



January 15, 2008

Mr. Bob Collins  
Las Positas Community College District  
C/O Swinerton Management & Consulting  
25555 Hesperian Boulevard  
Hayward, CA 94545

Subject            Preservation and Transplanting Specifications  
                         Chabot College, Hayward

Mr. Collins,

Chabot College is renovating their main campus in Hayward. Approximately seven (7) trees are proposed for transplanting and another 10 trees will be in close proximity to the proposed changes. Chabot College requested that HortScience, Inc. provide preservation and transplant specifications for the trees in question. This letter responds to that request.

I visited the site on November 28, 2007. The survey procedure consisted of the following steps:

1. Identifying the tree as to species;
2. Tagging each tree with a numerically coded metal tag.
3. Measuring the trunk diameter at a point 4.5' above grade;
4. Evaluating the health and structural condition using a scale of 1 – 5 where 1 = poor and 5 = excellent condition.
5. Rating the suitability for preservation as "good", "moderate" or "poor". 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.

### ***Description of Trees***

A total of 21 trees were surveyed within the area proposed for renovation. Descriptions of individual trees are found in the ***Tree Survey Form*** and locations are plotted on the ***Tree Survey Map*** (see attachments).

Surveyed trees were in three groups: Three (3) trees were located at the north end of the proposed parking lot redesign, including two (2) coast live oaks and one (1) Monterey pine. Twelve (12) trees were along the Hesperian Blvd. frontage, including seven (7) London planes, one (1) Southern magnolia, three (3) dawn redwoods and one (1) giant sequoia. The remaining six (6) trees were located in the area of the Community and Student Services Center, and included one (1) coast live oak, one (1) cork oak, one (1) California buckeye, one dawn redwood and two (2) maiden hair trees. Table 1 (page 3) provides a summary of tree condition and frequency.

Coast live oaks #180 and 181 were mature, with diameters of 28" and 37" in diameter. Both trees were in excellent condition and were growing in an existing island adjacent to the northern Hesperian Blvd. entrance.

Monterey pine #182 was located in the same island but was in fair condition. Its fair condition was due to the presence of pine pitch canker (*Fusarium circinatum*), a fungal pathogen responsible for branch tip dieback and sap production along trunks and branches. Pine pitch canker can reduce vigor and resistance to other insects and diseases over time.

London planes #183-189 were located in a row along Hesperian Boulevard. The trees were semi-mature, with diameters between 14" and 19". All of the London planes were in good to excellent condition. At the southern end of the row was Southern magnolia #190. The southern magnolia was in fair condition, with twig die-back.

Giant sequoia #191 and dawn redwoods #192-194 were also located in a row along Hesperian Boulevard. These were all young trees in good to excellent condition. The Giant sequoia had a dense crown and branches to the ground (Photo 1). The three dawn redwoods were closely spaced, producing a one-sided crown in tree #192.

Coast live oak #198 was a mature specimen located southeast of the Community and Student Services Center. The tree was in good condition, with a full, spreading canopy.

Five (5) trees are proposed for transplanting, including one (1) cork oak, one (1) California buckeye, one dawn redwood and two (2) maiden hair trees. All of the trees were in good condition, with diameters between 9" and 23", which is large enough to warrant boxing.

Maiden hair tree #200 is a female. When pollinated, females produce a fruit that has a very unpleasant

odor. Careful consideration should be given to relocating tree #200, with the understanding that it will continue to produce fragrant fruit on an annual basis.



Photo 1: Giant sequoia #191 was a young tree in excellent condition. The crown was dense, with branches to the ground. Branch tip dieback from pine pitch canker can be seen on the Monterey pine in the background.

