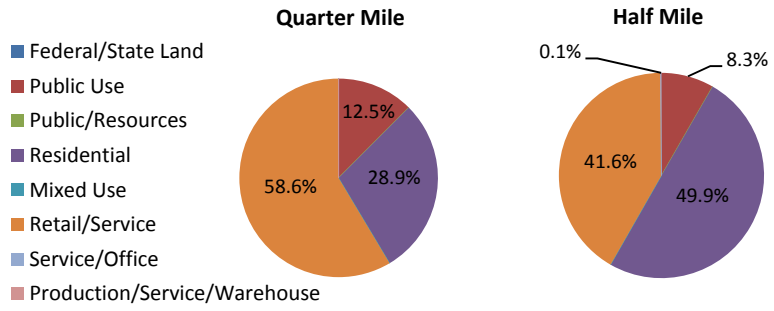
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	842	785	850	695	1,001	695
1/2 Mile	4,128	2,124	4,053	2,069	5,868	2,069

Note: Units presented are density (people/jobs per square mile).

Land Use

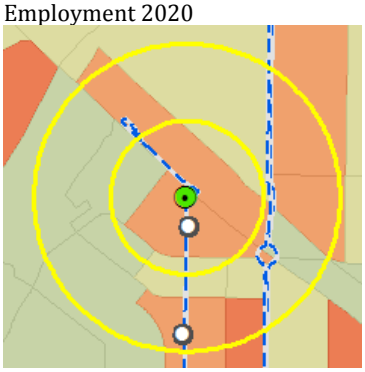


[11] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for populations higher than 1,670, minority populations higher than 548, and youth populations higher than 425.

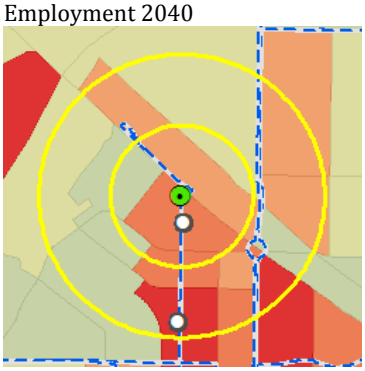
#9 F Street and Golden State Avenue (Locally Generated Alternative HSR Station)

North of the existing Amtrak Station at the intersection of F Street and Golden State Avenue (Highway 204) is also a site location for a potential transit center. The site location has a high amount of retail/service land use within a ¼ mile radius supporting the site as a transit center; within a ½ mile radius there is also public use/resource areas. Regional and local access is available with two GET bus routes (22, and 42), and two Kern Transit bus routes (110 and 150) within a ½ mile radius. First and last mile connections to the transit center include existing Local, Class 1, and Class 2 bike routes and future Local and Class 2 routes proposed in the City's Bicycle Transportation Plan. While there is not a high concentration of existing transit dependent populations (low-income, minority, youth, senior, and households with no vehicles), employment growth is anticipated to triple by long term year 2040 (see employment figures to the right). [12] A transit center at this location can assist with the anticipated employment growth and provide multi-model access to the nearby future employment centers. However, the site is located immediately north of Golden State Ave (Highway 204) and presents a challenge for access across the highway; additionally, line of sight from the road is not optimal due to the geography of the site.

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	118 (38%)	94 (30%)	64 (21%)	33 (11%)	23 (19%)
1/2 Mile	1,108 (51%)	695 (32%)	468 (22%)	209 (10%)	158 (19%)

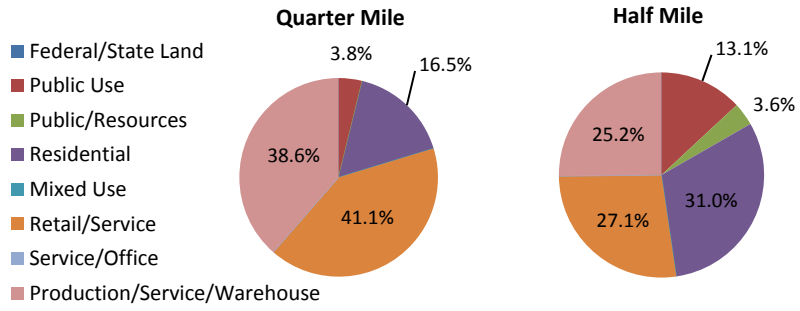
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	424	978	361	1,044	424	2,693
1/2 Mile	1,952	3,494	2,123	3,598	2,913	9,079

Note: Units presented are density (people/jobs per square mile).

