Appendix B

Methodology

APPENDIX METHODOLOGY

POPULATION, HOUSING AND EMPLOYMENT

This section describes the data sources and methodologies employed in the identification of the Draft EIR Existing Conditions and Future Projections, both of which are used to assess potential impacts of the Proposed Plan. This section also explains how reasonably expected population, housing, and employment under the Proposed Plan are derived and how the Proposed Plan addresses anticipated growth.[1]

The Draft EIR evaluates the potential environmental impacts related to anticipated changes in population, housing and employment based upon information from a variety of sources including, the United States Census Bureau (U.S. Census), California Department of Finance (DOF), California Employment Development Department (EDD), the Southern California Association of Governments (SCAG), the City of Los Angeles Department of City Planning (DCP), the City of Los Angeles General Plan Framework Element (Framework) and associated documents. Since each of these sources may use different methods of data collection and analysis and/or different timeframes, the data do not always arrive at precisely the same results. Accordingly, the demographic data used in the analysis may vary somewhat, depending upon the source cited. Despite the variations, the data used in this Draft EIR represent the best available data sources during the Draft EIR preparation and provide a reasonable estimate of the population, housing, and employment characteristics of the Downtown Community Plan Area (CPA).

EXISTING CONDITIONS

Existing Conditions or Baseline Conditions for the purposes of environmental analysis of a community plan update, can be described in demographic terms (population, housing, and employment) or in terms of development characteristics (square feet of development, height of structures or number of housing units). The City has the discretion to determine the best data source for Existing Conditions. For Existing

Conditions, DCP, as the City's professional planning agency and the department responsible for reviewing and preparing the Draft EIR, uses demographic data that is published and referenced public data used by multiple agencies in planning for the City and region. Obtaining accurate development characteristics at the parcel level for each Community Plan Area has in recent decades became possible through geographic information systems (GIS), however the technology still presents practical difficulties in verifying precise, detailed data at the lot and parcel level for CPAs for a city the size of Los Angeles. The size of the City at over 478 square miles (including 5 square miles of water area) results in duplicate, incomplete, and/or unverified data that is time and cost prohibitive to verify at present. Reasonable efforts are made to collect and use the most complete and current data at the time of the Draft EIR analysis recognizing the constraints, limitations and margins of error associated with data sources.

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[1] Nothing in this document is intended to contradict or control the particular data or methodology used in the EIR. This methodology was developed by DCP in its review and preparation of Draft EIRs for the Community Plan Update program and is provided in the appendices to supplement and support the Draft EIR

The leading source of demographic data is the U.S. Census. While Census data is typically the most reliable representation of socioeconomic data, such as housing and population, for discrete geographic areas, it is only available on a decennial basis, i.e., 2000, 2010, and 2020. While it is preferable to utilize decennial census data for analysis, it is not always possible to align planning processes with the release of decennial census data. Consequently, other sources are consulted to employ the most current information as well as to provide a benchmark for the Existing Condition year. In the interim years, the U.S. Census Bureau gathers more detailed socioeconomic data through other surveys, such as the American Community Survey (ACS) program, which provides data on an annual basis for certain geographies. For example, the ACS provides annual estimates for incorporated cities but does not provide annual estimates for Community Plan Areas. There is a lag time between when the data is collected and when it is released for both Census products. Both the decennial Census and ACS data are subject to sampling variability.

SCAG, as the Regional Transportation Planning Agency (RTPA) and the Metropolitan Planning Organization (MPO), publishes demographic estimates and projections through the long-range Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS), which is updated by SCAG every four years. Census and ACS data are utilized by SCAG to prepare regional demographic estimates and forecasts. In addition to estimating existing demographics, the RTP/SCS provides a vision for future transportation investments throughout the region. Using demographic growth forecasts and economic trends that project out over a 20-year period or "horizon," typically, the RTP/SCS considers the role of transportation in regional planning in the broader context of economic, environmental, and quality-of-life goals for the region. Therefore, SCAG data are often utilized by planning agencies in the region for consistency with the goals and demographic data of the RTP/ SCS.

■ **Baseline Existing Conditions (SCAG)**

SCAG is the regional demographer for a six-county region that includes Los Angeles County. In that capacity it has an established methodology for estimating population, housing, and employment for the regio and for projecting future population, housing, and employment at a jurisdictional or citywide level. SCAG utilizes various sources to determine existing or baseline population, housing and employment. This method is used for deriving annual estimates of population, housing, and employment for years that are not a Census year.