**Table 1. Tree condition & frequency of occurrence.  
 Chabot College. Hayward CA.**

Common Name	Scientific Name	Condition Rating			No. of Trees
		Poor (1-2)	Fair (3)	Good (4-5)	
Calif. buckeye	<i>Aesculus californica</i>	-	1	-	1
Ginkgo	<i>Ginkgo biloba</i>	-	2	-	2
Southern magnolia	<i>Magnolia grandiflora</i>	1	-	-	1
Dawn redwood	<i>Metasequoia glyptostroboides</i>	-	1	3	4
Monterey pine	<i>Pinus radiata</i>	1	-	-	1
London plane	<i>Platanus x acerifolia</i>	-	2	5	7
Coast live oak	<i>Quercus agrifolia</i>	-	1	2	3
Cork oak	<i>Quercus suber</i>	-	1	-	1
Giant sequoia	<i>Sequoiadendron giganteum</i>	-	-	1	1
<b>Total</b>		<b>2</b>	<b>8</b>	<b>11</b>	<b>21</b>
		10%	38%	52%	100%

**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 presents a low risk of damage or injury if they fail. However, we must be concerned 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.

We consider trees with good suitability for preservation to be the best candidates for preservation. We do not recommend retention of trees with poor 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 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. In our experience, for example, Southern magnolia is sensitive to root loss, while coast live oak is more tolerant of site disturbance.
  
- **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**  
 Trees with the potential to invade native habitats, reproduce rapidly, and grow in sub-optimal environments are considered invasive. Species with these qualities may alter the functional and aesthetic qualities of the habitats they invade. None of the species surveyed at Chabot College are considered 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. Suitability for Preservation  
 Chabot College. Hayward CA.**

**Good** These are trees with good health and structural stability that have the potential for longevity at the site. Fifteen (15) trees were of good suitability for preservation.

Tree No.	Species	Diameter (in.)
180	Coast live oak	28
181	Coast live oak	37
183	London plane	16
184	London plane	14
185	London plane	16
186	London plane	17
187	London plane	17
188	London plane	16
189	London plane	19
191	Giant sequoia	16
193	Dawn redwood	14
194	Dawn redwood	15
196	Dawn redwood	13
198	Coast live oak	32
199	Ginkgo	10

(Continued, following page)

**Table 2. Suitability for Preservation, continued**

**Moderate**

Trees in this category have fair health and/or 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 “good” category. Six (6) trees were of moderate suitability for preservation.

<b>Tree No.</b>	<b>Species</b>	<b>Diameter (in.)</b>
182	Monterey pine	26
190	Southern magnolia	15
192	Dawn redwood	10
195	Calif. buckeye	9,8,8,4
197	Cork oak	23
200	Ginkgo	10

**Poor**

Trees in this category are in poor health or have 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. No trees were of poor suitability for preservation.

***Evaluation of Impacts***

Appropriate tree retention develops a practical match between the location and intensity of construction activities and the quality and health of trees. The **Tree Survey Form** was the reference point for tree health and condition. I referred to the Tree Plan prepared by Royston, Hanamotot, Alley and Abey (11/15/07) to assess the impacts to trees from the proposed changes.

The plan proposes to redesign the Community and Student Services Center, Instructional Office Building and expand the existing parking lot at the north end of the site. The parking lot, access roads and pedestrian paths will encroach into the existing landscape areas, adjacent to trees.

The most significant impacts to trees would be from grading for the road and parking lot. Based on the current design, 15 trees are recommended for preservation, four (4) are recommended for transplanting and two (2) would require removal (**Table 3**, following page).

The three (3) mature coast live oaks (#180, 181 and 198) can be preserved, along with the row of London planes (#183-189), Southern magnolia (#190), and dawn redwood #193.

Four (4) of the trees can be transplanted (#195-197 and 199). Tree #200 is the female ginkgo, and although it can be transplanted, I would not recommend it. Transplant specifications are provided in the **Transplant Guidelines** (see attachments).

Monterey pine #182 has sufficient space for preservation. However, the tree has pitch canker and will likely continue to decline in the future. I recommend removing tree #182 now and planting something that will grow, thrive and endure to well into the future.

Three (3) trees, including Giant Sequoia #191 and dawn redwoods #192 and 194, are too close to the proposed changes (2', 4' and 5' from the back of curb, respectively). In order to preserve these trees, I would recommend that a minimum horizontal distance of 10' be provided between the face of the trunk and the back of the proposed curb.

