

Tree Report

**25906 Gading Road
Hayward CA**

Prepared for:
**Dutra Enterprises Inc.
43430 Mission Blvd, Suite #210
Hayward CA 94539**

Prepared by:
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Tree Report
25906 Gading Road
Hayward CA

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Introduction and Overview

Dutra Enterprises Inc. is planning to develop the property located at 25906 Gading Road in Hayward CA. The site is currently an open field. Dutra Enterprises Inc. requested that HortScience, Inc. assess the health and structural condition of trees, evaluate proposed project plans, and provide recommendations for tree preservation. This report presents the following information:

1. Evaluation of tree health and structural condition.
2. Assessment of tree suitability for preservation.
3. Review of proposed project plans.
4. Recommendations for action and appraisal of value.
5. Guidelines for tree preservation.

Survey Methods

Trees were assessed in September 2015. The assessment included each living tree larger than 5" in diameter within the project area as well as trees on adjacent properties whose canopies extended into the project area. Each tree was visually assessed from the ground and evaluated as follows:

1. Identifying the tree as to species.
2. Attaching a numerically coded metal tag on the trunk of each tree.
3. Measuring the trunk diameter at a point 54" above grade.
4. Evaluating the health and structural condition using a scale of 0 – 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, or 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 epicormic shoots (secondary shoots that arise along the trunk and branches); extensive structural defects that cannot be abated.
 - 0 – Tree is dead.
5. Assessing tree suitability for preservation as good, moderate or poor.

Description of Trees

Thirty-two (32) trees were assessed, representing 14 species (Table 1, following page). Over half (19 trees) were fruit and nut species that were planted many years ago. Several species (Canary Island date palm, Callery pear, Siberian elm, glossy privet and Catalina cherry) were likely planted as part of landscape development, also many years ago. Coast live oak and arroyo willow are native to the Hayward area and may be indigenous to the site.

Table 1. Species present and tree condition. 25906 Gading Road. Hayward CA.

Common name	Scientific name	Condition				No. of Trees	
		Poor	Fair	Good	Excell.	Protected	Total
Persimmon	<i>Diospyros kaki</i>	--	--	1	--	1	1
English walnut	<i>Juglans regia</i>	5	1	1	--	7	7
Glossy privet	<i>Ligustrum lucidum</i>	--	3	--	--	3	3
Apple	<i>Malus domestica</i> cv.	1	1	--	--	2	2
Canary Island date palm	<i>Phoenix canariensis</i>	--	--	--	1	1	1
Apricot	<i>Prunus armeniaca</i> cv.	1	1	--	--	2	2
Plum	<i>Prunus domestica</i> cv.	2	2	--	--	4	4
Almond	<i>Prunus dulcis</i>	1	--	--	--	1	1
Catalina cherry	<i>Prunus lyonii</i>	--	5	--	--	4	5
Callery pear	<i>Pyrus calleryana</i> cv.	--	1	--	--	--	1
Pear	<i>Pyrus communis</i> cv.	2	--	--	--	2	2
Coast live oak	<i>Quercus agrifolia</i>	--	--	--	1	1	1
Arroyo willow	<i>Salix lasiolepis</i>	--	1	--	--	1	1
Siberian elm	<i>Ulmus pumila</i>	--	--	1	--	1	1
Total, all trees assessed		12	15	3	2	30	32

Fruit and nut trees present included:

- English walnuts #186, 187, 188, 189, 196, 199 and 200. Walnut were typical in form and structure having been grafted onto rootstock. Trees had two or more stems that arose near the graft union. Trunk diameters ranged from 6" to 12". Tree condition varied from poor (#187, 188, 189, 199, 200) to fair (#196) to good (#186). The primary difference in tree condition was the amount of twig and branch dieback present in the crown.
- Plums #190, 193, 194 and 217 had multiple stems that arose low on the trunk. Trees #190 and 217 were in poor condition; #193 and 914 were fair.
- Apples #197 and 198 had multiple stems. Tree #197 was in poor condition with extensive dieback; #198 was fair with moderate amounts of dieback.
- Apricots #192 and 195 had multiple stems and varying amounts of dieback. Tree #192 was larger in size and in poor condition; while #195 was fair.
- Pears #201 and 202 were small with numerous stems. Both were in poor condition.
- Persimmon #191 was a mature tree with multiple stems and in good condition.
- Almond #216 had 6 small stems that arose near ground level, likely developing as stump sprouts. Overall condition was poor with twig and branch dieback.

