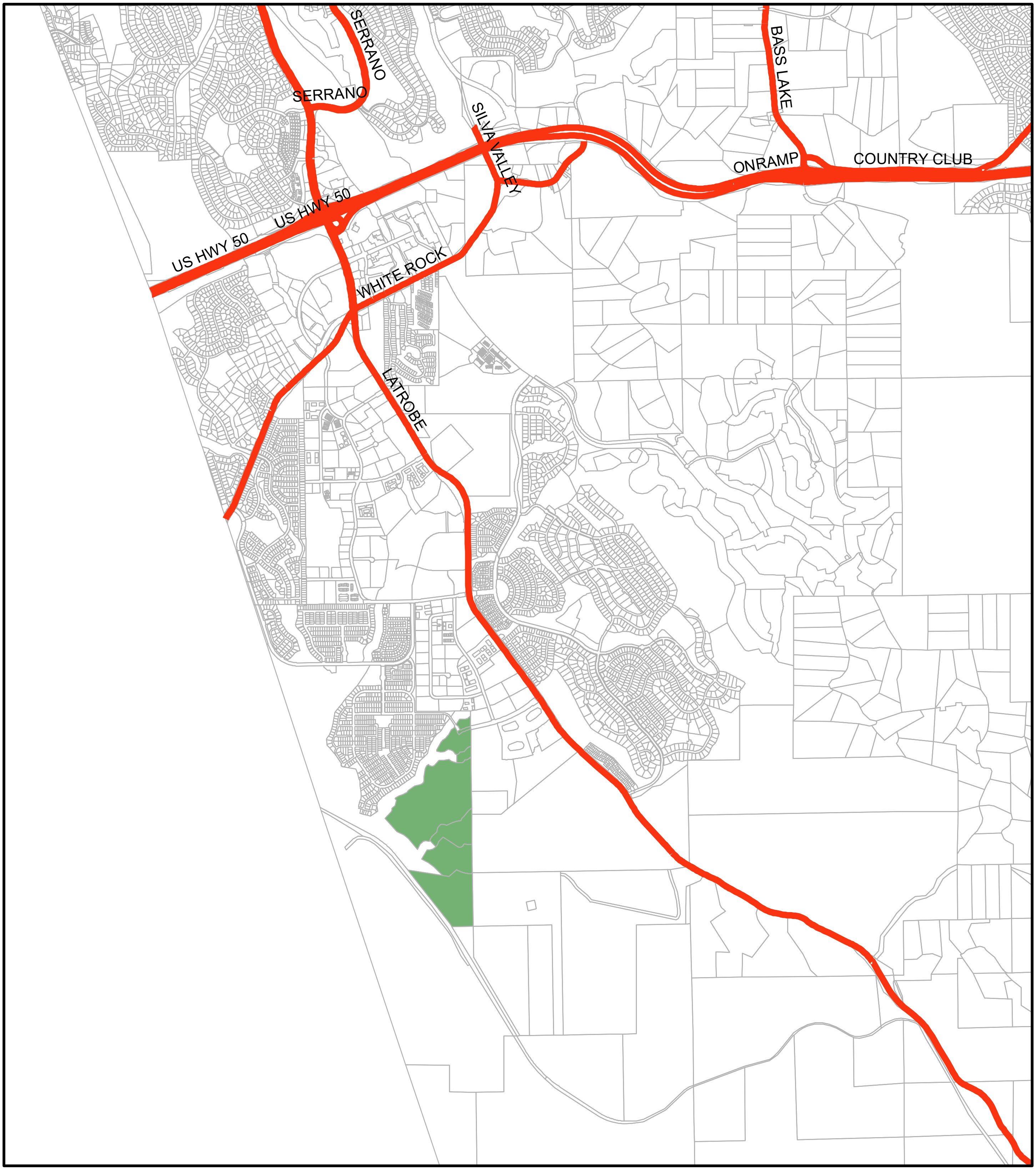
Exhibit A: Location Map



placenames
major_roads
prclbase
Carson_Creek

PA17-0004/Carson Creek
Prepared By Aaron Mount

0 0.2 0.4 0.8 Miles

Exhibit B-1
PA17-0004

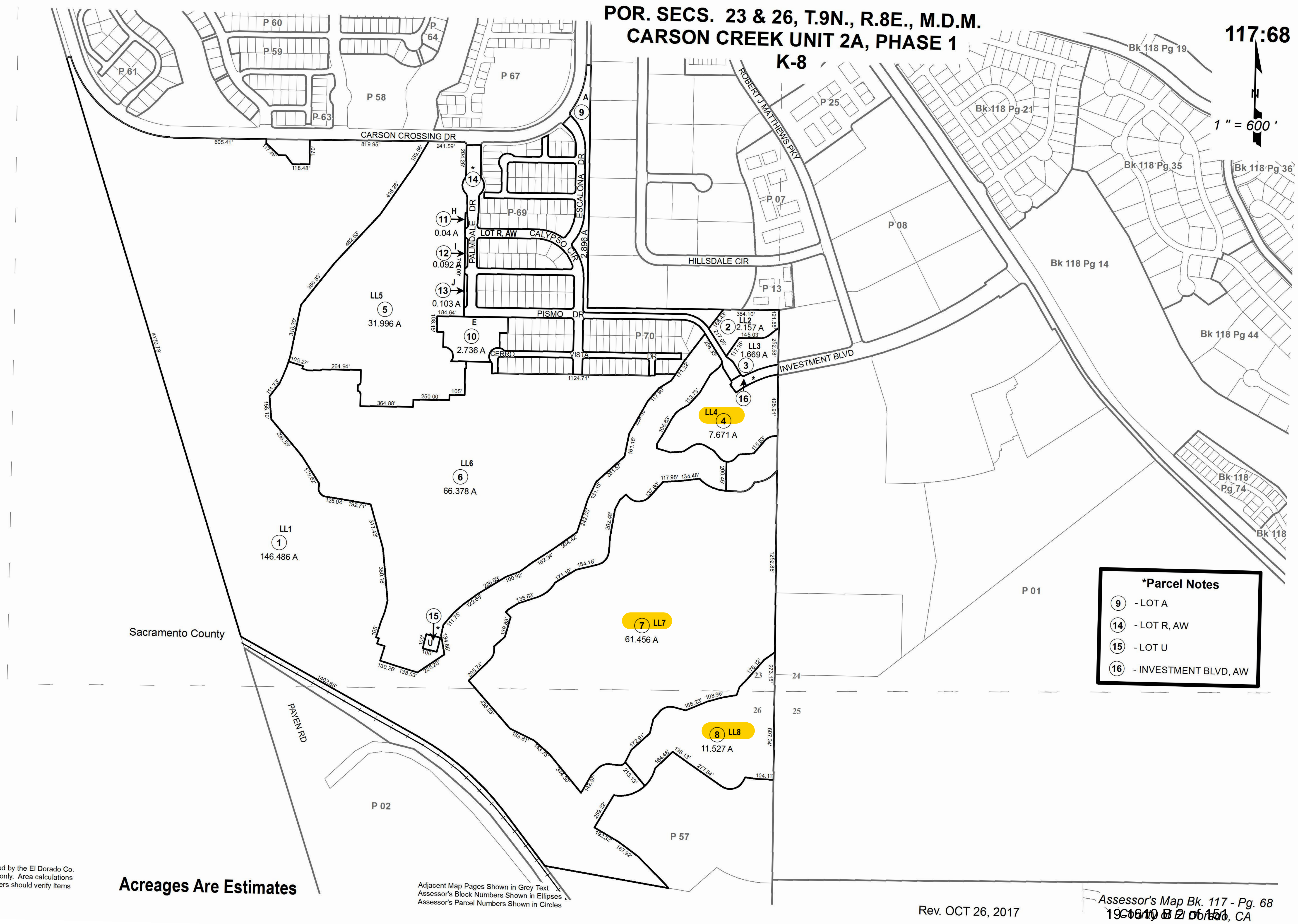


Exhibit B-2 PA17-0004

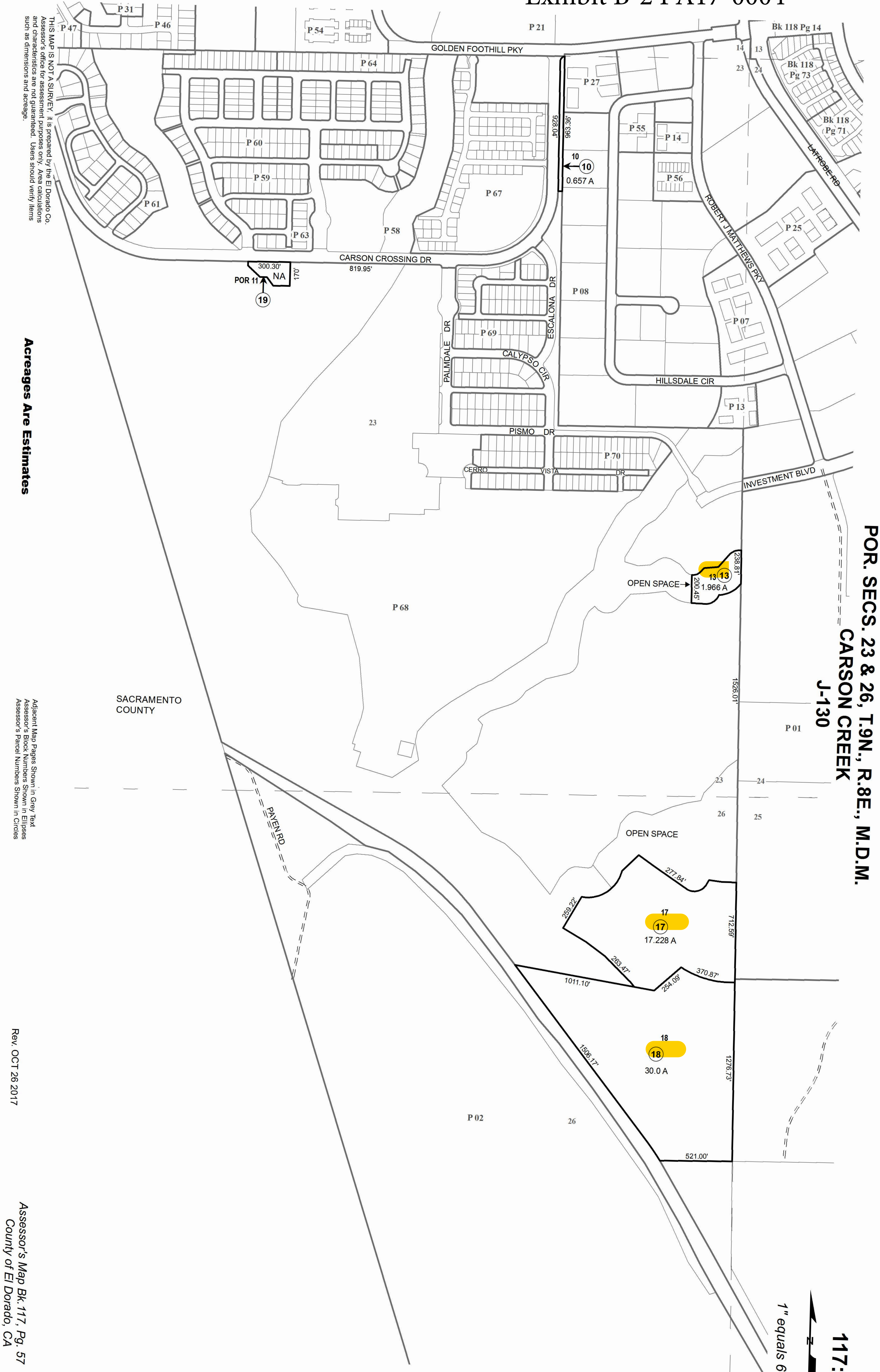
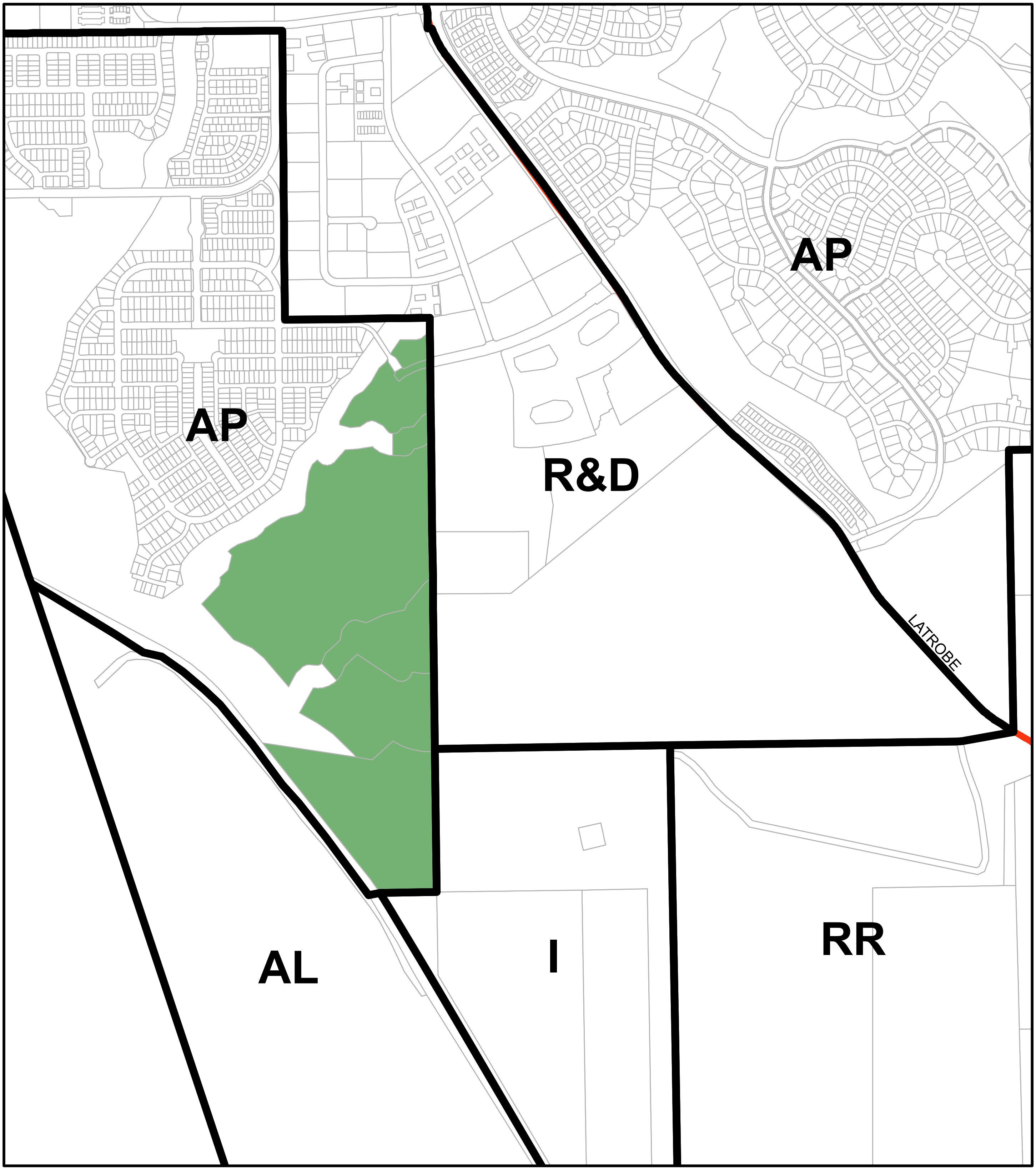
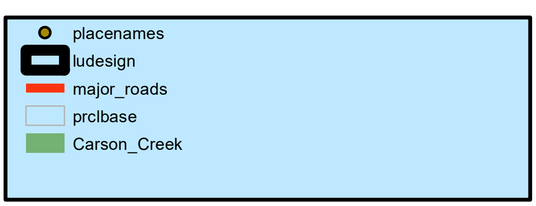
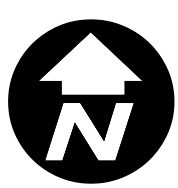


Exhibit C: General Plan Land Use Map







PA17-0004/Carson Creek
Prepared By Aaron Mount

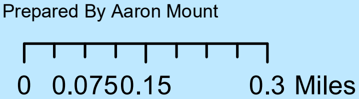
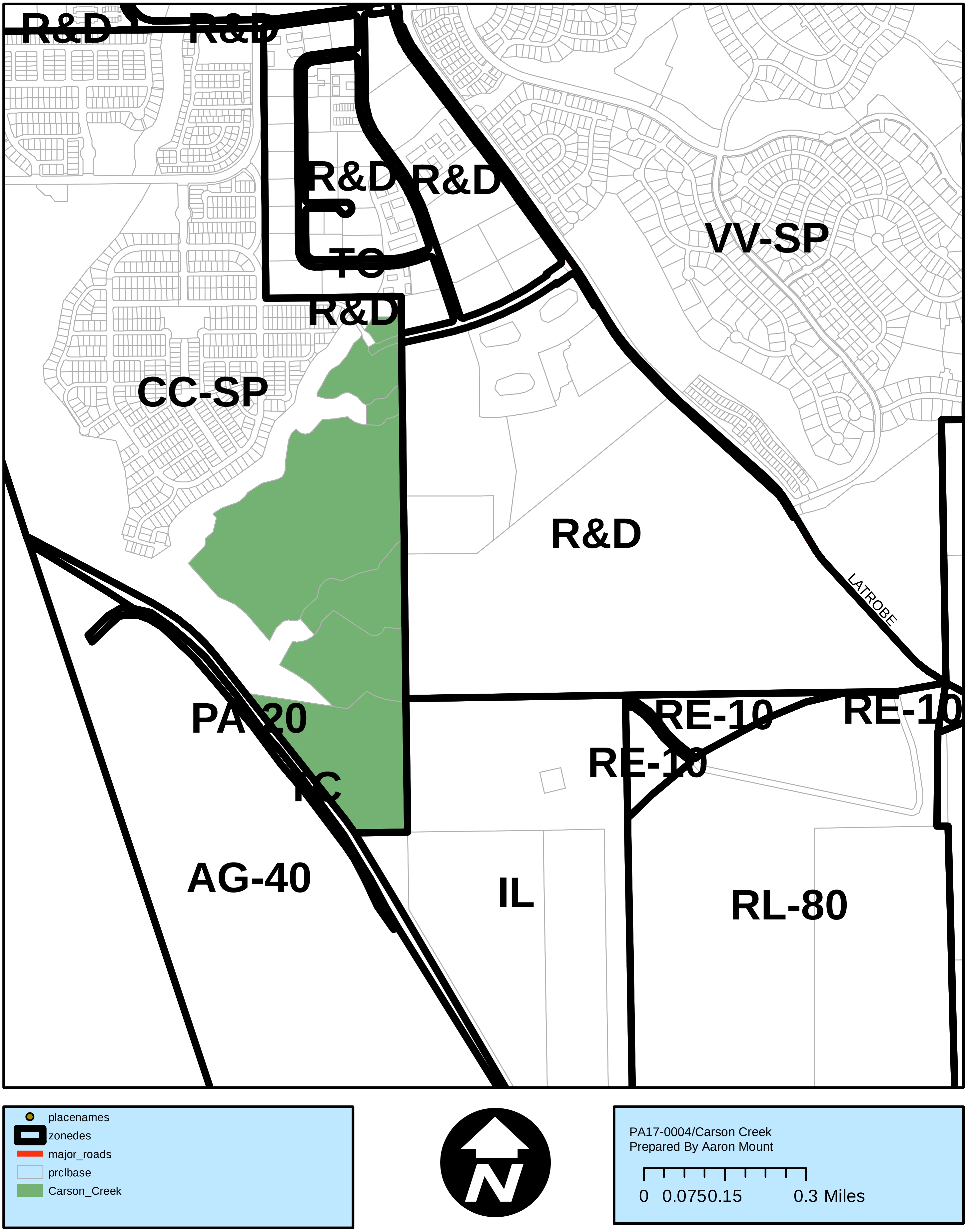
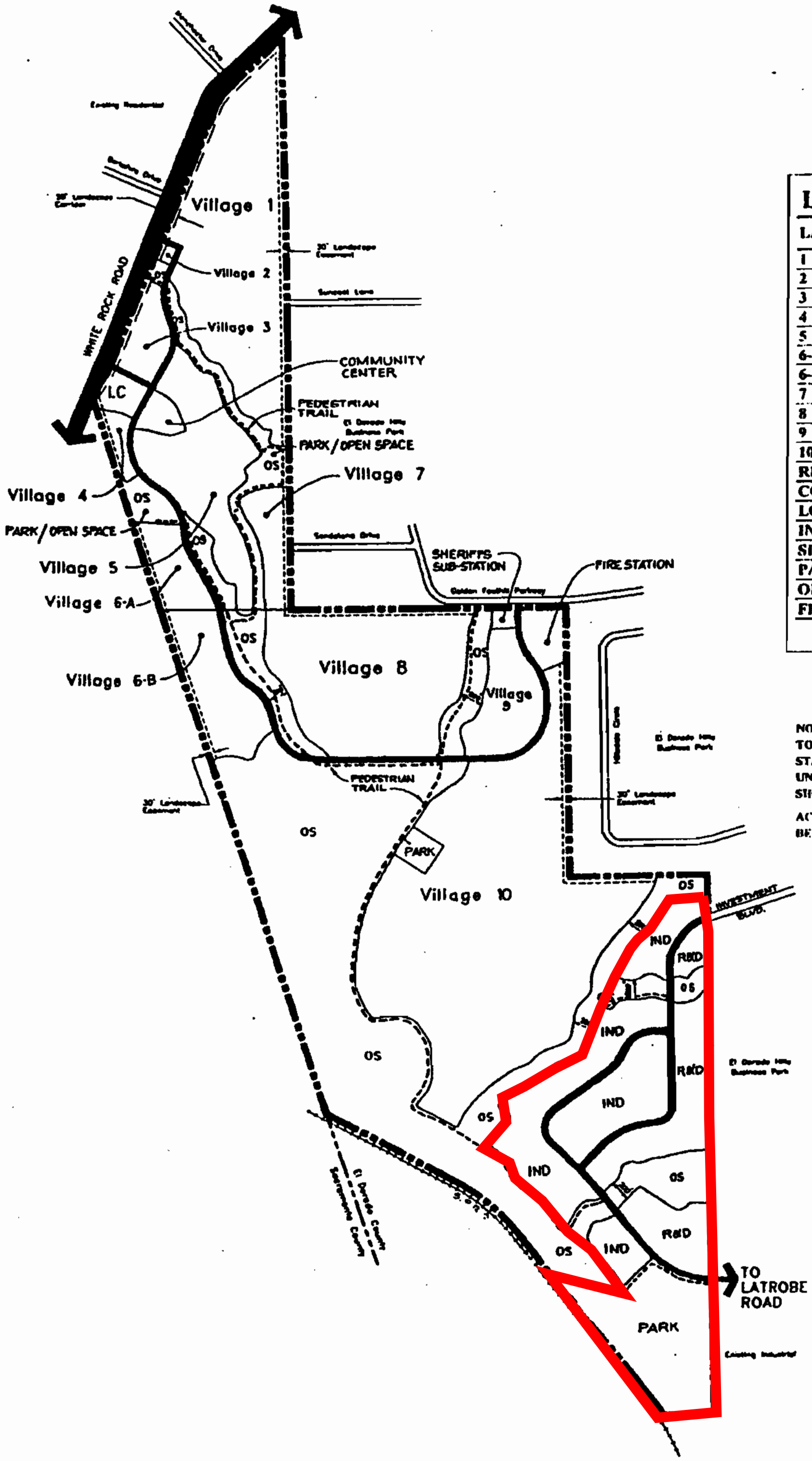


Exhibit D: Zone District Map



LAND USE PLAN



LAND USE CALCULATIONS

LAND USE VILLAGES	ACRES	UNITS	D.U.A.
1	74.8	255	3.4
2	1.1	4	3.6
3	9.5	28	2.9
4	3.2	7	2.2
5	31.2	125	4.0
6-A	10.4	36	3.4
6-B	20.9	83	4.0
7	9.2	41	4.0
8	55.3	304	5.5
9	16.6	67	4.0
10	136.4	750	5.5
RESEARCH & DEVELOPMENT	34.4	0	
COMMUNITY CENTER	3.0	0	
LOCAL COMMERCIAL (LC)	4.6	0	
INDUSTRIAL (IND)	59.7	0	
SHERIFF SUB-STATION	1.2	0	
PARKS	37.0	0	
OPEN SPACE (OS)	198.9	0	
FIRE STATION	5.4	0	
TOTAL	712.8	1700	

NOTE: UNIT COUNT SHOWN HEREON MAY CHANGE FROM VILLAGE TO VILLAGE AND WILL BE FINALIZED AT THE TENTATIVE MAP STAGE. THE CHANGES ARE PERMITTED SO LONG AS THE TOTAL UNIT COUNT DOES NOT EXCEED THE MAXIMUM UNIT COUNT AS SHOWN ON THE SPECIFIC PLAN.

ACREAGES SHOWN HEREON ARE APPROXIMATE ONLY AND WILL BE FINALIZED AT TENTATIVE MAP STAGE.

Carson Creek Specific Plan

PROJECT NARRATIVE
PRE-APPLICATION
Proposed Specific Plan Amendment (SPA)
A NEW AGE-RESTRICTED COMMUNITY
CARSON CREEK SPECIFIC PLAN (CCSP)
APN 117-570-12, 13, and 15-18
El Dorado Hills, CA

Preamble

The information that is provided with this Pre-Application is derived from the 1) CCSP Exhibit B Land Use Plan, 2) ACOE SPK-1992-00105 (the permit), and various and previously recorded Large Lot Final Maps and Small Lot Final Maps. The exhibits depict land use and zoning acreages that are the result of development activities, regulatory permitting, and mitigation monitoring that comply with the CCSP governing documents. Open Space areas have expanded as a result of regulatory compliance and the numbers and tables reflect these realities.

Request

Reference
The Carson Creek Specific Plan dated September 28, 1999

Specific Plan Amendment
1. 57.0± acres of Industrial (IND) and 33.3± acres of Research and Development (R&D) and 12.6± acres of Open Space (OS) to 84.1± acres Residential Village and 3.1± acres of Community Center (CC) along with,
2. An increase of Open Space (OS) area from 12.6± acres to 13.5± acres[i] and the addition of,
3. 1.7± acres of Commercial with,
4. No change to the Park

Rezone
1. 57.0± acres of Industrial (IND) and 33.3± acres of Research and Development (R&D) and 12.6± acres of Open Space (OS) to 84.1± acres Single Family High Density (SFHD) and 3.1 acres of Community Center (CC) along with,
2. An increase of Open Space (OS) area from 12.6± acres to 13.5± acres[ii], and the addition of,
3. 1.7± acres of Local Convenience Commercial (LC)
4. No change to the Park

Background

The Carson Creek Specific Plan (SP94-02) was approved on March 4, 1997 with a Development Agreement. The Specific Plan is encompassed within 710 acres of land generally located west of the El Dorado Hills Business Park and south of Golden Foothills Parkway. On September 27, 1999, the Board of Supervisors approved Amendments to the Specific Plan that includes a maximum of 1,700 Age-Restricted Residential Units (ARUs) and a Development Agreement. Exhibit B (Land Use Plan) included 34.4 acres of R&D and 59.7 acres of Industrial. The actual resultant acreages are currently 33.3± acres and 57.0± acres respectively after Lennar Homes of Northern California, Inc. obtained a permit from the ACOE SPK-1992-00105 (the permit). The permit conditions nominally expanded the Open Space and reduced the R&D and Industrial acreage as shown.

Subsequent project approvals included the Euer Ranch 460 ARUs (TM96-1317 and TM04-1389), Carson Creek Unit 1 285 ARUs (TM04-1391R), Carson Creek Unit 2, 630 ARUs [iii](TM06-1428R), and Carson Creek Unit 3 140 ARUs (TM14-1519). The ARU sum total is 1,515 ARUs. The total number of potential remaining allowable ARUs under the current approvals is 185 ARUs notwithstanding the "Accompanying Consideration" enumerated below. None of the R&D or Industrial has been developed to date.

Pre-Application and Conceptual Review

Policy J-6 established criteria for initiation of a Specific Plan Amendment (SPA)

Project Description

Amend Land Use Plan
1. Delete (RD) Research and Development Category
2. Delete (I) Industrial Category
3. Add 3.1± acres additional (CC) Community Center
4. Add 1.7± acres (LC) Local Convenience Commercial
5. Add 84.1± acres New Residential Village
6. An increase the Open Space (OS) from 12.6± acres to 13.5 acres±
7. No change to the 30 Acre Park

   Total SPA Area = 132.4± acres

The proposed project would be an Age-Restricted Community and would have two accesses on to Latrobe Road; full time access on to Investment Boulevard and secondary access through the DST property on a new roadway that will intersect with the Latrobe Road. The new roadway will provide access to the 30 acre park site in addition to the proposed age-restricted community. The project would include 415 Age-Restricted Units (ARUs), a 3.1± acre Community Center, and 1.7± acres of Local Convenience Commercial. It would be served by the El Dorado Irrigation District. Onsite roads are gated and privately maintained not withstanding a short extension of Investment Blvd; this is to be publicly maintained. The 30 acre Regional Park and related policy remains unchanged notwithstanding conditions of the ACOE SPK-1992-00105 (the permit).

Based on the Carson Creek development pattern and high demand that has occurred over the past 14 years coupled with a demonstrated lack of demand for RD and I uses a Specific Plan amendment request is warranted.

Evaluation of Criteria for the SPA

1. The proposal is consistent with the Goals and Objectives of the General Plan.

   Carson Creek is a Planned Community that is identified as suitable for intensive development and when coupled with the immediately adjacent land uses I.E. the existing El Dorado Hills Business Park, the proposed Local Community Commercial, and the existing Major Commercial nearby constitute an overall balanced community experience.

2. Public Infrastructure, facilities, and services are available or can be feasibly provided to serve the proposed project without adverse impact to existing or approved development.

   Traffic:
   Attention is directed to the Memorandum Dated October 23, 2017 prepared by T. Kear and notably the Findings that the SPA if approved is anticipated to reduce 18,600 ADT, 3200 AM Peak Trips, and 3500 PM Peak Hour Trips[1]

   Sewer and Water:
   Water and sewer connections are available at the site and facilities are adequately sized to serve the development

3. A. Increases employment opportunities within El Dorado County

   The SPA includes Local Community Commercial (LC) that would serve to increase employment opportunity. The Community Center CC would likewise create local jobs

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[1] Original DEIR traffic analysis

B. Promotes the development of housing to moderate income household

Not applicable to an Age Restricted Community

C. Provides additional opportunities to retain retail sales and sales tax revenues within El Dorado County

The SPA includes Local Community Commercial thereby providing additional opportunities to retain retail sales and sales tax revenues

D. Protects and enhances the agricultural and natural resource industries

Carson Creek is an existing Planned Community (Specific Plan), therefore not applicable

E. Is necessary to comply with changes in state or federal law

Not applicable to Carson Creek

4. The Application is consistent with any applicable Board adopted community vision and implementation plan

The SPA is consistent inasmuch as it is consistent with the Carson Creek Specific Plan.

<u>Accompanying Consideration</u>

- The proposed development includes 415 age restricted units that meet the need of housing for a growing population of Baby Boomers
- NAHB 2012 long-term forecast estimates that by 2019 45 percent of all households will be headed by someone age 55 or older
- There is a growing desire for 55 plus communities that include amenities like pools, recreate centers, and social events, and the proposed project includes a 3.1 acre community site to accommodate these desires
- Strong market for active adult further illustrated by the success of the current age-restricted community developed by Lennar at Carson Creek in El Dorado Hills
- The proposed project provides public access to the planned 30 acre community park
- Market research shows additional office and industrial is not needed
    1. Office vacancies have grown from 21.7% to 23.8% in El Dorado County in contrast to historic low Sacrament region vacancy rates
    2. Industrial vacancies have remained flat in El Dorado Hills in contrast to Sacramento region reductions
    3. If developed under current zoning the Carson Creek Specific Plan industrial would add 1 million square feet of space and increase the existing market by approximately 80% in a flat industrial market

Summary Table – on next page

Summary Table

Residential Village	CCSP	Developed (D) and Proposed (P) Units	Tentative Map Final Map SPA	Current Status
		Euer Ranch TM96-1317 & TM04-1389	Units	
1	255	1 (D)	32	Buildout
2	4	2 (D)	26	Buildout
3	28	3 (D)	52	Buildout
4	7	4 (D)	64	Buildout
5	125	5(D)	43	Buildout
6A	36	6 (D)	137	Buildout
7	41	7 (D)	77	Buildout
		8 (D)	17	Buildout
		9 (D)	12	Buildout
		Carson Creek Unit 1 (D) TM04-1391R	285	95% Buildout
6B	83			
8	304			
9	67	Carson Creek Unit 3 (D) TM14-1519	140	10% Buildout
10	750	Carson Creek Unit 2 (D) TM06-1428R	630	0% Buildout
Sub-Total	1700	Total (D)	1515	
(P) 11	0	Carson Creek SPA (P)	415	Proposed SPA
Total	1700		1930	

With overall Carson Creek Specific Plan build out, Applicant proposes to construct 1,930± units (ARUs)

Summary

The Specific Plan Amendment as proposed complies with Policy J-6 of the GENERAL PLAN AMENDMENT INITIATION PROCESS.

Exhibits Provided

1. Existing and Proposed Land Use
2. Existing and Proposed Zoning
3. Age Restricted Unit (ARU Study Map)
4. Infrastructure and Circulation Map
5. Aerial Map

Information Provided

1. T. Kear Trip Generation Memorandum dated October 23, 2017
2. Project Narrative
3. Project Application and other related material

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[i] Additional Open Space areas were introduced as a result of recently imposed conditions from the Army Corps of Engineers permit SPK-1992-00105

[ii] Additional Open Space areas were introduced as a result of recently imposed conditions from the Army Corps of Engineers permit SPK-1992-00105

[iii] Carson Creek Unit 1 reduced from 302 ARUs to 285 ARUs with a Substantial Conformance Tentative Map, Carson Creek Unit 2 reduced form 634 ARUs to 630 ARUs as a result of conditions related to ACOE SPK-1992-00105 (the permit)

COMMUNITY DEVELOPMENT AGENCY
LONG RANGE PLANNING

2850 Fairlane Court, Placerville, CA 95667
Phone (530) 621-4650, Fax (530) 642-0508

Date:	November 1, 2016
To:	Board of Supervisors
From:	Shawna Purvines, Interim Assistant Director, Community Development Agency, Long Range Planning
Subject:	**El Dorado Hills Business Park Marketability**

Purpose

This staff memo is a follow-up to the item Supervisor Mikulaco presented to the Board on August 2, 2016 recommending the Board provide direction to the Chief Administrative Office and Community Development Agency to explore enhancing the marketability of the El Dorado Hills Business Park ("EDH Business Park"). The Board directed staff to explore potential issues, options for action as appropriate (including resource and time frame estimates for each), and report back to the Board in late fall/early winter for consideration.

Background

On March 21, 2016, the Board adopted the County's 2016-2019 Strategic Plan. Economic Development is one of the Plan's goals and includes the following objectives: 1) Attract, develop and retain businesses that provide economic sustainability and quality job creation; 2) Increase employment opportunities by improving workforce development skills; 3) Invest in infrastructure needs to improve and maintain competitiveness; 4) Strengthen the County's business friendly reputation; and 5) Develop and maintain an economic development plan that is time relevant and community and market oriented; and 6) Provide diverse workforce housing options - balance jobs with housing.

Following the August 2, 2016, Board meeting where the Board directed staff to explore potential issues and options for action as appropriate for the EDH Business Park, a working group comprised of staff from the CAO's office, District One Supervisor's Office, and the Community Development Agency Long Range Planning have attended several meetings with representatives from the El Dorado Hills Chamber of Commerce, the Greater Sacramento Area Economic Council (GSAC) and three of the largest property owners in the EDH Business Park. Meeting discussions identified some perceived challenges with how the current EDH Business Park functions.

Development planning for the EDH Business Park dates back to 1981. A draft Environmental Impact Report (EIR) for the business park was prepared in August 1982. The EIR noted that the plan was to develop a 909 acre site into a high technology industrial business park including assembly plants, research laboratories, warehouses and business offices. At that time, the land was zoned as Exclusive Agriculture (AE). The EIR indicated that the applicant planned to request cancellation of the Williamson Act Contract No. 124 (1070 acres) and to request a rezone of the entire 1070 acres from AE to Research and Development (R&D).

On March 6, 1984, the Board of Supervisors adopted Resolutions 61-84 through 67-84 pertaining to the establishment of an Assessment District for Phase I of the EDH Business Park.

Current Conditions

Ridge Capital Evaluation

The County received an evaluation of the EDH Business Park prepared in August 2016 by Ridge Capital, Inc., a real estate investment and development firm headquartered in Sacramento. The evaluation stated that the EDH Business Park is approximately 832 acres, comprised of 829 acres zoned for R&D and three acres zoned for CG (Commercial, General). The Ridge Capital evaluation noted that an extremely slow rate of land absorption has taken place within the EDH Business Park over its life cycle. According to Ridge Capital, ***"In ± 36 years since its inception, the EDH Business Park has experienced an average annual absorption rate of ± 8.4 acres per year, with only 302 developed acres out of 832."*** Applying the historical absorption rate on a straight-line basis to the existing land stock results in a "***forecasted build-out date for the EDH Business Park of +2079 – 63 years from now*** (i.e., 530 acres/8.4 acres per year = 63 years)".

The Ridge Capital Evaluation also cites that the absorption rate is significantly underperforming other business park locations within the Sacramento region. During 2000–2015, the industrial land absorption rate for the EDH Business Park averaged 3.68 acres/year, compared to Power Inn (15.97 acres/year), Natomas/Northgate (15.84 acres/year), and West Sacramento (14.27 acres/year).

Changing Workforce

The changing workforce (e.g., influx of Millennials and their amenity preferences) are also a significant factor in site location. More than one-in-three American workers today are Millennials (adults ages 18 to 34 in 2015), and last year they surpassed Generation X to become the largest share of the American workforce, according to new Pew Research Center analysis of U.S. Census Bureau data. The U.S. Bureau of Labor Statistics predicts that by 2030 this hyper-connected, tech savvy generation will make up 75 percent of the workforce.

Current Statistics

Currently, 302 acres or 37 percent of the total 832 acres are developed. According to occupancy reports prepared by ProEquity Asset Management on July 28, 2016, the vacancy rate of all developed properties

(148 properties/3,026,243 square footage) is 13.9 percent. The vacancy rate of existing office space only (56 properties/1,038,434 square footage) is 28.8 percent.

Available data varies regarding the reported number of businesses operating and employees working in the EDH Business Park. The number of reported individual businesses range from approximately 200[1] to 500[2] employing from 3,500[1] to 6,000[2] full- and part-time employees. A 2015 data report based on D-U-N-S[3] number information, prepared by Buxton Analytics for the County Treasurer/Tax Collector's Office, identified 305 businesses located within the EDH Business Park employing over 3,500 full- and part-time employees.

Major individual employers comprise the following industries: Billing output services; Aircraft Manufacturing; Building Construction and Specialty Contractors; Computer, Office Equipment and Software Merchant Wholesalers; Architecture and Engineering, Residential Real Estate Leasing; along with the U.S. Department of the Interior.

The types of businesses also vary significantly. Some of the more prevalent types reported include: Health Care Practitioners and services; Construction; Architecture and Engineering; Services including: insurance/real estate agents, consulting, legal, investment, computer system design, banking, child day care; personal care, advertising; amusement and recreation; commercial real estate leasing; printing and publishing; machinery, equipment and metal products manufacturing.

Employment Cap

The 2004 General Plan Policy TC-1y conditions an employment cap of 10,045 full-time employees within the EDH Business Park "unless it can be demonstrated that a higher number of employees would not violate established level of service standards." This employment cap was calculated as part of the analysis in the Final Environmental Impact Report (EIR) for the 2004 General Plan (see Appendix E.1, Mitigation Measure 5.4-1(b) Traffic Model Run (Reduced Business Park)). The employment cap may be lifted if the County implements one of the following mitigation measures included in the 2004 General Plan EIR, and addressed by General Plan policies as noted below:

- Mitigation Measure 5.4-1(a): Amend the Circulation Diagram to include a new arterial roadway from El Dorado Hills to U.S. 50. [Policy TC-1u]
- Mitigation Measure 5.4-1(b): Implement growth control mechanism for new development accessing Latrobe Road or White Rock Road [Policy TC-1y]
- Mitigation Measure 5.4-1(c): Modify LOS Policies
- Mitigation Measure 5.4-1(d): Amend the Circulation Diagram to include a frequent transit service on exclusive right-of way to the El Dorado Hills Business Park [Policy TC-1v]

[1] El Dorado Hills Chamber of Commerce phone survey, 2012
[2] Greater Sacramento Area Economic Council (GSAC), Avention OneSource, 2016
[3] A DUNS number (Data Universal Numbering System,) is a unique, non-indicative 9-digit identifier for each physical location of a business issued and maintained by Dun & Bradstreet (D&B) that verifies the existence of a business entity globally.

Mitigation Measure 5.4-1(a) and Policy TC-1u are being addressed in the proposed Major Capital Improvement Program (CIP) and Traffic Impact Mitigation (TIM) Fee Program Update which includes the Latrobe Connection project (CIP Project No. 66116). This project includes construction of a new arterial connecting the south end of Golden Foothill Parkway to Carson Creek Drive. This new roadway was constructed in 2015. The Major CIP/TIM Fee Program Update includes a proposed General Plan Amendment that includes revisions to the Circulation Diagram (General Plan Figure TC-1) and removal of General Plan Policy TC-1y. On September 20, 2016, the Board tentatively approved the 2016 CIP Book. On December 7, 2015, the Board adopted Resolution of Intention (ROI) 204-2015 and directed staff to proceed with the General Plan Amendment. Adoption of the Major CIP/TIM Fee Program Update is anticipated to be approved by December 2016.

Current Allowed Uses

The County Zoning Ordinance, which was updated in December 2015 and adopted by the Board of Supervisors on December 15, 2015, allows a variety of uses in Industrial/Research and Development (R&D) zones, as shown on Table 130.23.020 in the County Code of Ordinances Title 130 – Zoning. Some of the uses are allowed without any special permit required, other than a business license. Other uses are allowed with a permit required such as a Conditional Use Permit. The updated Zoning Ordinance includes several new and/or expanded allowed uses in R&D Zones, including but not limited to: Animal Sales and Service: Veterinary Clinics; Brewery (Large Commercial and Micro Brewery); Distillery; Wineries: Production Facilities; Retail Sales (not limited to being incidental to the primary use conducted on site); College & University. Some of these uses may have been allowed in the EDH Business Park prior to the adoption of the updated Zoning Ordinance, but may not have been specifically noted in the prior Zoning Ordinance, but are noted in the current Zoning Ordinance.

Potential Opportunities and Constraints

Following are observations expressed by the working group and studies that may possibly increase the vitality of the business park. These observations are based on: a) staff's discussions with EDH Business Park property owners and board members, existing businesses, EDH Chamber of Commerce, and others; b) information compiled by the Greater Sacramento Area Economic Council (GSAC), El Dorado County Report, August 2016; c) results of the El Dorado Hills Community Survey conducted in late 2013; and d) El Dorado County Industry-Focused Economic Development Study prepared by Center for Strategic Economic Research (CSER), June 30, 2010.

- Existing Capacity Potential – 530 undeveloped acres, many are large parcels that could accommodate large scale businesses
- Existing Infrastructure (e.g., water, sewer, natural gas and roads)
- Transportation – convenient access to U.S. Highway 50 economic corridor
- New developments must include road improvements with pedestrian and bicycle access
- Proximity to the greater Sacramento regional market – potential to attract reverse commute workforce and economic opportunities
- Expanded uses in R&D Zone as part of the Zoning Ordinance updated December 2015
- Educated work force and proximity to colleges and universities

- Community support for attracting industry that provides quality and higher paying jobs
- Community desire for more shopping, dining, and entertainment opportunities
- Close to regional -UPS center and airports for efficient product delivery
- County Community Development Agency Ombudsman for centralized technical assistance team approach to streamline the permit process.
- County commitment to economic development and moderate housing

Observations perceived as constraints to expansion of the EDH Business Park include:

- Limited to R&D zoning – no mixed use, residential component presently allowed
- Low market rents per square foot – discourages new construction
- Oversupply of vacant R&D land (nearly 70% undeveloped after 30 years) – disincentive for future new development
- Vacancy rates of existing space reduces demand for new development
- Undersupply of industrial flex/warehouse space
- Land costs – generally higher than other business parks in the greater Sacramento region
- Development fees associated with infrastructure (e.g., water, sewer, and roads)
- Associated Development fees (fire, etc.)
- County's regulatory and permitting process perceived as disjointed, cumbersome, costly, and uncertain
- Regional competition – Other regional business parks outperforming EDH Business Park
- Proximity to high-technology jobs along U.S. Highway 50 Corridor west of EDH (e.g., Folsom, Rancho Cordova)
- Changing workplace environment and workforce – downsizing, reduced workspaces, telecommuting, home-based businesses, entrepreneurial start-up business incubators, Millennial generation workplace preferences and access to housing

Options for Action

Recognizing the desire to enhance the image and marketing position of the EDH Business Park, the EDH Business Park Owners Association Board of Directors is in the process of identifying key concerns and solutions to attract new and expanded business opportunities to the Park. The Association has retained a facilitator to work with the Association Board and other stakeholders in the following weeks. Building on existing assets, a priority list of short-, medium- and long- term strategic goals for the Business Park to implement will be brought forward to the working group for discussion and the opportunity for collaboration.

As the Association works to develop targeted objectives for the Business Park, the Board of Supervisors may want to consider the following suggested "general" options that potentially could enhance the marketability of the Business Park. Based on staff's discussions with EDH Business Park property owners/board members, the Ridge Capital Evaluation, the ProEquity occupancy/absorption rate reports, and other data, these options could be considered in any combination and are not mutually exclusive.

A. Revisions to R&D Land Use and Zoning Uses Allowed

There appears to be a growing interest for residential, commercial and/or mixed use products to be allowed and planned for in the EDH Business Park. The Board may wish to target revisions and enhance the zoning uses allowed in the EDH Business Park to include: mixed use, residential, transient lodging (e.g., hotels and conference centers), and parks/open space; Or projects may be considered by the Board on a case-by-case basis. Staff recommends that the Board wait until after the EDH Business Park Association Board completes its efforts with the facilitator, as other desired uses may be identified.

B. "Re-Visioning" Plan

At the working group meeting on September 22, 2016, the EDH Business Park Association Board member noted that the Association was in the process of hiring a facilitator to help the Association develop a plan to "re-envision" the business park. This "Re-envision" or "Re-Visioning" effort would be led by the EDH Business Park Association.

Items that may be considered as part of the re-visioning of the EDH Business Park include but are not limited to:

- Encourage development and revitalization though a mix of uses that supports the County's jobs/housing balance consistent with General Plan Objective 2.1.4 (Opportunity Areas) and consider residential product types such as multifamily, townhomes, as well as single family cluster housing products
- Provide transportation, pedestrian and visual connectivity
- Streetscape enhancements (e.g., landscaped medians, sidewalks, bike lanes, transit stops) along Latrobe Road and major roads within the business park
- Identify potential locations which will provide for a centralized mixed use core that benefit residents of the EDHBP, while protecting existing job development opportunities to ensure R&D (high paying) jobs can be created
- Protect existing job base within the EDH Business Park
- Create usable open space and funding mechanisms

This option may include General Plan and Zoning amendments as well as a potential combining zone district (overlay) with development standards and guidelines, and parameters for funding of development and maintenance for infrastructure, roads, open space, landscaping and lighting. Any recommendations for changes to land use or zoning designations, and/or General Plan and Zoning Amendments would require County involvement to process.

