CHAPTER 3 – PROJECT DESCRIPTION

3.1 PROJECT LOCATION

The Airport Gateway Specific Plan (AGSP) area is located approximately 60 miles east of Los Angeles just south of the foothills of the San Bernardino Mountains. It is centrally located between three major freeways (State Route (SR)-210 to the north and east, the I-215 to the west, and the I-10 to the south) and regional attractions including the Loma Linda University and Medical Center (5 miles southwest of plan area), University of Redlands (8 miles southeast of plan area), and commercial shopping destinations in Downtown San Bernardino and the Highland Town Center, both within 5 miles of the plan area (see Figure 3-1, Regional Location).

The 678.13-acre AGSP Plan area (planning area, hereafter referenced as 678 acres) is located immediately north of the San Bernardino International Airport (SBIA) and the Plan area extends to the north side of 6th Street except at the southwest and southeast corners of Del Rosa Drive and 6th Street where the Plan extends to the north side of 5th Street. The western boundary extends to the center line of Tippecanoe Avenue and Plan area is bounded by the SR-210 freeway to the east. Third Street in both cities and Fifth Street in the City of Highland serve as the southern boundary of the planning area. The Specific Plan area includes parcels in both the City of Highland (about 485 acres) and the City of San Bernardino (about 193 acres), as shown on Figure 3-2, Local Vicinity Map.

The north side of the Specific Plan area is predominantly bordered by a mix of vacant lands and low to medium density residential uses. The AGSP planning area is located directly across the street from several public facilities including Indian Springs High School, Cypress Elementary School, Highland Community Park, the Highland Branch Library, and the SBIA.

3.2 PROJECT OBJECTIVES

Although the Specific Plan includes an 8.2-acre site within the SBIA, the vast majority of the Plan area serves as the front door to the Airport and the interface strongly influences the type of uses incorporated in the Land Use Plan, and how those uses may impact the functionality of the 3rd, 5th and 6th Street corridors, and adjacent distribution facilities located directly west of the Plan area. Well-known retailers, such as Mattel, Stater Bros., Amazon, and Kohl’s each operate distribution facilities exceeding one million square feet in the general area and are examples of thriving large-scale local industrial development that has developed in the last 20 years to the south of the proposed AGSP.

The AGSP represents a long-range plan (2021 to 2040) for the development of the planning area, and when adopted will guide all future development proposals and other improvements in the Specific Plan area. This is particularly important because the Specific Plan must be implemented consistently across jurisdictional lines by two separate cities for it to be successful. After conferring with the participating agencies, a group of local agencies and stakeholders agreed that the Inland Valley Development Agency (IVDA or Agency, a joint powers agency with responsibilities in both cities and intervening unincorporated areas) would assume the lead in managing the preparation of the AGSP and the environmental documentation required to comply with the California Environmental Quality Act (CEQA). The other participating agencies in developing the AGSP include: City of Highland; City of San Bernardino; the San Manuel Band of Mission Indians; and the East Valley Water District. These stakeholders have jurisdictional and
ownership/service interests in the plan area and have invested significant time and resources in supporting the IVDA in completing the AGSP for the benefit of the region.

Realizing that a significant transition in the area could not occur one project at a time, a primary goal of the group discussions held was to facilitate and encourage a potential economic development opportunity that could be beneficial to both cities, the Airport, and existing property owners interested in transforming the area. Collectively, the participants determined that the project area would benefit from the preparation of the AGSP. The following objectives have been established for the proposed project and will aid decision makers in their review of the project, its associated environmental impacts, and the proposed alternatives to the project:

- Economic Opportunities: Attract innovative and job-generating businesses that deliver an array of job types (diversity of qualifications, wages and salaries) near the area's residential communities and that can respond to changing demand and market conditions in the future.
- Infrastructure: Provide comprehensive infrastructure improvements for water, sewer, circulation system, and stormwater that resolve longstanding flooding and hydrology issues and that are adequately financed to meet future system needs.
- Distinctive Design and Appearance: Gateways, corridors and buildings within the Airport Gateway Specific Plan are anticipated to feature landmark design elements, create a memorable visitor experience, and provide a unified sense of identity. Building and roadway treatments in this area command the same level of investment and quality of design as achieved under the adjacent Alliance Specific Plan.
- Streetscape Improvements: Consistent roadway design and improvements, including landscape, monumentation and an integrated, seamless approach to ongoing maintenance across jurisdictional boundaries.
- Mobility: Efficiently connect new industrial, office and existing distribution uses to freeway access while providing safe spaces for pedestrians, cyclists, transit, and motor vehicles along 3rd, 5th and 6th Streets and gateway nodes. Local businesses support and incentivize bike, car ride-share programs, and other alternative modes of transportation, to further support efforts to reduce vehicle miles travelled and greenhouse gas emissions in the region.
- Integrated Planning: Collaboration between agencies and property owners occurs on a regular basis to identify catalyst sites to initiate new businesses, to encourage innovative development, and to develop joint solutions to issues that arise within the project area.

Overall, the purpose of developing a specific plan for the Airport Gateway Area is to align local and regional development objectives and implementation efforts for future land use, mobility, and economic development efforts in the multi-jurisdictional plan area.

The primary goal of the AGSP is to implement a collaborative effort, intended to provide a regulatory framework for the plan area that includes a comprehensive theme for the corridor, to refine land use and development codes, provides efficient and effective access to freeway corridors, improves infrastructure and drainage, and develops streetscape and design standards that support opportunities for transition and change within the planning area.

### 3.3 ENVIRONMENTAL SETTING

The AGSP planning area extends west to east on the north side of the SBIA as shown in Figure 3-1, Regional Location. For a variety of reasons, the planning area has not experienced
much change in land use during the past 20 or more years even though areas to the west and south of the SBIA have made major transitions to warehouse and light industrial uses. Despite the AGSP’s proximity to the thriving distribution centers developed on and west of the former Air Force base, under the provisions of the San Bernardino Alliance California Specific Plan, and despite the fact many of the parcels are vacant (which is generally appealing to buyers), it has not attracted a similar degree of economic development and reinvestment experienced by nearby properties since the closure and decommissioning of the base in 1994.

The AGSP site occupies a visually prominent and heavily trafficked location as the gateway to the Airport from the SR-210 freeway; however, the irregular jurisdictional boundaries, long and narrow configuration of the blocks, and the narrow lot depths have made economic development of the area more challenging than areas to the south and west that had larger parcel configurations and fewer site design obstacles to overcome prior to new construction.

The AGSP area is also located in a unique transition area between the established residential neighborhoods to the north, distribution centers to the west and the hard boundary of the SBIA to the south, creating a sort of narrow “no-man’s land” in between all the uses. The proposed land uses in the Highland and San Bernardino General Plans envisioned light industrial, business park, general commercial and residential uses, but much of that vision never came to fruition partly because of the configuration of the properties in the project area (requiring significant lot consolidation of existing residential uses to create an industrial lot) and partly because demand for retail was not as strong in this area (shoppers opted to go to other locations along the Baseline Corridor or near the I-10 Freeway corridor).

Existing land uses surrounding the AGSP project area include:

- **North:** Immediately north of 6th Street, single- and multi-family residential properties
- **East:** Immediately west of Interstate 210, industrial land uses
- **South:** SBIA and industrial uses
- **West:** Commercial, residential, and institutional

Elevations within the project area range from approximately from 1,470 feet to 1,500 feet above mean sea level (amsl). The terrain is level, with a gradual increase in elevation to the north and east. No distinctive topographic features exist within or adjacent to the project site. Surface runoff within the project area generally flows to the south and west. Under present circumstances the area contains a mix of uses, with large expanses of vacant land. Where undeveloped, the onsite soils have historically been used to support occasional dry farming activities. Most natural vegetation has been removed by past activities, and most trees and shrubs are found where limited human landscaping occurs. No rock outcrops are located in the project area. A small man-made drainage channel, City Creek Bypass, crosses through the central-southern portion of the planning area and continues west to a confluence with Twin Creek outside of the planning area. See Figure 3-3 for a high-resolution aerial photograph of the project area.

