



APPENDIX E: ARBORIST REPORT



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Frog Pond East and South Master Plan – Wilsonville, Oregon Tree Reconnaissance February 6, 2022

MHA21056

Purpose and Scope of Work

Morgan Holen & Associates was contracted by Angelo Planning Group to conduct a reconnaissance level tree assessment to inform the Frog Pond East and South Master Plan for the City of Wilsonville. This report provides an update to the March 19, 2014 reconnaissance report that I prepared for the Frog Pond Area Plan and Frog Pond West Master Plan.

The Frog Pond East and South Master Plan includes properties within the Urban Growth Boundary located east of Stafford Road and South of Advance Road. I visited the site on January 26, 2022 in order to identify high-quality trees and groves that could be incorporated into future site development. I generally assessed existing trees from public rights-of-way and parcels where property owners permitted access. Site access was a limiting factor in conducting the reconnaissance. Trees were evaluated up-close as feasible, but most observations were made at a distance, from the roadway or from nearby parcels that were accessible. Trees located within Sensitive Resource Overlay Zones or Habitat Conservation Areas were not included in my evaluation. The best tree features were identified and are described herein.

A site map is enclosed depicting the trees identified by map identification number, which correspond to the enclosed tabular tree data and photographs. Generally speaking, other trees observed on site would not be recommended for retention based on poor structure or condition, or would otherwise not be sustainable long-term amenities. However, additional trees may be identified for preservation given further evaluation. A complete inventory of all trees on site will provide individual tree data and definitive recommendations for tree retention and removal, and is recommended when development applications are submitted. The reconnaissance data should inform the Master Plan to help determine how the best existing trees may be preserved with future street crossings, parks, and the overall site layout based on conditions existing at the time of this assessment.

Observations

A summary of observations is provided for each parcel located within the Master Plan area:

- **31E07 00700 (Map ID No. 1; Photo 1):** One 45" diameter ponderosa pine (*Pinus ponderosa*) located in the Stafford Road right-of-way adjacent to this parcel is in generally good condition, but with moderate structure including codominant stems and western gall rust infection caused by the fungus *Endocronartium harknessii*. This infection was not noted in the 2014 assessment and may have progressed substantially since that time. Infected branches are more susceptible to failure at the gall and the tree could become increasingly hazardous adjacent to the road. Overall, this tree may be challenging to retain with future street improvements and its long-term viability may be jeopardized by the infection.

- **31E07 00800 (Map ID No. 2 and No. 3; Photos 2 and 3):** One 40" diameter catalpa (*Catalpa* spp.) and one 74" diameter Atlas cedar (*Cedrus atlantica*) are located on the site of the Frog Pond Grange. Both trees are open grown and in good condition and continue to be classified as high priorities for preservation, as they were in the 2014 assessment.
- **31E07 00601 (Map ID No. 4; Photo 4):** The 2014 assessment noted mixed species in variable condition on this parcel with some storm damaged trees and a few large trees in good condition. Many of these trees suffered significant damage during the February 2021 ice storm. Also, closer inspection of a 52" diameter ponderosa pine near the existing house revealed hazardous top structure. Still, there are numerous trees on this parcel, scattered around and near the existing house, that are suitable for long-term preservation, including: a 40" diameter open grown red oak (*Quercus* spp., exact variety unknown); one 33" diameter linden (*Tilia* spp.) with codominant stems, but generally good structure; one 41" diameter ponderosa pine in good condition; two Oregon white oaks measuring 14" and 16" diameter each (relatively small, but excellent condition and great long-term amenities); and, two 13" diameter grand firs (*Abies grandis*) that are also relatively small, but well-cared for. The variety of trees would make this parcel an ideal location for a park or open space area.
- **31E07 01200 (Map ID No. 5; Photo 5):** No site access was authorized and observations were limited by an existing fence. One open grown sycamore (*Platanus* spp.) near the existing house suffered minor storm damage, but still appears in good condition from a distance. An elm (*Ulmus* spp.) noted in the 2014 assessment suffered extensive storm damage and is no longer suitable for long-term preservation.
- **31E18 02100 (Map ID No. 6; Photo 6):** The southern boundary is lined with Douglas-firs (*Pseudotsuga menziesii*) in variable condition. The east-west row includes some dead and dying trees and the trees in the north-south row are in generally good condition. Select trees may be suitable for preservation as intact groups with removal of dead and dying trees. A row of relatively young conifers along the northern boundary identified as being in good condition in the 2014 assessment no longer exist.
- **31E18 02001 (Map ID No. 7 and No. 8; Photos 7 and 8):** A 28" scots pine (*Pinus sylvestris*) with multiple upright leaders has been well-maintained as an ornamental landscape tree and is in generally good condition; this tree appears somewhat drought-stressed relative to the 2014 assessment. This parcel also includes a dense group of mostly Douglas-firs with two western redcedars (*Thuja plicata*), one spruce (*Picea* spp.), and a tuliptree (*Liriodendron tulipifera*) on the northern edge of the group. These trees are most suitable for preservation as an intact group.
- **31E18 02700 (Map ID No. 9; Photo 9):** No site access was authorized and observations were limited to what could be seen from SW 60th Avenue. Trees identified in the 2014 assessment appear to remain standing. Notes from 2014 describe: 1) a pair of Douglas-firs in good condition, suitable for retention together as a small group; 2) one mature bigleaf maple with three codominant stems, some dead and broken branches and branches with decay; 3) one mature silver maple with multiple attachments; and, 4) one other mature bigleaf maple in moderate condition with codominant stems and some branch and stem decay. Closer examination is warranted to determine whether these trees continue to be suitable for long-term preservation.