If adequate space can be provided for trees #191, 192 and 194, a total of 15 trees can be preserved. Five (5) trees are recommended for transplanting and one (1) is recommended for removal.

**Table 3: Recommendations for Action.  
 Chabot College. Hayward CA.**

<b>Tree No.</b>	<b>Species</b>	<b>Trunk Diameter (in.)</b>	<b>Suitability for Preservation</b>	<b>Recommendations</b>
180	Coast live oak	28	Good	<b>Preserve</b> , 23' from back of curb
181	Coast live oak	37	Good	<b>Preserve</b> , 22' from back of curb
182	Monterey pine	26	Moderate	Remove
183	London plane	16	Moderate	<b>Preserve</b> , 9' from back of curb
184	London plane	14	Good	<b>Preserve</b> , 8' from back of curb
185	London plane	16	Good	<b>Preserve</b> , 8' from back of curb
186	London plane	17	Good	<b>Preserve</b> , 6' from back of path
187	London plane	17	Good	<b>Preserve</b> , 8' from back of curb
188	London plane	16	Good	<b>Preserve</b> , 9' from back of curb
189	London plane	19	Good	<b>Preserve</b> , 14' from back of curb
190	Southern magnolia	15	Good	<b>Preserve</b> , 14' from back of curb
191	Giant sequoia	6	Good	<b>Preserve</b> , provide 10' from curb
192	Dawn redwood	10	Good	<b>Preserve</b> , provide 10' from curb
193	Dawn redwood	14	Moderate	<b>Preserve</b> , 12' from back of curb
194	Dawn redwood	15	Good	<b>Preserve</b> , provide 10' from curb
195	Calif. buckeye	9,8,8,4	Good	<b>Transplant</b>
196	Dawn redwood	13	Moderate	<b>Transplant</b>
197	Cork oak	23	Good	<b>Transplant</b>
198	Coast live oak	32	Good	<b>Preserve</b> , 24' from back of path
199	Ginkgo	10	Moderate	<b>Transplant</b>
200	Ginkgo	10	Moderate	<b>Transplant</b>

### ***Tree Preservation Guidelines***

#### ***Design recommendations***

1. The Consulting Arborist shall review all project plans with regard to tree impact and necessary protection measures.
2. A **TREE PROTECTION ZONE** shall be established around each tree to be preserved. The **TREE PROTECTION ZONE** shall be defined at the limit of the adjacent improvement, as described in **Table 3**. No grading, excavation, construction or storage of materials shall occur within that zone.

3. Underground services including utilities, sub-drains, water or sewer shall be routed outside the **TREE PROTECTION ZONE**. Where encroachment cannot be avoided, special construction techniques such as hand digging or tunneling under roots shall be employed where necessary to minimize root injury.
4. **Tree Preservation Notes**, prepared by the Consulting Arborist, should be included on all plans.
5. Any herbicides placed under paving materials must be safe for use around trees and labeled for that use.
6. Irrigation systems must be designed so that no trenching will occur within the **TREE PROTECTION ZONE**.
7. As trees withdraw water from the soil, expansive soils may shrink within the root area. Therefore, foundations, footings and pavements on expansive soils near trees should be designed to withstand differential displacement.

***Pre-construction and demolition treatments and recommendations***

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. Tree(s) to be removed that have branches extending into the canopy of tree(s) to remain must be removed by a Certified Arborist or Tree Worker and not by demolition or construction contractors. The Arborist shall remove the tree in a manner that causes no damage to the tree(s) and understory to remain. Stumps shall be ground below grade.
3. Structures and underground features to be removed within the **TREE PROTECTION ZONE** shall be abandoned in place or removed using the smallest equipment, and operate from outside the **TREE PROTECTION ZONE**. The consultant shall be on-site during all operations within the **TREE PROTECTION ZONE** to monitor demolition activity.
4. Fence all trees to be retained to completely enclose the **TREE PROTECTION ZONE** prior to demolition, grubbing or grading. Fences shall be 6 ft. chain link or equivalent as approved by consulting arborist. Fences are to remain until all grading and construction is completed.
5. Prune trees to be preserved to clean the crown and to provide clearance. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the Pruning shall adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture. Brush shall be chipped and spread beneath the trees within the **TREE PROTECTION ZONE**.
6. Apply and maintain 4-6" wood chip mulch within the **TREE PROTECTION ZONE**.