Resource specific descriptions of the environmental setting are provided in the “Environmental Setting” subsections of each subchapter of Chapter 4.
3.4 PROJECT CHARACTERISTICS

3.4.1 Existing and Proposed Land Uses

The primary physical change in the environment when adopting a new land use plan is the change in the mix of uses between the existing land uses and land use designations and the proposed land use designations. Figure 3-4 shows the existing land uses within the AGSP planning area and surrounding areas in the two cities. Table 3-1 provides estimates for the existing land uses within the AGSP planning area, while Table 3-2 provides a breakdown of the existing population and residences within the AGSP planning area. The existing land use category most affected by the difference in these two tables (Table 3-1 and 3-3) is “Vacant” land which comprises about 243 acres of the existing land within the project area. The total acreage within the AGSP planning area is 678.13 acres, so the approximately 243 acres of vacant land constitutes about 35.8% of the total acreage in the planning area. The specific uses that exist in the planning area are best shown in Figures 3-3 and 3-4.

Table 3-2 summarizes the proposed land uses within the AGSP planning area. The three uses envisioned in the future within the AGSP planning area are:

- Mixed Use Business Park
- Road Right-of-Way (ROW)
- Floodway

After extensive discussions among the AGSP participants, a decision was made to establish “Mixed Use Business Park” as the only future human-occupied land use within the planning area. A total of 468.29 acres of the planning area (approximately 468 acres used in future reference) are designated as Mixed Use Business Park. The only other designations in the AGSP planning area are ROW (141.05 acres) and Floodway (68.6 acres). Based on the planning assumptions provided in the Table 3-2 Notes, including the allocated floor area ratios, a total of about 9,271,255.45 square feet (SF) (henceforth rounded to 9,271,256 SF) of non-residential development could be realized under the AGSP, and up to 75,000 SF of hotel (est. 150 rooms) could be constructed. This mix of uses is forecast to generate up to 5,097 new jobs within the AGSP.

In summary, the AGSP envisions replacing the existing mix of uses within the planning area (refer to Table 3-1, residential, commercial, educational, industrial, and vacant land) with approximately 9.27 million SF of Mixed Use Business Park uses. To accomplish this land use transition within the AGSP would require development of up to about 225 acres of existing occupied acreage and conversion of about 2431 acres of vacant land to Mixed Use Business Park uses. Also, due to the number of small parcels that exist within the AGSP, future developers and project proponents will have to assemble land parcels in order to fully develop the AGSP. The areas of most intense property consolidation in the AGSP must occur in the area between Tippecanoe and Del Rosa on the west and Victoria and Palm Avenue on the east. Also note that some of the existing industrial uses in the AGSP planning area may be compatible with the future land use designations. However, for impact forecast purposes it will be assumed that all 468 acres designated Mixed Use Business Park (MUBP) will be developed/repurposed. Although the existing basic

---

1 This estimate excludes some right-of-way (ROW) or floodway acreage listed in Table 3-1 below as the parcel maps for the area generated by the County of San Bernardino Parcel Map Viewer include such acreage as vacant acreage in some instances.
infrastructure facilities will be improved in the future (discussed below), there will not be a substantial increase in acreage allocated to them at buildout of the AGSP.

Table 3-1
EXISTING LAND USE ESTIMATES¹
(EXCLUDING ROW AND FLOODWAY)

<table>
<thead>
<tr>
<th>Land Use Classification</th>
<th>TOTAL</th>
<th>CITY OF HIGHLAND</th>
<th>CITY OF SAN BERNARDINO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>SF²</td>
<td>Employment³</td>
</tr>
<tr>
<td>Commercial⁴</td>
<td>19.87</td>
<td>150,647</td>
<td>301</td>
</tr>
<tr>
<td>Educational Facilities⁵</td>
<td>0.66</td>
<td>3,000</td>
<td>6</td>
</tr>
<tr>
<td>Industrial</td>
<td>75.72</td>
<td>526,915</td>
<td>176</td>
</tr>
<tr>
<td>Public Facilities</td>
<td>0.94</td>
<td>3,686</td>
<td>4</td>
</tr>
<tr>
<td>Vacant⁶</td>
<td>290.21</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Residential</td>
<td>127.96</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>515.36</td>
<td>684,248</td>
<td>487</td>
</tr>
</tbody>
</table>

Notes
1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (https://www.arcgis.com/apps/webappviewer/index.html?id=87e70bb9b6994559ba7512792588d57a) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
3. Employment generation rates of 3,000 SF/job for industrial, 1000 SF/job for public facilities and 500 SF/job for Commercial and Educational Facilities were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 SF/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job has been applied as an average.
4. Commercial properties generally consist of strip center commercial, gas station, offices, and hotel uses.
5. Highland Head Start.
6. Vacant land includes some acreage that should be dedicated to ROW and floodway because some Assessors Parcel Numbers (APNs) are not broken down to exclude ROW and floodway acreage that may be adjacent to an existing use. As such, the actual vacant land to be developed by the project has been determined to be 243 acres.
7. The total acreage provided includes, as with Vacant land discussed under item "6" above, superfluous acreage that is dedicated to ROW and floodway, and will remain dedicated to ROW and floodway under the propose AGSP. The acreage reflects the best estimate of existing uses as described under item 1, above.

Table 3-2
EXISTING LAND USE ESTIMATES¹
RESIDENTIAL BREAKDOWN

<table>
<thead>
<tr>
<th>Residence Type</th>
<th>TOTAL</th>
<th>CITY OF HIGHLAND</th>
<th>CITY OF SAN BERNARDINO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acres</td>
<td>Units²</td>
<td>Population³</td>
</tr>
<tr>
<td>Apartment/ Condo</td>
<td>14.44</td>
<td>247</td>
<td>803</td>
</tr>
<tr>
<td>Duplex/ Triplex/ Quadplex</td>
<td>7.72</td>
<td>92</td>
<td>299</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>1.49</td>
<td>40</td>
<td>130</td>
</tr>
<tr>
<td>Single Family Detached</td>
<td>104.31</td>
<td>381</td>
<td>1,239</td>
</tr>
<tr>
<td>Total</td>
<td>127.96</td>
<td>760</td>
<td>2,471</td>
</tr>
</tbody>
</table>
Notes
1. The data provided in the above table was derived from the San Bernardino County Parcel Map Viewer (https://www.arcgis.com/apps/webappviewer/index.html?id=87e070bb9b6994559ba7512792588d57a) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area. Accessed in 2020 and early 2021.
2. The units have been calculated utilizing the San Bernardino County Parcel Map Viewer (https://www.arcgis.com/apps/webappviewer/index.html?id=87e070bb9b6994559ba7512792588d57a) and was cross referenced utilizing both Google Maps/Street View and a survey of the project area, as well as verification of units for large apartment buildings utilizing rental websites such as Zillow.com. Websites were accessed in 2020 and early 2021.
3. Existing population numbers are estimates calculated using 3.52 persons per household for both cities and a vacancy rate of 7.6% for Highland and 9.0% for San Bernardino (DOF, Jan 2017).