Overall, condition of fruit and nut trees had been compromised by lack of irrigation and routine pruning.

Landscape trees included:

- Catalina cherries #204, 205, 206, 207 and 212. Trees #204 – 207 formed a dense hedge along the north property line. Tree condition as fair. Cherry #212 was located in the northeast corner of the site. It had a single 12” stem and was also in fair condition.
- Glossy privets #209, 218 and 219 had the typical multi-stem form. All were in fair condition.
- Callery pear #185 was a small tree located along Gadding Road. Its condition was good.
- Canary Island date palm #203 had three stems that arose near the ground. Tree condition was excellent.
- Siberian elm #215 was located in the southeast corner of the property. A number of stems arose at ground level, likely as stump sprouts, forming a large dense shrub. Overall condition was good.

Also present were:

- Coast live oak #214. This young tree was in excellent condition.
- Arroyo willow #210 was mature in development with numerous stems that arose at ground level. It appeared as a large shrub. Overall condition was fair.

The City of Hayward defines “protected” tree as: 1) trees 8” in diameter or greater and 2) certain native species 4” in diameter and greater. Given these criteria, 30 of the 32 tree assessed were “protected”.

Three trees located on adjacent parcels were also evaluated:

- Camphor #208 was 25” in diameter and mature in development. Overall condition was good. Its canopy extended 20’ into the project area.
- Monterey cypress #211 was 30” in diameter and mature in development. Overall condition was fair. The tree canopy extended 20’ into the project area.
- Silver dollar gum #213 was 20” in diameter and mature in development. Overall condition was good. Its canopy extended 10’ into the project area.

Description of individual trees is found on the enclosed **Tree Assessment Form**. Tree locations are found on the **Tree Assessment Map**. Both are included as **Attachments**

Suitability for Preservation

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. 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 are non-vigorous trees.
- **Structural integrity**
Trees with significant amounts of wood decay and other structural defects that cannot be corrected are likely to fail. Such trees should not be preserved in areas where damage to people or property is likely.
- **Species response**
There is a wide variation in the response of individual species to construction impacts and changes in the environment. For example, coast live oak is tolerant of construction impacts while English walnut and Monterey cypress are sensitive.
- **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.
- **Species 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 (<http://www.cal-ipc.org/paf>) lists species identified as having being invasive. Hayward is part of the Central West Floristic Province. Among species located on subject site Canary Island date palm has been identified as invasive.

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. 25906 Gading Road. Hayward CA.

High	Trees with good health and structural stability that have the potential for longevity at the site. Canary Island date palm #203 and coast live oak #214 were rated as having high suitability for preservation.
Moderate	Trees in fair health and/or possessing 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. Callery pear #185, English walnut #186, persimmon #191, and Siberian elm #215 were rated as having moderate suitability for preservation.

**Table 2, continued. Tree suitability for preservation. 25906 Gading Road.
Hayward CA.**

Low	Trees in poor health or possessing 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. Twenty-six (26) trees were rated as having low suitability for preservation: English walnut #187, 188, 189, 196, 199, 200; Catalina cherry #204, 205, 206, 207, 212; plum #190, 193, 194, 217; glossy privet #209, 218, 219; apple #197, 198; apricot #192, 195; pear #201, 202; almond #216, and arroyo willow #210.
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We consider trees with high suitability for preservation to be the best candidates for preservation. We do not 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.

Evaluation of Impacts and Recommendations for Preservation

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The goal of tree preservation is to retain trees that will be assets to the future neighborhood. The tree assessment was the reference point for tree condition and quality. Impacts from the proposed project were assessed using a conceptual site plan.

The site plan depicted the layout of 18 lots on the site periphery with new road in the center. The site will be completely demolished and re-graded. Impacts to trees could occur in a variety of ways. Most importantly, grading and other construction activities would damage trees, through both direct mechanical injury and indirectly by altering drainage.

Based on my assessment of the proposed plan, I recommend removal of all 32 trees located within the site (Table 3, following page). I recommend retention of the three off-site trees: camphor #208, Monterey cypress #211 and silver dollar gum #213. All three will require pruning to provide clearance for construction and the new homes.