***Tree protection during construction***


1. Any grading, construction, demolition or other work that is expected to encounter tree roots should be monitored by the Consulting Arborist.
2. 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.

3. Fences have been erected to protect trees to be preserved. Fences define a specific **TREE PROTECTION ZONE** for each tree or group of trees. Fences are to remain until all site work has been completed. Fences may not be relocated or removed without permission of the Consulting Arborist.
4. Construction trailers, traffic and storage areas must remain outside fenced areas at all times.
5. Prior to grading, pad preparation, excavation for foundations/footings/walls, trenching, trees may require root pruning outside the **TREE PROTECTION ZONE** by cutting all roots cleanly to the depth of the excavation. Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, with a vibrating knife, rock saw, narrow trencher with sharp blades, or other approved root pruning equipment. The Consulting Arborist will identify where root pruning is required.
6. All underground utilities, drain lines or irrigation lines shall be routed outside the **TREE PROTECTION ZONE**. If lines must traverse through the protection area, they shall be tunneled or bored under the tree as directed by the Consulting Arborist.
7. No materials, equipment, spoil, waste or wash-out water may be deposited, stored, or parked within the **TREE PROTECTION ZONE** (fenced area).
8. Any additional tree pruning needed for clearance during construction must be performed by a Certified Arborist or Tree Worker and not by construction personnel.
9. 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".
10. Any roots 2" in diameter and larger damaged during grading or construction shall be exposed to sound tissue and cut cleanly with a saw.

#### **Maintenance of impacted trees**

Preserved trees will experience a physical environment different from that pre-development. As a result, tree health and structural stability should be monitored. Occasional pruning, fertilization, mulch, pest management, replanting and irrigation may be required. In addition, provisions for monitoring both tree health and structural stability following construction must be made a priority. As trees age, the likelihood of failure of branches or entire trees increases. Therefore, annual inspection for hazard potential is recommended.

Sincerely,



John Leffingwell  
Board Certified Master Arborist #WE 3966B  
Registered Consulting Arborist #442

Att: ***Transplant Specifications***  
***Tree Survey Forms***  
***Tree Survey Map***



January 15, 2008

Mr. Bob Collins  
Las Positas Community College District  
C/O Swinerton Management & Consulting  
25555 Hesperian Boulevard  
Hayward, CA 94545

Subject            Transplanting Specifications  
                         Chabot College, Hayward

Mr. Collins,

Following are specifications for transplanting seven (7) trees at the Chabot College site, in Hayward. Two of these trees (#192 and 194) have been preliminarily recommended for preservation, however if sufficient space can not be provided, they can be considered for transplanting.

***Transplanting Guidelines***

Ideally, transplanting activities take place prior to any demolition or grading of the site. If the site is to be graded prior to transplanting, trees must be fenced at the dripline in all directions. Caution must be exercised during grading to avoid damaging roots. Although roots will ultimately be cut for transplanting, they can be shattered well within the limits of the box by grading operations outside the protective fencing or box area.

Caution must also be exercised when removing the hardscape surrounding the tree. Pavement, curb and gutter will need to be carefully removed to avoid damaging roots.

My understanding is that all of the trees will be dug, boxed, moved and planted on the same day, no temporary storage is anticipated.

