



550 Bedford Road, Bedford Hills NY
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TREE PLAN

For

J.T ROTH CONSTRUCTION

For Service At

23500 SW MURDOCK STREET,
SHERWOOD, OREGON



May 12, 2022

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City of Sherwood, Oregon – SW Murdock Street Arboricultural Assessment and Tree Plan

Report Summary:

This report includes the location and status of the trees that fall within the perimeters of the proposed development of the project. The tree locations are marked on the site plan (Appendix C), including their location and corresponding number. The report explains the observations and findings about the trees and the impacts of the construction project.

General Information:

Project Location and Identification

The property is in the City of Sherwood, Oregon. The physical address is:

- 23500 SW Murdock Street, Sherwood, Oregon.

Proposal

The project proposes to develop the property with single-family homes. Including site improvements in the form of roadways, utilities, and landscaping.

Assignment:

- Locate and identify the trees on the property.
- Identify which trees will be affected by the proposed construction according to the provided site plan (Appendix C).
- Provide findings/ recommendations pertaining to the trees.

Tree Inventory and assessment

On 04/22/2021 I completed my site visit and inventory. The trees were inventoried in comparison to the site plan provided by Emerio. The trees in question were evaluated for the impacts by the construction project, their overall condition, and verified in comparison to the provided site plan which shows the existing conditions Appendix C. The data collected for each tree includes the tree number, trunk diameter (DBH), tree health and condition, comments if applicable. I inventoried the trees using ArcGIS software on an iPad 11 Pro and I used a GNSS Surveyor to enhance the GPS function of the iPad. The surveyors tagged the trees prior to my visit. I documented the survey numbers and incorporated them into the tree survey; the column is labeled: "Survey #."

Purpose and Use of this Report.

The purpose of this report is to provide a Tree Plan that adheres to City of Sherwood development codes and prescribes recommendations regarding the trees during development. This report documents this information and is intended to be used by the owner, construction contractor, the sub-contractors involved in the construction project.

Limits of the Report

The trees that are included in the report were inventoried using the surveyor's information. The trees were visually inspected from the ground only. Soil was not moved to inspect the root systems of the trees.

Observations

The property is on a steep hill. The trees that are on the property are a mixture of Fir, Maple, Pine, and Madrone. The trees appear to have been planted some time ago and do not represent a natural growing pattern of a stand of trees.

The trees bordering the property line are proposed to be retained to minimize changes in the overall landscape from the neighboring properties and Murdock Road.

The trees are overall in good condition except for the Madrones. The Madrones show signs of Madrone canker. Madrone canker starting at the branch tips is caused by *Fusicoccum aesculi*. There are three Madrones that are in poor condition and the canker has spread throughout the canopy of the trees. The other Madrones may have been affected but do not show significant die-back.

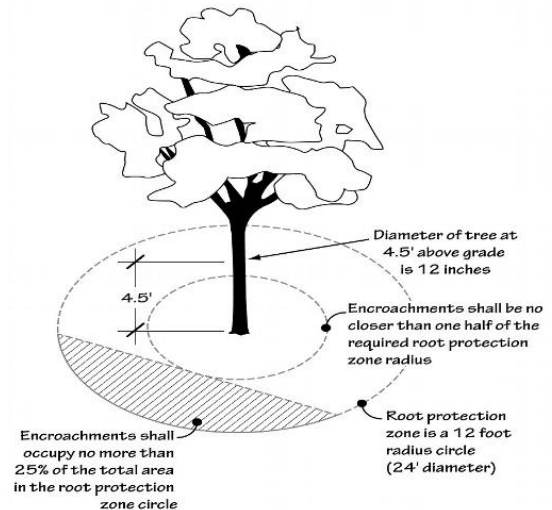
Proposed Tree Removals

The attached inventory and site plan marked "Removals" in appendix C indicate which trees are proposed for removal. The trees are directly impacted by the proposed construction plans and retention is not possible. The trees that are impacted by the grading on the west side of the property are proposed for removal since a large amount of fill is needed to accomplish the grade levels.

The three Madrones are Survey ID #736, #737, #739.

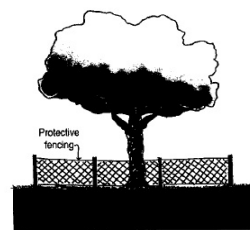
Discussion and Tree Protection

The critical root zone is typically calculated at 6-inches per diameter inch of the trunk measured at 54" from the original grade. For example: a 12-inch DBH tree should have a tree protection zone radius of 6-feet. Depending on the plant species profile RPZ of a tree may need to be adjusted taking the construction tolerance in consideration. The RPZ is generally measured at a rate of one foot per diameter inch of the trees, for example: a 12-inch DBH tree will have to be monitored and may need prescribed mitigation if construction activities commence within 12-feet of the tree.



