3.1.4 Community Impacts

This section discusses impacts to the community as a result of implementation of the proposed project. The analysis is based on the results of the Community Impact Assessment (August 2011) prepared for this project.

3.1.4.1 Community Character and Cohesion

Community character is all of the attributes, including social and economic characteristics, and assets that make a community unique and that establish a sense of place for its residents. Community cohesion is the degree to which residents have a “sense of belonging” to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, usually because of continued association over time.

3.1.4.1.1 Regulatory Setting

NEPA establishes that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). FHWA in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions on projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under CEQA, an economic or social change by itself is not to be considered a significant effect on the environment; however, if a social or economic change is related to a physical change, then social or economic change may be considered in determining whether the physical change is significant. Because this project would result in physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the project’s effects.

3.1.4.1.2 Affected Environment

The study area pertinent to community character and cohesion is located within an extensively urbanized area of Los Angeles and Orange counties, as shown in Figure 3.1.4-1. The dominant land uses within the project study area include low- and medium-density residential (i.e., single- and multiple-family), commercial (i.e., neighborhood and regional), institutional (i.e., government and schools), light industrial (i.e., general manufacturing), and agricultural (i.e., row crops). A wide variety of commercial establishments is located along both sides of the project corridor, such as fast-food stores, restaurants, small-scale retail stores, large shopping centers, and motels. Single-family and multi-family residences are also situated along the project corridor.
Figure 3.1.4-1: Community Zones within the Project Study Area

Source: Parsons 2010
Community Characteristics

There are four broadly defined neighborhood zones from south to north along the I-405 corridor within the project limits (see Figure 3.1.4-1), as described below:

- **South Coast Zone:** South Coast Plaza and the Orange County Performing Arts District are the major features of this zone, providing concerts, community events, and shopping focused on affluent central Orange County communities in Irvine, Costa Mesa, and Newport Beach, as well as less advantaged communities in southern Santa Ana and western Costa Mesa. There are year-round, free fashion shows at restaurants and retailers inside the mall, weekend art, and entertainment, as well as benefit fundraisers for local nonprofit organizations.

- **Beach Boulevard Zone:** Bella Terra (formerly Huntington Beach Mall) is the major feature in this zone and was recently redeveloped and now includes new shops, restaurants, and theaters open late into the evenings, providing local entertainment for residents in Westminster, Fountain Valley, and Huntington Beach. There is a free summer concert series during the evenings and a free summer Kids Club during the daytime.

- **Westminster Zone:** Westminster High School and the Westminster Mall are the major features in this zone. The high school is a major community gathering place with sport fields and other school-related activities. It is located north of I-405 between Goldenwest Street and Edwards Street. Westminster Mall is a regional center providing services to residents in Westminster, Huntington Beach, and Seal Beach. The mall is open to the public before stores open to allow seniors and other walking groups to walk in a safe, enclosed environment. The mall also has a yearly pumpkin patch, Christmas tree lot, and other weekend entertainment during the summer.

- **Leisure World/Rossmoor Zone:** The major feature of this zone is the age-restricted (55+ years) private retirement community of Leisure World in Seal Beach. Leisure World is located south of I-405 between the San Gabriel River, Westminster Avenue, and Seal Beach Boulevard. The community is self contained and has its own recreational facilities, including a golf course, community meeting areas with an amphitheatre, and organized clubs geared toward retirees. The unincorporated community of Rossmoor is located to the north of I-405 in this zone. The major community areas are Rush Park and the Rossmoor Shopping Center, which are approximately 0.25-mile from the project area.

Indicators of higher community cohesion include the following:

- Long average residency tenures;
- Households of two or more people;
CHAPTER 3 AFFECTED ENVIRONMENT,
ENVIRONMENTAL CONSEQUENCES, AND
FINAL ENVIRONMENTAL IMPACT REPORT/
AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

- Other social factors such as higher proportions of homeownership versus rentals, and single-family homes versus higher-density housing;
- Ethnic homogeneity;
- Substantial community activity;
- Stay-at-home parents;
- Higher proportions of senior;
- Pedestrian and handicap facilities; and
- Community facilities.

Based on the above cohesion indicators, cohesion within the project area is considered moderate to high. The information supporting this conclusion, including socioeconomic and demographic characteristics, as well as community facilities of the study area, is presented in the paragraphs that follow.

Socioeconomic Characteristics

Socioeconomic and demographic data for the 38 study census tracts used for reference and analysis in this section are based on the year 2000 U.S. Census. Also included in the analysis is a larger region of analysis, including the County of Orange, the community of Rossmoor, and the cities of Seal Beach, Westminster, Fountain Valley, Garden Grove, Huntington Beach, Los Alamitos, and Costa Mesa. The socioeconomic data for the County of Los Angeles are also provided for reference.

Population Demographics

Year 2000 U.S. Census data from the 38 study census tracts (Figure 3.1.4-2) and the larger region were used to characterize population demographic features within the proposed project area. The population of these census tracts was almost 170,000 residents (Table 3.1.4-1). The percentages of working age (20-64) population within the study census tracts is approximately 60 percent (approximately 101,000) of the total population, which is similar to the larger region analyzed, with the exception of Seal Beach. The higher percentage of seniors (aged 65 and over) in Seal Beach is likely due to the large senior community, Leisure World, which is located within the city limits.

Table 3.1.4-2 presents the racial composition of the population in the study census tracts and the larger region. The study census tracts are representative of the corridor as a whole, with almost 60 percent of the population being white, followed by Asian (19 percent) and Hispanic or Latino (17 percent). The remainder of the race categories together account for approximately 5 percent of the total population. Based on this statistic, the study corridor is not considered a predominantly minority community compared to the larger region.
Socioeconomic Demographics

According to Year 2000 U.S. Census data, approximately 61,000 households are located within the study census tracts (see Table 3.1.4-3). The average household size was 2.9 persons, which is very similar to the larger region, including the counties in their entirety. Seal Beach has the smallest average household size, likely due to the large senior population. In contrast, the average household size in Garden Grove is almost 4 persons, which, when compared to the average family size, indicates larger families residing in the city. Average family size is slightly higher than average household in every portion of the study area.

As shown in Table 3.1.4-3 the median annual household income within the study census tracts was approximately $61,100. This figure is average compared to the larger regions (county/state) under study. The area with the highest median annual household income is the community of Rossmoor (approximately $86,000) and the lowest is Seal Beach (approximately $42,100). The median annual family incomes for the study census tracts follow the same pattern as the median household incomes.

Individual earnings in 1999 below the poverty level, which is defined as a minimum income level below which a person is officially considered to lack adequate subsistence and to be living in poverty, within the study census tracts are reported to be approximately 8 percent, which is lower than the larger region under study. The area with the highest percentage of individuals living below the poverty level is in Garden Grove (14 percent), while in Rossmoor, only 2 percent of the population is living below the poverty level. Orange and Los Angeles counties have average poverty statistics, compared to the study corridor as a whole, with 10 and 18 percent, respectively.

The U.S. Department of Health and Human Services (HHS) establishes the poverty threshold on an annual basis. A family is considered “low-income” if its income is at or below the HHS poverty guidelines. The year 1999 poverty threshold for an average family size of four was $16,700. Based on the HHS thresholds for poverty, the study area is not at the poverty level.

Unemployment Rate

Based on year 2000 U.S. Census data, 4 percent of the study area census tract population within the labor force was unemployed at the time of the survey, which is lower than most of the larger region analyzed (Table 3.1.4-4). The highest percentage of unemployed individuals, according to 2000 U.S. Census data, reside in Garden Grove (7 percent), compared to 5 percent in Orange County and 8 percent in Los Angeles County. The lowest percentage of unemployed individuals lives in Rossmoor (3 percent).
Figure 3.1.4-2: Census Tracts in the Vicinity of the I-405 Corridor