Following are the minimum box sizes I would recommend to increase the likelihood of the trees surviving the transplanting:

<u>Tree #</u>	<u>Box Size</u>	<u>Description</u>
#192	96"	Dawn redwood, 10" diameter
#194	108"	Dawn redwood, 15" diameter
#195	120"	California buckeye, 9,8,8,4" diameter
#196	108"	Dawn redwood, 13" diameter
#197	168"	Cork oak, 23" diameter
#199	108"	Maiden hair, 10" diameter
#200	108"	Maiden hair, 10" diameter

### ***Boxing***

Trees may be boxed any time of year, although it is best to avoid summer heat because of the difficulty in supplying adequate water. If time allows, sides are dug 90 days prior to bottom boxing, to allow the tree time to begin new root development while bottom roots are still in place. The root ball is dug to the shape of a box, the sides and the bottom of the pre-shaped box are placed around the root ball, and the tree is lifted out of the hole.

The root ball will be dug with a backhoe (cutting woody roots with a saw as they are exposed). Box sides are made of plywood or planks that are reinforced with exterior bracing, with boards inserted to form the bottom. The box is braced with heavy metal bands or rods to hold it together. Specially designed slings are used to lift the box by crane or hoist for loading and transport.

### ***Pre transplant procedures***

1. The construction superintendent shall meet with the Consulting Arborist and transplant contractor prior to the beginning work to discuss work procedures and tree protection.
2. Mark the trunk of each tree on the north side, so they can be oriented in the same direction when planted.
3. Prior to planting the trees, test pits should be dug in the planting area and percolation tests performed to assure adequate soil drainage. If natural drainage is insufficient, drain tubes, connecting to existing drain lines, or sump pumps will be required to remove excess irrigation.
4. Prepare trees for transplanting: irrigate several days prior to transplant date to ensure soil is moist but not saturated; prune to provide adequate access for digging equipment.
5. Determine transporting route and ensure there is adequate clearance for safe passage by utility lines, overpasses and other vegetation or possible obstructions.
6. Determine if digging will be done in two phases: side box, wait 90 days, then complete boxing (see discussion above).
7. Determine size of box (see guidelines above).
8. Clearance pruning may be required to provide adequate space for digging and moving tree (backhoe, crane, flatbed truck).
9. Trees must be irrigated to maintain adequate soil moisture. I recommend having the transplant company maintain the tree during this time as maintaining proper soil moisture is critical to the success of the transplant effort.
10. On the day of the move: undercut trees and insert boards to form a bottom. Place two beams at right angles to the bottom boards and two beams across to top. Attach beams together with rods or heavy metal bands. Fill in any air gaps between root ball and box with soil.
11. Lift trees out of ground with a crane and place on flatbed truck.

### ***Irrigation Recommendations***

1. Irrigation and monitoring of soil moisture will be the two most critical factors to assure the success of the transplanting effort. We highly recommend that Chabot College contract with the transplant contractor for post-transplant irrigation and maintenance. Irrigation of the trees should not be the responsibility of construction personnel.
2. Irrigation shall be provided by a bubbler system that is valved separately from other systems to allow for control of the timing and volume of irrigation. The irrigation system should be placed on the soil surface at the edge of each root ball, then covered with mulch and tested regularly (a minimum of once a month, or if signs of water stress are noted in the tree). Four (4) adjustable bubblers are recommended, with one in each direction. Absolutely no trenching in the root ball should be necessary.

3. Monitoring of soil moisture to a depth of 3' should be performed to know when to irrigate. Inspection tubes will allow for monitoring of proper drainage, and a soil probe or other soil moisture monitoring (such as digging of test pits) should be installed to determine when to irrigate. Timing and volume of irrigation should be based on the results of soil moisture tests, with the goal of wetting the top 24" to 30" of soil and allowing it to dry between irrigations.
4. Monitoring of soil moisture should be done a minimum of 2 times a week during the first month and more often during periods of high temperatures (above 90°). Based on the results of the soil moisture tests, monitoring frequency can be reduced to once a week during the summer (typically May through November), and further reduced to once a month during the wet winter (typically December through April).

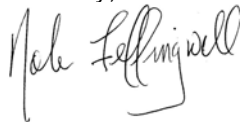
### ***Maintenance of transplanted trees***

The condition of transplanted trees must be closely monitored for two (2) years following planting.