C. Marketing Strategy/Rebranding

Given the expanded allowed uses in R&D Zones and other positive features, the EDH Business Park could develop a marketing plan to inform existing and potential property owners of the added allowed uses and new opportunities in the EDH Business Park. The marketing plan could include components including but not limited to the following:

- Data driven targeted business attraction to create awareness and foster interest (EDH Business Park/GSAC/Chamber of Commerce)
- Brand marketing – Develop new image and catch phrase based on attracting key industries for business park location/community, i.e. EDH Commerce Center, EDH Work Park (EDH Business Park)
- Create a simple but comprehensive County Economic Development website page and feature sections on local business parks, beginning with the El Dorado Hills Business Park (County)
  - Provide links to county chamber pages where they may be better positioned to promote links to park agents and property owners.
  - Feature County benefits, development team assistance and contacts.
  - Provide local and county-wide demographics, retail analytics, housing data, etc.
- Refine business incentive options and business support services coordinating with other agencies such as PG&E services and incentives, workforce training, etc. while strengthening the County's business friendly reputation. (County)
- Co-sponsor (County/Business Park/Chamber) broker and business events at business park (i.e., Elevate El Dorado II). The County was a sponsor of the Elevate El Dorado I event for a cost of $5,000 (see Legistar File 10-1057 on April 22, 2014).
- Working in partnership with stakeholders, target site specific marketing in available business media (i.e., Site Selection Publications such as Site Selection Magazine). Seek out cooperative advertising potential. [Cost determined by media agencies] (EDH Business Park/Chamber of Commerce).

RECOMMENDATION

The Board may consider the following approaches:

1) Authorize CAO/Economic Development to aid in discussions with the working group in consideration of an Economic Development component to the effort as needed;
2) Designate and authorize Community Development Agency representatives to assist the working group and/or the EDH Business Park Association Board, as needed, in development of any requested General Plan and Zoning amendments or potential combining zone district (overlay), due to the land use planning component of the effort; and
3) CEDAC to designate a representative to the working group to maintain consistency with other efforts within the County.

3. DEVELOPMENT PLAN

3.1 Introduction

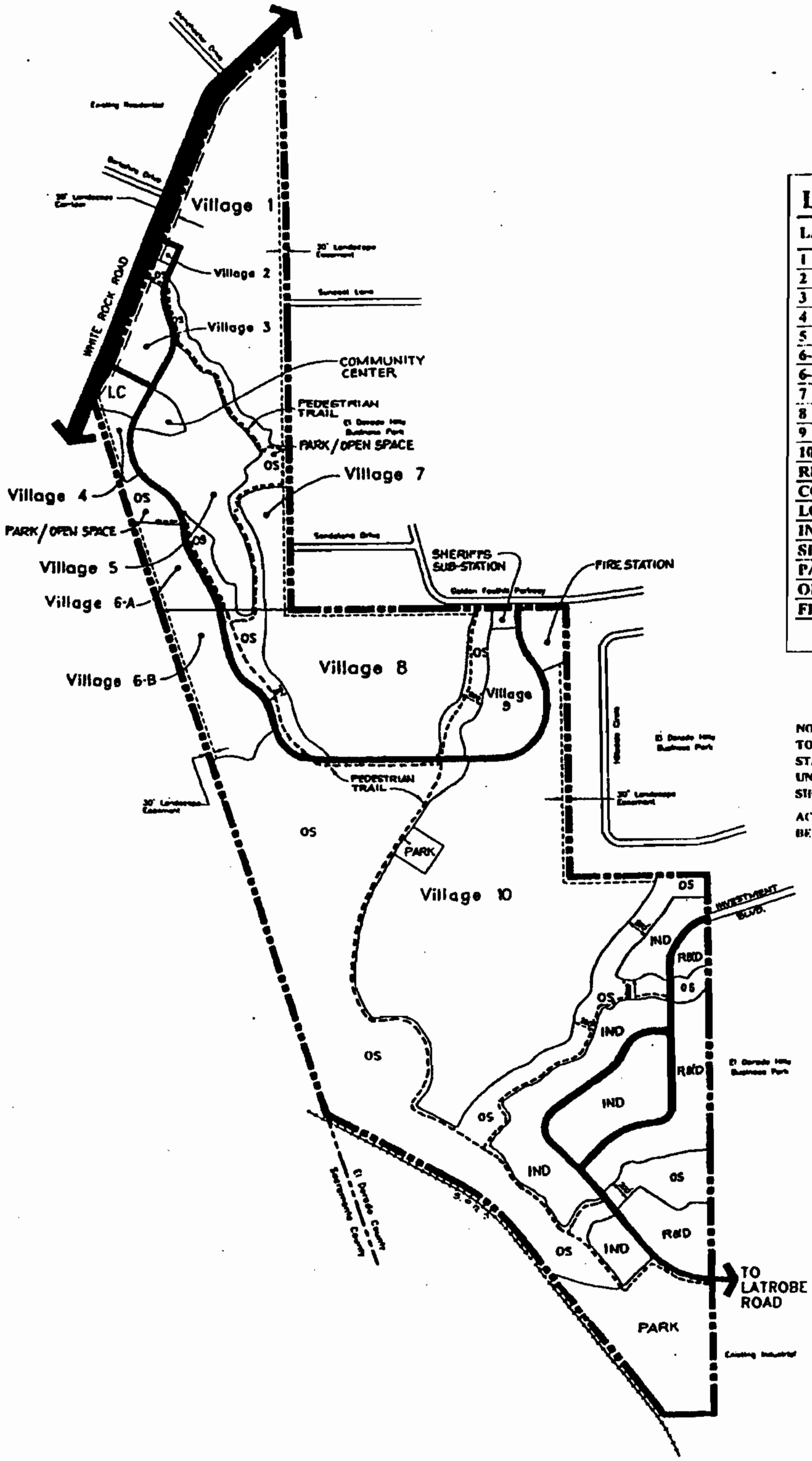
The Development Plan consists of the Land Use Plan, Circulation Plan, Open Space Plan, Grading Plan, Infrastructure Plan, Environmental Management Plan, and Public Facilities and Services. Together, these elements establish the framework for development of the 710-acre Carson Creek community. The Land Use Plan sets forth the planned land uses and intensities for the community, while the other elements of the Development Plan establish the systems to support development under the Land Use Plan. For the purposes of this Plan all calculations are based on gross acres with land use boundaries taken to the centerlines of roads shown within the Plan boundaries.

3.2 Land Use Plan

The Carson Creek Specific Plan will create a balanced community, with detached single family housing, apartments, parks, commercial, research and development, industrial, and civic uses (see Figure 4). The plan incorporates both contemporary and traditional design concepts, to create a place where residents of the community will be able to safely walk to parks, and grocery stores without having to compete with cars on busy streets.

Buildout of the Specific Plan will result in construction of 1,700 housing units, up to 40,000 square feet of commercial uses, up to 449,605 square feet of research and development uses, up to 780,279 square feet of industrial uses, 37 acres of parks, and 198.9 acres of open space. Tables 1 and 2 show land uses and land acreage.

LAND USE PLAN



LAND USE CALCULATIONS			
LAND USE VILLAGES	**ACRES**	**UNITS**	**D.U.A.**
1	74.8	255	3.4
2	1.1	4	3.6
3	9.5	28	2.9
4	3.2	7	2.2
5	31.2	125	4.0
6-A	10.4	36	3.4
6-B	20.9	83	4.0
7	9.2	41	4.0
8	55.3	304	5.5
9	16.6	67	4.0
10	136.4	750	5.5
RESEARCH & DEVELOPMENT	34.4	0	
COMMUNITY CENTER	3.0	0	
LOCAL COMMERCIAL (LC)	4.6	0	
INDUSTRIAL (IND)	59.7	0	
SHERIFF SUB-STATION	1.2	0	
PARKS	37.0	0	
OPEN SPACE (OS)	198.9	0	
FIRE STATION	5.4	0	
TOTAL	712.8	1700	

NOTE: UNIT COUNT SHOWN HEREON MAY CHANGE FROM VILLAGE TO VILLAGE AND WILL BE FINALIZED AT THE TENTATIVE MAP STAGE. THE CHANGES ARE PERMITTED SO LONG AS THE TOTAL UNIT COUNT DOES NOT EXCEED THE MAXIMUM UNIT COUNT AS SHOWN ON THE SPECIFIC PLAN.

ACREAGES SHOWN HEREON ARE APPROXIMATE ONLY AND WILL BE FINALIZED AT TENTATIVE MAP STAGE.

TABLE 1: LAND USE CALCULATIONS

Land Use	Acres	Units	Density
<u>Residential</u>			
Villages 1-10	368.6	1,700	
<u>Employment</u>			
LC	4.6		
CC	3.0		
Industrial	59.7		
RD	34.4		
Subtotal	101.7		
<u>Public</u>			
P	37		
OS	198.8		
SS	1.2		
FS	5.4		
Subtotal	242.4		
TOTAL	712.7	1,700	

3.3 Land Use Categories

The Carson Creek Specific Plan identifies six land use categories: (1) residential; (2) local convenience commercial; (3) research and development; (4) industrial; (5) parks; and (6) open space. This section identifies each land use category in more detail, and includes a discussion of the amount, location, and anticipated design character of the use.

Residential

The land use plan provides for the development of 1,700 units in 10 residential Villages. The Specific Plan contemplates, in its residential areas, an age-restricted, senior citizen housing development within the meaning of California Civil Code Section 51.3 with an array of largely single-family housing types and densities. Section 51.3 provides that qualifying residents for senior communities are those who are 55 years of age or older. The Specific Plan will also accommodate a small, 6-acre pocket of non-age-restricted residential housing: up to 18 unrestricted residential dwelling units may be constructed on the 6 acres.

Although the Land Use Table provides for a tabular summation of the acreage and unit count for each Village, the actual density will be fixed at the tentative map stage. The plan allows for the flexibility to design the development of each village in either one, consistent density or a range of densities. For instance, a Village may be only 7,000 square foot lots, or a Village may be divided into areas of 7,000 square foot lots, 5,000 square foot lots, and 3,000 square foot lots, or some other combination of product mix. Generally speaking, sloped areas will have larger lots and flatter areas will have smaller lots. At the tentative map stage, the zoning for residential areas will be fixed in accordance with section 4 of the specific plan.

TABLE 2: RESIDENTIAL LAND USE CALCULATIONS

Villages	Acres	Units
1	74.8	255
2	1.1	4
3	9.5	28
4	3.2	7
5	31.2	125
6A	10.4	36
6B	20.9	83
7	9.2	41
8	55.3	304
9	16.6	67
10	136.4	750
TOTAL	368.6	1700

Employment

(RD) RESEARCH AND DEVELOPMENT

The purpose of this land use designation is to provide areas for the location of high technology, non-polluting manufacturing plants, research and development facilities, corporate/industrial offices, and support service facilities in a rural or campus-like setting which ensures a high quality, aesthetic environment. This designation is highly appropriate for the business park/employment center concept. The Research and Development areas consist of 34.4 acres and will provide approximately 449,605 square feet of floor space. The Research and Development areas are located adjacent to the existing El Dorado Hills Business Park, allowing for coordination of land uses with existing development.

(LC) LOCAL CONVENIENCE COMMERCIAL

The Local Convenience Commercial land use designation is intended to permit small convenience shopping sites serving individual neighborhoods. There is a total of (4.6) acres of LC located along White Rock Road. Approximately 40,000 square feet of commercial space, accommodating delis, cleaners, cafes, general stores, and other local services such as beauty and barber shops, with the potential for office space above will be provided. Commercial buildings will be designed so that the architecture is consistent with the residential neighborhood theme. Access to the site should be provided for cars, pedestrians, and bicyclists. Walkways, overhangs, and benches should be incorporated into the site design to provide a small gathering area for neighbors to meet. The entrance to the centers should include sidewalks leading directly to the building entrances so that pedestrians do not have to cross parking areas to enter. Design should include central areas for notice and bulletin boards. Bicycle stands should be provided in front of buildings. Residential uses may be incorporated into spaces above ground floor retail uses by right.

(CC) COMMUNITY CENTER

Community Centers are highly desirable features in an age-restricted community. As such, a 3.0-acre community centers is provided.

(I) INDUSTRIAL

The Industrial land use designation has been provided in the Plan area to foster opportunities for industrial-related activities. El Dorado Hills has limited opportunity for industrial land to provide for uses that are otherwise not available in the community. The Design Guidelines, which will require appropriate performance standards, such as landscaping, setbacks, and fence treatments, will ensure that industrial uses are compatible and appropriate within the Plan area. While the County ordinance permits commercial activities in industrial district, the Plan area will limit the uses to industrial only.

Public

(SS) SHERIFF'S SUBSTATION AND (FS) FIRE STATION

To ensure public services are available, a 1.2-acre site is reserved for a sheriff's substation and a 5.4-acre site is reserved for a fire station. The precise acreages for these sites may change slightly to meet the needs of the service providers. These areas have an underlying residential designation in the event that they do not develop as their intended uses. In such an event, these areas will be merged with the nearest residential Village. In no event, however, shall this change cause the overall unit count to exceed 1,700 units.

(P) PARKS

Five parks consisting of 37 acres are provided within the community. The parks include, one regional park and several neighborhood parks.

A 30-acre **Regional Park** is located in the southernmost portion of the site away from, but accessible to the community. The location will reduce the impact of regional traffic using the park, and allow for lighted playing fields without conflict to residential areas.

This park is intended to provide for the large scale active recreation needs of the western area of El Dorado County. The park could have ballfields, basketball courts, and other recreation facilities. Parking areas and picnic areas will also be provided.

Several **Neighborhood Parks** have been provided for active and passive use. The parks may contain picnic areas, playgrounds, and sports fields. Local parks should be designed to allow visibility from surrounding residential areas. These parks may also be used for storm water detention if properly designed to also allow recreational activities to coexist. These park areas are designated as residential areas until such time as tentative maps are submitted and parklands are shown in accordance with the Quimby Act. Dedication of the parks to the appropriate entity will occur at the final map stage.

The Carson Creek Specific Plan provides for (198.9) acres of enhanced open space in conjunction with the natural drainage system of the site. Open Space areas have been established for preservation of natural resources, wetlands, upland habitat adjacent to riparian and seasonal wetland habitat, and flood plain areas, for passive recreation, and for the enjoyment of the residents of the Carson Creek Specific Plan community and of El Dorado County. Buildings and development within this category shall be kept at the minimum necessary to allow full enjoyment of the open space. This category is differentiated from the (OS) Open Space District described in the El Dorado Zoning Ordinance in that agricultural and timber harvesting activities are not allowed.

3.4 Circulation Plan

Existing Streets

The Carson Creek Specific Plan area is located adjacent to the El Dorado Hills Business Park and portions of the existing Golden Foothill Parkway, Suncast Drive, Sandstone Drive, and Investment Boulevard connect to the Plan Area to the east. All of these roadways are two-lane facilities that service the area. The only other major streets in the area are White Rock Road and Latrobe Road, both are two-lane roadways. U.S. Highway 50 is located approximately one mile to the north of the Plan Area and runs in an east/west direction. This freeway is two lanes in each direction.

A delineation of the Plan Area streets and streets outside of the Plan Area, are provided in the Summary of the traffic analysis for the Carson Creek/Euer Ranch Subdivision (on file with the El Dorado County Department of Transportation).

Planned Streets

The street widths for the Plan Area will be designed to accommodate a wide range of anticipated traffic volumes and in a manner that will be compatible with the varying land uses. The streets will be designed to follow the natural topography as closely as possible. Streets will generally be curvilinear in design and consistent with the overall design concepts of the Specific Plan. Existing trees and other natural features will be incorporated into the right-of-way landscape design whenever possible. See Figure 5, "Circulation Plan."

Final location of intersections within portions of the Plan Area will meet the minimum standards of the El Dorado County Department of Transportation, at the time they are designed and submitted for approval. See Figure 6, "Street

Sections." Street Sections will meet the standards of El Dorado County, unless privately owned. In the event that the streets are not dedicated to the County, and remain privately owned, narrower widths and roadside ditches shall be permitted.

Residential Street designs will be used for the majority of the interior streets in the Plan Area. Included in some areas within the right-of-way will be a pedestrian path for residents to safely walk to parks, retail centers and jobs without having to compete with vehicles on busy streets. Space for street trees will be included in the right-of-way or adjacent to the rights-of-way in landscape areas.

Minor collector street design will be used with and between community facilities and housing. Included in some areas within the right-of-way is a pedestrian path and landscape areas. The street will provide the appropriate travel lanes and no on-street parking except for emergency vehicles within shoulder areas, will be allowed.

The major collectors will be designed to carry a large percentage of the Plan Area traffic. The designs include combined bicycle lanes and shoulders on each side of the pavement sections. Pedestrian paths are provided on each side of the right-of-way with landscaping. Provision will be made for emergency on-street parking on the shoulder area.

In an effort to create a better sense of community and to slow the speed of traffic in residential areas, the use of cul-de-sacs in the design stage shall be encouraged. Cul-de-sacs can be provided with abutting open space areas to provide ready access to the open space viewsheds. In other areas, cul-de-sacs, curvilinear streets and other design methods may be used to slow traffic within the residential Villages.

To preserve a more natural feel of the community, open-channel drainage ways will be used to the extent feasible. Open-channel drainages provide water quality treatments and erosion control measures in addition to avoiding the concrete-lined channels common in urban developments. It is anticipated that a combination of open channels, landscaped corridors shaped as v-ditches, and piped facilities will be utilized to convey drainage.

Pedestrian Circulation

Pedestrian traffic is encouraged within the Plan Area via an extensive system of inter-linked trails, paths or sidewalks. These pedestrian routes are intended to provide an alternative to automobile travel, but also foster health and social interaction among residents.

The trails system will connect to points adjacent to the Plan Area that may be interconnected to future trail systems.

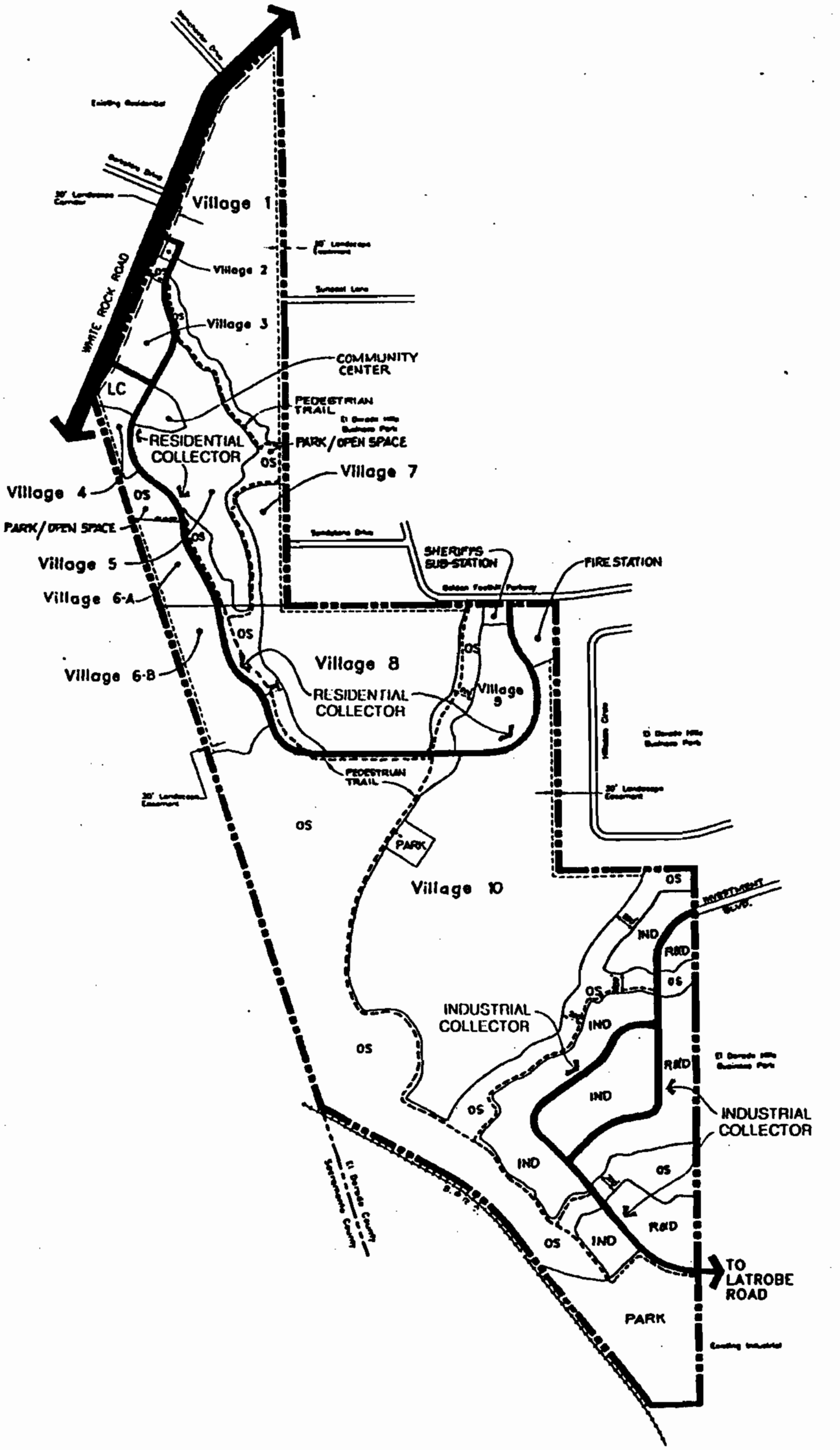
Access to the trail system will occur at designated points along the public street right-of-way adjacent to open space areas. Final trail alignments will be determined later. Some trails may be paved, others may be covered with an all weather surface.

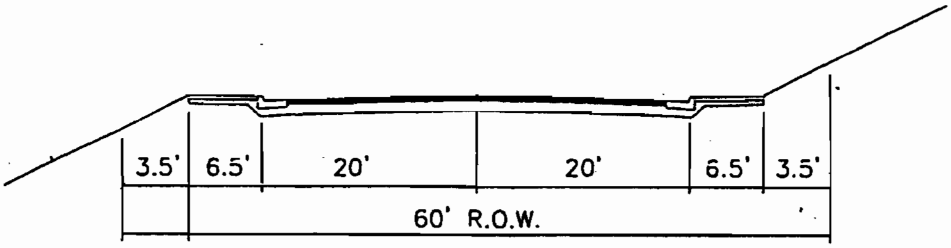
Trails or paths located on privately owned land will be within easements dedicated for public access. These easements will be reserved for dedication with the filing of the tentative subdivision maps for each housing project. Some trails may be paved others may be covered with an all weather surface. See Figure 7.

Within drainageways, where possible, unpaved dirt or all weather trails will be designed. Trails will be combined with drainage way easement and public access easements.

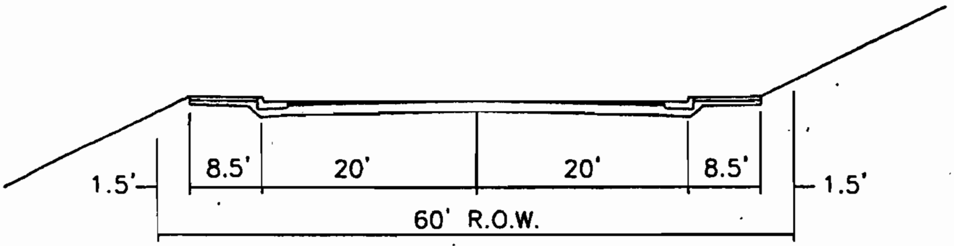
Paved pedestrian trails paths will be provided in street right-of-ways except at some local residential streets. These paths will be constructed with either concrete or asphalt, depending on the location.

CIRCULATION PLAN

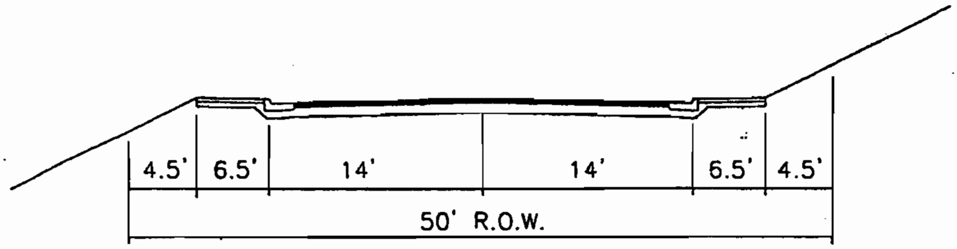




RESIDENTIAL COLLECTOR



INDUSTRIAL COLLECTOR



RESIDENTIAL STREET

PEDESTRIAN TRAIL SYSTEM

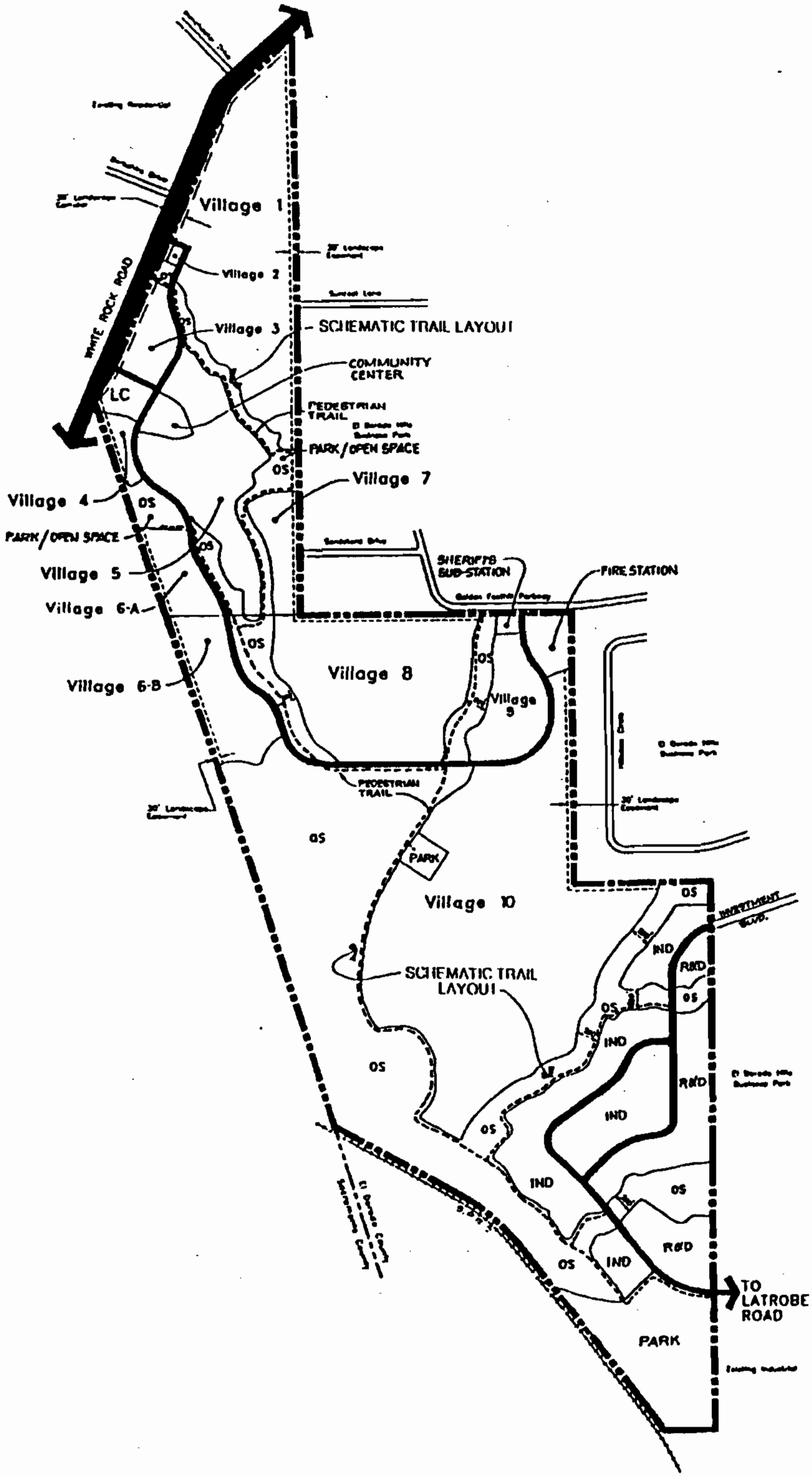


FIGURE 7 PEDESTRIAN TRAIL SYSTEM

3.5 Open Space Plan

Open Space and Buffers

A community-wide open space system is planned which preserves, restores and enhances significant natural habitat and other natural sections of the site. Carson Creek and its tributaries will provide the framework for the interconnecting parkway/trail system. See Figure 7.

Open Space: There will be approximately 199 acres of Open Space within the Specific Plan area. These areas will be maintained as natural and enhanced habitat, and as preserved sensitive creek and wetlands areas, providing opportunities for preservation and enhancement of wildlife and plant species. Several enhanced wetland areas in the southern and western portion of the site will support a diversity of wildlife. Where the open space abuts Sacramento County agricultural lands, a four foot high, open screen fence will be constructed to control the movement of cattle and to discourage trespassing.

Buffer: A thirty-foot wide, landscaped easement will be located in the residential rear yards along the western and eastern perimeter of the site where the residential areas abut the county line. This greenbelt, will distinguish the Sacramento/El Dorado County line on the west side of the site. On the east side of the site it will provide a buffer between the site and the existing adjacent El Dorado Hills Business Park. A thirty-foot landscape corridor will also be provided along White Rock Road to buffer the proposed residential areas.

A thirty-foot landscape corridor will also be provided along White Rock Road to buffer the proposed residential areas.

3.6 Grading Plan

Grading activities will incorporate a variety of controls to reduce soil erosion and minimize impacts within the area.

Grading activities will incorporate appropriate erosion control measure as provided in the El Dorado County Grading Ordinance. Areas subjected to grading shall not slope in excess of 2:1 unless otherwise approved by the El Dorado County Department of Transportation.

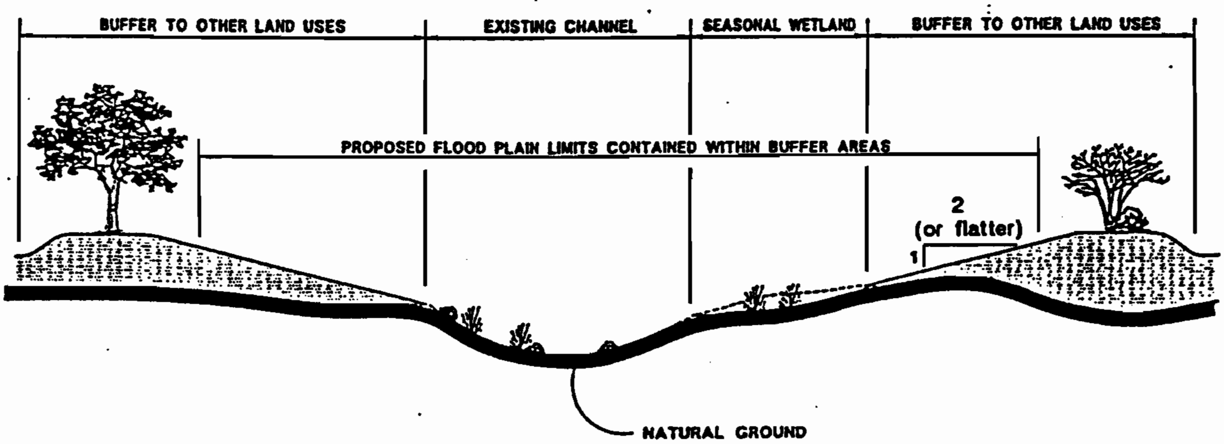
3.7 Infrastructure

Storm Drainage

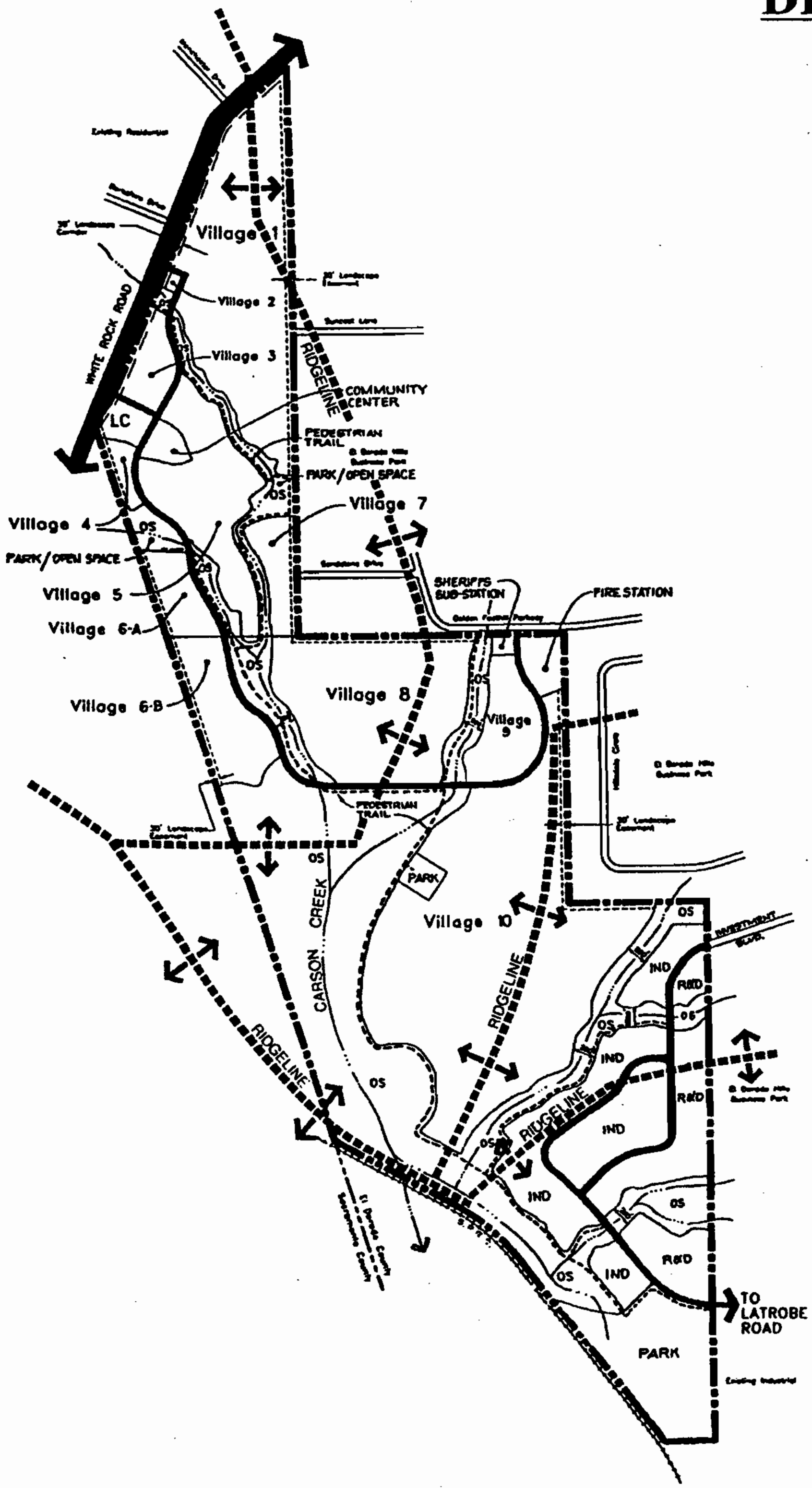
Existing System: All storm drainage is conveyed offsite by natural drainageways. The natural drainageways converge at the southern portion of the property at the existing railroad crossing and discharge offsite. Most of the drainageways flows are intermittent and carry flows during rainy periods. The existing drainageways and watersheds have been shown in Figure 9 "Drainage Plan".

Specific Plan Area System: The development of impervious surfaces such as buildings and streets will require that storm drainage be conveyed through storm drainage lines, natural channels, detention ponds, culverts and bridges. To convey storm drainage efficiently and keeping the natural appearance of the Plan Area, the intent of the Specific Plan is to dispose of storm drainage in existing unaltered surface drainageways.

FIGURE 8 TYPICAL CARSON CREEK SECTION



DRAINAGE PLAN



Carson Creek Specific Plan

FIGURE 9 DRAINAGE PLAI

It is the intent of the Specific Plan that the existing channels be as natural in appearance as possible and still convey storm drainage from the Plan Area. Riparian vegetation will be allowed to grow in existing channels. Improvements will be necessary to efficiently convey peak flows and accommodate development adjacent to the channels.

Except where otherwise noted on the Drainage Map (see Figure 9), the Carson Creek drainage area section (see Figure 8) will be a minimum 200 feet wide (100' minimum from property line to channel center line) and shall allow for the inclusion of graded slopes, seasonal wetlands, 100-year flood plain, revegetation efforts, and pedestrian/biking trial.

In areas of more sensitive wetland habitat, the corridor has been increased to 200 feet.

The drainage plan includes landscaped detention ponds designed to reduce downstream flows from the developed conditions to existing conditions. The detention ponds will be incorporated into the open space and will be irregular in shape and shallow in depth.

Water

Water Supply: Domestic water will be supplied to a portion of the Plan Area (Euer Ranch) while the remaining area (Carson Creek) is not presently served by EID or AD #3. The portion of the Plan Area (Euer Ranch) that is presently served by EID and AD #3, will be receiving domestic water from the El Dorado Hills Service Area. EID has contracts with the U.S. Bureau of Reclamation (USBR) to receive water from Folsom Lake to serve the El Dorado Hills Service area.

Within the El Dorado Hills Service area there have been several projects approved for development and subsequent studies have been prepared, indicating that additional sources of water supply may be required to accommodate the projected ultimate buildout in this area. EID has been pursuing a variety of new water-supply sources in preparation for the continuing and future development in the El Dorado Hills area.

Existing System: The existing water treatment plant has an ultimate capacity of 20.3 MGD. Existing 12-inch diameter lines are located along the eastern boundaries of the site within the El Dorado Hill Business Park. A 12-inch diameter line is located along White Rock Road north of the property. Pressure reducing stations within the El Dorado Hills Business Park reduce pressures from a 820 pressure zone to a 770 pressure zone. The 12-inch water line in White Rock Road is serviced by the 820 pressure zone. The existing facilities located within the Plan Area have been shown in Figure 10, "Water Plan."

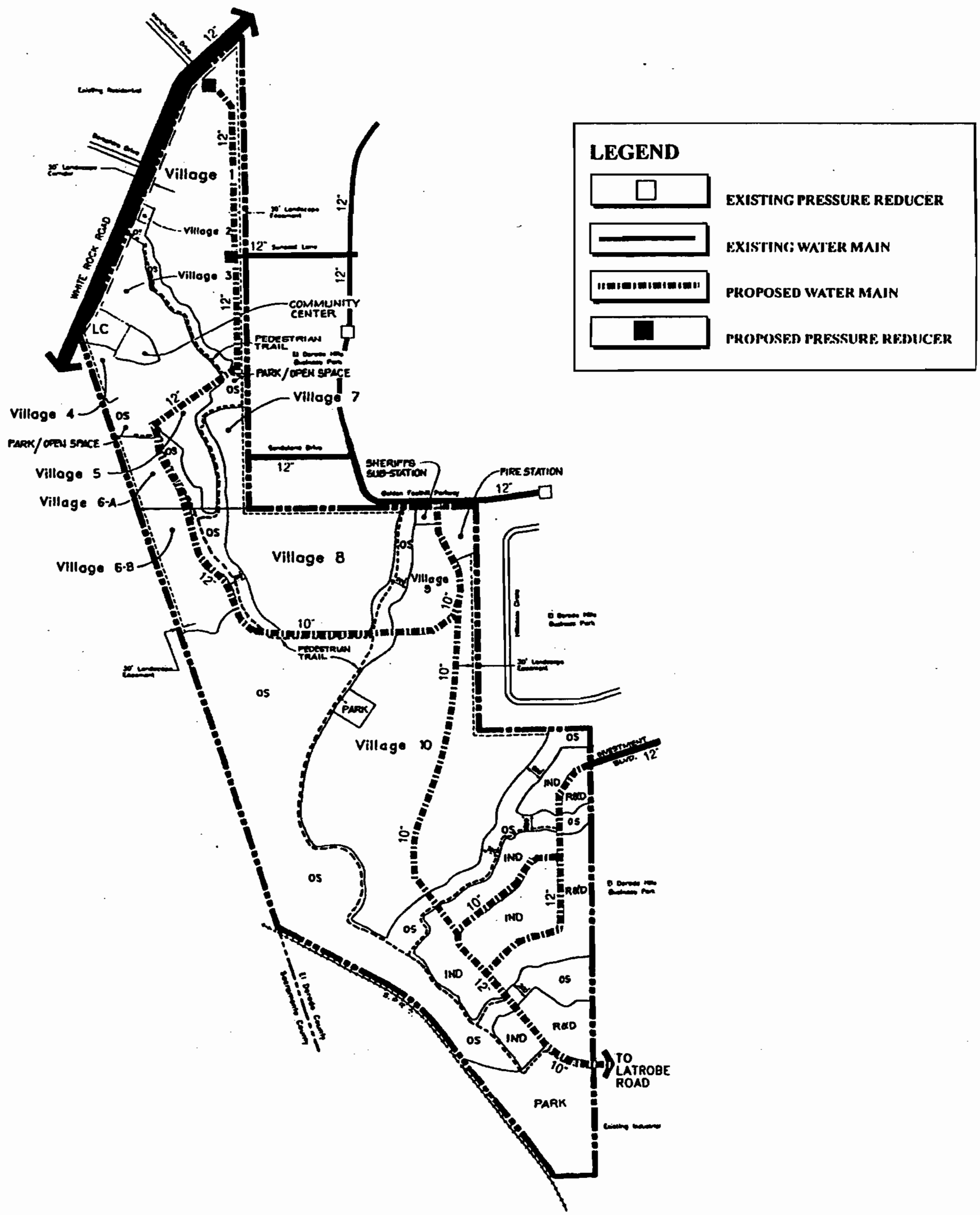
Specific Plan Area System: The portion of the Plan Area (Euer Ranch) that is presently served by EID and AD #3 will connect to AD #3 facilities. The remaining portion of the Plan Area (Carson Creek) will require annexation into the EID Service Area and concurrently incorporate into the Expanded AD #3 Plan Area.

In compliance with General Plan policies 5.1.2.1, 5.2.1.2, 5.2.1.4, and 5.2.1.8, the El Dorado County Public Water Planning Ordinance (ord. No. 4325), and El Dorado Irrigation District Policy Statements Nos. 22 and 41, the project proponent for the Carson Creek Specific Plan must obtain water meters or a similar form of water guarantee from EID prior to obtaining final subdivision maps or, in areas for which no final maps will be required, prior to obtaining building permits.

The proposed water system for the Plan Area development is shown in Figure 10 "Water Plan". The proposed facilities will include a combination of 8 to 12-inches in diameter water lines. Additional lines through the service area will be 8 or 10-inches in diameter. Pressure reducing stations will be required to reduce pressures from the 820 pressure zone to a 770 pressure zone.

Based on average daily demands, the Plan Area will require a total of 1750 acre-feet per year.

WATER PLAN



Carson Creek Specific Plan

FIGURE 10 WATER PLAN

Sewer

Existing System: A portion of the Plan Area, (Euer Ranch) is served by the El Dorado Irrigation District (EID) and is within Assessment District #3 (AD #3). The remaining area (Carson Creek) is not presently served by EID or AD #3.

The Portion of the Plan Area (Euer Ranch) that is presently served by EID and AD #3 will be constructed in phases. AD #3 district funds the construction of major trunk lines, pump stations and treatment plant expansion. Subsequent phases are being funded through AD # 3 and by connection fees.

The existing sewage treatment facility, the El Dorado Hills Sewage Treatment Plant located off Latrobe Road and South of Highway 50, was designed to service those areas within AD #3. EID is currently in the process of evaluating the expansion to increase capacity. The sewage is subjected to secondary treatment and the treated discharge is currently piped to the El Dorado Hills Golf Course, the El Dorado Hills Specific Plan Area and to the Golden State Buildings Products facility. Existing sewage facilities in the Plan Area consist of gravity pipelines ranging in 6 to 15-inches in diameter, sewage lift stations and 10 to 18-inches in diameter force mains. These facilities are located adjacent to the Specific Plan Area, with a majority of the facilities located in the El Dorado Hills Business Park. There are additional facilities located along White Rock Road and other facilities that are anticipated to be constructed prior to the completion of the first phase of this Plan Area. The existing facilities located within the Plan Area have been shown in Figure 11, "Sewer Plan".

Specific Plan Area System: The portion of the Plan Area (Ever Ranch) that is presently served by EID and AD #3 will connect to AD #3 facilities. The remaining portion of the Plan Area (Carson Creek) is proposing that service be provided by EID and will require annexation into the EID Service Area. Service will then be provided by EID and infrastructure funded by the developer and/or assessment district.

The proposed sanitary system required for the Plan Area development is shown in Figure 11, "Sewer Plan". The proposed facilities will be a combination of gravity-fed lines ranging in size from 8 to 18-inches in diameter, temporary and permanent sewage lift stations, and force mains ranging in size from 4 to 10 inches in diameter. All facilities will be installed in street right-of-way or within EID easements.

Based on average discharge rates, the development of the Plan Area will generate a total of 1.1 M.D. of effluent.

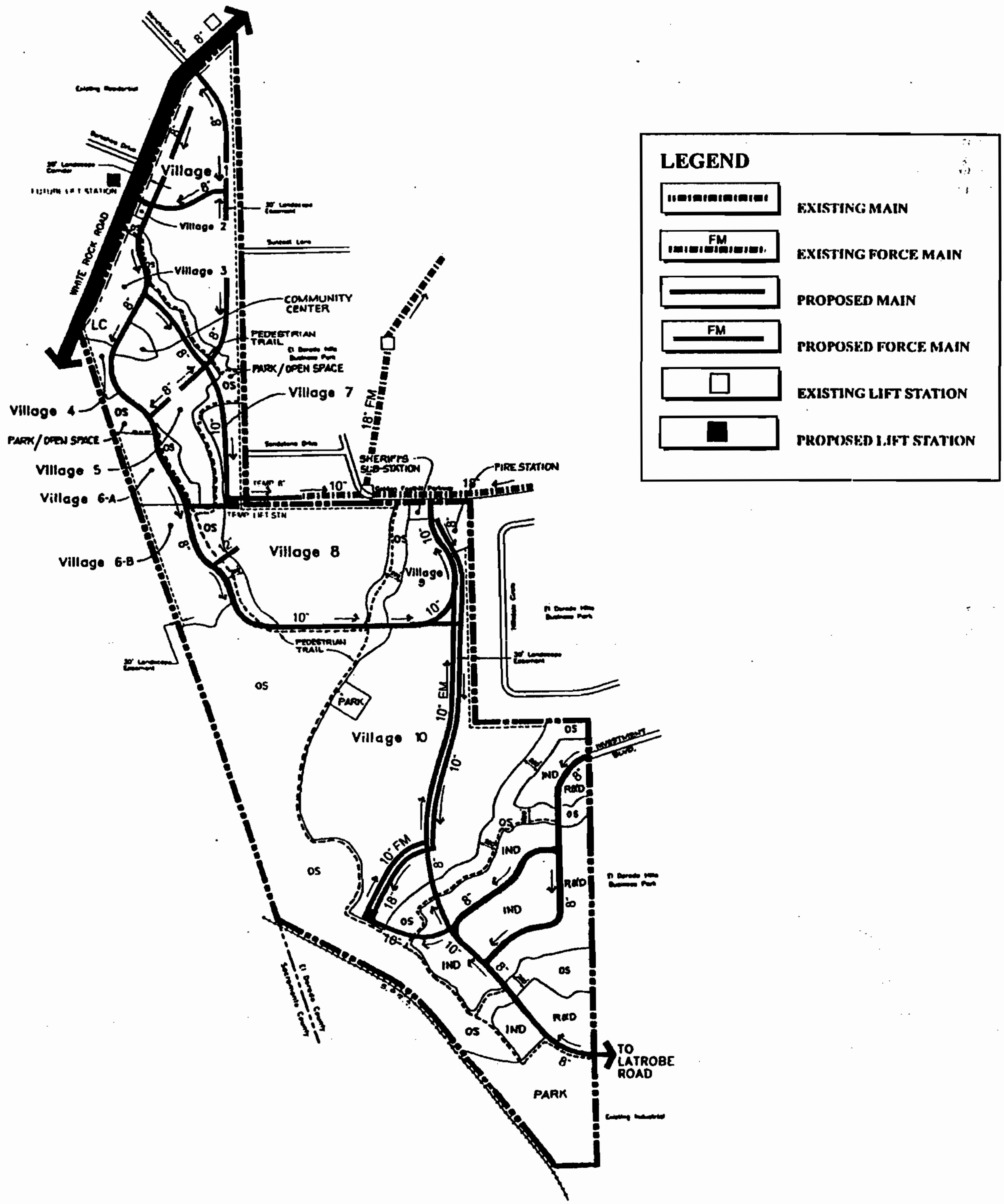
Reclaimed Water

Existing System: The existing sewage treatment facility, the El Dorado Hills Sewage Treatment Plant, that is located off Latrobe Road south of U.S. Highway 50 can presently provided reclaimed water service. The sewage treatment facility is subjected to secondary treatment and is presently providing service to the El Dorado Hills Golf Course and the Golden State Building Products facility.