It is likely that all three will be impacted by construction due to their proximity to the

Appraisal of Value

The City of Hayward requires that the value of protected trees be included in a tree report. To estimate tree value, I employed the standard methods found in ***Guide for Plant Appraisal***, 9th edition (published in 2000 by the International Society of Arboriculture, Savoy IL). In addition, I referred to ***Species Classification and Group Assignment*** (2004), a publication of the Western Chapter of the International Society of Arboriculture. These two documents outline the methods employed in tree appraisal.

The value of landscape trees is based upon four factors: size, species, condition and location. Size is measured as trunk diameter, normally 54" above grade. The species factor considers the adaptability and appropriateness of the plant in the East Bay area. The ***Species Classification and Group Assignment*** lists recommended species ratings and evaluations. Condition reflects the health and structural integrity of the individual. The location factor considers the site, placement and contribution of the tree in its surrounding landscape.

The appraised value of the 32 trees recommended for removal is \$20,300. The appraised value of the 3 off-site trees recommend for preservation is \$15,650.

Tree Preservation Guidelines: Off-site Trees

The following are recommendations for design and construction phases that will assist in successful preservation of off-site trees #208, 211 and 213.

Design recommendations

1. Include the location and tag numbers on all plans.
2. Allow the Consulting Arborist the opportunity to review project plans, including but not limited to, site, grading, drainage and landscape plans
3. Use only herbicides safe for use around trees and labeled for that use, even below pavement.

Pre-construction and demolition treatments and recommendations

1. Establish a **TREE PROTECTION ZONE** at the property line.
2. Trees to be removed shall be felled so as to fall away from **TREE PROTECTION ZONE** and avoid pulling and breaking of roots of trees to remain. If roots are entwined, the consultant may require first severing the major woody root mass before extracting the trees, or grinding the stump below ground.
3. Trees to be retained will require pruning to provide clearance. All pruning is to be performed by an ISA Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the ANSI Z133 and A300 standards as well as the ISA Best Management Practices for Tree Pruning. Pruning contractor shall have the C25/D61 license specification.

Tree protection during construction

1. Prior to beginning work, the contractors working in the vicinity of trees to be preserved are required to meet with the Consulting Arborist at the site to review all work procedures, access routes, storage areas and tree protection measures.
2. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.
3. 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.
4. Fences have been erected to protect trees to be preserved. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the project manager.

5. Any additional tree pruning needed for clearance during construction must be performed by a qualified arborist and not by construction personnel.
6. All trees shall be irrigated on a schedule to be determined by the Consulting Arborist. Each irrigation shall wet the soil within the **TREE PROTECTION ZONE** to a depth of 30".

HortScience, Inc.



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Table 3. Proposed action and appraisal of value. 25906 Gading Road. Hayward CA.

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excell.	Estimate of Value	Proposed Action	Notes
185	Callery pear	4	No	3	\$250	Remove	Within development area
186	English walnut	8,7	Yes	4	\$650	Remove	Within development area; low suitability
187	English walnut	8,7	Yes	2	\$300	Remove	Within development area; low suitability
188	English walnut	9,8,6	Yes	1	\$150	Remove	Within development area; low suitability
189	English walnut	6,3	Yes	2	\$100	Remove	Within development area; low suitability
190	Plum	11,9,8,6,6,5,5,4	Yes	2	\$1,000	Remove	Within development area; low suitability
191	Persimmon	8,8,5,4,4	Yes	4	\$2,750	Remove	Within development area
192	Apricot	15,13,10	Yes	2	\$1,200	Remove	Within development area; low suitability
193	Plum	8,6,6,5,5,4,4,3	Yes	3	\$1,000	Remove	Within development area; low suitability
194	Plum	7,7,5,5,4,3	Yes	3	\$750	Remove	Within development area; low suitability
195	Apricot	4,4,3	Yes	3	\$200	Remove	Within development area; low suitability
196	English walnut	12,8	Yes	3	\$1,050	Remove	Within development area; low suitability
197	Apple	7,4,2,2,1	Yes	2	\$200	Remove	Within development area; low suitability

Table 3, continued. Proposed action and appraisal of value. 25906 Gading Road. Hayward CA.