The topography of the terrain fluctuates greatly. It is advisably to limit fill and grading near the trees that are being retained. Additional fill soil creates compaction of the native soil, which in turn can change the hydrology of the soil. When the soil around the trees is filled too greatly, trees will no longer be able to absorb water and oxygen. As little as 6-inches of soil can be detrimental to established trees.

The trees that can be retained are located on the perimeter of the property. There is a significant topography change in the areas and fill should remain outside of the RPZ.

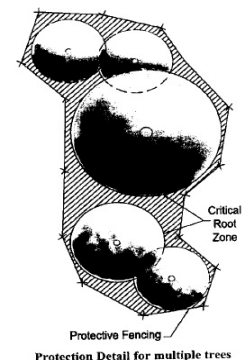


Protection Detail for a single tree

It is recommended to place fencing at the critical root zones of the trees. For measurements see Appendix C.

Tree Protection Recommendation

It is recommended to hold a site meeting with the contractors involved in the project to go over the tree plan and have the contractors sign a memorandum. The memorandum should show the provision and the penalty for violation of the Tree Plan.



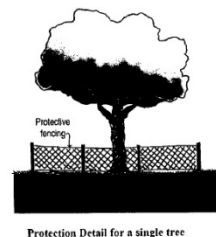
Protection Detail for multiple trees

Excavation near the TPZ (Tree Protection Zone)

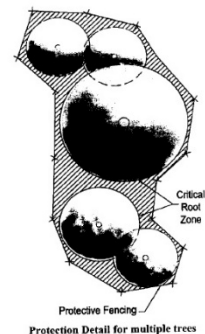
- All excavation, demolition, install of concrete forms... etc. within 6 inches per diameter inch shall be monitored by one of our Certified Arborists assigned to the project to ensure that the impacts are minimal to the trees to be preserved. Techniques used by the project arborist will follow arboricultural guidelines and best management practices to preserve the trees (such as: City code, ANSI a300 standards...Etc.)
- The excavator and/ or equipment shall stay outside the critical root zone/ drip line (tips of the branches) and carefully remove layers of soil while the project arborist probes the soil for roots 2" and larger.
- Exploratory pneumatic excavation may be necessary to find the exact location of roots 2" diameter and larger, if found the project arborist may deem them to be substantially significant in the retention of the trees. *Alternative construction measures may be recommended if large roots are found.*
- Trees scheduled for removal found in proximity of the RPZ of the trees to be retained, should be cut, and not pulled over by excavator to minimize root impacts. Use of a stump grinder is recommended to remove stumps.

Tree Protection Fencing

- The tree protection fencing must be a minimum of 4-feet tall. If construction fencing is used, it must be secured by anchoring the individual panels to the ground to avoid movement. See Appendix C for details.
- The temporary fencing shall be secured with metal posts placed 8 feet apart, two feet deep at the edge of the tree protection zone.
- The fencing shall be installed prior to any ground disturbance taking place, including clearing, grading, or construction.
- The tree protection fencing may be removed after the final inspection is completed and the project arborist has met with the landscape contractor to go over their plans.



Protection Detail for a single tree



Protection Detail for multiple trees

Activities Inside the Tree Protection Zone

Construction activities within the CRZ of the trees must be overseen by the project arborist assigned to the project.

Prohibited activities include but are not limited to:

- Construction activity involving vehicular or equipment access.
- Storage of equipment and materials (including soil and gravel)
- Temporary or permanent stockpiling
- Excavation or fill
- Trenching
- In ground irrigation system installations

Violations of the provisions may result in liability for damages and applicable fines.

Mitigation:

City of Sherwood codes calls for 40% canopy coverage in residential development (one - and two-family style homes). The retained trees count for two times the canopy coverage which has been subtracted from the required square footage of canopy coverage. The total canopy coverage required is 52372.4. The retained trees equal 54993 SQ FT of canopy coverage at maturity. The total credit for the retained trees equals 109,986 SQ FT.

No additional tree mitigation is required since the retained tree credit exceeds the 40% requirement.

Conclusion:

The trees are in poor to good condition taking species and age into consideration. Provided with the information I received, it is in my professional opinion that the performance path will suffice from an arboricultural perspective. Care should be taken to follow the recommendations and provisions laid out in this TPP to ensure the success of the retention efforts. I highly recommend a job site walkthrough prior to the start of the project.

Recommendations:

1. Hold an onsite meeting with the parties involved to ensure that all parties involved understand the tree plan and its goals.