In conjunction with the development of the El Dorado Hills Specific Plan the sewage treatment facility has been upgraded to provide additional reclaimed water service to the El Dorado Hills Area north of U.S. Highway 50. The El Dorado Hills Sewage Treatment Plant will be expanded and may provide additional reclaimed service for the Plan Area for landscaping in public areas, the parks, and open space areas, especially in conjunction with revegetative efforts. Reclaimed water may be available for private residential use in a controlled manner.

Specific Plan Area System: Based upon current events it is apparent that reclaimed water service would be available to the Plan Area. If reclaimed water service becomes available the proposed reclaimed water service lines may be sized within the Plan Area in accordance with EID design standards and would connect to the overall master reclaimed water system. The lines would be installed in either street rights-of-way or within easements on private property.

SEWER PLAN


LEGEND
EXISTING MAIN
FM
EXISTING FORCE MAIN
PROPOSED MAIN
FM
PROPOSED FORCE MAIN
EXISTING LIFT STATION
PROPOSED LIFT STATION
WHITE ROCK ROAD
Village 1
Village 2
Village 3
COMMUNITY CENTER
PEDESTRIAN TRAIL
PARK/OPEN SPACE
Village 7
Village 4
PARK/OPEN SPACE
Village 5
Village 6-A
Village 6-B
Village 8
Village 9
Village 10
SHERIFFS SUB-STATION
FIRE STATION
18" FM
10" FM
PEDESTRIAN TRAIL
PARK
TO LATROBE ROAD
PARK
LC
OS
IND
R&D

3.8 Environmental Management

Wetlands

An extensive assessment of wetland and other sensitive biotic resources was conducted prior to the development of the land use plan. As a result, a comprehensive planning approach was used to ensure the project design minimizes impacts to wetlands resources. The site development concept was based on the preservation and enhancement of the highest value wetlands on site. A mitigation plan has been developed to preserve existing wetlands where practicable and compensate for unavoidable impacts to existing wetlands with the goal of no net loss of total wetland habitat.

Geology and Soils

The project site lies in the eastern portion of the Great Valley Geomorphic Province in an area characterized by low alluvial plains and fan deposits composed of sediments derived from the Sierra Nevada. Six soil types occur on the property. Perkins gravelly loam is the dominant soil on the site, representing about 60% of the total area. The other soil types are Argonaut gravelly loam, Argonaut very rocky loam, Auburn silt loam, Auburn very rocky silt loam, and Whiterock gravelly silt loam.

Vegetation and Wildlife

The primary vegetation type on the site is annual grassland. A few riparian plant species occur along small portions of the Carson Creek Channel. A groundwater discharge area is situation in the southern portion of the site due east of Carson Creek.

Vernal pools occur on the property in association with the annual grassland. Years of grazing and trampling by livestock have affected the original floral character of the pools. Common plant species found on the site include popcorn flower, coyote thistle, hairgrass, and woolly marbles.

Special Status Species Inventory

Special status species inventories were conducted at the site between October 1988 and May 1992. Species considered were those that are: 1) listed or candidates for listing by the California Dept. of Fish and Game; 2) listed or candidates for listing by the U.S. Fish and Wildlife Service; 3) inventoried by the California Native Plant Society. With exception to habitat suitable for the Boggs

Lake dodder, a federal 3c species, no special status plant or animal species were found during site surveys.

Revegetation

Section 4 contains the standards for plant and grass revegetation.

3.9 Public Facilities and Services

Fire Protection

Fire Protection Services will be provided by the El Dorado Hills Fire Department. A planned fire station in the Carson Creek Specific Plan area would serve the Carson Creek community.

Police

Police services will be provided by the El Dorado County Sheriff's Department. Service will be provided from the Sheriff's headquarters in Placerville and the substation in the Carson Creek Specific Plan area.

Schools

The Specific Plan contemplates an age-restricted senior community with residents at least 55 years of age. School-age children may not live in the community as permanent residents. Therefore, community will not result in any adverse impact on or create a demand for school facilities.

The project applicant, as a condition of approval, has committed to the following measures: (1) to pay the commercial school fee of $0.31 per square foot and (2) to reimburse the Latrobe School District for out-of-pocket expenses incurred in planning for school sites within the Carson Creek Specific Plan area before it was age restricted.

The project applicant also has committed to, as a condition of approval, amending its contract with the Latrobe School District and the El Dorado Union High School District in the unlikely event that the age restrictions for the Carson Creek Specific Plan area are lifted.

Linear Parkways

A **Linear Parkway** system will be established within the buffer area of Carson

Creek and its tributaries.

The parkway trail system will provide pedestrian connections from the residential areas to parks, schools, and commercial areas via trails and bikeways away from busy streets. Landscaping will be used to enhance key views or activity areas and to provide a screen between natural areas and development.

Parks

In addition to the proposed natural open space and linear parkway improvements, a system of active park areas is planned. The parks proposed are described in more detail in Section 3.3 "Land Use Categories."

Library

Library services will be provided by El Dorado County. The Carson Creek Specific Plan area is currently served by a joint-use library located at Oakridge High School. A new branch library is planned for El Dorado Hills, to be located in the Silva Valley area. The new library will be funded by a Mello Roos district located north of Highway 50 in El Dorado Hills.

Gas Service

Pacific Gas and Electric (PG&E) provides gas service to the area. The nearest point of connection for gas service along White Rock Road is at the intersection with Latrobe Road. Four-inch service ties are also available along the eastern boundary of the site, in the street stubs from the El Dorado Hills Business Park, Suncast Lane and Sandstone Drive.

PG&E has a 10-inch high pressure (250 psi) gas main in White Rock Road which is not available for additional service as it cannot be tapped into.

Electric Service

Pacific Gas and Electric (PG&E) provides electric service to the area. Underground service stubs are available at the eastern boundary of the project site in Suncast Lane and Sandstone Drive.

PG&E currently has overhead facilities on the project site which run parallel to the County line. These overhead facilities would be required to be undergrounded at the time of roadway construction, and the corresponding easements abandoned.

Telephone Service

Pacific Bell telephone service exists in the vicinity of the site. It currently serves the subdivision to the north and the El Dorado Hills Business Park to the east. Pacific Bell has indicated that additional main line facilities would be required in order to serve the site at the buildout of the Specific Plan. These additional facilities would be installed by Pacific Bell. Coordination with Pacific Bell will be necessary during project development to schedule installation of service and facilities.

COUNTY OF EL DORADO, CALIFORNIA
BOARD OF SUPERVISORS POLICY

Subject: GENERAL PLAN AMENDMENT INITIATION PROCESS	Policy Number J-6	Page Number: Page 1 of 4
	Date Adopted: 12/10/13	Revised Date:

BACKGROUND:

The El Dorado County General Plan is the comprehensive, long-term plan for the physical development of the county. State planning law requires the County to develop, adopt and maintain a legally adequate general plan, and provides for periodic monitoring, update and amendment of the general plan. The El Dorado County General Plan implements State planning law by providing for periodic monitoring of development activity and adjustment of the development potential of properties or modification of Community Region and Rural Center boundaries as the County deems necessary.

On April 4, 2011, the County completed the first five-year review following adoption of the General Plan. The County assessed prior activity and determined that the basic General Plan Assumptions, Strategies, Concepts and Objectives were still generally valid, and that land-use amendments would not be needed at this time. The County identified a number of General Plan policy revisions that would reinforce certain priorities including creation of jobs, provision of housing affordable to moderate-income households, retention of sales tax revenue, promotion and protection of agriculture and compliance with revisions in state law. The County initiated a Targeted General Plan Amendment to address the identified policy revisions.

State planning law permits General Plan Amendments to be initiated by the County or by a private party. A property owner may request a General Plan Amendment by submitting an application. Although a property owner has the right to submit amendment requests to the County, not all such requests further the County's goals and priorities. Considering the significant investment that is required to initiate and process a development application, the Board has determined a procedure is needed to ensure that applicants are fully informed of the potential issues and risks associated with privately initiated General Plan Amendments, applications for new Specific Plans and Specific Plan Amendments, This policy is issued to specify the manner in which amendments to the El Dorado County General Plan, Specific Plan Applications and Specific Plan Amendments sought by private parties shall be initiated pursuant to Government Code Section 65358 (general plan amendments), Government Code Section 65453 (specific plan amendments), and General Plan Policies [2.9.1.1 through 2.9.1.6.]

POLICY:

It is the policy of the Board of Supervisors (Board) that any privately-initiated application to amend the General Plan, adopt a new Specific Plan, and/or amend a Specific Plan (herein collectively referred to as "Applications") proposing to increase allowable residential densities shall require an "Initiation" hearing before the Board. The "Initiation" hearing is the first point of consideration by a decision maker and is intentionally limited in scope. The hearing shall focus on the fundamental question of whether the proposed Application complies with the Criteria described below in this section.

This policy shall apply only to Applications submitted after the effective date of this policy.

General Plan Amendment Initiation Process

Applicants shall submit a complete application to the Community Development Agency. The completed application shall include, but not be limited to, the following items:

1. A description of the proposed project and General Plan amendment, Specific Plan, or Specific Plan amendment, as applicable, including a discussion of the elements and policies to be amended, the reasons for the amendment, and compliance with the criteria below;

2. Vicinity and Location Maps;

3. Site plan(s) showing existing and proposed general plan land use designations for the subject property and surrounding properties;

4. Optional exhibits, such as photographs or aerial photographs.

Once staff has determined that the application is complete, a staff report shall be prepared by staff and the Application shall be referred to the Board of Supervisors for a hearing to evaluate whether the application complies with the criteria identified below. The County will strive to schedule this hearing within 60 days from the date staff determines the application is complete.

Notice of the hearing shall be provided in the manner required by Government Code section 65091 or as otherwise required by County Ordinance or Resolution.

Criteria for Initiation of General Plan Amendments

Applications shall be evaluated to determine whether it complies with the following criteria:

1. The proposed Application is consistent with the goals and objectives of the General Plan; and

2. Public infrastructure, facilities and services are available or can be feasibly provided to serve the proposed project without adverse impact to existing or approved development; and

3. The Application meets one or more of the following goals and objectives:

    A. Increases employment opportunities within El Dorado County.

B. Promotes the development of housing affordable to moderate income households.

C. Provides additional opportunities to retain retail sales and sales tax revenues within El Dorado County.

D. Protects and enhances the agricultural and natural resource industries;

E. Is necessary to comply with changes in state or federal law;, and;

4. The Application is consistent with any applicable Board adopted community vision and implementation plan.

Exemptions

General Plan and Specific Plan amendments necessary to correct technical errors or mapping errors, to facilitate the development of qualified housing projects available to very low or low income households, to protect the public health and safety, or that propose to increase allowable density/intensity by less than 50 dwelling units are exempt from the provisions of this policy.

POLICY REVIEW: This Board Policy shall be reviewed no less than annually to assess whether this policy is working effectively and as intended.

CARSON CREEK FUTURE RESIDENTIAL

AERIAL PHOTO

EL DORADO HILLS, CALIFORNIA

SCALE: 1"=100' NOVEMBER, 2017

Exhibit I PA17-0004

0 50' 100' 200'
SCALE: 1" = 100'

cta Engineering & Surveying

Civil Engineering ■ Land Surveying ■ Land Planning

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CARSON CREEK FUTURE RESIDENTIAL
INFRASTRUCTURE AND CIRCULATION MAP
EL DORADO HILLS, CALIFORNIA

SCALE: 1"=200' NOVEMBER, 2017

Exhibit J PA17-0004

0 100' 200' 400'
SCALE: 1" = 200'

LEGEND
- 45' x 105'
- 55' x 105'
- COMMERCIAL
- LANDSCAPE/OPEN SPACE
- PEDESTRIAN TRAIL
- APPROVED CROSSING

TOTAL
- 45' x 105' - 256 LOTS - 61.7%
- 55' x 105' - 159 LOTS - 38.3%

TOTAL: 415 LOTS + 1.67 AC COMMERCIAL

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CARSON CREEK SPECIFIC PLAN AMENDMENT

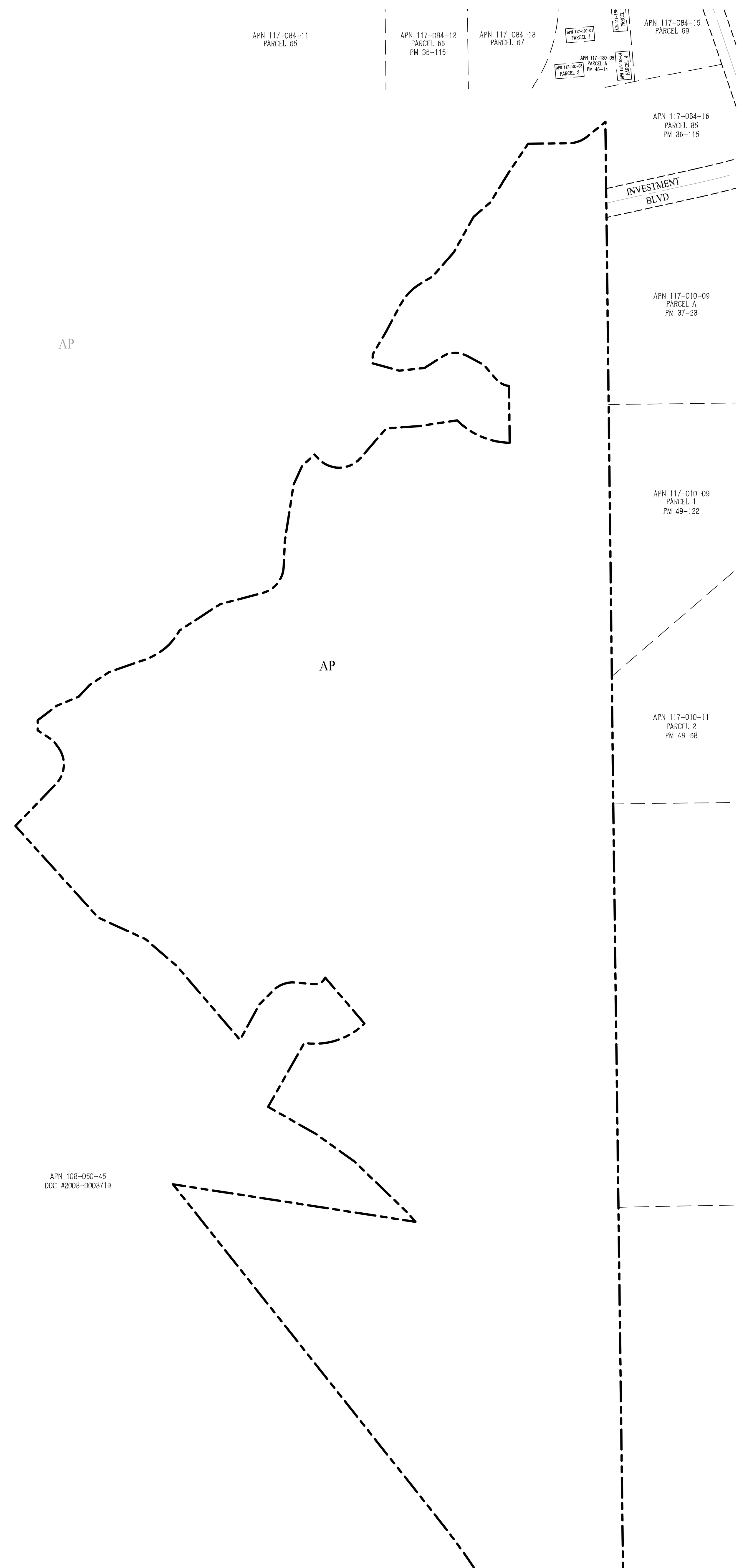
PROPOSED AGE RESTRICTED COMMUNITY
EXISTING & PROPOSED LAND USE

EL DORADO HILLS, CALIFORNIA

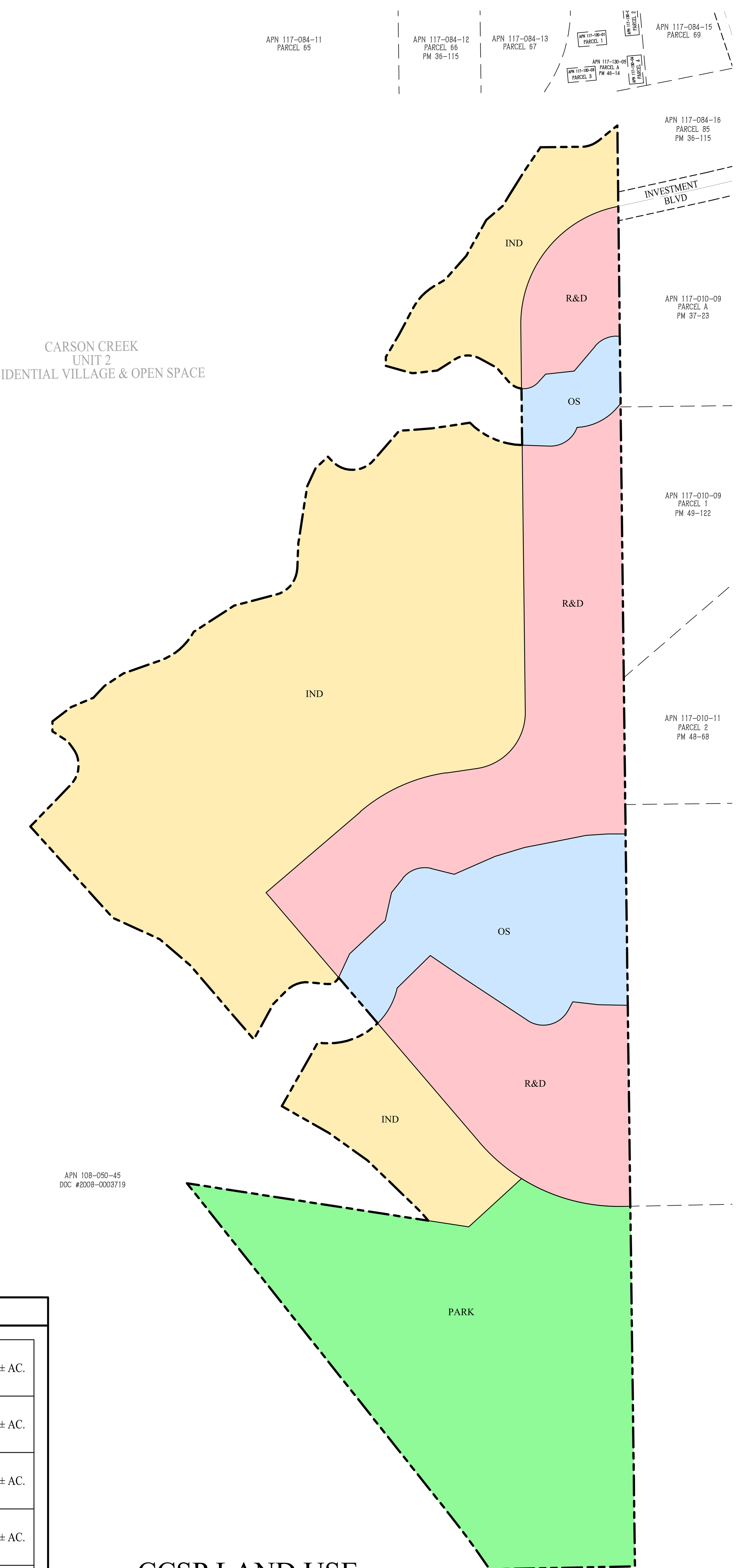
SCALE: 1"=200' NOVEMBER, 2017

Exhibit K PA17-0004

SCALE: 1" = 200'



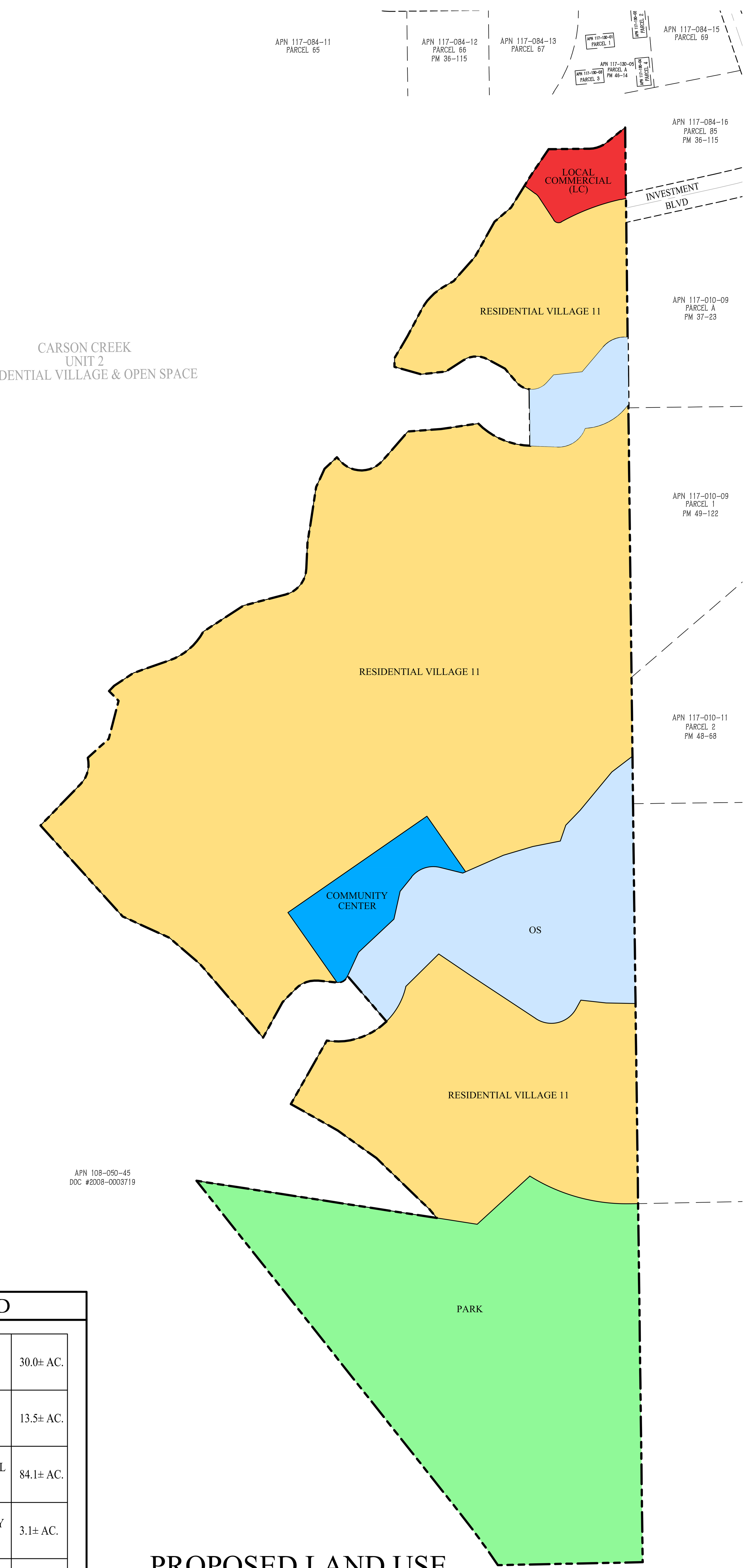
GENERAL PLAN (AP) LAND USE



CCSP LAND USE

LEGEND

	PARK	30.0± AC.
	O.S.	12.6± AC.
	IND.	57.0± AC.
	R&D	33.3± AC.
	TOTAL	132.9± AC.



PROPOSED LAND USE

LEGEND

	PARK	30.0± AC.
	O.S.	13.5± AC.
	RESIDENTIAL VILLAGE 11	84.1± AC.
	COMMUNITY CENTER	3.1± AC.
	LOCAL COMMERCIAL	1.7± AC.
	TOTAL	132.4± AC.

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CARSON CREEK FUTURE RESIDENTIAL

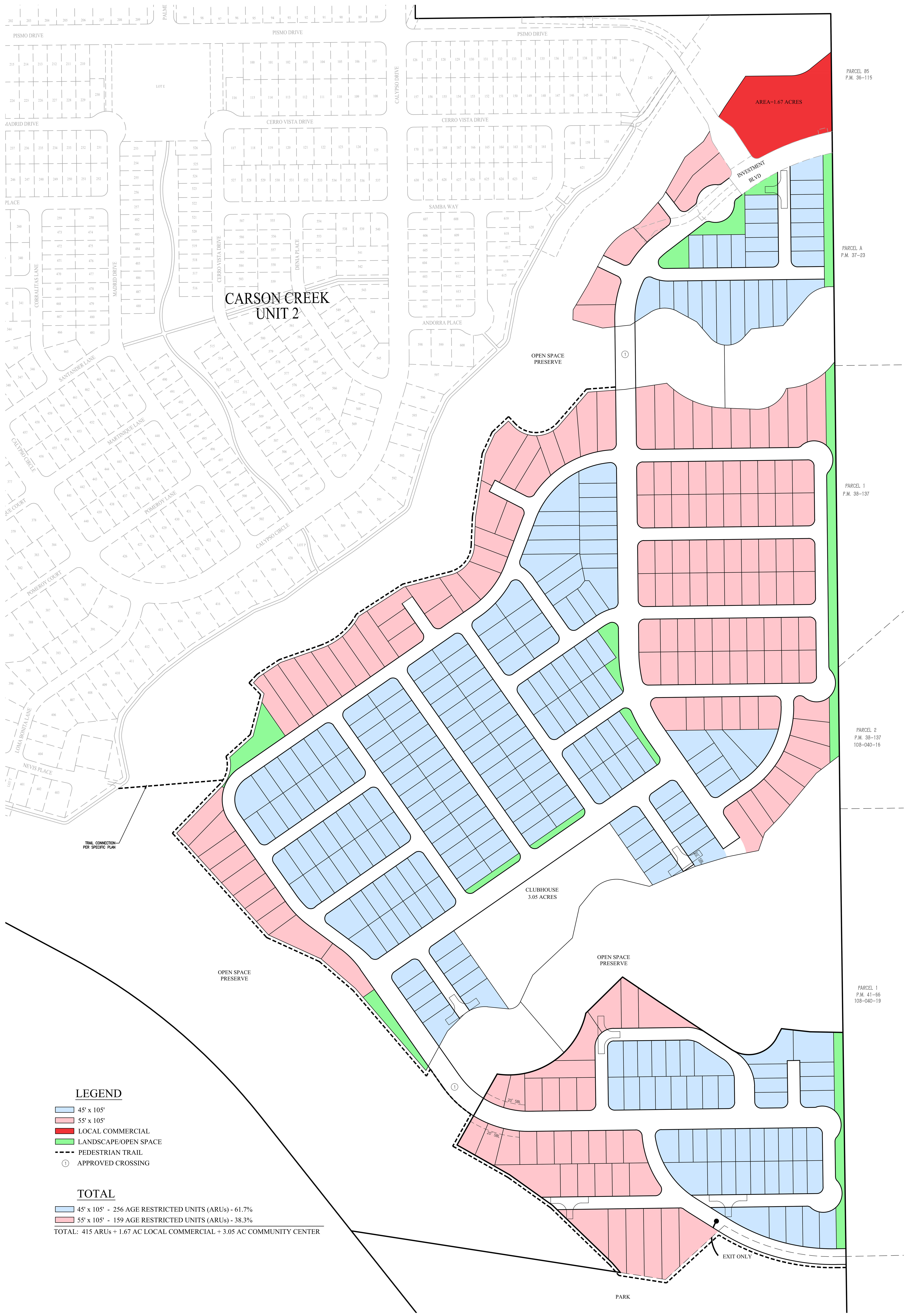
AGE RESTRICTED UNIT (ARU) STUDY MAP

EL DORADO HILLS, CALIFORNIA

SCALE: 1"=100'   NOVEMBER, 2017

Exhibit L PA17-0004

0 50' 100' 200'
SCALE: 1" = 100'



LEGEND

- 45' x 105'
- 55' x 105'
- LOCAL COMMERCIAL
- LANDSCAPE/OPEN SPACE
- PEDESTRIAN TRAIL
- ① APPROVED CROSSING

TOTAL

- 45' x 105' - 256 AGE RESTRICTED UNITS (ARUs) - 61.7%
- 55' x 105' - 159 AGE RESTRICTED UNITS (ARUs) - 38.3%

TOTAL: 415 ARUs + 1.67 AC LOCAL COMMERCIAL + 3.05 AC COMMUNITY CENTER

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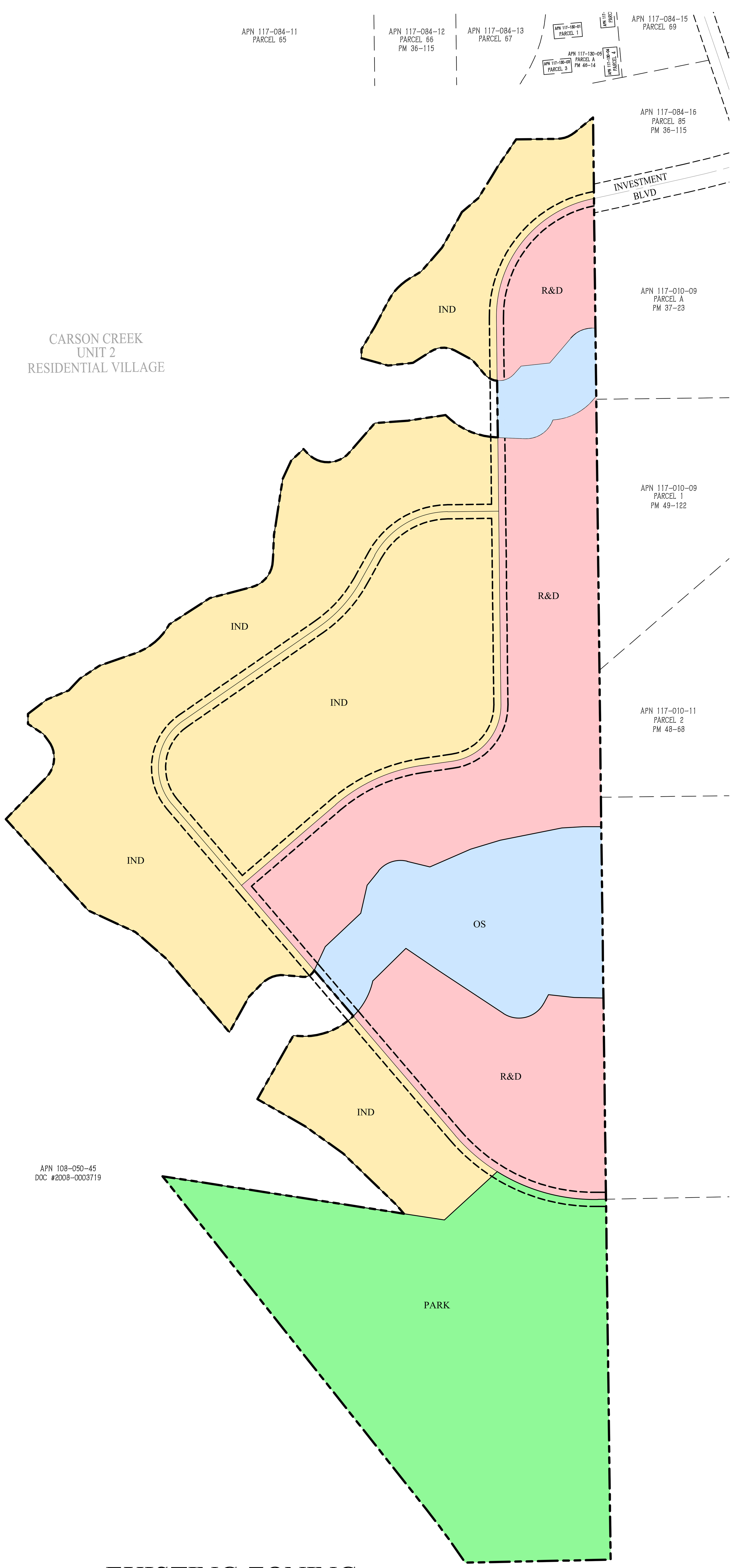
CARSON CREEK SPECIFIC PLAN AMENDMENT
PROPOSED AGE RESTRICTED COMMUNITY
EXISTING & PROPOSED ZONING
EL DORADO HILLS, CALIFORNIA

SCALE: 1"=200' NOVEMBER, 2017

Exhibit M PA17-0004

SCALE: 1" = 200'



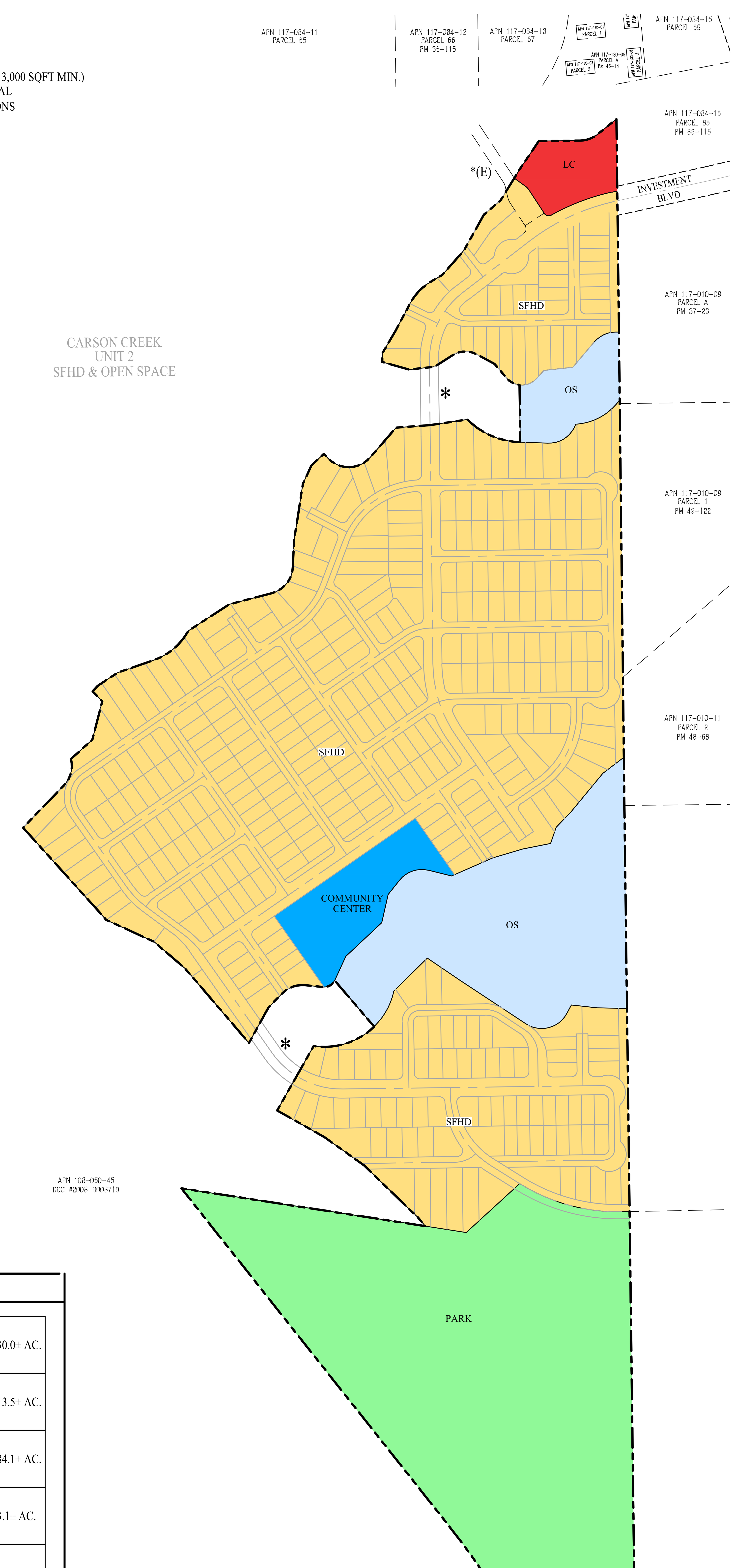
LEGEND

	PARK	30.0± AC.
	O.S.	12.6± AC.
	IND.	57.0± AC.
	R&D	33.3± AC.
	TOTAL	132.9± AC.

EXISTING ZONING

LEGEND

OS - OPEN SPACE
SFHD- SINGLE FAMILY HIGH DENSITY (3,000 SQFT MIN.)
LC - LOCAL CONVENIENCE COMMERCIAL
* APPROVED ACOE CROSSING LOCATIONS
*(E) EXISTING APPROVED CROSSING



LEGEND

	PARK	30.0± AC.
	O.S.	13.5± AC.
	RESIDENTIAL VILLAGE 11	84.1± AC.
	COMMUNITY CENTER	3.1± AC.
	LOCAL COMMERCIAL	1.7± AC.
	TOTAL	132.4± AC.

PROPOSED ZONING

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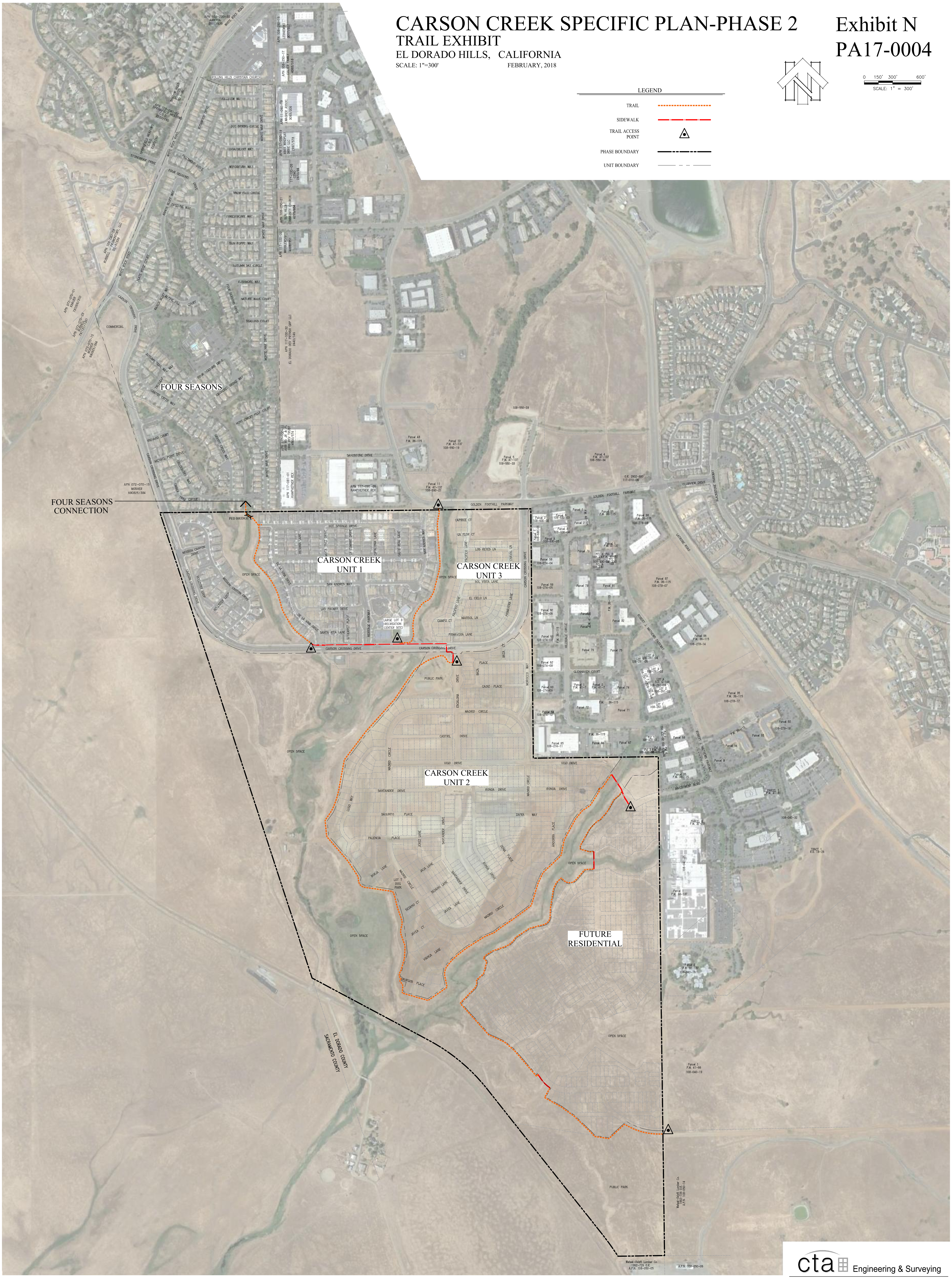
CARSON CREEK SPECIFIC PLAN-PHASE 2

TRAIL EXHIBIT

EL DORADO HILLS, CALIFORNIA

SCALE: 1"=300' FEBRUARY, 2018

Exhibit N
PA17-0004



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T.KEAR
TRANSPORTATION PLANNING
& MANAGEMENT, INC.

Memorandum

TO: Sean MacDiarmid, Lennar

FROM: Tom Kear, PhD, PE

Date: August 22, 2019

RE: Summary of Trip Generation Analysis Findings from Proposed CCSP rezone

Our prior analysis found that rezoning industrial and R&D land within the Cason Creek Specific Plan (CCSP) to age restricted housing would dramatically reduce cumulative trip generation. Specifically, the proposed rezone is anticipated to more than half cumulative trips to and from the CCSP area (reducing 18,600 daily trips, 3,200 AM peak-hour trips, and 3,500 PM peak-hour trips).

Cumulative trip generation for the CCSP, with and without the proposed rezone, is anticipated to be:

	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Approved CCSP	37,153	4,436	5,640
CCSP with Proposed Rezone	18,544	1,211	2,093

The 94.1 Ac of land in question would accommodate roughly 4,550 employees if develuped as industrial and R&D uses. As housing is was assumed to accommodate 434 age restricted dwelling units[1]. Its easy to understand the potential trip reduction considering the employment the parcels in questions would ultimately accommodate if not rezoned to housing.

Our prior analysis, dated 11/7/2018, is attached for reference. The above findings are taken from that memorandum, which was more detailed and complex because it addressed the changes in trip generation relative to approved CEQA documents.

[1] Subsequent to our analysis the proposed rezone reduced the number of age-restricted dwelling units to 415, which would further reduce trip generation.

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2838 Zamora Lane, Davis, California 95618 www.tkearinc.com

T.KEAR
TRANSPORTATION PLANNING & MANAGEMENT, INC.

Memorandum

TO: Carson Creek El Dorado, LLC

FROM: Tom Kear, PhD, PE

Date: November 7, 2018

RE: Trip Generation Implications of Rezoning Carson Creek R&D and Industrial Acreage

Summary

Highlights

The proposed rezoning changes 94.1 acres of undeveloped industrial and R&D land to age-restricted housing in the Carson Creek Specific Plan area. Assuming allowed floor-area-ratios, this change replaces an estimated 4550 employees with approximately 434 age-restricted single-family homes. Relative to the currently approved Specific Plan at buildout, cumulative trip generation would be reduced by more than half (reducing 18,600 daily trips, 3,200 AM peak-hour trips, and 3,500 PM peak-hour trips).

Abstract of Findings

Trip generation checks against those from prior land use assumptions do not indicate any issues with the proposed rezoning. Relative to the 1996 DEIR[1] and the amended land use adopted in 1999, this analysis shows that the proposed changes would reduce about 18,600 daily trips at build-out[2].

Project Understanding

The original Carson Creek Specific Plan (CCSP), approved in 1996, included more than 2,500 homes and resulted in a variety of cumulative transportation related impacts that required projects contribute their fair share to improvement costs through impact fees at the time of development. A subsequent Settlement Agreement and Mutual Release between “El Dorado Taxpayers for Quality Growth”, proponents of the Specific Plan, and El Dorado County, resulted in an amended Specific Plan in 1999, which included:

- 1,700 age restricted dwelling units on 368.6 acres;
- Research and development - 34.4 acres;
- Industrial - 59.7 acres;
- Community center – 3 acres;

[1] Michael Brandman Associates (1996) Draft Environmental Impact Report for the Carson Creek Specific Plan, State Clearinghouse no, 94072021

[2] Based on the difference between approved and proposed land uses. At buildout, the proposed rezone would replace approximately 4550 jobs with 434 age restricted dwelling units.

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- Local commercial – 4.6 acres;
- Quasi-public (sheriff substation & fire station) – 6.6 acres;
- Parks – 37 acres; and
- Open space – 198.9 acres.

Currently CCSP development has been broken into four or more phases (See **Figure 1**):

- The existing **Euer Ranch**/**Four Seasons** neighborhood, constructed in 2003, which includes 458 age-restricted dwelling units, a community center, and parks. The Rolling Hills Christian Church is situated on the northern edge of Euer Ranch;
- The approved **Carson Creek Unit 1**, currently under construction, which includes 285 age restricted dwelling units, parks, and a community center;
- The approved **Carson Creek Unit 2** is anticipated to include 633 age restricted dwelling units along with parks and community center space;
- The approved **Carson Creek Unit 3** – which would consist of 140 age restricted dwelling units, parks, and the Westmont of El Dorado Assisted Living and Memory Care Facility;
- The industrial and R&D portion of the Carson Creek Specific Plan, which is the focus of this trip generation study.

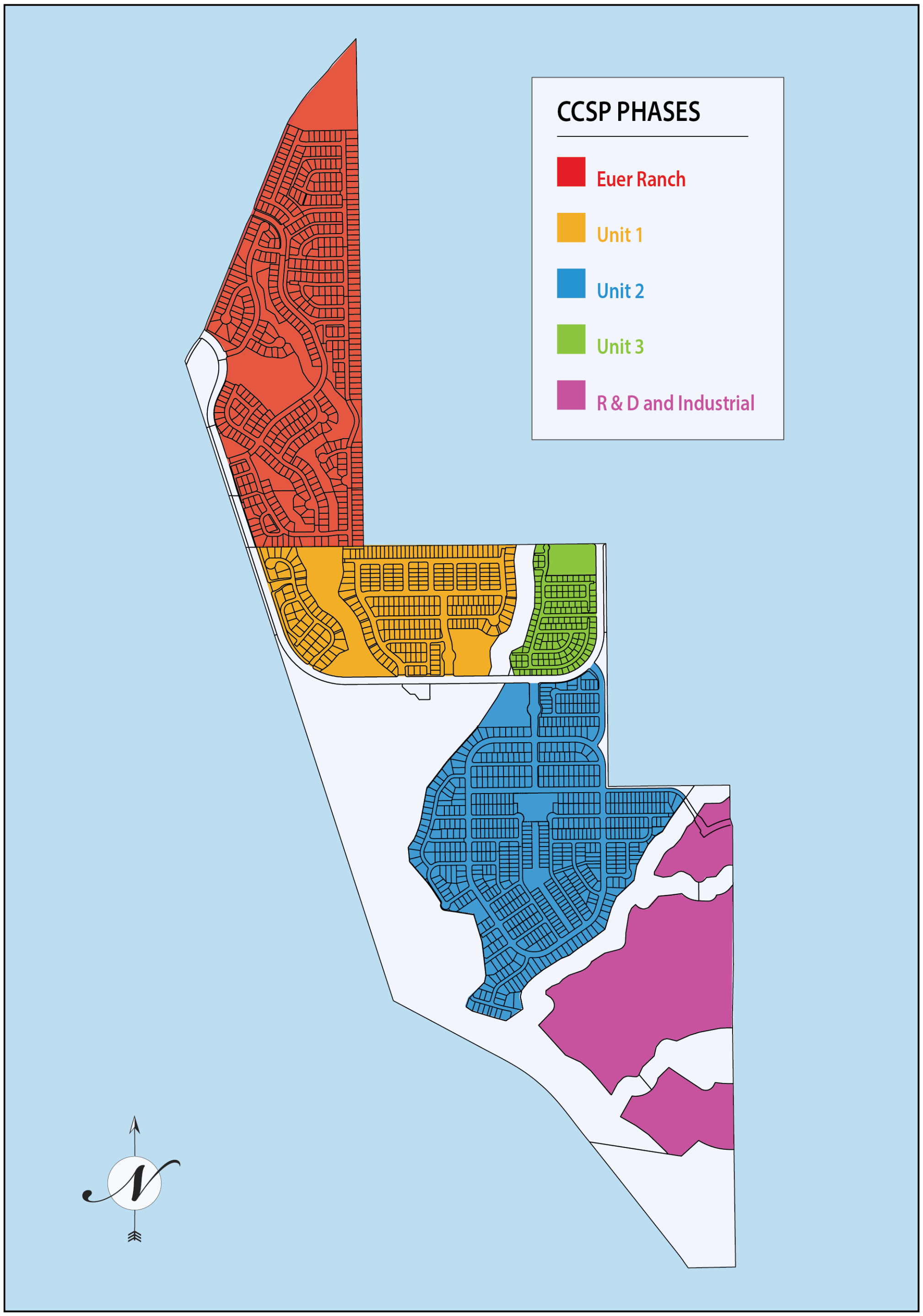


Figure 1. CCSP Phasing

Approach

The consistency of proposed amendments to the trip generation allowed by Carson Creek Specific Plan (CCSP) development is documented. The proposed amendments include rezoning industrial space, and R&D space, to age restricted housing. Trip generation with the proposed zoning changes is compared to:

- Estimated trip generation for the 1999 amended Specific Plan land[3] use at buildout;
- The published trip generation from the 1996 DEIR; and

Trip Generation Estimates

Three sets of trip generation estimates are presented in the following tables and text. **Table 1** represents the proposed rezone. It presents estimated trip generation for the CCSP, with the industrial and R&D land rezoned to age restricted hosing. A density of 4.61 units per acre was assumed, matching the average density of CCSP Unit 1, Unit 2, and Unit 3. The Rolling Hills Christian church and the Westmont of El Dorado Assisted Living CUP projects are also included. **Table 2** represents currently approved zoning from the 1999 CCSP Amendment. It assumes build-out of the CCSP as amended in 1999. The 94.1 acres of industrial and R&D space is anticipated hold 2,958 ksf of building space, accommodating roughly 4,550 employees[4]. The trip generation assumptions from the 1996 DEIR are then shown (**Table 3**).