Land Use



[12] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentration of employment is shown in orange to red (995 and higher), medium concentrations are in orange (between 420 and 994), and yellow to green symbolizes low concentrations (less than 419).

Demographic Summary

The demographics for each site are summarized in the tables below for existing and projected. Sites were partially selected based on their existing and projected demographics. For existing demographics high concentration of transit dependent users such as low-income, minority, youth, senior, and households with no vehicles were criteria for a site recommendation. The projected demographics were used to determine the degree of growth that is anticipated between the base year, short term and long term years. The selected sites all displayed a high concentration of transit dependent populations and anticipated growth and were selected for these reasons.

Quarter Mile (Existing)								
Site	Description	Total Population	Total Households	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1	Bakersfield College	206	85	87 (42%)	102 (50%)	38 (18%)	40 (19%)	2 (2%)
2	Downtown Transit Center	180	63	113 (63%)	94 (53%)	24 (13%)	15 (8%)	18 (29%)
3	Southwest Transit Center	1,000	313	515 (52%)	516 (52%)	417 (42%)	84 (8%)	20 (7%)
4	Cal State Bakersfield	201	87	64 (32%)	52 (26%)	19 (10%)	14 (7%)	9 (10%)
5a	Amtrak Station	258	102	195 (75%)	168 (65%)	53 (21%)	34 (13%)	36 (36%)
5b	CA HSR	388	117	251 (65%)	201 (52%)	80 (21%)	39 (10%)	34 (29%)
6	Niles and Vernon Ave	2,069	588	1368 (66%)	1012 (49%)	743 (36%)	72 (3%)	162 (28%)
7	Panama Ln and Hwy 99	1,077	259	610 (57%)	530 (49%)	360 (33%)	51 (5%)	18 (7%)
8	Vernon Ave and Hwy 178	1,245	391	657 (53%)	554 (45%)	403 (32%)	146 (12%)	60 (15%)
9	F St and Golden State Ave	310	121	118 (38%)	94 (30%)	64 (21%)	33 (11%)	23 (19%)
Half Mile (Existing)								
Site	Description	Total Population	Total Households	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1	Bakersfield College	1,493	552	548 (37%)	505 (34%)	345 (23%)	238 (16%)	28 (5%)
2	Downtown Transit Center	1,156	496	699 (60%)	519 (45%)	168 (15%)	111 (10%)	106 (21%)
3	Southwest Transit Center	4,681	1,448	2590 (55%)	2126 (45%)	1750 (37%)	405 (9%)	133 (9%)
4	Cal State Bakersfield	1,021	415	284 (28%)	309 (30%)	174 (17%)	101 (10%)	40 (10%)
5a	Amtrak Station	2,440	700	1660 (68%)	1119 (46%)	475 (19%)	268 (11%)	175 (25%)
5b	CA HSR	2,904	740	1910 (66%)	1174 (40%)	623 (21%)	240 (8%)	137 (19%)
6	Niles and Vernon Ave	6,790	1,780	4490 (66%)	3435 (51%)	2609 (38%)	276 (4%)	527 (30%)
7	Panama Ln and Hwy 99	4,262	1,062	2329 (55%)	2065 (48%)	1414 (33%)	225 (5%)	58 (5%)
8	Vernon Ave and Hwy 178	5,263	1,682	2,530 (48%)	2,174 (41%)	1,588 (30%)	594 (11%)	201 (12%)
9	F St and Golden State Ave	2,173	849	1,108 (51%)	695 (32%)	468 (22%)	209 (10%)	158 (19%)