SCAG's small area growth forecasting process is applied to develop baseline year estimates and future year socioeconomic data at the Transportation Analysis Zone (TAZ) level. The approach is utilized by SCAG to distribute jurisdictional level population, housing and employment estimates and projections into TAZs. Population figures are estimates derived from households and are generally viewed to be a more accurate representation at a jurisdictional level where multiple data sources are consulted. It is generally less precise to estimate population numbers for smaller areas, and or for areas where boundaries do not precisely match census reporting divisions, such as at the Community Plan Area level than at recognized jurisdictional boundary levels.

The following is the list of SCAG data sources and diagram of SCAG's process excerpted from the 2016 RTP/SCS Background Document Report.

SCAG DATA SOURCES:
SCAG's existing land use data
SCAG's General Plan Database, processed based on jurisdictional General Plans
SCAG's 2012 RTP/SCS growth forecast
SCAG's 2016 RTP/SCS jurisdictional level population, household and employment
2013 Longitudinal Employer-Household Dynamics (LEHD), Origin-Destination, Employment Statistics from the Census Bureau
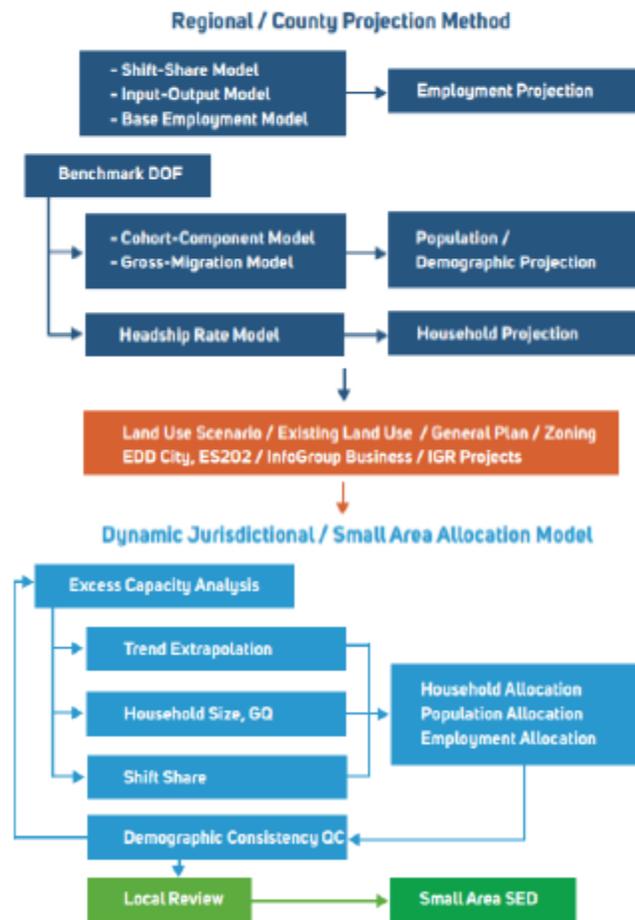*Employment Development Department (EDD) 2012, 3rd quarter jurisdictional jobs by sector*
2011 InfoGroup firm-based employment data
SCAG Intergovernmental Review (IGR) data
Digital Mapping Product (DMP) parcel data (2010-2012) and new construction data (2010-2012)
2010 Decennial Census Summary File 1 (SF1)

Regional / County Projection Method

- Shift-Share Model
- Input-Output Model
- Base Employment Model
→ **Employment Projection**

Benchmark DOF

- Cohort-Component Model
- Gross-Migration Model
→ **Population / Demographic Projection**

Headship Rate Model → **Household Projection**

Land Use Scenario / Existing Land Use / General Plan / Zoning EDD City, ES202 / InfoGroup Business / IGR Projects

Dynamic Jurisdictional / Small Area Allocation Model

Excess Capacity Analysis

Trend Extrapolation

Household Size, GQ

Shift Share

Household Allocation Population Allocation Employment Allocation

Demographic Consistency QC

Local Review → **Small Area SED**

Source: SCAG

See the following SCAG publication for the full methodology employed to determine estimates and forecasts of population, housing, and employment data:

http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_SCSBackgroundDocumentation.pdf