Table 1. Trip generation at build-out of CCSP with industrial and R&D replaced with age restricted housing

Land Use	Size/Unit	ITE Code	Daily Rate	Weekday AM Peak Hour			Weekday PM Peak Hour			Floor Area Ratio
				In	Out	Total	In	Out	Total	
Housing *Trip Rate*	2,134 DU *	251	3.68	0.12	0.17	0.29	0.19	0.15	0.34	n/a
Housing *Trips*	Trips		7,853	266	353	619	406	319	726	
Community Center *Trip Rate*	52.27 KSF	495	33.82	1.65	1.24	2.89	1.70	1.85	3.55	0.4
Community Center *Trips*	Trips		1,768	86	65	151	89	96	185	
Local Commercial *Trip Rate*	69.69 KSF	820	77.06	1.11	0.68	1.79	4.75	5.14	9.89	0.4**
Local Commercial *Trips*	Trips		5,371	78	48	125	331	358	689	
Quasi-Public *Trip Rate*	185 Emp***	730	11.95	0.86	0.16	1.02	1.41	0.50	1.91	n/a
Quasi-Public *Trips*	Trips		2,208	158	30	188	261	92	353	
Parks *Trip Rate*	37 Acres	412	2.28	0.37	0.15	0.52	0.21	0.38	0.59	n/a
Parks *Trips*	Trips		84	14	6	19	8	14	22	
Rolling Hills Christian Church *Trip Rate*	103 KSF	560	9.11	0.48	0.39	0.87	0.51	0.43	0.94	n/a
Rolling Hills Christian Church *Trips*	Trips		938	49	40	90	52	45	97	
Westmont Memory Crare *Trip Rate*	134 Units	255	2.40	0.09	0.05	0.14	0.06	0.10	0.16	n/a
Westmont Memory Crare *Trips*	Trips		322	12	7	19	8	13	21	
Open Space	198.9 Acres	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Trips			**18,544**	602	501	**1,211**	1,095	880	**2,093**	

* 1,700 DU allowed under CCSP Settlement Agreement plus 434 DU from the proposed rezone of industrial and R&D acreage.
** Carson Creek Specific Plan, page 4-15, 1996.
*** SACOG Maximum Employees/Acre, 28*6 Emp/Ac.6.6 Ac =184.8 Emp.

Source: TKTPM

[3] Palisades Development (1999) The Carson Creek Specific Plan Adopted September 24, 1996 Minor Amendment September 28, 1999.
[4] Assumes 0.65 ksf/employee

Table 2. Trip generation at build-out of CCSP as amended in 1999

Land Use	Size/Unit	ITE Code	Daily Rate	Weekday AM Peak Hour			Weekday PM Peak Hour			Floor Area Ratio
				In	Out	Total	In	Out	Total	
Housing *Trip Rate*	1,700 DU	251	3.68	0.12	0.17	0.29	0.19	0.15	0.34	n/a
Housing *Trips*	Trips		6,256	212	281	493	324	254	578	
Research and Development *Trip Rate*	747.1 KSF	760	8.11	1.01	0.21	1.22	0.16	0.91	1.07	0.5*
Research and Development *Trips*	Trips		6,059	756	155	911	120	679	799	
Industrial *Trip Rate*	2,210 KSF	110	6.97	1.04	0.12	1.15	0.19	1.17	1.36	0.85*
Industrial *Trips*	Trips		15,407	2,293	255	2,548	422	2,592	3,014	
Community Center *Trip Rate*	52.27 KSF	495	33.82	1.65	1.24	2.89	1.70	1.85	3.55	0.4
Community Center *Trips*	Trips		1,768	86	65	151	89	96	185	
Local Commercial *Trip Rate*	69.69 KSF	820	77.06	1.11	0.68	1.79	4.75	5.14	9.89	0.4**
Local Commercial *Trips*	Trips		5,371	78	48	125	331	358	689	
Quasi-Public *Trip Rate*	185 Emp***	730	11.95	0.86	0.16	1.02	1.41	0.50	1.91	n/a
Quasi-Public *Trips*	Trips		2,208	158	30	188	261	92	353	
Parks *Trip Rate*	37 Acres	412	2.28	0.37	0.15	0.52	0.21	0.38	0.59	n/a
Parks *Trips*	Trips		84	14	6	19	8	14	22	
Open Space	198.9 Acres	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total Trips			**37,153**	3,597	839	**4,436**	1,554	4,086	**5,640**	

* El Dorado County General Plan, page 21, 2004
** Carson Creek Specific Plan, page 4-15, 1996
***SACOG Maximum Employees/Acre, 28*6 Emp/Ac.6.6 Ac =184.8 Emp
Source: TKTPM

Table 3. Carson Creek Specific Plan DEIR trip generation

Land Use	Size/Unit	Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
SF Residential (1-5 Units/Acre)	689 DU	6,580	510	696
SF Residential (5-17 Units/Acre)	1,548 DU	14,629	1,130	1,533
MF Residential (18-20 Units/Acre)	310 DU	1,947	136	152
Research & Development	843.3 KSF	6,493	1,037	902
Elementary School	100 KSF	1,072	274	28
Middle School	200 KSF	2,144	548	56
Local Convenience Commercial	240.4 KSF	12,361	274	1,156
Park	31.2 Acres	93	90	98
Open Space	142.8 Acres	n/a	n/a	n/a
Subtotal Trips		45,319	3,999	4,621
Internalization Reduction (15%)		-6798	-600	-693
Total Net Trips		**38,521**	**3,399**	**3,928**

Source: Michael Brandman Associates (1996) Draft Environmental Impact Report for the Carson Creek Specific Plan, State Clearinghouse no, 94072021

Findings:

Amending the CCSP to convert the industrial and R&D space to age restricted housing is anticipated to reduce 18,600 daily trips, 3,200 AM peak-hour trips, and 3,500 PM peak-hour trips at build-out (relative to currently approved zoning).

With the proposed amendments to the CCSP, trip generation would be below what was assumed in the DEIR analysis. Most of the trip reductions accrue to inbound travel during the morning and outbound travel during the afternoon, which would be expected to improve traffic operations along Latrobe Road and White Rock Road.

DPFG
DEVELOPMENT PLANNING & FINANCING GROUP, INC.

Memorandum

To: Sean MacDiarmid
From: Development Planning & Financing Group
Date: April 9, 2019
Subject: El Dorado Hills/Sacramento Region Office/Industrial Market Findings

Purpose of Report

Development Planning and Financing Group, Inc. ("DPFG") was retained to prepare this report on behalf of Lennar to highlight the current greater Sacramento market and El Dorado Hills sub market of office and industrial real estate.

Current Carson Creek Specific Plan R&D and Industrial Land Use

Carson Creek - Lennar
Industrial/R&D Land Use Summary

Nonresidential	Acres	Floor Area Ratio (FAR)	SF
R&D (Assumes 0.4 FAR)	33.3	0.4	580,219
Industrial (Assumes 0.4 FAR)	57.0	0.4	993,168
Parks	30.0		
Open Space	57.4		
Total Nonresidential	**177.7**		**1,573,387**

Executive Summary

The Sacramento economy was strong in 2018 with unemployment lowering 40 basis points to 3.7% and total employment increasing by 12,400 jobs. With this, the Sacramento office and industrial real estate market saw record low vacancy rates in both sectors market wide. The office and industrial market saw average asking rents increase. These robust conditions have led to investment in new construction in both sectors.

The El Dorado Hills office market showed gains, yet its vacancy rate is still in the lowest quadrant as compared to other Sacramento submarkets in an economic environment where the Sacramento Region saw significant economic gains and record low vacancies in office space market wide. Sacramento market wide office rental rates increased 27%, nearly 2.5 times the El Dorado Hills office market, which increased 11% year over year. The addition of almost 600,000 square feet of industrial space would increase the market square footage 34.1%.

The El Dorado Hills industrial market remained flat in an environment where the Sacramento Region saw very healthy economic gains and record low vacancies in industrial space market wide. Sacramento market wide industrial rental rates increased 53% while the El Dorado Hills market declined 4.3% year over year. Vacancy rates on average declined 1.3% Sacramento market wide while the El Dorado Hills industrial vacancy rate increased 1.6% year over year. The addition of almost 1 million square feet of industrial space would increase the market square footage 73.8%.

El Dorado Hills distance from the downtown job core, major interstate highways, and port, rail and air transportation, are also limiting factors as compared to many of the Sacramento sub markets it competes against.

Key Findings

Sacramento Economy

- Increasing employment
  - 12,400 new jobs year over year ("YOY")
- Unemployment at 3.7% (Down from 4.1% YOY)
- Market near full employment

Sacramento Office Market

- Vacancy 9.2% (Historical average 13.0%)
  - Lowest Cushman Wakefield has recorded
- 2018 Absorption of 533k square feet
- Rental rate increases of 5.6% YOY

Within the Sacramento market vacancies range from 3.7% (East Sacramento), to 19.2% (Carmichael/Fair Oaks).

El Dorado Hills Office Market

- El Dorado Hills vacancies declined from 23.8% to 13.2% from Q4 2017 to Q4 2018
- 5th highest vacancy rate of the 20 sub-markets studied
- 30,216 of new office space currently under construction

Sacramento Industrial Market Report

- Industrial vacancies at record low of 4.5% (10.0% historical average)
- Asking rental rates increase of 50.0% YOY
- 2018 net absorption of 2.9M square feet
- Only 985k square feet new construction coming available

El Dorado Hills Industrial Market Report

- Industrial vacancies increased from 8.8% in Q4-17 to 10.4% in Q4-18
- Asking rental rates decreased 4.3% YOY

- 2018 net absorption of -21,075 square feet
- 139,667 square feet of existing available space
- No new construction is currently underway

Sources

Cushman & Wakefield (2018). *Marketbeat, Sacramento Office Q4 2017*.
Cushman & Wakefield (2018). *Marketbeat, Sacramento Industrial Q4 2017*.
Cushman & Wakefield (2018). *Marketbeat, Industrial Market Report, El Dorado Hills Q4 2017*.
Cushman & Wakefield (2019). *Marketbeat, Sacramento Office Q4 2018*.
Cushman & Wakefield (2019). *Marketbeat, Sacramento Industrial Q4 2018*.
Cushman & Wakefield (2019). *Marketbeat, Industrial Market Report, El Dorado Hills Q4 2018*.

MARKETBEAT

Sacramento

Investment Q4 2018

CUSHMAN & WAKEFIELD

SACRAMENTO INVESTMENT

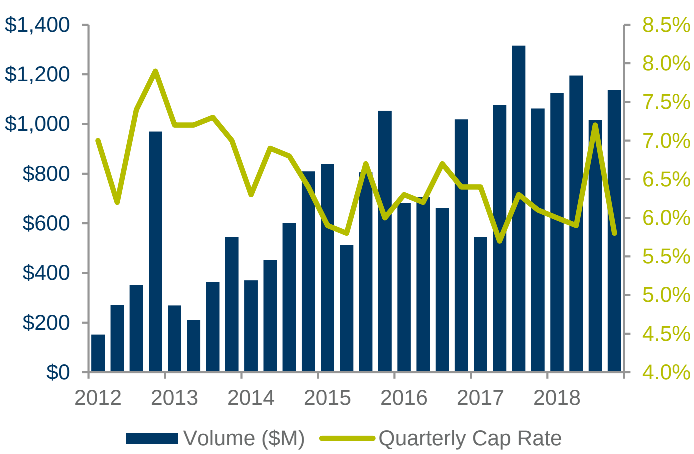
Economic Indicators

	Q4 17	Q4 18	12-Month Forecast
Sacramento MSA Employment	979.6k	992.0k	▲
Sacramento MSA Unemployment	4.1%	3.7%	▼
U.S. Unemployment	4.1%	3.9%	▼
U.S. GDP	3.2%	3.4%	▲
U.S. 10-year Treasury	3.1%	2.7%	▲

Market Indicators

	Q4 17	Q4 18	12-Month Forecast
Overall Cap Rate	7.1%	5.8%	▲
Total Volume (USD)	$1.06B	$1.14B	▼
Total Properties	76	89	▼
Total SF (Excluding Multifamily)	5.0M	4.2M	▼
Total Units (Multifamily)	2,684	2,922	▼

Total Dollar Volume and Cap Rate Trend
(Dollar Volume in Millions)



Economy

Sacramento's economy remains robust with signs of growth across all major economic sectors. The market is near full-employment, with the unemployment rates at only 3.7%, leaving little room for further decline. Strong demand is expected to remain for both housing and highly skilled talent as new employers like Centene and Penumbra anticipate entering the market in the near future.

Market Overview

Sacramento continues to draw significant interest from investors looking to capitalize on the burgeoning local economy. Investment activity reached $1.14 billion during the fourth quarter of 2018, the seventh consecutive quarter surpassing $1.0 billion. This represents a quarter-over-quarter increase of $120 million, bringing the 2018 total to $4.48 billion, the highest amount since 2000. Multifamily properties accounted for the majority of activity with 53.1% of total sales volume, continuing the product's popularity among investors. Industrial product was also very popular during the period, responsible for 17.9% of quarterly dollar volume. The primary cause for strong showings in these sectors is rapid rent growth within multifamily and industrial markets. Cap rates continued their overall downward trend during the quarter, with the multifamily sector averaging 4.7%, the first sub 5.0% average since the first quarter of 2014. As reflected in data from the latter half of 2018, investment activity was overwhelmingly dominated by the developer/owner user category, representing 80.5% of the total dollar volume in the fourth quarter alone. The biggest mover during the quarter was Fairfield Residential sold a total of five multi-family properties across the Sacramento region.

Outlook

Sacramento continues to draw interest from national investors. Of the 82 properties sold during the quarter, 16 were to companies based outside of California. Cap rates returned to appropriate market levels, led by multifamily product that continues to see rapid rent growth. Industrial buildings are seeing similar rent effects and more investor demand for this product is expected throughout 2019. More broadly, low vacancy rates and sustained lease rate growth have become a market-wide trend and continues to drive rents higher supporting investor demand.

MARKETBEAT

Sacramento

Investment Q4 2018

PROPERTY TYPE	PROPERTIES SOLD	SALES VOLUME (USD)	TOTAL SF / UNITS	PRICE / SF, UNIT	CAP RATE
Office	19	$173,689,518	931,238	$176.12	6.6%
Industrial	19	$203,374,469	2,324,022	$89.01	#N/A
Retail	22	$155,605,396	981,376	$155.73	5.8%
Multifamily	29	$604,417,740	2,922	$206,851	4.7%
TOTAL	**89**	**$1,137,087,124**	**4,236,636**	**$125.73**	**5.8%**

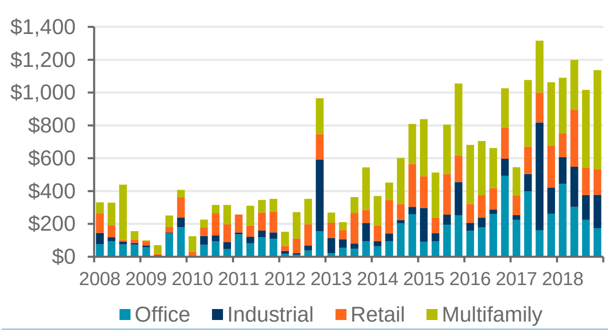
Sources: Real Capital Analytics, Cushman & Wakefield Research Services
Closed transactions over $2.5 million
*SF includes office, industrial and retail. Unit calculation for apartment only.

Significant Sales Q4 2018

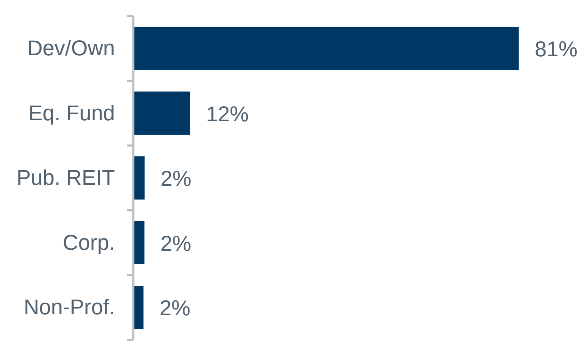
PROPERTY NAME	TYPE	BUYER	SELLER	TOTAL SF / UNITS	PURCHASE PRICE	PRICE/UNIT ($ PSF)
Fairfield Residential Portfolio	Apartment	MG Properties	Fairfield Residential	447	$106,000,000	$236,484
The U Apartments	Apartment	Tilden Properties	Carmel Partners	132	$76,000,000	$575,758
BGK CA Industrial Portfolio	Industrial	The Blackstone Group	INNOVA Development	904,305	$71,550,500	$79.00
Somerfield at Lakeside	Apartment	Gleiberman Investments	Fairfield Residential	280	$64,000,000	$228,571
Bella Vista Apartments	Apartment	MG Properties	Fairfield Residential	241	$59,000,000	$244,813
Bridgeway Square	Apartment	Oakmont Properties	AG Spanos	199	$57,500,000	$288,945
Atwood	Apartment	MG Properties	Fairfield Residential	206	$47,000,000	$225,155
Oakmont Properties Portfolio	Apartment	Benedict Canyon Equities	Oakmont Properties	220	$47,000,000	$213,616.00
8670 Younger Creek Dr, Sacramento	Industrial	The Blackstone Group	INNOVA Development	584,820	$49,959,000	$80.00

Sources: Real Capital Analytics, Cushman & Wakefield Research Services
*Approximate allocation based on purchase price

Total Dollar Volume by Property Type
(Dollar Volume in Millions)



Total Acquisitions by Capital Sector



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MARKETBEAT

Sacramento

Office Q4 2018

CUSHMAN & WAKEFIELD

SACRAMENTO OFFICE

Economic Indicators

	Q4 17	Q4 18	12-Month Forecast
Sacramento MSA Employment	979.6k	992.0k	▲
Sacramento MSA Unemployment	4.1%	3.7%	▼
U.S. Unemployment	4.1%	3.7%	▼

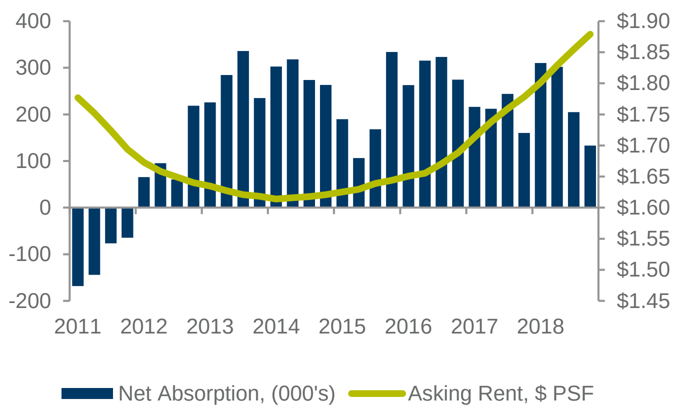
Market Indicators (Overall, All Classes)

	Q4 17	Q4 18	12-Month Forecast
Vacancy	9.8%	9.2%	▼
Net Absorption (sf)	236k	-51k	▲
Under Construction (sf)	0k	1,977k	▼
Average Asking Rent*	$1.79	$1.89	▲

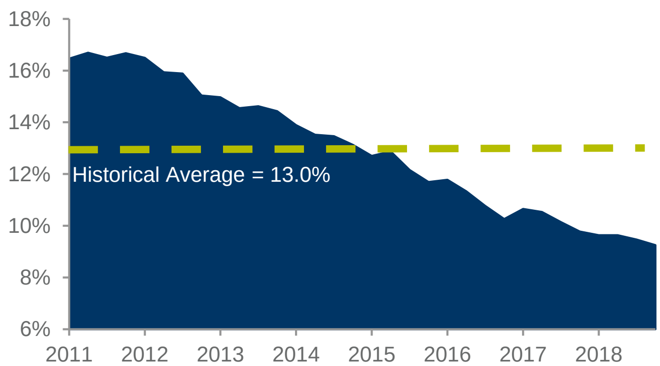
*Rental rates reflect gross asking $psf/month
** Not reflective of U.S. MarketBeat

Overall Net Absorption/Overall Asking Rent

4-QTR TRAILING AVERAGE



Overall Vacancy



Economy

Sacramento's economy remains robust with signs of continued growth across all major economic sectors. The unemployment rate declined further during the fourth quarter, falling 20 basis points (bps) to 3.7%, leaving little room for decline in a market where. In many cases, there are more jobs than workers to fill them. With new companies entering the market, Sacramento is diversifying away from the traditional government employment base, a move likely to help mitigate the length and severity of any future economic downturn.

Sustained Growth

Overall, 2018 was a strong year for the office market; net absorption totaled +533,000 square feet (sf), vacancy fell 60 basis points (bps), and the overall asking rate increased by $0.10 (5.6%). The market ended its streak of ten consecutive quarters of positive net absorption, posting -51,000 sf. Even so, the vacancy rate fell by 30 bps to 9.2%, the lowest point Cushman & Wakefield has recorded. Penumbra's lease of 160,000 sf in Roseville prompted the statistical anomaly. The building was immediately vacated by the current tenant but as it is already leased, resulting in no negative impact to the vacancy rate. The balance of the market was responsible for +108,000 sf of net absorption.

The Sacramento Central Business District (CBD) led the market in net absorption during the fourth quarter and the full year at +102,000 sf and +187,000 sf, respectively. Such strong activity has resulted in vacancy falling 120 bps year-over-year to 7.4%. Correspondingly, asking rates have risen quickly, up $0.20 per square foot per month, on a full service gross basis (psf), since the fourth quarter of 2017 (an 8.7% increase). Furthermore, asking rates for Class A space surpassed $3.00 psf, another first for the region. This is an excellent vital sign of the health of the Sacramento, whose office market has long been driven by suburban activity.

Class A space remains the most popular segment of the market with a vacancy rate of just 8.0%, well below the market average of 9.2%. However, the declining availability in Class A office buildings, combined with rising costs, is pushing tenants towards other asset classes. Similarly, there are early signs of "lily padding" where cost sensitive tenants look to escape rising real estate costs by moving to neighboring, lower-cost submarkets.

MARKETBEAT

Sacramento

Office Q4 2018

On the development front, Centene has broken ground on Phase 1 (255,900 sf) of its new headquarters in North Natomas. While this brings construction totals to nearly 2.0 million sf, it is entirely build-to-suit activity, and primarily driven by two State of California buildings downtown totaling 1.2 million sf. While many developers are positioning themselves to react quickly to new requirements necessitating construction, none are willing to build on a purely speculative basis at this time, largely due the high land prices and fluctuating costs of construction.

"THE CBD LED THE MARKET IN NET ABSORPTION FOR THE QUARTER AND THE YEAR."

Perhaps the best indicator for the office market is the number of new private sector tenants looking to either expand within or enter the region. As mentioned previously, Penumbra, a medical device company, relocated part of its operation from the Bay Area, signing for 160,000 sf in Roseville, the largest new lease of the year. This marks the second consecutive year in which Sacramento has landed a new, large employer and speaks to the region's talented work force and low-cost real estate.

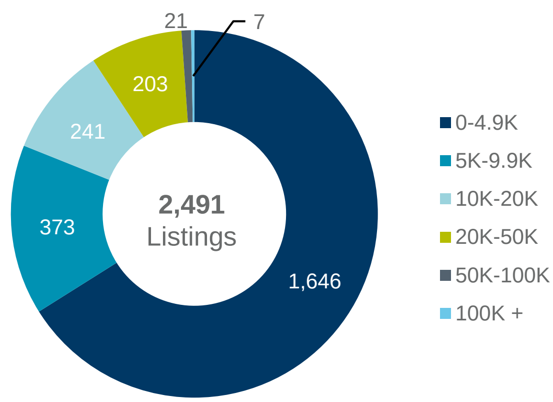
Overall, sale activity slowed to end the year, with the largest sale of the quarter being The Senator Office Building at 1121-1123 L Street. in the CBD. Seagate Properties acquired the building at the end of December, for 47.7% more than its prior sale price in 2015. At the time of sale, the class A building was 91 percent leased,

Outlook

- Rents will continue to grow quickly as landlords are increasing base rates and annual increases.
- Tenant "lily padding" will continue as cost sensitive companies move toward low cost submarkets.
- Class A space will become more scarce as large blocks become increasingly rare.

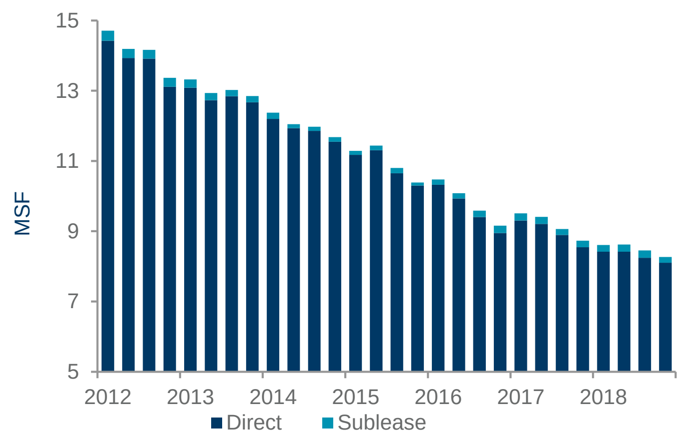
Availabilities by Size Segment

OVERALL AVAILABILITIES IN ONE SUITE



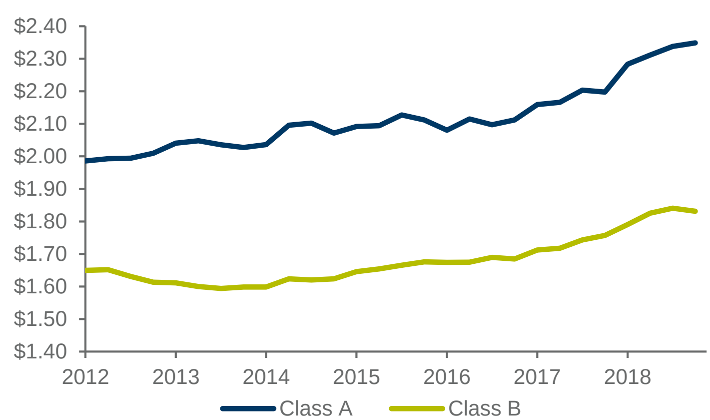
Direct vs. Sublease Space Available Comparison

SUBLEASE SPACE A NON-FACTOR



Average Asking Rate by Class (Full Service)

CLASS A AND CLASS B RENTS SHOWING HEALTHY GROWTH.



MARKETBEAT

Sacramento

Office Q4 2018

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SUBMARKET	INVENTORY (SF)	SUBLET VACANT (SF)	DIRECT VACANT (SF)	OVERALL VACANCY RATE	CURRENT QTR OVERALL NET ABSORPTION (SF)	YTD OVERALL NET ABSORPTION (SF)	YTD Leasing Activity (SF)**	UNDER CNSTR (SF)	OVERALL AVERAGE ASKING RENT (ALL CLASSES)*	OVERALL AVERAGE ASKING RENT (CLASS A)*
Downtown Sacramento	20,093,466	22,506	1,458,218	7.4%	102,337	186,833	832,205	1,198,000	$2.51	$3.04
Campus Commons	1,322,481	3,968	185,499	14.3%	13,277	16,509	126,165	0	$2.15	$2.75
Carmichael / Fair Oaks	989,315	0	189,949	19.2%	1,764	-14,388	34,990	0	$1.09	N/A
Citrus Heights / Orangeville	1,498,903	0	159,401	10.6%	49,302	44,341	148,861	0	$1.50	$2.65
Auburn / Lincoln	1,375,773	0	65,166	4.7%	4,160	15,506	43,911	0	$1.48	N/A
Davis/Woodland	2,062,003	1,000	106,702	5.2%	-8,317	-17,015	61,755	0	$1.96	$2.70
East Sacramento	2,582,641	0	95,039	3.7%	6,296	17,424	54,497	0	$2.65	N/A
El Dorado Hills	1,668,199	4,050	215,621	13.2%	19,109	173,226	275,872	30,216	$1.78	$1.94
Elk Grove	1,776,283	0	124,798	7.0%	-11,165	-4,457	63,082	22,362	$2.20	$2.53
Folsom	4,775,262	2,731	310,976	6.6%	-58,750	32,960	204,415	0	$1.98	$2.26
Highway 50 / Rancho Cordova	17,336,679	73,333	1,817,123	10.9%	37,693	153,451	890,858	0	$1.64	$1.96
Howe Ave / Fulton Ave	2,387,180	0	393,567	16.5%	36,156	13,998	213,415	0	$1.61	$1.79
Midtown	3,727,635	0	343,023	9.2%	-4,889	-15,477	109,111	0	$2.36	$2.90
North Natomas	2,888,694	2,281	370,359	12.9%	-15,398	86,337	316,348	275,900	$1.55	$2.07
Point West	2,729,749	16,516	362,139	13.9%	-12,913	-4,885	218,749	14,484	$1.84	$2.05
Roseville / Rocklin	10,851,864	11,773	958,186	8.9%	-185,081	-274,354	629,620	436,000	$1.74	$2.14
South Natomas	3,613,194	19,511	258,348	7.7%	-34,124	26,797	236,075	0	$2.19	$2.22
South Sacramento	3,296,523	0	329,192	10.0%	-2,163	75,724	130,770	0	$1.49	N/A
Watt Avenue	2,398,201	8,415	206,937	9.0%	12,329	31,693	71,950	0	$1.62	N/A
West Sacramento	2,020,487	0	151,930	7.5%	-740	-11,695	34,681	0	$1.73	$1.70
Sacramento Totals	**89,394,532**	**166,084**	**8,102,173**	**9.2%**	**-51,117**	**532,528**	**4,697,330**	**1,976,962**	**$1.89**	**$2.35**
Class A	26,764,215	57,198	2,084,672	8.0%	56,371	119,387	1,324,084	1,198,000	$2.35	
Class B	42,314,176	107,886	4,025,673	9.8%	-140,166	300,452	2,415,125	778,962	$1.83	
Class C	20,316,141	1,000	1,991,828	9.8%	32,678	112,689	957,121	0	$1.52	

*Rental rates reflect gross asking $psf/month. **Does not include Renewals. ***Net Absorption entries are not reflective of U.S. MarketBeat tables.

Key Lease Transactions Q4 2018

PROPERTY	SF	TENANT	TRANSACTION TYPE	SUBMARKET
8040 Foothills Blvd, Roseville	160,000	Penumbra	New Lease	Roseville/Rocklin
8745 Folsom Blvd, Sacramento	83,750	County of Sacramento	New Lease	Highway 50
2101 Arena Blvd, Sacramento	78,400	State of CA	New Lease	North Natomas
4400 Auburn Blvd, Sacramento	36,663	Sacramento County Sherriff's Department	New Lease	Carmichael/Fair Oaks

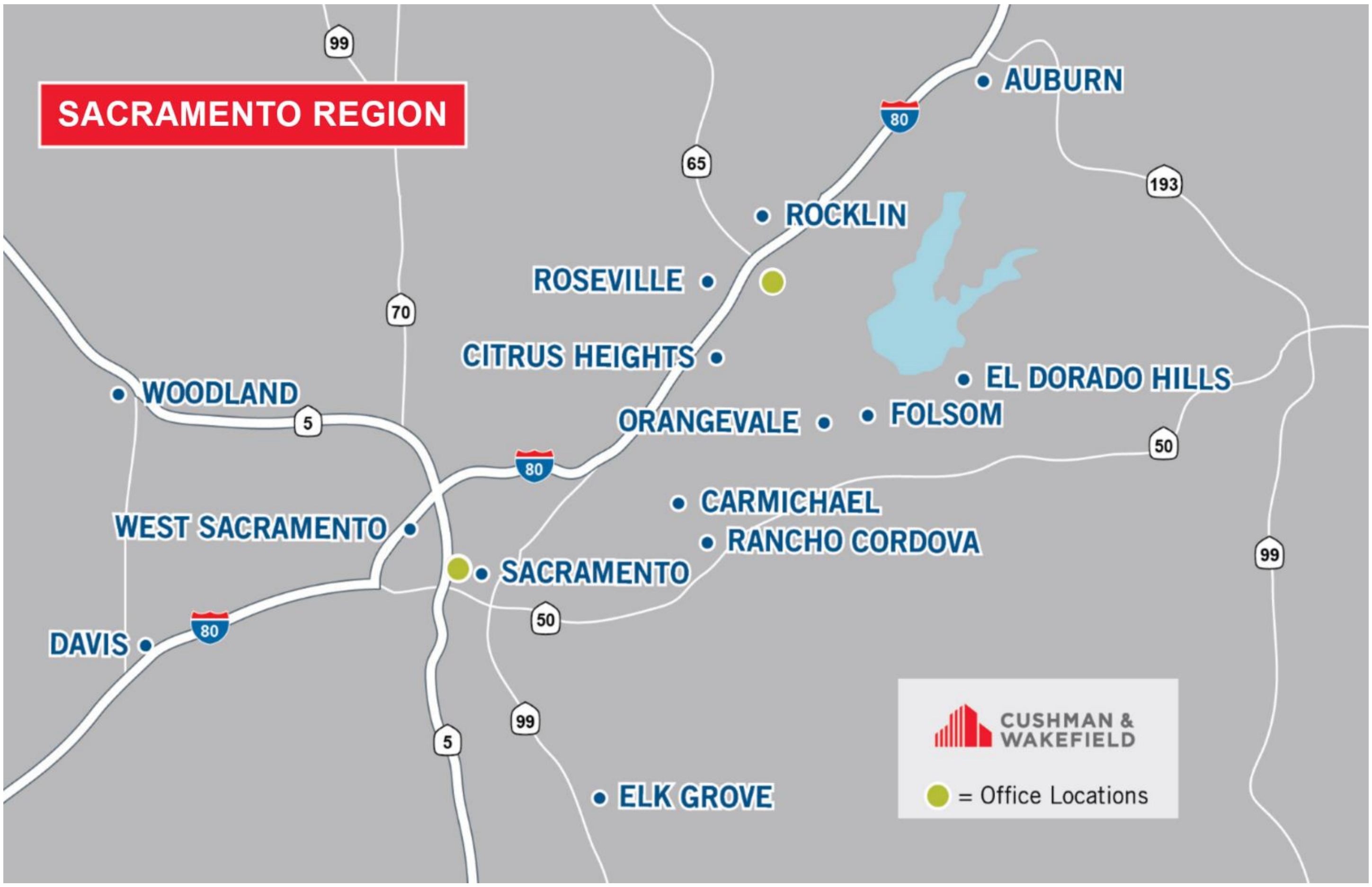
Key Sales Transactions Q4 2018

PROPERTY	SF	SELLER/BUYER	PRICE / $PSF	SUBMARKET
1121-1123 L St, Sacramento	159,637	Swift Real Estate/Seagate Properties	$46,900,000 / $293.79	Downtown
7801 Folsom Blvd, Sacramento	70,000	Folsom & Hornet, LLC/IMA Walnut Creek I, LLC	$12,300,000 / $176.71	Highway 50
11931 Foundation Pl, Gold River	63,387	Alice A. Backer/Brent Lee	$11,175,000 / $176.30	Highway 50
516 Gibson Dr, Roseville	55,544	Shea Properties Management Co/Schwager Development, LLC	$9,900,000 / $178.24	Roseville/Rocklin

MARKETBEAT

Sacramento

Office Q4 2018



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MARKETBEAT

Sacramento

Industrial Q4 2018

SACRAMENTO INDUSTRIAL

Economic Indicators

	Q4 17	Q4 18	12-Month Forecast
Sacramento MSA Employment	979.6k	992.0k	▲
Sacramento MSA Unemployment	4.1%	3.7%	▼
U.S. Unemployment	4.1%	3.7%	▼

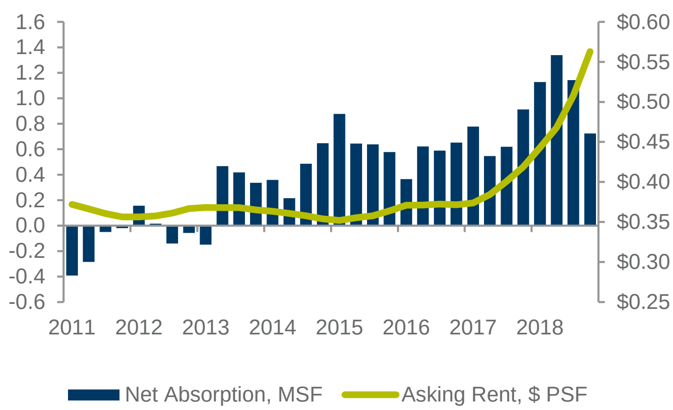
Market Indicators (Overall, All Classes)

	Q4 17	Q4 18	12-Month Forecast
Vacancy	6.1%	4.5%	▼
Net Absorption (sf)	1,706k	32k	▼
Under Construction (sf)	547k	987k	▲
Average Asking Rent*	$0.44	$0.66**	▲

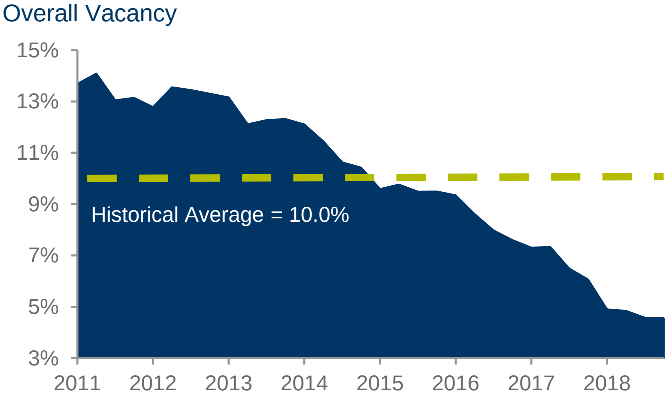
*Rental rates reflect NNN asking $psf/month. **Not reflective of U.S. MarketBeat tables

Overall Net Absorption/Overall Asking Rent

4Q TRAILING AVERAGE



Overall Vacancy



Sacramento Economy

Sacramento's economy remains strong with signs of continued expansion across all major industries. The metropolitan area saw a 40-basis point (bps) decrease in the unemployment rate over the past year as total employment increased by 12,400 jobs. The trade, transportation and utilities sector led the region in job growth by adding more than 4,700 jobs during the fourth quarter alone.

Record Territory

The Sacramento industrial market set yet another record for low vacancy, recording a quarter-over-quarter decrease of 10 bps to 4.5%. The same trend extended throughout 2018 as vacancy fell a total of 160 bps. With such low vacancy the market posted below average net absorption during the quarter, recording +32,000 square feet (sf), though the market posted +2.9 million square feet (msf) of additional occupancy, a strong mark for the year.

Robust levels of tenant demand have led to rapid growth in asking lease rates, which ended the year at $0.58 per square foot per month on a NNN basis (psf). While this number is impressive it is most likely a statistical anomaly, as very little product is leasing at that number. With that said, the introduction of the cannabis industry was a dominant factor in reduction of vacancy and initial lease rate increases. However, growth from that sector has plateaued and current rises in prices are now being fueled by sustained levels of low vacancy. This trend is expected to continue as the market has yet to reach replacement cost for smaller buildings (50,000 sf and less) that make up the majority of the market's inventory.

With that said, the rapid increases in lease rates is one factor pushing developers to build speculative product on a large scale. Currently there is 987,000 sf of active construction, 956,000 sf of which is speculative. The two largest projects are the 418,000 sf at McClellan Park, slated to complete in the second quarter of 2019 and two buildings totaling 408,000 sf in West Sacramento developed by NorthPoint. These projects come with some associated risk. Developers in both cases hope to find large, high-cube tenants to take a majority, if not all of the buildings. This type of tenant has historically preferred the Central Valley or Reno markets whose lower cost basis keep rents low without sacrificing access to the Northern California market.

MARKETBEAT

Sacramento

Industrial Q4 2018

Leasing activity surpassed +1.5 msf for the sixth consecutive quarter, reaching +8.1 msf year-to-date. West Sacramento, Placer County and McClellan led the market in terms of net absorption for the year recording, +1.28 msf, +849,000 sf and +560,000, respectively. Much of the net absorption for 2019 will likely be tied to the future completion and leasing of the speculative construction.

There was 2.8 msf of industrial properties sold in the fourth quarter, for nearly $215 million in total consideration. The largest single building sale was of a two property portfolio in Yolo County totaling 644,600 sf. The buildings located in West Sacramento and Woodland were a piece of a larger national portfolio acquired by Mapletree Properties of Singapore.

"…THE MARKET HAS YET TO REACH REPLACEMENT COST FOR SMALLER BUILDINGS (50,000 SF AND LESS) THAT MAKE UP THE MAJORITY OF THE MARKET'S INVENTORY."

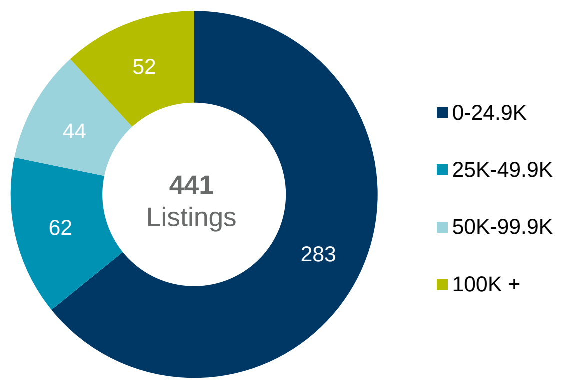
For 2019, expect net absorption to slow due to a lack of available product on the market with lease rates continuing to climb until construction across multiple building sizes can be justified. That said, demand remains strong as tenants seek low-cost, in-market alternatives to their current locations as they seek to control real estate overhead.

Outlook

- Vacancy will remain low putting upward pressure on lease rates.
- Construction activity will accelerate as tenant demand greatly outpaces current supply.
- Net absorption will be tied to construction completions as there is little available existing product left to absorb.

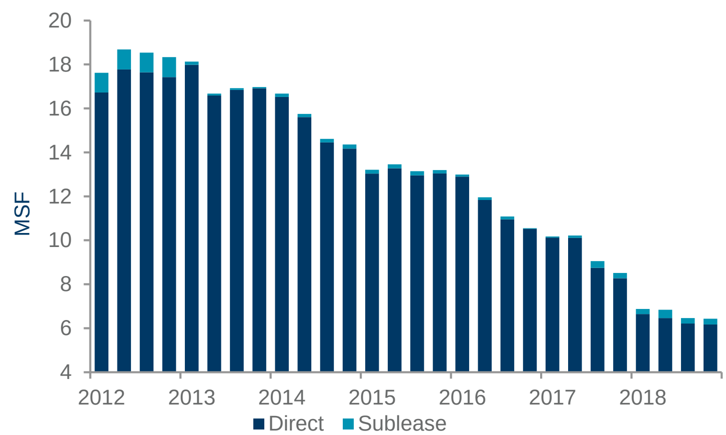
Availabilities by Size Segment

OVERALL AVAILABILITIES IN ONE UNIT



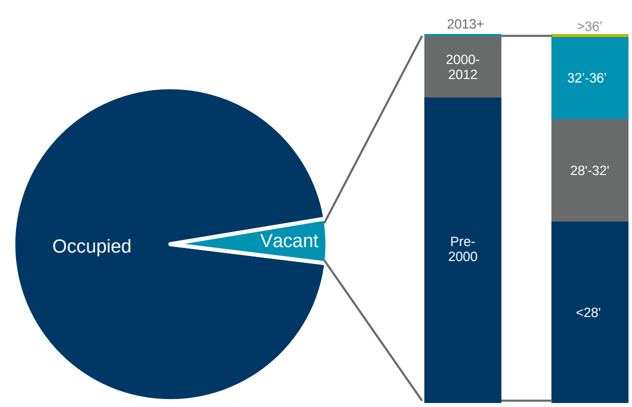
Direct vs. Sublease Space Available Comparison

SUBLEASE SPACE A NON-FACTOR



Vacant Industrial Product (By Age and Clear Height)

60% OF VACANT SPACE FUNCTIONALLY OBSOLETE



MARKETBEAT

Sacramento

Industrial Q4 2018

SUBMARKET	INVENTORY	SUBLET VACANT	DIRECT VACANT**	VACANCY RATE	CURRENT NET ABSORPTION	YTD NET ABSORPTION	UNDER CONSTRUCTION	AVERAGE ASKING RENT (NNN)**
Woodland	15,472,928	73,173	678,919	4.9%	193,111	388,586	0	$0.35
Downtown Sacramento	7,005,062	30,300	125,344	2.2%	-20,818	-11,081	0	$0.46
Folsom / El Dorado Hills	3,187,608	7,500	154,777	5.1%	12,139	-21,169	0	$0.71
McClellan	13,483,358	0	219,587	1.6%	28,864	559,826	462,737	$0.42
Natomas	12,489,803	62,211	417,982	3.8%	-96,861	-285,633	0	$0.64
NE Sacramento	4,991,442	0	238,355	4.8%	30,413	20,755	0	$0.45
Placer County	18,509,761	0	544,882	2.9%	34,502	849,344	0	$0.45
Power Inn	24,364,536	14,456	910,380	3.8%	-41,776	-45,123	0	$0.84
South Sacramento	4,010,719	0	937,327	23.4%	7,524	-51,997	0	$0.42
Elk Grove	5,822,816	0	313,847	5.4%	-100,035	62,661	0	$0.49
Sunrise / Rancho Cordova	13,553,597	43,200	299,404	2.5%	-81,760	147,996	51,134	$0.63
West Sacramento	18,509,866	28,000	1,329,431	7.3%	67,146	1,280,998	473,016	$0.53
TOTAL	**141,401,496**	**258,840**	**6,170,235**	**4.5%**	**32,449**	**2,895,163**	**986,887**	**$0.66**

*Rental rates reflect NNN asking $psf/month. **Not reflective of U.S. MarketBeat tables

Key Lease Transactions Q4 2018

PROPERTY	SF	TENANT	TRANSACTION TYPE	SUBMARKET
1281 W National Dr, Sacramento	136,079	Undisclosed	New Lease	Natomas/Northgate
8250 Industrial Ave, Roseville	132,570	Denman of California	New Lease	Placer County
148-152 Whitcomb Ave, Colfax	57,752	Undisclosed	New Lease	Auburn/Newcastle
4291 Pell Dr. Sacramento	54,060	MS International	New Lease	Natomas/Northgate
6041-6079 Power Inn Rd, Sacramento	42,000	Kitchens Now	New Lease	Power Inn

Key Sales Transactions Q4 2018

PROPERTY	SF	SELLER/BUYER	PRICE / $PSF	SUBMARKET
2 Property Portfolio*	644,600	Prologis/Mapletree Investments	$43,974,727 / $68.22	West Sacramento
10030 Foothills Blvd, Roseville	175,072	Kirkpatrick Family Trust/PRIDE Industries	$24,430,000 / $139.54	Roseville/Rocklin
1670 Overland Ct, West Sacramento	154,260	A & F Properties/LBA Realty	$11,700,000 / $75.85	West Sacramento
5601-5671 Warehouse Way, Sacramento	79,776	Echosphere/Convor Warehouse Way	$5,425,000 / $68.00	Power Inn
1600 Tide Ct, Woodland	64,800	Edmund Richmond/AMERCO Real Estate Co	$6,400,000 / $98.77	Woodland

*Part of national portfolio sale

MARKETBEAT

Sacramento

Industrial Q4 2018

Cushman & Wakefield
400 Capitol Mall, Suite 1800
Sacramento, CA 95814 | USA

*Due to data sourcing local market statitics vary from those reported natioanally.