<i>Appendix A</i>	Assumptions and Limitations
<i>Appendix B</i>	Certification of Performance
<i>Appendix C</i>	Site plan with tree locations, RPZ and TPZ

Appendix A - Assumptions and Limitations

1. A field examination of the site was made. My observations and conclusions are as of that date.
2. Care has been taken to obtain all information from a reliable source, however the Arborist can neither guarantee nor manage accuracy of information provided by others.
3. Unless said otherwise, information contained in this report covers only those trees that were examined and reflects the condition of those trees at the time of inspection. The inspection is limited to visual examination of the subject trees without dissection, excavation, probing, or coring. There is no warranty or guarantee that problems or deficiencies of the subject tree may not arise in the future.
4. All trees have the risk of failure. Trees can fail at any time, with or without obvious defects or applied stress. Trees are living biological organisms, and I cannot predict nor guarantee their stability or failure.
5. Sketches or drawings in this report are intended as visual aids and are not necessarily to scale and should not be used as engineering or architectural reports or surveys.
6. This report and any values/opinions expressed here represents my opinion as an arborist. Inaction on the part of those receiving the report is not the responsibility of the Arborist.
7. Loss or alteration of this report invalidates the entire report.
8. *It is the contractor's/ owner's responsibility to contact us in a prompt matter to ensure that a project arborist is available when inspections and/ or observations are needed. Please allow two weeks for scheduling purposes.*
9. Any legal description provided to the consultant/ appraiser is assumed to be correct. Any titles and ownerships to any property are assumed to be good and marketable. No responsibility is assumed for matters legal in character. All property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
10. The consultant/ appraiser shall not be required to give testimony or attend court by reason of this report unless later contractual arrangements are made, including payment for such services.
11. Possession of this report does not imply right of publication or use for any other purpose by any other than the person to whom it is addressed, without the prior expressed written consent of the consultant/ appraiser.

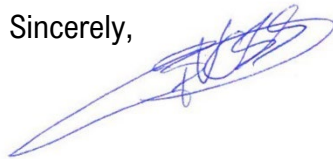
Appendix B - Certification of Performance

I, Peter van Oss, certify that:

- I have personally inspected the trees and the property referred to in this report and have stated my findings accurately. The extent of the evaluation or appraisal is in the attached report and the Terms of the Assignment.
- I have no current or prospective interest in the vegetation or the property that is subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and facts.
- This report and my analysis, opinions and conclusions are in accordance to commonly accepted arboricultural practices.
- No one provided significant professional assistance to me, except as indicated in the report.
- My compensation is not contingent upon reporting of a predetermined conclusion that favors the cause of the client or any other party nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any later events.

I further certify that I am a member of, and certified by the ISA. I have been involved in the arboricultural field in a full- time capacity for a period of 15 years.

Sincerely,



Peter van Oss
NW Tree Specialists
Certified Arborist PN-8145A
ISA Qualified Tree Risk Assessor
ASCA Member
503-512-3826 (Direct/ Cell)
pvanoss@SavATree.com



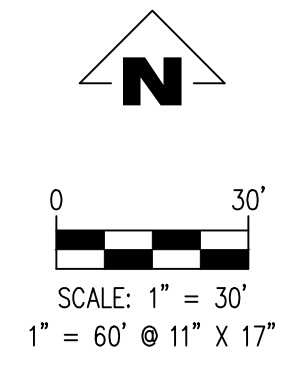
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Glossary

DBH	The diameter of the tree measured at 54" from the ground.
TPP	Tree Protection Plan
TPZ	Tree Protection Zone
RPZ	Root Protection Zone
TPF	Tree Protection Fencing
Soil Amelioration	Enriching the soil with nutrients.

Proposed Grading Plan



TAX LOT 1100
MAP 2S-1-33CB

TAX LOT 1200
MAP 2S-1-33CB

TAX LOT 700
MAP 2S-1-33CB

TAX LOT 700
MAP 2S-1-33CB

PARCEL 1
50,831 SF
PAD-ELEV=312

PARCEL 2
40,055 SF
PAD-ELEV=333

PARCEL 3
40,050 SF
PAD-ELEV=354

TAX LOT 700
MAP 2S-1-33CC

TAX LOT 800
MAP 2S-1-33CC

TAX LOT 900
MAP 2S-1-33CC

TAX LOT 1000
MAP 2S-1-33CC

LENGTH = 257.00'
RADIUS = 1392.39'
DELTA ANGLE = 10°34'32"
CHORD = S12°01'29"W 256.64'

"NO THRU TRUCKS
ON SUNSET BLVD"

WATER QUALITY FACILITY

"STOP"

1" HIGH KEYSTONE WALL

"STOP" AND
STREET SIGNS

"STOP" AND
STREET SIGNS

WATER QUALITY FACILITY

"STOP AHEAD"

"SPEED 35"

"ADOPT-A-ROAD
PROGRAM"

