Appendix A– General Plan Buildout Methodology

MEMORANDUM

DATE	January 31, 2024
TO	Sean Scully, Acting Community Development Director
FROM	Wendy Nowak, AICP, Principal Halley Grundy, Senior Associate Asher Kaplan, Associate
SUBJECT	UPDATED - General Plan Land Use Buildout Methodology
PROJECT	Redondo Beach General Plan Update

This technical document outlines the methodology used to establish the development projections for the City of Redondo Beach's General Plan Update, Land Use Element, which will be used for analyzing potential impacts in the Environmental Impact Report (EIR). Part 1 of this memorandum establishes the methodology for estimating existing land use conditions; Part 2 documents the assumptions applied to estimate buildout of the Current General Plan (1992); Part 3 presents the projected buildout estimates resulting from the Proposed Land Use Plan. This analysis reflects the methodology used to estimate growth for the Proposed Land Use Plan. This memorandum also serves as a general reference for City staff, elected officials, and the public.

Background

All California cities are required to identify development projections (i.e., a "buildout analysis") in their general plan. While a high-level summary of buildout projections is usually documented in a general plan the accompanying EIR typically documents a more detailed comparison of the proposed change in dwelling units, households, residents, jobs, and non-residential square footage. This estimate is important as it provides a foundation for the City to plan for roads, water service, parks, recreation, and other infrastructure and services to support current and future residents and businesses.

The General Plan EIR is a tool that is used to analyze impacts associated with land uses and development allowed by a project such as an update to a general plan. The EIR also provides programs and mitigation measures to avoid or lessen undesirable impacts. It should be noted that communities rarely—if ever—achieve maximum projections. Regulatory constraints, physical constraints, and foreseeable market conditions often result in less development than allowed. The EIR analyzes a general plan's projections to determine the potential impacts associated with a reasonable amount of development that could occur under buildout of the general plan.

This memorandum outlines a methodology that uses generally accepted projection and estimate approaches that are consistent with traffic, noise, air quality, and other assessments typically found in a General Plan EIR, while allowing for unique differences within the Redondo Beach community. Estimates and projections have been based on data from a variety of sources and contemporary urban planning standards. These include federal and state sources (U.S. census, American Community Survey, and California Department of Finance, to name a few) coupled with City staff input of Redondo Beach building and development data. Ongoing collaboration with City staff has informed the development of these projections. Additionally, technical studies may compare the data against: 1) projections from the Southern California Association of Governments (SCAG), water service, sewer, and other

utility providers; 2) regional housing needs allocations, as identified in the City's 2021-2029 Housing Element; 3) historical growth patterns; and 4) approved specific plans and other projects.

Geographic Information System (GIS) software was used to create parcel specific estimates and projections for the City of Redondo Beach buildout.

Part 1: Existing Conditions (Baseline)

For the purpose of the California Environmental Quality Act (CEQA) the City's existing conditions (existing on-the-ground number of dwelling units, households, population, nonresidential building square footage, and employment) serve as the baseline for the General Plan EIR analysis. A General Plan EIR is required to compare the potential impacts of the Proposed General Plan against existing conditions.

EXISTING LAND USE: UNITS, HOUSEHOLDS, POPULATION, NON-RESIDENTIAL SQUARE FEET, AND JOBS

The City of Redondo Beach provided existing land use data in GIS to record on-the-ground uses and serve as baseline conditions. Eleven land use categories classify land use by parcel within city boundaries. Every city parcel is designated with a specific land use category and its associated acreage. Building square footage was derived from Los Angeles County Assessor parcel data. The following methodology is proposed to calculate, households, population, non-residential square footage, and employment. Table 1, City of Redondo Beach General Plan Update Existing Land Use Buildout provides the buildout results of the methodology outlined below.

1.1 Existing residential units from the Existing Land Use Inventory

GIS data provided by the City identified the number of units associated with each parcel, totaling 30,431 dwelling or housing units. This estimate is within a 2% difference of the California Department of Finance (CA DOF) information, which estimated 31,049 total housing units in the City (January 2023). The 2020 decennial census reports 30,999 total units, a difference of 1.8% from the GIS estimate. The GIS-derived estimate of 30,431 is also close to the 2016-2021 American Community Survey 5–Year Estimates (2021 ACS) of 31,015 units as well as the 2015–2019 American Community Survey 5–Year Estimates (2019 ACS) of 30,024 units, the latter of which is cited in the City's 2021-2029 Housing Element. This degree of difference is within an acceptable range according to best practices for city-wide buildout analyses. Extensive research and ground-truthing were employed to verify the City's GIS-based existing land use database and the number of housing units.

1.2 Existing households in Redondo Beach: [dwelling unit] x [occupancy rate]

At any given time, a percentage of existing housing units in Redondo Beach are occupied; the others are vacant (referred to as occupancy and vacancy rates, respectively). In terms of this estimate methodology, "households" represent the number of units that were occupied. In April 2023, the CA DOF estimated a vacancy rate of approximately 4.9%, indicating an occupancy rate of approximately 95.1%. To estimate households, the total number of housing units (31,431) is multiplied by the occupancy rate (95.1%) to arrive at the number of households in Redondo Beach. Using this method results in an estimate of 28,945 households. This varies by approximately 2% from the January 2023 CA DOF population data estimate of 29,525 households and by less than 1% from the estimate of 29,002 cited in the Housing Element, which refences data from the 2019 ACS. This degree of difference is within an acceptable range according to best practices for a city-wide buildout analysis.

1.3 Existing population in Redondo Beach: [households] x [persons per household]

To estimate the existing population, persons per household (pph) rates are applied to the estimated number of existing households, (see the prior section for a discussion on estimating existing households).

Data from the CA DOF and the US census were examined to identify an appropriate pph estimate. The CA DOF estimates show a small but steady decline in pph since January 2020. In 2020, the average number of persons per household (pph) for Redondo Beach was 2.37. In 2023, the estimate dropped to 2.30 pph. Census data reported in the American Community Survey, on the other hand, has shown the opposite trend, reporting 2.43 pph in the 2019 ACS, and 2.45 pph in the 2021 ACS. Because these two sources showed conflicting trends, the 2019 ACS estimate (2.43 pph) was used to provide a conservative estimate without over-estimating the existing population.