Table 3-3
PROPOSED LAND USE

<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>Acres</th>
<th>Residential SF</th>
<th>Non-Hotel SF</th>
<th>Hotel SF</th>
<th>Hotel Room</th>
<th>% Employment</th>
<th>Acres</th>
<th>SF</th>
<th>% Employment</th>
<th>Acres</th>
<th>SF</th>
<th>% Employment</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed Use Business Park</td>
<td>468.29</td>
<td>9,271,256</td>
<td>75,000</td>
<td>150</td>
<td>5,097</td>
<td>322.15</td>
<td>6,444,864</td>
<td>4,630</td>
<td>146.14</td>
<td>2,826,391</td>
<td>1,189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Distribution</td>
<td>70.24</td>
<td>1,376,919</td>
<td>15</td>
<td>459</td>
<td>70.24</td>
<td>1,376,919</td>
<td>22</td>
<td>459</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>327.8</td>
<td>6,425,623</td>
<td>70</td>
<td>2,142</td>
<td>191.31</td>
<td>3,750,100</td>
<td>59.4</td>
<td>1,250</td>
<td>136.49</td>
<td>2,675,523</td>
<td>93.4</td>
<td>892</td>
<td></td>
</tr>
<tr>
<td>Tech Business Park</td>
<td>60.88</td>
<td>1,325,922</td>
<td>13</td>
<td>2,210</td>
<td>60.29</td>
<td>1,313,191</td>
<td>18.7</td>
<td>2,189</td>
<td>0.58</td>
<td>12,731</td>
<td>0.4</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>9.37</td>
<td>142,792</td>
<td>2</td>
<td>286</td>
<td>0.31</td>
<td>4,655</td>
<td>0.1</td>
<td>9</td>
<td>9.06</td>
<td>138,137</td>
<td>6.2</td>
<td>276</td>
<td></td>
</tr>
<tr>
<td>ROW</td>
<td>141.05</td>
<td>0</td>
<td>95.4</td>
<td>4.54</td>
<td>45.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floodway</td>
<td>68.6</td>
<td>0</td>
<td>67.14</td>
<td>1.65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>678.13</td>
<td>9,271,256</td>
<td>5,097</td>
<td>484.7</td>
<td>6,444,864</td>
<td>3,907</td>
<td>193.43</td>
<td>2,826,391</td>
<td>1,189</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Classifications from SANBAG (2012) which were derived from SCAG’s original classifications.
2. Employment generation rates of 3,000 SF/job for industrial (warehousing/distribution), 600 SF/job for tech businesses/light industrial and 500 SF/job for Commercial uses were used. If industrial land uses were employee intensive than employment rate would be closer to 2,000 sq. ft/job. If warehouses/distribution are highly automated, the employment rate would be closer to 4,000 SF/job. 3,000 SF/job was applied as an average. Assumes 100 hotel employees, see #8 below.
3. Mixed Use Business Park assumed to be 15% Industrial Distribution/Logistics, 70% General/Light Industrial, 13% Tech Business Park, 2% Commercial/Retail/Service uses.
4. Industrial and distribution uses were assumed at a 0.45 FAR. The City of Highland General Plan assumes a maximum 0.45 FAR for industrial and business park and a maximum of 0.50 FAR for office uses. The San Bernardino General Plan assumes a maximum 0.75 FAR for heavy and light industrial uses, and an FAR of 1.0 for office parks. Based on the conceptual design concepts envisioned for the plan, the building footprints are anticipated to be closer to 0.45 FAR, which was applied to this Proposed Land Use buildout table as an average (the SP may allow a higher maximum per building so long as the total square footage assumed in this table is not exceeded).
5. A 0.50 FAR was used for Tech Business Park. Typically, Tech Business Park uses range in intensity from about 0.35-0.75 FAR. The AGSP assumes a .50 FAR as an average. 6. A 0.35 FAR was used for the Commercial use. The intensity could range between 0.30-0.50 FAR. The AGSP assumes a .35 FAR.
6. Right of way acreages reflect the existing alignment of 5th street. An alternative could remove existing public right of way along 5th Street between Tippecanoe and Central Ave. (approx 41.53 acres) to accommodate larger building footprints as a part of new distribution and warehousing uses envisioned in the plan. A few smaller streets will also likely be removed over time as existing residential parcels are consolidated and transition to industrial or tech business uses. These acreages also assume construction of a new alignment for 5th Street east of Victoria Ave. that re-routes traffic to a new connection down to 3rd Street. The actual acreage numbers for the ROW, floodway, and various land uses will likely vary depending on the design of the ultimate alignment. The acreage associated with the rerouting of 5th Street is estimated, as the ultimate alignment would be determined at a later date and may not precisely match the alignment reflected on the proposed plan (new alignment estimated to be about 90’ wide, similar to existing ROW widths along 5th Street at Central Ave.).
7. Hotel estimated at about 500 gross sq. ft. per room (which includes walls, elevators, stairways, corridors, storage, and mechanical areas, etc.) Source: Planning and Programming a Hotel, Jan A. deRoos, Cornell University (2011)
3.4.2 Existing and Proposed Water Infrastructure

3.4.2.1 Water

a. Existing Supply & Distribution

Potable water will be provided to the Specific Plan area by East Valley Water District (EVWD). EVWD’s existing supply sources consist of local groundwater, surface water from the Santa Ana River obtained through the North Fork Water Company, and imported water from the State Water Project (SWP). The Specific Plan area project is in a portion of EVWD’s Lower Zone but mostly the project in EVWD’s Intermediate Zone. There is enough supply to meet existing demands under maximum day demand (MDD) conditions. The largest single source analysis from EVWD’s 2019 Water Supply Master Plan (WSMP) indicates there are supply deficits in the Lower Zone and Intermediate Zone if the largest single source is out of service during MDD conditions. However, the ability to transfer water from other zones would allow these supply deficits to be mitigated in the unlikely event that these extreme conditions occur.

EVWD operates existing water distribution infrastructure located throughout the Specific Plan area with major east-west pipelines in 6th Street, some pipelines in 5th Street and some pipelines in 3rd Street. Within the project area there are six (6) active wells and four (4) pump stations all within the Lower and Intermediate Zones. The Lower Zone is west of Sterling Avenue and the Intermediate Zone is east of Sterling Avenue to Palm Avenue. The backbone water system in the Specific Plan area includes:

- A 12-inch cement line and coated water main located in 6th Street traverses the length from Tippecanoe Street to Sterling Street.
- A 36-inch ductile iron line starting at Indian Springs High School located along 6th Street and the pipeline traverses east to Grape Street. As part of the SNRC Project, the segment of this ductile iron line west of Sterling Avenue will be converted to a recycled water line.
- An 8-inch ductile iron line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 6-inch ACP line located in 6th Street from Victoria Avenue to Alabama Avenue.
- A 12-inch ductile iron line located in 5th Street traverses the length from Tippecanoe Street to 1,000 feet east of Del Rosa Drive.
- A 6 5/8-inch cement line and coated water main located in 5th Street immediately north of San Bernardino Airport supplied by Plant 141.
- A combination of 8-inch and 16-inch ductile iron line located in 4th Street transverses the length from Tippecanoe Street to the termination at San Bernardino International Airport.
- A 12-inch ductile iron line located in 3rd Street traverses the length from Tippecanoe Street to Shirley Avenue.
- A 16-inch ductile iron line located in 3rd Street immediately north of San Bernardino Airport supplied by Plant 141.
- An 8-inch ACP and ductile iron line located in 3rd Street from Victoria Avenue to Alabama Avenue.

The City of San Bernardino Municipal Water Department (SBMWD) does not supply water to the City of Highland; however, SBMWD supplies water to portions of the City of San Bernardino and
unicorporated areas of the San Bernardino County including infrastructure within the 3rd Street and 5th Street Specific Plan area. At the intersection of Tippecanoe Avenue and 3rd Street there is an intertie with the Specific Plan area via a 12-inch pipeline. The 12-inch pipeline continues east on 3rd Street and terminates east of Del Rosa Drive. This 12-inch pipeline supplies the City’s distribution system south of 3rd Street, specifically for the San Bernardino International Airport.

The existing water infrastructure system is shown in Figure 3-5 and existing water pipelines by diameters are shown in Figure 3-6.

b. Proposed Supply & Distribution

Based on the 2019 WSMP Build-Out Water System Improvements outlined in Chapter 8, there are no transmission pipeline recommendations. The water system improvements based on the 2019 WSMP build-out evaluation within the Specific Plan area are the following projects:

- **Project 1** - 3.5 MG storage reservoir located in the Lower Zone;
- **Project 2** - New Well 01 in the Intermediate Zone.

These recommended improvements to the existing EVWD system will be installed to enhance the existing robust distribution system to meet modern industry standards.

### 3.4.2.2 Wastewater

#### a. Existing Collection System

The existing sewer system consists of approximately 213 miles of pipeline, 4,500 sewer manholes, 7 siphons, and 5 diversion structures. The existing sewer system conveys flows into the East Trunk Sewer which presently outlets to the San Bernardino Water Reclamation Plant (SBWRP) until the Sterling Natural Resource Center (SNRC) is completed. The existing sewer system including transmission and collection pipeline, siphons, and manholes has been evaluated. The evaluation included existing and future conditions for deficiencies and to identify areas for improvements.