■ How DCP Verifies Existing Conditions

DCP has regularly tracked growth and development activity in the City. As part of the regional planning process, local planning departments (including DCP) work together with SCAG to develop demographic estimates for the City of Los Angeles and the Southern California region approximately every four years. SCAG publishes regional transportation and sustainability plans (RTP/ SCSs) every four years. SCAG's Regional Council adopted the most recent RTP/SCS - the 2016 RTP/SCS -in April 2016[1]. However, the cycles of RTP preparation do not regularly coincide with the release of Census data. Because of the time involved in preparing the RTP/SCS, there is a lag between the time the Census data is released or demographic estimate is prepared and the time that SCAG makes demographic estimates available through the RTP/SCS. An additional lag occurs between the time the Planning Department receives SCAG 's demographics estimates for the baseline and forecasts for the horizon year, and the time a draft community plan and EIR are completed. Therefore, interpolations of data utilizing a previous point in time and future point may be necessary.

Furthermore, the DCP 's planning process for the community plan updates is comprehensive, the updates are long-term projects that take several years to complete. The planning process focuses on addressing land use changes at the parcel level to both resolve inconsistencies in land use regulations as well as to fulfill City objectives. For the Downtown Community Plan Update, the Notice of Preparation (NOP) was released in 2017, and the 2016/2040 SCAG RTP/SCS data was used to inform the baseline existing conditions. The latest available Decennial Census data was for the year 2010. The 2010 Census data provides a snapshot in time and is used as a reference to benchmark data along with other sources. Given the number of years that have lapsed between the release of the 2010 Census and the present, the Census data no longer reflects the best available data for 2017, the NOP publication year. Growth has occurred in the years after the Great Recession and consequently, more recent 2017 SCAG RTP/SCS data[2] is utilized for Existing Conditions.

Although CEQA does not require a lead agency to change the baseline year for Draft EIR analysis every time a government agency at the state, federal, or local level issues a projection for a future condition or issues an estimate for those years subsequent to the Draft EIR baseline year, the DCP does review new data or projections released subsequent to the publication of the NOP to verify that it would not substantively affect the analysis or conclusions for significant impacts that are correlated or reliant upon population, housing or employment data. For instance, the City used Los Angeles County Assessor data to benchmark and analyze the general distribution patterns and totals for housing estimates in the Downtown Plan Area (CPA). This system of utilizing SCAG data and comparing or benchmarking it with other available data represents a best practice approach to obtaining and using complete and most current data. Multiple sources were also consulted (i.e. Employment Development Department, Longitudinal

[2] As the 2016 RTP/SCS utilizes a baseline year of 2012, 2017 baseline year demographic estimates were interpolated (an annual average growth rate was applied) to estimate existing conditions. The interpolation method was corroborated by SCAG as a suitable methodology to estimate existing conditions.

[1] SCAG has prepared a draft 2020 RTP/SCS, but the update has not been adopted as of April 2020.

Employer-Household Dynamics (LEHD), Origin-Destination, and American Community Survey, Business Installment data from InfoGroup) to verify demographic totals for the Community Plan Area. See Table 1. These sources are used as benchmarks or control totals whereas Assessor data is used for distribution because it is regularly updated and available at small geographic levels.

Table 1: Comparison of Demographic Estimates for the Downtown CPA

Data Source	Households	Population	Employment
2010 Census	26,000	60,000	n/ a
SCAG 2017 (interpolated)	34,000	76,000	219,000
ACS (2013 - 2017 average)[1]	31,000	64,000	n / a
LEHD (2017)	n/ a	n / a	322,730[2, 3]
Assessor Parcel Data (2017)	29,000	n / a	

Note: A lag time for the public release of most of the data sources, such as Census, ACS and LEHD, is typical. All numbers are rounded to the nearest one thousand.

1. US Census Bureau, 2013 -2017 American Community Survey
2. On the Map Application for 2017, https://onthemap.ces.census.gov/, accessed August, 2018.
3. The estimated total does not include self-employed jobs but includes multiple jobs held by one person

FUTURE PROJECTIONS

The Downtown Community Plan Update is intended to plan for anticipated growth by 2040 (the planning horizon year), and consequently uses the adopted 2016-2040 SCAG RTP/SCS (2016 RTP/SCS) as a resource for both the baseline (also called Existing Conditions) population, housing and employment estimates and future projections for the 2040 horizon year.