For more information, contact:
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Sacramento Research
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will.austin@cushwake.com

About Cushman & Wakefield

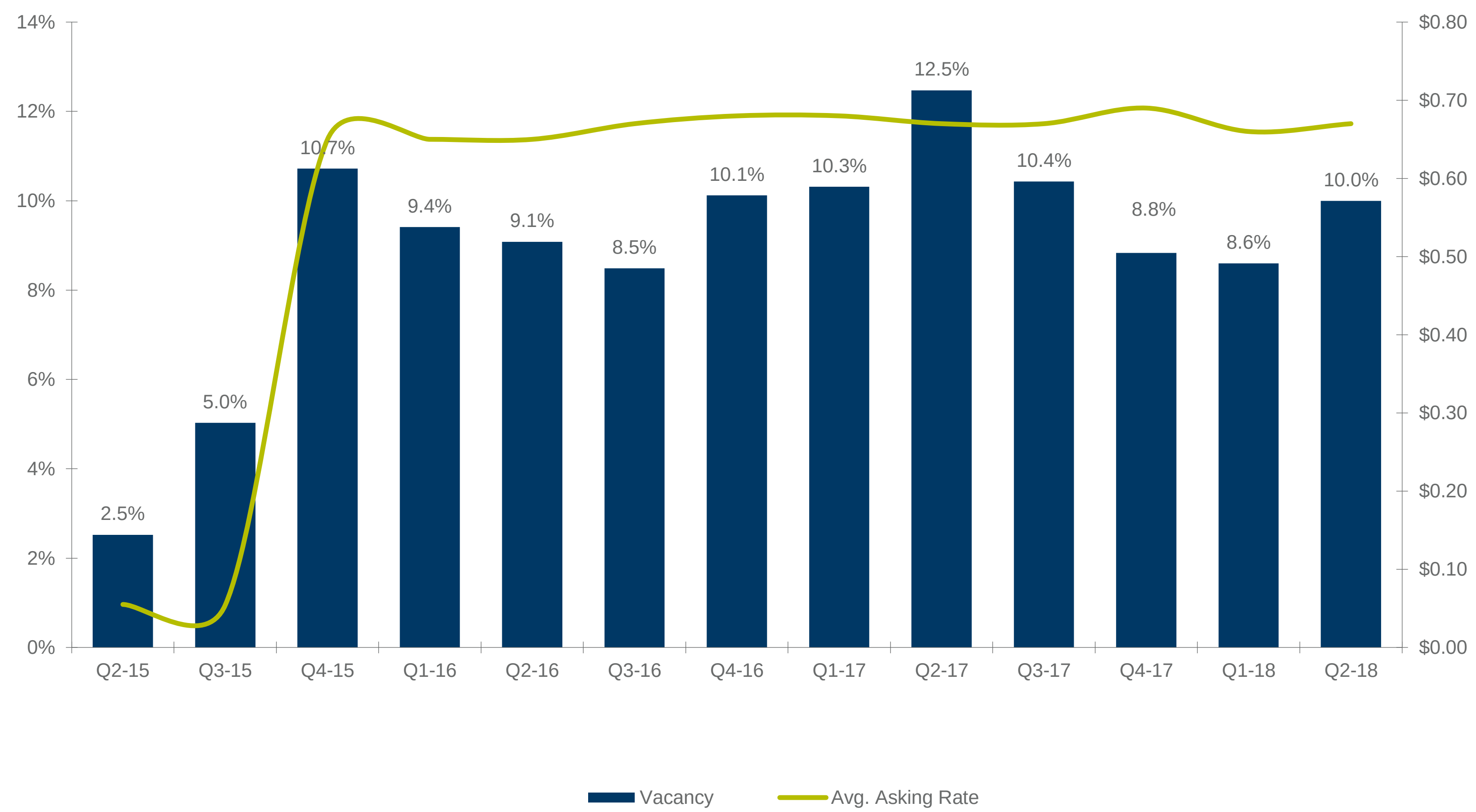
Cushman & Wakefield (NYSE: CWK) is a leading global real estate services firm that delivers exceptional value by putting ideas into action for real estate occupiers and owners. Cushman & Wakefield is among the largest real estate services firms with 48,000 employees in approximately 400 offices and 70 countries. In 2017, the firm had revenue of $6.9 billion across core services of property, facilities and project management, leasing, capital markets, valuation and other services. To learn more, visit www.cushmanwakefield.com or follow @CushWake on Twitter.

CUSHMAN & WAKEFIELD

El Dorado Hills

Quarter	Q4-17	Q1-18	Q2-18	Q3-18	Q4-18
Total Building Base:	**1,346,572**	**1,346,572**	**1,346,572**	**1,346,572**	**1,346,572**
Total Buildings:	**32**	**32**	**32**	**32**	**32**
Direct Vacant:	118,912	115,753	134,574	151,916	139,987
Sublease Vacant:	0	0	0	0	0
Total Vacant:	**118,912**	**115,753**	**134,574**	**151,916**	**139,987**
Total Occupied SF	*1,227,660*	*1,230,819*	*1,211,998*	*1,194,656*	*1,206,585*
Vacancy:	**8.8%**	**8.6%**	**10.0%**	**11.3%**	**10.4%**
Gross Absorption:	15,253	9,057	0	0	21,440
Net Absorption:	88,753	3,159	-18,821	-17,342	11,929
YTD Net Absorption	84,744	3,159	-15,662	-33,004	-21,075
Growth Rate (%)	1.0%	0.2%	-1.4%	-1.3%	0.9%
Total New Construction:	75,000	0	0	0	0
Avg Asking Rate (NNN):	**$0.69**	**$0.66**	**$0.67**	**$0.67**	**$0.66**

Vacancy & Average Asking Rate Trend



CEMO COMMERCIAL Inc.
placing our clients' best interest first

Exhibit Q
PA17-0004

April 8, 2019

VIA EMAIL AND MAIL

El Dorado County Board of Supervisors
330 Fair Lane, Building A
Placerville, CA 95667

RE: Phase II – Carson Creek Specific Plan Phase II

Dear Members of the Board:

The El Dorado Hills Business Park ("Park") located south of U.S. Highway 50 on the west side of Latrobe Road is home to more than 200 companies, including two of the County's largest employers. As the developer and current parcel owner in the Park, I am writing you regarding Phase II of the Carson Creek Specific Plan ("Specific Plan"), specifically the portions of the Specific Plan zoned industrial and research/development. Based on my conversations with the current owner of those portions of the Specific Plan, I understand there is a desire to work with the County to explore (1) rezoning those portions of the Specific Plan zoned industrial and research/development to age-restricted single family residential and (2) increasing the allowable number of age-restricted housing units within the Specific Plan (collectively, "Changes"). Given my interest in the continued success of the Park, I support the Changes wholeheartedly and without reservation. Not only will the Changes prevent oversaturation of the industrial and research/development markets in the County, the reduced traffic impacts associated with the Changes would benefit the Park, its 200 businesses, their employees, and every County resident who travels in the area. Simply put, age-restricted single-family residential development is a better use here and would enhance the viability of the Park.

For the foregoing reasons, I urge you to support the Changes.

Very truly yours,

Sammy F. Cemo

950 Glenn Drive, Suite 130 • Folsom, CA 95630 • 916.933.2300 • 916.933.0119 Fax • www.cemocommercial.com
DRE # 01157779

Exhibit R

LAO 75 YEARS OF SERVICE

A Long-Term Outlook:

Disability Among California's Seniors

MAC TAYLOR • LEGISLATIVE ANALYST • NOVEMBER 2016

LAO

EXECUTIVE SUMMARY

Rapidly Growing Senior Population and Changing Demographics of California Seniors Raise Issues About Long-Term Supports and Services (LTSS) System. Seniors are major users of LTSS—defined broadly as services and supports provided to the disabled (of any age) who have difficulty performing daily activities. The senior population (adults aged 65 aud older) in California is projected to increase more than twofold from roughly 5 million in 2015 to nearly 12 million in 2060. The demographics of the senior population are also projected to change during this period. For example, the senior population is projected to shift from being majority white to majority nonwhite by 2030. The rapid growth and changing demographics of California's senior population raise issues about seniors' LTSS needs, LTSS system capacity, and the financial impact of LTSS on personal and state finances. This report presents the results of our projections of disability levels of California's seniors through 2060 to inform the Legislature and stakeholders about levels of disability and the potential need for LTSS among California's seniors over the next several decades. These projections provide a useful starting point in understanding how California's changing population demographics will impact the LTSS delivery system.

Population of California Seniors With Disabilities Projected to Grow Faster Than Overall California Senior Population. We project that the number of seniors in California with disabilities (as defined by limitations in routine activities of daily living, such as dressing or bathing) will increase from 1 million in 2015 to 2.7 million in 2060. This represents 160 percent growth in the population of seniors with disabilities, while California's overall senior population is projected to grow by 135 percent over this period. The faster growth of the senior population with disabilities is partially driven by the increasing share of seniors aged 85 and older and increasing racial diversity of the senior population.

California Seniors Turning 65 Between 2015 and 2019 Projected to Spend 4.5 Years on Average With a Disability. On average, seniors turning 65 between 2015 and 2019 are projected to live for 23.6 years after age 65 and spend 4.5 of these years with a disability. The average number of years lived with a disability varies based on demographics of the seniors in this cohort. For example, white seniors in this cohort are projected to spend 3.6 years on average with a disability, while Hispanic seniors are projected to spend 5.8 years on average with a disability and nonwhite, non-Hispanic seniors are projected to spend 5.6 years on average with a disability. (Data constraints prevent us from breaking out the nonwhite, non-Hispanic race category into additional groups.)

California-Specific Projections Are a Necessary First Step in Planning for the Growing Senior Population. California-specific projections are necessary to inform the conversation around the future of the LTSS system as California's senior population grows over the next several decades. Available national-level projections of disability levels (and the related issues of LTSS utilization and LTSS financing), while a useful starting point, are not sufficient to reflect California's unique demographics and LTSS system. (For example, California's senior population is projected to be majority nonwhite by 2030, while the senior population nationwide is projected to remain majority white through at least 2060.) As the Legislature, administration, and stakeholders continue to engage in planning for the impact of the growing senior population on the LTSS system, it is necessary to have projections that accurately reflect the uniqueness of California's population and LTSS system to inform policymaking.

INTRODUCTION

Over the next several decades, the senior population (adults aged 65 and older) in California is projected to increase more than twofold from roughly 5 million in 2015 to nearly 12 million in 2060. This increase is largely driven by the aging of the Baby Boomer population who began turning 65 in 2011. A similar increase in the senior population nationwide will also occur during this time frame. However, differences in the demographics of California's population when compared to the population nationwide will lead to important differences between California's senior population and the senior population nationwide. For example, California's senior population is projected to shift from being majority white to majority nonwhite by 2030, while the senior population nationwide is projected to remain majority white through at least 2060.

Long-term supports and services (LTSS) are broadly defined as services and supports provided to the disabled (of any age) who have difficulty performing daily activities. The rapid growth and changing demographics of California's senior population raise issues about seniors' LTSS needs, LTSS system capacity, and the financial impact of LTSS on personal and state finances. (We also note that similar issues could be considered for the working-age disabled population, but a discussion specific to that population is beyond the scope of this report.) At the national level, detailed projections of the disability levels and potential LTSS needs of seniors over the next several decades are available to inform the discussion around these issues. However, given California's demographic differences compared to the United States as a whole, the national-level results may not be applicable to California and to our knowledge similar projections are not available for California's senior population. To address this information gap, we projected disability levels of California's seniors through 2060. This report presents the results of our projections to inform the Legislature and stakeholders about levels of disability and the potential need for LTSS among California's seniors over the next several decades. These projections provide a useful starting point in understanding how California's changing population demographics will impact the LTSS delivery system. The results presented in this report can also be built upon with further analysis focused on utilization and financing of LTSS over the long term.

DISABILITY AND LTSS LANDSCAPE

In this section, we discuss how disability is measured and what types of LTSS services are provided to people with disabilities. This applies to the broader population of people with disabilities, including seniors as well as working-aged adults and children. However, this report focuses on seniors, and where possible in this section, we present data specific to the senior population.

Defining Disability and LTSS

Disability Is Measured by Limitations in Daily Activities. Disability is often measured by limitations in daily activities. These limitations are typically grouped into two categories: (1) limitations in activities of daily living (ADLs) and (2) limitations in instrumental activities of daily living (IADLs). As shown in Figure 1, ADLs are limitations in routine, daily, personal care activities, such as eating or dressing. IADLs are limitations in more complex skills necessary to live independently, such as grocery shopping or money management.

LTSS Are a Range of Services and Supports Provided to People With Disabilities. LTSS are commonly grouped into three categories: (1) institutional care, such as skilled nursing facilities (SNFs); (2) home- and community-based services, such as outpatient facility-based services or paid in-home services, aimed at helping people with disabilities live in the least restrictive setting possible; and (3) informal, unpaid care that is often provided at home by a spouse or other family member.

Paying for LTSS

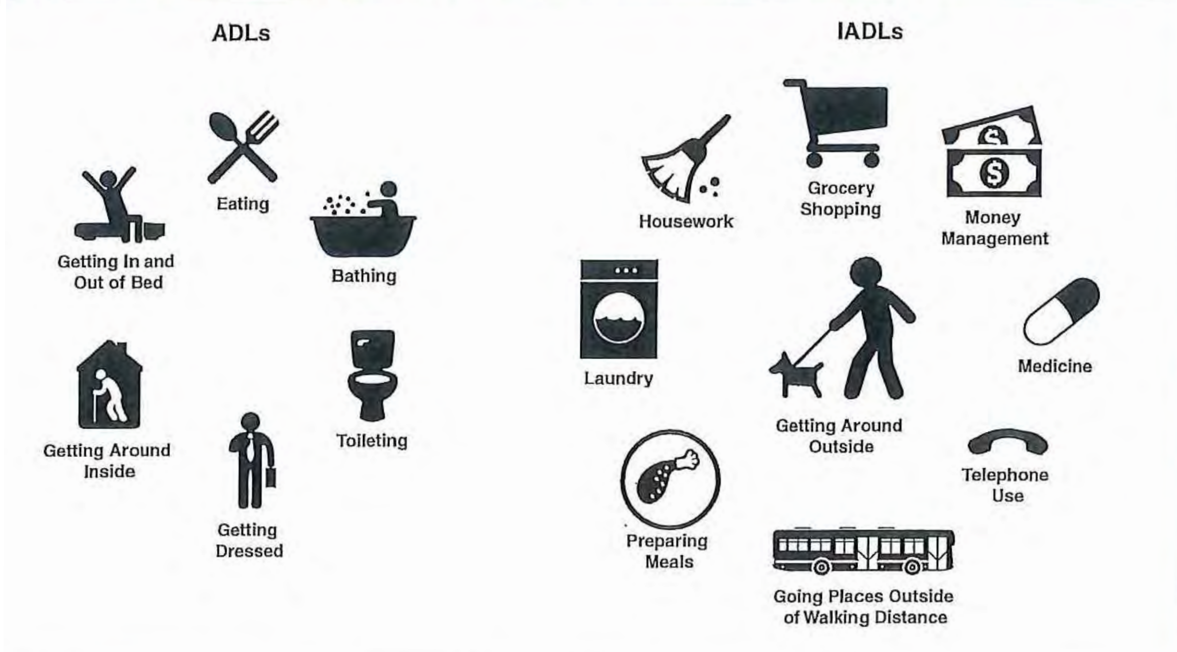
Payers of LTSS include the state and federal governments, private insurers, and individuals who pay out-of-pocket for their own LTSS. Within the state and federal governments, Medi-Cal and Medicare are the two main payers of LTSS.

Medicare Covers Limited LTSS. Medicare is the federal health insurance program for qualifying persons over age 65 and certain people with disabilities, and is overseen by the federal Centers for Medicare and Medicaid Services (CMS). As a contrast to Medi-Cal (discussed below), individuals are eligible for Medicare regardless of income. Medicare only pays for a limited amount of LTSS. For example, Medicare covers up to 100 days of long-term care in a SNF for individuals receiving skilled care, such as physical therapy, following a recent hospital stay of at least three days.

Medi-Cal Covers a Broader Range of LTSS. Medi-Cal—a joint federal-state health care program for low-income Californians—covers a much broader range of LTSS than Medicare. (Medi-Cal is California's Medicaid program.) The costs of Medi-Cal services are shared by the state

Figure 1

Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs)



and federal governments. Generally, the federal government pays for one-half of most Medi-Cal costs (although, in some circumstances the federal government pays for a larger amount of the costs), with the state paying the balance. Examples of LTSS covered by Medi-Cal include:

- ***In-Home Supportive Services (IHSS).*** The IHSS program provides personal care and domestic services to individuals to help them remain safely in their own homes.

- ***Community-Based Adult Services (CBAS).*** The CBAS program—sometimes referred to as "Adult Day Health Care"—is an outpatient, facility-based service program. Program participants live in their own homes, but attend a day program with services provided by a multidisciplinary staff, including: professional nursing services; physical, occupational, and speech therapies; mental health services; therapeutic activities; social services; personal care; meals and nutritional counseling; and transportation to and from the participant's residence.

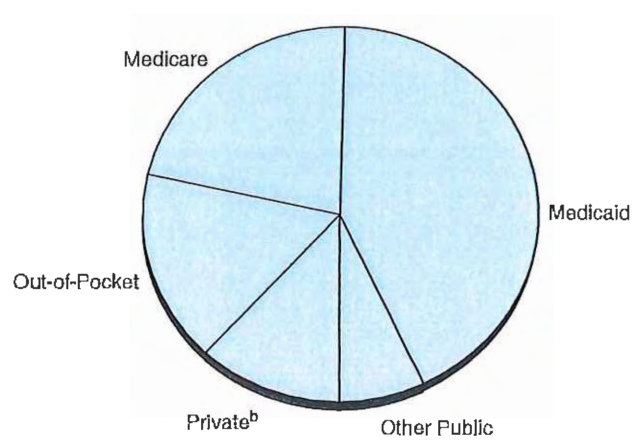
- ***Multipurpose Senior Services Program (MSSP).*** The MSSP benefit provides intensive case management and home visits for Medi-Cal recipients aged 65 or older who meet the eligibility criteria for a SNF but live outside of institutional settings.

- ***SNFs.*** SNFs provide nursing, rehabilitative, and medical care to facility residents. Generally, SNF residents receive their medical care and social services at the SNF.

Nationally, Medicaid Is the Largest Payer of LTSS. According to data from CMS on national health spending in 2013, Medicaid spending represented 43 percent of all LTSS spending nationally while Medicare spending accounted for 22 percent. Figure 2 shows national LTSS spending by payer in 2013 (such a breakout is not available for California). In California, the most recent analysis released by CMS indicates that Medi-Cal spending on LTSS was over $14 billion total funds in the 2012-13 federal fiscal year. This includes LTSS-related spending for the entire population served by Medi-Cal, including children, working-age adults, and seniors. An analysis by the Kaiser Family Foundation found that 42 percent of all LTSS spending in 2010 was for the senior population.

Figure 2

Medicaid Is the Largest Payer of Long-Term Supports and Services in the U.S.[a]



[a] Data are from 2013 and are based on an analysis by the Congressional Research Service.
[b] Includes private insurance and other private payers such as philanthropic support.

Informal, Unpaid Care Also an Important Part of LTSS. In addition to paid LTSS, a large amount of LTSS is provided through informal, unpaid care. This type of care is most often provided by spouses, adult children, or other relatives and may be in addition to paid LTSS. The AARP and the National Alliance on Caregiving estimate that nationwide 34.2 million adults (about 14 percent) served as an unpaid caregiver of an adult aged 50 or older in 2014. These unpaid caregivers spent an average of 24 hours per week providing care such as helping the recipient with ADLs and IADLs or communicating with health care professionals on the recipient's behalf. In California, more than 6 million adults provided informal care for a family member or friend in 2009 according to an analysis by the University of California Los Angeles. These caregivers provided an average of 21 hours of care per week.

CALIFORNIA'S POPULATION PROJECTED TO CHANGE SUBSTANTIALLY BETWEEN 2015 AND 2060

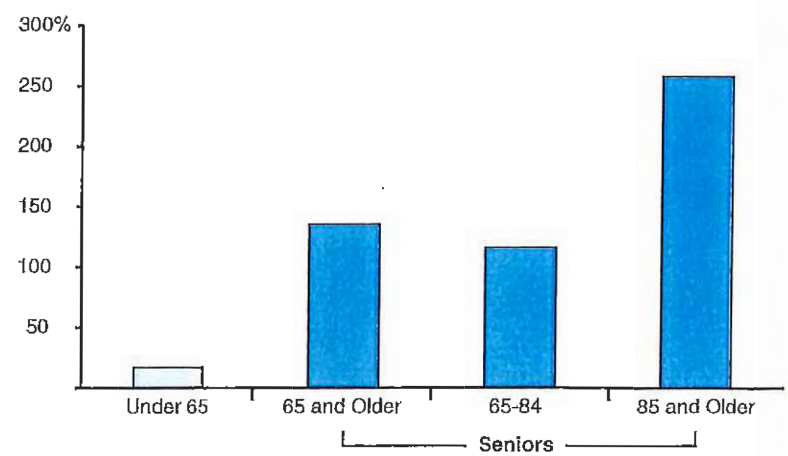
In this section, we provide an overview of the changing population characteristics in California through 2060. The information presented in this section is based on projections from the California Department of Finance and the United States Census Bureau and our analysis of data from the Current Population Survey (a survey of U.S. households that provides demographic and economic information about Americans). See the Appendix for a full list of data sources used in this analysis.

Senior Population Projected to Increase Over Twofold, With Largest Growth Among 85 and Older Population. In 2015, seniors represented 13 percent of California's population, but by 2060, seniors are projected to represent 24 percent of California's population. Over this period, the senior population is projected to increase more than twofold from 5.2 million to 12.2 million, while the under 65 population is projected to grow only 17 percent from 33.7 million to 39.5 million (see Figure 3). The largest growth of seniors during this time period is projected to occur among the population of seniors aged 85 and older. The number of seniors aged 85 and older is

Figure 3

Growth in Senior Population to Far Outpace Growth of Under 65 Population

Percent Change From 2015 to 2060



projected to increase over threefold from about 700,000 in 2015 to over 2.5 million in 2060. This corresponds to a projected increase in the share of seniors aged 85 and older from 14 percent in 2015 to 21 percent in 2060.

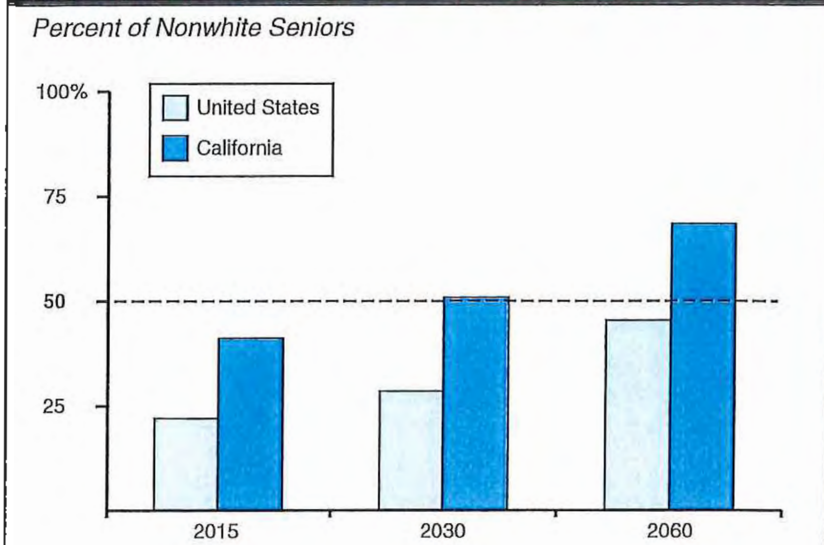
Ratio of Working-Aged Adults to Seniors Projected to Decrease by 50 Percent From 2015 to 2060. The projected rapid growth of the senior population relative to the rest of the population results in a projected decrease of roughly 50 percent in the ratio of working-aged adults to seniors by 2060. In 2015, there were 4.7 working-aged adults for every senior in California. By 2060, this ratio is projected to decrease to 2.3 working-aged adults for every senior. Researchers have suggested this may be problematic for the provision of informal care as there may be more seniors who need LTSS and fewer working-aged adults to provide informal care. We revisit this issue later in this report.

California's Senior Population Projected to Become Majority Nonwhite While National Senior Population Projected to Remain Majority White. Both in California and nationally, the share of tbe senior population that is nonwhite is projected to increase (see Figure 4). However, the nonwhite senior population is projected to become the majority in California well before this shift happens nationally. In California, the senior population is projected to shift from being majority white to majority nonwhite by 2030, while nationally, white seniors are projected to remain the majority through at least 2060. As discussed later in this report, rates of disability vary by race; therefore, this projected shift in demographics is likely to have an impact on the number of seniors with disabilities in California.

California's Senior Population May Be More Well-Educated if Current Trends Continue. Consistent with research at the national level, we find that the rate of adults in California attaining more than a high school education is increasing, as shown in Figure 5 (see next page). This has also translated into higher levels of education among seniors in California. Assuming these trends continue, California's senior population will be more highly educated in 2060 than in 2015. Rates of disability vary by education level, meaning that trends towards higher levels of education are important to consider when projecting the number of disabled seniors in the future. We discuss this further later in this report.

Figure 4

California's Senior Population Projected to Be Majority Nonwhite Much Sooner Than National Population



PROJECTIONS OF SENIORS WITH DISABILITIES IN CALIFORNIA FROM 2015 THROUGH 2060

In this section, we provide projections of the population of seniors with disabilities in California from 2015 through 2060. These projections assume current rates of disability remain constant for subgroups of the senior population. For example, the rate of disability for married Hispanic women who hold a high school degree and are between the ages of 65 and 84 is held constant. This means that any changes in population-wide levels of disability projected in our analysis result from projected changes in the size and demographics of the senior population as opposed to increases or decreases in disability rates. While we project the majority of the senior population will not be disabled in any given year from 2015 through 2060, we project there will be substantial growth in the population of seniors with disabilities during this time period as a result of changes in the size and demographic makeup of the senior population.

Disability Defined Based on Limitations in ADLs. For the remainder of this report, we define disability based on limitations in ADLs (see Figure 1 for a list of ADLs). We generally present results for seniors with limitations in one or more ADLs and for seniors with limitations in two or more ADLs. (We include results specific to seniors with limitations in two or more ADLs because in many cases individuals are required to have at least two ADL limitations to trigger private long-term care insurance benefits if they have such coverage.)

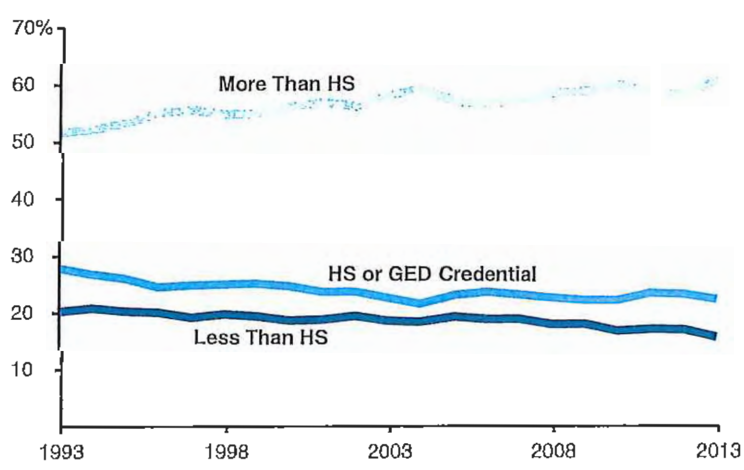
Substantial Increase in Number of Disabled Seniors, but Majority of Senior Population Not Disabled. The number of seniors in California with any ADL limitations is projected to increase from 1 million in 2015 to 2.7 million in 2060 (see Figure 6), although the vast majority of seniors in any given year from 2015 to 2060 are not projected to be disabled. Specifically, among the population of seniors projected to have a disability in 2060, about 1 million are projected to have one ADL limitation and about 1.7 million are projected to have two or more ADL limitations.

Population of Seniors With Disabilities Projected to Grow Faster Than Overall Senior Population. While California's overall senior

Figure 5

Adults in California Are Attaining Higher Levels of Education

Percent of Californians Aged 25 and Older



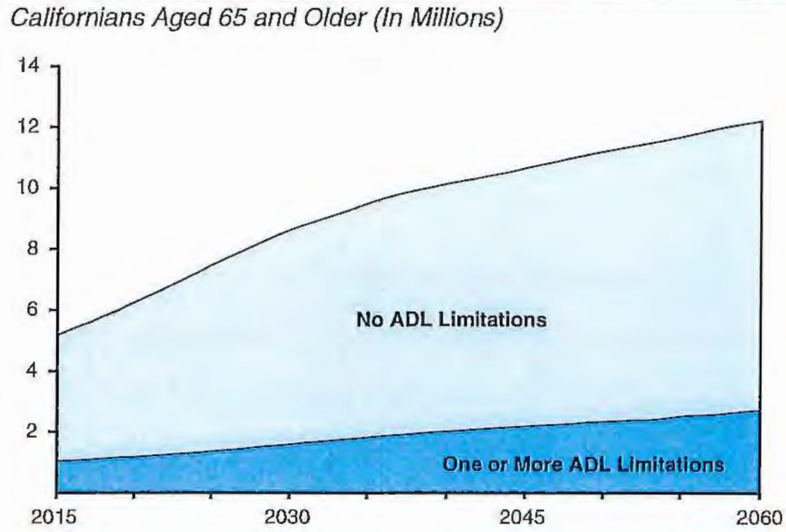
HS = high school.

Note: Data from the Current Population Survey.

population is projected to grow by 135 percent from 2015 to 2060, the population of seniors with disabilities is projected to grow by 160 percent (see Figure 6). This is the net result of the factors discussed below. (We note that our results do not reflect a *causal* relationship between these characteristics and disability. We observe in current data that these relationships, such as the relationship between education and disability, exist and assume they continue going forward. We are not speculating as to why these relationships exist currently.)

Figure 6

Population of Seniors With Disabilities Projected to Increase Substantially by 2060



ADL = activity of daily living.

- ***Share of Seniors Aged 85 and Older Is Projected to Increase, and Older Seniors Have Higher Rates of Disability.*** As the share of California's senior population that is aged 85 and older increases, this shift is likely to have an impact on the number of disabled seniors in California. Currently, rates of disability among seniors aged 85 and older are higher than among seniors aged 65 to 84. If this difference continues as the share of seniors aged 85 and older increases, there will be faster growth in the population of seniors with disabilities than the overall senior population.

- ***Senior Population Is Projected to Become More Nonwhite, and Nonwhite Population Has Higher Rates of Disability.*** As California's senior population shifts from being majority white to majority nonwhite, this will contribute to faster growth among the population of seniors with disabilities than the overall senior population (again assuming current rates of disability by race do not change). Currently, white seniors have lower rates of disability than Hispanic seniors and nonwhite, non-Hispanic seniors. (Data constraints prevent us from breaking out the nonwhite, non-Hispanic race category into additional groups.) As the population of nonwhite seniors grows, this contributes to faster growth in the population of seniors with one or more ADL limitations than the overall senior population.

- ***Share of Seniors With Higher Levels of Education Projected to Increase, and Rates of Disability Are Lower Among Those With Higher Education.*** Currently, rates of disability are lower among seniors who have attained more than a high school education than among seniors with a high school or less-than-high-school education. (We note that education is considered to be a proxy for socioeconomic status.) Assuming this difference in rates of disability and current trends towards higher levels of educational attainment continue going forward, this will partially offset the impact of the trends in race and age on the growth of the senior population with disabilities. In other words, the growth rate of seniors with disabilities will not be as high as it would otherwise be absent this impact of increasing educational attainment.

Potential Increased Caregiving Role for Population of Seniors Without Disabilities. As discussed above, the ratio of working-aged adults to seniors is projected to decrease roughly 50 percent from 2015 to 2060. This may mean there are fewer caregivers available for seniors with disabilities. However, focusing only on working-aged adults ignores seniors without disabilities who may be able to provide care for their disabled spouses or other disabled relatives. A recent analysis by the National Academies of Sciences, Engineering, and Medicine found roughly one-third of family members who provided care to seniors were aged 65 or older in 2011. We project that the ratio of seniors without disabilities to seniors with disabilities in California will decrease only 13 percent from 4:1 in 2015 to 3.5:1 in 2060. This may suggest a greater role for seniors without disabilities in providing informal care over the next several decades.

PROJECTIONS OF LENGTH OF DISABILITY AMONG CALIFORNIANS TURNING 65 BETWEEN 2015 AND 2019

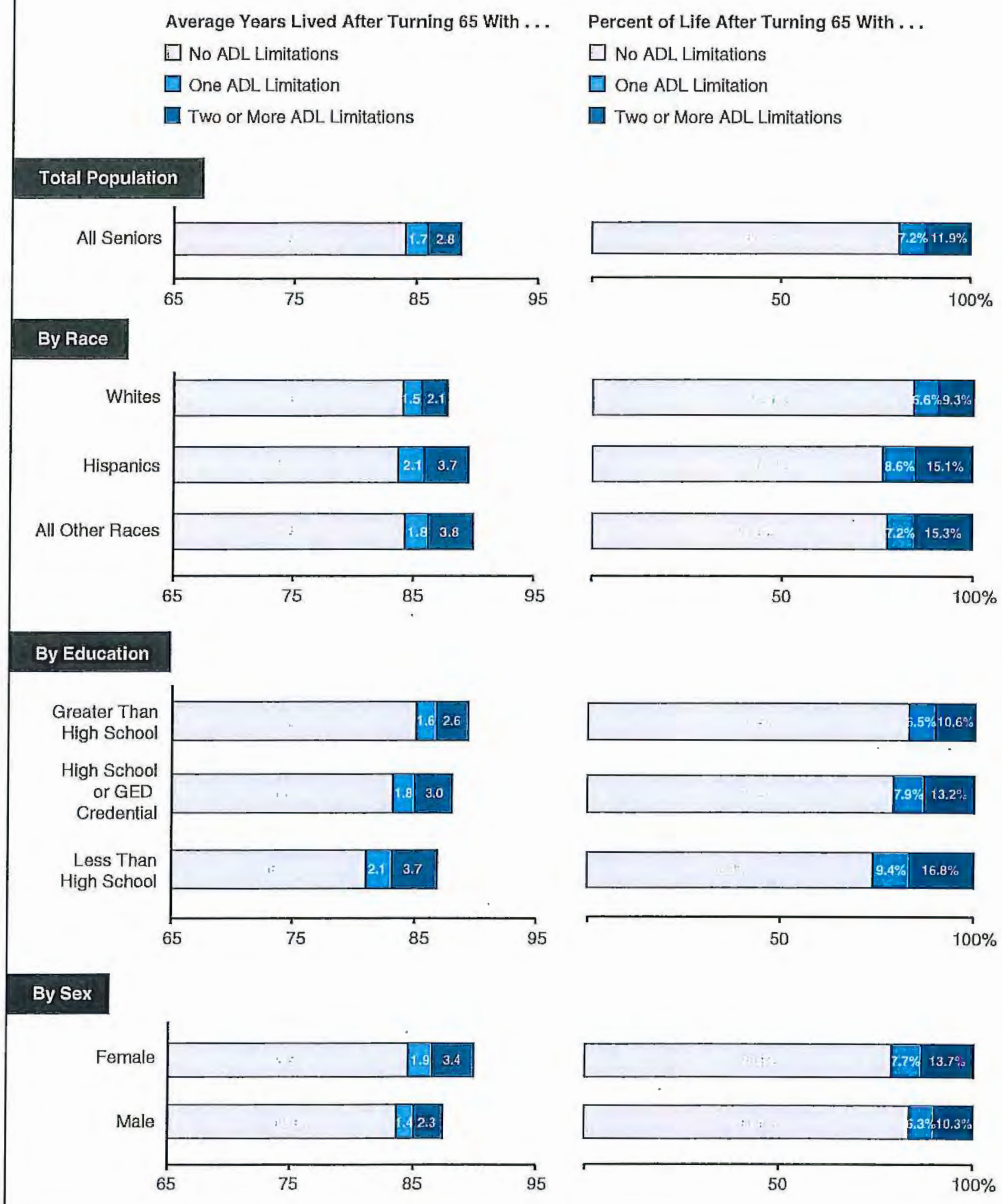
In this section, we provide projections of years lived with a disability for the cohort of Californians turning 65 between 2015 and 2019. These results reflect only this cohort as compared to the results presented in the prior section which reflect the full population of seniors in California in each year from 2015 through 2060. We focus on this cohort because we can generally observe their entire remaining life in our projections through 2060.

Disability Projections Among Californians Turning 65 Between 2015 and 2019

Throughout this section, we discuss projections depicted in Figure 7. The figure begins with results for the total senior population turning 65 between 2015 and 2019 and then breaks out the results for this cohort by race, education, and sex. The left column of Figure 7 depicts the average number of years lived after turning age 65 broken out by years lived with no ADL limitations, one ADL limitation, and two or more ADL limitations. For example, we project seniors in this cohort will spend an average of 19.1 years with no ADL limitations, 1.7 years with one ADL limitation, and 2.8 years with two or more ADL limitations. The right column of Figure 7 depicts the average percent of life after turning 65 broken out by no ADL limitations, one ADL limitation, and two or more ADL limitations. For example, we project seniors in this cohort will spend an average of 80.1 percent of life after turning 65 with no ADL limitations, 7.2 percent of life with one ADL limitation, and 11.9 percent of life with two or more ADL limitations.

Figure 7

Length of Time Lived With ADL Limitations Varies by Demographics Among Seniors Turning 65 Between 2015 and 2019



ADL = activity of daily living.

Seniors Turning 65 Between 2015 and 2019 Projected to Spend 4.5 Years and 19 Percent of Remaining Life With a Disability. On average, seniors turning 65 between 2015 and 2019 are projected to live for 23.6 years after age 65 and spend 4.5 of these years (about 19 percent) with one or more ADL limitations. This reflects an average of 1.7 years with one ADL limitation and 2.8 years with two or more ADL limitations. The average number of years lived with a disability varies based on demographics of the seniors in this cohort, as discussed below. While Figure 7 shows the average years lived with ADL limitations, not all seniors in this cohort are projected to have ADL limitations during their life after age 65. Twenty-three percent of seniors in this cohort are projected to spend no years with ADL limitations.

Nonwhite Seniors in This Cohort Projected to Live More Years With a Disability. While seniors on average in this cohort are projected to spend 4.5 years with any ADL limitations, the number of years lived with ADL limitations varies by race. White seniors in this cohort are projected to spend 3.6 years on average with ADL limitations, while Hispanic seniors are projected to spend 5.8 years on average with ADL limitations and nonwhite, non-Hispanic seniors are projected to spend 5.6 years on average with ADL limitations. (Data constraints prevent us from breaking out the nonwhite, non-Hispanic race category into additional groups.)

While nonwhite seniors are projected to live longer than white seniors in this cohort, nonwhite seniors are also projected to spend a larger share of life after age 65 with ADL limitations than white seniors. White seniors in this cohort are projected to live, on average, 15.9 percent of life after turning 65 with at least one ADL limitation, while Hispanic seniors and nonwhite, non-Hispanic seniors are projected to live 23.7 percent and 22.5 percent, respectively, of their life after turning 65 with at least one ADL limitation.

Seniors in This Cohort With More Than a High School Education Projected to Live Fewer Years With a Disability. The average number of years lived with a disability among seniors in this cohort also varies by educational attainment. Seniors turning 65 between 2015 and 2019 who have greater than a high school education spend fewer years on average with one or more ADL limitations than seniors with a high school degree or GED credential and seniors with less than a high school education (4.2 years vs. 4.8 years and 5.8 years, respectively).

Not only do seniors with more than a high school education live longer on average than their counterparts with less education, they are projected to spend a smaller share of their life after turning 65 with one or more ADL limitations on average than seniors with a high school degree or GED credential and seniors with less than a high school education (17.1 percent vs. 21.1 percent and 26.2 percent, respectively).

Female Seniors in This Cohort Are Projected to Live More Years With a Disability. Female seniors turning 65 between 2015 and 2019 are projected to live more years with a disability on average after turning 65 than male seniors in this cohort. Female seniors are projected to live 5.3 years on average with one or more ADL limitations while male seniors are projected to live 3.7 years on average with one or more ADL limitations.

Female seniors in this cohort are projected to live longer after turning 65 than male seniors on average, but female seniors are also projected to spend a larger share of life after turning 65 with one or more ADL limitations on average. Female seniors are projected to spend 21.4 percent of life after turning 65 with at least one ADL limitation on average compared to 16.6 percent of life after turning 65 lived with at least one ADL limitation on average among male seniors.

California Seniors Compared to Seniors Nationally

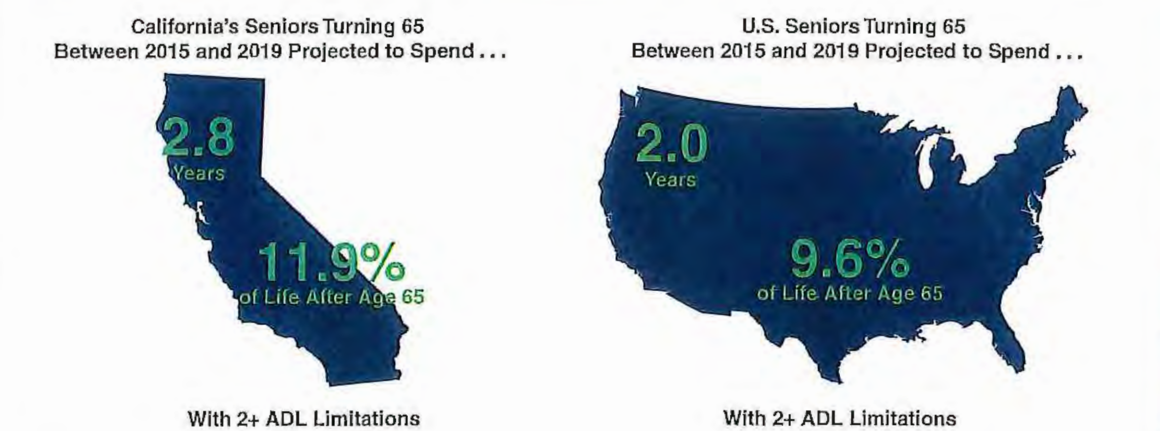
Compared to Seniors Turning 65 Between 2015 and 2019 Nationwide, California's Seniors Projected to Live More Years With Two or More ADL Limitations. Seniors in California turning 65 between 2015 and 2019 are projected to spend nearly one year longer on average with two or more ADL limitations than seniors nationally (see Figure 8). The Urban Institute projects that seniors nationwide will spend two years on average with two or more ADL limitations compared to our projection of 2.8 years on average for California's seniors. California's seniors in this cohort are also projected to spend a larger share of life after turning 65 with two or more ADL limitations than seniors nationally (11.9 percent vs. 9.6 percent).

CALIFORNIA-SPECIFIC PROJECTIONS ARE A NECESSARY FIRST STEP IN LTSS SYSTEM PLANNING

This analysis demonstrates the need for California-specific projections to inform the conversation around the future of the LTSS system as California's senior population grows over the next several decades. The national-level projections that provide information on disability levels (and the related issues of LTSS utilization and LTSS financing), while a useful starting point, are not sufficient to reflect California's unique population and LTSS system. As the Legislature, administration, and stakeholders continue to engage in planning for the impact of the growing senior population on the LTSS system, it is necessary to have projections that accurately reflect the uniqueness of California's population and current LTSS system to inform policymaking.

Figure 8

California's Seniors Projected to Spend More Years With a Disability Than Seniors Nationally[a]



[a] National projections are from the Urban Institute.
ADL = activity of daily living.

This report begins to fill the need for California-specific information by providing projections of disability among California's seniors through 2060. To further understand the impact of the aging California population on the LTSS system, it would also be useful to have projections of LTSS utilization and financing. However, such projections are not available at this time. Our office will assess the feasibility of producing such projections in the future subject to available data.

ADDITIONAL INFORMATION AVAILABLE ON LAO WEBSITE

In addition to the findings presented in this report, the LAO website (www.lao.ca.gov) contains additional resources based on our analysis including:

- A summary infographic that highlights key findings from our analysis.
- Supplemental results that provide additional details and explore results for additional subpopulations beyond what is in this report (for example, results are presented for nonwhite seniors who are married compared to nonwhite seniors who are not married).
- Future work that will be added to our website over time, including analyses that provide projections of California's population of seniors with disabilities under alternative scenarios in which rates of disability (1) decrease over time and (2) increase over time.

APPENDIX

Data Sources Used in This Analysis

- American Community Survey, 2013 1-year PUMS Data [Data file]. Washington, DC: U.S. Census Bureau, 2013. Available from the American FactFinder website: http://factfinder.census.gov
- Favreault, Melissa, and Judith Dey. (2015). *Long-Term Services and Supports for Older Americans: Risks and Financing.* Washington, DC: US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation (ASPE). Retrieved from the ASPE website: https://aspe.hhs.gov/basic-report/long-term-services-and-supports-older-americans-risks-and-financing-research-brief
- Health and Retirement Study (HRS) public use dataset. Ann Arbor, MI: University of Michigan with funding from the National Institute on Aging, 2014.
- HRS Data (Version N) [Data file]. Santa Monica, CA: RAND Center for the Study of Aging with funding from the National Institute on Aging and the Social Security Administration, 2014. Available from the University of Michigan Health and Retirement Study website: http://hrsonline.isr.umich.edu/data/index.html
- *Integrated Public Use Microdata Series (IPUMS), Current Population Survey (CPS)* [Data file]*: Version 4.0.* Minneapolis: University of Minnesota, 2015. Available from the IPUMS-CPS website: www.ipums.org
- Rowland, Diane. (2013). *What Would Strengthen Medicaid Long-Term Services and Supports (LTSS)?* [PowerPoint slides]. Retrieved from: http://ltccommission.org/ltccommission/wp-content/uploads/2013/12/DRowland-PP.pdf
- State Population Projections by Race/Ethnicity, Sex, and Age 2010-2060 [Data file]. Sacramento, CA: State of California, Department of Finance, 2014. Available from the California Department of Finance website: http://dof.ca.gov/research/demographic/projections/
- Survey of Income and Program Participation 2008. Washington, DC: U.S. Census Bureau, 2015.
- Survey of Income and Program Participation 2008. Cambridge, MA: National Bureau of Economic Research (NBER), 2015. Available from the NBER website: http://www.nber.org/data/survey-of-income-and-program-participation-sipp-data.html
- U.S. Population Projections: 2014-2060. Washington, DC: U.S. Census Bureau, 2014 [Data file]. Available from the U.S. Census Bureau website: http://www.census.gov/population/projections/data/national/2014/downloadablefiles.html

PPIC | PUBLIC POLICY INSTITUTE OF CALIFORNIA

August 2015

Planning for California's Growing Senior Population

Laurel Beck | Hans Johnson | Research support from Landon Gibson

Summary

California's senior population is entering a period of rapid growth. By 2030, as the Baby Boom generation reaches retirement age, the over-65 population will grow by four million people. It will also become much more racially and ethnically diverse, with the fastest growth among Latinos and Asians. Many more seniors are likely to be single and/or childless—suggesting an increased number of people living alone. All of these changes will have a significant impact on senior support services.