- **31E18B 02000 (Map ID No. 10 and No. 11; Photos 10 and 11):** One 40" diameter Douglas-fir in good condition located in the SW Kruse Road right-of-way adjacent to this parcel is in good condition; it may be challenging to preserve this tree with future street improvements, but alternative designs should be considered. No access was authorized to assess trees in the interior of this parcel, which appear to be mixed species in variable condition based on observations made from the street and closer examination of individual trees is warranted.
- **31E18B 01700 (Map ID No. 12; No Photos):** Site access was not authorized and I was unable to see the trees that appear to exist in aerial photos. The 2014 assessment describe mixed species, predominately Oregon ash (*Fraxinus latifolia*) and at least one Douglas-fir, in variable condition. Closer examination is warranted.
- **31E18B 01900 (Map ID No. 13; Photo 12):** One Douglas-fir in generally good condition observed from a distance along the edge of a mapped Habitat Conservation Area. The 2014 assessment noted a long-live crown and good branch distribution. The tree now has a few broken branches, but still has a long-live crown and good vigor.
- **31E18B 01800 (Map ID No. 14; Photo 13):** Site access was not authorized, but mixed conifers noted in the 2014 assessment remain standing, including open-grown deodar cedars (*Cedrus deodara*) and a group of pines (*Pinus* spp.) trees in good. Several birches (*Betula* spp.) scattered among the conifers are in poor condition and not long-term amenities.
- **31E18B 01500 (Map ID No. 15; Photo 14):** Planted rows of red oaks (*Quercus rubra*) along the east-west fence and a mix of oaks, maples and ponderosa pines along the north-south fence are in generally good condition as intact group. These trees are relatively young, but well-established. A single black cottonwood (*Populus trichocarpa*) mixed in with the north-south row is not recommended for long-term preservation due to inherent species limitations.
- **31E18B 01400 (Map ID. No. 16, No. 17 and No. 18; Photos 15, 16 and 17):** Three trees identified during the 2014 assessment remain standing and suitable for preservation including: a 34" diameter ponderosa pine with minor crown asymmetry and some drought stress; an 18" diameter sweetgum (*Liquidambar styraciflua*) with a few small broken branches; and, an open grown semi-mature giant sequoia (*Sequoiadendron giganteum*) with a long-live crown. A group of small pine trees identified during the 2014 assessment suffered severe storm damage and are no longer identified as priorities for preservation due to diminished structure.
- **31E18B 00100 (Map ID No. 19; Photo 18):** Site access was not authorized, but one pin oak (*Quercus palustris*) in generally good condition was observed from the neighboring property.
- **31E18B 00300 (Map ID No. 20; Photo 19):** Maples, deodar cedars and Port-Orford-cedars (*Chamaecyparis lawsoniana*) observed during the 2014 assessment have either been removed or suffered storm damage and are no longer priorities for preservation. In the front of this lot, I observed a small, but mature and well-maintained Japanese maple (*Acer palmatum*) in good condition with an 8' crown radius. Although this tree is relatively small, it is an attractive amenity and might be worthwhile to transplant or incorporate into site design. A row of red oaks identified in the 2014 assessment suffered severe ice storm damage and are no longer priorities for preservation.