EVWD’s sewer pipeline network includes approximately 213 miles of pipeline ranging in size from 4 inches to 24 inches in diameter. The East Trunk Sewer is approximately 9 miles long ranging in size from 8 inches to 54 inches in diameter. EVWD’s system, including the East Trunk Sewer, encompasses nine siphons to convey flows under creeks and flood control channels. EVWD has five diversion structures in its sewer collection system. Diversion structures are generally installed in manholes to divert flows along a specific route in case of a blockage in the system or during times of high flow. EVWD’s sewer system does not include any lift stations or force mains. All flow is conveyed by gravity to the East Trunk Sewer.

EVWD maintains all of the sewer pipes in the Specific Plan area, which are gravity collection system pipelines made of a variety of sizes made mostly of vitrified clay pipe (VCP). The majority of the pipelines were installed between 1960 and 1980. A few segments were built at a later date. The backbone wastewater system in the Specific Plan area includes:

- A 24-inch VCP located in 6th Street traverses the length from Tippecanoe Street to Elm Street.
- A 21-inch VCP located in 6th Street traverses the length from Elm Street to Victoria Avenue.
• A 10-inch VCP located in 6th Street traverses the length from Victoria Avenue to Cunningham Street.
• An 8-inch VCP located in 6th Street traverses the length from Cunningham Street to Central Avenue.
• An 8-inch VCP located in 5th Street starting at Marlyn Avenue to 214 feet east of Shirley Avenue.
• A 21-inch VCP located in 5th Street traverses the length from Victoria Avenue to Cunningham Street.
• A 24-inch VCP located in 5th Street traverses the length from Cunningham Street to Route 10.
• An 8-inch VCP located in 4th Street starting at Marlyn Avenue to 214 feet east of Shirley Avenue.
• There are new sewer pipes in 3rd Street.

b. Proposed Collection System

EVWD Sewer System Master Plan (SSMP) was updated in early 2019. According to the SSMP, the objective was to evaluate the collection system capacity and provide a general assessment of the condition of the existing sewer collection system in order to develop a comprehensive 20-year CIP. The 20-year CIP includes pipeline condition and capacity improvement projects, long range maintenance program considerations, as well as conveyance needs. The recommended CIP was the basis for wastewater rate evaluations and long-range financial plans to be completed in separate financial studies. The final recommendations of the SSMP are located in Chapter 8. In Chapter 9, unit costs were developed for pipelines. Engineering, construction, and total project costs were developed for the capacity and condition projects. The recommended CIP includes both capacity and condition related capital projects and recommendations on further studies.

Within the Specific Plan area, the recommended projects are:

**Project E-1** which is to upsize 5,900 feet of 27 to 48-inch pipe with 36 to 54-inch pipe, including a possible siphon upsize

**Project E-4** which is to upsize 15,000 feet of 21 to 24-inch pipe with 30-inch pipe starting at Tippecanoe Street on 6th Street which would traverse east to Victoria Street then south to 5th Street then traverse east on 5th Street to Palm Avenue.

**Project B-2** which is to upsize 2,200 feet of 15-inch pipe with 18-inch pipe, including a possible siphon upsize.

Refer to Figure 3-7 for the Recommended Capacity Projects as outlined in the 2019 EVWD Sewer Master Plan. Chapter 6 of the SSMP describes how the new interceptor sewer to direct flows to the Sterling Natural Resource Center will relieve flows from the pipeline associated with the projects listed above. Consequently, these projects are not anticipated to be necessary.

**3.4.2.3 Recycled Water**

EVWD is currently under construction with the Sterling Natural Resource Center (SNRC) which will be a state-of-the-art water recycling facility in the City of Highland, that will provide a sustainable new water supply to boost the region's water independence. The SNRC will be constructed on a 14-acre parcel of land located at North Del Rosa Drive between East 5th Street and East 6th Street. The SNRC Treatment Facility would be located on the eastern property while
the Administration Center would be located on the western parcel. The recycled water conveyance pipelines would be constructed along the existing rights-of-way within 6th Street. SNRC will be capable of treating up to 10 million gallons a day, the SNRC is being implemented to recharge the local Bunker Hill Groundwater Basin and will provide community education, training space, neighborhood improvements, and new habitat for the Santa Ana Sucker fish. The SNRC will produce Title 22 recycled water but will not be a source to serve the Plan Area since all of the recycled water produced at the SNRC will go to groundwater recharge. In order to ensure that the Plan Area is designed to utilize all available natural resources in a sustainable manner, all non-potable water uses shall be designed to accommodate and utilize recycled water if it should become available in the future. The City Engineers of the two cities shall have the authority, but shall not be required to waive the requirement if they deem such a design requirement is feasible.

3.4.3 Existing and Proposed Dry Utilities / Services

3.4.3.1 Solid Waste and Recycling

The City of San Bernardino Department of Public Works, Street Maintenance and Integrated Waste Management Division (Division) has contracted with Burrtec Waste Industries (Burrtec) to be responsible for solid waste collection and disposal. The City of Highland has contracted with Burrtec. The contractors from both the Division and the City of Highland are responsible for the solid waste collection and disposal from all residential properties within each respective City within the Specific Plan area and compete with private haulers for commercial collection services. The Division and City of Highland also manages a curbside recycling program, which includes collection of paper and cardboard, cans/aluminum, plastic, and glass. The recyclable materials are taken to number of recycling facilities that are contracted with the Division, City of Highland and unincorporated areas of the County.

For existing and new development within the Specific Plan area, the Division, City of Highland and unincorporated areas of the County via the San Bernardino County Waste System Division will continue to push solid waste and recycling efforts to move toward minimizing waste sent to landfills and reducing solid waste disposed per capita, as identified in their respective Action Plans/Ordinances. This includes expanding public outreach programs that focus on recycling and composting education.

3.4.3.2 Electricity

Electricity for the Specific Plan area is currently being served by Southern California Edison (SCE). SCE’s power plants are capable of supplying 100 percent of the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County electricity needs.

Because the Specific Plan area is linked to the state power grid, the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County had its share of power interruptions during the peak energy crisis in 2001. Under an agreement with the California Independent System Operator (ISO), SCE must reduce its load if instructed to do so by the ISO during a Stage III power emergency. Such an emergency occurred most recently in March 2001, requiring SCE to temporarily interrupt electric service to some of its customers. Buildout of the Specific Plan area will not have a significant impact on availability of energy resources in the City of Highland, City of San Bernardino and unincorporated areas of the San Bernardino County.
3.4.3.3 Natural Gas

Natural gas for the Specific Plan area is currently being served by the Southern California Gas Company (SoCal Gas). SoCal Gas has a number of underground pipelines in the Specific Plan area including:

- An 8-inch pipeline located in 6th Street traverses east the length from Tippecanoe Street to Victoria Avenue.
- A 3-inch pipeline located in 6th Street traverses east the length from Cunningham to Central Avenue.
- A 2-inch pipeline located in 5th Street traverses east the length from Tippecanoe Street to Roberts.
- A 2-inch pipeline located in 5th Street traverses east the length from Victoria Avenue to 500 feet from Central Avenue.
- A 2-inch pipeline located in 5th Street traverses east the length from Central Avenue to Palm Avenue.
- A 4-inch pipeline located in 5th Street traverses east from Church Avenue to Route 210.
- A 2-inch pipeline located in 4th Street traverses east the length from Tippecanoe Street to the termination of 4th Street.
- A 2-inch pipeline located in 3rd Street traverses the length from Tippecanoe Street to Sterling Street.
- An 8-inch pipeline located in 3rd Street traverses east the length from Victoria Avenue to Alabama Street.
- A 6-inch pipeline located in 3rd Street traverses east the length from Alabama Street/Palm Avenue to Church Avenue/5th Street intersection.