When this rate is applied to the household estimate in the City's GIS data, the current population estimate is 70,191 people living in households, which is added to the estimate of people living in other types of situations (memory care, unhoused population, etc.) for a total of 70,311 people. This estimate is within 1.8% of the 2020 decennial census (71,576 people), it is less than 1% more than the 2020 CA DOF population estimate (70,242 people), and it is within 1% of the 2021 ACS estimate (70,998 estimate). This degree of difference is within an acceptable range according to best practices for a city-wide buildout analyses.

The 2019 ACS, cited in the 2021-2029 Housing Element Update, reports a total population of 67,423. This is a 4.3% percent difference compared to the estimates derived from the GIS data (70,311 people). Because the 2019 ACS estimate differs from later vintages of ACS data, the decennial census, and newer CA DOF estimates, the more recent data (discussed in the prior paragraph) was deemed a more appropriate benchmark.

1.4 Existing Non-residential building square footage: [GIS Assessor Parcel Data]

To determine existing non-residential square footage for Redondo Beach, data from the County of Los Angeles Assessor was joined to parcel data provided by the City. Where assessor data for a parcel was missing, the square footage was estimated using City building records and, in some cases, when records were lacking, building footprints and aerial imagery.

This analysis results in an estimate of 11,826,277 square feet of non-residential development, as noted in Table 1, *City of Redondo Beach General Plan Update Existing Land Use Buildout*.

1.5 Existing jobs: [nonresidential building square footage] / [employment generation factor]

Employment generation factors represent the average amount of building square footage (or acreage depending on use) typically required per employee. To estimate existing jobs, the nonresidential building square footage was divided by the employment generation factor.

Employment generation factors were derived from the U.S. census Longitudinal Employer-Household Dynamics (LEHD) data, County Assessor's data, and based on best practices for estimating future employment for city-wide general planning efforts. The employment generation rates use are documented in Table 2, *City of Redondo Beach General Plan Updated Employment Generation Rates*.

When applied, the rates in table 2 estimate approximately 28,638 existing jobs. While this estimate exceeds 2019 LEHD employment estimate (27,550 jobs). LEHD data excludes many employees who work conduct work associated with national security, because one of Redondo's largest employers includes segments that fall under this category, it is likely that several jobs within the City are not captured in the LEHD data. Accounting for this deficit, the estimate falls within an acceptable range according to best practices for city-wide buildout analyses.

TABLE 1. City of Redondo Beach General Plan Update Existing Land Use Estimates (Currently on the Ground)

Land Use (as-built)	Acres	% of Total Acres	Dwelling Units	Bldg. SQ FT	Households	Population	Employment	Students[2]	Hotel Rooms[3]	Hospital Beds[4]
Vacant	11.9	0.3%	-	-	-	-	-	-	-	-
Single Family Residential	998.5	25.1%	8,394	-	7,983	19,390	-	-	-	-
2-3 Units	536.9	13.5%	7,406	-	7,043	17,100	-	-	-	-
4 or More Units	431.5	10.9%	14,285	-	13,585	33,004	-	-	-	-
Mixed Use Res/Com	25.0	0.6%	250	525,392	238	577	1,051	-	-	-
Commercial[1]	318.7	8.0%	-	5,239,913[1]	-	-	14,971	-	789	-
Industrial[5]	263.3	6.6%	-	4,978,121	-	-	8,297	-	-	-
Institutional[6]	230.2	5.8%	96	875,799	96	240	4,246	9,803	-	201
Parks and Open Space	154.0	3.9%	-	-	-	-	61	-	-	-
Utility and Open Space	30.5	0.8%	-	-	-	-	3	-	-	-
Utility	85.5	2.2%	-	207,052	-	-	9	-	-	-
Right-of-Way	885.9	22.3%			-	-	-	-	-	-
Grand Total	**3,973.0**	**100%**	**30,431**	**11,826,277**	**28,945**	**70,311**	**28,638**	**9,803**	**789**	**201**

NOTES:

1) Includes 744,936 sq. ft of Hotel/Motel, Source: LA County Accessor Parcel Data

2) Student Enrollment Source: CDE DataQuest

3) Source: LA County Accessor Parcel Data, a total of 14 hotels

4) Source: http://www.hospital-data.com/hospitals/AMI-SOUTH-BAY-HOSPITAL-REDONDO-BEACH.html, LA County Accessor Parcel Data does not provide sq. ft, for the Beach Cities Health District

5) AES building in the "Industrial" category is existing but non-operational. The building's 204,727 sq. ft. are included in the building sq. footage, but no employment is estimated in the "Employment" column for this site.

6) Institutional population estimate includes 120 people living in the Silverado memory care facility and it assumes 1.25 people per household in assisted living facilities. Memory care facilities are included in the non-residential sq. ft. estimates. Assisted living units at Kensington are included as dwelling units.

TABLE 2. City of Redondo Beach General Plan Updated Employment Generation Rates

Land Use	Sq. Ft./Employee
Mixed Use Res/Com	500
Commercial	350
Industrial*	600 / 1000*
Institutional	200
Parks and Open Space	2.5**
Utility and Open Space	10**
Utility	4**

NOTE:

* All existing industrial uses are estimated to house 1 employee per 600 sq. ft. of gross floor area. Projected future industrial uses are estimated to create 1 job per 600 sq. ft. of gross floor area *except* for those properties with a proposed general plan designation of I-1 in the area North of Manhattan Beach Boulevard and West of Redondo Beach Avenue, where projected future industrial uses are estimated to create 1 job per 1000 sq. ft. of gross floor area.

** Employment generation in these categories is measured by acres/employee rather than sq. ft./employee, and augmented by employment data provided by the City where available. Source: ICMA/NRPA Best Practices, PlaceWorks.