- **31E18B 00500 (Map ID No. 21 and No. 22; Photos 20 and 21):** Site access was not authorized, but from the neighboring property and right-of-way, I observed a row of mixed conifers in generally good condition; while several western hemlocks (*Tsuga heterophylla*) were dead or dying, three Atlas cedars and a Douglas-fir appeared suitable for preservation as an intact group. South of the existing home, a small group of deodar cedars including in the 2014 assessment remain standing and appear in generally good condition from a distance.
- **31E18B 00800 (Map ID No. 23; Photo 22):** One open grown ponderosa pine with a 24' crown radius was noted as being in good condition during the 2014 assessment. Now, the tree is in fair condition with minor crown asymmetry, dead branches on the north side of the tree, and some western gall rust infection. This tree is still identified as suitable for preservation, but is no longer a high priority due to diminished condition and disease. A small but well-maintained magnolia identified in the 2014 assessment appears to have been removed.
- **31E18B 01100 (Map ID No. 24; Photo 23):** Site access was not authorized, but one redwood (*Sequoia sempervirens*) and one giant sequoia were visible in the skyline and appear in generally good condition.
- **31E18B 01200 (Map ID No. 25; Photo 24):** A small Oregon white oak identified in the 2014 assessment no longer exists, but two semi-mature giant sequoias and two oak species trees appear in generally good condition from a distance.
- **31E18B 01300 (Map ID No. 26 and No. 27; Photos 25 and 26):** A dense row of semi-mature conifers along the northern boundary of this parcel are in fair to good condition and most suitable for preservation as an intact row. Closer to the existing house, a dense group of one mature Douglas-fir and two mature grand firs (*Abies grandis*) are in generally good condition and suitable for preservation as an intact group. Other mature conifers around the house and along the street are in fair to poor condition and with structural defects and sequoia pitch moth (*Synanthedon sequoia*) infestation.

No high-quality trees were observed on the following tax lots (not including Sensitive Resource Overlay Zones or Habitat Conservation Areas):

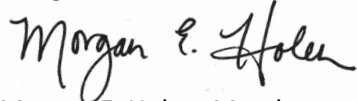
- 31E07 00600
- 31E07 00900
- 31E07 01000
- 31E07 01101 (ponderosa pine noted in 2014 no longer exists; no access to assess interior portions of this parcel, but appears to be predominately small black cottonwoods with no prominent high-quality trees visible in the skyline)
- 31E18 02600
- 31E18B 00200
- 31E18B 00400
- 31E18B 00700 (no access and unable to see a few trees that appear to exist in aerial photos; warrants further investigation)
- 31E18B 00900
- 31E18B 01000 (open grown spruce and redwood trees noted as being in good condition in the 2014 assessment no longer exist)
- 31E18B 01600

Summary

The Frog Pond East and South Master Plan area has a variety of tree species, sizes, and conditions. During site reconnaissance, 27 individual trees and groups of trees were identified as relatively high-quality, sustainable trees that may be suitable for long-term preservation. Of the 27 trees and groups of trees identified, the enclosed tree data classifies 10 as the highest priorities for preservation, 14 as secondary priorities for preservation, and three as lower priorities for preservation (the two diseased pines and small Japanese maple). Since site access was limited, a more thorough assessment is recommended for many of these trees and additional trees might also be identified. The information provided in this report can guide site design to include the best tree features during development based on current tree conditions and limited observations.