1. **Irrigate.** Until roots develop into the surrounding soil, the tree is dependent on water contained in the root ball itself. Plants should be irrigated before the root ball becomes dry, but not so frequently that it remains wet. Irrigation frequencies may range from every few days in hot, dry weather to every few weeks in cool weather. A soil probe should be used to check soil moisture and water applied as needed.
2. **Prune.** Trees should be pruned following transplanting to remove broken or damaged branches. All pruning shall be completed by a Certified Arborist or Tree Worker and adhere to the latest edition of the ANSI Z133 and A300 standards as well as the *Best Management Practices -- Tree Pruning* published by the International Society of Arboriculture. If bark has been damaged, cut off any torn bark or wood with a knife. Do not shape the wound or apply wound paint.
3. **Fertilize.** Fertilizer should be applied if soil test reveal deficiencies. Fall or late winter is the best times to apply fertilizer.
4. **Monitor for sunscald, pests and diseases.** Transplanted trees are under stress until new roots are established in the landscape, and they are more susceptible to water stress (leading to sunscald), and attack by insects and diseases. Borers and canker disease are the most common problems. Inspect transplants monthly to assess any developing problems and determine appropriate treatments.
5. **Inspect anchor stakes or guys.** Every three months check that the plant is not being damaged by hardware. Remove the guys after two years.
6. **Enlarge irrigation system and replenish mulch.** At the beginning of the second year, enlarge the irrigation system by 50% and replenish wood chip mulch.

If you have any question regarding my recommendations, please contact me.

Sincerely,



John Leffingwell  
Board Certified Master Arborist #WE 3966B  
Registered Consulting Arborist #442



# HORTSCIENCE TREE SURVEY

Las Positas Community College District  
 Chabot College  
 Hayward  
 December, 2007