Part 2: Current General Plan Projections

Redondo Beach's Current General Plan (1992) estimates refer to the realistic development expected under its current (approved) land use plan. The maximum permitted buildout that was estimated in 1992, when the Land Use Element was last updated, and is included in the City's Current General Plan (1992) is provided in Table 3. This table reflects the development that was anticipated to occur if all properties were developed for the uses and densities anticipated in 1992 by the Current General Plan. The 1992 projections did not assume full buildout of the plan, but a detailed methodology was not included, so it is unclear how growth was projected.

Technology has improved significantly since 1992, so updated parcel-based acreages derived from Los Angeles County Assessor data was pulled to calculate the growth anticipated to occur under the Current General Plan with updated acreages and shown by Current Land Use Designations. The result is shown in Table 4, *Current General Plan Land Use Designations and Potential for Development*. The numbers in Table 4 vary from those shown in the 1992 General Plan and Table 3, because Table 4 is based on more accurate acreages and the 1992 General Plan did not include a detailed methodology describing the assumptions that informed how the buildout was calculated. Estimates of the current General Plan are provided for comparative purposes, and it will inform the qualitative analysis of the "No project" alternative in the environmental analysis.

Note: Approximately 18 percent of residential parcels (designated as R-1, R-1A, R-2, R-3, RM, or RH in the Current General Plan) contain legal non-conforming uses with homes built at a higher density than what is allowed under the Current General Plan. Per the City's municipal code, these existing non-conforming homes are allowed to remain as-is, and in specific circumstances could be rebuilt with the same number of units (see section 3.6 for more information on non-conforming uses), so it is likely that the same number of existing non-conforming homes would remain. The maximum buildout estimates published in the Current General Plan (1992) shown in Table 3, and reproduced with updated acreage information in Table 4, do not include the legal non-conforming homes that would be allowed to remain. Because the estimates do not account for these existing non-conforming homes, the actual number of units that could be built in the City under the Current General Plan is higher than shown in the tables.

The following assumptions were used to determine the projections for the Current Redondo Beach General Plan (shown in Table 4). Table 4 also includes the maximum density and intensity allowed by the Current General Plan within each land use designation.

2.1 Current General Plan dwelling units: [parcel acreage] x [anticipated density for land use designations]

Dwelling unit projections were estimated by multiplying the acreage of each parcel by the anticipated density for different land use designations. To determine an estimate, a residential density assigned for each land use designation was multiplied by the acreage of each parcel to determine the total number of housing units that exist or could be accommodated. As previously noted, the estimated maximum permitted buildout from the City's Current General Plan is provided in Table 3, this information can also be found the City's Current General Plan, Land Use Element (1992).

2.2 Current General Plan households: [dwelling units] x [occupancy rate]

The housing occupancy rate assumed for the Current General Plan is consistent with that assumed for Existing Land Use: 95.1 percent based on data from the April 2023 CA DOF, as noted in Part 1. A standard assumption is used because it will accurately reflect the averages of economic recessions and booms.

2.3 Current General Plan population: [households] x [persons per household]

Since 2010 the City of Redondo Beach has seen a relatively stable pattern of average household size, decreasing slightly (0.5 percent) over the past 5 years. It is reasonable to assume that in the future, average household size in Redondo Beach will largely reflect existing conditions. Based on data from the

April 2020 CA DOF information noted in Part 1, the persons per household (pph) factor used to estimate population for the Current General Plan is 2.43 pph.

2.4 Current General Plan non-residential building square footage: [parcel square footage] x [anticipated FAR]

Building intensities for non-residential uses are measured by floor area ratio (FAR). FAR refers to the ratio of the total floor area of a building (building footprint times number of building stories) to the total square footage of that parcel. FAR calculations do not include floor areas for parking structures or outdoor open storage. Redondo Beach's non-residential designations include a maximum FAR, but only set minimum standards in the three mixed-use designations. Because a parcel or group of parcels, especially in non-residential development, is often built at a lower intensity than allowed due to physical site constraints, zoning requirements (namely setbacks and parking), development regulations, and building product type, the anticipated FAR assigned to each non-residential designation was estimated slightly below the maximum FAR for each category.

2.5 Current General Plan calculation of employment: [non-residential building square footage] / [employment generation factor]

Employment generation factors represent the average amount of building square footage typically required per employee and are customized based on the land use designation; dividing the nonresidential building square footage by the employment generation factor results in an estimate of the number of jobs at buildout. The resulting employment number represents a count of the total number of jobs associated with a given amount of building square footage. This includes both full- and part-time jobs and is not a full-time equivalent measure. To estimate employment that is projected to result from the development projected under the Current General Plan, the same factors included in Table 2, *City of Redondo Beach General Plan Update Employment Generation Rates*, were applied to estimate employment for buildout of the Current General Plan (1992).

TABLE 3. Current General Plan Estimated Maximum Permitted General Plan Development Buildout (1992) (From the 1992 General Plan)

Land Use	Total City-Wide Development (Dwelling Units)	Total City-Wide Development (Square feet)
Single Family Residential	9,807	
Free Standing Multi-Family Residential	21,875	
Mixed Use	1,541	1,574,498
Retail	-	2,995,600
Retail/Office	-	3,526,848
Industrial	-	8,237,246
Public or Institutional	-	-
Total	**33,223**	**16,334,192**

Source: City of Redondo Beach General Plan Land Use Element, 1992

TABLE 4. Current General Plan Land Use Designations and Potential for Development (Estimates Recalculated per Methodology Described in Part 2)

