



Preliminary Arborist Report

**11 El Camino Real
San Carlos, CA**

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11 El Camino Real
San Carlos, CA

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Preliminary Arborist Report

11 El Camino Real
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Introduction and Overview

SummerHill Apartment Communities is planning to redevelop the property located at 11 El Camino Real in San Carlos, CA. The site is currently a commercial building (CVS Pharmacy) with parking on the south side and an asphalt lot to the north. There is an adjacent retail plaza to the south and Caltrain tracks to the east. It appears tree plantings were from the landscape design for the original CVS building. HortScience | Bartlett Consulting (Divisions of The F. A. Bartlett Tree Expert Co.) was asked to prepare an **Arborist Report** for the project site for submission to the City of San Carlos.

This report provides the following information:

1. An assessment of tree health, structure, and suitability for preservation.
2. A preliminary assessment of the impacts of constructing the proposed project and recommendations for action.
3. Preliminary tree preservation guidelines.

Assessment Methods

Trees were assessed on November 15, 2022. As required by the City of San Carlos, trees 6 inches and greater in diameter were included in the assessment. Nineteen trees were evaluated in parking lot islands and in landscape beds along El Camino Real. Four trees were off-site. The assessment procedure consisted of the following steps:

1. Identifying the tree species;
2. Tagging each tree with an identifying number and recording its location on a map;
3. Measuring the trunk diameter at a point 54 inches above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5:
 - 5 - A healthy, vigorous tree, reasonably free of signs and symptoms of disease, with good structure and form typical of the species.
 - 4 - Tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.
 - 3 - Tree with moderate vigor, moderate twig, and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that might be mitigated with regular care.
 - 2 - Tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.
 - 1 - Tree in severe decline, dieback of scaffold branches and/or trunk; most of foliage from epicormics; extensive structural defects that cannot be abated.
5. Rating the suitability for preservation as “high”, “moderate” or “low”. Suitability for preservation considers the health, age and structural condition of the tree, and its potential to remain an asset to the site for years to come.
 - High:** Trees with good health and structural stability that have the potential for longevity at the site.
 - Moderate:** Trees with somewhat declining health and/or structural defects than can be abated with treatment. The tree will require more intense management and monitoring, and may have shorter life span than those in ‘good’ category.
 - Low:** Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to continue to decline, regardless of treatment. The species or individual may have

characteristics that are undesirable for landscapes, and generally are unsuited for use areas.

Description of Trees

Nineteen (19) trees were assessed, representing 12 species (Table 1). Assessed trees were diverse with no more than three trees representing each individual species. Most trees were present around the perimeter of the parking lot and along El Camino Real. Three off-site palms and off-site coast live oak #149 were behind the CVS building, just south of F Street.

Descriptions of each tree are found in the **Tree Assessment Form** and approximate locations are shown on the **Tree Assessment Map** (see Exhibits). Overall, 10 trees were in fair condition, 8 were in good condition, and tree #145 was in poor condition (Table 1). All trees appeared to have been planted on the site; species were typical of trees present on commercial sites. Coast live oak was the only California native tree present.

**Table 1: Condition ratings and frequency of occurrence of trees
11 El Camino Real, San Carlos CA.**

Common Name	Scientific Name	Condition			Total
		Poor (1-2)	Fair (3)	Good (4-5)	
River red gum	<i>Eucalyptus camaldulensis</i>	1	1	-	2
Evergreen ash	<i>Fraxinus uhdei</i>	-	2	1	3
Tulip tree	<i>Liriodendron tulipifera</i>	-	2	-	2
Monterey pine	<i>Pinus radiata</i>	-	1	-	1
Canary Island date palm	<i>Phoenix canariensis</i>	-	-	2	2
Canary Island pine	<i>Pinus canariensis</i>	-	2	-	2
Japanese black pine	<i>Pinus thunbergiana</i>	-	1	-	1
Chinese pistache	<i>Pistacia chinensis</i>	-	-	1	1
Evergreen pear	<i>Pyrus kawakamii</i>	-	-	1	1
Coast live oak	<i>Quercus agrifolia</i>	-	-	1	1
Southern live oak	<i>Quercus virginiana</i>	-	1	1	2
Mexican fan palm	<i>Washingtonia robusta</i>	-	-	1	1
Total		1	10	8	19

Evergreen ashes #135 and 137 were in fair condition, and #134 was in good condition. Ash #135 and 137 had been recently topped (Photo 1). Ash #134 was in good condition with vigorous foliage. Trunk diameters ranged from 8 to 19 inches with an average of 14 inches.

No other species were represented by more than two trees.