Quarter Mile (Projected)									
Site	Description	Population				Employment			
		Base	2020	2035	2040	Base	2020	2035	2040
1	Bakersfield College	71	70	237	315	420	437	452	454
2	Downtown Transit Center	274	2,267	2,469	2,486	3,511	3,548	5,249	5,279
3	Southwest Transit Center	620	704	2,007	2,009	1,753	1,767	4,377	4,377
4	Cal State Bakersfield	32	32	86	122	674	679	711	679
5a	Amtrak Station	163	788	1,227	1,228	3,998	5,569	7,290	7,293
5b	CA HSR	211	393	666	666	1,117	2,265	4,030	4,036
6	Niles and Mt. Vernon Ave	1,972	1,972	2,059	2,247	54	57	57	95
7	Panama Ln and Hwy 99	122	161	343	343	365	39	39	39
8	Mt. Vernon Ave and Hwy 178	842	850	880	1,001	785	695	695	695
9	F St and Golden State Ave	424	362	380	424	978	1,044	2,393	2,693
Half Mile (Projected)									
Site	Description	Population				Employment			
		Base	2020	2035	2040	Base	2020	2035	2040
1	Bakersfield College	1,223	1,266	2,179	2,450	1,183	1,224	1,249	1,292
2	Downtown Transit Center	1,137	6,827	7,649	7,760	11,627	11,710	20,837	20,986
3	Southwest Transit Center	4,481	4,378	7,862	7,928	3,628	3,496	9,553	9,638
4	Cal State Bakersfield	508	556	894	1,073	2,437	2,464	2,464	2,464
5a	Amtrak Station	1,499	5,898	7,404	7,512	9,746	12,407	17,351	17,365
5b	CA HSR	1,630	4,038	5,777	5,823	8,448	11,103	16,401	16,441
6	Niles and Mt. Vernon Ave	6,769	6,785	7,110	8,017	612	627	631	772
7	Panama Ln and Hwy 99	3,324	4,441	7,345	7,345	656	846	1,113	1,171
8	Mt. Vernon Ave and Hwy 178	4,128	4,053	4,494	5,868	2,124	2,069	2,069	2,069
9	F St and Golden State Ave	1,952	2,123	2,232	2,913	3,494	3,598	8,330	9,079

Land Use Summary

In addition to the demographics of the surrounding areas, sites were also selected based on their surrounding land uses. The surrounding land uses are vital to support a transit center, as the immediate adjacent area's ability to attract and/or produce activity offer ridership for a transit center. Sites containing a high portion of residential land uses were selected for their potential to generate trips only if the demographics of the residents include a high concentration of transit dependent populations. Sites containing heavy amounts of public uses and retail indicated a high potential to attract trips. In addition, sites with a significant amount of mixed use land uses were included for their potential to promote compact development and play an important role in TOD development; the denser development is able to capture and serve a larger population, increasing the efficiency of transit center.

Quarter Mile								
Site	Description	Public Use	Public Resources	Residential	Mixed Use	Retail/ Service	Production/ Service/Warehouse	Total
1	Bakersfield College	51.8%	48.0%	0.1%	--	--	--	100.0%
2	Downtown Transit Center	--	--	--	72.8%	27.2%	--	100.0%
3	Southwest Transit Center	17.6%	--	25.5%	--	56.9%	--	100.0%
4	Cal State Bakersfield	96.7%	0.6%	--	--	2.8%	--	100.0%
5a	Amtrak Station	--	--	--	71.9%	3.4%	24.7%	100.0%
5b	CA HSR	--	--	0.5%	25.4%	25.7%	48.4%	100.0%
6	Niles and Vernon Ave	2.0%	--	75.3%	--	22.8%	--	100.0%
7	Panama Ln and Hwy 99	33.3%	--	16.8%	--	50.0%	--	100.0%
8	Mt. Vernon Ave and Hwy 178	12.5%	--	28.9%	--	58.6%	--	100.0%
9	F St and Golden State Ave	3.8%	--	16.5%	--	41.1%	38.6%	100.0%
Half Mile								
Site	Description	Public Use	Public Resources	Residential	Mixed Use	Retail/ Service	Production/ Service/Warehouse	Total
1	Bakersfield College	34.7%	45.2%	18.2%	--	1.8%	--	100.0%
2	Downtown Transit Center	1.7%	--	4.4%	49.2%	43.8%	0.8%	100.0%
3	Southwest Transit Center	8.1%	--	46.7%	--	45.0%	0.2%	100.0%
4	Cal State Bakersfield	67.6%	17.1%	4.1%	--	11.3%	--	100.0%
5a	Amtrak Station	0.0%	5.6%	39.4%	8.7%	16.4%	30.0%	100.0%
5b	CA HSR	1.9%	--	17.3%	27.5%	15.6%	37.7%	100.0%
6	Niles and Vernon Ave	17.3%	--	61.3%	--	11.6%	9.9%	100.0%
7	Panama Ln and Hwy 99	10.8%	--	55.1%	--	31.5%	2.7%	100.0%
8	Mt. Vernon Ave and Hwy 178	8.3%	--	49.9%	--	41.6%	0.1%	100.0%
9	F St and Golden State Ave	13.1%	3.6%	31.0%	--	27.1%	25.2%	100.0%