3.4.3.4 Cable TV / Internet

Time Warner has above and underground utilities in 6th Street from Tippecanoe Street to Sterling Avenue as well as above ground utilities in 5th Street from Tippecanoe Street to residences located between Del Rosa Drive and Sterling Avenue. Time Warner has above ground utilities in 6th Street from Lankershim Avenue to Central Avenue. MCI (Verizon) and Terradex have no above or underground utilities in the Specific Plan area.

3.4.3.5 Telephone / Internet

AT&T has above ground utilities (via cables) and underground utilities within conduits within the Specific Plan area located in 3rd Street, 5th Street and 6th Street. Both above ground and underground utilities are located in 6th Street from Tippecanoe Street to Victoria Avenue as well as conduit located in 5th Street starting at Victoria Avenue traversing east terminating before Cunningham. Conduit is located within Central Avenue and Palm Street from 6th Street to 4th Street. Conduit and underground utilities are located in 5th Street from Church Avenue to Route 210. Conduit is located in 3rd Street starting at Victoria Avenue and terminates at Palm Avenue.

Dry utility services throughout the Specific Plan area will be provided through the existing backbone system. Dry utilities are generally constructed in a common trench within the street right-of-way or an adjacent easement. The final layout and design of the Specific Plan area will need to accommodate the linear dry utilities as well as ancillary features such as junction boxes, transformers, etc.
3.4.4 Existing and Proposed Drainage System

The existing drainage system in the project area is fairly rudimentary. Figure 3-8 identifies the Specific Plan Area, the overall watershed area of the project improvements, existing storm drain systems, proposed storm drain systems and infrastructure storm drain systems identified by Comprehensive Storm Drain Plan #6 (CSDP #6) prepared by San Bernardino County Flood Control District. Storm water runoff within the area flows to the south over a very shallow grade. The following information is abstracted from a study of the area hydrology by JLC Engineering & Consulting, Inc, titled “Preliminary Hydrology and Channel Design for City Creek By-Pass Channel,” April 20, 2020. The City Creek Bypass Channel is located along 3rd and 5th Streets and extends from Warm Creek Channel on the west (terminus) and terminates at City Creek Channel just north of the State Route 30 (SR-210) and 5th Street Interchange. Refer to aerial photo in Figure 3-8 for a depiction of the Bypass Channel alignment. Additionally, the watershed area has existing storm drains that collect runoff from the watershed area located within Palm Avenue and Central Avenue. The existing storm drains and street sections collect surface runoff and convey the runoff into City Creek.

Coordination with local agencies has resulted in the identification of a proposed storm drain system that is located within Victoria Avenue. The storm drain system is currently under a Plan, Specification, and Estimate (PS&E) process with the City of Highland. The intent of the PS&E process is to develop a package that obtains CEQA clearances, design approvals and construction estimate to allow the project to be constructed.

The study describes the existing channel and concludes that downstream of the Victoria Avenue-City Creek Bypass Channel it is insufficient to convey the 100-year flood flows in its current configuration. The study includes a new channel design (two alternatives) that will need to be installed to have sufficient capacity to convey the 100-year flood flows between Victoria Avenue (just north of the Airport and south of 3rd Street) and the Warm Creek Channel. Figure 3-9 shows the alternative channel designs and acknowledges that these designs are preliminary and not ready for construction. The channel alternatives are defined in detail in the study. For planning and impact forecast purposes it is assumed that a maximum of one-half mile of new channel will be installed in any given year. Moreover, Figure 3-8 has identified the storm drain infrastructure that will be required to provide flood protection for the surrounding Specific Plan Area based on the CSDP #6. The purpose of the storm drain infrastructure is to provide flood protection and to meet the street design policies within the City of San Bernardino and the City of Highland. The following CSDP #6 system that protects the project area are as follows:

- 6-C1-01 which is a storm drain system that varies in diameter from 36-inches to 48-inches in diameter. The system extends along Tippecanoe Avenue to 5th Street.
- 6-C1-03 which is a storm drain that varies in diameter from 42-inches to 81-inches in diameter. The storm drain extends Sterling Avenue and 6th Street.

It should be noted that 6-WA-03, located within 6th Street, is adjacent to the northerly boundary of the Specific Plan Area. Based on the topographic contours for the watershed area, the runoff flows to the west towards Warm Creek. The Specific Plan Area will not require this system to ensure flood protection since 6th Street separately collects and conveys the runoff to Warm Creek Channel.

Finally, it should be noted that the CSDP #6 is a conceptual design that identifies regional infrastructure required within an area. The conceptual design provides a potential solution that
would provide flood protection for an area and where the runoff from the watershed area needs to be directed. During final engineering, the solution provided by the CSDP #6 may not be viable due to constraints associated with utilities, right-of-way, topography or other unknown constraints. As a result, future projects may provide an alternative solution that meets the intent of the CSDP #6 design concept.

### 3.4.5 Existing and Proposed Circulation System Infrastructure

The AGSP project area contains a substantial existing circulation system, which currently has many roadways with older, deteriorating pavement. Figure 3-10 shows the circulation system in the area surrounding the Specific Plan area. The City of San Bernardino General Plan Circulation Plan and the City of Highland General Plan Circulation Element provide roadway designations for the roadway system serving the Specific Plan area and the surrounding vicinity. A copy of the City of San Bernardino Circulation Plan and Standard Cross Sections are provided on Figures 3-11a and 3-11b. A copy of the City of Highland Circulation Element and Standard Cross Sections are provided on Figures 3-12a and 3-12b. Regional access to the AGSP area is provided primarily by the Interstate 215 (I-215) Freeway, located approximately 2 miles to the west of the Specific Plan area. In addition, the I-10 Freeway is located approximately 3 miles to the south of the project. State Route 210 (SR-210) is oriented in an east-west direction approximately 2.5 miles to the north of the Specific Plan area, and then turns southward and is oriented in a north-south direction adjacent to the Specific Plan eastern boundary.

#### 3.4.5.1 Current Street System

The existing street system in the general area and in the Specific Plan area is described in the following text. Table 3-4 (Table 2 of the Traffic Impact Study, “TIS”) contains a summary of current roadway configurations for the AGSP.

**Waterman Avenue** is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. The speed limit is 40 miles per hour (MPH) and on-street parking is prohibited on both sides. Waterman Avenue is designated on the City of San Bernardino’s Circulation Plan as a Major Arterial.

**Tippecanoe Avenue** is a north-south roadway that provides two to three lanes in each direction, with either a raised median or a center two-way left-turn lane. Tippecanoe Avenue will form the westernmost boundary of the Specific Plan area. The speed limit ranges from 30 to 45 MPH and on-street parking is prohibited on both sides. Tippecanoe Avenue is designated on the City of San Bernardino’s Circulation Plan as a Secondary Arterial north of 3rd Street and a Major Arterial south of 3rd Street; Tippecanoe Avenue is designated on the City of Highland’s Circulation Element as a Secondary Highway.

**Del Rosa Drive** is a north-south roadway that provides one to two lanes in each direction, with either a raised median or a center two-way left-turn lane in the project vicinity. Del Rosa Drive extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 35 to 45 MPH, with a 25-MPH school zone from Baseline Street to 6th Street. Del Rosa Drive is designated on the City of San Bernardino’s Circulation Plan as a Major Arterial and is designated on the City of Highland’s Circulation Element as a Secondary Highway.

**Sterling Avenue** is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Sterling Avenue starts at 3rd Street, and extends
northward through and beyond the Specific Plan boundary. The speed limit is 40 MPH. Sterling Avenue is designated on the City of San Bernardino’s Circulation Plan as a Major Arterial and is designated on the City of Highland’s Circulation Element as a Major Highway.

Victoria Avenue is a north-south roadway that provides two lanes in each direction, with a center two-way left-turn lane in the project vicinity. Victoria Avenue extends through and beyond the Specific Plan boundary in both the north and south directions. The speed limit ranges from 40 to 45 MPH and on-street parking is prohibited on both sides. Victoria Avenue is designated on the City of San Bernardino’s Circulation Plan as a Secondary Arterial and is designated on the City of Highland’s Circulation Element as a Major Highway.