Current General Plan (1992) Land Use Designation		Acres	% of Total Acres	Maximum DU/Acre or FAR	Dwelling Units	Households	Population	Bldg. Sq. Ft	Employment
Single Family Residential	R-1	752.7	19%	8.80	6,624	6,294	15,294	-	-
Single Family Residential	R-1A	121.7	3%	17.50	2,130	2,024	4,917	-	-
Low Density Multi-Family Residential	R-2	472.3	12%	14.60	6,896	6,552	15,922	-	-
Low Density Multi-Family Residential	R-3	544.7	14%	17.50	9,535	9,059	22,014	-	-
Medium Density Multi-Family Residential	RMD	146.0	4%	23.30	3,402	3,233	7,855	-	-
High Density Multi-Family Residential	RH	12.4	0%	28.00	349	331	805	-	-
Commercial	C-1	6.2	0%	0.35	-	-	0	81,358	232
Commercial	C-2	103.6	3%	0.50	-	-	0	1,807,471	5,164
Commercial	C-3	15.7	0%	0.70	-	-	0	347,117	992
Commercial	C-4	30.4	1%	1.00	-	-	0	1,190,268	3,401
Commercial	C-5	12.2	0%	0.70 - 1.5	-	-	0	320,645	916
Regional Commercial	CR	59.9	2%	1.0 – 1.5	2,095	1,991	4,837	2,346,418	6,704
Coastal Commercial	CC	56.8	1%	0.35	-	-	0	494,217	1,412
Mixed Use	MU-1	8.5	0%	35 / 0.5	296	281	684	184,010	368
Mixed Use	MU-2	1.7	0%	35 / 0.7	58	56	135	52,172	104
Mixed Use	MU-3	32.0	1%	35 / 1.0	1,119	1,063	2,584	1,251,859	2,504
Industrial	I-1	206.0	5%	0.70	-	-	0	6,281,199	10,469
Industrial	I-2	21.2	1%	1.00	-	-	0	832,355	1,387
Industrial	I-3	36.8	1%	0.70	-	-	0	1,123,798	1,873
Public or Institutional	P	446.4	11%	-	-	-	0	-	-
Right-of-Way	ROW	885.8	22%	N/A	N/A	N/A	N/A	N/A	N/A
Grand Total		**3,973.0**	**100%**	**N/A**	**32,504**	**30,883**	**75,046**	**16,312,887**	**33,174**

Source: PlaceWorks, 2022 and City of Redondo Beach General Plan, 1992

Part 3: Proposed Land Use Plan Estimates

The Proposed Land Use Plan estimates realistic development expected to occur under the recommended land use plan by the horizon year 2050.

Projections represent development likely to occur based on past trends and anticipated levels of density and intensity for each land use category. Residential parcels in Redondo Beach are typically built out to maximum development capacity, so residential parcels where change is expected are generally projected to develop with the maximum number of units. Non-residential development, on the other hand, is often built at intensities below the maximum due to physical site constraints, zoning requirements, development regulations, market demand, and/or product type, so non-residential parcels where change is expected are generally projected to redevelop with less square footage than the maximum that would be allowed under the proposed land use category. Table 6 includes a detailed description of the maximum and anticipated(projected) densities and intensities for each land use category.

In general, residential properties with remaining capacity were projected to develop with the maximum number of units, while non-residential properties were expected to redevelop in areas of change or where land use changes or policy direction included in the proposed Land Use Element would promote redevelopment.

The following assumptions were used to determine the projections for the Proposed Redondo Beach Land Use Plan.

3.1 HOUSING PROJECTIONS | DWELLING UNITS (DU)

Housing projections estimate the number of units anticipated to develop under the proposed general plan by 2050. These assumptions align with the proposed General Plan including the proposed Land Use Plan as well as the adopted 2021-2029 Housing Element.

The 2050 projections look at the realistic buildout likely to occur by 2050. In Redondo Beach, there is a high demand for housing, and historic trends shows that most new development is built to the maximum capacity allowed. At the same time, the adopted and certified 2021-2029 Housing Element identified sites suitable for new housing, and projected a reasonable amount of growth consistent with State Law. The realistic projections herein generally assume a maximum buildout throughout the City, except for those properties in the proposed Land Use Plan and Housing Element as residential overlay areas. Because the Housing Element examined sites that would be built by 2029, and State Law required the City to identify the reasonable development potential of those sites, which was generally below the maximum density, the projections on the Housing Element sites align with the reasonable development potential defined in the Housing Element.

City also has a diverse portfolio of existing housing. Much of the existing housing stock was built prior to the last update of the General Plan in 1993, and much of the housing became legal non-conforming after the 1993 General Plan went into effect. In fact, approximately 18 percent of residential parcels (designated as R-1, R-1A, R-2, R-3, RMD, or RH in the Current General Plan) contain legal non-conforming uses with homes built at a higher density than what is allowed under either the Current General Plan (1993) or the Proposed General Plan (2024). Because City regulations allow these homes to remain, the 2024 realistic projections assume that these homes will remain as built.

To ensure that existing non-conforming homes were properly projected, dwelling unit projections were estimated adjusting the existing units by the proposed change in units likely to result by 2050.

Proposed Land Use Plan units: [existing units] + [net change in units]

The following assumptions detail when and where changes in the number of dwelling units were assumed to occur by 2050, while Detailed descriptions how the net change in dwelling units were projected is included under Housing Projection Methodologies.

The existing units were derived from the existing land use estimates described in Part 1 of this memo.

Estimating Net Change

Residential Designations

(designated as R-1, R-1A, R-2, R-3, RMD, or RH in the Proposed General Plan)

Growth was projected on the following types of properties:

- Vacant areas. Properties without any buildings that would allow for housing were projected using methodology 1,
- Areas of change. Where land uses were changed as part of the proposed project to allow higher density housing or a different mix of uses were projected using methodology 1,
- Residential Recycling. In the last 20 years, much of the residential growth in the City has been the result of the addition of new housing units on existing multi-family lots where development is not currently built out to the maximum density permitted. It is anticipated these multi-family lots with remaining capacity in medium density zones (R-2 and R-3) will continue to redevelop with two to three units in accordance with existing (and proposed) permitted densities. R-2 and R-3 sites with viable remaining development capacity were identified as parcels available to fulfill the City's moderate income housing requirements in the 2021-2029 Housing Element. These sites were projected to buildout to maximum capacity using methodology 1, consistent with the 2021-2029 Housing Element, Chapter 2.2.4, Section A, Part 3, heading "RHNA Residential Recycling."
- Church properties. The 2021-2029 Housing Element identified several church properties with RH and R-3 designations where housing may be built. Housing growth was projected consistent with the 2021-2029 Housing Element
- All other properties. The projections assumed that there would be no change in the number units on remaining properties, unless they fell under one of the additional categories described below.