Secondary Potential Sites

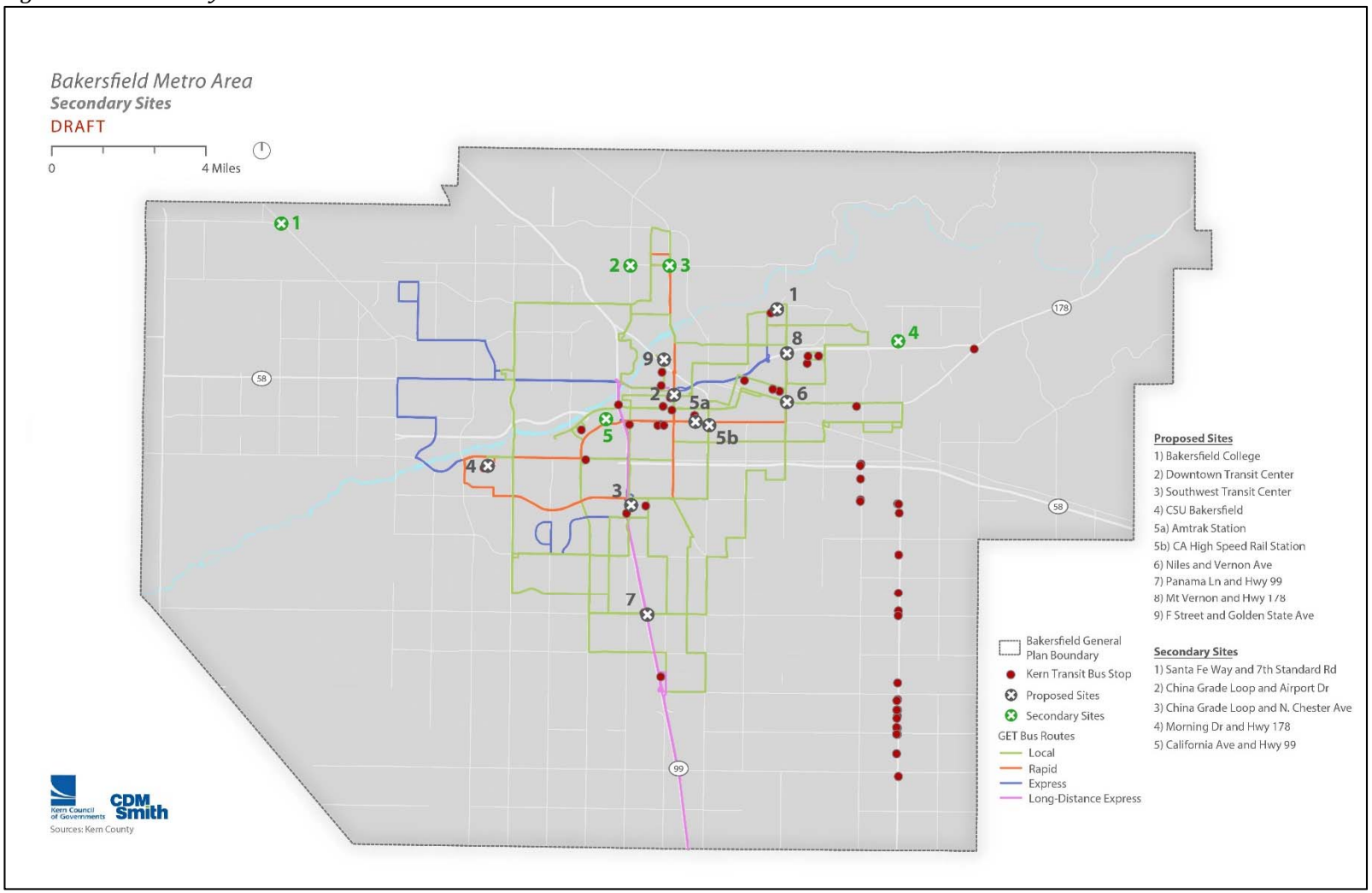
Throughout the outreach process, which included general public outreach and meetings with stakeholders and steering committee members, other additional sites were identified. The sites were identified based on the feedback of stakeholders and the public community to identify areas outside of the recommended site locations. These locations were not included as recommended sites due to limited land use patterns, population, employment, or other transit dependent factors, reducing the sites ability to be a location for a Transit Center or TOD site. However, should any of these factors unexpectedly increase; these sites have the potential to become ideal locations for a Transit Center or a TOD site. The site locations are shown in Figure 15 and include:

- Santa Fe Way and 7th Standard Road
- China Grade Loop at Airport Drive
- China Grade Loop at North Chester Avenue
- Morning Drive and Highway 178
- California Avenue and Highway 99

In addition, resulting from the outreach process, two sites (listed below) initially identified as primary potential sites by the consultant team were determined more suitable as secondary potential sites. Due to previously being considered primary potential sites, analyses for these sites had previously been conducted. The analyses are shown below for reference purposes; detailed analysis of the remaining secondary potential sites will not be completed.