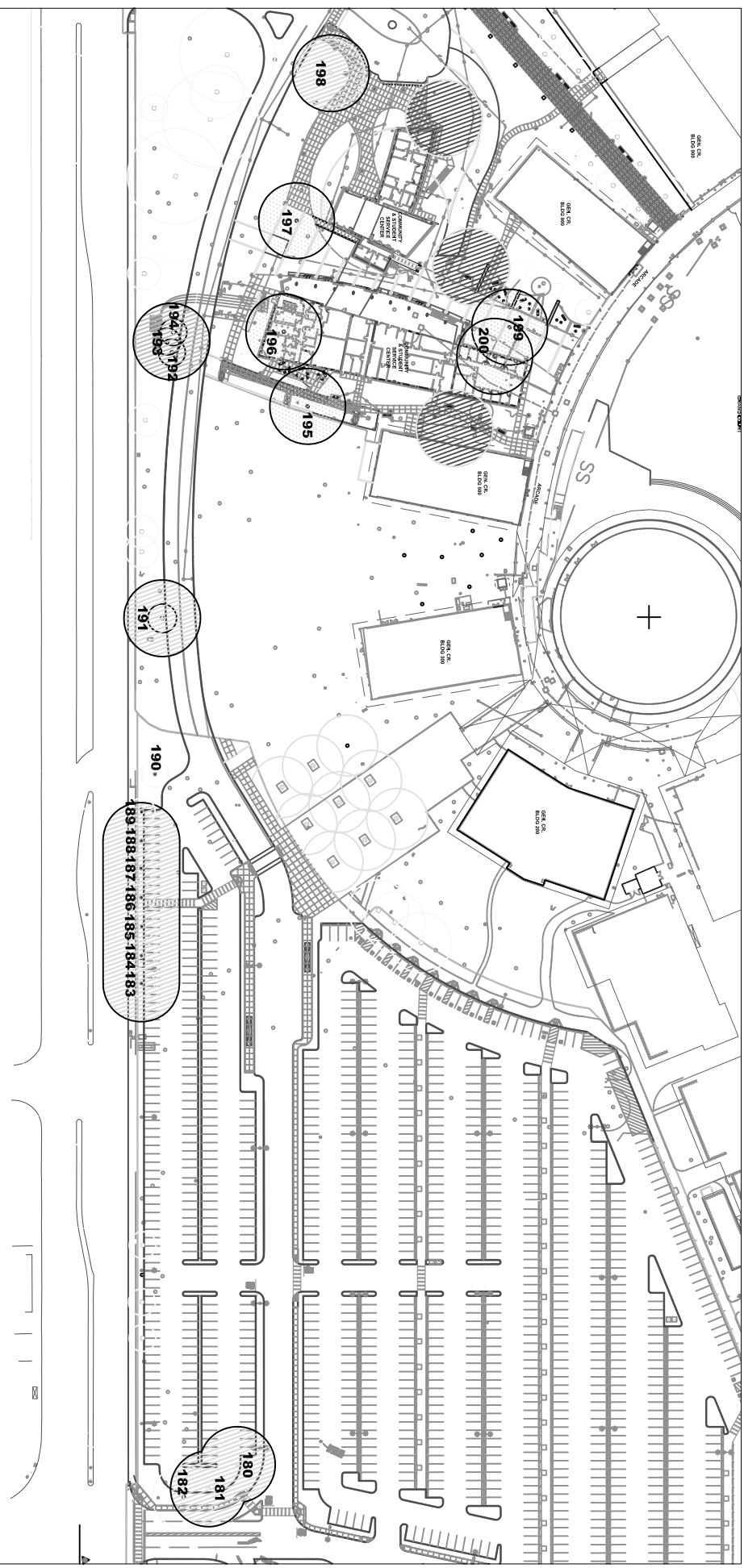
TREE No.	SPECIES	SIZE DIAMETER (in inches)	CONDITION 1=POOR 5=EXCELLENT	SUITABILITY FOR PRESERVATION	COMMENTS
180	Coast live oak	28	5	Good	Codominant trunks at 7'; wide attachment; low branching south.
181	Coast live oak	37	5	Good	Multiple attachments at 7'; crowded on east by #182.
182	Monterey pine	26	3	Moderate	Pine pitch canker; girdling root.
183	London plane	16	5	Good	Multiple attachments at 7'; slightly one-sided east.
184	London plane	14	4	Good	Multiple attachments at 7'; fair structure.
185	London plane	16	5	Good	Multiple attachments at 8'; good form and structure.
186	London plane	17	5	Good	Multiple attachments at 8'; minor dead wood.
187	London plane	17	5	Good	Multiple attachments at 8'; good form and structure.
188	London plane	16	4	Good	Multiple attachments at 8'; fair structure; oak moths.
189	London plane	19	5	Good	Multiple attachments at 8'; minor dead wood.
190	Southern magnolia	15	3	Moderate	Multiple attachments at 6'; twig dieback; sparse canopy.
191	Giant sequoia	16	5	Good	Good form and structure.
192	Dawn redwood	10	4	Moderate	Codominant trunks at 10'; crowded by #193.
193	Dawn redwood	14	5	Good	Good form and structure.
194	Dawn redwood	15	5	Good	Good form and structure.
195	Calif. buckeye	9,8,8,4	4	Moderate	Multiple attachments at 2'; included bark.
196	Dawn redwood	13	5	Good	Good form and structure.
197	Cork oak	23	4	Moderate	Multiple attachments at 6'; leans west; minor dead wood.
198	Coast live oak	32	4	Good	Multiple attachments at 10'; included bark; basal root flare.
199	Ginkgo	10	4	Good	Good form and structure; within 8' of building.
200	Ginkgo	10	4	Moderate	Good form and structure; female; within 8' of building.

Tree Survey Map  
Chabot College  
Hayward, CA

Prepared for:  
Chabot College  
Hayward, CA

November 2007

No Scale



Notes:

Base map provided by:  
RHAA  
San Francisco, CA  
Drillpines and numbered tree  
locations are approximate.

HortScience, Inc.  
Pleasanton, CA  
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