The 2016 RTP/SCS projection for 2040 factors in recent and past trends, key demographic and economic assumptions, and local, regional, state or national policies. The Great Recession had a significant impact on household, population, and employment trends. Growth is still anticipated in SCAG's six-county region but at a slower pace. SCAG's projection assumes that regional growth will be approximately 0.7 percent per year on average for households and population. Employment is forecast to grow two percent each year until 2020, before stabilizing at 0.7 percent per year.[2]

■ Projections (SCAG)

SCAG prepares regional and jurisdictional forecasts or projections. Regional employment forecasts are based on a set of national employment forecasts using a shift-share model. The population forecast uses the cohort-component model, which adds to the existing population conditions the projected number of persons living in group quarters, births, and persons moving into the region and subtracts the number of

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[2] 2016 RTP/SCS Demographics Growth Forecast Appendix, April 2016, accessed March 3, 2020, http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf

projected deaths and persons moving out of the region. Households are forecast by multiplying the projected residential population by projected headship rates, or the share of householders in population cohorts based on age-sex-racial/ethnic specific household formation levels. Regional demographic-economic assumptions were also considered in the forecasts and cover issues such as fertility rate, domestic migration, international immigration, and labor force participation rates.

For the jurisdictional forecast, also known as small area forecast, SCAG derives household growth rates and household sizes based on historical trends and the amount of potential development from jurisdictions' general plans and land uses. Population projections are based on household growth and size. Future employment numbers for jurisdictions are based on the share of the county's employment by sector. The major data sources used to develop the jurisdictional forecast include: California Department of Finance (DOF) population and household estimates; California Employment Development Department (EDD) jobs reported by industry; 2010 Census and the latest American Community Survey (ACS) data; Regional Housing Needs Assessment (RHNA) growth projections for 2014 through 2021; and 2014 Business Installment data from infoGroup. Local jurisdictions also provided input and comments to SCAG and adjustments were made.

For the City of Los Angeles, SCAG distributes the total citywide number among all of the city's Community Plan Areas by Transportation Analysis Zones (TAZs), again derived from past trends and building upon/compared to TAZ projections of previous adopted Regional Transportation Plans. DCP reviews the proposed SCAG projections based on knowledge of the Community Plan Area and may give feedback based on local knowledge of development trends and development activity observed during the process of developing the RTP/SCS and its projections. An example of input could be advising SCAG to reflect growth in areas with existing or planned transit infrastructure, areas with flexible land use regulations that can allow higher levels of growth and away from hillsides or historic single-family neighborhoods. This local feedback can also include further input based on the effects of local policymaking, such as General Plan or Community Plan updates, and the mandates of federal and state plans, which are also taken into consideration during the local review process.

See the following SCAG publications for the methodology employed to determine estimates of population, housing, and employment data for the region:

- http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_SCSBackgroundDocumentation.pdf
- http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf

■ How Community Plans Consider SCAG Projections

The City of Los Angeles uses SCAG's projections to plan for the future. The Department of City Planning considers SCAG projections for housing, population, and employment as targets in its long- range planning efforts for Community Plan Areas when updating community plans. SCAG provides the demographic expertise in developing regional and citywide projections and works with DCP planners and demographers to refine those projections and their distribution throughout the city, as described previously. At a minimum, community plan updates meet SCAG projections for the City and each CPA but in some cases may exceed those projections for certain CPAs depending on circumstances such as market demand, development trends, new legislation, the introduction of transit or other infrastructure, etc. This may occur because the available data or information SCAG used during the time it prepared projections changed or because new information became available later. In this respect, the most recently

adopted SCAG projections are viewed as targets, and DCP ultimately determines the distribution of citywide growth through adherence to the General Plan Framework and Community Plans goals, objectives, and policies while the citywide projections are being accommodated. This means individual Community Plan growth projections by SCAG may be redistributed between Community Plan areas to meet the SCAG Citywide growth projections.

The table on the next page compares the allocations of population estimates by seven geographic planning areas within the City of Los Angeles for 2017, and the population projections at the horizon year 2040. Using SCAG's 2016 RTP/SCS as the source, the City of Los Angeles as a whole is projected to grow by 17% in population during this time (4,609,000/3,950,000), which over the course of 23 years, is approximately 0.7% growth per year.

The table indicates that the Central Los Angeles Geographic Planning Area, which includes the Downtown (Central City & Central City North), Westlake, Wilshire and Hollywood CPAs, is currently home to approximately 18% of the citywide population, and it is projected that in 2040 the region will be home to approximately 20% of the citywide population.

It is generally assumed that CPAs would continue to grow consistent with SCAG assumptions of approximately 0.7% growth per year on average across the region and would still need to accommodate at least marginal levels of growth (i.e., it was not assumed that any CPAs would have less population than current existing conditions levels).