- Red river gums #144 and 145 were located between El Camino Real and the CVS building. The condition of #144 was fair with a trunk diameter of 45 inches while gum #145 had a 16-inch diameter and was in poor condition. Both trees had large branches arising from 7 – 8 feet.
- Tulip trees #132 and 133 were in fair condition and had diameters of 10 and 7 inches. Both were in parking lot planters and had limited root zones. Twig dieback was evident in both trees.
- Canary Island pine #138 was in fair condition with a trunk diameter of 20 inches. Pine #139 was also in fair condition with a trunk diameter of 16 inches. Both trees had low live crown ratio and the lower branches had been removed up to 15 feet (Photo 2).



Photo 1. Ash #137 had been recently topped and was growing in landscape bulb-out.



Photo 2. Canary Island pines #138 in the foreground and #139 (behind and to left), had low live crown ratio.

- Off-site Canary Island date palms #146 and 148 were located to the rear of the CVS building and were surrounded by asphalt (Photo 3, next page). Both palms were in good condition; both had a trunk diameter of 28 inches.
- Southern live oaks #140 and 141 were in the middle of the parking lot in round concrete planters. Both had been heavily sheared and had trunk diameters of 6 and 8 inches. Oak #140 was in good condition with a full healthy crown while oak #141 was in fair condition with small twig dieback and a thinner crown.
- Monterey pine #136 had a trunk diameter of 16 inches and was in fair condition. Branch dieback was visible in the crown, but the tree was responding with healthy new growth this year.
- Japanese black pine #131 was in a small rock mulched bed and was in fair condition with top dieback and dead central leader.
- Chinese pistache #143 was in good condition with an 11-inch diameter co-dominant trunk at one foot. The crown was healthy with vigorous growth.

- Evergreen pear #142 had a trunk diameter of 8 inches and was in good condition. This tree had a full canopy with moderate vigor.
- Off-site Coast live oak #149 had a trunk diameter of 8 inches and was in good condition (Photo 3). The tree was surrounded by asphalt with a natural form and a full vigorous crown.
- Off-site Mexican fan palm #147 was in good condition and had a trunk diameter of 17 inches (Photo 3). This tree was also surrounded by asphalt behind the CVS.



Photo 3. Mexican fan palm #147 was growing between Canary Island date palms #146 and 148. Coast live oak #149 is just to the left of fan palm #147.

Suitability for Preservation

Before evaluating the impacts that will occur during development, it is important to consider the quality of the tree resource itself, and the potential for individual trees to function well over an extended length of time. Trees that are preserved on development sites must be carefully selected to make sure that they may survive development impacts, adapt to a new environment and perform well in the landscape.

Our goal is to identify trees that have the potential for long-term health, structural stability and longevity. For trees growing in open fields, away from areas where people and property are present, structural defects and/or poor health present a low risk of damage or injury if they fail.

We must be concerned, however, about safety in use areas. Therefore, where development encroaches into existing plantings, we must consider their structural stability as well as their potential to grow and thrive in a new environment. Where development will not occur, the normal life cycles of decline, structural failure, and death should be allowed to continue.

Evaluation of suitability for preservation considers several factors:

- **Tree health**
Healthy, vigorous trees are better able to tolerate impacts such as root injury, demolition of existing structures, changes in soil grade and moisture, and soil compaction than non-vigorous trees are. For example, Japanese black pine #131 had crown dieback and low vigor. This tree would likely not tolerate construction impacts well.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are more likely to fail. Such trees should not be preserved in areas where damage to people or property is likely. For example, river red gum #145 had been previously topped and multiple large epicormic attachments developed at 8 feet and would be more prone to storm damage.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. For example, evergreen ash, coast live oak and Canary Island pine are generally tolerant of root loss and general construction impacts, while tulip tree is intolerant of root severance and sensitive to wounding impacts.
- **Tree age and longevity**
Old trees, while having significant emotional and aesthetic appeal, have limited physiological capacity to adjust to an altered environment. Young trees are better able to generate new tissue and respond to change.
- **Invasiveness**
Species which spread across a site and displace desired vegetation are not always appropriate for retention. This is particularly true when indigenous species are displaced. The California Invasive Plant Inventory Database (<https://www.cal-ipc.org/pafi/>) lists species identified as being invasive. San Carlos is part of the Central West Floristic Province. Mexican fan palm is moderately invasive, and blackwood acacia is invasive on a limited basis. River red gums and Canary Island date palms have limited invasive potential.

Each tree was rated for suitability for preservation based upon its age, health, structural condition, and ability to safely coexist within a development environment (Table 2).