  Note: Approximately 18 percent of residential parcels (designated as R-1, R-1A, R-2, R-3, RMD, or RH in the Current General Plan) contain legal non-conforming uses with homes built at a higher density than what is allowed under either the Current General Plan or the Proposed Land Use Plan. Per the City's municipal code, these existing non-conforming homes are allowed to remain as-is, and in specific circumstances could be rebuilt with the same number of units (see section 3.6 for more information on non-conforming uses), so it is likely that the same number of existing non-conforming homes would remain. This methodology assumes the long-term continuance of these legal non-conforming homes, and it assumes that individual parcels with remaining capacity may intensify.

Residential Overlay Areas (Housing projections)

(designated with a "-R" suffix in the Proposed General Plan)

The Proposed General Plan includes a Residential Overlay designation that will be applied to various areas, with the goal of dispersing new housing opportunities throughout the City, consistent with the 2021-2029 Housing Element. The Overlay is applied to areas deemed suitable for the development of housing affordable to lower income households consistent with State Law. The allowable density in the Residential Overlay designation is 55.0 DU/AC. Dwelling units in these areas were projected consistent with the number of units quoted in the 2021-2029 Housing Element for each site. Estimates for non-residential growth in these areas is explained under section 3.4 *Non-Residential Building Square Footage*.

Mixed-Use Designations (Housing projections)

(designated as MU-1, MU-2, MU-TC in the Proposed General Plan)

Housing growth was projected on the following types of properties:

- MU-1 Artesia Boulevard SPAs. It is assumed that the existing mixed use project will remain with no net change.
- MU-1 and MU-2 properties within other SPAs. Properties designed MU-1 and MU-2 within other SPAs in the Proposed General Plan were projected to develop to the anticipated density, as noted Table 6. Dwelling Unit projections were estimated using Methodology 1.

- **MU-TC properties.** All properties designated as MU-TC are part of the Galleria project area, which is also noted in the Housing Element. Units were projected consistent with the figures quoted in the housing element, as noted in Table 5.

- **All other properties.** Housing was projected using the anticipated density noted in Table 6 and methodology 1.

Estimates for non-residential growth in these areas is explained under section 3.4 *Non-Residential Building Square Footage*.

Accessory Dwelling Units (ADUs)
(allowed on all properties that allow for residential development)

Per regulations set forth in the City's municipal code (as required for compliance with State ADU laws), accessory dwelling units are allowed on properties that allow residential uses. An analysis of ADU's in the City's Housing Element documents ADU development since 2017. Based on these trends, the Housing Element estimates growth of 30 ADU's per year through 2029. The Housing Element was required to make a conservative growth estimate to satisfy the criteria of state law. Current demand for housing paired with limited available land resources, and the high value of residential land in Redondo Beach, it is likely that production of ADU's will continue to increase after 2029. This methodology assumes that 240 ADUs will be built by 2029, consistent with the Housing Element, and that number of ADUs added yearly will increase by 1% annually as the cost to build ADU's decreases, and demand increases for an estimated total of 624 ADUs by 2050.

Anticipated projects
Approved projects were projected to the number of units entitled or studied in an environmental impact report, as noted in Table 5. The change in units was estimated by subtracting any existing units on the sites from the proposed or entitled units.

Existing Residential Units in Commercial Land Use Designations
There are several existing homes on properties that do not allow for residential uses. These properties were projected to remain as-built, so no change in units was projected.

Housing Projection Methodologies

Methodology 1. Housing by anticipated density
[net change in units] = ([parcel acreage] x [anticipated density for land use designations]) – [existing units]

Growth is estimated according to the anticipated density for that land use category. For areas where land uses were changed to allow higher density residential uses and/or a different mix of uses it's assumed that all parcels would grow according to the anticipated density. Dwelling unit growth projections for both were estimated by multiplying the acreage of each parcel by the anticipated density for different land use designations and subtracting any existing residential uses on that parcel. The anticipated density for each land use designation is provided in Table 6. The buildout estimates for the Proposed Land Use Plan is provided in Table 7.

Methodology 2. Transition of non-residential uses within Special Policy Areas to residential uses
[net change in units] = ([0.50 x parcel acreage] x [anticipated density for land use designations]) – [existing units]

To estimate this figure, the properties impacted were identified using GIS software by first isolating parcels within SPAs and identifying which properties had a proposed a residential designation. Those parcels were then filtered down to those with existing non-residential uses.

On the identified properties, dwelling unit growth was projected by multiplying fifty percent of the acreage of each parcel by the anticipated density for different land use designations and subtracting any existing residential uses on that parcel (if there were both residential and non-residential uses on a property). The anticipated density for each land use designation is provided in Table 6. The buildout estimates for the Proposed Land Use Plan is provided in Table 7.

3.2 HOUSEHOLD PROJECTIONS

Households represent occupied housing units. Based on data from the U.S. census, discussed in Part 1, the housing occupancy rate for all dwelling unit types not listed below is assumed to be 95.1 percent based on data from the 2023 CA DOF. This is consistent with that assumed for Existing Land Use. Table 7 at the end of this document shows the total anticipated households expected within the horizon year.

Occupancy rates for other types of housing or living situations were estimated as follows:

- ADUs (89.0% occupancy)
- Assisted Living Facilities (100% occupancy)
- Beds in group quarters (memory care facilities, etc.) (100% occupancy)

Households are calculated by multiplying the projected units by the occupancy rate:

Proposed Land Use Plan households: [units] x [occupancy rate]

3.3 POPULATION PROJECTIONS

The persons per household (pph) factor used to estimate population for the Proposed Land Use Plan was derived from the traffic model published by the Southern California Association of Governments (SCAG), which estimated a citywide average of 2.359 pph for all dwelling unit types not listed below. This estimate was in line with DOF figure Based on data from the U.S. census, discussed in Part 1. Table 7 at the end of this document shows the total anticipated population at the completion of the buildout period for the Proposed Land Use Plan.