Geographic Planning Area	Population 2010 Census	2017 Estimated Population /a/	% of Citywide 2017 Population	Projected Population 2040 /bf	% of Citywide 2040 Projected Population	Difference 2017-2040	Citywide Growth Distribution (2017-2040)
Population Projections by CPA Geography							
City of Los Angeles	**3,790,000**	**3,950,000**	*100%*	*4,609,000*	*100%*	*659,000*	*100%*
Central	647,000	690,070	18%	903,754	20%	213,684	32%
East Los Angeles	392,000	402,716	10%	448,846	10%	46,130	7%
West Los Angeles	407,000	430,481	11%	497,159	11%	66,678	10%
Harbor	194,000	200,100	5%	213,603	5%	13,503	2%
South Los Angeles	724,000	755,206	19%	874,467	19%	120,352	18%
South Valley	730,000	754,697	19%	875,559	19%	119,770	18%
North Valley	696,000	716,405	18%	795,498	17%	79,093	12%

Note: 2010 Census data is provided for reference. Projection numbers are rounded to the nearest one thousand.
/a/ **SOURCE:** The 2017 estimates were based on the SCAG 2016 RIP/SCS and were interpolated to 2017.
/bl **SOURCE:** The 2040 projected population is from SCAG's 2016 RTP/SCS. Totals do not sum to 100% due to rounding_

HOW GROWTH IS ADDRESSED THROUGH PLANNING AND ZONING

In preparing community plan updates, land use and zoning changes are proposed that will allow for projected growth to be accommodated while meeting the policies of the Framework Element and the Sustainable Community Strategies. During the planning process, technical land use analysis including the study of development trends, and consideration of General Plan policies is conducted to identify appropriate locations and levels of future development. DCP evaluates the geographic distribution of land use designations and zoning within a Community Plan Area to see where development potential is warranted. Some areas are expected to remain largely unchanged over time, such as open space areas, and public facilities. In other areas, development could occur as infill development and re-development, such as in multi-family residential areas. There are also some areas where development is directed, such as near transit stations and major corridors with bus lines, in order to increase access to transit, reduce vehicle miles of travel and thereby reduce greenhouse gas emissions and advance the climate change goals of the city and the region. Land use designation and/or zoning are applied to implement the updated land use policies of the City and the Downtown Community Plan.

Under the New Zoning Code, new developments would be subject to form and frontage regulations that are designed to achieve compatibility with the existing visual character of each of the neighborhoods within the Downtown Plan Area. Specifically, building height limitations and step-back requirements, where appropriate, would help to provide cohesive height and bulk transitions across future structures within the Downtown Plan Area.

A new project must meet the use and design regulations established in the New Zoning Code and comply with applicable Environmental Protection Standards to receive approval. Some of the design requirements will result from the planning process and some will result from the environmental review process.

For example, regulations set through the zoning could include limitations on building height or step-back requirements in certain specific areas of the Plan Area. An environmental standard might require shielding of light source so as to direct light away from adjacent residential uses. These are examples that represent the types and range of regulations that can be applied to reduce potential impacts of new development.

For projects within a CPIO District, new development will be subject to CPIO regulations and standards. The CPIO Districts establish regulations many of which are intended to avoid undesirable effects of new development and projects will be required to comply with those regulations. Planners will review most projects in CPIO areas through a ministerial process. As is the case citywide, where projects exceed the Site Plan Review (SPR) threshold, discretionary review will be applied. Projects meet the threshold when they exceed 50,000 net square feet or 50 net dwelling units.

PROPOSED PLAN'S REASONABLE ANTICIPATED DEVELOPMENT

After preparing the Community Plan Update, separate from the demographic projections is the determination of the Reasonable Anticipated Development of the Community Plan Update, or what is reasonably expected to be built out under the Proposed Plan during the planning horizon. On a citywide basis, DCP's goal is to align citywide Reasonable Expected Development for all of the Community Plans with the total SCAG projection for the City to be consistent with other departments and agencies who plan for and provide public services and infrastructure to the city.

Planners use their educational and professional experience and expertise of land use and zoning standards to make assumptions about where development is likely to occur and at what scale, and create assumptions about the amount of residential, commercial, and industrial development that will occur during the life of the plan to determine the Reasonable Anticipated Development.