**Table 2: Tree suitability for preservation.
11 El Camino Real, San Carlos CA.**

High	Trees in good health and with structural stability that have the potential for longevity at the site. Coast live oak #149 had high suitability for preservation.
Moderate	Trees in fair health and/or with structural defects that may be abated with treatment. Trees in this category require more intense management and monitoring, and may have shorter life-spans than those in the “high” category. Seven trees had moderate suitability for preservation including: Canary Island date palms #138 and 139; Chinese pistache #143; evergreen pear #142; Mexican fan palm #147; and southern live oaks #140 and 141.
Low	Trees in poor health or with significant defects in structure that cannot be abated with treatment. These trees can be expected to decline regardless of management. The species or individual tree may possess either characteristics that are undesirable in landscape settings or be unsuited for use areas. Eleven (11) trees fell into this category including: Canary Island pines #138 and 139; evergreen ash # 134, 135 and 137; Japanese black pine #131; Monterey pine #136; river red gums #144 and 145; and tulip trees #132 and 133.

We consider trees with high suitability for preservation to be the best candidates for preservation. We do not normally recommend retention of trees with low suitability for preservation in areas where people or property will be present. Retention of trees with moderate suitability for preservation depends upon the intensity of proposed site changes.

The City of San Carlos Municipal Code Chapter 18.18.070 Trees. This code defines *Heritage* trees as native oaks (and other native trees) with a diameter of 9 inches and larger. *Significant* trees are defined as any tree with a stem diameter of 11 inches or larger, with the exception of several invasive trees, monocots, including palms, Monterey pine and any *Eucalyptus* genera. By this definition, six trees had *Protected* status. No trees were identified as *Heritage*. Each tree’s *Protected* status is listed in the **Tree Assessment Form** (see Exhibits).

Evaluation of Impacts and Recommendations

Appropriate tree retention develops a practical match between the location and intensity of construction activities with the quality and health of trees. The **Tree Assessment Form** was the reference point for tree health, condition, and suitability for preservation. I used the Planning Application Existing Boundary and Demolition Plan (Sheet C2.0) provided by CBG Engineers (January 5, 2023) to determine the project area and evaluate impacts to trees.

The plans propose an approximately 235-unit apartment building to be constructed on the property. The site will be redeveloped from property line to property line. The extent of the proposed project makes it unlikely that any of the on-site trees surveyed can be retained. Based on my assessment of the proposed plan and evaluation of the trees, I recommend removal of the 15 trees, six with *Protected status*.

Canary Island date palms #146 and 148, Mexican fan palm #147 and coast live oak #148 are off-site to the northwest of the property line. I recommend preservation of these four trees (none of which have *Protected status*). Successful retention of these trees is predicated on adherence to the **Preliminary Tree Preservation Guidelines**.

Permits and replacement tree planting are required for the removal of *Protected* trees at the discretion of the City of San Carlos, Planning Division. For multifamily/commercial/industrial projects, replacement ratios are suggested at 1:1 (24-in. box trees) and shall comply with City of San Carlos Preferred Tree List in accordance with the Protected Trees Administrative Guidelines (April 2022).

Preliminary Tree Preservation Guidelines

Trees #131-145 will be removed and off-site trees #146-149 located on the north-west side of the property and fronting F street will be retained. The following recommendations will help reduce impacts to these four trees from development and maintain their health and structural stability through the clearing, grading, and construction phases.

Design recommendations

1. Where possible, include the location of all trees within 10 ft. of the project limit. Include trunk locations on all project plans.
2. The project's perimeter security fence will also serve as the **TREE PROTECTION ZONE**. No grading, excavation, construction, or storage of materials should occur outside the project limit.
3. All plans affecting trees shall be reviewed by the Consulting Arborist regarding tree impacts. These include, but are not limited to, demolition plans, grading plans, drainage plans, utility plans, and landscape and irrigation plans.
4. Irrigation systems must be designed so that no trenching severs roots larger than 2 in. in diameter will occur within the **TREE PROTECTION ZONE**.
5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.

Pre-demolition and pre-construction treatments and recommendations

1. The project's perimeter security fence will also serve as the **TREE PROTECTION ZONE**. No grading, excavation, construction, or storage of materials should occur outside the project limit.
2. Off-site trees to be preserved may require pruning to provide clearance for demolition, grading and construction. Tree care firm providing the pruning shall be a State of California Licensed Tree Contractor (C61/D49). All pruning shall be done by Certified Arborist or Certified Tree Worker in accordance with the latest edition of the Best Management Practices for Pruning (International Society of Arboriculture) and the American National Standard for Tree Care Operations (Z133.1) and Pruning (A300).
3. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain shall be removed by a Certified Arborist or Certified Tree Worker and not by the demolition contractor. The Certified Arborist or Certified Tree Worker shall remove the trees in a manner that causes no damage to the tree(s) and understory to remain.
4. Trees to be removed shall be felled so as to fall away from **TREE PROTECTION ZONE** and avoid pulling and breaking of roots of off-site trees to remain. If roots are entwined, the Consulting Arborist may require first severing the major woody root mass before extracting the trees.
5. All tree work shall comply with the Migratory Bird Treaty Act as well as California Fish and Wildlife code 3503-3513 to not disturb nesting birds. To the extent feasible tree pruning and removal should be scheduled outside of the breeding season. Breeding bird surveys should be conducted prior to tree work. Qualified biologists should be involved in establishing work buffers for active nests.