- Morning Drive and Hwy 178
- California Avenue and Hwy 99

Figure 14: Secondary Sites



Morning Drive and Hwy 178

A transit center located at Morning Drive and Highway 178 is recommended based on future projections. While there is currently no GET and/or Kern Transit bus service, the growth pattern of expanding to the east will likely impact the demand for service; population densities are expected to at least double in the long-term. Currently, the surrounding area (beyond a ½ mile distance) is primarily undeveloped and/or zoned for low-density residential indicating that this site may be suitable for park and ride facilities to complement its surrounding land uses and increase multi modalism.[13] In addition, the location of this site captures the highest variety of land uses to enhance TOD functionality. First and last mile connections are anticipated to be enhanced with 2 proposed Class 2 routes within proximity of the proposed site; additionally, GET and Kern Transit bus routes would need to be expanded and incorporated for this site to become a viable site location. Based on the current projections and the surrounding and immediate land uses, this site is most suitable to assist in addressing the eastern growth pattern.

Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	290 (43%)	234 (35%)	145 (21%)	55 (8%)	13 (5%)
1/2 Mile	815 (43%)	635 (34%)	409 (22%)	170 (9%)	37 (5%)

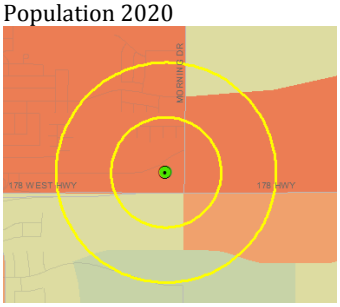
Note: Percentages indicate proportion of total population or households.

Future

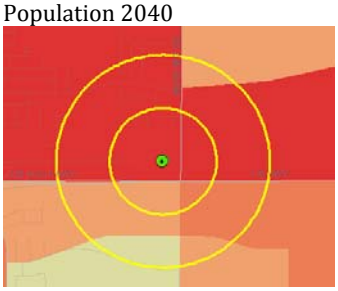
Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	697	46	1,002	55	1,281	55
1/2 Mile	1,941	126	3,300	154	4,726	162

Note: Units presented are density (people/jobs per square mile).

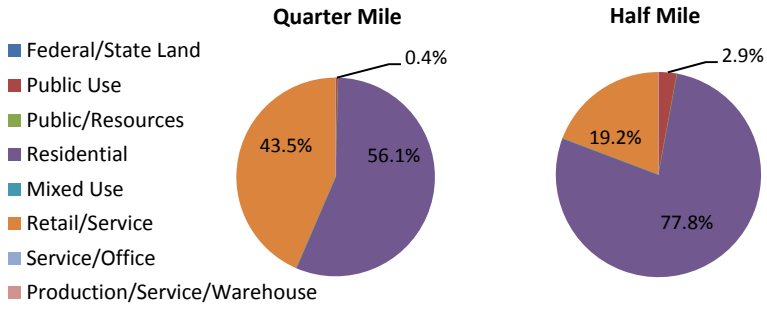
Population 2020



Population 2040



Land Use

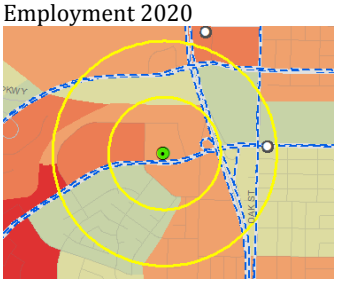


[13] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentrations are shown in orange to red for populations higher than 1,670.