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excell.	Estimate of Value	Proposed Action	Notes
198	Apple	4,3,2	Yes	3	\$150	Remove	Within development area; low suitability
199	English walnut	7,6,4,4	Yes	1	\$100	Remove	Within development area; low suitability
200	English walnut	7,6,6,5,4,3	Yes	1	\$150	Remove	Within development area; low suitability
201	Pear	4,4,2,2,2	Yes	2	\$100	Remove	Within development area; low suitability
202	Pear	6,3,2	Yes	2	\$100	Remove	Within development area; low suitability
203	Canary Island date palm	36,36,30	Yes	5	\$3,000	Remove	Within development area
204	Catalina cherry	9,7,6	Yes	3	\$1,250	Remove	Within development area; low suitability
205	Catalina cherry	8,7,5	Yes	3	\$1,000	Remove	Within development area; low suitability
206	Catalina cherry	6	No	3	\$300	Remove	Within development area; low suitability
207	Catalina cherry	4,4,2	Yes	3	\$300	Remove	Within development area; low suitability
208	Camphor	25	Yes	4	\$8,000	Preserve	Off-site; prune for clearance
209	Glossy privet	6,4,3	Yes	3	\$100	Remove	Within development area; low suitability
210	Arroyo willow	14,12,11,10,10	Yes	3	\$1,100	Remove	Within development area; low suitability
211	Monterey cypress	30	Yes	3	\$3,250	Preserve	Off-site; prune for clearance

Table 3, continued. Proposed action and appraisal of value. 25906 Gading Road. Hayward CA.

Tree No.	Species	Trunk Diameter (in.)	Protected Tree?	Condition 1=poor 5=excell.	Estimate of Value	Proposed Action	Notes
212	Catalina cherry	12	Yes	3	\$900	Remove	Within development area; low suitability
213	Silver dollar gum	20	Yes	4	\$4,400	Preserve	Off-site; prune for clearance
214	Coast live oak	4,1	Yes	5	\$400	Remove	Within development area
215	Siberian elm	13,12,10,10,8,8,6,5	Yes	4	\$1,050	Remove	Within development area
216	Almond	8,6,6,5,4,4	Yes	2	\$400	Remove	Within development area; low suitability
217	Plum	6,4,4,4,2,1	Yes	1	\$100	Remove	Within development area; low suitability
218	Glossy privet	4,4,2,1	Yes	3	\$100	Remove	Within development area; low suitability
219	Glossy privet	4,3,3,2,1	Yes	3	\$100	Remove	Within development area; low suitability

ATTACHMENTS

Tree Assessment Form

Tree Assessment Map

Tree Assessment

25906 Gading Road
Hayward CA
September 2015



TREE No.	SPECIES	TRUNK DIAMETER (in.)	PROTECTED TREE?	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	Driplines (ft.)				Height (ft.)
							North	South	East	West	
185	Callery pear	4	No	3	Moderate	Small crown; stem removed W.; epicormics.	15	10	20	10	30
186	English walnut	8,7	Yes	4	Moderate	Codominant trunks @ base; full crown; branches to the ground.	7	7	7	7	15
187	English walnut	8,7	Yes	2	Low	Codominant trunks @ base; N. stem mostly dead; trunk wound.	10	15	5	5	20
188	English walnut	9,8,6	Yes	1	Low	Mostly dead.	7	7	7	5	15
189	English walnut	6,3	Yes	2	Low	Codominant trunks @ base; dead top.	10	15	5	5	25
190	Plum	11,9,8,6,6,5,5,4	Yes	2	Low	Dead top; mostly epicormic shoots.	15	15	15	15	45
191	Persimmon	8,8,5,4,4	Yes	4	Moderate	Good form & structure; full crown; history of small branch failure.	0	0	0	0	30
192	Apricot	15,13,10	Yes	2	Low	Extensive dieback; mostly epicormic shoots.	15	12	10	10	20
193	Plum	8,6,6,5,5,4,4,3	Yes	3	Low	Multiple attachments @ base; crown sweeps E.; dieback.	10	15	10	5	20
194	Plum	7,7,5,5,4,3	Yes	3	Low	Multiple attachments @ base; crown sweeps E.; dieback.	20	25	20	25	45
195	Apricot	4,4,3	Yes	3	Low	Codominant trunks @ base; moderate twig dieback.	5	7	5	10	10
196	English walnut	12,8	Yes	3	Low	On fence line; moderate dieback.	10	15	7	7	25
197	Apple	7,4,2,2,1	Yes	2	Low	Extensive dieback.	10	12	10	10	25