Population estimates for other types of housing or living situations were estimated as follows:

- ADUs (1.98 persons per household)
- Assisted living facilities (1.25 persons per household)
- Memory care facilities (1 person per bed)

Population is calculated by multiplying the projected households by the pph:

Proposed Land Use Plan population: [households] x [persons per household]

3.4 NON-RESIDENTIAL BUILDING SQUARE FOOTAGE PROJECTIONS

The projected non-residential building square footage was estimated by adding the existing square footage to the estimated net growth in square footage. The existing square footage was derived from the existing land use estimates described in Part 1 of this memo.

The estimated net growth in square footage resulting from the Proposed Land Use Plan was derived by applying the assumptions outlined in the following sections. The following assumptions detail when and where changes in non-residential uses were assumed and include a detailed description of the methodology used to project the anticipated changes in non-residential building square footage.

Proposed non-residential building square footage: [existing square footage] + [net change in square footage]

NOTE: Many of the methodologies described in the following sections project non-residential growth based on the allowed and anticipated building intensities. For non-residential uses, these are generally measured by floor area ratio (FAR). FAR refers to the ratio of the total floor area of a building (building footprint times number of building stories) to the total square footage of that parcel. FAR calculations do not include floor areas for parking structures or outdoor open storage. To determine future projections

for Redondo Beach, an anticipated FAR within the allowed intensity range for each proposed land use designation was determined and can be found Table 6.

Estimating Net Change

Commercial & Industrial Designations

(designated as CN, C-1, C-2, C-3, C-4, C-5, CC, I-1, I-2, I-3, IF in the Proposed General Plan)

- Vacant areas. All vacant lots in non-residential land use categories were assumed to build out to the anticipated FAR for that land use category, consistent with methodology 3.
- Areas of change. Areas of change include those with a proposed land use change or proposed revision to the land use definition that would change the maximum FAR. Non-residential square footage in these areas was projected using methodology 3.
- Areas of intensification. Areas of intensification include Special Policy Areas where the Proposed Land Use Plan did not change the mix of uses allowed or the maximum FAR, but where existing uses are built out below the anticipated FAR. For the purposes of analyzing the impacts of the Proposed General Plan, it is assumed that policy direction in the Special Policy Areas will encourage redevelopment, resulting in an increase in building square footage in these areas, resulting in growth according to the anticipated FAR for each land use category. Non-residential square footage in these areas was projected using methodology 3.

Public & Open Space Designations

(designated as PI, U, OS, and ROW in the Proposed General Plan)

Public and Open Space designation are projected to remain with no change, except for anticipated projects included in Table 5.

Residential Overlay Areas (Non-residential projections)

(designated with a "-R" suffix in the Proposed General Plan)

The Proposed General Plan includes a Residential Overlay designation that will be applied to various areas, with the goal of dispersing new housing opportunities throughout the City, consistent with the 2021-2029 Housing Element. The Overlay is applied to areas deemed suitable for the development of housing affordable to lower income households consistent with State Law. The underlying designation in these areas are The allowable density in the Residential Overlay designation is 55.0 DU/AC. Dwelling units in these areas were projected consistent with the number of units quoted in the 2021-2029 Housing Element for each site. The 2021-2029 Housing Element also included descriptions of how these areas could develop to support high density housing. These descriptions informed the below approach to projecting non-residential uses:

- A. North Tech. Existing non-residential square footage to remain unchanged (Housing expected to develop in parking areas).
- B. Kingsdale. Existing non-residential square footage to be replaced by new project with non-residential square footage at 0.5 FAR (Housing expected as part of an integrated new project).
- C. South of Transit Center. Remove all existing non-residential square footage and replace with 100 percent residential project.
- D. 190th street. Remove non-residential square footage on properties identified in the housing element and replace with 100 percent residential project. Note: one property within the overlay area was not identified in the housing element. Projections on this site assumed existing uses would remain.
- E. South Bay Marketplace. Existing non-residential square footage to remain unchanged (Housing expected to develop in parking areas).
- F. FedEx. Remove all existing non-residential square footage and replace with 100 percent residential project.

As noted under Housing projections, housing on all sites was projected consistent with the 2021-2029 Housing Element.

Mixed-Use Designations (Non-residential projections)

(designated as MU-1, MU-2, MU-TC in the Proposed General Plan)
Housing growth was projected on the following types of properties:

- MU-1 Artesia Boulevard SPAs. It is assumed that the existing mixed use project will remain with no net change.
- MU-1 and MU-2 properties within other SPAs. Properties designed MU-1 and MU-2 in the Proposed General Plan were projected to develop to the anticipated FAR, as noted Table 6. Dwelling Unit projections were estimated using Methodology 3.
- MU-TC properties. All properties designated as MU-TC are part of the Galleria project area, which is also noted in the Housing Element. Units were projected consistent with the figures quoted in the housing element, as noted in Table 5.
- All other properties. Non-residential square footage was projected to remain with no net change.

Estimates for housing growth in these areas is explained under section 3.1 *Housing projections*.

Anticipated Projects
Approved projects were projected to the amount of non-residential square footage entitled or studied in an environmental impact report, as noted in Table 5. The change in units was estimated by subtracting any existing units on the sites from the proposed or entitled units.

Existing Non-residential uses in residential Land Use Designations
Section 3.1 Housing projections describes several circumstances where existing non-residential uses were expected to transition to housing. On these properties the existing non-residential square footage was projected as zero.

Non-Residential Projection Methodologies

Methodology 3. Non-residential by anticipated FARs
[net change in square footage] = ([parcel square footage] x [anticipated FAR]) – [existing square footage]

Non-residential square footage projections were estimated by multiplying the square footage of each parcel by the anticipated FAR for different land use designations. The existing square footage was then subtracted from this amount to show the isolated change in square footage. The buildout estimates for the Proposed Land Use Plan are provided in Table 7.