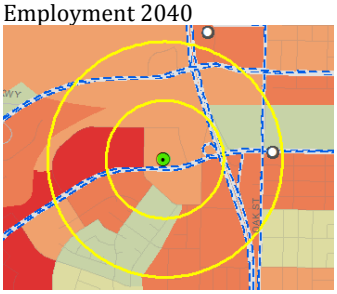
California Ave and Hwy 99

A potential transit center site is located just east of the intersection of California Avenue and Highway 99 due to its mixture of land use, access to transit, and employment growth projections. Regional and local access is provided by five GET bus routes (21, 43, 81, 83, and 92) and the 130 Kern Transit bus route; first and last mile connections enhance multimodal connectivity with an existing Class 1 bike route and a proposed Class 3 bike route identified in the City's Bicycle Transportation Plan. The site is also located along a primary corridor (California Ave) which provides access to the California HSR station planning area. Although there is not an existing high concentration of transit dependent populations, existing employment is moderately high and is expected to grow in the long-term.[14] In addition, a mixture of land uses will provide service for employers, residents, and retail shoppers.

Employment 2020



Employment 2040



Existing

Distance	Low-Income Population	Minority Population	Youth Population	Senior Population	Households with No Vehicle
1/4 Mile	279 (43%)	190 (29%)	171 (26%)	62 (10%)	20 (8%)
1/2 Mile	1,189 (44%)	855 (32%)	730 (27%)	274 (10%)	82 (8%)

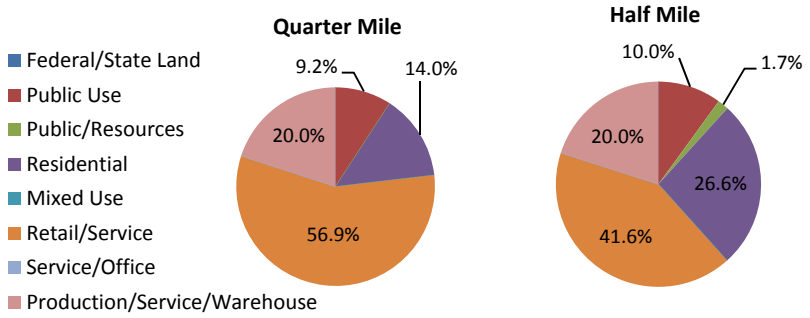
Note: Percentages indicate proportion of total population or households.

Future

Distance	Base (2008)		2020		2040	
	People	Jobs	People	Jobs	People	Jobs
1/4 Mile	473	2,159	448	2,153	765	3,445
1/2 Mile	2,467	4,707	2,414	4,699	3,585	9,587

Note: Units presented are density (people/jobs per square mile).

Land Use



[14] Maps display a ¼ mile and ½ mile buffer and are shown by TAZ. High concentration of employment is shown in orange to red (995 and higher), medium concentrations are in orange (between 420 and 994), and yellow to green symbolizes low concentrations (less than 419).

Conclusions and Next Steps

Several of the ten recommended transit centers identified throughout this study would be suitable for short-term implementation while others more suitable for the long term, horizon year of 2040. Of the ten sites, it is anticipated that the following could be enhanced (if existing) or implemented in the short term.

- Site #1: Bakersfield College
- Site #2: Downtown Transit Center
- Site #3: Southwest Transit Center
- Site #4: California State University Bakersfield
- Site #5a: Amtrak Station

This recommendation is based on it being an existing location, already identified as a potential transit center in the LRTP, minimal improvements are needed for implementation, or high demographic growth in 2020 is anticipated. While some sites were identified in the LRTP to be phased out in the interim years, these sites should be revisited for improvements and potential for TOD in the long-term.

The locations more suitable for the long-term are highly dependent on major future transit service such as the HSR to be successful, significant growth does not occur until 2035 or 2040, or land use designations or significant property acquisitions would be required. Some of the existing transit center sites planned to be phased out in the future according to the LRTP could be suitable for future TOD development and are therefore could see significant improvements in the long-term even while not identified as a long-term transit center. The following sites are recommended for long-term implementation.

- Site #5b: California High Speed Rail Station
- Site #6: Niles and Mt. Vernon Avenue
- Site #7: Panama Lane and Highway 99
- Site #8: Mt. Vernon Avenue and Highway 178
- Site #9: F Street and Golden State Avenue

In addition to the recommended sites, other locations have also been identified which have the potential to become Transit Center or TOD site locations. These sites are not recommended at this time, however, should changes to land use patterns or unexpected growth in population, employment, or other transit dependent factors increase these sites should be reevaluated.

To build on the work completed under this Task to identify suitable transit center locations, the next steps will be to perform a market study on two of the selected sites for potential TOD. The

selection of the two sites to be studied in the market study will be determined by input from the project team which includes the stakeholders and consultant team. A thorough market study will be performed on the two selected sites and presented to the project team and project Steering Committee prior to presentation to the general public.