Recommendations for tree protection during construction

1. Any approved grading, construction, demolition, or other work within 5 ft. of the **Tree Protection Zone** should be monitored by the Consulting Arborist.
2. Any root pruning that will occur within 5 ft. of the **Tree Protection Zone** shall receive the prior approval of and may be supervised by the Consulting Arborist. Roots should be cut with a saw to provide a flat and smooth cut. Removal of roots larger than 2 in. in diameter should be avoided.
3. If roots 2 in. and greater in diameter are encountered during site work and must be cut to complete the construction, the Consulting Arborist must be consulted to evaluate effects on the health and stability of the tree and recommend treatment.

If injury should occur to any tree during construction, it should be evaluated as soon as possible by the Consulting Arborist so that appropriate treatments can be applied.

HortScience | Bartlett Consulting



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Exhibits

Tree Assessment Form

Tree Assessment Map



Tree Assessment

11 El Camino Real
San Carlos, CA
November 2022



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Preliminary Disposition	Comments
131	Japanese black pine	23	Yes	3	Low	Remove	Multiple branches arise at 6'; in parking lot planter; central leader dead; surface roots; moderate twig and branch dieback.
132	Tulip tree	10	No	3	Low	Remove	In parking lot planter; thin sinuous form; thin lateral branches; sap sucker evidence.
133	Tulip tree	7	No	3	Low	Remove	In parking lot planter; multiple attachments at 6'; narrow branch unions; small twig and branch dieback; history of branch failure.
134	Evergreen ash	8	No	4	Low	Remove	In parking lot planter; no central leader; surface roots; healthy canopy.
135	Evergreen ash	19	Yes	3	Low	Remove	In parking lot planter; multiple attachments at 8'; recently topped; otherwise healthy growth in canopy.
136	Monterey pine	16	No	3	Low	Remove	No central leader; small twig and branch dieback; healthy new growth ; cones recurved in; 2-3 fascicles.
137	Evergreen ash	16	Yes	3	Low	Remove	Large surface roots; trunk wound east; multiple attachments at 8'; recently topped.
138	Canary Island pine	20	Yes	3	Low	Remove	Low live crown ratio; good upright structure; surface roots; healthy crown.
139	Canary Island pine	16	Yes	3	Low	Remove	Low live crown ratio; good upright structure; suppressed east; surface roots; thin canopy.
140	Southern live oak	8	No	4	Moderate	Remove	In raised planter; can't see root flare; multiple attachments at 4'; full healthy crown.
141	Southern live oak	6	No	3	Moderate	Remove	In raised planter; can't see root flare; multiple attachments at 5'; small twig dieback; slightly thin crown.
142	Evergreen pear	8	No	4	Moderate	Remove	Multiple attachments at 5'; small twig dieback; healthy crown.
143	Chinese pistache	11	Yes	4	Moderate	Remove	Codominant trunks arise from 1'; narrow union; small twig dieback; healthy canopy.
144	River red gum	45	No	3	Low	Remove	Multiple large attachments at 7'; history of large branch failure; topped; weakly attached epicormic growth; small twig and branch dieback.
145	River red gum	16	No	2	Low	Remove	Multiple large attachments at 8'; trunk decay; significant twig and branch dieback; sparse canopy.
146	Canary Island date palm	28	No	4	Moderate	Preserve	Off-site. Brown trunk 20'; fire damage on lower trunk; healthy canopy.
147	Mexican fan palm	17	No	4	Moderate	Preserve	Off-site. Brown trunk 60'; healthy canopy.

Tree Assessment

11 El Camino Real
San Carlos, CA
November 2022



Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excellent	Suitability for Preservation	Preliminary Disposition	Comments
148	Canary Island date palm	28	No	4	Moderate	Preserve	Off-site. Brown trunk 30'; healthy canopy.
149	Coast live oak	8	No	5	High	Preserve	Off-site. Natural form; full healthy canopy.

Tree Assessment Map

11 El Camino Real
San Carlos, CA

Prepared for:
SummerHill Apartment
Communities
Palo Alto, CA

Revised March 2023



No Scale

Notes:

Base map provided by:
CBG
San Ramon, CA

Numbered tree locations are approximate.

TS = Too Small (tree less than 6" in diameter)
and not included in this assessment



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