Source: Parsons 2010.
### Table 3.1.4-1: Study Area Population Demographics

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Study Area (Census Tracts)</th>
<th>Orange County</th>
<th>Los Angeles County</th>
<th>Rossmoor</th>
<th>Seal Beach</th>
<th>Westminster</th>
<th>Fountain Valley</th>
<th>Garden Grove</th>
<th>Huntington Beach</th>
<th>Los Alamitos</th>
<th>Costa Mesa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Total Population</td>
<td>169,861 **</td>
<td>2,846,289 **</td>
<td>9,519,338 **</td>
<td>10,298 **</td>
<td>24,157 **</td>
<td>88,207 **</td>
<td>54,978 **</td>
<td>165,196 **</td>
<td>189,594 **</td>
<td>11,536 **</td>
<td>108,724 **</td>
</tr>
<tr>
<td>Population 19 or younger</td>
<td>43,491</td>
<td>25.6</td>
<td>846,604</td>
<td>29.7</td>
<td>2,946,796</td>
<td>31.0</td>
<td>2,961</td>
<td>28.8</td>
<td>3,504</td>
<td>14.5</td>
<td>25,147</td>
</tr>
<tr>
<td>Population 20 to 64</td>
<td>101,306</td>
<td>59.6</td>
<td>1,718,922</td>
<td>60.4</td>
<td>5,645,869</td>
<td>59.3</td>
<td>5,432</td>
<td>52.7</td>
<td>11,585</td>
<td>48.0</td>
<td>53,217</td>
</tr>
<tr>
<td>Population 65+</td>
<td>25,064</td>
<td>14.8</td>
<td>280,763</td>
<td>9.9</td>
<td>926,673</td>
<td>9.7</td>
<td>1,905</td>
<td>18.5</td>
<td>9,068</td>
<td>37.5</td>
<td>9,843</td>
</tr>
</tbody>
</table>


### Table 3.1.4-2: Racial Composition of Population in the Study Area

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Study Area (Census Tracts)</th>
<th>Orange County</th>
<th>Los Angeles County</th>
<th>Rossmoor</th>
<th>Seal Beach</th>
<th>Westminster</th>
<th>Fountain Valley</th>
<th>Garden Grove</th>
<th>Huntington Beach</th>
<th>Los Alamitos</th>
<th>Costa Mesa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
</tr>
<tr>
<td>Total Population</td>
<td>169,861 **</td>
<td>2,846,289 **</td>
<td>9,519,338 **</td>
<td>10,298 **</td>
<td>24,157 **</td>
<td>88,207 **</td>
<td>54,978 **</td>
<td>165,196 **</td>
<td>189,594 **</td>
<td>11,536 **</td>
<td>108,724 **</td>
</tr>
<tr>
<td>White</td>
<td>101,225</td>
<td>59.6</td>
<td>1,458,978</td>
<td>51.3</td>
<td>2,959,614</td>
<td>31.1</td>
<td>8,662</td>
<td>84.1</td>
<td>20,372</td>
<td>84.3</td>
<td>31,962</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2,075</td>
<td>1.2</td>
<td>42,639</td>
<td>1.5</td>
<td>901,472</td>
<td>9.5</td>
<td>77</td>
<td>0.7</td>
<td>329</td>
<td>1.4</td>
<td>764</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>549</td>
<td>0.3</td>
<td>8,414</td>
<td>0.3</td>
<td>25,609</td>
<td>0.3</td>
<td>29</td>
<td>0.3</td>
<td>54</td>
<td>0.2</td>
<td>293</td>
</tr>
<tr>
<td>Asian</td>
<td>32,173</td>
<td>18.9</td>
<td>383,810</td>
<td>13.5</td>
<td>1,124,569</td>
<td>11.8</td>
<td>583</td>
<td>5.7</td>
<td>1,363</td>
<td>5.6</td>
<td>33,511</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>595</td>
<td>0.4</td>
<td>8,086</td>
<td>0.3</td>
<td>23,265</td>
<td>0.2</td>
<td>10</td>
<td>0.1</td>
<td>37</td>
<td>0.2</td>
<td>393</td>
</tr>
<tr>
<td>Some other race</td>
<td>299</td>
<td>0.2</td>
<td>4,525</td>
<td>0.2</td>
<td>19,935</td>
<td>0.2</td>
<td>22</td>
<td>0.2</td>
<td>21</td>
<td>0.1</td>
<td>101</td>
</tr>
<tr>
<td>Two or more races</td>
<td>4,766</td>
<td>2.8</td>
<td>64,258</td>
<td>2.3</td>
<td>222,661</td>
<td>2.3</td>
<td>228</td>
<td>2.2</td>
<td>427</td>
<td>1.8</td>
<td>2,045</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>28,179</td>
<td>16.6</td>
<td>875,579</td>
<td>30.8</td>
<td>4,242,213</td>
<td>44.6</td>
<td>687</td>
<td>6.7</td>
<td>1,554</td>
<td>6.4</td>
<td>19,138</td>
</tr>
</tbody>
</table>

This page intentionally left blank.
## Table 3.1.4-3: Study Area Socioeconomic Characteristics

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Study Area (Census Tracts)</th>
<th>Orange County</th>
<th>Los Angeles County</th>
<th>Rossmoor</th>
<th>Seal Beach</th>
<th>Westminster</th>
<th>Fountain Valley</th>
<th>Garden Grove</th>
<th>Huntington Beach</th>
<th>Los Alamitos</th>
<th>Costa Mesa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>168,579</td>
<td>2,303,533</td>
<td>9,349,771</td>
<td>10,249</td>
<td>23,988</td>
<td>87,195</td>
<td>54,608</td>
<td>163,888</td>
<td>188,750</td>
<td>10,894</td>
<td>106,134</td>
</tr>
<tr>
<td>Per Capita Income</td>
<td>$25,373</td>
<td>$25,826</td>
<td>$20,683</td>
<td>$38,642</td>
<td>$34,589</td>
<td>$18,218</td>
<td>$26,521</td>
<td>$31,964</td>
<td>$26,014</td>
<td>$23,342</td>
<td></td>
</tr>
<tr>
<td>Individual Earnings below Poverty Level</td>
<td>13,728</td>
<td>289,475</td>
<td>1,674,599</td>
<td>208</td>
<td>1,330</td>
<td>11,757</td>
<td>2,348</td>
<td>22,779</td>
<td>12,442</td>
<td>567</td>
<td>13,393</td>
</tr>
<tr>
<td>% Individual Earnings below Poverty Level</td>
<td>8.1</td>
<td>10.3</td>
<td>17.9</td>
<td>2.0</td>
<td>5.5</td>
<td>13.5</td>
<td>4.3</td>
<td>13.9</td>
<td>6.6</td>
<td>5.2</td>
<td>12.6</td>
</tr>
<tr>
<td>Total Families</td>
<td>42,095</td>
<td>673,912</td>
<td>2,154,311</td>
<td>3,019</td>
<td>5,977</td>
<td>20,444</td>
<td>14,310</td>
<td>36,907</td>
<td>48,235</td>
<td>3,005</td>
<td>23,108</td>
</tr>
<tr>
<td>Average Family Size</td>
<td>3.30</td>
<td>3.48</td>
<td>3.61</td>
<td>3.12</td>
<td>2.65</td>
<td>3.71</td>
<td>3.35</td>
<td>3.90</td>
<td>3.08</td>
<td>3.06</td>
<td>3.34</td>
</tr>
<tr>
<td>Median Family Income</td>
<td>$65,625</td>
<td>$64,611</td>
<td>$93,500</td>
<td>$72,071</td>
<td>$52,677</td>
<td>$74,502</td>
<td>$49,697</td>
<td>$74,378</td>
<td>$60,767</td>
<td>$55,456</td>
<td></td>
</tr>
<tr>
<td>Families below Poverty Level</td>
<td>2,346</td>
<td>46,894</td>
<td>311,226</td>
<td>39</td>
<td>194</td>
<td>2,192</td>
<td>423</td>
<td>3,858</td>
<td>2,081</td>
<td>124</td>
<td>1,892</td>
</tr>
<tr>
<td>% Families below Poverty Level</td>
<td>5.6</td>
<td>7.0</td>
<td>14.4</td>
<td>1.3</td>
<td>3.2</td>
<td>10.7</td>
<td>3.0</td>
<td>3.0</td>
<td>4.3</td>
<td>4.1</td>
<td>8.2</td>
</tr>
<tr>
<td>Total Households</td>
<td>61,482</td>
<td>935,287</td>
<td>3,133,774</td>
<td>3,715</td>
<td>13,048</td>
<td>26,406</td>
<td>18,162</td>
<td>45,791</td>
<td>73,657</td>
<td>4,246</td>
<td>39,206</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.90</td>
<td>3.00</td>
<td>2.98</td>
<td>2.77</td>
<td>1.83</td>
<td>3.32</td>
<td>3.00</td>
<td>3.56</td>
<td>2.56</td>
<td>2.62</td>
<td>2.69</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$61,078</td>
<td>$58,820</td>
<td>$42,189</td>
<td>$86,457</td>
<td>$42,079</td>
<td>$69,734</td>
<td>$47,754</td>
<td>$64,824</td>
<td>$55,286</td>
<td>$50,732</td>
<td></td>
</tr>
</tbody>
</table>