6th Street is an east-west undivided roadway that provides one travel lane in each direction. 6th Street will form the northern boundary of the Specific Plan area from Tippecanoe Avenue to Central Avenue. The posted speed limit is 40 MPH, with a 25-MPH school zone from Tippecanoe Avenue to Del Rosa Drive. 6th Street is designated as a Collector Street on the City of San Bernardino’s Circulation Plan and on the City of Highland’s Circulation Element.

5th Street is an east-west roadway that provides one to two lanes in each direction in the project vicinity, with a center two-way left-turn lane in some sections. 5th Street provides a direct connection to both the I-215 Freeway to the West and the SR-210 Freeway to the East. 5th Street will traverse the entire length of the Specific Plan area and will have development on both sides of the street. The speed limit ranges from 40 to 45 MPH, with a 25-MPH school zone to the east of Waterman Avenue. 5th Street is designated on the City of San Bernardino’s Circulation Plan as a Major Arterial and is designated on the City of Highland’s Circulation Element as a Major Highway.

3rd Street is an east-west roadway that provides two lanes in each direction, with a center two-way left-turn lane. The speed limit ranges from 45 to 50 MPH. 3rd Street is designated on the City of San Bernardino’s Circulation Plan as a Major Arterial and is designated on the City of Highland’s Circulation Element as a Primary Arterial. 3rd Street will form the southern boundary of the Specific Plan area from Tippecanoe Avenue to its eastern terminus.

3rd Street currently dead-ends southwest of the intersection of 5th Street at Church Avenue, in the City of Highland. The City has approved an improvement project that will connect 3rd Street to 5th Street to the east and west of Church Avenue. The future connection to the east of Church Avenue will allow eastbound traffic on 3rd Street to merge onto eastbound 5th Street. The connection to the west of Church Avenue will allow limited access from 5th Street to westbound 3rd Street. The timing for completion of this improvement is uncertain, but is scheduled for the near future.

### 3.4.5.2 Existing Transit Service

Transit service to the project area is provided by OmniTrans, which serves the Cities of San Bernardino, Highland and other surrounding cities. Currently, only Route 15 travels on any of the streets within the Specific Plan area.

OmniTrans Route 15 operates between the City of Redlands and the City of Fontana, traveling through the Specific Plan area along Tippecanoe Avenue, Del Rosa Avenue, Central Avenue, and Palm Avenue. Key stops along Route 15 include the San Bernardino County Court Building, Redlands Mall, San Bernardino Stadium, San Bernardino Valley College, Fontana Metrolink, and the San Bernardino Transit Center. At the San Bernardino Transit Center, passengers can
transfer to other OmniTrans routes, as well as to Riverside Transit (RTA), Mountain Transit, Pass Transit, and Victor Valley Transit Authority (VVTA) routes, or to Metrolink.

Route 15 operates on weekdays from 6:40 AM to 10:40 PM with approximately 30-minute headways (the time between bus arrivals), and on Saturdays and Sundays from approximately 6:40 AM to 7:25PM with approximately 1-hour headways.

The OmniTrans bus stops located closest to the Specific Plan area are as follows:

- Tippecanoe Avenue at 3rd Street
- Del Rosa Drive at 3rd Street
- Del Rosa Drive at 6th Street
- Central Avenue at 5th Street
- Central Avenue at Palm Avenue

3.4.5.3 Future Street System

The TIS provides an evaluation of the future roadway configurations (Year 2040) for the same roadways in Table 3-4. Table 3-5 provides a summary of roadway segments with expanded configurations to carry more traffic. The following summary of the differences between current and future road cross-sections is an indication of the new roadways that will have to be in place by 2040 to support AGSP and cumulative traffic growth in the project area. In no changes are necessary, a roadway segment does not need to be modified over this time period based on the TIS.

**TIPPECANOE AVENUE**

Roadway Segment: Mill Street to Orange Show Road/San Bernardino Avenue

<table>
<thead>
<tr>
<th>Current Configuration</th>
<th>2040 Mitigated Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Lanes Divided</td>
<td>6-Lane Divided Major</td>
</tr>
</tbody>
</table>

**DEL ROSA DRIVE**

Roadway Segment: Highland Avenue to Pacific Street

<table>
<thead>
<tr>
<th>Current Configuration</th>
<th>2040 Mitigated Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Lanes Undivided</td>
<td>4-Lane Divided Major</td>
</tr>
</tbody>
</table>

**6th STREET**

Roadway Segment: Del Rosa Drive to Sterling Avenue

<table>
<thead>
<tr>
<th>Current Configuration</th>
<th>2040 Mitigated Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Lanes Divided</td>
<td>4-Lane Undivided Collector</td>
</tr>
<tr>
<td>Roadway Segment</td>
<td>Current Configuration</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Sterling Avenue to Victoria Avenue</td>
<td>2 Lanes Divided</td>
</tr>
<tr>
<td>5th STREET</td>
<td></td>
</tr>
<tr>
<td>Roadway Segment</td>
<td>I-215 NB Ramps to E Street</td>
</tr>
<tr>
<td>Current Configuration</td>
<td>2 Lanes Divided</td>
</tr>
<tr>
<td>E Street to Waterman Avenue</td>
<td>4 Lanes Divided</td>
</tr>
<tr>
<td>Waterman Avenue to Tippecanoe Avenue</td>
<td>2 Lanes Undivided</td>
</tr>
<tr>
<td>Tippecanoe Avenue to Del Rosa Drive</td>
<td>2 Lanes Undivided</td>
</tr>
<tr>
<td>Victoria Avenue to Central Avenue</td>
<td>2 Lanes Undivided</td>
</tr>
<tr>
<td>Central Avenue to Palm Avenue</td>
<td>4 Lanes Divided</td>
</tr>
<tr>
<td>Palm Avenue to SR-210 EB Ramps</td>
<td>4 Lanes Divided</td>
</tr>
<tr>
<td>3rd STREET</td>
<td></td>
</tr>
<tr>
<td>Roadway Segment</td>
<td>Del Rosa Drive to Sterling Avenue</td>
</tr>
</tbody>
</table>
Current Configuration: 4 Lanes Divided  
2040 Mitigated Configuration: 6-Lane Divided Major

The preceding roadway segments represent about six to six and one-half miles of new roads that will need to be installed over the estimated 20-year period. It is anticipated that as individual mixed industrial projects are implemented, roadway improvements will be installed as part of off-site improvements required through the entitlement process from both cities. However, local IVDA or local jurisdictions may be able to obtain grants or funding for specific roadway segments as identified above. This document evaluates the installation of ½ mile of new lane addition, plus curb and gutter improvements, as a baseline to conduct a programmatic impact analysis.

3.5 PHASING AND CONSTRUCTION

The Specific Plan is envisioned to be developed over a period of about 20 years in an incremental manner. Thus, no phasing is envisioned at the current time. This applies to both the Mixed Use Business Park uses and the infrastructure required to support future development within the project area. There will be no mass grading in support of the Specific Plan until specific projects are built in the future. On the other hand, it is possible that to support the Specific Plan some form of Community Facilities District or other funding mechanism may be established to fund infrastructure improvements that will be needed for the project area.