3.5 EMPLOYMENT PROJECTIONS

Employment generation factors represent the average amount of building square footage typically required per employee and are customized based on the land use designation, dividing the nonresidential building square footage by the employment generation factor results in an estimate of the number of jobs each land use category will create by the horizon year. The resulting employment number represents a count of the total number of jobs associated with a given amount of building square footage. This includes both full- and part-time jobs and is not a full-time equivalent measure. The factors identified in Table 2, *City of Redondo Beach General Plan Update Employment Generation Rates*, were used to estimate total employment by the horizon year.

Population is calculated by dividing the projected building square footage by the employment generation:

Projected employment: [non-residential building square footage] / [employment generation factor]

3.6 EXISTING NON-CONFORMING USES

There are legal non-conforming uses throughout the City. Existing non-conforming uses are parcels of land within a city's jurisdiction that contain uses or activities that are not consistent with the parcel's designated land use or prescribed density or intensity (according to the Current General Plan Land Use Map/Element). Some buildings may have conformed with the City's General Plan when they were developed, but then became non-conforming later, when the parcel's land use designation was changed during an update to the Land Use Element. Some examples of non-conforming uses include commercial businesses operating on a residential property, an apartment building within a commercial-only land use designation, and homes built at a higher density than what would be allowed on the site under the Current General Plan.

The City's municipal code allows legal non-conforming uses to remain as built. In specific circumstances, the municipal code allows for properties to be rebuilt with the same number of dwelling units and/or square feet as currently exists, even if the current use, number of units, or total square footage would not be allowed under the Current General Plan. In these cases, the non-conforming land use is considered "grandfathered in" and can continue without conforming to the designation in the Land Use Element.

While the City does not require legal non-conforming uses to transition to conforming uses, the current real estate market, limited available land resources, and value of residential land, provide incentives for non-residential uses within residential land use categories to transition to housing. To reflect this demand, this methodology assumes that legal non-conforming uses with residential capacity will transition to residential and develop with the maximum number of units permitted (unless the property is too small to accommodate a housing unit). Legal non-conforming residential uses are projected to remain as-built.

TABLE 5. Dwelling Units and Square Footage Growth Assumed for Approved and Pending/Potential Projects

Development Name (Proposed LUC)	Total Dwelling Unit	Non-Residential Square Feet
Galleria (MU-TC)	700	1,293,144[1]
Legado (MU-1)	115	21,539
Alcast Foundry (R-3)	36	0
Catalina Village (R-3)	32	3,036
Project Homekey (Moonstone) (CN)	20	0
Beach Cities Health District (PI)[2]	157	160,520[2]

1) Total square footage includes the entitled square footage less 300,000 sq. ft. for apartment buildings in the Galleria Project.

2) Sourced from Beach Cities Health District Final EIR, which includes 157 assisted living facilities, and approx.. 160,520 sq. ft. of non-residential uses. Non-residential square footage does not include the square footage for the assisted living facility. Memory care facilities are included in non-residential square footage.

TABLE 6. Proposed Land Use Plan Anticipated Density and Intensity

Land Use Designation	Maximum Density/Intensity (allowed under Proposed General Plan)	Anticipated Residential Density (Used in buildout projections)	Anticipated Non-Residential Intensity (Used in buildout projections)
Single-Family Residential			
R-1: Single Family Residential	Up to and including 8.8 du/ac	8.8 du/ac	n/a
R-1A: Single Family Residential (Small Lot)	Up to and including 17.5 du/ac	17.5 du/ac	n/a
Multi-Family Residential			
R-2: Multifamily Residential	Up to and including 14.6 du/ac	14.6 du/ac	n/a
R-3: Multifamily Residential	Up to and including 17.5 du/ac	17.5 du/ac	n/a
RMD: Multifamily Residential	Up to and including 23.3 du/ac	23.3 du/ac	n/a
RH: Multifamily Residential	Up to and including 30.0 du/ac	30.0 du/ac	n/a
Mixed Use			
MU-1: Mixed-Use	Commercial Only: 0.35-0.50 FAR // Commercial and Residential together: Max. FAR 1.50 (all density exceeding 0.70 FAR must be residential units) Up to and including 30 du/ac.	30 du/ac	0.70 FAR
MU-2: Mixed-Use	Commercial Only: 1.00 FAR // Commercial and Residential together: Max. FAR 1.50 (all density exceeding 0.70 FAR must be residential units) Up to and including 35 du/ac.	35 du/ac	0.70 FAR
MU-TC: Mixed-Use Transit Center	Max. FAR 1.50 // Up to and including 30 du/ac	See Table 5	
Housing Element Residential Overlays			
A: North Tech (C-4-R)	55.0 du/ac	Per 2021-2029 Housing Element	n/a (existing to remain)
B: Kingsdale (C-4-R & RH-R)	55.0 du/ac	Per 2021-2029 Housing Element	0.50 FAR
C: South of Transit Center (IF-R)	55.0 du/ac	Per 2021-2029 Housing Element	n/a (residential only)
D: 190th Street (C-2-R & I-2-R)	55.0 du/ac	Per 2021-2029 Housing Element	n/a (residential only)
E: South Bay Marketplace (IF-R)	55.0 du/ac	Per 2021-2029 Housing Element	n/a (existing to remain)
F: FedEx (MU-1-R)	55.0 du/ac	Per 2021-2029 Housing Element	n/a (residential only)
Commercial			
CN: Neighborhood Commercial	FAR 0.50	n/a	0.40 FAR
CN: Neighborhood Commercial (Artesia & Aviation Blvd SPAs)	FAR 1.50 in SPA-3 and SPA-4	n/a	1.00 FAR
C-1: Commercial	FAR 0.35	n/a	0.35 FAR
C-2: Commercial	FAR 0.50	n/a	0.50 FAR
C-3: Commercial	FAR 0.70	n/a	0.70 FAR
C-4: Commercial	FAR 1.00	n/a	0.50 FAR
C-5: Commerical[1]	Varies by proposed use (Max FAR 1.50)	n/a	0.70 FAR
CC: Coastal Commercial	Per Harbor/Civic Center Specific Plan and LCP	n/a	no growth
Industrial			
I-1: Industrial	FAR 1.00	n/a	0.75 FAR
I-2: Industrial	FAR 1.00	n/a	1.00 FAR
I-3: Industrial	FAR 1.00	n/a	0.75 FAR
IF: Industrial Flex	FAR 1.00	n/a	0.75 FAR
Public / Open Space			
PI: Public/Institutional[1]	FAR 0.75	See Table 5	
U: Utility	FAR 0.10	n/a	n/a
OS: Parks and Open Space	FAR 0.20	n/a	n/a
ROW: Right of Way	-	n/a	n/a