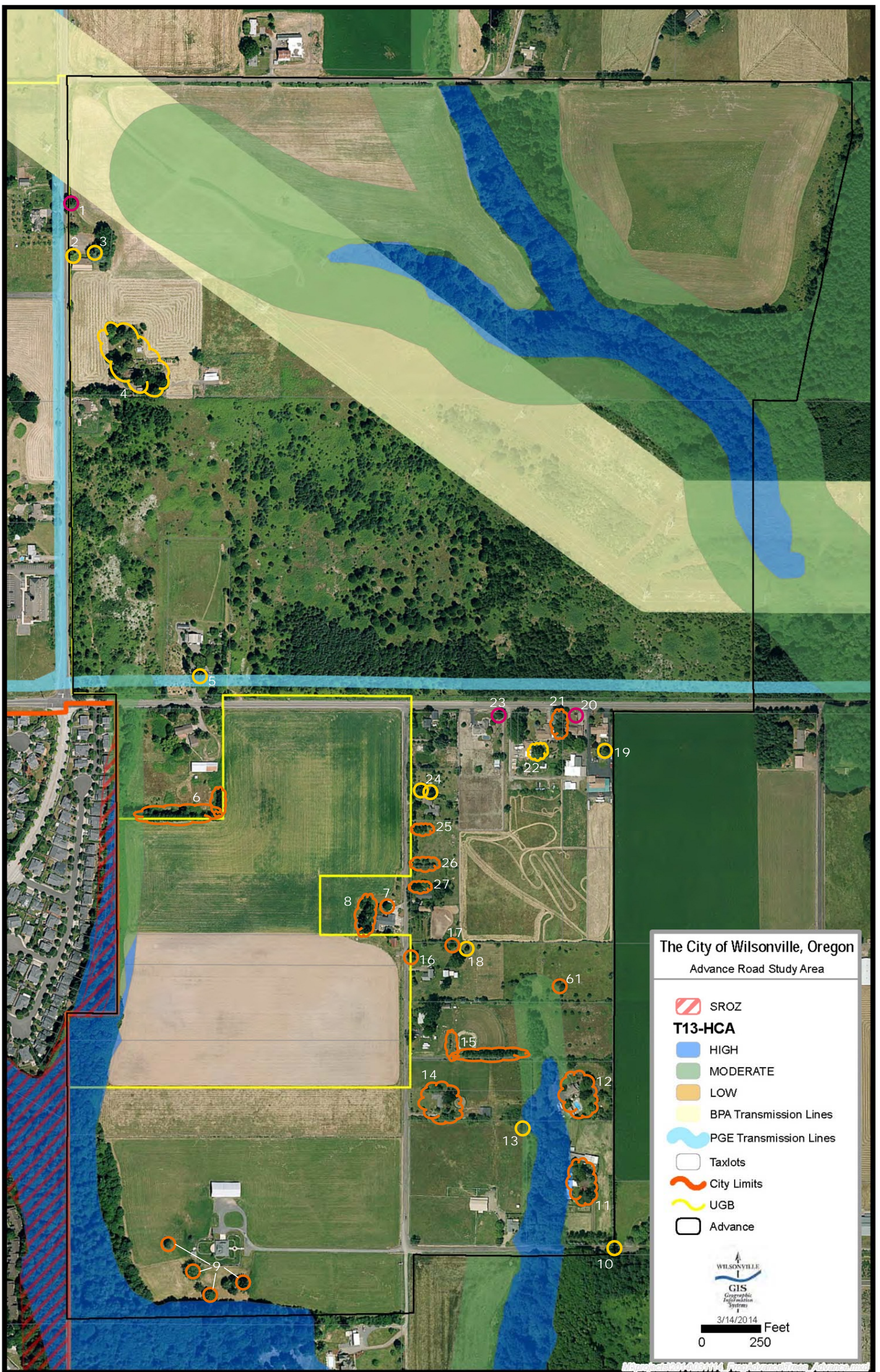
The client may choose to accept or disregard the recommendations contained herein, or seek additional advice. Neither this author nor Morgan Holen & Associates, LLC, have assumed any responsibility for liability associated with the trees on or adjacent to this site. Thank you for choosing Morgan Holen & Associates, LLC, to provide consulting arborist services for the Frog Pond East and South Master Plan. Please contact us if you have questions or need any additional information.