Also, at this time there are no specific construction projects envisioned. Therefore, instead of evaluating a specific proposed future project, this document will evaluate prospective future projects such as:

- The construction of a 500,000 square foot light industrial warehouse
- Installation of one mile of water, underground electric power line, natural gas, or sewer pipeline, assumed to be 18” to 24” diameter, total for the year
- Construction of one-half mile of new roadway, lane-width assumed to be 12 feet with curb and gutter
- Installation of one-half mile of the ultimate City Creek Bypass Channel design

Detailed construction scenarios will be described in the air quality and other subchapters where the type of equipment and area of disturbance are important. The following development standards for grading will be observed:

a. Prior to any development within the Specific Plan area, an overall preliminary grading plan for the planning area in process shall be submitted to the pertinent Community Development Department and Public Works Engineering Department for approval. The grading plan for each such area shall be used as a guideline for subsequent detailed grading plans for individual stages of development within that area and shall include:

i. Techniques employed to prevent erosion and sedimentation during and after the grading process.
ii. Approximate time frames for grading.
### Table 3-4
### SUMMARY OF ROADWAY SEGMENT ANALYSIS
### EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Segment</th>
<th>Jurisdiction</th>
<th>Existing Configuration</th>
<th>LOS E Capacity</th>
<th>Existing ADT</th>
<th>V/C</th>
<th>LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Waterman Avenue</strong></td>
<td>Baseline Street to 5th Street</td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>45,000</td>
<td>25,791</td>
<td>0.56</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>5th Street to 3rd Street</td>
<td>SB</td>
<td>6 Lanes Divided</td>
<td>60,000</td>
<td>27,028</td>
<td>0.45</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Tippecano Avenue</td>
<td>SB / H</td>
<td>4 Lanes Undivided</td>
<td>30,000</td>
<td>12,006</td>
<td>0.40</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>6th Street to 3rd Street</td>
<td>SB / H</td>
<td>4 Lanes Undivided</td>
<td>30,000</td>
<td>14,330</td>
<td>0.47</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>3rd Street to Mill Street</td>
<td>SB</td>
<td>6 Lanes Divided</td>
<td>60,000</td>
<td>25,762</td>
<td>0.47</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Mill Street to Orange Show Road / San Bernardino Avenue</td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>32,591</td>
<td>0.82</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Orange Show Road / San Bernardino Avenue to Harbor Place / C LUBE Ramps</td>
<td>SB</td>
<td>6 Lanes Divided</td>
<td>60,000</td>
<td>25,471</td>
<td>0.43</td>
<td>A</td>
</tr>
<tr>
<td><strong>SR-210 BB Ramps to Highland Avenue</strong></td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>23,780</td>
<td>0.59</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Highland Avenue to Pacific Street</strong></td>
<td>SB</td>
<td>2 Lanes Unlzd</td>
<td>12,000</td>
<td>17,665</td>
<td>1.47</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td><strong>Pacific Street to Baseline Street</strong></td>
<td>SB / H</td>
<td>4 Lanes Undivided</td>
<td>30,000</td>
<td>13,216</td>
<td>0.44</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Baseline Street to 5th Street</strong></td>
<td>SB / H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>9,963</td>
<td>0.24</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>9th Street to 6th Street</strong></td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>9,871</td>
<td>0.25</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>6th Street to 3rd Street</strong></td>
<td>SB / H</td>
<td>4 Lanes Undivided</td>
<td>30,000</td>
<td>9,876</td>
<td>0.32</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Base Line to 9th Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>13,368</td>
<td>0.34</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>9th Street to 6th Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>10,809</td>
<td>0.26</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>6th Street to 3rd Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>6,894</td>
<td>0.17</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Highland Avenue to Pacific Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>12,488</td>
<td>0.32</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Pacific Street to Base Line</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>11,443</td>
<td>0.36</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Base Line to 9th Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>30,000</td>
<td>11,210</td>
<td>0.37</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>9th Street to 6th Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>30,000</td>
<td>8,368</td>
<td>0.29</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>6th Street to 3rd Street</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>30,000</td>
<td>6,360</td>
<td>0.27</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Tippecano Avenue to Del Rosa Drive</strong></td>
<td>SB / H</td>
<td>2 Lanes Unlzd</td>
<td>40,000</td>
<td>5,249</td>
<td>0.32</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Del Rosa Drive to Sterling Avenue</strong></td>
<td>H</td>
<td>2 Lanes Unlzd</td>
<td>10,000</td>
<td>4,714</td>
<td>0.47</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Sterling Avenue to Victoria Avenue</strong></td>
<td>SB / H</td>
<td>2 Lanes Unlzd</td>
<td>10,000</td>
<td>3,519</td>
<td>0.35</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Victoria Avenue to Central Avenue</strong></td>
<td>H</td>
<td>2 Lanes Unlzd</td>
<td>10,000</td>
<td>4,047</td>
<td>0.40</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>I-215 BB Ramps to E Street</strong></td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>30,085</td>
<td>0.77</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td><strong>E Street to Waterman Avenue</strong></td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>20,083</td>
<td>0.52</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Waterman Avenue to Tippecano Avenue</strong></td>
<td>SB</td>
<td>2 Lanes Undivided</td>
<td>15,000</td>
<td>5,167</td>
<td>0.61</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td><strong>Tippecano Avenue to Del Rosa Drive</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>8,725</td>
<td>0.58</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Del Rosa Drive to Sterling Avenue</strong></td>
<td>SB / H</td>
<td>4 Lanes Undivided</td>
<td>40,000</td>
<td>5,595</td>
<td>0.14</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Sterling Avenue to Victoria Avenue</strong></td>
<td>SB / H</td>
<td>2 Lanes Unlzd</td>
<td>10,000</td>
<td>3,911</td>
<td>0.31</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Victoria Avenue to Central Avenue</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>9,937</td>
<td>0.24</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Central Avenue to Palm Avenue</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>9,939</td>
<td>0.24</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Palm Avenue to SR-210 BB Ramps</strong></td>
<td>H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>26,098</td>
<td>0.65</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td><strong>Waterman Avenue to Tippecano Avenue</strong></td>
<td>SB</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>10,460</td>
<td>0.26</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Tippecano Avenue to Del Rosa Drive</strong></td>
<td>SB / H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>15,620</td>
<td>0.39</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Del Rosa Drive to Sterling Avenue</strong></td>
<td>SB / H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>18,143</td>
<td>0.45</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Sterling Avenue to Victoria Avenue</strong></td>
<td>SB</td>
<td>4 Lanes Undivided</td>
<td>40,000</td>
<td>13,457</td>
<td>0.33</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td><strong>Victoria Avenue to Palm Avenue</strong></td>
<td>SB / H</td>
<td>4 Lanes Divided</td>
<td>40,000</td>
<td>10,714</td>
<td>0.26</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
1. Source: City of San Bernardino General Plan Update 2005
2. Existing daily traffic volume includes passenger car equivalent (PCE) factors for truck: 2-axle = 2.0, 3-axle = 3.5, 4+-axle = 3.0
3. LOS = Level of Service; ADT = Average Daily Traffic; V/C = Volume to Capacity
4. Jurisdiction: SB = San Bernardino, H = Highland, SB / H = Portions of the roadway segment are in both cities

Source: Kimley Horn, Traffic Impact Study, April 2020
## Table 3-5
SUMMARY OF ROADWAY SEGMENT ANALYSIS WITH MITIGATION
FUTURE BUILD-OUT 2040 PLUS PROJECT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tippecanoe Avenue</td>
<td>3rd Street to Mill Street</td>
<td>SB</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>49,228</td>
<td>90.66</td>
<td>50,314</td>
<td>0.889</td>
<td>D²</td>
</tr>
<tr>
<td></td>
<td>Mill Street to Orange Show Road /</td>
<td>SB</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>47,921</td>
<td>93.86</td>
<td>57,507</td>
<td>0.955</td>
<td>E³</td>
</tr>
<tr>
<td></td>
<td>San Bernardino Avenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Del Rose Drive</td>
<td>Highland Avenue to Pacific Street</td>
<td>SB</td>
<td>4-Lane Divided Major</td>
<td>40,000</td>
<td>21,885</td>
<td>87.06</td>
<td>21,885</td>
<td>0.547</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Del Rose Drive to Sterling Avenue</td>
<td>H</td>
<td>4-Lane Undivided Collector</td>
<td>30,000</td>
<td>10,461</td>
<td>62.39</td>
<td>10,461</td>
<td>0.349</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Sterling Avenue to Victoria Avenue</td>
<td>SE / H</td>
<td>4-Lane Undivided Collector</td>
<td>30,000</td>
<td>8,278</td>
<td>74.53</td>
<td>14,819</td>
<td>0.494</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Victoria Avenue to Central Avenue</td>
<td>H</td>
<td>4-Lane Undivided Collector</td>
<td>30,000</td>
<td>6,871</td>
<td>91.57</td>
<td>12,715</td>
<td>0.424</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>I-215 NB Ramps to E Street</td>
<td>SB</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>37,461</td>
<td>11,000</td>
<td>49,281</td>
<td>0.821</td>
<td>D²</td>
</tr>
<tr>
<td></td>
<td>E Street to Waterman Avenue</td>
<td>SB</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>32,657</td>
<td>11,800</td>
<td>34,457</td>
<td>0.574</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Waterman Avenue to Tippecanoe Avenue</td>
<td>SB</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>13,621</td>
<td>12,566</td>
<td>26,187</td>
<td>0.426</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Tippecanoe Avenue to Del Rose Drive</td>
<td>H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>14,297</td>
<td>14,297</td>
<td>28,584</td>
<td>0.491</td>
<td>A²</td>
</tr>
<tr>
<td></td>
<td>Sterling Avenue to Victoria Avenue</td>
<td>SB / H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>8,476</td>
<td>21,993</td>
<td>30,469</td>
<td>0.508</td>
<td>A²</td>
</tr>
<tr>
<td></td>
<td>Victoria Avenue to Central Avenue</td>
<td>H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>11,964</td>
<td>22,319</td>
<td>24,373</td>
<td>0.571</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Central Avenue to Palm Avenue</td>
<td>H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>11,912</td>
<td>25,092</td>
<td>37,004</td>
<td>0.617</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Palm Avenue to SR-210 EB Ramps</td>
<td>H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>33,870</td>
<td>24,646</td>
<td>58,516</td>
<td>0.975</td>
<td>E³</td>
</tr>
<tr>
<td></td>
<td>Del Rose Drive to Sterling Avenue</td>
<td>SB / H</td>
<td>6-Lane Divided Major</td>
<td>60,000</td>
<td>34,522</td>
<td>9,786</td>
<td>44,309</td>
<td>0.738</td>
<td>C</td>
</tr>
</tbody>
</table>