## Table 3.1.4-4: Study Area Employment Data, Location of Work, and Means of Transportation to Work

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Study Area (Census Tracts)</th>
<th>Orange County</th>
<th>Los Angeles County</th>
<th>Rossmoor</th>
<th>Seal Beach</th>
<th>Westminster</th>
<th>Fountain Valley</th>
<th>Garden Grove</th>
<th>Huntington Beach</th>
<th>Los Alamitos</th>
<th>Costa Mesa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population in the Labor Force</td>
<td>84,590</td>
<td>** 1,141,901**</td>
<td>** 4,312,264**</td>
<td>** 4,883**</td>
<td>** 10,112**</td>
<td>** 40,364**</td>
<td>** 28,818**</td>
<td>** 74,484**</td>
<td>** 107,133**</td>
<td>** 5,888**</td>
<td>** 59,493**</td>
</tr>
<tr>
<td>Employed</td>
<td>80,759</td>
<td>95.5</td>
<td>94.8</td>
<td>91.7</td>
<td>97.2</td>
<td>94.4</td>
<td>95.8</td>
<td>93.1</td>
<td>96.0</td>
<td>95.3</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>3,577</td>
<td>4.2</td>
<td>5.0</td>
<td>8.2</td>
<td>2.8</td>
<td>5.5</td>
<td>6.8</td>
<td>3.9</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Means of Transportation to Work:

- **Car, Truck, or Van**: 73,340 (92.4) 1,180,117 (89.8) 3,296,964 (85.4) 4,334 (93.3) 8,844 (92.2) 34,555 (93.0) 25,282 (92.6) 62,101 (91.7) 92,855 (91.7) 5,113 (92.2) 47,952 (86.2)
- **Public Transportation**: 1,197 (1.5) 36,937 (2.8) 254,091 (6.6) 37 (0.8) 84 (0.9) 751 (2.0) 220 (0.8) 2,374 (3.5) 1,140 (1.1) 52 (0.9) 2,635 (4.7)
- **Walking, Bicycle, Motorcycle, Other Means**: 1,848 (2.3) 45456 (3.5) 166294 (4.3) 58 (1.2) 308 (3.2) 856 (2.3) 511 (1.9) 1,786 (2.6) 2,738 (2.7) 244 (4.4) 2,814 (5.1)
- **Worked at home**: 2,770 (3.5) 48,832 (3.7) 134,643 (3.5) 208 (4.5) 340 (3.5) 894 (2.4) 1,066 (3.9) 1,292 (1.9) 4,324 (4.3) 114 (2.1) 2,078 (3.7)

This page intentionally left blank.
As discussed in the beginning of this section, year 2000 U.S. Census data are more than 10 years old; however, a more recent data set for the chosen geographies and categories of analysis used in this study is not yet available. Due to the economic decline that began in 2008, high unemployment rates have continued into 2012. High unemployment is not unique to the study corridor, but it is important to acknowledge the discrepancy between 2000 data and the present condition throughout the country.

**Housing Demographics**

Based on year 2000 U.S. Census housing characteristics data, more than 61,000 houses were contained within the study census tracts (see Table 3.1.4-5). Most of the housing within the study census tracts was owner occupied (67 percent), which is somewhat higher than the larger region analyzed. The area with the highest percentage of owner-occupied housing units belonged to Rossmoor (89 percent), while the area with the lowest percentage of owner-occupied units was in Costa Mesa (41 percent). The high percentage of owner-occupied units along the proposed project corridor is likely due to the higher incomes received by residents of the area.

**Labor Force**

An indication of the decline in the economy and associated rise in unemployment rates is reported by the California Employment Development Department (September 2010). Unemployment rates for the population in the labor workforce for all areas located within the study area are significantly higher than year 2000 U.S. Census data. There was an average unemployment rate increase in the cities and counties analyzed in this study of 4 to 5 percent between 2000 and 2010 (Tables 3.1.4-4 and 3.1.4-6). These data are unavailable at the census tract level.

**Community Services and Facilities**

Like many other well-developed, urbanized areas within Orange County, the study area contains many community services and facilities, including schools, health-care facilities, religious facilities, community centers, and libraries, as well as park and recreation facilities. Figure 3.1.4-3 depicts the community service facilities within a 500-foot radius from the project corridor. The locations of parks and recreation centers within a 0.5-mile radius from the project corridor can be viewed in Figure 3.1.1-4 presented earlier in this report.

**Circulation and Access**

I-405 provides access between cities in Orange and Los Angeles counties. I-405 is used for commuting and inter-regional travel, along with direct and indirect access to employment centers, recreational attractions, shopping malls, medical centers, universities, airports, and other land uses. A segment of I-405 in the northern portion of the project area is one of the heaviest traveled in the nation.
I-405 serves the beach communities of northern Orange County, including parts of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Garden Grove, and Seal Beach. The community of Rossmoor, an unincorporated area of Orange County, and the NAVWPNSTA Seal Beach are also served by I-405. Fifteen (15) local street interchanges and 4 freeway-to-freeway interchanges with SR-73, SR-22 East, SR-22 West, and I-605 are within the project corridor.

Public Transit

OCTA operates several bus lines along and through the project study area. Chapter 1, Section 1.2.2.5, Modal Inter-Relationships and System Linkages discusses current and future bus lines that serve the project area.

Rail

Metrolink and Amtrak provide rail service to Orange County. These services are discussed in detail in Chapter 1, Section 1.2.2.5, Modal Inter-Relationships and System Linkages. No passenger rail exists within the project study area. There are two rail crossings along the project corridor, including the Navy-owned line north of Westminster Mall, near the Edwards Street overcrossing and a UPRR line near the McFadden Avenue overcrossing.

Bicycle and Pedestrian Facilities

Eight bike paths traverse the project study area, six of which are Class II bike paths (i.e., a marked lane exclusively for bike travel on roadways) and two of which are classified as Class I (i.e., a dedicated exclusive bike path meant for bike and pedestrian traffic). One equestrian trail, along the Santa Ana River, is located within the study area. There is one pedestrian overcrossing located at Heil Avenue, serving the communities of Huntington Beach, Westminster, and Fountain Valley.

Parking

There are an unknown number of on- and off-street parking spaces within the project area. Off-street parking is associated with nearly every one of the land uses found within the project study area, including low- and medium-density residential (i.e., single- and multiple-family), commercial (i.e., neighborhood and regional), institutional (i.e., government and schools), and light industrial (i.e., general manufacturing). A wide variety of retail establishments is located along both sides of the project corridor, including fast-food stores, restaurants, small-scale retail stores, large shopping centers, and motels. Off-street parking for these land uses is provided in surface lots, multi-story structures, and single-story attached and detached garages associated with single- and multi-family housing.
### Table 3.1.4-5: Study Area Housing Tenure

<table>
<thead>
<tr>
<th>Housing Demographic</th>
<th>Orange County</th>
<th>Los Angeles County</th>
<th>Rossmoor</th>
<th>Seal Beach</th>
<th>Westminster</th>
<th>Fountain Valley</th>
<th>Garden Grove</th>
<th>Huntington Beach</th>
<th>Los Alamitos</th>
<th>Costa Mesa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
<td>Number %</td>
</tr>
<tr>
<td>Total</td>
<td>61,482 **</td>
<td>3,133,774 **</td>
<td>3,715 **</td>
<td>13,048 **</td>
<td>26,406 **</td>
<td>18,162 **</td>
<td>45,791 **</td>
<td>73,657 **</td>
<td>4,246 **</td>
<td>39,206 **</td>
</tr>
<tr>
<td>Owner occupied</td>
<td>41,353 67.3</td>
<td>1,499,744 47.9</td>
<td>3,319 89.3</td>
<td>9,975 76.4</td>
<td>15,884 60.2</td>
<td>13,569 74.7</td>
<td>27,286 59.6</td>
<td>44,658 60.6</td>
<td>1,921 45.2</td>
<td>15,880 40.5</td>
</tr>
<tr>
<td>Renter occupied</td>
<td>20,129 32.7</td>
<td>1,634,030 52.1</td>
<td>396 10.7</td>
<td>3,073 23.6</td>
<td>10,522 39.8</td>
<td>4,593 25.3</td>
<td>18,505 40.4</td>
<td>28,999 39.4</td>
<td>2,325 54.8</td>
<td>23,326 59.5</td>
</tr>
</tbody>
</table>