Thank you,
Morgan Holen & Associates, LLC








Morgan E. Holen, Member
ISA Board Certified Master Arborist, PN-6145B
ISA Tree Risk Assessment Qualified
Forest Biologist

Enclosures: Frog Pond East and South – Tree Reconnaissance Site Map 01-26-2022
Frog Pond East and South – Tree Data 01-26-2022
Frog Pond East and South – Tree Photos 01-26-2022



FROG POND EAST AND SOUTH - TREE RECONNAISSANCE SITE MAP 01-26-2022

-   Individual Tree(s) or Groups identified as highest priorities for preservation based on species, size, and general condition; some require closer examination to verify
-   Individual Tree(s) or Groups identified as secondary priorities for preservation based on species, size, and general condition; some require closer examination to verify
-  Individual Tree identified as lowest priority for preservation based on size or general condition

Property Information				2022 Evaluation				
Access	Owner	Address	Tax Lot No.	Map ID No.	Photo No.	Description	Priority*	Recommendations Based on Preliminary Evaluation
Yes	Anderson	None	31E07 00700	1	1	Located in Stafford Road right of way, ponderosa pine, 45" DBH, 30' crown radius, generally good condition, moderate structure with codominant stems and western gall rust infection	3	May be challenging to retain with future street improvements; structural defect and gall rust infection make it a lower priority for preservation
No	Grange	27350 SW Stafford Rd	31E07 00800	2	2	catalpa, 40" DBH, 22' crown radius, open-grown, generally good condition, unique species	1	Retain tree; will require protection if Grange relocated and existing concrete path removed
No	Grange	27350 SW Stafford Rd	31E07 00800	3	3	Atlas cedar, 74" DBH, 48' crown radius, open-grown, generally good condition, large upright scaffold leaders and multiple attachments	1	Retain tree; will require protection if Grange relocated, may require pruning to improve structure if preserved long-term
Yes	Anderson	27480 SW Stafford Rd	31E07 00601	4	4	mixed species in variable condition, substantial storm damage to several, one 52" DBH ponderosa pine closest to house has very poor crown structure and is potentially hazardous; trees most suitable for preservation include: 40" DBH red oak species with 20' crown radius 16" DBH Oregon white oak with 16' crown radius 33" DBH linden with 24' crown radius, codominant stems 41" DBH ponderosa pine with 30' crown radius Two 13" DBH grand firs with 12' crown radius each 14" DBH Oregon white oak with 12' crown radius	1	Retain seven trees
No	Connolly	6351 SW Advance Rd	31E07 01200	5	5	sycamore, open grown, some storm damage but still looks good from a distance, assessment limited due to no site access authorization and existing fence	1	Requires closer examination
No	Gyapong	6360 SW Advance Rd	31E18 02100	6	6	North-South row of Douglas-firs along sidewalk in generally good condition as intact group; East-West row of Douglas-firs along south property boundary in variable condition with some dead and some declining trees	2	Requires closer examination, select trees suitable for preservation in intact rows with dead and declining trees removed
Yes	WWSD	28355 SW 60th Ave	31E18 02001	7	7	scots pine, 28" DBH, 20' crown radius, multiple attachments with numerous leaders but well-maintained and generally good condition	2	Secondary priority for preservation

Access	Owner	Address	Tax Lot No.	Map ID No.	Photo No.	Description	Priority*	Recommendations Based on Preliminary Evaluation
Yes	WWSD	28355 SW 60th Ave	31E18 02001	8	8	Dense group of mostly Douglas-firs with two western redcedars, one spruce, and a tuliptree on the north edge	2	Suitable for retention as intact group
No	WCF	28901 SW 60th Ave	31E18 02700	9	9	No site access, limited observations from SW 60th Avenue; appears that trees identified in 2014 remain standing, change in condition unknown. Previous notes identified: 1) a pair of Douglas-firs in good condition, suitable for retention together as a small group; 2) one mature bigleaf maple with three codominant stems, some dead/broken branches and branches with decay, avoid developing target potential to minimize risk; 3) one mature silver maple with multiple attachments at ~6', avoid developing target potential to minimize risk; and, 4) one other mature bigleaf maple in moderate condition with codominant stems at ~3', some branch/stem decay, good habitat, avoid developing target	2	Requires closer examination
No	Corey	5691 SW Kruse Rd	31E18B 02000	10	10	Douglas-fir, 40" DBH, 25' crown radius, generally good condition, appears to be located in the SW Kruse Road right of way	1	Retain tree
No	Corey	5691 SW Kruse Rd	31E18B 02000	11	11	Mixed species in variable condition from a distance, no site access	2	Requires closer examination
No	Vaughn	28580 SW 60th Ave	31E18B 01700	12	none	No site access, unable to make observations; 2014 data describes mixed species in variable condition with Oregon ash being most prominent, but at least one Douglas-fir	2	Requires closer examination
Yes	Decoster	5899 SW Kruse Rd	31E18B 01900	13	12	Douglas-fir, observations made from a distance; long-live crown, broken branches but generally good condition, located on the edge of the HCA	1	Retain tree
No	Hughes	28668 SW 60th Ave	31E18B 01800	14	13	Mixed conifers including open-grown deodar cedars and group of pines in generally good condition, observations made from a distance (birch trees also observed not recommended for retention due to poor condition and structure)	2	Requires closer examination