We project that by 2030 slightly more than one million seniors will require some assistance with self-care, and that the demand for nursing home care will begin to increase after decades of decline. These changes will have direct budget implications for the Medi-Cal and In-Home Supportive Services (IHSS) programs, both of which pay for care and services for low-income seniors. The state will need additional resources, including nursing care facilities and health care professionals, especially those who provide home- and community-based services. California's community college system will be critical in training workers to meet the state's health care workforce needs for the growing and changing senior population.

Introduction

California's senior population will grow substantially by 2030, when the youngest Baby Boomers hit retirement age. This report highlights how this population is growing and changing. We also project some of the potential age-related needs this population will face—in particular, the number of seniors who will have trouble caring for themselves and the number who will require full-time nursing home care.

As people age, they tend to require more medical care. They are increasingly likely to have trouble living alone—some will need home- or community-based health services, others will move into assisted living, and still others, mainly those with the most serious self-care limitations, will enter nursing homes. The spectrum of age-related needs points to an increased demand for a variety of support workers, from home health aides to nurses and doctors. While care requirements for California's aging population will continue to evolve past 2030, the estimates in this report provide a useful starting point for the state to plan for changes in the demand for home-based care and nursing home facilities.

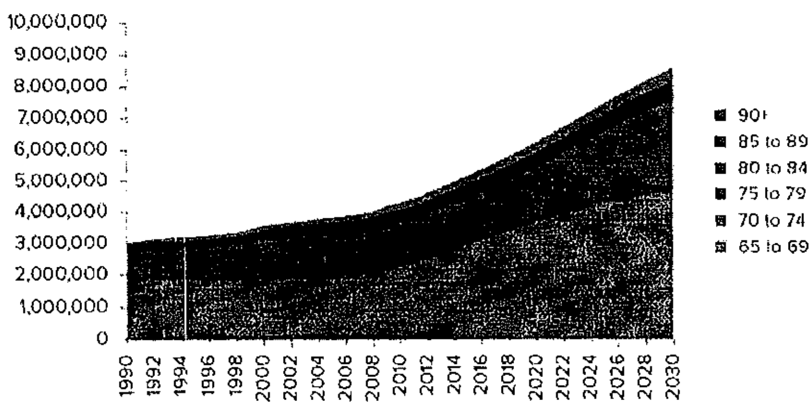
Changes in the senior population

Over the next two decades, California's over-65 population will nearly double, clearly indicating an increased demand for health and support services. This population will also become more racially and ethnically diverse, signaling a growing need for culturally competent care—that is, care that respects the beliefs and responds to the linguistic needs of seniors from diverse backgrounds. In addition, the senior population in 2030 will have more single and/or childless adults than it does today, suggesting an increased number of people living alone. This particular shift is likely to have a significant impact on senior support services, since on average, people living alone as they age are more likely to need either home health care or nursing home care. Taken together, all of these changes point to a new and evolving landscape for senior care in the state.

California's over-65 population is expected to be 87 percent higher in 2030 than in 2012, an increase of more than four million people (Figure 1).[1] This group will grow much faster than the rest of the population, rising from 12 percent in 2012 to 19 percent in 2030. Because of this faster growth, there will be fewer adults of prime working age relative to the senior population.[2] As a result, a greater share of the state's human and economic resources will be used to provide health care and other types of support for this group.

The first Baby Boomers began hitting retirement age in 2011, and the youngest will turn 65 in 2029. Figure 1 shows historical and projected levels of the state's senior population broken down into age groups. In 2030 most seniors will be relatively young, between age 65 and 75. However, beginning in 2020 the fastest growth will occur among seniors age 75 and older. By 2030, the over-85 population will have grown considerably, increasing 61 percent (around 400,000 people) from 2012.

Figure 1. California's senior population will nearly double by 2030



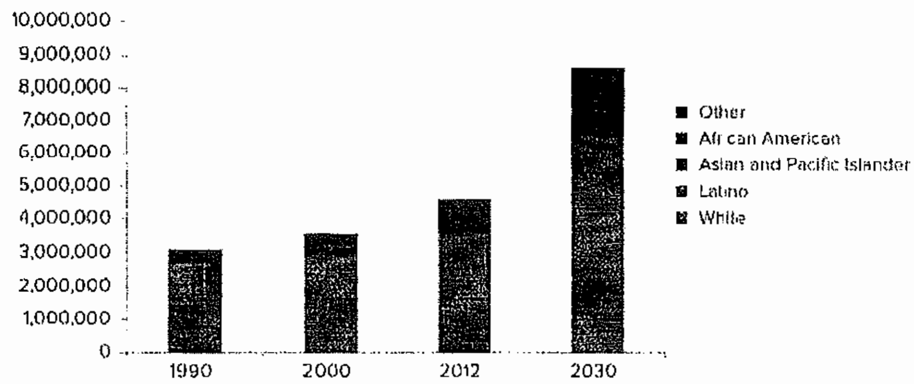
SOURCE: State of California, Department of Finance, State and County Population Projections by Race/Ethnicity, Sex, and Age 2010-2060, Sacramento, California, December 2014.

NOTE: See Technical Appendix A for detailed tables and Technical Appendix B for data and methods used to generate the projections.

The number of seniors in every major racial/ethnic group will increase by 2030 (Figure 2). Whites will remain the largest group and are projected to grow by 53 percent (1.5 million people). However, the fastest rates of growth will occur among nonwhite populations, especially Latinos (170%, or 1,430,000 people) and Asians (118% or 765,000 people). The African American senior population will increase by 96 percent, or 230,000 people.

Because Latino and Asian senior populations are growing so quickly, they will make up an increasing share of the total over-65 population going forward (Figure 2). Since 1990, there has been a steady decline in the percent of seniors who are white, and by 2030 that fraction is expected to dip to just below 50 percent. At that point, no ethnic group will constitute a majority of the senior population. Latinos will have increased from 18 percent in 2012 to 26 percent by 2030; Asians will grow from 14 percent to 16 percent. The fraction of seniors who are African American will hold constant at 5 percent.

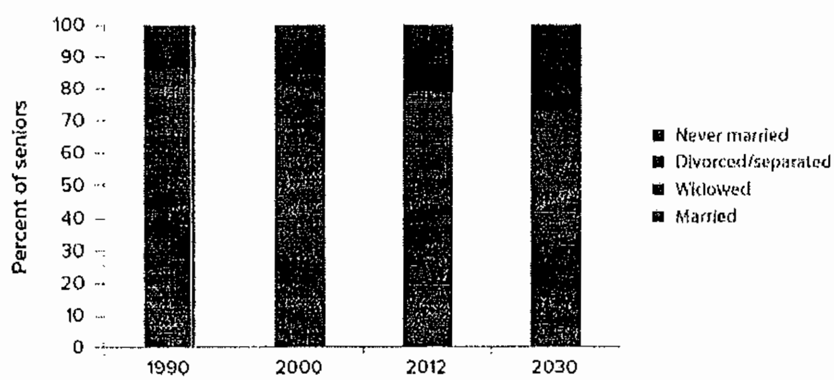
Figure 2. California will see strong growth for seniors in every ethnic group



SOURCE: California Department of Finance.
NOTE: See Technical Appendix A for detailed tables.

Family structures in this age group will also change considerably—in particular, marital status will look quite different among seniors in 2030 than it does today (Figure 3). The fastest projected rates of growth are among the divorced/separated and never married groups. Between 2012 and 2030, the number of married people over age 65 will increase by 75 percent—but the number who are divorced or separated will increase by 115 percent, and the number who are never married will increase by 210 percent.

Figure 3. More seniors will be divorced/separated or have never married



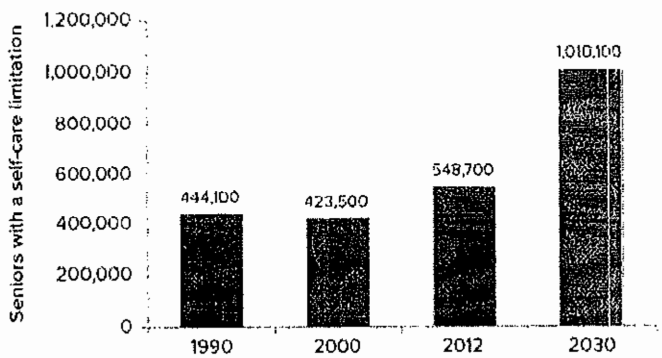
SOURCE: Author calculations based on the American Community Survey and Decennial Census.
NOTE: See Technical Appendix A for detailed tables and Technical Appendix B for data and methods used to generate the projections.

Another significant change will be in the number of seniors who have children. Those who have never been married are much less likely to have children than those who have been married at some point.[3] As a result, seniors in the future will be more likely to be childless than those today (Table 1). In 2012, just 12 percent of 75-year-old women had no children. We project that by 2030, nearly 20 percent will be childless.[4] Since we know that adult children often provide care for their senior parents, these projections suggest that alternative non-family sources of care will become more common in the future.[5]

Changes in the need for support services

In the previous section, we established that by 2030, California's senior population will grow significantly and become more racially and ethnically diverse. In addition, more seniors are likely to live alone, without family members to care for them. In light of these shifts, California policymakers should be considering the kinds of resources that will best address the needs of this changing population. Many seniors will prefer to use services that allow them to remain in their homes. Assisted living facilities provide a range of services with activities of daily living and some medical support for seniors or people with disabilities. For those needing the highest level of care, nursing homes are likely to play an important role—for both long- and short-term care (such as post-surgery recovery). Among the options for seniors requiring some assistance with daily living, nursing homes are by far the most expensive. In this section, we offer a brief overview of the likelihood of needing some sort of care, focusing particularly on potential changes in the need for nursing home care.[6]

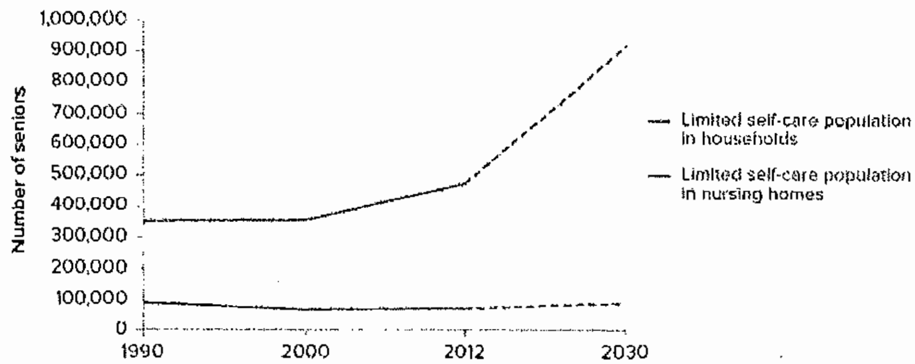
Figure 4. The number of seniors facing difficulties with self care will almost double



SOURCE: ACS and Decennial Census and author calculations.
NOTE: See Technical Appendix A for detailed tables and Technical Appendix B for data and methods used to generate the projections.

We begin by estimating the number of people who will have difficulty caring for themselves.[7] The people in this category have a wide range of needs, from transportation and cleaning services to help with basic tasks such as bathing or eating. The strongest predictors of self-care difficulties are age and marital status, with older seniors and never-married seniors much more likely to experience some type of limitation.[8] We project that there will be slightly more than one million seniors with self-care limitations in 2030 (Figure 4).[9] This represents an 88 percent increase over 2012 population levels, about the same as the overall increase in the senior population. The vast majority of these seniors—more than 900,000—will not be living in nursing homes.

Figure 5. Most seniors with self-care difficulties will be living at home



SOURCE: ACS and Decennial Census and author calculations.

NOTE: See Technical Appendix A for detailed tables and Technical Appendix B for data and methods used to generate the projections.

What about those needing nursing home care? Our projections suggest that these numbers will grow more slowly than the overall senior population. We find that, based on historical trends and future population projections, slightly more than 106,000 people will need nursing home care in 2030 (Figure 5). This represents a 16 percent increase over the 91,500 who were in nursing homes in 2012. These projections assume a continued decline in the rate of reliance upon nursing homes; they also assume that the general preference for living at home and relying on support services will continue to increase.[10] However, if the likelihood of living in a nursing home remains the same over time, then the number of seniors in nursing homes will exceed 150,000 by 2030.

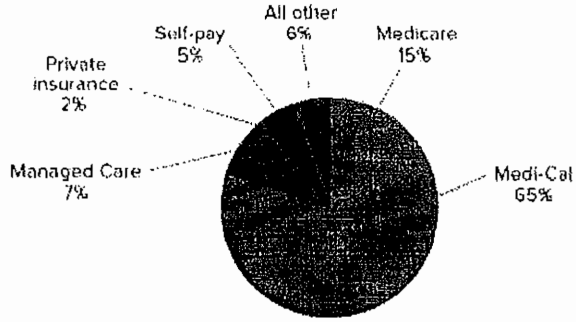
Who is most likely to need nursing home care?[11] The single most important predictor is having difficulty with daily activities—in fact, our findings suggest that age alone is becoming a less significant factor than self-care limitations. Other important factors include being single—especially if a person has never been married. Whites and African Americans are more likely to be in nursing homes than Asians and Latinos, although other work has found that the gap has been shrinking over recent decades.[12] In addition, women are more likely to live in nursing homes than men, but that is primarily because they live longer, have more self-care limitations, and are more likely to be unmarried (or widowed). Once we control for these factors, men are slightly more likely to be in nursing homes.

Planning for the future

We have shown that the number of seniors requiring support to live at home, and the number requiring nursing home care, will increase significantly by the year 2030. In the near future, California policymakers can anticipate a demand for increased spending on programs like Medi-Cal and In-Home Supportive Services (IHSS). Policymakers should also plan for the efficient use of state resources and incorporate the specific wants and needs of this generation of seniors. To do so, it is helpful to think in two broad categories: where seniors will live, and what type of workers they will need for help. In this section, we touch briefly on these two issues.

The state can anticipate that most seniors will prefer to remain in their own homes for as long as possible. California pays 50 percent of Medi-Cal costs, which include both IHSS services and nursing home care. Nursing home care is considerably more expensive than home- and community-based services and IHSS support. In 2015, a semi-private room in a nursing home costs 68 percent, or nearly $30,000, more than 40 hours a week of support from a home health aide.[13] From a budgetary perspective, the state should implement regulations that reserve nursing home care only for those whose needs cannot be supported in their own home.

Figure 6. Medi-Cal is the primary source of funding for nursing home residents



SOURCE: California Office of Statewide Planning and Development, 2013.

NOTE: Medi-Cal spending is split evenly between California and the federal government. Medicare is federally funded. Managed care refers to health delivery systems that coordinate care across providers in an effort to improve efficiency and control costs.

Policymakers will also need to consider workforce development in anticipation of the growing senior population. The source, location, and type of care provided all determine the types of workers seniors will rely on. While there will certainly be a need for more doctors and nurses, the biggest demand for workers will occur in allied health professions, such as physician's assistants, medical assistants, and home health aides. In addition to working in traditional medical settings, these workers will be especially important in providing home- and community-based services. Previous PPIC work has explored the state of California's allied health workforce and training programs, as well as options to meet workforce needs in the future (McConville, et al. 2014). This work suggests that California policymakers can most effectively address the state's health workforce needs through the community college system and programs that increase access and funding for postsecondary education.

In addition to addressing the sheer number of workers needed, state policies and programs should also bear in mind the increasing diversity of seniors. As we saw, the ethnic and racial makeup of the over-65 population is going to change significantly. Even within broadly defined racial and ethnic groups there are important cultural differences. With that in mind, it will be important to ensure that the growing health workforce is culturally competent.[14] The state can address this issue both by supporting outreach, education, and training for workers across racial and ethnic groups, and through the IHSS program, which would allow participants to hire support workers from their own family or community.

Conclusions

California's senior population will grow rapidly over the next two decades, increasing by an estimated 87 percent, or four million people. This population will be more diverse and less likely to be married or have children than seniors are today. The policy implications of an aging population are wide-ranging. We estimate that about one million seniors will have some difficulties with self-care, and that more than 100,000 will require nursing home care. To ensure that nursing home populations do not increase beyond this number, the state will need to pursue policies that provide resources to allow more people to age in their own homes.

There are many policies that could push the state toward that goal. The IHSS program provides resources for seniors to hire workers, including family members, to provide support with personal care, household work, and errands. One benefit of hiring family members is that they may provide more culturally competent care. Medi-Cal is already the primary payer for nursing home residents, and the state could potentially save money by providing more home- and community-based services that support people as they age, helping to keep them out of institutions. Finally, the projected growth in nursing home residents and in seniors with self-care limitations will require a larger health care workforce. California's community college system will be a critical resource in training qualified workers focused on the senior population.

While this report provides projections for the year 2030, the issues of California's growing senior population are important today. The oldest Baby Boomers are now in their late 60s, and this group will require increasing levels of services and support in the immediate future. In this report, we have focused on 2030 as a critical point in managing a new, larger number of seniors in the state. But California should anticipate that its aging population will require a range of policy responses before that time to address both short- and long-term challenges.

NOTES

1. 2030 population projections are based on State of California, Department of Finance Report P-3 (December 2014). 2012 is used as the base year for comparison because it is the most recent year for which survey data from the American Community Survey is available at the time of publication.
2. The "aged dependency ratio" (the ratio of the number of seniors to the number of people of working ages) will increase from 19 to 32. This ratio is the number of seniors age 65 and over for every 100 adults ages 18 to 64. The child dependency ratio will change very little during this time period, so that the overall dependency ratio will increase from 57 to 71.
3. Using data from the Health and Retirement Study (HRS), we estimate that in 2012 93.4 percent of all 70–75-year-olds had children, while only 36.1 percent of the never married subsample did.
4. ACS and Decennial Census and author calculations.
5. Johnson and Wiener (2006).
6. Our focus on nursing home care is primarily due to limitations of the ACS questions about residency. Assisted living facilities provide an important tier of housing and support for people who are relatively self-sufficient. Since 2006, California has had a Medicaid waiver allowing Medi-Cal to subsidize assisted living for qualified beneficiaries in several counties (expanded to 15 in 2014). More information at www.canhr.org/factsheets/rcfe_fs/html/fs_alw.htm.
7. We base our projections on a Census Bureau survey question that asks whether the respondent has "any physical or mental health condition that has lasted at least six months and makes it difficult to take care of personal needs." Some of these respondents live in nursing homes, but most remain in their homes. See Technical Appendix B for more details.
8. There is obviously reason to believe that people living alone are more likely to report these difficulties precisely because they do not have a spouse, etc., to assist them. However, because we are mostly interested in estimating the number of people who will require some assistance, the direction of causality is not problematic.
9. To project the size of this population, we develop statistical models that predict self-care limitations based on age, gender, race, ethnicity, marital status, education level, and nativity. These are based on ACS categorizations. Nativity refers to whether or not the respondent was born in the United States.
10. Based on data from the ACS and the Decennial Census, we estimate that the rate of utilization of nursing homes has declined significantly across all age groups since 1990. Please see the technical appendices for more details.
11. As in the projections of the population with self-care limitations, we use demographic and household characteristics to project the probability of being in a nursing home.
12. This trend could be due to cultural shifts, or to changes in the accessibility and affordability of nursing homes and other options for members of different racial/ethnic groups. Zhanlian, et al. (2011).
13. These estimates are based on the AARP Long-Term Calculator Tool. The estimated cost, assuming residence in Los Angeles County, of a semi-private nursing home room is $71,175, and the estimate for 40 hours a week of a home health aide is $42,432. Nursing home care is estimated to be less expensive, however, if a patient requires more than 70 hours a week of home health aide support.
14. California is already one of several states with legislation mandating continuing education on cultural competency for physicians and surgeons. State legislation—AB 801 (2003), AB 1195 (2005), and AB 496 (2013)—identifies these concerns.

REFERENCES

Colby, Sandra L., and Jennifer M. Ortman. May 2014. *The Baby Boom Cohort in the United States: 2012 to 2060. Population Estimates and Projections*. Washington, D.C. U.S. Census Bureau.

Johnson, Richard W., and Joshua M. Wiener. February 2006. *A Profile of Frail Older Americans and Their Caregivers*. Washington, D.C. Urban Institute.

Legislative Analyst's Office. 2015. *2015–2016 Budget: Analysis of the Human Services Budget*. Sacramento, CA.

McConville, Shannon, Sarah Bohn, and Laurel Beck. 2014. *California's Health Workforce Needs: Training Allied Workers*. San Francisco: Public Policy Institute of California.

Stewart, Susan T., David M. Cutler, and Allison B. Rosen. September 2013. *U.S. Trends in Quality-Adjusted Life Expectancy From 1987 to 2008: Combining National Surveys to More Broadly Track the Health of the Nation*. American Journal of Public Health 103 (11): e78-e87.

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OTHER PUBLICATIONS

California's Future: Population

California's Health Workforce Needs: Training Allied Workers

California's Need for Skilled Workers

Exhibit S
PA17-0004

Carson Creek Specific Plan Amendment

Fiscal Impact Analysis

August 14, 2019

Prepared for:
Lennar

Prepared By:

DPFG
DEVELOPMENT PLANNING & FINANCING GROUP, INC.

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I. Executive Summary

Introduction
This report was prepared by Development Planning and Financing Group, Inc. ("DPFG") on behalf of Lennar ("Developer") to analyze the fiscal impacts of development scenarios of The Carson Creek Specific Plan Area. The developer has submitted an application for a Specific Plan Amendment to rezone the Industrial and R&D phase of the Carson Creek Specific Plan to a proposed 415 unit Age-Restricted Residential Community. A Fiscal Impact Analysis ("FIA") is intended to estimate the demand that a potential land use will place on County General Funded services and provide an estimate of the revenues that will be generated by the Project to offset the increased demand on services. This report estimates the County General Fund impacts for the proposed Age-Restricted Residential Community as well as the approved Industrial and R&D land use.

Project Overview
Residential
The proposed project consists of approximately 178 acres that is proposing a general plan amendment for residential land uses, that include 415 age restricted single family detached residential units, and 1.7 acres of commercial zoned property (the "Residential Project"). The Residential Project also includes approximately 30 acres of parks, and 50 acres of open space. The site is west of Latrobe Road and to south of Golden Foothill Parkway.

The Residential Project is estimated to generate approximately 776 residents based on person per household factors found in Figure 1.

Industrial and R&D
The approved land use consists of approximately 178 acres that includes 57 acres of industrial zoned property, and 33.3 acres of R&D zoned property. It also includes approximately 30 acres of parks, and 57.4 acres of open space (the "Industrial and R&D Project").

The Industrial and R&D Project is estimated to generate approximately 1,709 persons served based on square feet per employee factors found in Figure 1.

Fiscal Impact Analysis Summary
Residential
The FIA indicates that the Residential Project, at buildout, is estimated to generate a relatively neutral fiscal impact to the County's General Fund and a positive fiscal impact to the Road Fund.

The Residential Project is estimated to generate a total of approximately $475,000 in General Fund revenues, against $583,000 in expenditures (i.e., costs) at buildout, resulting in a General Fund deficit of approximately $107,000 annually.

The Residential Project is estimated to generate a net surplus in the County's Road Fund of approximately $68,000 annually.

The annual fiscal impacts for the Residential Project after buildout are shown in *Table 1*.

Industrial and R&D
The FIA indicates that an Industrial and R&D Project, at buildout, is estimated to generate a negative fiscal impact to the County's General Fund and a positive fiscal impact to the Road Fund.

The Industrial and R&D Project is estimated to generate a total of approximately $610,000 in General Fund revenues, against $1,283,000 in expenditures (i.e., costs) at buildout, resulting in a General Fund deficit of approximately $673,000 annually.

The Industrial and R&D Project is estimated to generate a net surplus in the County's Road Fund of approximately $59,000 annually.

The annual fiscal impacts for the Industrial and R&D Project after buildout are shown in *Table 2*.

A side-by-side comparison of the proposed Residential Project and approved Industrial and R&D Project revenues and expenditures is shown on *Table 3*.

II. Introduction

Purpose of Report
Development Planning and Financing Group, Inc. ("DPFG") was retained to prepare this report on behalf of the Carson Creek Project. This report and the attached tables describe the methodology, assumptions, and results of two FIA scenarios at buildout. A proposed residential land use scenario and Industrial and R&D land use scenario. The site is located in the El Dorado Hills Community Region area of unincorporated El Dorado County ("County").

The purpose of this report is to determine the applicable recurring revenue and expenditure impacts to the County General Fund, and Road Fund to quantify the annual net fiscal impacts at buildout of a Residential Project and Industrial and R&D Project. The FIA's were prepared in accordance with the County's draft general guidelines for FIAs that were developed by the County and their consultants dated February 18, 2015.

DPFG has analyzed the individual increases in the expenditure multipliers used in the FIA for the previous project and has applied the percentage change in the County's costs to prepare a high level fiscal impact analysis for the FIA's being presented.

DPFG has reviewed the 2019-20 Recommended Budget ("2019-20 Budget") presented to the El Dorado County Board of Supervisors on June 17, 2019 and compared the 2019-20 Budget general fund expenditures to the 2014-15 Budget general fund expenditure assumptions used in a previous project's FIA that was reviewed and accepted by County staff. The 2014-15 Budget identifies general fund appropriations at approximately $254 million while the 2019-20 Budget identifies total general fund appropriations at approximately $313 million resulting in an estimated 23% increase in the County's cost structure over that five-year period.

Organization of Report

The report describes the methodology and assumptions applied in both FIA's, a description of the FIA components for calculating revenues and expenditures, and conclusions of the analysis of the land uses at buildout.

III. Project Description

Location, Land Uses, and Assumptions

The Residential Project consists of approximately 178 acres that is proposing a specific plan amendment for residential land uses, that include 415 age restricted single-family detached residential units, and 1.7 acres of commercial zoned property. The Residential Project also includes approximately 30 acres of parks, and 50 acres of open space. The site is west of Latrobe Road and to south of Golden Foothill Parkway.

Residential Development: The anticipated residential yield from the Project area is an additional 415 age restricted single-family detached residential units. The FIA includes an estimated price range for residential units between $550,000 and $625,000.

Residential Project Land Use Summary

Product [1]	Units/SF	Estimated Market Value Per Unit [2]	Estimated Assessed Valuation
Residential			
Age Restricted 45 x 105	256	$ 550,000	$ 140,800,000
Age Restricted 55 x 105	159	$ 625,000	$ 99,375,000
Total Residential Land Uses	**415**		**$ 240,175,000**
Nonresidential			
Commercial (Assumes 0.4 FAR)	**29,098**	**$ 200**	**$ 5,819,616**
Total All Land Uses			**$ 245,994,616**

Source:

[1] Product type and unit count provided by Developer.

[2] Estimated market value provided by Developer.

<u>Industrial and R&D Development</u>: The anticipated yield from an Industrial and R&D Project area is an additional 1.573 million square feet of Industrial and R&D space. The FIA includes an estimated price range for Industrial and R&D space between $175 and $200 per square foot.

Industrial and R&D Project Land Use Summary			
Nonresidential	**Square Feet**	**Value Per Square Foot [1]**	**Estimated Assessed Valuation**
R&D (Assumes 0.4 FAR)	580,219	$ 200	$ 116,043,840
Industrial (Assumes 0.4 FAR)	993,168	$ 175	$ 173,804,400
Total Residential Land Uses	**1,573,387**		**$ 289,848,240**
Source:			
[1] Estimated market value provided by DPFG.			

IV. Methodology and Assumptions

Scope and Methodology

The methodology used to determine the recurring revenue and expenditure impacts to the County General Fund, and Road Fund as a result of the outlined land uses was determined by applying two methodologies, the multiplier method and the case study method.

The multiplier method uses the current fiscal year budget as a baseline to forecast fiscal impacts. Revenue and expenditure funds that are impacted by residents use the County's total population in determining the fund's per capita factor. Revenue and expenditure funds that are impacted by both <u>residents and employees</u> use the County's total persons served (the total population and half of employees counted) in determining the fund's per capita factor. As is standard fiscal practice in determining the number of persons served, employees are assumed to create half the impact of a resident on services and thus are counted as equivalent to one half of a resident.

The case study method is used to estimate recurring revenue and expenditures when use of the multiplier method will not accurately quantify fiscal impacts. Case study methods were used where estimated revenues were more accurately estimated as a function of tax rates, assessment districts, and/or estimated home prices.

General and/or Major Assumptions

An overview of the general assumptions utilized in the FIA's is summarized in Figure 1 below.

Figure 1

Initial Market Values		
Residential		
Age Restricted 45 x 105	[1]	$ 550,000
Age Restricted 55 x 105	[1]	$ 625,000
Nonresidential		**Per Square Foot**
R&D (Assumes 0.4 FAR)	[1]	$ 200
Industrial (Assumes 0.4 FAR)	[1]	$ 175
Fiscal Modeling		
Property Tax Rate (Post ERAF)		
County General Fund Share of 1% Tax Rate	[2]	8.46%
Road District Tax Share of 1% Tax Rate	[2]	3.61%
Annual Turnover Rate		
Residential Project		
Age Restricted 45 x 105	[3]	10.00%
Age Restricted 55 x 105	[3]	10.00%
Commercial	[3]	5.00%
Nonresidential		
R&D	[3]	5.00%
Industrial	[3]	5.00%
Population Data		
Total Countywide		
El Dorado County Population	[4]	184,917
El Dorado County Employees	[5]	83,300
El Dorado County Persons Serviced	[6]	**226,567**
Unincorporated County		
El Dorado County Unincorporated Population	[4]	152,506
El Dorado County Unincorporated Employees	[5]	68,300
El Dorado County Unincorporated Persons Served	[6]	**186,656**

Persons Per Household		
Age Restricted 45 x 105	[7]	1.8
Age Restricted 55 x 105	[7]	1.8
Persons Per Square Foot		
R&D	[7]	405
Industrial/Commercial	[7]	500

Footnotes:

[1] Residential valuations provided by Developer. Nonresidential valuations provided by DPFG.
[2] Post ERAF tax rate based on estimates by DPFG and the El Dorado County Auditor-Controller.
[3] Based on DPFG estimates.
[4] Based on population estimates from the California Department of Finance data for January 1, 2015.
[5] Based on labor force data provided by the State of California's Employment Development Department. Employment estimates are annual averages for 2015.
[6] Defined as total County population plus half of total County employees.
[7] Based upon standard FIA assumptions.

Buildout Focus
Also consistent with recently prepared FIA's, the fiscal impacts of the both Projects were analyzed based on the estimated revenues and expenditures of the Projects at buildout.

V. Fiscal Impact Analysis

County Revenue Methodology and Assumptions
This section of the Report describes the methodology used to forecast revenues at buildout. The calculations of estimated revenues used either a case-study methodology or a multiplier method (i.e., per capita or per persons served).

The case-study approach was used to estimate Property Taxes, Property Tax In-Lieu of Vehicle License Fees, Property Transfer Taxes, Prop. 172 Public Safety Sales Tax, Sales and Use Tax, Property Tax In-Lieu of Sales Tax, and Road District Tax. (see *Table A.1 & A.2, B.1 & B.2*).

The multiplier method was used to estimate; Licenses, Permits and Franchise Revenues; Fines, Forfeitures, and Penalties Revenues; and Charges for Services (see *Table 1, Table 2*).

Case Study Method

Case Study tables for the Residential Project are located in Appendix A.

Case Study tables for the Industrial and R&D Project are located in Appendix B.

Property Taxes
At buildout, the Residential Project, including non-residential components is estimated to have an assessed value of approximately $245.9 million dollars and the Industrial and R&D Project is estimated to have an assessed value of approximately $289.8. The subject area falls within two tax rate areas which have identical allocation.

Table A.3 shows the estimated allocation of tax revenue to each district, fund, and agency after funds have been diverted to the Education Revenue Augmentation Fund ("ERAF"). Following the estimated ERAF and traditional tax split to the remaining agencies, El Dorado County would receive 8.457% of the total 1% property tax revenue. Secured property tax revenue is derived from taxes on residential units. Annual property tax revenues are summarized in *Table A.1 and Table B.1*.

Property Tax In-Lieu of Vehicle License Fees
The calculation of Property Tax In-Lieu of Vehicle License Fees was a consequence of the passage of Proposition 1A in November of 2004. Revenue was calculated by taking the estimated percent change in assessed value that the Projects would have on El Dorado County and applying that percent change on the revenue adopted in the FY 2018-19 Budget. Vehicle License Fees and Property Tax In-Lieu of Vehicle License Fees revenues are shown in *Table A.1 and Table B.1.*

Property Transfer Tax
The County receives this tax at the time in which a new or existing property is sold and ownership is transferred. Property transfer tax is collected upon the sale of property at a rate of $1.10 per $1,000 of assessed valuation. The FIA calculates the property transfer tax by using an annual turnover rate of 10% for single family residential units. Annual document transfer tax revenues are shown in *Table A.1 and Table B.1*

Prop. 172 Public Safety Sales Tax
The one-half percent sales tax imposed by Proposition 172 is collected by the State Board of Equalization and apportioned to each county based on its proportionate share of statewide taxable sales. The FIA calculates the Prop 172 Tax Revenue at 0.5% of total taxable sales from new households. The county receives 93.5% of all Prop 172 Sales Tax revenues generated in the County. Prop 172 Public Safety Sales Tax revenues are shown in *Table A.2 and Table B.2.*

Sales and Use Tax
Taxable sales generated are calculated by examining the amount of taxable sales that will be generated by new residents or employees. The amount of sales and use tax generated by residents is determined through several steps. First, the estimated household income for residents is determined. Second, the proportion of new residents' household income that will be spent on taxable goods and services is determined. Third, a taxable sales capture rate is assumed, as only a portion of the total amount of taxable goods and services generated by residents will occur in the County. Previous Fiscal Impact Reports accepted by the County for other projects have used a sales tax capture rate of 65%. Carson Creek is in close proximity to the El Dorado Hills Town Center that offers a variety of retail stores, and dining options. To be conservative we have reduced sales tax capture in this report to 50%. Sales and Use Tax revenue is calculated at 0.75% of the estimated retail capture rate of sales within unincorporated El Dorado County. Sales and Use Tax revenues are shown in *Table A.2 and Table B.2.*

Property Tax in Lieu of Sales Tax
Property Tax in Lieu of Sales Tax revenue is based on Senate Bill 1096 as amended by Assembly Bill 2115 which states ¼ of the 1 percent sales tax revenue will be exchanged for an equal dollar amount of property tax revenue. Property Tax in Lieu of Sales Tax revenue is calculated at 0.25% of the estimated partial capture rate of sales within unincorporated El Dorado County. Property Tax in Lieu of Sales Tax revenues are shown in *Table A.2 and Table B.2.*

Road District Tax
Road District Tax revenues are part of the County's Road Funds. *Table A.3* shows the allocation of tax revenue to the Road District Tax after funds have been diverted to the Education Revenue Augmentation Fund ("ERAF"). The Road District Tax would collect 3.61% of the total 1% property tax revenue. Road District Tax revenue is derived from taxes on residential units. Annual property tax revenues are summarized in *Table A.1 and Table B.1*.

Multiplier Method
All other general fund revenue items not calculated using a case study are estimated to be generated on a per capita or per person served basis at a rate calculated from the existing County budget. Fee revenue which is assigned to fund specific departments is not included in this analysis. All revenues calculated using the multiplier method are shown in *Table 1 and Table 2*.

Licenses, Permits, and Franchises
Revenue from Licenses, Permits, and Franchises is calculated on a per person served basis. See attached *Table 1 and Table 2* for further detail.

Fines, Forfeitures, and Penalties
Revenue from Fines, Forfeitures, and Penalties is calculated on a per person served basis. See attached *Table 1 and Table 2* for further detail.

Charges for Services
Revenue that the County receives for charging for services is calculated on a per person served basis. See attached *Table 1 and Table 2* for further detail.

State Highway Users Tax
Revenue that the County receives from the State Highway Users Tax is calculated on a per persons served basis using only the population of residents in unincorporated El Dorado County. See attached *Table 1 and Table 2* for further detail.

Expenditures Methodology and Assumptions
This section of the Report describes the methodology used to forecast the expenditures (costs) at buildout. All General Fund expenditures are projected using a per-person-served basis.

Expenditure estimates are based on the County's FY 2019-20 approved budget and supplemental information included in other recently prepared Fiscal Impact Analyses.

Multiplier Method
All General Fund expenditure items were estimated on a per person served basis at a rate per capita consistent with the existing County budget.

Public Protection Expenditures
Public Protection expenditures were estimated by splitting the amount of expenditures used to serve countywide residents/employees and sheriff patrol expenditures used to serve the unincorporated population only. The ratio of expenditures used was taken from other El Dorado

County FIAs with roughly 52% of expenditures allocated to serving countywide residents/employees and 48% allocated to serving solely the unincorporated population.

VI. Conclusions

This section of the Report summarizes the annual fiscal impact at buildout on the General Fund and Road Funds. *Table 1 and Table 2* provide a summary of the estimated General Fund and Road Funds revenue and expenditures projections for the proposed Residential Project and Industrial and R&D Project.

Residential Development

Net Annual Fiscal Impacts at Buildout
The annual net fiscal impacts at buildout indicate an annual deficit of $107,457 to the General Fund and an annual surplus of $68,131 to the County's Road Fund.

Amount of Revenues at Buildout Summary
The total annual General Fund revenues at buildout are estimated at $475,263. Property tax revenues, which are comprised of property taxes, property tax in-lieu of VLF, and property tax in-lieu of sales tax, represent the majority of revenues.

The Road Funds are anticipated to generate $133,932 in revenue annually at buildout.

Amount of Expenditures at Buildout Summary
The total annual General Fund expenditures at buildout are estimated at $582,720. The largest expenditure item is Public Protection services (servicing Countywide residents).

The Road Fund is anticipated to generate $65,801 in expenditures annually at buildout.

Revenues to Offset General Fund Deficit

The Developer is committed to providing funding mechanisms to ensure that the Project will not negatively impact the County. If necessary, the Developer would propose that a services tax be levied on future homeowners within the Project through a community facilities district to mitigate any negative fiscal impacts to the County resulting from the Project.

Industrial and R&D Development

Net Annual Fiscal Impacts at Buildout
The annual net fiscal impacts at buildout of the Project indicate an annual deficit of $673,963 to the General Fund and an annual surplus of $59,068 to the County's Road Fund.

Amount of Revenues at Buildout Summary
The total annual General Fund revenues at buildout are estimated at $609,577. Property tax revenues, which are comprised of property taxes, property tax in-lieu of VLF, and property tax in-lieu of sales tax, represent the majority of revenues.

The Road Funds are anticipated to generate $204,005 in revenue annually at buildout.

Amount of Expenditures at Buildout Summary
The total annual General Fund expenditures at buildout are estimated at $1,283,540. The largest expenditure item is Public Protection services (servicing Countywide residents).

The Road Funds are anticipated to generate $144,937 in expenditures annually at buildout.

VII. FIA Sources

Information used in preparing the FIA was obtained from the following sources: (1) El Dorado County FY 2019-20 Adopted Budget, (2) El Dorado County Auditor/Controller, (3) 2013 El Dorado County General Plan, (4) California Department of Finance

TABLE 1
Carson Creek - Proposed Residential Project
Fiscal Impact Analysis
Estimated General Fund and Road Fund Fiscal Impact

Item	Estimating Procedure	Service Population	2019/20 Revenue Multiplier	Annual Revenue/Expenditures at Buildout
Estimated General Fund Revenues				
Property Tax	Case Study	-		$ 208,034
Property Tax in Lieu of VLF	Case Study	-		$ 154,624
Property Transfer Tax	Case Study	-		$ 26,739
Prop. 172 Public Safety Sales Tax	Case Study	-		$ 21,773
Sales and Use Tax	Case Study	-		$ 34,926
Property Tax in Lieu of Sales Tax	Case Study	-		$ 11,642
Licenses, Permits and Franchises	Unincorp. Co. Persons Served	776	$ 5.26	$ 4,081
Fine, Forfeitures, & Penalties	Persons Served	776	$ 1.83	$ 1,424
Charges for Services	Persons Served	776	$ 15.49	$ 12,020
Subtotal Estimated General Fund Revenues				**$ 475,263**
Estimated General Fund Expenditures				
General Government	Persons Served	776	$ 132.60	$ (102,910)
Public Protection (Servicing Countywide Res/Emp)	Persons Served	776	$ 335.12	$ (260,086)
Public Protection (Serving Countywide Residents)	County Population	776	$ 37.61	$ (29,191)
Public Protection (Sheriff Patrol - Unincorporated County Only)	Unincorp. Co. Persons Served	776	$ 175.97	$ (136,566)
Health and Sanitation	Persons Served	776	$ -	$ -
Public Assistance	County Population	776	$ 14.51	$ (11,258)
Education	County Population	776	$ 10.36	$ (8,043)
Non-Departmental and General Fund Contributions	Persons Served	776	$ 44.67	$ (34,666)
Subtotal Estimated General Fund Expenditures				**$ (582,720)**
General Fund Surplus/(Deficit)				**$ (107,457)**
Overall General Fund Suplus/(Deficit) Including CFD Revenue Per Lot Average (415 Units)				**$ (258.93)**
Estimated Road Fund Revenues				
Licenses, Permits and Franchise Fees	Persons Served	776	$ 2.77	$ 2,154
State Highway Users (Gas) Tax	Unincorp. Co. Per Capita	776	$ 55.33	$ 42,943
Road District Tax	Case Study	-		$ 88,836
Subtotal Estimated Road Fund Revenues				**$ 133,932**
Estimated Road Fund Expenditures (includes 100% offsetting revenue)	**Persons Served**	**776**	$ 84.78	**$ (65,801)**
Road Fund Surplus/(Deficit)				**$ 68,131**
Road Fund Surplus/(Deficit) Per Lot Average (415 Units)				**$ 164.17**
Combined General Fund and Road Fund Surplus/(Deficit)				**$ (39,326)**
Combined General Fund and Road Fund Surplus/(Deficit) Per Lot Average (415 Units)				**$ (94.76)**

TABLE 2
Carson Creek - Industrial and R&D
Fiscal Impact Analysis
Estimated General Fund and Road Fund Fiscal Impact

Item	Estimating Procedure	Service Population	2018/19 Revenue Multiplier	Annual Revenue/Expenditures at Buildout
Estimated General Fund Revenues				
Property Tax	Case Study	-		$ 245,121
Property Tax in Lieu of VLF	Case Study	-		$ 182,188
Property Transfer Tax	Case Study	-		$ 15,942
Prop. 172 Public Safety Sales Tax	Case Study	-		$ 40,692
Sales and Use Tax	Case Study	-		$ 65,275
Property Tax in Lieu of Sales Tax	Case Study	-		$ 21,758
Licenses, Permits and Franchises	Unincorp. Co. Persons Served	1,709	$ 5.26	$ 8,989
Fine, Forfeitures, & Penalties	Persons Served	1,709	$ 1.83	$ 3,137
Charges for Services	Persons Served	1,709	$ 15.49	$ 26,475
Subtotal Estimated General Fund Revenues				**$ 609,577**
Estimated General Fund Expenditures				
General Government	Persons Served	1,709	$ 132.60	$ (226,678)
Public Protection (Servicing Countywide Res/Emp)	Persons Served	1,709	$ 335.12	$ (572,883)
Public Protection (Serving Countywide Residents)	County Population	1,709	$ 37.61	$ (64,298)
Public Protection (Sheriff Patrol - Unincorporated County Only)	Unincorp. Co. Persons Served	1,709	$ 175.97	$ (300,810)
Health and Sanitation	Persons Served	1,709	$ -	$ -
Public Assistance	County Population	1,709	$ 14.51	$ (24,799)
Education	County Population	1,709	$ 10.36	$ (17,715)
Non-Departmental and General Fund Contributions	Persons Served	1,709	$ 44.67	$ (76,357)
Subtotal Estimated General Fund Expenditures				**$ (1,283,540)**
General Fund Surplus/(Deficit)				**$ (673,963)**
Estimated Road Fund Revenues				
Licenses, Permits and Franchise Fees	Persons Served	1,709	$ 2.77	$ 4,744
State Highway Users (Gas) Tax	Unincorp. Co. Per Capita	1,709	$ 55.33	$ 94,589
Road District Tax	Case Study	-		$ 104,673
Subtotal Estimated Road Fund Revenues				**$ 204,005**
Estimated Road Fund Expenditures (includes 100% offsetting revenue)	**Persons Served**	1,709	$ 84.78	**$ (144,937)**
Road Fund Surplus/(Deficit)				**$ 59,068**
Combined General Fund and Road Fund Surplus/(Deficit)				**$ (614,895)**

TABLE 3
Carson Creek
Fiscal Impact Analysis - Comparison by Land Use
Estimated General Fund and Road Fund Fiscal Impact

Item		Proposed Residential Project Annual Revenue/Expenditures at Buildout		Industrial and R&D Project Annual Revenue/Expenditures at Buildout
Estimated General Fund Revenues				
Property Tax	$	208,034	$	245,121
Property Tax in Lieu of VLF	$	154,624	$	182,188
Property Transfer Tax	$	26,739	$	15,942
Prop. 172 Public Safety Sales Tax	$	21,773	$	40,692
Sales and Use Tax	$	34,926	$	65,275
Property Tax in Lieu of Sales Tax	$	11,642	$	21,758
Licenses, Permits and Franchises	$	4,081	$	8,989
Fine, Forfeitures, & Penalties	$	1,424	$	3,137
Charges for Services	$	12,020	$	26,475
Subtotal Estimated General Fund Revenues	**$**	**475,263**	**$**	**609,577**
Estimated General Fund Expenditures				
General Government	$	(102,910)	$	(226,678)
Public Protection (Servicing Countywide Res/Emp)	$	(260,086)	$	(572,883)
Public Protection (Serving Countywide Residents)	$	(29,191)	$	(64,298)
Public Protection (Sheriff Patrol - Unincorporated County Only)	$	(136,566)	$	(300,810)
Health and Sanitation	$	-	$	-
Public Assistance	$	(11,258)	$	(24,799)
Education	$	(8,043)	$	(17,715)
Non-Departmental and General Fund Contributions	$	(34,666)	$	(76,357)
Subtotal Estimated General Fund Expenditures	**$**	**(582,720)**	**$**	**(1,283,540)**
General Fund Surplus/(Deficit)	**$**	**(107,457)**	**$**	**(673,963)**
Estimated Road Fund Revenues				
Licenses, Permits and Franchise Fees	$	2,154	$	4,744
State Highway Users (Gas) Tax	$	42,943	$	94,589
Road District Tax	$	88,836	$	104,673
Subtotal Estimated Road Fund Revenues	**$**	**133,932**	**$**	**204,005**
Estimated Road Fund Expenditures (includes 100% offsetting revenue)	**$**	**(65,801)**	**$**	**(144,937)**
Road Fund Surplus/(Deficit)	**$**	**68,131**	**$**	**59,068**
Combined General Fund and Road Fund Surplus/(Deficit)	**$**	**(39,326)**	**$**	**(614,895)**

APPENDICES:

TABLE A.1
Carson Creek - Proposed Residential Project
Fiscal Impact Analysis
Case Study Analyses

Land Use Assumption and Estimated Valuation

Item	Build Out Units/SF	Price Per Unit/SF	Total Valuation
Residential			
45 x 105	256	$ 550,000	$ 140,800,000
55 x 105	159	$ 625,000	$ 99,375,000
Nonresidential			
Commercial (Assumes 0.4 FAR)	29,098	$ 200	$ 5,819,616
Total			**$ 245,994,616**

A. Estimated Annual Property Tax Case Study

Basic Rate	1.00%
Total Residential Secured Property Tax	$ 2,459,946
Percent Allocated to County General Fund	8.457%
Annual Property Tax Allocated to County General Fund	**$ 208,034**

B. Estimated Property Transfer Tax Case Study

Residential	
45 x 105	10.00%
55 x 105	10.00%
Nonresidential	
Commercial (Assumes 0.4 FAR)	5.00%
Residential	
45 x 105	$ 140,800,000
55 x 105	$ 99,375,000
Nonresidential	
Commercial (Assumes 0.4 FAR)	$ 5,819,616
Estimated Assessed Valuation Turnover Amount	$ 24,308,481
Rate per $1,000 of Assessed Value ($1.1/1000)	0.11%
Total Estimated Property Transfer Tax	**$ 26,739**

C. Estimated Property Tax in Lieu of VLF Case Study

FY 2018-19 El Dorado County Assessed Valuation [1]	$ 33,345,789,163
Assessed Value of Project	$ 245,994,616
Total Assessed Value	$ 33,591,783,779
Percent Change in Assessed Value	0.74%
Total FY 2018-19 Property Tax in Lieu of VLF Adopted Revenue [2]	$ 20,960,000
Estimated Increase in Property Tax in Lieu of VLF	**$ 154,624**

D. Estimated Road District Tax

Property Tax Revenue (1% of Assessed Value)	$ 2,459,946
County Road District Tax Rate (Post ERAF)	3.61%
Estimated County Road District Tax Revenue	**$ 88,836**

Notes:
[1] Total FY 2018-19 secured and unsecured value for El Dorado County per Auditor's Office - 2018 Tax Rate Area Value Report
[2] El Dorado County FY 2018-19 Adopted Budget

TABLE A.2
Carson Creek - Proposed Residential Project
Fiscal Impact Analysis
Case Study Analyses

Average Income and Retail Expenditures for Residential Units (2018$)

		Household Income and Retail Expenditures	
Residential Land Use	**Assumption**	Total Annual Mortgage, Ins., & Tax Payments [2]	Estimated Household Income [3]
Average Household Income	Avg Home Value [1]		
45 x 105	$550,000	$42,656	$106,641
55 x 105	$625,000	$48,473	$121,183
Average Retail Expenditures [4]	Taxable Exp. As % of Income		Average Retail Expenditures
45 x 105	20%	-	$21,328
55 x 105	20%	-	$24,237
Total Retail Expenditures		**Units**	**Retail Expenditures**
45 x 105		256	$5,460,002
55 x 105		159	$3,853,606
Total		**415**	**$9,313,608**
Taxable Sales from New Households			
Est. Retail Capture Rate within Unincorp. El Dorado County [5]			50%
Total Taxable Sales from New Households			**$4,656,804**
Taxable Sales from Commercial Site	Annual Taxable Sales / SF	SF	Total Annual Taxable Sales [6]
Commercial (Assumes 0.4 FAR)	$170	29,098	**$4,946,674**

Case Studies

Estimated Tax Revenue	**Percentage of Annual Taxable Sales**	**Revenue**
F. Estimated Sales Tax Revenue	0.75%	**$34,926**
G. Estimated Annual Property Tax in Lieu of Sales Tax Revenue [6]	0.25%	**$11,642**
H. Estimated Prop 172 Public Safety Sales Tax Revenue		
Gross Prop 172 Public Safety Sales Tax Revenue	0.50%	$23,284
El Dorado County Allocation [7]		**$21,773**

Notes:
[1] Estimated home values based on a market study performed by the Gregory Group and Developer estimates.
[2] Based on a 6%, 30-year fixed rate mortgage with a 20% down payment and 2% for annual taxes and insurance.
[3] Assumes mortgage lending guidelines allow no more than 40% of income dedicated to mortgage payments, taxes, and insurance.
[4] Average retail expenditures per household used to estimate annual sales tax revenue. A factor of 20% of taxable expenses as a percent of income was the most conservative factor used in other El Dorado County FIAs.
[5] Previous Fiscal Impact Reports accepted by the County for other projects have used a sales tax capture rate of 65%. Carson Creek is in close proximity to the El Dorado Hills Town Center that offers a variety of retail stores, and dining options. To be conservative we have reduced sales tax capture in this report to 50%.
[6] The taxable spending derived from project new residents exceeds the taxable sales derived from the commercial component of the project. Therefor to be conservative we will only assume the retail spending of new residence in estimated sales tax revunue.
[7] According to El Dorado County, the County receives 93.5 percent of all Prop. 172 Sales Tax revenues generated in the County.