### Table 3.1.4-6: Labor Force Data in Orange County as of September 2010

<table>
<thead>
<tr>
<th>Area Name</th>
<th>Labor Force Number</th>
<th>Employment Number</th>
<th>Unemployment Number</th>
<th>Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange County</td>
<td>1,608,000</td>
<td>1,454,000</td>
<td>154,000</td>
<td>9.6</td>
</tr>
<tr>
<td>City of Costa Mesa</td>
<td>66,600</td>
<td>60,800</td>
<td>5,700</td>
<td>8.6</td>
</tr>
<tr>
<td>City of Fountain Valley</td>
<td>32,800</td>
<td>30,200</td>
<td>2,600</td>
<td>8.0</td>
</tr>
<tr>
<td>City of Garden Grove</td>
<td>85,800</td>
<td>75,600</td>
<td>10,200</td>
<td>11.9</td>
</tr>
<tr>
<td>City of Huntington Beach</td>
<td>121,900</td>
<td>112,300</td>
<td>9,600</td>
<td>7.8</td>
</tr>
<tr>
<td>City of Los Alamitos</td>
<td>6,600</td>
<td>6,200</td>
<td>400</td>
<td>5.3</td>
</tr>
<tr>
<td>Unincorporated Orange County</td>
<td>5,500</td>
<td>5,200</td>
<td>300</td>
<td>5.9</td>
</tr>
<tr>
<td>City of Seal Beach</td>
<td>11,300</td>
<td>10,500</td>
<td>800</td>
<td>7.1</td>
</tr>
<tr>
<td>City of Westminster</td>
<td>46,400</td>
<td>41,500</td>
<td>4,900</td>
<td>10.6</td>
</tr>
</tbody>
</table>

Source: California Employment Development Department, 2010.
This page intentionally left blank.
Figure 3.1.4-3: Community Service Facilities within 500-foot Radius of I-405 within Project Limits

Source: Parsons 2010.
### Table 3.1.4-7: Preliminary Parking Impact Assessment under All Build Alternatives

<table>
<thead>
<tr>
<th>APN</th>
<th>Location</th>
<th>Current Use</th>
<th>Owner</th>
<th>Current Parking Spaces</th>
<th>Impacted Spaces</th>
<th>Remaining Spaces</th>
<th>Potential Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>156-091-14</td>
<td>18120 Brookhurst Street Fountain Valley, 92708</td>
<td>Claim Jumper</td>
<td>Gluckstein Fountain Valley</td>
<td>477</td>
<td>8</td>
<td>469</td>
<td>Low – Shared parking with mall</td>
</tr>
<tr>
<td>169-131-17</td>
<td>17570 Brookhurst Street Fountain Valley, 92708</td>
<td>Multi-Commercial building; currently for sale or lease</td>
<td>17570 Brookhurst, LLC</td>
<td>389</td>
<td>15</td>
<td>374</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>142-382-13</td>
<td>15042 Goldenwest Street, Westminster, 92683</td>
<td>El Torito Restaurant</td>
<td>Shapell Industries, Inc.</td>
<td>223</td>
<td>3</td>
<td>220</td>
<td>Low – Business could be dependent on parking</td>
</tr>
<tr>
<td>195-141-04</td>
<td>5952 Westminster Avenue, Westminster , 92683</td>
<td>Ranchito Super Market &amp; Mini mall</td>
<td>Brighton Investment, Inc.</td>
<td>158</td>
<td>1</td>
<td>157</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>142-012-02</td>
<td>7300 Bolsa Avenue Westminster, 92683</td>
<td>Golden West Circle Multi-Commercial facility</td>
<td>Golden Akar Associates</td>
<td>71</td>
<td>1</td>
<td>70</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>096-522-04</td>
<td>No Specific Street Address Westminster, 92683</td>
<td>Custom Comfort Mattress</td>
<td>G B Enterprises</td>
<td>60</td>
<td>4</td>
<td>56</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>096-522-02</td>
<td>14980 Goldenwest Street, Westminster , 92683</td>
<td>Big 5 Sporting Goods</td>
<td>G B Enterprises</td>
<td>60</td>
<td>4</td>
<td>56</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>143-301-21</td>
<td>9025 Warner Avenue Fountain Valley, 92708</td>
<td>Multi-Commercial – Starbucks, Verizon, etc</td>
<td>Arman Akarkian</td>
<td>27</td>
<td>1</td>
<td>26</td>
<td>Low – Shared parking with other businesses</td>
</tr>
<tr>
<td>169-162-02</td>
<td>17900Brookhurst Street Fountain Valley, 92708</td>
<td>Medical building</td>
<td>Halby Family Limited Partnership</td>
<td>24</td>
<td>9</td>
<td>15</td>
<td>Low – Shared parking with other businesses</td>
</tr>
</tbody>
</table>
Table 3.1.4-7: Preliminary Parking Impact Assessment under All Build Alternatives

<table>
<thead>
<tr>
<th>APN</th>
<th>Location</th>
<th>Current Use</th>
<th>Owner</th>
<th>Current Parking Spaces</th>
<th>Impacted Spaces</th>
<th>Remaining Spaces</th>
<th>Potential Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>No APN</td>
<td>Northbound Beach Boulevard approaching McFadden Avenue</td>
<td>State Highway</td>
<td>Caltrans</td>
<td></td>
<td>13*</td>
<td></td>
<td>Low – Parking lots for businesses are available.</td>
</tr>
<tr>
<td></td>
<td><strong>Totals for all build alternatives</strong></td>
<td></td>
<td></td>
<td><strong>1,489</strong></td>
<td><strong>46</strong></td>
<td><strong>1,430</strong></td>
<td><strong>---</strong></td>
</tr>
</tbody>
</table>

*The number of impacted spaces does not include on-street parking impacts.

Source: Parking numbers estimated by Parsons; Real estate information provided by Paragon Partners, Ltd.
3.1.4.1.3 Environmental Consequences

Permanent Impacts

No Build Alternative

I-405 is one of the most heavily used freeways linking Los Angeles County and Orange County. There are many communities and neighborhoods adjacent to I-405 within the project corridor. With the No Build Alternative, the I-405 corridor within the project limits would continue to carry traffic volumes that exceed the capacity of the existing GP and HOV lanes, with the effect of continuing to deteriorate the quality of accessibility to and mobility within area communities. This could potentially erode community cohesion-related activities over time.

Build Alternatives

The proposed build alternative improvements to I-405 would be undertaken to reduce congestion during the peak hours. In addition, implementation of the proposed project is anticipated to result in beneficial effects on community cohesion by reducing cut-through traffic within the adjacent neighborhoods. Currently, motorists traveling along I-405 often exit the facility and seek less-congested alternative routes within the adjacent neighborhoods when freeway conditions deteriorate. Community members living within the vicinity of the I-405 corridor and people commuting between Los Angeles County and Orange County would benefit from the reduced congestion and the improved freeway operations. In addition, emergency vehicles would have better access through I-405 and local roadways, which would be a benefit to the communities.

The improvements under the build alternatives have been designed to minimize ROW acquisition and would occur mostly within the existing Caltrans ROW. No facilities supporting community functions, such as schools, churches, or community centers, would be affected by the proposed improvements. Although many partial acquisitions of land from publicly and privately owned parcels would be required to accommodate the proposed roadway improvements, full acquisition of residential and business properties within the project area not anticipated.

Implementation of the proposed project is anticipated to result in a beneficial effect on neighborhoods and community cohesion by reducing cut-through traffic within the adjacent neighborhoods. At present, motorists traveling along I-405 often exit the freeway and seek less-congested alternative routes within the adjacent neighborhoods when freeway conditions deteriorate.

Although the proposed improvements under the build alternatives have been designed to minimize ROW acquisition, upon completion of the project the build alternatives would increase urbanization within the project corridor and adversely affect community character. The proposed improvements would require acquisition of up to 4.90 acres (Alternative 3, see Section 3.1.4.2)
within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, and Seal Beach, and the Rossmoor Community and would add approximately 18, 21, and 18 percent additional hardscape/pavement for Alternatives 1, 2, and 3, respectively. Increased urbanization is due to expanded pavement, which would add additional hardscape; modified/new ramps; concrete barriers; new retaining, tieback, and sound walls; and new freeway appurtenances (e.g. changeable message signs, overhead traffic sensors, and video cameras). Alternative 3 would also require congestion pricing signage and an I-405/SR-73 HOV direct connector ramp. These changes would permanently modify the visual quality of the surrounding communities and, as a result, would affect the existing community character; however, with the consideration of aesthetic features (as discussed in Section 3.1.7.4) for retaining walls, soundwalls, and bridge structures during final design, some of the project impacts to community character would be minimized to the extent possible.

The community character of the area would be further urbanized with the loss of mature landscaping, which currently softens the urban nature of the roadway, until the new landscaping is established. To minimize impacts, additional landscaping is being proposed where existing landscaping is being removed during construction and/or where the expanded ROW allows; however, not all lost landscaping can be replaced.