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25906 Gading Road
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TREE No.	SPECIES	TRUNK DIAMETER (in.)	PROTECTED TREE?	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	Driplines (ft.)				Height (ft.)
							North	South	East	West	
198	Apple	4,3,2	Yes	3	Low	Multiple attachments @ 3'; dieback in upper crown.	5	5	5	5	15
199	English walnut	7,6,4,4	Yes	1	Low	All but dead.	10	10	10	7	15
200	English walnut	7,6,6,5,4,3	Yes	1	Low	All but dead.	10	10	12	10	15
201	Pear	4,4,2,2,2	Yes	2	Low	Multiple attachments @ base; dead top.	10	10	12	7	25
202	Pear	6,3,2	Yes	2	Low	Multiple attachments @ base; dead top.	20	25	20	20	35
203	Canary Island date palm	36,36,30	Yes	5	High	Multiple attachments @ base; two stems dominant; one suppressed & one-sided E.; 25-35' of brown trunk.	15	15	15	10	30
204	Catalina cherry	9,7,6	Yes	3	Low	Multiple attachments @ base; growing along fence line; trunk embedded fence.	15	10	15	15	20
205	Catalina cherry	8,7,5	Yes	3	Low	Multiple attachments @ base; growing along fence line; trunk embedded fence.	7	8	5	5	15
206	Catalina cherry	6	No	3	Low	Multiple attachments @ base; growing along fence line; crown bowed SE.	10	15	10	12	20
207	Catalina cherry	4,4,2	Yes	3	Low	No tag ; multiple attachments @ base; growing along fence line.	5	5	5	5	15

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TREE No.	SPECIES	TRUNK DIAMETER (in.)	PROTECTED TREE?	CONDITION 1=poor 5=excellent	SUITABILITY for PRESERVATION	COMMENTS	Driplines (ft.)				Height (ft.)
							North	South	East	West	
208	Camphor	25	Yes	4	Moderate	Off-site, no tag ; multiple attachments @ 10'; old topping points @ 15'; now has full crown; extends 20' S. over fence.	7	10	7	7	15
209	Glossy privet	6,4,3	Yes	3	Low	Multiple attachments @ base; thin upper crown.	15	20	20	20	60
210	Arroyo willow	14,12,11,10,10	Yes	3	Low	Multiple attachments @ base; stems have failed @ base & sprouted many suckers 1-3" in diameter.	5	10	10	10	15
211	Monterey cypress	30	Yes	3	Low	Off-site, no tag ; good form; thin crown; extends 20' W. over fence.	7	7	7	7	15
212	Catalina cherry	12	Yes	3	Low	Suckers @ base; dead top.	12	10	17	7	20
213	Silver dollar gum	20	Yes	4	Moderate	Off-site, no tag ; multiple attachments @ 10'; old topping points @ 15'; now has full crown; extends 10' S. over fence.	10	10	15	10	30
214	Coast live oak	4,1	Yes	5	High	Good young tree; low laterals.	15	15	15	7	20
215	Siberian elm	13,12,10,10,8,8,6,5	Yes	4	Moderate	Multiple attachments @ base; spreading form; branches to ground.	5	5	5	5	15
216	Almond	8,6,6,5,4,4	Yes	2	Low	Multiple attachments @ base; dieback; water stress.	7	10	7	7	15

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							North	South	East	West	
217	Plum	6,4,4,4,2,1	Yes	1	Low	Multiple attachments @ base; mostly dead.	10	10	10	10	15
218	Glossy privet	4,4,2,1	Yes	3	Low	Multiple attachments @ base; minor dieback.	20	25	25	17	45
219	Glossy privet	4,3,3,2,1	Yes	3	Low	Multiple attachments @ base; minor twig dieback.	15	17	15	17	25

Tree Assessment Map

**25906 Gading Road
Hayward, CA**

Prepared for:
Dutra Land and
Consulting Services
Fremont, CA

September 2015

No Scale

Notes:

Base map provided by:
ESRI

Numbered tree locations are approximate.



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