TABLE A.3
Carson Creek
Property Tax Allocation for Project Tax Rate Area

Fund	TRA 076-031/033	ERAF Adjustment [1]	Post-ERAF Allocation
Percent of Total Assessed Value			
Taxing Entities			
County General	0.118036	0.283536	0.0846
Road District Tax	0.038940	0.072602	0.0361
Accum Capital Outlay	0.008048	0.253998	0.0060
County Water Agency	0.012705	0.097256	0.0115
CSA #7	0.026139	0.260252	0.0193
EID	0.026667	-	0.0267
EDH County Wtr/Fire	0.170000	-	0.1700
El Dorado Hills CSD	0.100000	0.222121	0.0778
Latrobe Elementary	0.202410	-	0.2024
El Dorado High	0.190596	-	0.1906
Los Rios Community	0.068106	-	0.0681
City School Services	0.038530	-	0.0385
Subtotal (not including ERAF)	**1.000**		**0.9316**
ERAF Allocation			**0.0684**
Total	**1.000**		**1.0000**

Source: El Dorado County Assessor's Office

[1] Based County ERAF Property Tax Revenue Shift Estimate for the 2017-18 fiscal year.

TABLE B.1
Carson Creek - Industrial and R&D
Fiscal Impact Analysis
Case Study Analyses

Land Use Assumption and Estimated Valuation

Item	Build Out Units/SF	Price Per Unit/SF	Total Valuation
Nonresidential			
R&D (Assumes 0.4 FAR)	580,219	$ 200	$ 116,043,840
Industrial (Assumes 0.4 FAR)	993,168	$ 175	$ 173,804,400
Total			**$ 289,848,240**

A. Estimated Annual Property Tax Case Study

Basic Rate	1.00%
Total Residential Secured Property Tax	$ 2,898,482
Percent Allocated to County General Fund	8.457%
Annual Property Tax Allocated to County General Fund	**$ 245,121**

B. Estimated Property Transfer Tax Case Study

Nonresidential	
R&D (Assumes 0.4 FAR)	5.00%
Industrial (Assumes 0.4 FAR)	5.00%
Nonresidential	
R&D (Assumes 0.4 FAR)	$ 116,043,840
Industrial (Assumes 0.4 FAR)	$ 173,804,400
Estimated Assessed Valuation Turnover Amount (5% of Total)	$ 14,492,412
Rate per $1,000 of Assessed Value ($1.1/1000)	0.11%
Total Estimated Property Transfer Tax	**$ 15,942**

C. Estimated Property Tax in Lieu of VLF Case Study

FY 2018-19 El Dorado County Assessed Valuation [1]	$ 33,345,789,163
Assessed Value of Project	$ 289,848,240
Total Assessed Value	$ 33,635,637,403
Percent Change in Assessed Value	0.87%
Total FY 2018-19 Property Tax in Lieu of VLF Adopted Revenue [2]	$ 20,960,000
Estimated Increase in Property Tax in Lieu of VLF	**$ 182,188**

D. Estimated Road District Tax

Property Tax Revenue (1% of Assessed Value)	$ 2,898,482
County Road District Tax Rate (Post ERAF)	3.61%
Estimated County Road District Tax Revenue	**$ 104,673**

Notes:
[1] Total FY 2018-19 secured and unsecured value for El Dorado County per Auditor's Office - 2018 Tax Rate Area Value Report
[2] El Dorado County FY 2018-19 Adopted Budget

TABLE B.2
Carson Creek - Industrial and R&D
Fiscal Impact Analysis
Case Study Analyses

Average Income and Retail Expenditures for Residential Units (2018$)

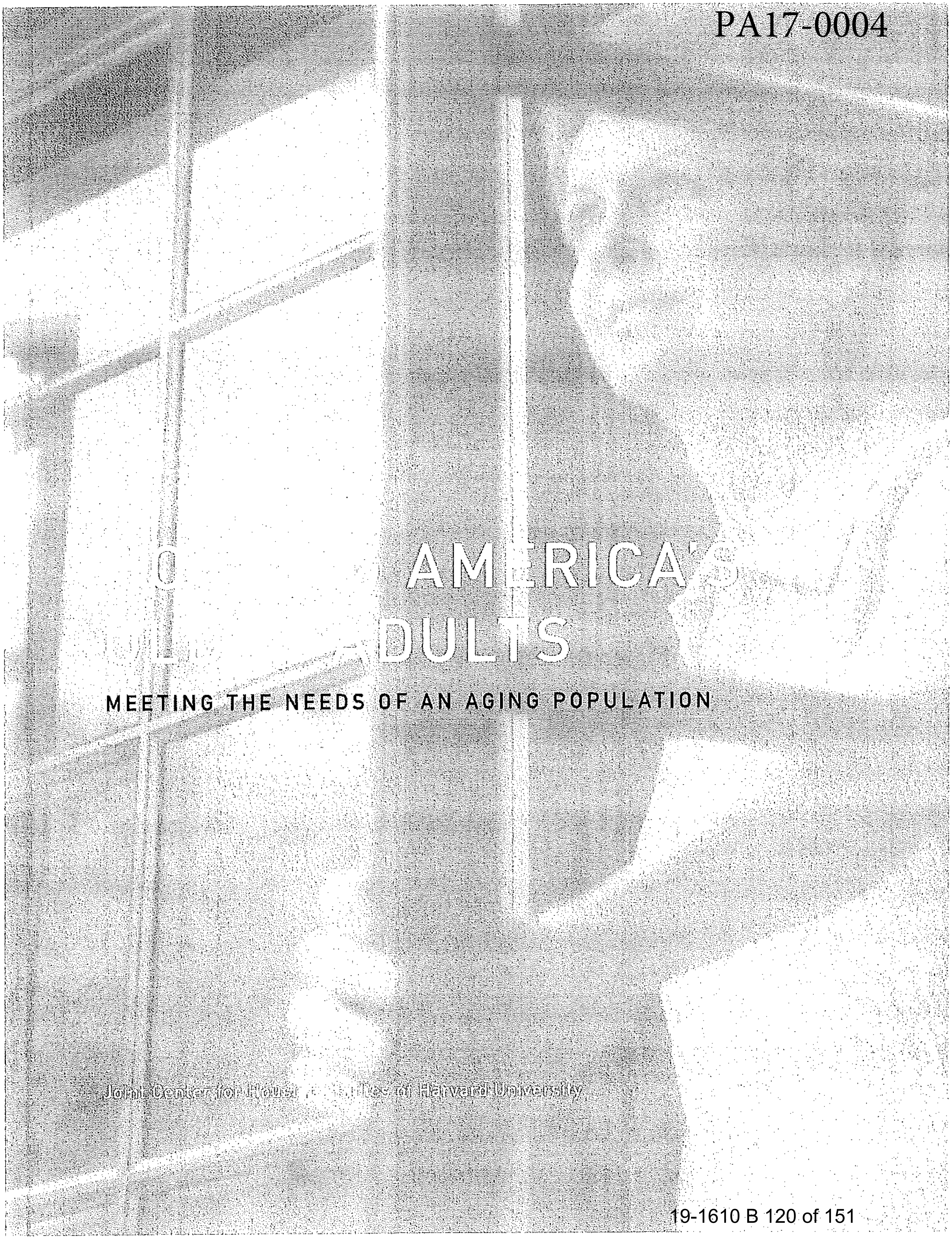
Taxable Sales from Site	Annual Taxable Sales / SF	SF	Total Annual Taxable Sales [6]
R&D (Assumes 0.4 FAR)	$15	580,219	**$8,703,288**
Industrial (Assumes 0.4 FAR)	$0	993,168	**$0**

Case Studies

Estimated Tax Revenue	**Percentage of Annual Taxable Sales**	**Revenue**
F. Estimated Sales Tax Revenue	0.75%	**$65,275**
G. Estimated Annual Property Tax in Lieu of Sales Tax Revenue [6]	0.25%	**$21,758**
H. Estimated Prop 172 Public Safety Sales Tax Revenue		
Gross Prop 172 Public Safety Sales Tax Revenue	0.50%	$43,516
El Dorado County Allocation [1]		**$40,692**

Notes:
[1] According to El Dorado County, the County receives 93.5 percent of all Prop. 172 Sales Tax revenues generated in the County.

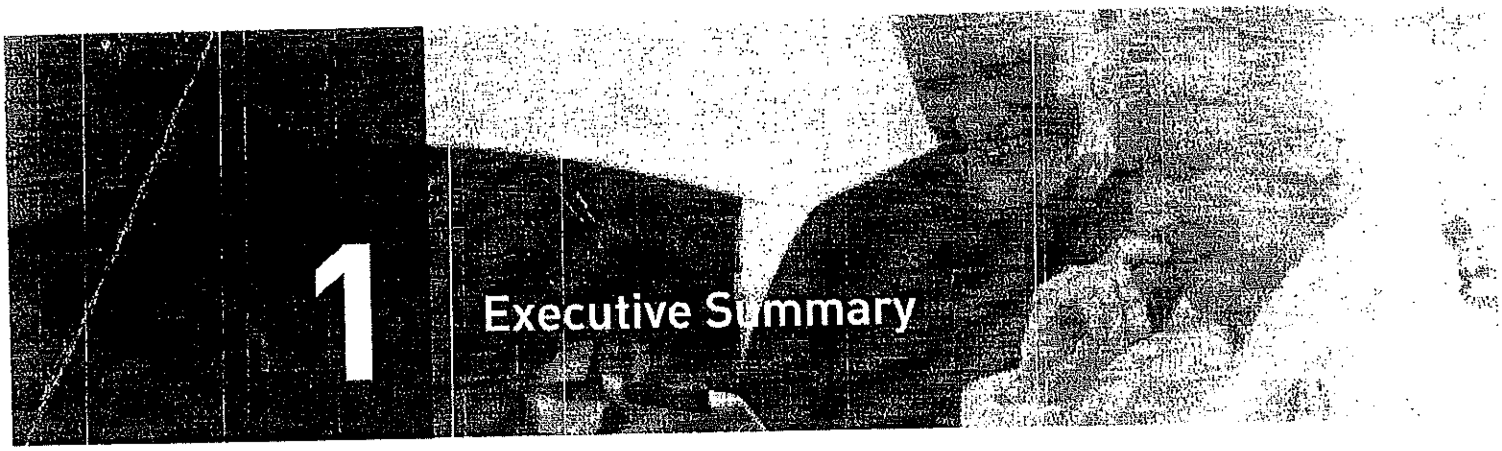
Exhibit T
PA17-0004



AMERICA'S DULTS

MEETING THE NEEDS OF AN AGING POPULATION

Joint Center for Hous of Harvard University



1 Executive Summary

America's older population is in the midst of unprecedented growth. With the aging of the large baby-boom generation and increased longevity, the 50-and-over population is projected to increase about 20 percent by 2030, to 132 million. In just 15 years, one in five people will be at least aged 65. Ensuring that these older adults have the housing they need to enjoy high-quality, independent, and financially secure lives has thus taken on new urgency not only for individuals and their families, but also for the nation as a whole.

HOUSING AS THE LINCHPIN OF WELL-BEING

Affordable, accessible, and well-located housing is central to quality of life for people of all ages, but especially for older adults (defined here as 50 and over). As the single largest item in most household budgets, housing costs directly affect day-to-day financial security as well as the ability to accrue wealth to draw upon later in life. Accessibility is essential to older adults' health and safety as physical and cognitive limitations increase. Proximity of housing to stores, services, and transportation enables older adults to remain active and productive members of their communities, meet their own basic needs, and maintain social connections. And for those with chronic conditions and disabilities, the availability of housing with supports and services determines the quality and cost of long-term care—particularly the portion paid with public funds.

But the existing housing stock is unprepared to meet the escalating need for affordability, accessibility, social connectivity, and supportive services.

- High housing costs force millions of low-income older adults to sacrifice spending on other necessities including food, undermining their health and well-being.
- Much of the nation's housing inventory lacks basic accessibility features, preventing older adults with disabilities from living safely and comfortably in their homes.
- The nation's transportation and pedestrian infrastructure is generally ill-suited to those who cannot or choose not to drive, isolating older adults from friends and family.
- Disconnects between housing programs and the health care system put many older adults with disabilities or long-term care needs at risk of premature institutionalization.

The public policy challenges are immense. Recognizing the implications of this profound demographic shift and taking immediate steps to address the deficiencies in the housing stock, community preparedness, and the health care system are vital to our national standard of living. The private and nonprofit sectors also have critical roles to play in developing new housing and care options that support aging in the community.

But the issues at hand are also intensely personal, affecting older adults' ability to remain independent and enjoy a high quality of life. Ultimately, it is up to individuals and their loved ones to consider their housing preferences, assess the readiness of their homes and communities to support them as they age, and plan for needs they might not yet have.

CHANGES IN THE OLDER POPULATION

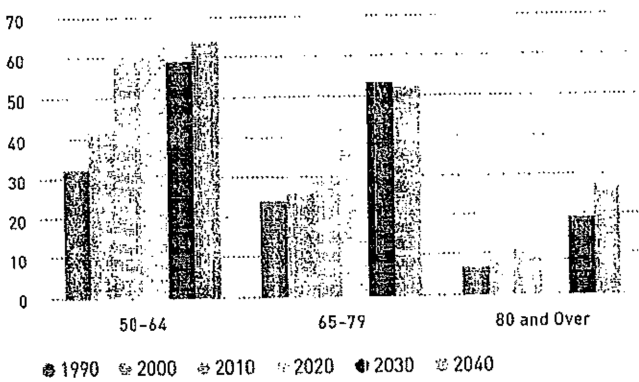
The older adult population has grown tremendously since the first of the baby boomers (born 1946–64) turned 50 in the mid-1990s. Between 1990 and 2010, the number of people of at least that age jumped by 35 million, an increase of 55 percent **(Figure 1)**. With the oldest baby boomers reaching retirement age after 2010, the population aged 65 and over is projected to soar to 73 million by 2030, an increase of 33 million in just two decades. By 2040, the aging baby boomers will also push up the population aged 80 and over to 28 million, more than three times the number in 2000.

The older population will also become more diverse as the wave of young immigrants that arrived in the United States in recent decades reach age 50. With this growing diversity will come significant shifts in housing demand, reflecting the different housing situations and financial circumstances of minorities. For example, older Asians and Hispanics are more likely to live in multigenerational households than whites or blacks. Their rising numbers will therefore affect not only the demand for institutional care, but also the housing, financial, and personal situations of their family members. And as a group, minorities have lower rates of homeownership, lower median incomes, and fewer assets, all of which affect their housing options.

FIGURE 1

The Older Population Is on Track to Increase Dramatically

Population by Age Group (Millions)



Source: US Census Bureau, Decennial Censuses and 2012 National Population Projections (middle series).

In addition, the numbers of older adults with physical and cognitive limitations will increase sharply over the coming decades. With age, people are increasingly likely to face disabilities that pose challenges to living independently **(Figure 2)**. The US Department of Health and Human Services (HHS) estimates that nearly 70 percent of people who reach the age of 65 will ultimately need some form of long-term care. This care can be costly, adding to the pressures on financially stretched older adults.

At the same time, the numbers of low-income older adults will climb. Assuming the share remains what it is today, millions more people aged 65 and over will have low incomes in the years ahead. The incidence of housing cost burdens also rises with age as incomes fall. As it is, however, a third of households aged 50–64 already pay excessive shares of their incomes for housing.

Indeed, of special concern are the younger baby boomers who are now in their 50s and less financially secure than previous generations in the aftermath of the Great Recession. With their lower incomes, wealth, and homeownership rates, members of this large age group may be unable to cover the costs of appropriate housing and/or long-term care in their retirement years. The younger baby boomers are also less likely to be parents, implying that fewer family members will be available to care for them as they age.

On top of all these challenges, aging brings greater risk of isolation. In addition to the many older adults with disabilities who have limited access to their communities, millions of older households live in outlying areas, no longer drive, and lack transportation services. Moreover, older adults—particularly women—are increasingly likely to live alone, with single-person households making up 40 percent of all households in their 70s and fully 60 percent of households in their 80s. These householders often have disabilities as well as limited financial resources.

HOUSING PREFERENCES

The vast majority of the 50-and-over population currently lives independently—that is, within the community rather than in institutional care facilities. Many are still in the workforce, some embarking on second or third careers. Younger members of this age group may be part of the so-called "sandwich generation" that juggles work, care for children, and care for parents.

But even among individuals aged 80 and over, more than three-quarters live in their own homes. Indeed, "aging in place" is the preference of most people. In its recent survey of 1,600 people aged 45 and older, AARP found that 73 percent strongly agreed that they would like to stay in their current residences as long as possible, while 67 percent strongly agreed that they would like to remain in their communities as long as possible (Keenan 2010a).

Still, many households opt to move in their older years. Household changes such as retirement, children moving from the home or adult children returning to it, a disability, or death of a spouse give rise to new housing needs and preferences. In particular, finding more affordable housing may become a greater concern for those living on fixed incomes. But financial constraints also prevent people from adapting to their changing circumstances. Indeed, 24 percent of survey respondents expressed a preference to stay in their homes for as long as possible because they could not afford to move.

CONVERGING TRENDS

While staying healthier and living longer than ever before, most older adults and their families must ultimately confront many of the same challenges of aging. In particular, disability rates converge over time. For example, the share of 50–54 year olds with some type of disability ranges from 7 percent of those with at least $60,000 in annual income to 33 percent of those earning less than $30,000 **(Figure 3)**. By age 85, however, more than two-thirds of individuals have some type of disability no matter what their race/ethnicity, income, or housing tenure.

Income also drops with age for all groups. The typical income of households aged 80 and over ($25,000) is less than half that of households aged 50–64 ($60,300). This across-the-board drop in income reduces disparities by race/ethnicity and tenure. For example, the incomes of white households aged 50–64 are fully $31,000 higher than those of same-aged black households. By the time households reach their 80s, though, the white-black income disparity is just $5,100.

THE CHALLENGES AHEAD

It is unclear whether the baby boomers will follow the current trend of aging in place or whether new housing options will encourage many to move from the larger homes where they raised families. But for the millions in this age group who will stay in their current homes, ensuring their ability to do so affordably, comfortably, and safely presents several challenges.

Housing Affordability

As the single largest expenditure in most household budgets, housing costs directly affect financial security. Today, a third of adults aged 50 and over—including 37 percent of those aged 80 and over—pay more than 30 percent of income for housing that may or may not fit their needs. Among those aged 65 and over, about half of all renters and owners still paying off mortgages are similarly housing cost burdened. Moreover, 30 percent of renters and 23 percent of owners with mortgages are severely burdened (paying more than 50 percent of income on housing).

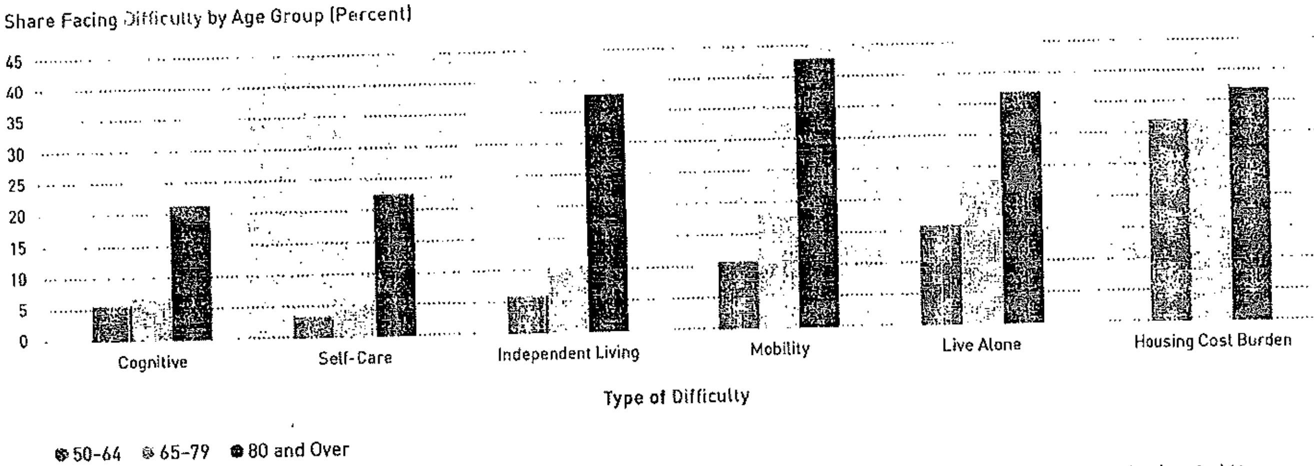
Having to devote a substantial share of their incomes to housing, older cost-burdened households are forced to scrimp on other critical needs. For example, severely cost-burdened households aged 50 and over in the bottom expenditure quartile spend 43 percent less on food and 59 percent less on health care compared with otherwise similar households living in housing they can afford. Of particular note, severely cost-burdened households aged 50–64 save significantly less for retirement.

Older homeowners are in a much more advantageous position when they retire. In addition to having lower housing costs,

FIGURE 2

Aging Brings Increasing Risks of Disability, Isolation, and Financial Stress

Share Facing Difficulty by Age Group (Percent)



Notes: A cognitive disability is defined as serious difficulty remembering, concentrating, or making decisions; self-care disability as difficulty bathing or dressing; independent living disability as difficulty doing errands alone; and mobility disability as serious difficulty walking or climbing stairs. Housing cost burden is defined as paying more than 30 percent of income for housing costs.
Source: JCHS tabulations of US Census Bureau, 2012 American Community Survey

homeowners—and even those who still carry mortgages—typically have considerably more wealth than renters in terms of both home equity and non-housing assets. Resources can support the expense of changing needs later in life, including long-term care. The typical homeowner aged 65 and over has enough wealth to cover nursing home costs for 42 months and enough non-housing wealth to last 15 months. The median older renter, in contrast, cannot afford even one month in a nursing home. Indeed, only 18 percent of renters could pay for nursing home care for more than a year.

But homeownership rates vary widely by race/ethnicity. Among adults aged 50 and over, 82 percent of whites own homes, compared with just 58 percent of blacks, 62 percent of Hispanics, and 70 percent of Asians. As the minority share of the population grows, this disparity implies that more and more older adults will be housing cost burdened and therefore have less wealth to tap to meet their needs as they age. In addition, given that households in their 50s today confront a number of financial pressures, including more mortgage and non-housing debt, cost burdens may become even more widespread over time.

Housing Accessibility

Millions of older adults who develop disabilities live in homes that lack accessibility features such as a no-step entry, single-floor living, extra-wide doorways and halls, accessible electrical controls and switches, and lever-style door and faucet handles. Indeed, the 2011 American Housing Survey reports that just 1 percent of US housing units have all five of these universal design features. Roughly two in five housing units in the country have either none or only one of these features.

Because of regional differences in housing stocks, homeowners in certain areas may have to make major modifications to enable a household member with disabilities to remain at home. For example, many homes in the Northeast are built on multiple levels and fail to provide a bedroom and bathroom on the first floor, while nearly 84 percent of homes in the South provide single-floor living. Even so, the costs of extensive home renovations, such as adding a first-floor bath or a no-step entry, are generally lower than costs of extended stays in assisted living or nursing care facilities.

Defining Aging in Place

The Centers for Disease Control and Prevention (CDC) defines aging in place as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level." If needed, those aging in place may receive care or assistance by paid or unpaid (often family) caregivers.

The CDC's focus on aging in place as an ability hints at the dynamic nature of this process. As the gerontology literature recognizes, older residents renegotiate how—and indeed if—they can continue to stay in their homes as their preferences and circumstances (health, finances, relationships, and family and social supports) shift over time (Andrews et al. 2007). Aging in place is best undertaken with preparation, including adaptations of physical space, modes of transportation, or other facets of life in advance of physical or cognitive need. For some, it may involve moving to other homes that are more comfortable, safe, affordable, and/or convenient—whether within the current community or to locations with more resources or closer proximity to family. For others, aging in place may reflect a desire to maintain their current living arrangements or occur simply by default.

While there is no universally accepted definition of aging in place, many researchers, advocates, and commentators point to the same list of elements needed to make remaining in one's home both possible and desirable:

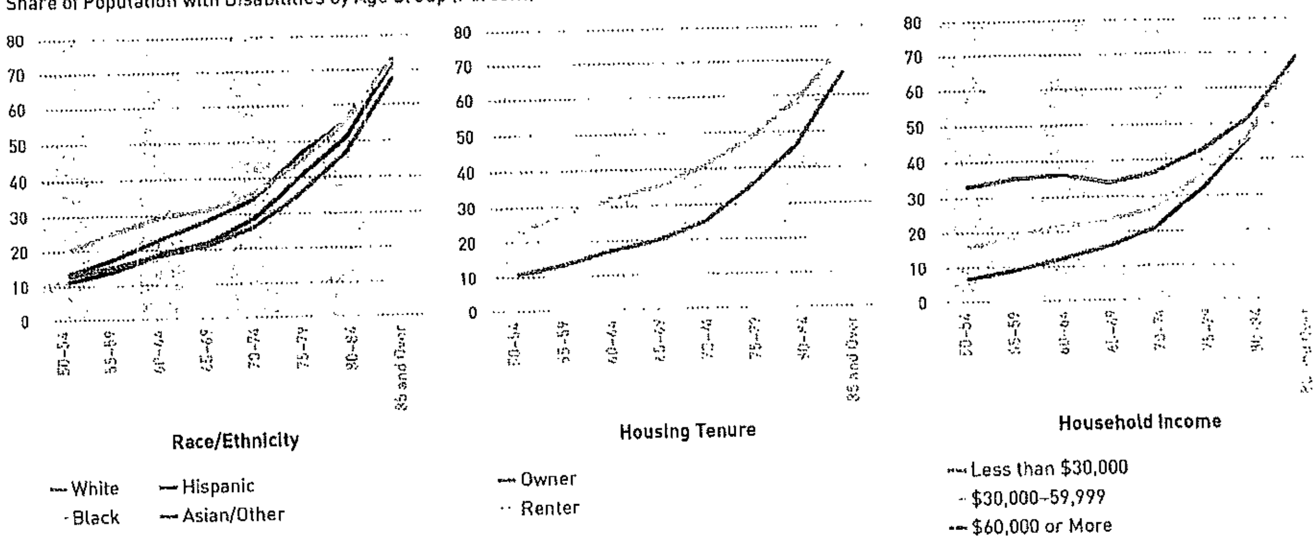
- affordable, secure, and physically accessible housing;
- affordable, safe, and reliable transportation alternatives for those unable or unwilling to drive;
- opportunities to engage in recreational, learning, cultural, volunteering, and/or social experiences; and
- options for in-home health care and/or assistance with activities of daily living (ADLs) if needed to preclude a move to congregate care.

Individual adults, of course, have their own set of preferences for housing and community. For example, a 2014 AARP survey found that most respondents give high priority to increased police presence and school improvements, but their rankings of the importance of access to various services and amenities range widely. The report also points out that choices of housing and community are often made at younger ages and left unexamined until some life event forces a reevaluation of those preferences (Harrell et al. 2014b).

FIGURE 3

Disabilities Affect Most People in Their 80s Regardless of Race/Ethnicity, Tenure, and Income

Share of Population with Disabilities by Age Group (Percent)



Notes: Disabilities include hearing, vision, cognitive, mobility, self-care, and independent living difficulties. Whites, blacks, and Asian/others are non-Hispanic. Hispanics may be of any race. Data exclude population living in group quarters.
Source: JCHS tabulations of US Census Bureau, 2012 American Community Survey.

Publically subsidized units are more likely to have accessibility features than unassisted low-cost units. Yet rental assistance reaches only a fraction of the older low-income population—even those with disabilities. The lack of accessible, affordable housing can result in premature stays in nursing homes or the inability to return home after a hospitalization.

Social Connection

Additional hurdles to aging in community are insufficient supports and services and/or a lack of transit options and safe pedestrian walkways. The majority of older adults live in low-density suburban and rural areas where it is difficult to shop, access services, or visit family and friends without using a car. As a 2010 AARP report revealed, about one in five respondents aged 50 and over occasionally or regularly missed activities they would like to do because they had limited their driving or given it up entirely (Keenan 2010b).

City dwellers have greater access to transit but are no less at risk of isolation if they are unable to leave their homes alone because they lack transportation to where they need to go, do not have friends and family nearby, or have safety concerns. While transit may be an option for some, older adults use the services less often than other age groups—suggesting that public transportation may not meet their needs for convenience, safety, affordability, and reliability.

Long-Term Care

For individuals with disabilities or chronic conditions, the ability to age in place depends on having access to long-term care in their homes or communities. While Medicaid and Medicare generally do not cover such costs, some state Medicaid Home and Community-Based Services (HCBS) waivers do. Some may even pay for the cost of home modifications to improve accessibility. But eligibility requirements for this support vary widely and need outruns availability. For those who are not Medicaid-eligible or do not qualify for waivers, the costs of in-home care can be substantial.

At any given time, only about 2 percent of older adults reside in group care settings. Even so, assisted living facilities, nursing homes, and hospices provide critical support for those recovering from acute medical episodes or at the end of life. According to HHS, 37 percent of those aged 65 and over will receive care in an institutional facility at some point in their lives, with an average stay of one year.

THE WAY FORWARD

Given the widely varying circumstances of older adults, meeting their housing and housing-related needs requires a range of responses. At the individual level, older adults and their families must plan for the time when they have to confront the vulnerabilities of aging. Financial preparations, including building savings, managing debt, and obtaining long-term care insurance, are all important steps toward continued self-sufficiency. Thoughtful choices about where to live, the type of housing to occupy, or the type of home modifications to make—in advance of disabilities or chronic conditions—make it more possible to age in place without compromising safety or social connections.

But many people in their 50s and 60s simply lack the resources to obtain appropriate housing and services as they age. Middle-income adults may discover that long-term care insurance and senior housing communities or other suitable alternatives are too expensive. Low-income households have even more limited options for good-quality, affordable, and appropriate housing. Those living in locations without social connections, family, or other supports nearby may find themselves isolated as they become more physically vulnerable. For these reasons, it is critical that the public and private sectors take steps to ensure that housing and health care systems support appropriate and cost-effective options for low-income older adults, and that communities provide housing, transportation, and service options for their older populations regardless of income.

In fact, a number of promising entrepreneurial approaches have already emerged in the realms of design, urban planning, health and wellness, social engagement, and finance. Numerous cities and states are advancing livability principles through housing, transportation, and walkability initiatives, as well as through ordinances to promote accessibility in private homes. Various nonprofit and public initiatives are demonstrating the benefits of linking housing with long-term care. The private sector is also developing new housing options, technologies, and services in recognition of the potential market for assisting older adults with aging in the community. A broader conversation, however, is essential to help spread these initiatives so that more older adults can benefit from them.

First, a number of federal efforts need to be expanded. In particular, rental assistance makes a crucial difference in the quality of life for those who recieve it. At their current scale, however, programs reach only a fraction of older renters with low incomes and high housing costs. Additional funding for housing with supportive services is also essential, given the limited number of new units added in recent years and the need for reinvestment in much of the housing that does exist. In addition, changes to Medicare and Medicaid would enable better coordination of affordable, accessible housing with long-term care.

For their part, state and local governments can promote accessibility in both the home and built environments, as well as expansion of housing and transportation options. For example, they can require that all new residential construction include certain accessibility features, and offer tax incentives and low-cost loans to help owners modify their homes to accommodate household members with disabilities. Localities can also change their zoning to support construction of accessory dwelling units and mixed-use developments that add housing within walking distance of services or transit.

Municipalities—particularly the growing number with large 50-and-over populations—need to ensure that a range of services are available to older adults, including social and volunteer opportunities; education programs centered on health, finance, and housing maintenance; adult day care and meals programs; and health and wellness services. Meanwhile, state Medicaid programs can reorient their funding to enable low-income households to age in the community rather than in institutional facilities, as many are doing through HCBS waivers. And with better coordination, state and local government programs for older adults would not only save on costs but also provide better outcomes.

For the private sector, the growth of the older adult population provides vast opportunities to innovate in the areas of housing and supportive care. Indeed, substantial business opportunities exist in helping older adults modify their homes to suit evolving needs, delivering services at home, and developing new models of housing with services that promote independence and integrate residents with the larger community.

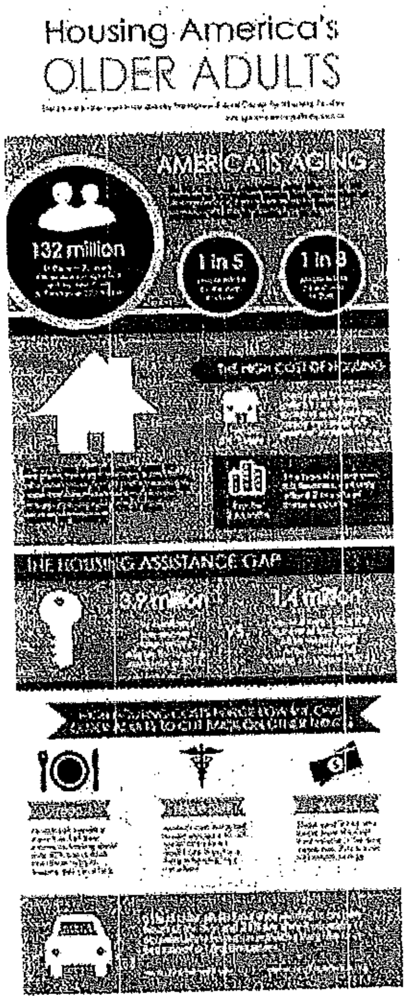
While there are significant challenges ahead, the potential is there for older adults to have a higher quality of life than ever before, and for communities to be increasingly livable and vibrant as a result. But effective action will require concerted efforts at all levels of government as well as by the private and nonprofit sectors, and through the advocacy of older adults themselves.

5 Essential Facts From "Housing America's Older Adults"

Harvard study highlights housing challenges facing older adults

by: Maicie Jones, from: AARP Foundation, September 2, 2014

AARP Foundation sponsored a just-released report by The Joint Center for Housing Studies of Harvard University called "Housing America's Older Adults — Meeting the Needs of an Aging Population." The report highlights the many challenges the nation faces in providing affordable and adequate housing to an aging demographic whose numbers are increasing year by year. Here are a few key findings from the report:



Click to view the full infographic

1. **Older people are skimping on other necessities in order to keep themselves housed.** Food, transportation, medical care … low-income older adults are making gut-wrenching tradeoffs every day as they struggle to make rent and mortgage payments. In fact, older adults with the highest housing-cost burdens spend 40 percent less on food than their counterparts in more affordable housing.

2. **A large portion of America's available housing is not adequate for the needs of older adults.** As people age, their physical needs change. Climbing stairs can become difficult. Doorknobs and light switches become harder to grasp. Lighting may no longer be sufficient for weakened eyes. Unfortunately, housing does not automatically adjust to fit the needs of its inhabitants. As the older demographic continues to grow, more and more people will find themselves in housing that no longer fits their requirements for safe, independent living.

3. **America is a lonely, difficult place to live if you can't drive.** Ask any teenager: Getting to and from anywhere without a car can be a challenge. Walkways, bike lanes, buses, subways and other public transportation are often not convenient substitutes for a car. Older adults who lose the ability to drive are often left at home isolated, with their personal and physical needs unmet,

because of too few transportation options – or none at all.

4. **Lack of integration between housing and healthcare increases costs and puts the independence of older people at risk.** Home- and community-based care allows older adults with healthcare needs to avoid expensive stays in long-term facilities and readmissions into hospitals. Unfortunately, America's healthcare infrastructure does not currently provide in-home and community options to many of the most vulnerable older adults.

5. **There is still time to help a large number of aging people!!!** Even though many 50+ currently live in unaffordable or inadequate housing, this doesn't always have to be the case. The vast majority of boomers have not yet reached the age where their housing has become a serious problem. With education, planning and resources, older adults and those who support them have the ability to change course and improve options available to people as they age.

Read the report in full (PDF)

Maicie Jones is a program manager for AARP Foundation's Housing Impact team. Subscribe to Maicie's blog.

Also of Interest

- **Innovative loans secure affordable housing**
- **6 places to never use a debit card**
- **Quiz: How much do you know about social isolation?**

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Older Adults in Placer County (revised 5/5/15)

Currently there are 86,492 county residents over 60 years of age, representing 30% of the adult population and 23% of the total population in Placer County[8]; and projections show this older adult population will continue to grow dramatically for decades to come.

The population of older Americans is growing at an unprecedented rate and the potential implications for the Placer County community as a whole will be profound. The rapid growth of the older adult population is primarily due to natural aging among members of the Baby Boomer generation. Another important contributing factor to the overall growth of the population is an increase in natural aging and longevity.

The following Area 4 Agency on Aging (A4AA) Region[9] demographics[10] clearly demonstrate the significant growth of the older adult population. It can be safely assumed that these regional projections accurately reflect population changes here in Placer County.

- The 60 and older population will nearly triple between 2000 and 2040.
- There will be a five-fold increase in the 85+ populations between 2000 and 2040.
- The number of people 100 and older will increase by a factor of fifteen by 2040.
- Most Baby Boomers (over 54%) will live to age 85, and about 21% will live to age 95.
- From 2013 to 2021 the popu ation of 60 to 64 year olds will grow 24%. During that same time the growth of our older adults between the ages of 70 to 74 will grow 44%. In the group between 75 and 90 years of age there will be a growth increase of 41%; and from 90 to 95 years of age over a 56% growth increase.
- The growth in the older adult population is being accompanied by a proportional growth in the number of persons with disabilities. When the eldest Baby Boomers reach age 80 in 2025, the disability rate is expected to accelerate. Again, natural aging and longevity are the principal causes. Some key facts about this phenomenon include:
    - In the year 2000, roughly, 90,000 people 65 and older in the A4AA Region had some type of disability. Some 40,000 had a "going outside the home" disability, suggesting they rely on others for transportation. Nearly 20,000 had a "self-care" disability, which likely means they require help with daily activities.
    - The near tripling of the older adult population will translate into a near tripling of the number of older persons with functional limitations (including Alzheimer's disease) between 2000 and 2040.

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[8] Sources: U.S. Census Bureau State and County Quick Facts; and California Department of Aging

[9] A4AA Region includes Placer, Nevada, Sacramento, Sierra, Sutter, Yolo and Yuba Counties

[10] Data sources include: The Dual Challenge Area 4 Agency on Aging Report 2008 and Placer Economic Demographic Profile Report 2009.

- Based on current rates of obesity and diabetes, it is projected that by 2030, one-third of all Baby Boomers in the nation are projected to be obese and 25% of Boomers are expected to be living with diabetes.

Additional Facts

- 90% of current seniors are managing one chronic disease; 77% are managing two.
- 70% of Americans who reach 65 will need some form of LTC for an average of 3-years.
- According to a recent survey done by the Area 4 Agency on Aging, in their 7-county service area 39% of older adults are considered food insecure. There are a number of reasons for this "insecurity": but 14.7% simply do not have the money to buy food.[11]
- Older white men have the highest rate of completed suicide. 75% of these had seen their Primary Care Physicians within one month of completing suicide.
- 87% of older adult care is provided by unpaid caregivers / family members.
- Annual loss to businesses due to lost productivity related to care giving is 34 billon dollars.

[11] Source: Area 4 Agency on Aging

HSR HEALTH SERVICES RESEARCH
Health Serv Res. 2002 Aug; 37(4): 849–884. doi: 10.1034/j.1600-0560.2002.56.x
PMCID: PMC1464018

The 2030 Problem: Caring for Aging Baby Boomers

James R Knickman and Emily K Snell

Abstract

Objective To assess the coming challenges of caring for large numbers of frail elderly as the Baby Boom generation ages.

Study Setting

A review of economic and demographic data as well as simulations of projected socioeconomic and demographic patterns in the year 2030 form the basis of a review of the challenges related to caring for seniors that need to be faced by society.

Study Design

A series of analyses are used to consider the challenges related to caring for elders in the year 2030: (1) measures of macroeconomic burden are developed and analyzed, (2) the literatures on trends in disability, payment approaches for long-term care, healthy aging, and cultural views of aging are analyzed and synthesized, and(3)simulations of future income and assets patterns of the Baby Boom generation are developed.

Principal Findings

The economic burden of aging in 2030 should be no greater than the economic burden associated with raising large numbers of baby boom children in the 1960s. The real challenges of caring for the elderly in 2030 will involve: (1) making sure society develops payment and insurance systems for long-term care that work better than existing ones, (2) taking advantage of advances in medicine and behavioral health to keep the elderly as healthy and active as possible, (3) changing the way society organizes community services so that care is more accessible, and (4) altering the cultural view of aging to make sure all ages are integrated into the fabric of community life.

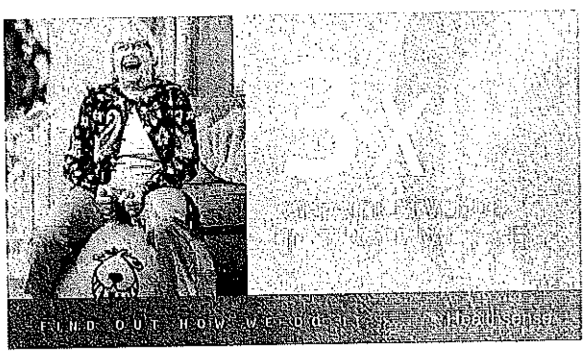
Conclusions

To meet the long-term care needs of Baby Boomers, social and public policy changes must begin soon. Meeting the financial and social service burdens of growing numbers of elders will not be a daunting task if necessary changes are made now rather than when Baby Boomers actually need long-term care.

Keywords: Long-term care, financing, Baby Boomers, community-based delivery system

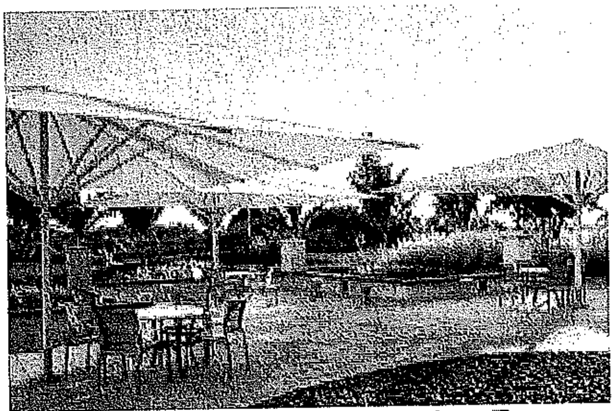
Senior Living Providers Build Cutting-Edge Spaces for Wellness

Prominent senior living providers have been rolling out ambitious wellness programs in recent years. Many of these try to promote different facets of wellness—such as physical, spiritual, and social wellness—through diverse programming. Increasingly, senior housing providers are not only creating programs but new spaces dedicated to wellness. Known as centers for healthy living (CHLs), these spaces are starting to fundamentally change senior housing design. "As [senior living] communities have evolved, there's been this concept of the village center or town center," Claire Dickey, an associate at architecture firm Perkins Eastman, tells Senior Housing News. "I think that over time, the **CHL will replace that town center concept, and we'll do a better job of integrating wellness into our everyday routine and activities of daily living."** Dickey bases this belief on information gathered for a recent Perkins Eastman report on CHLs, which she co-authored. Senior Housing News recently spoke with Dickey to learn more about what a CHL is, what benefits it offers to providers, and what the future may hold for this innovation in design and operations.



Defining a Center for Healthy Living

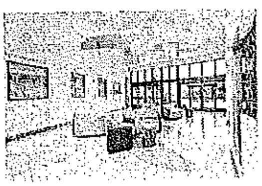
Centers for healthy living come in various shapes and sizes, but Perkins Eastman offers a general definition in its white paper: "A center for healthy living (CHL) is a new building typology that supports seniors through all the dimensions of wellness; it may be one program and building or a collection of programs/services and spaces ... A typical CHL provides places for social interactions, preventative health care and medical treatments, wellness education, counseling, healthy dining, continuing education lectures and discussion groups, arts programming, fitness training, spa/beauty treatments, and/or many other activities and services." One example is the CHL at Moorings Park, a life plan community in Naples, Florida (pictured above). The nonprofit has approximately 580 units offering a mix of independent living, assisted living, and skilled nursing.



Rooftop Terrace at Moorings Park CHL

Moorings Park constructed a 37,000-square foot CHL three years ago. It consists of **seven main areas:** a medical clinic, physical therapy area, gym, spa/salon, lecture hall/theater, classroom, and cafe. In addition, it features outdoor spaces such as a garden and rooftop terrace, and a retailer of health, fitness, and nutrition products.

The whole CHL occupies a single floor above a parking garage. The design elements include partial height walls, glass partitions, and planters filled with bamboo. The idea is to separate spaces while maintaining a sense of unity. Building materials include wood and stone, and abundant natural light furthers the sense of being connected to the outside world.