Most of the overcrossings and undercrossings would be wider to accommodate the additional lanes of I-405 and bringing them to MPAH standards. As a result, this would increase the lengths of the roads and sidewalks that are on the overcrossings or in the undercrossings; therefore, the amount of time pedestrians and bicyclists spend on these overcrossings or in the undercrossings would increase compared to existing conditions. The new parts of the undercrossings would include lighting for vehicles and pedestrians consistent with local standards; however, the segments of those roads under the existing overcrossings would experience a reduction in the amount of natural light, which could be perceived by pedestrians and bicyclists as adversely affecting their experiences crossing under I-405. Measures have been proposed to address lighting in the undercrossings during final design, including the provision of appropriate lighting in the new parts of the undercrossings and additional lighting in the existing parts of the undercrossings.

Subsequent to construction of the build alternatives, views of and from I-405 would be affected. The build alternatives would bring I-405 in closer proximity to corridor communities and would eliminate most of the mature vegetation located within the ROW, which currently softens the urban nature of the roadway. The proposed improvements would generally extend to the ROW limits and, with the exception of areas within the interchanges, would reduce and/or eliminate potential areas for landscaping. Changes in the views of and from I-405 would have a
particularly noticeable effect on residents whose homes are located adjacent to and/or those who
travel on I-405. With implementation of avoidance and minimization measures COM-1 through
COM-12 described throughout this section and visual measures described in Section 3.1.7, the
adverse effects on community character associated with increased urbanization within the project
corridor would be minimized.

Subsequent to construction, more ADA-compliant facilities would exist within the project
corridor. The Heil Avenue pedestrian overcrossing would require switchbacks on the southwest
side of the freeway to meet ADA grade requirements. Although the public may experience a
slightly longer time to cross the new facility, the associated increased time is likely to be very
minimal (on the order of seconds), and no substantial impacts to pedestrians using the new
facility is anticipated.

Approximately 46 parking spaces out of the current inventory of 1,489 spaces on 10 properties
would be potentially lost as part of the right of way acquisition required for the project.
Approximately 13 on-street parking spaces on NB Beach Boulevard approaching McFadden
Avenue could be lost under the proposed improvement.

Table 3.1.4-7 lists the parcels containing parking spaces subject to acquisition, as well as their
current land use, existing number of parking spaces, and the number of potentially affected parking
spaces. A preliminary assessment of the level of impacts is made based on the consideration of
the number of available parking spaces, type of business, and the remaining spaces. With
implementation of Measure COM-10, parking impacts would be minimized. If required, owners
would receive compensation for the loss of property as part of the ROW acquisition process.

**Temporary Impacts**

**No Build Alternative**

No temporary impacts would result from implementation of the No Build Alternative because
there would be no construction of the project.

**Alternative 1**

Construction of the proposed project would create typical construction-related temporary and
intermittent inconveniences for local and regional users and adjacent residents and business owners
within and adjacent to the project corridor (i.e., sometimes lengthy detours, construction delays,
equipment operations, temporary traffic lane, arterial, and ramp closures) to accommodate
construction activities. Construction activities will also temporary disrupt local traffic patterns,
access to residence and businesses, increase traffic congestion, and increased noise, vibration and
dust. Construction at major interchanges could disrupt local business operations. Periodic
freeway arterial and ramp lane closures would impede traffic mobility. Considering the construction duration of 48 months, construction impacts could result in adverse impacts to community character within the corridor cities located adjacent to the construction zone as described below.

**Stage Construction**

The proposed improvements are envisioned to be constructed in generally four stages due to the scale of the project and the need to maintain traffic during construction. Construction of interchange improvements, consisting of freeway ramp reconstruction, local arterial improvements, and overcrossing structure replacement, is envisioned to be staggered throughout stages to minimize impacting two consecutive interchanges or closing two consecutive on- or off-ramps at the same time. Arterials and overcrossing improvements that would add capacity over the existing condition are proposed in the earlier stages in efforts to ease traffic congestion during subsequent construction stages.

**Temporary Closures and Lane Restrictions**

Construction operation would necessitate the closures of various facilities, such as the I-405 mainline, branch connectors, interchange ramps, and local arterials. Closures of these facilities are anticipated for the work listed below and may be overnight, short-term, during an extended weekend (i.e., 55-hour window from Friday night to Monday morning), or long-term:

- Installation, moving, and removal of k-rails
- Striping and removal operations
- Falsework erection and removal
- Bridge demolition
- Construction of new overcrossings and foundations
- Widening of undercrossing structures and foundations
- Installation and removal of overhead signs and toll gantries
- Installation and removal of loop detectors
- Structure approach slab construction
- Placement of concrete pavement using rapid set concrete, such as at ramp termini
- Asphalt concrete pavement construction and overlay operations
- Utility work
- Extension or modifications of flood control channel
Lane reductions and restrictions are also anticipated on mainline, connector, ramp, and arterial roadway facilities to accommodate construction activities. These restrictions may include:

- Narrower lane and shoulder widths
- Reduction in number of lanes
- Elimination of separate turn lanes at intersections
- Speed reduction due to sharper lane transition/taper

**Temporary Arterial Closures**

Long-term closure of arterial overcrossings lasting up to 12 months may be employed during construction to expedite construction and shorten the duration that the overcrossing is out of service. The potential locations for long-term closures include the following:

- Ward Street OC – 8 to 12 months
- Talbert Avenue OC – 8 to 12 months
- Slater Avenue OC – 8 to 12 months
- Bushard Street OC – 8 to 12 months
- Newland Street OC – 8 to 12 months
- Edinger Avenue OC – 8 to 12 months
- McFadden Avenue OC – 8 to 12 months
- Edwards Street OC – 8 to 12 months

Closure of arterial overcrossings resulting from construction of the build alternatives would temporarily affect access and circulation within the corridor cities for up to 12 months. Temporary construction impacts could include disruption of local traffic patterns and access to homes, businesses, and community facilities and increased traffic congestion/delay on local streets. Closure scenarios have been evaluated (see Draft TMP, Community Impact Assessment Appendix D for related detours), and arterial overcrossings serving hospitals or other sensitive locations will be constructed in two phases to ensure connectivity and access at all times. Additionally, the Final TMP (Measure T-1) will ensure minimal inconvenience to affected businesses and residents by requiring that access be provided during construction (Measures COM-1 through COM-5 and COM-9 through COM-12). Additionally as required by COM-6, the project will employ alternate route and detour route strategies; street/intersection improvements (e.g., widening, pavement rehabilitation, removal of median, restriping) to provide added capacity to handle detour traffic; signal improvements; adjustment of signal timing and/or signal
coordination to increase vehicle throughput, improve traffic flow and optimize intersection capacity; turn restrictions at intersections and roadways necessary to reduce congestion and improve safety; and parking restrictions on alternate and detour routes during work hours to increase capacity, reduce traffic conflicts, and improve access resulting from the long-term closures. The project effects on traffic circulation, pedestrian and bicycle facility, and business and residential access during construction are temporary. With implementation of the previously described measures, temporary adverse construction-related impacts of closing arterial overcrossings for up to 12 months would be minimized to the extent possible for community character and cohesion.

**Ramp Closures**

Most interchange ramps are expected to be open for traffic during construction, with periodic closure at night, during the weekend (55-hour closure), or for a period less than 10 days. Periodic temporary closure of these ramps is not expected to cause excessive inconvenience to the traveling public because the interchanges along I-405 are spaced approximately 1-mile apart, such that there are nearby alternate accesses to and from I-405. No two consecutive off-ramps or two consecutive on-ramps in the same direction would be closed concurrently.

A Ramp Closure Study (RCS) has been prepared to address impacts related to temporary long-term ramp closures and identify detour routes and other measures to minimize impacts to area residents and businesses (see Community Impact Assessment, Appendix C). Under Alternative 1, the following interchange ramps are expected to require 10 to 30 days of complete closure:

- Talbert Avenue southbound on-ramp
- Warner Avenue southbound on-ramp
- Magnolia Street southbound off-ramp
- Bolsa Avenue southbound on-ramp.
- Westminster Avenue southbound on-ramp
- Bolsa Chica Road southbound off-ramp

Ramp and arterial closures to accommodate project construction would cause inconvenience to residents, businesses, and business patrons within the I-405 Improvement Project area and could adversely affect community character and cohesion. A Draft Traffic Management Plan (TMP), including traffic detour routes within the local arterial street network (see Appendix M, Proposed Ramp Closure Detour Routes), was prepared. A final TMP will be prepared and implemented to minimize adverse effects on community character and cohesion. The proposed detour routes are
anticipated to result in increased travel times ranging between approximately 1.5 and 5.5 minutes (see Draft TMP, Community Impact Assessment Appendix D for related detours). Access to all businesses would be maintained during construction of the I-405 Improvement Project, and all businesses would be accessible from alternate freeway off-ramps and by utilizing local streets. Based on the short-term and temporary nature of the closures (i.e., 10 to 30 days), the increased travel times and distances would not result in either a substantial economic effect on businesses or substantial delays or travel costs for residents or business patrons; however, potential effects could result in temporary adverse effects on community character and cohesion. With implementation of the previously described measures, temporary adverse construction-related impacts on community character and cohesion would be minimized to the extent possible.