These assumptions are established through extensive research and analysis of existing development trends, existing conditions on the ground, project entitlement and building permit data, geographic and historic constraints, age of existing buildings, and the development potential between the existing built conditions and what uses and development intensities the new regulations would allow. Factors such as existing and planned infrastructure improvements are also considered.

Although the Project Planners do significant research relying on a multitude of data sets and market trends are considered while establishing assumptions, determining the Reasonable Anticipated Development involves making a lot of assumptions. Although the Planning Team are experts on the Community Plan Area and on the City's land use and zoning plans and laws, the Proposed Plan, with its policies, zoning, and land use changes do not grant permits for or construct any developments. Future unforeseen market changes that either incentivize or inhibit development are unknown at this time, leaving uncertainty in the process of developing assumptions. The Planning Team, including City Planners, Senior City Planners, and a Principal City Planner,

use their expertise and the data sets available at the time of EIR preparation to inform the assumptions used in this analysis. These data sets include, but are not limited to the following:

- Real world conditions through field surveys by the Project Planners of every block of the Plan Area to assess vacancy and existing uses
- Assessor data for the entire Plan Area to determine existing unit counts and existing uses
- Uses (residential, commercial, industrial) and development intensities (height, density, FAR) allowed by the existing General Plan land use designations, zoning, and any zoning overlays and Specific Plans.
- Planning entitlements and building permits to assess market trends
- Proposed General Plan land use designations and General Plan objectives and policies and Zoning regulations for the Proposed Plan and Draft EIR Alternatives
- Other applicable regulations or physical conditions that could constrain potential development (such as, historic preservation protections, topography, flood plains, sensitive habitats, institutional facilities, open space)
- Other State or local programs or regulatory schemes active in the Plan Area that are intended to incentivize or facilitate potential development (such as, Community Benefits Programs, reductions in parking near transit infrastructure, tax incentive areas)

Utilizing these data sets and its collective expertise, the Community Planning team make and apply assumptions to the acreage within the Community Plan area, to determine the amount of Reasonable Anticipated Development from the Proposed Plan of residential units and non-residential square footage (commercial and industrial) that could be built during the life of the plan. For example, residential land area is multiplied by dwelling units per acre to generate an assumed dwelling unit count, and non-residential land area is multiplied by development potential, applying industry standards of employment density to calculate the total number of employees.

Ultimately, market factors dictate the level of development that occurs. Experience shows that only a percentage of the properties within a CPA will be redeveloped within the horizon year, typically 20- 25 years, and that even the sites that do redevelop are not always developed to maximum levels allowed by the by-right zoning and various incentive systems available. For this reason, 100 percent build out is a theoretical scenario and is not analyzed, but rather a more reasonable expected level of development is used both to guide proposed land use changes and analyze the potential environmental impacts of those changes. Community planners conduct the analysis of Reasonable Anticipated Development to analyze what level of development would reasonably occur during the life of the plan. While some jurisdictions may conduct a "full build out" analysis, the Downtown Community Plan Area is a highly urbanized area where the most common form of development is infill development. Conducting a full build out analysis would require making the unreasonable assumption that each parcel that is not already fully built out to the Proposed Plan's density and intensity will be wholly redeveloped during the 20 year life of the plan. This is unrealistic due to development constraints including existing historic structures and recently completed developments that are unlikely to be redeveloped. Additionally, it does not reconcile with historic development patterns in the City. A number of factors serve to constrain development, including:

- Physical site constraints (topography, geology, etc.)
- Zoning regulations (requirements for open space, yards, setbacks and height that sometimes limit the maximum development on a site to levels below what the zoning would otherwise permit)

- Public review process
- Environmental factors and constraints (adjacent uses, sensitive uses, local, state and federal laws)
- Historic preservation goals and regulations
- Historical development patterns
- Land values
- Market factors, (economy, financial lending practices, etc.)

DCP considers these factors in using its best judgement, based on the education, experience and knowledge of its Planning Team, to determine the Reasonably Anticipated Development for the Proposed Plan. Revisions to the Reasonably Anticipated Development from the onset of the Community Plan Update may occur considering the multi-year time frame that community plans take to update.

SCAG 's METHODOLOGY DOCUMENTATION REPORTS

SCAG Methodology for RTP/ SCS 2016 is available online at

- http:/ /-scagrtpscs.net/Documents/ 2016/final/£2016RTPSCS_SCSBackgrotmdDocumentation .pdf
- http:/ /-scagrtpscs.net / Documents/ 2016/final/£2016RTPSCS_D emograph.icsGrowthForecast .pdf