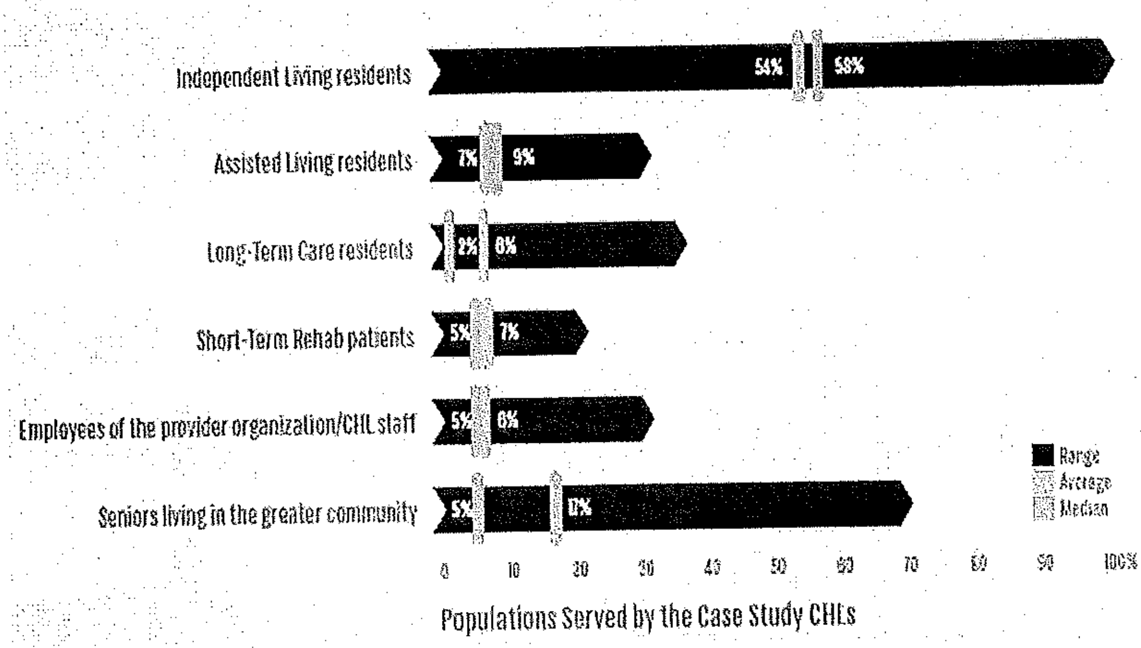


Seating in Moorings Park Center for Healthy Living

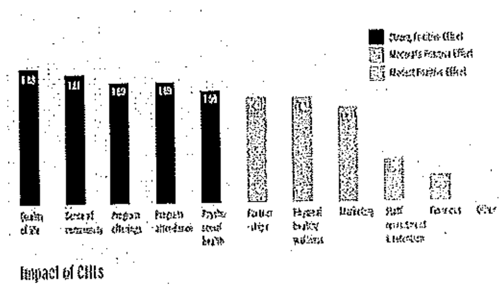
CHLs do not exist exclusively at life plan communities, but this is the most common setting for them currently—and the Moorings Park example gives a sense of why this is the case. With a large footprint, high-end features, and multiple amenities, this type of CHL requires significant capital to construct. Dickey declined to share the total cost for the Moorings Park CHL, but $130 per gross square foot is a reasonable estimate, according to the latest senior living construction cost report from construction firm Weitz. That puts the construction cost around $4.8 million. Smaller senior living communities simply may not have the resources for this type of CHL, notes Dickey. With cost in mind, providers are betting that the benefits of a CHL also will be substantial—and they are finding that this indeed is the case, Dickey says.

Wide-Ranging Advantages The Moorings Park CHL was not an immediate hit, and the community had to put forth a concerted effort to drum up interest, Director of Wellness Celeste Lynch told Perkins Eastman. But after holding a variety of events in the space, such as health fairs, educational sessions, and multicultural gatherings, the CHL began to see an influx of visitors. Now, more than 1,000 people use the CHL each week, including residents from all levels of care and Moorings Park employees.

The CHLs involved in the study are serving a diverse group of seniors, with an average age of 80 years and a range of 65-85 years old. The people who visit and/or are served by the participating CHLs include:



There is a long list of benefits that Moorings Park is seeing from its CHL, according to survey responses that the community provided for the Perkins Eastman report. The list includes: improved quality of life for CHL users; improved sense of community on the campus; positive marketing/referral outcomes; and increased opportunities for partnerships with other organizations. The CHL also has had a "moderately positive" effect on staff recruitment and retention. These benefits are seen across the board in CHLs, the Perkins Eastman survey found. The survey gathered responses from 26 participants, including 13 senior housing and care providers, as well as designers, industry consultants, and ineighborhood resource/community centers.



The success of CHLs suggests that they will become even more common in the future, and it also supports the idea that they appeal to a consumer base that values and is seeking out support for full-person wellness at all stages of life.

"One of the main ideas of the paper is that we're moving into a new era," Dickey says. "We're starting to look beyond [the idea] that just being physically fit is being well. We're starting to understand how the mind, body and spirit are all interconnected."

However, given the challenges in constructing an elaborate CHL, the model likely will adapt in the future.

CHLs Evolve

There are a variety of potential CHL models that might catch on in the future, Dickey and her co-author, Emily Chmielewski, wrote. One possibility is having a CHL "hub" at a life plan community and a "spoke" CHL in the community at large. The **"spoke"** location could be a hub for home care programs run through the life plan community and also be a center of engagement for those who are not yet residents. Another possibility could be a CHL embedded in the community at large, serving a population health function. This is building on Affordable Care Act policies encouraging health systems and providers across the continuum to coordinate with each other to maintain the health of their patient population. This model would be less senior-specific and cater more to a multi-generational cohort, perhaps by being an anchor tenant in a mixed-use development. Yet another model is a "virtual" CHL that leverages technology such as Skype to bring services into the home and apps like Uber to help seniors leave the home to interact. The point is, there are no hard-and-fast rules for what a CHL has to be, and senior living providers now have an opportunity to get ahead of the curve, says Dickey. "There's no one-size fits all solution or right answer or wrong answer," she says. "It gives you an opportunity to customize for what that community or customer needs." For instance, an independent living or assisted living provider might not construct a CHL that addresses every aspect of wellness, but instead might create a space to fill in a particular gap in services for that market, or to specialize in one or two particular areas of wellness. This could help keep costs down; another way of doing that would be through partnerships. "Partnerships could be a great way for an assisted living community, skilled nursing, or independent living community to put together put some resources into building a CHL with another group, where everybody would have access to it," Dickey says. "We haven't come across a lot of that yet, but as we place more focus on how to maintain wellness as opposed to dealing with a more clinical setting, I think those things will be developed."

Previous: Memory Care Two-Step: Senior Living Community to Double as Research Hub

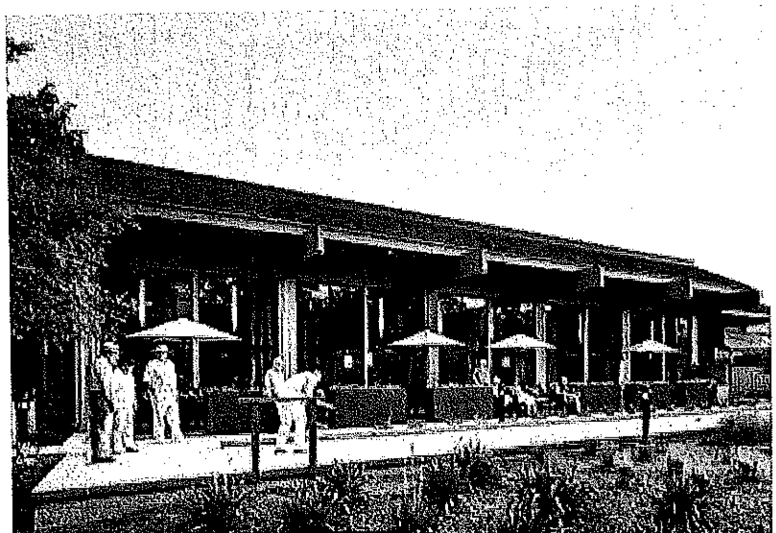
Perkins Eastman

Centers for HEALTHY LIVING

Providing Whole-Person Wellness to Seniors

EMILY CHMIELEWSKI EDAC | CLAIRE DICKEY AIA

OCTOBER 2016

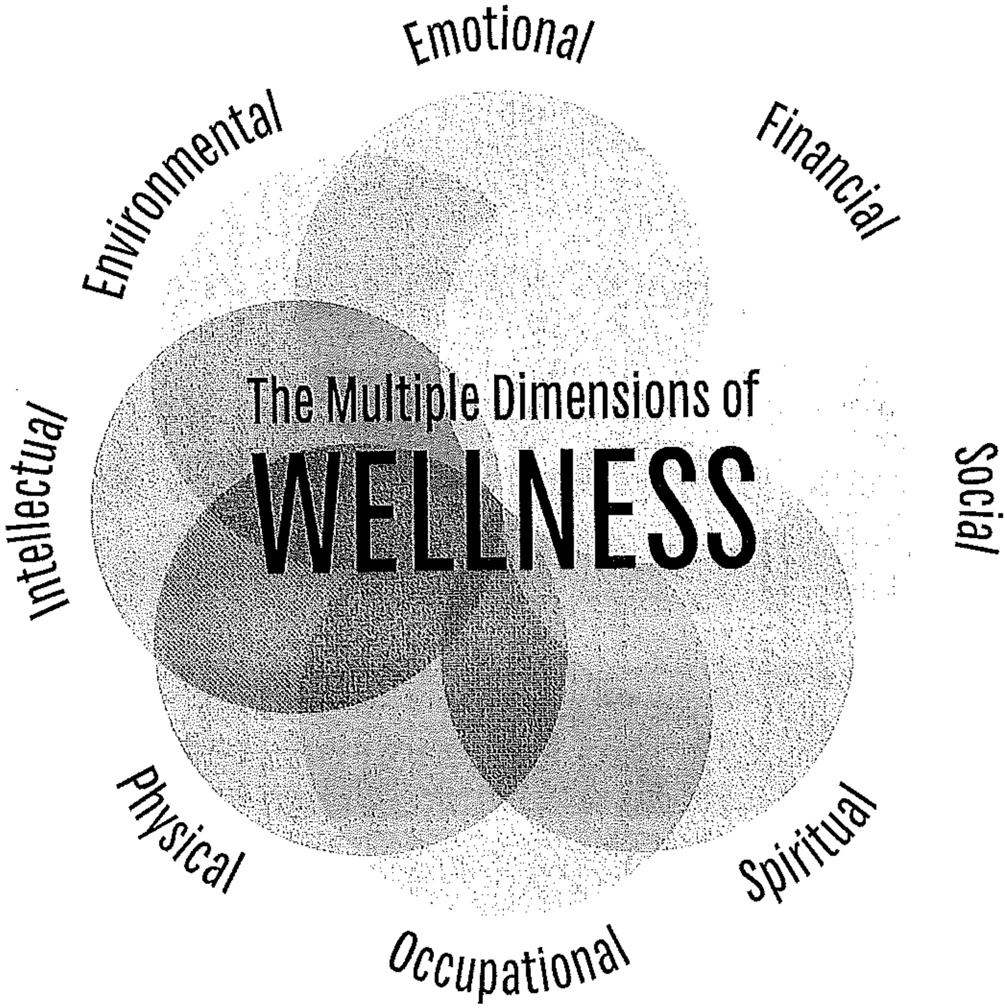


Spring Lake Village | Santa Rosa, California

Defining a Center for Healthy Living

A **center for healthy living (CHL)** is a new building typology that supports seniors through all the dimensions of wellness; it may be one program and building or a collection of programs/services and spaces. A CHL supports the mind, body, and spirit. A typical CHL provides places for social interactions, preventative healthcare and medical treatments, wellness education, counseling, healthy dining, continuing education lectures and discussion groups, arts programming, fitness training, spa/beauty treatments, and/or many other activities and services.

CHLs are being developed all over the United States, from Life Plan Communities (formally known as continuing care retirement communities, or CCRCs) to stand-alone, neighborhood or regional community centers. CHLs help bridge the gap between the senior living and healthcare sectors, yet they go beyond the typical provision of clinic and exercise spaces to address all eight dimensions of whole-person wellness: emotional, environmental, intellectual, physical, occupational, spiritual, social, and financial.



CHLs Support the Multiple Dimensions of Wellness

Emotional Coping effectively with life and creating satisfying relationships

Financial Satisfaction with current and future financial situations

Social Developing a sense of connection, belonging, and a well-developed support system

Spiritual Expanding our sense of purpose and meaning in life

Occupational Personal satisfaction and enrichment derived from one's work

Physical Recognizing the need for physical activity, diet, sleep, and nutrition

Intellectual Recognizing creative abilities and finding ways to expand knowledge and skills

Environmental Good health by occupying pleasant, stimulating environments that support well-being

Courtesy of Konkel, K., (July 28, 2014). Addressing Spirituality and Health. *The Partnership Center Newsletter.* Retrieved from http://www.hhs.gov/about/agencies/iea/partnerships/newsletter/072814/index.html

Executive Summary

Centers for healthy living (CHLs) are becoming more common in today's senior living industry. By combining various programs/services and spaces that support whole-person wellness, this new building typology has evolved to address many issues facing the industry today, including longer life expectancies and the rapid aging of America; a new definition of health that considers not just living longer, but living long and well; a changing market that is interested in greater choice, opportunities for engagement, and alternatives to traditional healthcare models; the growing costs for care and changes in reimbursement; seniors aging-in-community; and the need for care/service providers to offer products that are economically, socially, and environmentally sustainable.

To better understand the CHL typology, in 2015-16 Perkins Eastman conducted a design research study that evaluated multiple built and conceptual (unbuilt) CHLs. The study found that, in addition to supporting whole-person wellness and encouraging healthy living, CHLs are being developed to address changing consumer demands, leverage partnerships, reach a greater cross-section of the community, offer greater choice, provide better interdepartmental relationships and cross-disciplinary communications, and to create a differentiator from the competition. The study also revealed that CHLs are having a positive impact on sense of community, users' quality of life and health/wellness, organizational finances, marketing/referrals, staff recruitment/retention, program quantity and types of offerings, program attendance rates/popularity, and partnership opportunities.

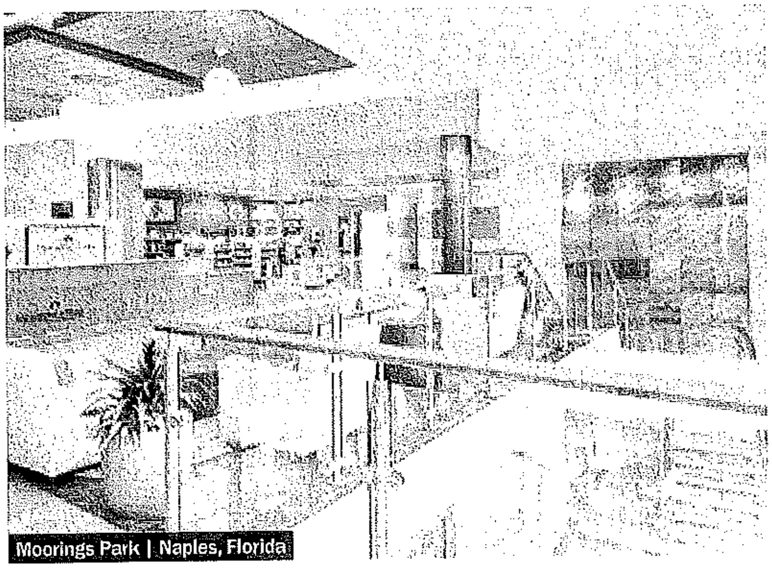
The goal of the study, however, was to not only understand what existing centers for healthy living are doing, but to also look to the future and explore how CHLs might evolve. Based on the study's findings, several key concepts for the CHL of the future have been defined: The CHL of the future will utilize both the physical environment and programs/services to address all eight dimensions of whole-person wellness; it will create a seamless transition from "illness" to "wellness," with a focus on education and prevention, rather than just treatment; it will seek best practices from innovators in the design industry and across multiple sectors—converging senior living, healthcare, hospitality, and higher education; and it will design in flexibility to support diverse markets, evolving programs and interests, and technological advances. The CHL of tomorrow will also leverage partnerships and engage with the surrounding neighborhood to expand service delivery, support aging-in-community, and promote naturally occurring intergenerational interactions.

Four potential models for the future are also presented, including (1) the Life Plan Community campus-based CHL, (2) the neighborhood resource CHL that's built into the fabric of the greater community, (3) the multi-generational CHL that is focused on population health and supports preventative wellness for all ages, and (4) the virtual CHL that embraces technological advancements to redefine how services are delivered to seniors, regardless of whether they are living on a Life Plan Community campus, within the greater neighborhood, or in a more rural and isolated location.

Ultimately, the CHL of the future will act as a community hub that brings people together in a sustainable environment that fosters interpersonal connections and community vitality—whether in person or virtually. We hope that, through reading this paper, the senior living industry recognizes the value of designing for whole-person wellness and uses the information and recommendations herein to develop the CHL of tomorrow.

Navigating the Paper

In "The CHL of Today" section, we explain the various forces driving the development of the center for healthy living building typology, share key findings from a recent design research study that provides insight into what the CHL of today looks like and what outcomes are being seen, and offer a case study example of a recently built CHL. In the "CHL of Tomorrow" section, we describe key concepts for the CHL of tomorrow and offer four potential models for how these ideas may be expressed in future designs. Several appendices offer further insights and information about the forces driving the development of CHLs, the evolution of the CHL concept, and the research study's methodology, participants, and findings.



Moorings Park | Naples, Florida

The CHL of Today

In recent years, greater numbers of senior living care/service providers are using the center for healthy living concept to incorporate an accessible destination for health and wellness programs/services into the continuum of care. Some are even developing CHLs that act as neighborhood resource centers, located in and serving the greater community, as opposed to limiting services to just Life Plan Community residents. The industry is looking to use models from the past and couple them with innovations for the future to provide spaces and programs/services that engage all eight dimensions of wellness: emotional, environmental, intellectual, physical, occupational, spiritual, social, and financial. The result of this confluence is that seniors are increasingly being empowered to live at their maximum capabilities, rather than simply managing symptoms reactively.

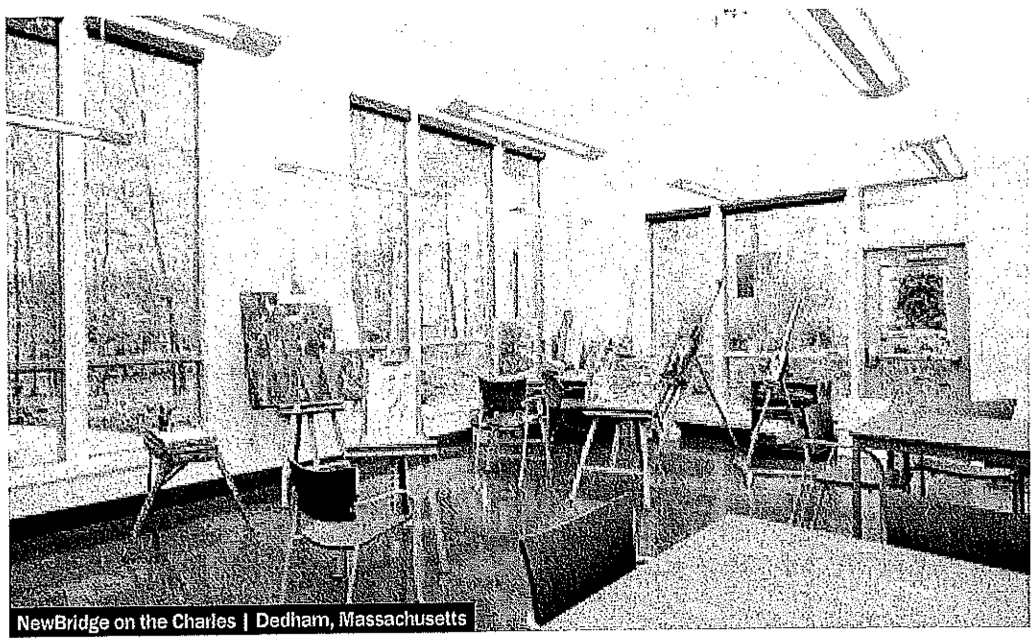
This section of the paper explains the various forces driving the development of the CHL building typology, shares key findings from a recent design research study that provides insight into what the CHL of today looks like and what outcomes are being seen, and offers a case study example of a recently built CHL.

THE DEVELOPMENT OF CHLS

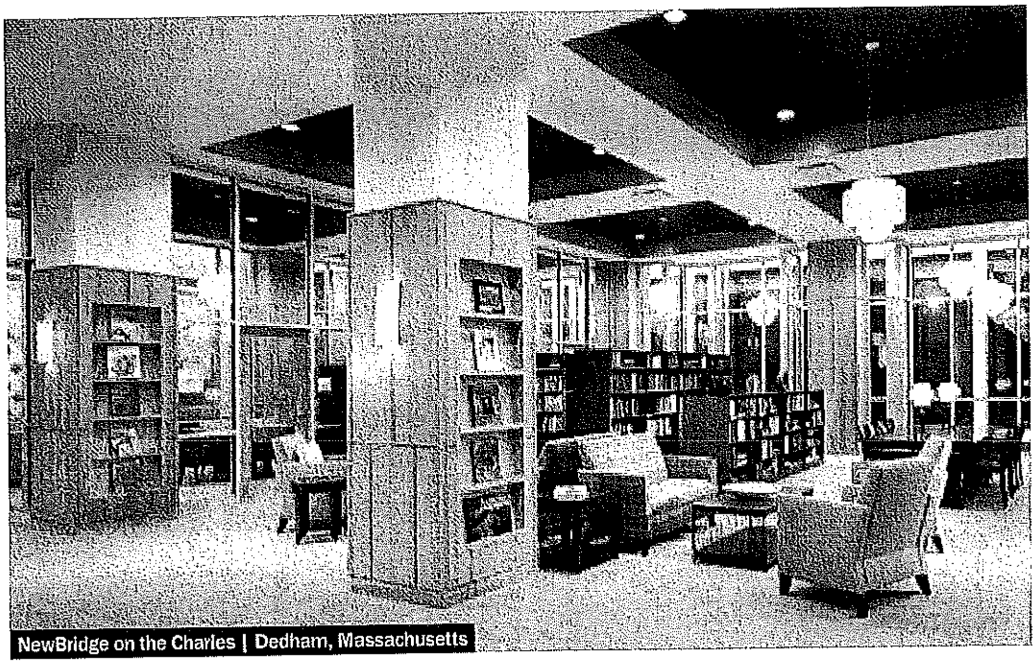
Many factors are influencing the senior living industry today, reshaping the way spaces are designed and how services are delivered. These include:

- **Longer life expectancies and the rapid aging of America:** With the number of older adults in the U.S. needing long-term services and support projected to grow from 15 million to 27 million by 2050, there is a distinct need to explore where and how senior services are delivered.[1]
- **A new perspective on what "health" means:** The World Health Organization (WHO) now defines health to be "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."[2] People want to not only live long, but live long "with good health, function, productivity, and independence."[3] CHLs can help maintain and optimize one's health, while strengthening other areas of our lives that add to our overall well-being.
- **Changing market demands:** Today's seniors are looking for more choice and variety, opportunities for lifelong learning, a sense of place and community, and alternatives to traditional healthcare models—particularly since many are taking on a bigger role in managing their personal health and wellness. In fact, offering whole-person wellness spaces and programs/services is frequently seen as a differentiator when comparing different senior living communities.[4]
- **Costs for care and changes in reimbursement:** Though a majority of the senior living industry is driven by private-pay, reimbursement changes stemming from the introduction of the Patient Protection and Affordable Care Act (ACA) in 2010 will continue to have an impact on how care and services are being delivered, as well as the focus on prevention and wellness that many senior care/service providers are now adopting.[5] Preventative wellness services delivered through CHLs and other personalized, multi-dimensional wellness programs can go a long way toward bringing down costs while producing better results.
- **A need to support (and market to) seniors aging-in-community:** A greater number of seniors can be supported through industry advancements, like telemedicine and the increasing number of partnerships between healthcare systems, senior-friendly service providers, and senior care/service providers—some of which are finding a place within a CHL. Beyond being a hub for these services, CHLs are also being used to reach potential customers who may not feel ready for, or who may not yet need, traditional senior living products. A visit to a CHL by someone living in the greater community

"Wellness is a lifelong process of consciously optimizing one's health and well-being in mind, body, and spirit."
John Rude, President, John Rude & Associates



NewBridge on the Charles | Dedham, Massachusetts


NewBridge on the Charles | Dedham, Massachusetts

(rather than on the campus of a Life Plan Community) for events, rehab, or other services provides a window—and therefore marketing opportunity—into what it would be like to actually live on campus. CHLs may not only be a solution to senior population health, but can also be used for service delivery and marketing to a more diverse group of older adults who are aging in the greater community.

- **The desire to be economically, socially, and environmentally sustainable:** The CHL's paradigm of whole-person wellness can successfully support the three overlapping value propositions related to sustainability: economic values (e.g., up-front costs, operating costs, and return on investment); social values (e.g., health, wellness, and community); and environmental values (e.g., resource conservation, climate impact, and habitats for other indigenous flora and fauna).[6] CHLs can have a measurably positive impact on the "triple bottom line" of people, profit, and the planet through cost savings, improved quality of life, building a sense of community, and minimizing environmental and health impacts.

We are living in a time of significant change as we address a rapidly aging society, reimagine wellness and healthcare services, and rethink traditional payment/reimbursement sources. There are many ways that designers and providers can create value, respond to the growing senior market, improve people's quality of life, and address the market's varied interests. Centers for healthy living offer one such opportunity.

Refer to Appendices A and B to learn more about the driving forces behind centers for healthy living and the evolution of the building typology.

KEY FINDINGS FROM THE CHL RESEARCH STUDY

In a before-and-after design research study conducted several years ago on a whole-person wellness center at Spring Lake Village in Santa Rosa, CA, Perkins Eastman found an overall improvement in: physical wellness, including residents' use of fitness programs, access to wellness-related resources, and better dining habits; social-emotional wellness, with improved access to social/emotional resources and better creation and maintenance of satisfying relationships; and intellectual wellness, through greater participation in educational/special-interest classes and improved access to creative arts and intellectual resources/activities. (Refer to page 71 for more information about this preliminary research study.)

Upon seeing these results and recognizing the growing industry trend of whole-person wellness (particularly as it related to the development of centers for healthy living), we decided to dig deeper into the topic. In 2015-16, Perkins Eastman conducted a design research study that explored built and conceptual (unbuilt) senior-focused whole-person wellness centers. Our goal was to define the core elements of the CHL building typology (in terms of both programs/services and design), understand how and why these facilities evolved, learn who is building them and why, discover who is participating in the programs, and identify what outcomes existing CHLs are seeing. We developed a multi-method approach, including a literature review, interviews, surveying, and on-site observations. The following is a summary of our findings.

Refer to Appendices C and D for more information about the design research study's methodology and its participants.

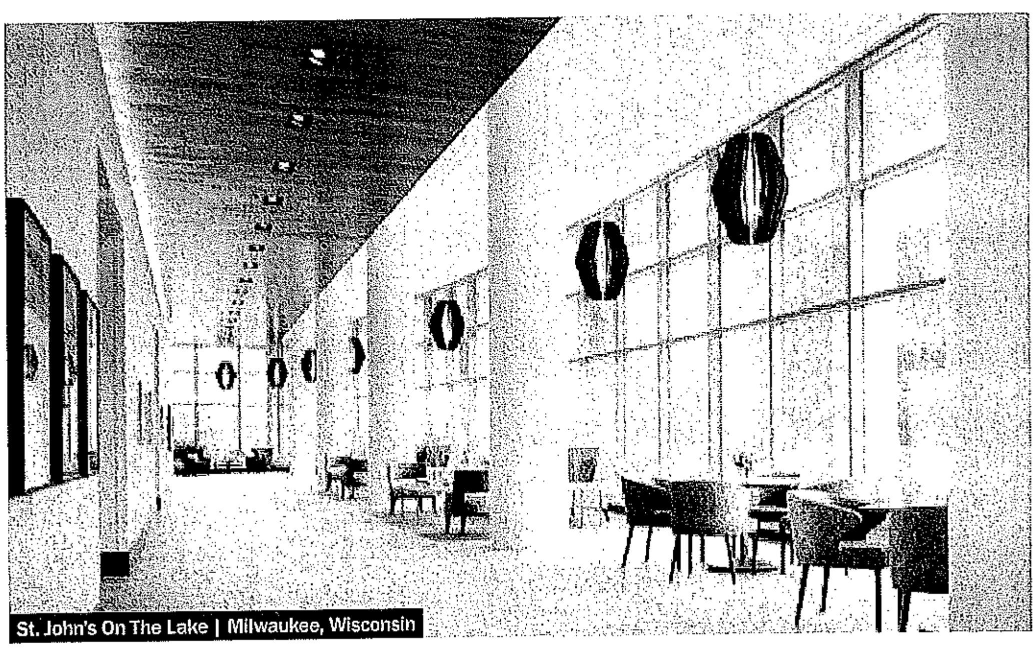
The study's findings—located in detail in Appendix E—showed that there are many definitions of "wellness," though most centered on the multiple dimensions of wellness and the interconnection of mind, body, and spirit. The CHLs we studied indicated that in addition to supporting whole-person wellness and encouraging healthy living, they were developed to address changing consumer demands, leverage partnerships, reach a greater cross-section of the community (i.e., non-resident users), offer greater choice, provide better interdepartmental relationships and cross-disciplinary communications, and to create a superior alternative to the competition.

To have a "successful" CHL, participants said that a personal, individualized approach should be offered to each user; programs/services ought to be varied and allow seniors to try new things, challenging them and encouraging engagement; and that the CHL's programs/services and facility must be flexible and nimble, continually adapting to changing demographics and market demands.

"With so many definitions of wellness, a successful CHL needs to be able to adjust and adapt to be all inclusive and participatory."

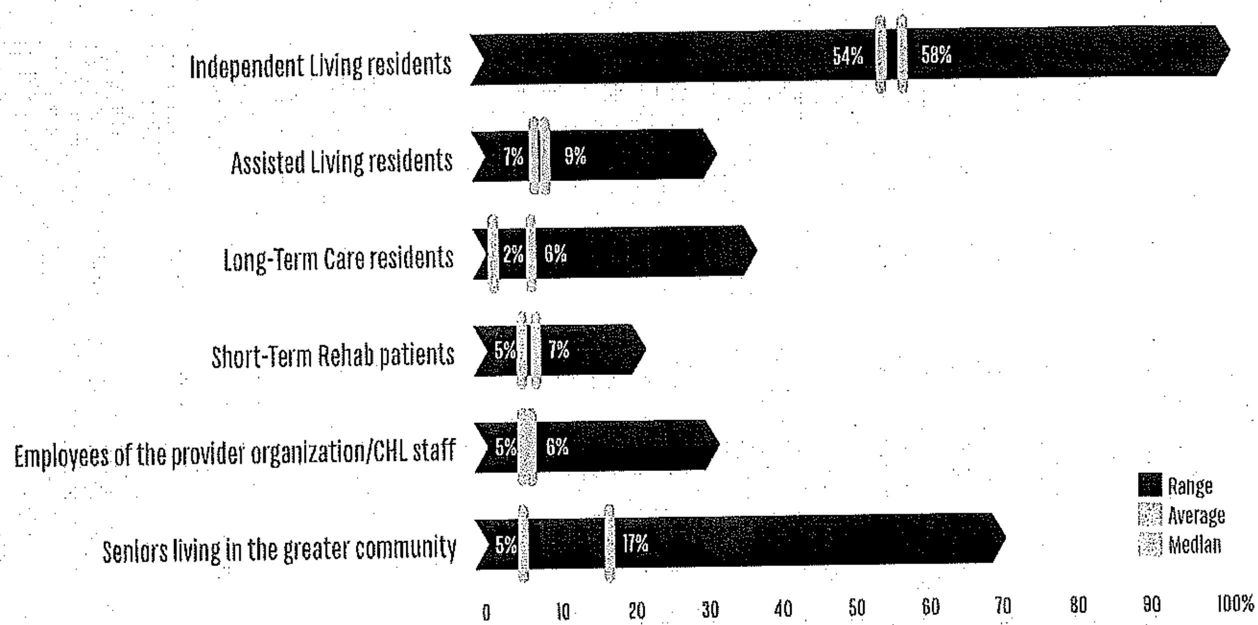
Libby Bush, Chief Operating Officer, Ingleside

The average size of the CHLs we studied was 36,776 SF (with a range of 8,000–129,460 SF). Incidentally, both of the neighborhood resource/community centers involved in the study were 10,000 SF, as compared to the often larger sizes



St. John's On The Lake | Milwaukee, Wisconsin

The CHLs involved in the study are serving a diverse group of seniors, with an average age of 80 years and a range of 65-85 years old. The people who visit and/or are served by the participating CHLs include:



Populations Served by the Case Study CHLs

of the CHLs associated with the participating Life Plan Communities. In regards to how the centers for healthy living are organized, over half of the case studies are centralized in one building. The remaining participants have decentralized CHLs, with program spaces housed in multiple locations throughout their campuses. Of those that explained the nature of their decentralization, three out of four noted site or building constraints (e.g., they used the only space available). Only one of the respondents said their decentralization was an intentional move; where spaces and programs/ services were distributed in order to attract participants from different parts of the Life Plan Community campus.

Among all of the CHLs we studied, the key spatial components described by the provider participants included the following (listed in order of prevalence, from most to least number of descriptions provided by study participants): exercise equipment rooms; aquatics (e.g., pool, Jacuzzi, sauna, therapy pool); group fitness classrooms; auditoriums, large multipurpose rooms, event centers, ballrooms; spas, salons, massage, acupuncture; educational classrooms, conference/meeting rooms; dining venues; arts and crafts, sewing studios, woodworking shops; outdoor spaces (e.g., dining, walking trails, bocce courts, fire pits, gardens); theaters; PT/ OT therapy gyms; learning and technology spaces (e.g., library, "brain fitness" rooms); medical/ clinical spaces; chapels, spiritual centers, quiet reflection/meditation spaces; social spaces (i.e., spaces that promote casual gathering); art galleries; and retail spaces. Respondents further noted that other key design features of the CHLs included: welcoming, inviting spaces; co-location of amenities to encourage interactions between functions/groups; easy physical access to spaces and clear wayfinding; plentiful, easy-to-access storage; and abundant natural light.

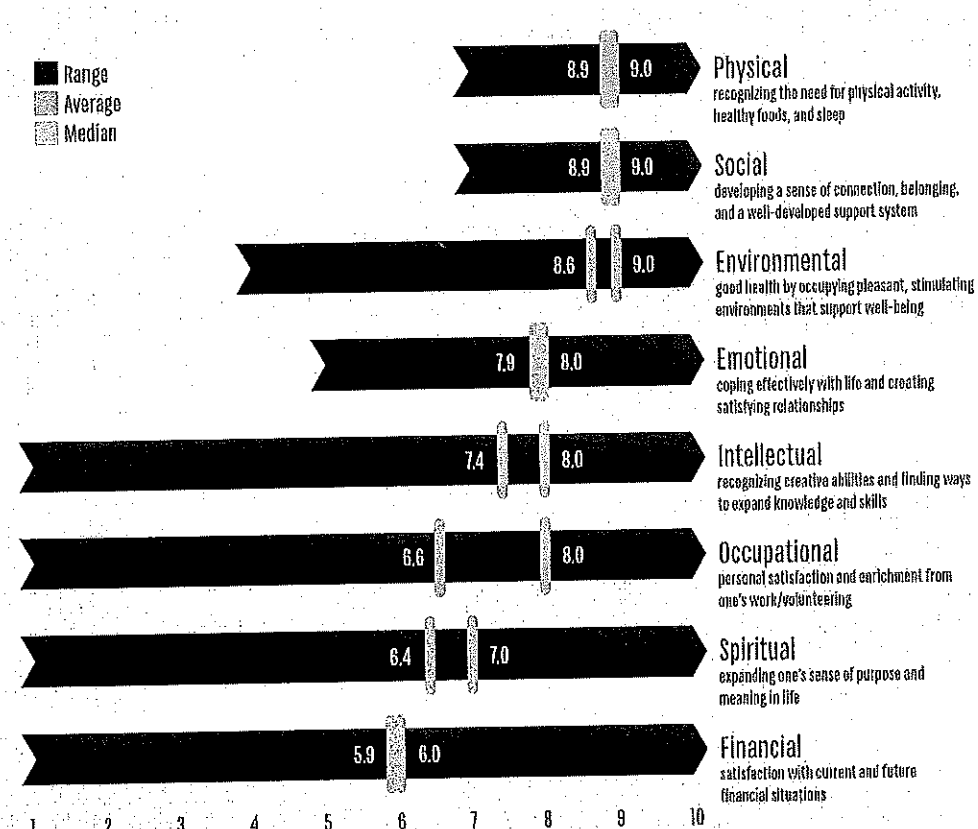
"The CHL is a good example of form meeting function."

Celeste Lynch, Director of Wellness, Moorings Park

The study, however, indicated that the CHL concept goes well beyond bricks and mortar. In fact, when we asked the study participants to describe the key components of a CHL, about one-quarter only talked about spaces, whereas nearly half described only programs/services. As J. David Hoglund, President and Executive Director of Perkins Eastman, explains, "A CHL can be a place, a building, or a collection of services. It can be separated, but also needs to be seen as a comprehensive group of programs that are linked." Key programmatic components of the CHL that were described by the study participants generally followed the multiple dimensions of wellness, with descriptions of programs to support physical fitness, healthy nutrition, clinical and counseling services, educational programs, social/recreational activities, volunteer opportunities, and spirituality/self-reflection.

> "The key is in the programming and allocating the appropriate resources to do it right."
> John G. Swanson, President, Willow Valley Living Inc.

The study also revealed that certain dimensions of wellness are being addressed more commonly, or perhaps are easier to support. When asked to rate their CHL's success in supporting each dimension of wellness on a scale of 1-10 (where 10 indicates full support), we found that physical and social wellness rate highly, but there is much greater variability among the remaining dimensions of wellness.



Case Studies' Self-Reported Ratings on the Multiple Dimensions of Wellness


Rockwood: The Summit | Spokane, Washington

"While many elders and providers do interpret wellness based on a holistic model, there's still a tendency to focus on the physical aspects first."
Kirsten Jacobs, Associate Director of Dementia and Wellness Education, LeadingAge

As a way to deliver programs and services, two-thirds of the participating CHLs have developed partnerships to provide medical/clinical services, deliver educational/lifelong learning opportunities, and run cultural programs/activities. A little over half of the participating CHLs have partnerships with fitness providers, and just under half partner for rehab/therapy services. A couple of sites noted they currently have no standing partnerships—though one of these, C. C. Young, used to be heavily reliant on partnerships. After nearly a decade of operations, C. C. Young now prefers running their programs/services directly, using their own staff. Denise Aver-Phillips, the Vice President of Community Outreach at C. C. Young, said that having their own staff allows better delivery of their mission and control of customer service. (It should be noted that C. C. Young's center for healthy living does not have a clinic component or deliver medical services.)

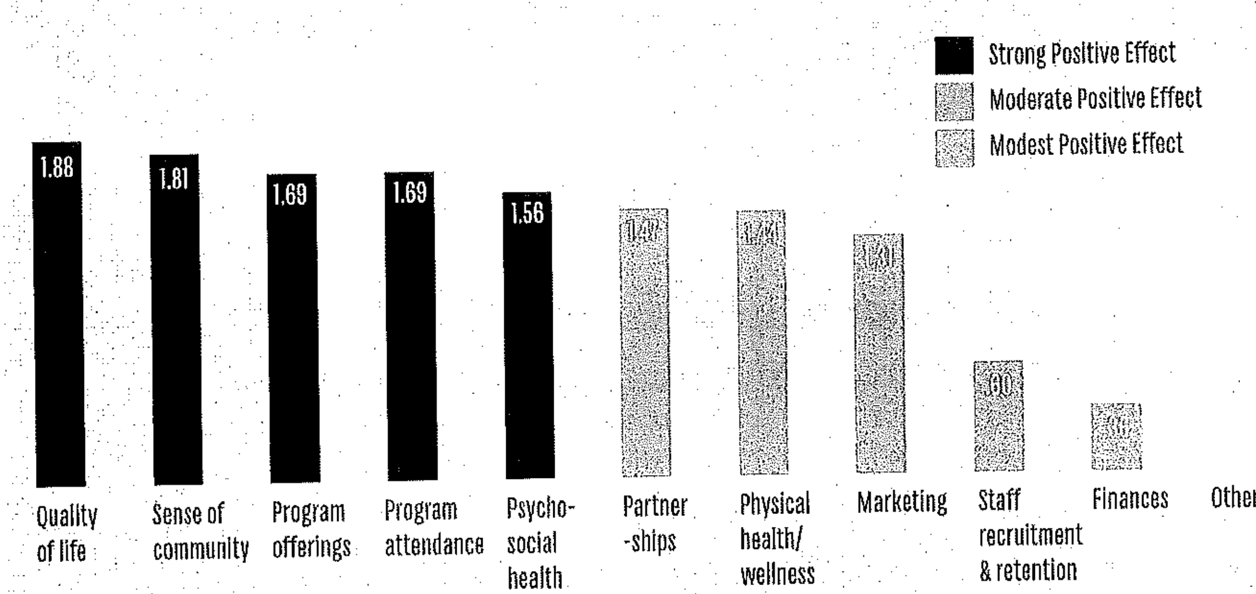
Moorings Park, which includes a much newer CHL, has also considered the nature of partnership relationships. Celeste Lynch, the Director of Wellness at Moorings Park, explained that partners have to be chosen carefully; it is not just a matter of coming together to deliver diverse services. All of the organizations involved must share a common goal and leverage each other. Daniel Cinelli, Principal and Executive Director of Perkins Eastman, likes to explain this as "one plus one must equal five." In other words, one organization cannot just partner with another organization and see success. By coming together, both organizations should be positioned to offer more and attain better results together than they would achieve separately.

Beyond developing the "right" partnerships, the participating CHLs noted other obstacles they faced when developing their center, and also what challenges they are dealing with now that they are operating their facilities. In terms of development, the most common hurdle was having to accommodate a tight site or limited building size, particularly when trying to fit all of the CHL's components into the allocated space. The study found parallel feedback in that the most common challenge reported by participants operating a CHL is the lack of space—many have a desire to expand their CHL to support additional programs/ services and events or a greater number of users.

Even with some challenges, the study showed that the participating CHLs are experiencing a positive impact on all the factors we asked about: the quality of life of the users, users' physical and psycho-social health/wellness, their sense of community, finances (e.g., revenue stream, preventative care savings), marketing/referrals, staff recruitment/retention, program quantity/type of offerings, program attendance rates/popularity, and partnership opportunities.

Thus, the research study shows that thoughtful development of the CHL concept can lead to many benefits for both care/service providers and CHL users—from improved overall wellness to opportunities for partnership and community outreach.

Refer to Appendix E for more detailed information about the research study's findings.



Impact of CHLs

Note: No negative impacts were reported.

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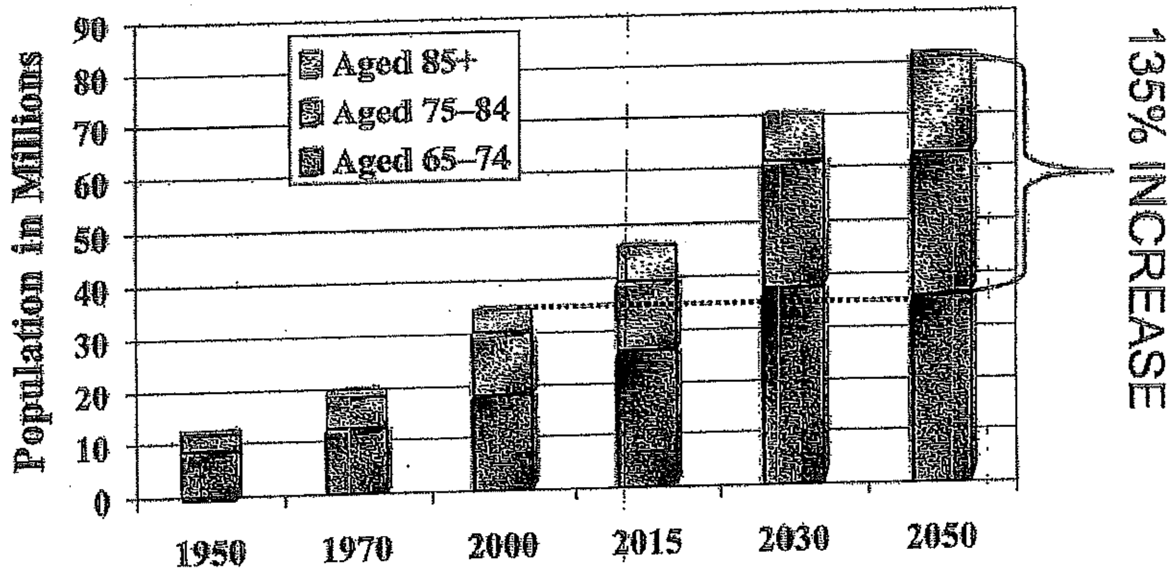
PMC full text: Health Serv Res. 2002 Aug; 37(4): 849–884.
doi: 10.1034/j.1600-0560.2002.56.x

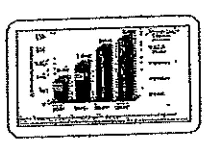
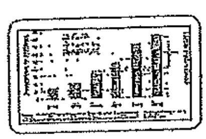
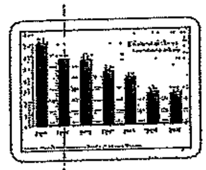
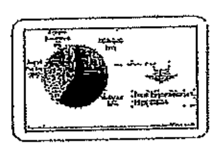
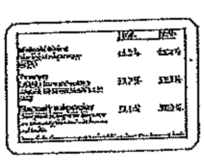
Figure 2



Source: (NP-T4) Projections of the Total Resident Population by 5 Year Age Groups, Race, and Hispanic Origin with Special Age Categories, Middle Series, 1999 to 2100

Population of Americans Aged 65 and over, in Millions

Images in this article

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PMC full text: Health Serv Res. 2002 Aug; 37(4): 849–884.
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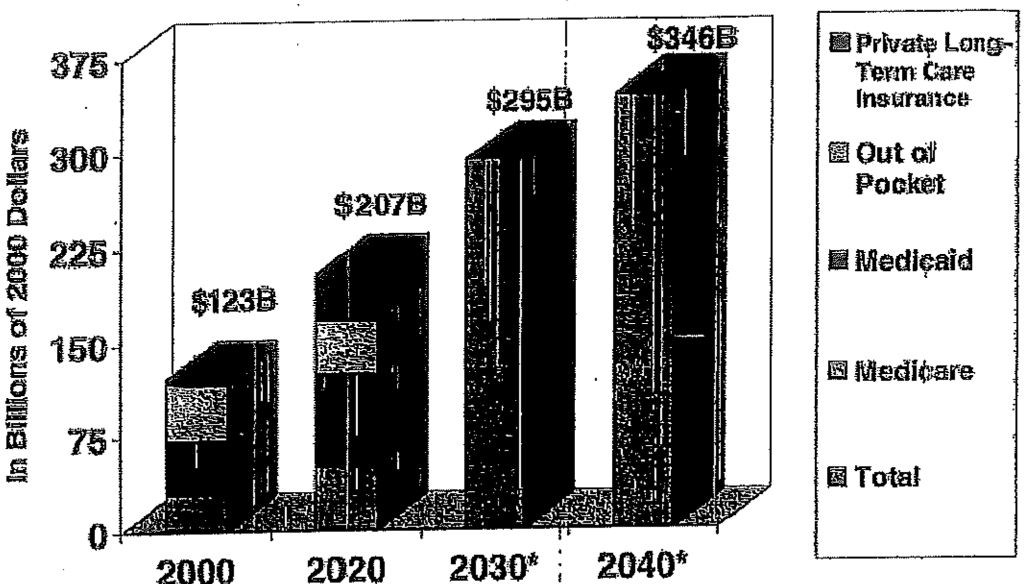
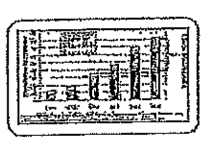
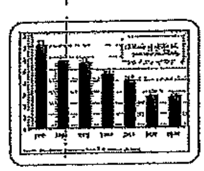
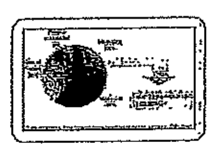
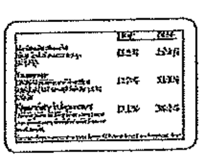
Figure 1



Source: "Projections of expenditures for long-term care services for the elderly," CBO 1999
Dollar totals in 2030 and 2040 are not disaggregated by payer due to uncertainty about projections.

Projections of National Long-term Care Expenditures for the Elderly

Images in this article

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