Additionally, TCEs from business and residential properties would be required at various roadway segments under construction. TCEs would limit use of a portion of the affected properties, resulting in temporary adverse effects on community character and cohesion; however, adverse effects would be minimized to the extent possible by maintaining access during construction to/from homes and local businesses.

Construction impacts, including noise and fugitive dust from construction activities and short-term roadway closures requiring alternative traffic routing, would have greater effects on residents and businesses in the immediate vicinity of the construction area and would have temporary adverse effects on community character and cohesion. Implementation of the previously discussed measures, in addition to those measures discussed in Sections 3.2.7 and 3.2.6, would minimize temporary adverse effects on community character and cohesion to the extent possible.

At times, depending on the closure and/or detour locations and timing, construction could impede movement within the corridor communities and would result in temporary adverse effects to community character and cohesion. Although community members would still be able to utilize community services and facilities during the construction period, there would be some degree of inconvenience due to construction-related delays, temporary closures, and construction equipment operation. With a continuing public outreach program to keep the area residents and businesses informed of the project construction schedule, temporary adverse effects on community character and cohesion would be minimized to the extent possible. Construction impacts would be mitigated by adhering to Caltrans’ standard specifications for noise control and dust abatement and/or construction Best Management Practices (BMPs). With incorporation of the proposed measures, including creation and enforcement of a comprehensive traffic
management plan, temporary adverse effects on community character or cohesion would be minimized to the extent possible.

**Pedestrian and Bicycle Facilities**

Construction-related temporary closure of pedestrian facilities (i.e. pedestrian sidewalk and crosswalks) could adversely affect community character and cohesion. As described in Section 3.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities, pedestrian sidewalks and crosswalks are proposed along both sides of all arterials crossing I-405 within the proposed project limits, except on the west side of Harbor Boulevard, the west side of Euclid Street, the south side of Edinger Avenue, the west side of Bolsa Chica Road, and the east side of Seal Beach Boulevard. Pedestrian facilities were considered at these locations. Providing sidewalks on the west side of Harbor Boulevard and south side of Edinger Avenue is not included in the project due to existing and proposed ramp geometry at these locations. No work is proposed on Euclid Street beneath the I-405 undercrossing bridge. Along the west side of Bolsa Chica Road, the road abuts the Bolsa Chica Channel for several miles, and there are no land uses with pedestrian access. Similarly, along the east side of Seal Beach Boulevard, the road abuts the NAVWPNSTA Seal Beach to which there is no pedestrian access. Where feasible, pedestrian facilities have been included in the project. Pedestrian facilities along both sides of the street are proposed for 13 of the 17 arterials crossing I-405 that do not currently have pedestrian facilities on both sides of the arterial at the crossing or on the approaches to the crossing. Under all of the build alternatives, the existing pedestrian crossing of I-405 at Heil Avenue would be replaced by the proposed project with a longer pedestrian bridge meeting current ADA standards. The current pedestrian crossing would remain open for use until the new bridge is constructed. Potential temporary adverse effects on community character and cohesion would be minimized to the extent possible with implementation of the previously discussed measures.

Construction-related temporary closure of bicycle facilities could adversely affect community character and cohesion. There are two Class I bikeways within the project limits. One, along the eastern bank of the Santa Ana River, is expected to require temporary closure during project construction, as discussed in Section 3.1.1.4.2, Parks and Recreational Facilities (Environmental Consequences); however, as described in Measure LU-6 in Section 3.1.1, Land Use, access will be maintained on one side at all times during construction. The other Class I bikeway is along the San Gabriel River and is not affected by the proposed project; it would remain open during the project construction. Class 2 bikeways along arterial streets will be closed consistent with the closures of the arterial roadways. The timing, locations, and detours for these closings will be identified in the Final TMP, which will be finalized prior to project construction. Closure of pedestrian facilities, including facilities with ADA-compliant features, on bridges crossing the
freeway, and their detours will also be identified in the Final TMP. Potential temporary adverse effects on community character and cohesion would be minimized to the extent possible with implementation of the previously discussed measures.

Parking
During construction, some parking may be temporarily impacted as a result of the detour routes; however, with implementation of Measure COM-10, which requires that OCTA and Caltrans work closely with property and business owners, temporary impacts to parking would be minimized.

Alternative 2
Impacts would be the same as those described under Alternative 1, with the exception that the staged construction duration would be 51 months, and potential temporary adverse effects on community character and cohesion would likely be proportionally greater. With implementation of the measures previously discussed under Alternative 1, temporary adverse construction-related effects on community character and cohesion would be minimized to the extent possible.

Alternative 3 (Preferred Alternative)
Impacts would be the same as that described under Alternatives 1 and 2, with the exception that the staged construction duration would be 54 months and include the following additional temporary long-term interchange ramp closures (i.e., 10 to 30 days of full closure):

- South Coast Drive northbound off-ramp
- Fairview Road northbound off-ramp
- Fairview Road northbound on-ramp
- Fairview Road southbound off-ramp
- Harbor Boulevard northbound loop on-ramp
- Harbor Boulevard southbound on-ramp

Potential temporary adverse effects on community character and cohesion would likely be proportionally greater. With implementation of the measures previously discussed under Alternative 1, temporary adverse construction-related effects on community character and cohesion would be minimized to the extent possible.
3.1.4.1.4 Avoidance, Minimization, and/or Mitigation Measures

No Build Alternative

No avoidance, minimization, and mitigation measures are required.

Build Alternatives

Community Impacts

Community disruption during project construction as a result of construction activities would be temporary and mitigated by implementing a traffic staging plan and a TMP as required by Measure T-1 (Section 3.1.6, Traffic and Transportation/Pedestrian and Bicycle Facilities), as summarized below, as well as the measures in Section 3.1.7, Visual/Aesthetics; Section 3.2.7, Noise; and Section 3.2.6, Air Quality.

OCTA and Caltrans shall prepare a Final TMP to minimize direct and cumulative construction impacts on the community. The TMP shall be submitted with the construction plan to the police and fire departments of affected cities prior to commencement of construction activities. The TMP will be coordinated with the local agencies. The TMP shall include, but not be limited to, the following features:

- Public Information: Provide project update to the affected residents and businesses, including general public, via brochures and mailers, community meeting, and Web site.
- Motorist Information: Provide project information using changeable message signs and ground-mounted signs.
- Incident Management: Implement Construction Zone Enhanced Enforcement Program (COZEEP), freeway service patrol, and California Highway Patrol (CHP) traffic handling.
- Traffic Management during Construction: Provide traffic lane closure chart, detour route, pedestrian routes, residential and commercial access routes, and temporary traffic signals during construction.

Additionally, the following measures are required to minimize project construction effects on neighborhoods and community cohesion:

COM-1: No two consecutive/adjacent off-ramps or two consecutive/adjacent on-ramps in the same direction will be closed concurrently.

COM-2: Business access will be maintained at all times during construction, consistent with Section 7-1.03 Public Convenience of Standard Specifications (2010).
COM-3: Ramps that provide access immediately adjacent to South Coast Plaza (South Coast Drive northbound off-ramp), Bella Terra (Beach Boulevard off-ramps), or Westminster Mall (Bolsa Avenue northbound and Goldenwest Street southbound off-ramps) will not be closed from November 1 to January 31.

Community Services and Facilities

OCTA and Caltrans would continue the outreach program to keep residents, businesses, and any service providers within the affected area informed, and to inform the surrounding communities about the proposed project construction schedule, traffic-impacted areas and the TMP. Minimization measures, in addition to outreach programs, include the following:

COM-4: Provision of motorist information (i.e., existing changeable message signs, portable changeable message signs, stationary ground-mounted signs, traffic radio announcements, and the Caltrans Highway Information Network [CHIN]).

COM-5: Incorporation of traffic circulation construction strategies (i.e., lane closure restrictions during holidays and special local events, closure of secondary streets during construction to allow quick construction and reopening, lane modifications [lane reductions, shifts] to maintain the number of lanes needed, allowing night work and extended weekend work, maintaining business access, and maintaining pedestrian and bicycle access). In addition, see Traffic Measure T-1 for public information regarding the TMP. Upon completion, the final TMP can be obtained by request from OCTA.