1) In some cases land uses were assumed to buildout to their maximum potential and in other cases they were assumed at a lower density or intensity based on local trends and 2021-2029 Housing Element estimates. Please see Appendix A, General Plan Buildout Methodology for more information related to specific assumptions. The maximum FAR in PI: Public/Institutional is 1.25 on 2 sites see Table 2.1 General Plan Land Use Designations for details. The maximum FAR in C-5 varies by proposed use see Table 2.1 General Plan Land Use Designations for details.
2) See the 2021-2029 Housing Element Residential Sites Inventory for a narrative description of the residential overlay areas, and table H-43 in the Housing Element for development capacity estimates

TABLE 7. Proposed Land Use Plan Anticipated Density and Intensity

Land Use Designation	Acres	% Total Acres	Dwelling Units[2]	ADUs[3]	Occupancy	Households	PPH	Population[4]	Non-Residential Bldg SQ FT[5]	Employment[6]
Single-Family Residential										
R-1: Single Family Residential	746.8	18.8%	5,100	393	95.1% / 89% (ADU)	5,200	2.359/1.98 (ADU)	12,141	203,477	992
R-1A: Single Family Residential (Small Lot)	121.7	3.1%	1,886	0	95.1%	1,794	2.359	4,232	1,373	4
Multi-Family Residential										
R-2: Multifamily Residential	471.9	11.9%	6,482	127	95.1% / 89% (ADU)	6,277	2.359/1.98 (ADU)	14,770	-	-
R-3: Multifamily Residential	542.7	13.7%	11,051	97	95.1% / 89% (ADU)	10,596	2.359/1.98 (ADU)	24,969	281,241	1,028
RMD: Multifamily Residential	146.0	3.7%	5,887	7	95.1% / 89% (ADU)	5,605	2.359/1.98 (ADU)	13,222	25,957	91
RH: Multifamily Residential	13.4	0.3%	396	-	95.1%	377	2.359	889	69,374	315
Mixed Use										
MU-1: Mixed-Use	22.6	0.6%	701	-	95.1%	666	2.359	1,572	537,906	1,076
MU-2: Mixed-Use	9.1	0.2%	321	-	95.1%	305	2.359	720	278,678	557
MU-TC: Mixed-Use Transit Center	29.8	0.8%	700	-	95.1%	666	2.359	1,571	1,293,144	2,586
Housing Element Residential Overlays										
A: North Tech (C-4-R)	8.0	0.2%	180	-	95.1%	171	2.359	404	106,747	305
B: Kingsdale (C-4-R & RH-R)	2.4	0.1%	126	-	95.1%	85	2.359	283	51,876	104
C: South of Transit Center (IF-R)	6.2	0.2%	273	-	95.1%	260	2.359	613	-	-
D: 190th Street (C-2-R & I-2-R)	7.9	0.2%	331	-		37	2.359	743	14,036	23
E: South Bay Marketplace (IF-R)	17.2	0.4%	486	-	95.1%	462	2.359	1,090	246,147	656
F: FedEx (MU-1-R)	1.8	0.0%	80	-	95.1%	76	2.359	180	-	-
Commercial										
CN: Neighborhood Commercial	33.5	0.8%	205	-	95.1%	195	0.00	460	676,891	1,934
CN: Neighborhood Commercial (Artesia & Aviation Blvd SPAs)	47.4	1.2%	58	-		55		130	2,052,851	5,903
C-1: Commercial	6.2	0.2%	-	-	-	-	0.00	-	88,349	252
C-2: Commercial	17.1	0.4%	-	-	95.1%	-	0.00	-	301,061	907
C-3: Commercial	16.4	0.4%	1	-	95.1%	1	0.00	2	395,562	1,173
C-4: Commercial	39.3	1.0%	17	-	95.1%	16	0.00	38	1,114,704	3,185
C-5: Commerical[1]	12.2	0.3%	-	-	-	-	0.00	-	292,293	835
CC: Coastal Commercial	55.0	1.4%	229	-	95.1%	218	0.00	514	256,639	700
Industrial										
I-1: Industrial	206.0	5.2%	-	-	0.0%	-	0.00	-	6,925,087	8,742
I-2: Industrial	2.6	0.1%	-	-	0.0%	-	0.00	-	114,929	192
I-3: Industrial	25.6	0.6%	-	-	0.0%	-	0.00	-	835,611	1,393
IF: Industrial Flex	29.4	0.7%	-	-	0.0%	-	0.00	-	961,596	2,747
Public / Open Space										
PI: Public/Institutional[1]	160.1	4.0%	253	-	95.1%	253	1.25	436	170,170	851
U: Utility	131.5	3.3%	-	-	0.0%	-	0.00	-	212,577	17
OS: Parks and Open Space	156.8	3.9%	-	-	0.0%	-	0.00	-	-	59
ROW: Right of Way	886.4	22.3%	-	-	0.0%	-	0.00	-	-	-
Total	**3973.0**	**100%**	**34,763**	**624**		**33,314**		**78,978**	**17,508,276**	**36,627**

1) In some cases land uses were assumed to buildout to their maximum potential and in other cases they were assumed at a lower density or intensity based on local trends and 2021-2029 Housing Element estimates.
2) Commercial designations with projected housing units, reflect parcels with existing homes that are projected to remain and project homekey (moonstone).
3) Accessory Dwelling Units
4) Residential dwelling units are assumed to have a 95% occupancy rate (5% vacancy rate); accessory dwelling units utilized an 86% occupancy rate.
5) Residential designations with projected building square footage, reflect parcels where existing institutional and commercial land uses exist and are not projected to convert to residential uses by 2050.
6) See Table 2 for employment generation rates.