Access	Owner	Address	Tax Lot No.	Map ID No.	Photo No.	Description	Priority*	Recommendations Based on Preliminary Evaluation
Yes	Frigaard	28500 SW 60th Ave	31E18B 01500	15	14	Planted rows of red oaks along East-West fence and oak, maple and ponderosa pines along North-South fence (black cottonwood also observed by not recommended for retention due to species limitations); generally good condition as intact rows	2	Secondary priority for preservation
Yes	Perez	28424 SW 60th Ave	31E18B 01400	16	15	ponderosa pine, 34" DBH, 28' crown radius, generally good condition though crown not as dense relative to 2014 assessment, crown asymmetry, drought stress	2	Secondary priority for preservation
Yes	Perez	28424 SW 60th Ave	31E18B 01400	17	16	sweetgum, 18" DBH, 18' crown radius, generally good condition with a few small broken branches	2	Secondary priority for preservation
Yes	Perez	28424 SW 60th Ave	31E18B 01400	18	17	giant sequoia, 16' crown radius, open-grown with a long live crown and generally good condition	1	Retain tree
No	Sprecher	5696 SW Advance Rd	31E18B 00100	19	18	pin oak in generally good condition from a distance, no site access	1	Requires closer examination
Yes	Owens	5738 SW Advance Rd	31E18B 00300	20	19	Trees identified in 2014 have either been removed or have greatly diminished structure; observed a small, but mature and well-maintained Japanese maple in good condition with an 8' crown radius	3	Lower priority for preservation due to small size
No	Brown	5780 SW Advance Rd	31E18B 00500	21	20	Row of mixed conifers including dead and dying western hemlocks and three Atlas cedars and one Douglas-fir with broken branches but in generally good condition as intact group	2	Diminished value with loss of hemlocks, but Atlas cedars and Douglas-fir still suitable for preservation as a group
No	Brown	5780 SW Advance Rd	31E18B 00500	22	21	No site access, deodar cedars identified in 2014 remain standing and appear in generally good condition from a distance	1	Requires closer examination
No	Waible	5890 SW Advance Rd	31E18B 00800	23	22	Open grown ponderosa pine, 24' crown radius, fair condition and moderate structure with multiple leaders, western gall rust infection, dead branches on north side of crown, crown asymmetry	3	Lower priority for preservation due to moderate structure and gall rust infection
No	Snell	28152 SW 60th Ave	31E18B 01100	24	23	Large redwood and giant sequoia in generally good condition from a distance; no site access	1	Requires closer examination

Access	Owner	Address	Tax Lot No.	Map ID No.	Photo No.	Description	Priority*	Recommendations Based on Preliminary Evaluation
No	Ajami	None	31E18B 01200	25	24	Small Oregon white oak suitable for transplanting identified in 2014 is gone; Observed two semi-mature giant sequoias and two oak species trees from a distance, no site access	2	Requires closer examination
Yes	Ciz	28300 SW 60th Ave	31E18B 01300	26	25	Dense row of semi-mature conifers, ponderosa pine with 18' crown radius relatively best tree in group; spruce, shore pines and Douglas-fir in variable condition but suitable for preservation as intact group	2	Secondary priority for preservation
Yes	Ciz	28300 SW 60th Ave	31E18B 01300	27	26	Dense group of mature mixed conifers, two grand fir and one Douglas-fir closest to house are relatively best trees in this	2	Three trees closest to house are a secondary priority for preservation; others are not



Photo 1. A 45" diameter ponderosa pine with moderate structure and western gall rust infection. In the ROW adjacent to tax lot 31E07 00700 - Map ID 1.