COM-6: Implementation of alternate and detour routes strategies; street/intersection improvements (e.g., widening, pavement rehabilitation, removal of median, restriping) to provide added capacity to handle detour traffic; signal improvements; adjustment of signal timing and/or signal coordination to increase vehicle throughput, improve traffic flow and optimize intersection capacity; turn restrictions at intersections and roadways necessary to reduce congestion and improve safety; and parking restrictions on alternate and detour routes during work hours to increase capacity, reduce traffic conflicts, and improve access.

COM-7: Coordination with the relevant parks and recreation departments of affected parks shall occur during construction to ensure the access and safety of users in the parks and trails adjacent to the proposed project.
Utilities

COM-8: Close coordination with utility service providers and the implementation of a public outreach program will be conducted to minimize impacts to surrounding communities.

Circulation and Access

Implementation of the TMP would minimize impacts related to circulation and access during the construction period; however, the following measures are required to minimize project construction effects on circulation and access:

COM-9: Close coordination with railroad owners and operators will be conducted during final design and construction phases to minimize impacts to railroad operations.

COM-10: During design and construction, OCTA shall work closely with affected property owners to identify means to avoid and minimize parking impacts, including space management such as restriping of parking areas and identifying parking replacement options. When required, property owners shall receive compensation for the partial loss of property through the ROW acquisition process.

COM-11: Maintain good public relations with the community to minimize objections to the unavoidable construction impacts. OCTA will implement a community information plan to maintain good community relations with the public by providing timely information about anticipated construction activities to affected citizens and adjacent property owners. Notification methods could include, but are not limited to, website, fliers, mailers, e-mail blasts, and electronic messaging on the freeway.

COM-12: The existing Heil Avenue pedestrian crossing will remain open for use until the replacement crossing has been completed.

3.1.4.2 Relocations and Real Property Acquisition

This section addresses impacts to the communities as a result of required ROW acquisitions and project construction activities. The analysis is based on the results of the Community Impact Assessment (August 2011), the Relocation Impact Memorandum (February 2011), and the Final Relocation Impact Memorandum (March 2015).

3.1.4.2.1 Regulatory Setting

Caltrans Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 CFR Part 24. The purpose of the RAP is to ensure that persons displaced as a result of a transportation
project are treated fairly, consistently, and equitably so that such persons will not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole. See Appendix D for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act (42 U.S.C. 2000d, et seq.). See Appendix C for a copy of Caltrans Title VI Policy Statement.

Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646)

Frequently referred to as the Uniform Relocation and Assistance Act, this law provides for the uniform and equitable treatment of persons displaced from their homes or businesses by federally assisted programs. “Displaced persons” include any individual, family, corporation, partnership, or association required to move from real property or required to move personal property from real property acquired in part or in whole because of a written notice from the agency to vacate a property needed for public projects. Displacees may be entitled to moving cost reimbursements or replacement housing payments (i.e., purchase supplements, rental assistance, and down payments). Implementation protocols also provide for the acquisition of real property on a “fair market” basis, which permits displacees to obtain independent property appraisals, if required.

Title VI – Civil Rights Act

Title VI of the 1964 Civil Rights Act provides one of the principle legal underpinnings for environmental justice. It states that “No person…shall, on the grounds of race, color, or national origin, be excluded from participation in, or be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” Title VI prohibits recipients of federal funds from actions that reflect “intentional discrimination” or that exhibit “adverse disparate impact discrimination” on the basis of race, ethnicity, or national origin. Executive Order (EO) 12898, entitled Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, effectively extended the provisions of Title VI to include minority and low-income populations (see Section 3.1.4.5 for analysis of potential environmental justice impacts) and required agencies to proactively develop strategies to:

- Identify activities to promote enforcement of all health and environmental statutes in areas with minority and low-income populations;
- Improve public participation by minority and low-income populations;
3.1.4-32 I-405 IMPROVEMENT PROJECT

- Improve data collection and research related to the health and environment of minority and low-income populations; and
- Identify differential consumption patterns of natural resources by minority and low-income populations.

### 3.1.4.2.2 Affected Environment

The project study area is located within an extensively urbanized area of Los Angeles and Orange counties. The dominant land uses within the project study area include low- and medium-density residential (i.e., single- and multiple-family), commercial (i.e., neighborhood and regional), institutional (i.e., government and schools), light industrial (i.e., general manufacturing), and agricultural (i.e., row crops). A wide variety of commercial establishments is located along both sides of the project corridor, such as fast-food stores, restaurants, small-scale retail stores, large shopping centers, and motels. Single-family and multi-family residences are also situated along the project corridor.

### 3.1.4.2.3 Environmental Consequences

Properties identified for acquisition are based on preliminary planning analysis only. It is not an intent to condemn these properties.

**Permanent Impacts**

**No Build Alternative**

No homes would be displaced, and no relocation of residences or businesses would be required under this alternative.

**Alternative 1**

**Residential Displacements.** No homes would be displaced, and no relocation of residences or businesses would be required with implementation of Alternative 1.

**Nonresidential Displacements.** Based on preliminary engineering data, acquisitions from 91 parcels (see Community Impact Assessment, Appendix A), totaling 3.62 acres of ROW within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, and Seal Beach, and the Rossmoor Community, are required to accommodate the freeway widening and associated roadway improvements. Ninety one (91) of these acquisitions require only partial acquisition, with the areas ranging from less than 1 square foot to 30,000 square feet (approximately 0.7-acre). During the design phase of the project, ROW impacts to these parcels will be minimized, and some may be avoided. Regardless of the extent of ROW impact, the property owners would be entitled to compensation to the extent provided by law in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 49 CFR 24.
The Draft EIR/EIS identified three commercial establishments located on three parcels (Sports Authority [APN 143-301-39]; Days Inn & Suites [APN 143-301-34]; Fountain Valley Skating Center [APN 143-301-33]) within Fountain Valley near the intersection of I-405 and Warner Avenue subject to full acquisition. Due to significant comments that were received during the Draft EIR/EIS and Supplemental Draft EIR/EIS regarding the braided ramps at Magnolia/Warner, the Northbound and Southbound Magnolia and Warner Interchanges were eliminated. As a result, a design option was proposed at the Southbound Interchange and the three businesses that were previously identified as full acquisitions will no longer be acquired (See Figure 3.1.4-4). The partial acquisition to Boomers and other business at this location remains the same as discussed in the Draft EIR/EIS.

**Alternative 2**

**Residential Displacements.** No homes would be displaced, and no relocation of residences or business would be required with implementation of Alternative 2.

**Nonresidential Displacements.** Based on preliminary engineering data, acquisitions from 92 parcels (see Community Impact Assessment, Appendix A), totaling 4.06 acres of ROW, within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, and Seal Beach, and the Rossmoor Community, are required to accommodate the freeway widening and associated roadway improvements. Ninety two (92) of these acquisitions only require partial acquisition, with the areas ranging from less than 1 square foot to 30,000 square feet (approximately 0.7-acre). During the design phase of the project, ROW impacts to these parcels will be minimized, and some may be avoided. Regardless of the extent of ROW impact, the property owners would be entitled to compensation to the extent provided by law in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 49 CFR 24.

The Draft EIR/EIS identified three commercial establishments located on three parcels (Sports Authority [APN 143-301-39]; Days Inn & Suites [APN 143-301-34]; Fountain Valley Skating Center [APN 143-301-33]) within Fountain Valley near the intersection of I-405 and Warner Avenue subject to full acquisition. Due to significant comments that were received during the Draft EIR/EIS and Supplemental Draft EIR/EIS regarding the braided ramps at Magnolia/Warner, the Northbound and Southbound Magnolia and Warner Interchanges were eliminated. As a result, a design option was proposed at the Southbound Interchange and the three businesses that were previously identified as full acquisitions will no longer be acquired (See Figure 3.1.4-4). The partial acquisition to Boomers and other business at this location remains the same as discussed in the Draft EIR/EIS.
Figure 3.1.4-4: Commercial Properties Subject to Partial Acquisitions under All Build Alternatives near the Warner/Magnolia Interchange

Source: Parsons 2015.
Alternative 3 (Preferred Alternative)

**Residential Displacements.** No homes would be displaced, and no relocation of residences or businesses would be required with implementation of Alternative 3.

**Nonresidential Displacements.** Based on preliminary engineering data, acquisitions from 109 parcels (see Community Impact Assessment, Appendix A), totaling 4.90 acres of ROW within the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, and Seal Beach, and the Rossmoor Community, are required to accommodate the freeway widening and associated roadway improvements. One-hundred nine (109) of these acquisitions require only partial acquisition, with the areas ranging from less than 1 square foot to 30,000 square feet (approximately 0.7-acre). During the design phase of the project, ROW impacts to these parcels will be minimized, and some may be avoided. Regardless of the extent of ROW impact, the property owners would be entitled to compensation to the extent provided by law in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act, 49 CFR 24.