**Notes:**
1. Source: City of San Bernardino General Plan Update (2005)
2. Roadway segment is currently built to ultimate configuration.
3. Based on standard cross section for the roadway segment, based on the City's General Plan, does not provide enough roadway width for an 8-lane roadway.
4. For consistency with adjacent roadway segments, a 6-lane divided roadway is recommended. However, a 4-lane divided roadway would yield an acceptable Level of Service.

**Source:** Kimley Horn, Traffic Impact Study, April 2020
iii. Any necessary planning phase specific WQMP resulting from changes that impact the overall WQMP approved for the development. Each project-specific WQMP shall be reviewed and approved by the appropriate city.

b. All cut and/or fill or individual combinations thereof shall meet the minimum requirements of the California Building Code or governing code at the time of application submittal.

c. All grading activity shall conform to the recommendations of the preliminary soils report and subsequent reports prepared in conjunction with the grading plans.

d. The applicant shall be responsible for the maintenance and upkeep of all planting and irrigation systems until those operations become the responsibility of other parties.

e. When consistent with an approved grading plan, grading shall be permitted outside of the immediate area of development as follows: excess cut from a given project may be placed as engineered fill in a future development area or disposed of on consenting offsite property. Since the projects represent separate maps, it may be necessary to obtain offsite grading permission letters and/or permits.

g. Grading work on the entire site shall be balanced onsite whenever possible.

h. The site is to comply with the National Pollution Discharge Elimination System (NPDES) “Best Management Practices” (BMPs) for erosion and sedimentation control.

i. The site is to comply with the latest adopted WQMP guidelines for new developments as required by the latest MS4 Permit for the pertinent city.

j. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented concurrent with commencement of grading activities. A copy must be provided to the Public Works Engineering Department prior to initiating grading.

3.6 PROJECT APPROVALS AND RESPONSIBLE AND TRUSTEE AGENCIES

It is anticipated that the Inland Valley Development Agency, functioning as the CEQA Lead Agency, will approve the final AGSP and CEQA document. It is anticipated the cities of Highland and San Bernardino (CEQA Responsible Agencies) will adopt the Specific Plan and any amendments to each City’s General Plans and Development Code as appropriate and recognize the adopted CEQA document as certified by the IVDA. The San Bernardino County Flood Control (Department of Public Works) may consider and approve the design for the City Creek Bypass channel. To install the support infrastructure within the project area, site specific encroachment permits may be required by various agencies. Finally, in order to make modifications to the City Creek Bypass channel, it will be necessary to obtain regulatory permits for discharge of fill or streambed alteration. In this instance both the Santa Ana Regional Water Quality Control Board and the California Department of Fish and Wildlife would function as CEQA Responsible Agencies.

Other agencies that may have permitting authority over the project may include:

- State Water Resources Control Board
- South Coast Air Quality Management District
- U.S. Army Corps of Engineers
3.7 PROJECT OF STATEWIDE, REGIONAL OR AREA-WIDE SIGNIFICANCE

Per Section 15206 of the State CEQA Guidelines, if a project has the potential for causing significant effects on the environment extending beyond the city or county in which the project would be located it is considered a project of statewide, regional or area wide significance. CEQA provides examples of the significant effects that a project could cause such as generating significant amounts of traffic or interfering with the attainment or maintenance of state or national air quality standards. SCAG, as well as all of the responsible and trustee agencies listed above, are notified of the project through the CEQA process, and invited to participate in the CEQA process through the public review and comment period of this DEIR.

Section 15206 explicitly identifies projects subject to this subdivision to include proposed industrial developments of more than 650,000 square feet. Because this project proposes a development that includes up to 9.2 million square feet of Mixed Use Business Park uses, IVDA has concluded that the project should be considered of statewide, regional or area wide significance. According to Section 15082(c)(1) of the State CEQA Guidelines, the lead agency is required to conduct at least one scoping meeting for projects that meet the criteria of a project of statewide, regional- or area-wide significance.
Local Vicinity and Proposed Land Use Map

SOURCE: PLACEWORKS dated 7/1/20

Tom Dodson & Associates
Environmental Consultants

FIGURE 3-2
Aerial Photograph of the Project Site

Tom Dodson & Associates
Environmental Consultants
Existing Land Uses Within the AGSP Planning Area and Surrounding Areas in the Two Cities
FIGURE 3-5

Legend
- Capital Projects
- New Pipe
- Booster Station
- Pipe Upsize
- PRV Station
- Reservoir
- Well
- Model Pipe
- Service Area Boundary
- freeway
- WTP
- WTP

SOURCE: AGSP

Tom Dodson & Associates
Environmental Consultants

Existing Water Infrastructure System
Legend
- Pressure Reducing Station
- WTP 134
- Plant
- Tank
- Service Area Boundary

Pipeline by Diameter (inches)
- 8 - 13 inches
- < 4 inches
- 14 - 24 inches
- 4 - 7 inches
- > 24 inches

SOURCE: AGSP
FIGURE 3-6
Tom Dodson & Associates
Environmental Consultants
Existing Water Pipelines by Diameters
Recommended Capacity Projects as Outlined in the 2019 EVWD Sewer Master Plan

**Project E-1**
Upsize 5,900 LF of 27"-48" pipe with 36"-54" pipe, including a possible siphon upsize.

**Project E-2**
Upsize 6,500 LF of 21"-30" pipe with 30"-36" pipe.

**Project E-4**
Upsize 15,000 LF of 21"-24" pipe with 30" pipe.

**Project B-2**
Upsize 2,200 LF of 15" pipe with 18" pipe, including a possible siphon upsize.
Section A-A: Concreted Lined Side Slopes and Earthen Bottom

Section B-B: Rip-Rap Lined Side Slopes and Earthen Bottom

SOURCE: JLC Engineering, Preliminary Hydrology and Channel Design, April 220
Tom Dodson & Associates
Environmental Consultants

Circulation System in Area Surrounding the Specific Plan Area

SOURCE: Kimley Horn, Traffic Impact Study, April 2020
MAJOR DIVIDED HIGHWAYS

MAJOR HIGHWAY

SECONDARY HIGHWAY

COLLECTOR STREET

FOR USE IN QUARTER MILE STREETS, SCHOOL AND INDUSTRIAL AREAS.

SOURCE: Kimley Horn, Traffic Impact Study, April 2020

Tom Dodson & Associates
Environmental Consultants

City of San Bernardino Standard Cross Sections