Photo 2. A 40" diameter mature catalpa tree in generally good condition outside of the grange hall at tax lot 31E07 00800 - Map ID No. 2.



Photo 3. A 74" diameter open-grown Atlas cedar in generally good condition behind the grange hall at tax lot 31E07 00800 - Map ID No. 3.



Photo 4. Seven trees suitable for long-term preservation at tax lot 31E07 00601; note that the large ponderosa pine near the house has very poor crown structure and is potentially hazardous - Map ID No. 4.



Photo 5. A mature sycamore in good condition from a distance at tax lot 31E07 01200 - Map ID No. 5.



Photo 6. North-South row of Douglas-firs along sidewalk in generally good condition as intact group Tax lot 31E18 02100 - Map ID No. 6. East-West row of Douglas-firs along south property boundary (not pictured) in variable condition with some dead and some declining trees.



Photo 7. Scotch pine at tax lot 31E18B 02001 well maintained as an ornamental landscape tree - Map ID No. 7.



Photo 8. Dense group of mostly Douglas-firs with two western redcedars, one spruce, and a tuliptree on the north edge (to left) at tax lot 31E18B 02001 - Map ID No. 8.



Photo 9. No access authorized at tax lot 31E18B 02700; trees identified in 2014 appear to remain standing, condition unknown - Map ID No. 9.



Photo 10. 40" DBH Douglas-fir located in the SW Kruse Road right of way adjacent to tax lot 31E18 02600 - Map ID No. 10.



Photo 11. Mixed species in variable condition from a distance; no site access authorized for closer assessment at tax lot 31E18B 02000 - Map ID No. 11.



Photo 12. Open grown Douglas-fir in generally good condition with a long live crown and some broken branches at tax lot 31E18B 01900 - Map ID No. 13.



Photo 13. Mixed conifers appear in good condition from a distance at tax lot 31E18B 01800 - Map ID No. 14.



Photo 14. Rows of red oaks along east-west fence line (right) and mix of oak, maple and four ponderosa pines along north-south fence line (left) in generally good condition at tax lot 31E18B 01800; black cottonwood (identified with arrow) not recommended for retention. Map ID No. 15.



Photo 15. 34" DBH ponderosa pine in good condition at tax lot 31E18B 01400 - Map ID No. 16.



Photo 16. 18" DBH sweetgum in generally good condition at tax lot 31E18B 01400 - Map ID No. 17.



Photo 17. Open-grown giant sequoia in generally good condition at tax lot 31E18B 01400 - Map ID No. 18.



Photo 18. Pin oak in generally good condition based on observations made from a distance at tax lot 31E18B 00100 - Map ID No. 19.



Photo 19. Small but mature and well-maintained Japanese maple at tax lot 31E18B 00300 - Map ID No. 20.



Photo 20. Row of mixed conifers along eastern boundary of tax lot 31E18B 00500 include dead and dying hemlocks and Atlas cedars and a Douglas-fir in generally good condition as an intact group - Map ID No. 21.



Photo 21. Row of deodar cedars at tax lot 31E18B 00500 appear in generally good condition from a distance- Map ID No. 22.



Photo 22. Open grown ponderosa pine in fair condition and with moderate structure at tax lot 31E18B 00800 - Map ID No. 23.



Photo 23. Large redwood (left) and giant sequoia (right) appear in generally good condition from a distance at tax lot 31E18B 01100 - Map ID No. 24.



Photo 24. Two semi-mature redwoods and two oak species trees appear in generally good condition from a distance at tax lot 31E18B 01200 - Map ID No. 25.



Photo 25. Dense row of semi-mature conifers in variable condition at tax lot 31E18B 01300 - Map ID No. 26.



Photo 27. Two grand firs and one Douglas-fir in a group close to the existing house are relatively the best trees at tax lot 31E18B 01300 - Map ID No. 26.