The Draft EIR/EIS identified three commercial establishments located on three parcels (Sports Authority [APN 143-301-39]; Days Inn & Suites [APN 143-301-34]; Fountain Valley Skating Center [APN 143-301-33]) within Fountain Valley near the intersection of I-405 and Warner Avenue subject to full acquisition. Due to significant comments that were received during the Draft EIR/EIS and Supplemental Draft EIR/EIS regarding the braided ramps at Magnolia/Warner, the Northbound and Southbound Magnolia and Warner Interchanges were eliminated. As a result, a design option was proposed at the Southbound Interchange and the three businesses that were previously identified as full acquisitions will no longer be acquired (See Figure 3.1.4-4). The partial acquisition to Boomers and other business at this location remains the same as discussed in the Draft EIR/EIS.

**Temporary Impacts**

**No Build Alternative**

Because there would be no construction activity and no relocation of any residences or businesses, no indirect or secondary impacts on community or business disruption are anticipated.

**Alternative 1**

Proposed improvements along I-405 would occur mostly within the existing Caltrans ROW; however, 115 TCEs from adjacent public and privately owned parcels are anticipated to accommodate construction of the proposed improvements as described in Chapter 1, Proposed
Project, of this Final EIR/EIS. Areas and or activities would be restricted within TCEs when construction activities are occurring; however, temporary use restrictions are not anticipated to result in substantial effects on business operations, neighborhoods, or community cohesion.

It is estimated that project construction would have a temporary beneficial effect on the local and regional economy by generating 32,000 direct/indirect/induced jobs (http://www.fhwa.dot.gov/policy/otps/pubs/impacts/index.htm).

Property values within the project area could be temporarily affected by changes in the visual environment and temporary inconveniences due to construction activities. Conversely, improvements in access to community facilities and other residential areas as a result of the proposed freeway and associated roadway improvements could contribute to an increase in property value of commercial and residential properties along the I-405 corridor.

**Alternative 2**

Temporary construction-related project effects would be the same as Alternative 1, but they would require 227 TCEs and result in approximately 34,000 direct/indirect/induced jobs (http://www.fhwa.dot.gov/policy/otps/pubs/impacts/index.htm).

**Alternative 3 (Preferred Alternative)**

Temporary construction-related project effects would be the same as Alternative 1, but they would require 260 TCEs and result in approximately 42,000 direct/indirect/induced jobs (http://www.fhwa.dot.gov/policy/otps/pubs/impacts/index.htm).

### 3.1.4.2.4 Avoidance, Minimization, and/or Mitigation Measures

**No Build Alternative**

No avoidance, minimization, and mitigation measures are required.

**Build Alternatives**

COM-13: Where acquisition and relocation are unavoidable, the provisions of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended), Title 49 CFR Part 24 and where applicable, the California Public Park Preservation Act of 1971, will be followed.

### 3.1.4.3 Environmental Justice

Executive Order (EO) 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse”
effects of federal proposed projects on the health or environment of minority and low-income populations.

3.1.4.3.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, signed by President Clinton on February 11, 1994. This Executive Order directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. Low income is defined based on the HHS poverty guidelines. For 1999, this was $16,700 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. Caltrans commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C.

3.1.4.3.2 Affected Environment

Based on the socioeconomic data presented earlier in this section, the study area census tract data do not characterize the resident population as predominantly minority or low income. As shown in Table 3.1.4-2, the study area populations contain larger percentages identified as white. Although several census tracts along the corridor contain larger proportions of minority populations (see Figure 3.1.4-5), census data does not specify where or if minority populations are higher in affected areas versus areas farther away from construction. Although the study as a whole does not contain a predominantly minority population, as contemplated by EO 12898, some of the study area census tracts do contain larger percentages of minority populations and are subject to environmental justice consideration.

The median income of most families in the study census tracts is higher than the County of Orange (see Table 3.2-4-3). At the same time, poverty levels are fairly low in the I-405 corridor study area. Most of the census tracts contain less than 10 percent of the population living below poverty indicators. There are several census tracts containing poverty populations higher than 10 percent; however, compared to Orange County, the I-405 corridor does not consist of a primarily low-income population. According to EO 12898, the study corridor does not contain a predominantly low-income population.
No minority or low-income populations that would be adversely affected by the proposed project have been identified as determined above; therefore, this project is not subject to the provisions of EO 12898.

### 3.1.4.3.3 Environmental Consequences

EO 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal proposed projects on the health or environment of minority and low-income populations.

The populations within the study census tracts as a whole are not characterized as predominantly minority or low income; however; some census tracts along the I-405 corridor within the project limits contain larger proportions of minority populations. One of the census tracts (992.51), which is within the vicinity of the properties subject to relocation (described in Section 3.1.4-2, Relocations and Real Property Acquisition) contains more than 50 percent minority populations and approximately 7.5 percent of families with income below poverty level; however, because the establishments in this census tract are not specifically served by specific age groups or populations that depend on these services, impacts to minority or low-income populations in this census tract due to the relocation of these businesses would not be substantial.

The proposed project would not have direct impacts to low-income populations in the project area. Minority populations would receive benefits from traffic congestion removal as a result of project implementation. In addition, under Alternative 3, transit vehicles could utilize the Express Lanes free of charge, improving bus transit times and reliability during congested peak periods. This would enhance the trip reliability and time savings for the public transportation user, including environmental justice populations and other disadvantaged groups.

In addition, public outreach activities have been undertaken to provide meaningful opportunities for public participation in the project planning, and the development process will be ongoing until either the project is approved and constructed or abandoned to ensure that the affected communities receive up-to-date information about the project status. In September 2009, a Notice of Preparation (NOP) and Notice of Intent (NOI) were distributed, officially announcing the beginning of the environmental review process. The NOP was sent to the State Clearinghouse and Planning Unit of the Governor’s Office of Planning and Research, distributed to agencies with potential interest in the project, sent for posting in local libraries in surrounding cities, and posted online on OCTA’s and Caltrans’ Web sites. Pursuant to Public Resources Codes (PRC) 21092.3 and 21152, the notice was officially submitted to the Orange County Clerk-Recorder, Tom Daly, to be posted for 30 days for public review.
Figure 3.1.4-5: Census Tract within the Project Study Area that Contains Minority Populations of More than 50 Percent

Source: Census, 2000
Additionally, the NOP was formally submitted to the California Transportation Commission (CTC) along with a memorandum providing project information. To fulfill NEPA requirements, the NOI was drafted and submitted by FHWA to the Office of the Federal Register on August 26, 2009, for publishing in the Federal Register. The NOI was also posted on OCTA’s and Caltrans’ Web sites. A public notice advertisement ran in local newspapers in multiple languages, as well as a direct mail public notice that accompanied the NOP and NOI. The advertisement was designed using the template available on the Standard Environmental Reference (SER) Web site and, as part of a public outreach made in good faith, was translated into Spanish and Vietnamese. On September 4, 2009, the beginning of the public scoping period, the advertisement ran as a 0.25-page spread in English in the Orange County Register and Long Beach Press-Telegram, in Vietnamese in Nguoi-Viet, and in Spanish in the Excelsior. Between September 22 and October 1, 2009, OCTA and Caltrans conducted four public scoping meetings for the I-405 Improvement Project as part of the CEQA/NEPA environmental review process. The scoping meetings served as the first step in this process and offered stakeholders the opportunity to provide their input about the issues and potential impacts that should be evaluated, as well as feedback on the project alternatives presented at the meetings. The public noticing procedures for public circulation of the Supplemental Draft EIR/EIS were the same as the public circulation of Draft EIR/EIS, which included notices in English in the Orange County Register and Long Beach Press-Telegram, in Vietnamese in Nguoi-Viet, and in Spanish in the Excelsior. Project public outreach and coordination is summarized in Chapter 5, Comments and Coordination. Additional efforts may also include, but are not limited to, community meetings, informational mailing, project Web site information, and news releases to the local media. The overall goal of all project-related community outreach and public involvement activities is to maximize opportunities for meaningful participation by all interested persons within and outside of the affected community by minimizing/eliminating barriers to participation, in accordance with EO 12898, and Caltrans’ commitment to upholding the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the Director (see Appendix C).

Based on the above discussion and analysis, and with incorporation of all avoidance, minimization, and/or mitigation measures discussed throughout Chapter 3, the proposed project alternatives would not cause disproportionately high and adverse effects on minority or low-income populations within the context and intent of EO 12898.

3.1.4.3.4 Avoidance, Minimization, and/or Mitigation Measures

Community disruption during project construction would be minimized by the measures described in Section 3.1.4.1.4. Public outreach will continue to keep community members informed of the project decision and schedule.