POLE WITH DROP
AND LIGHT

POLE WITH DROP

SPLIT 6", (2) 7", 8", 11" CEDAR

9" DECIDUOUS

HAWTHORNE CLUMP

SPLIT 3", 5" DECIDUOUS

SPLIT (3) 3" DECIDUOUS

SPLIT (3) 3" DECIDUOUS

8" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

SPLIT 5", 7" PINE

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SPLIT 5", 7" PINE

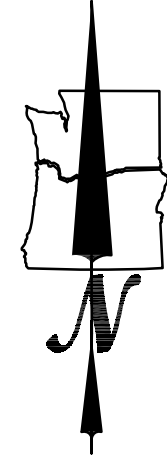
SPLIT 5", 7" PINE

23364 SW MURDOCK ROAD
TAX MAP 2S1W 33CB
TAX LOT 00600
SHERWOOD, OREGON

PRELIMINARY GRADING
ONLY PLAN

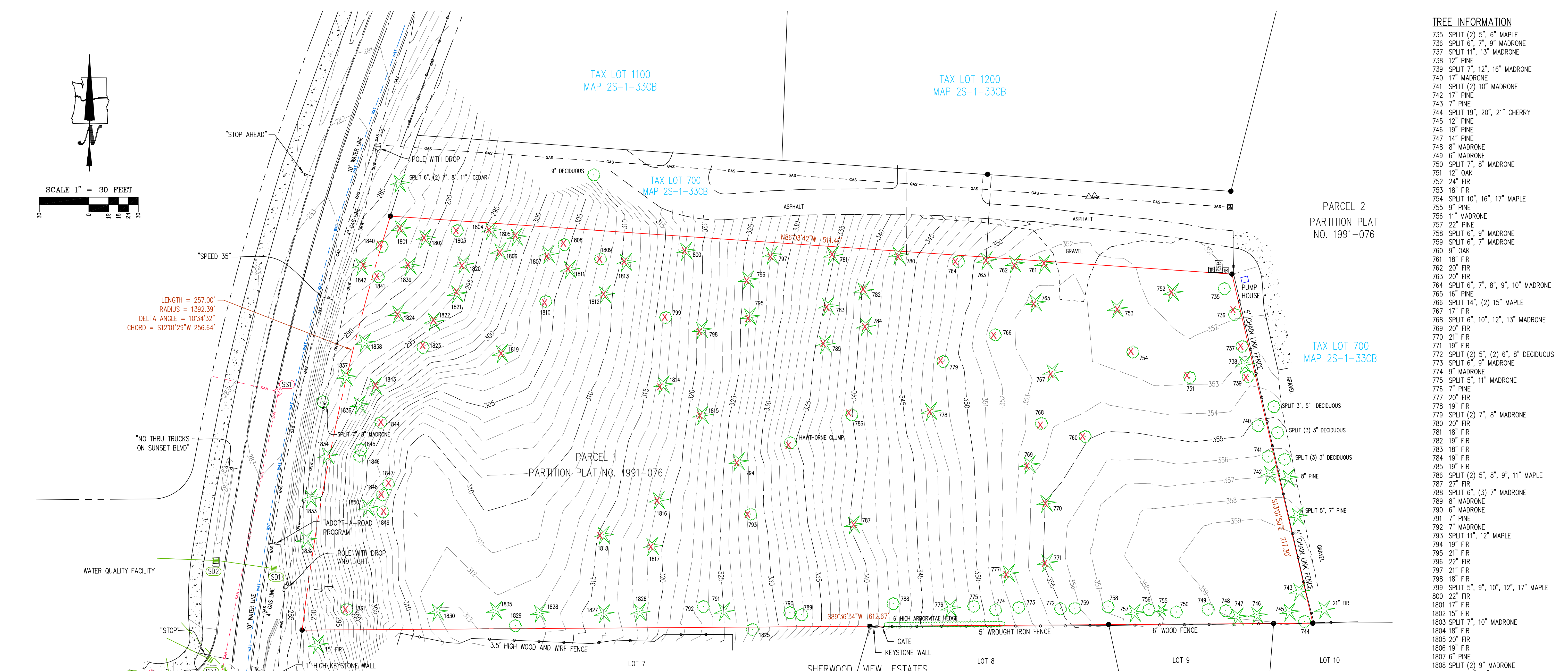
NO.	DATE	DESCRIPTION

EMERIO
ENGINEERING - SURVEYING - DESIGN
6460 SW MURDOCK ROAD, SUITE 100
SHERWOOD, OREGON 97140
TEL: (503) 746-8812
FAX: (503) 639-8592
www.emeriodesign.com



SCALE 1" = 30 FEET

LENGTH = 257.00'
RADIUS = 1392.39'
DELTA ANGLE = 10°34'32"
CHORD = S12°01'29"W 256.64'



SANITARY NOTES

SS1 MANHOLE
RIM = 283.51'
8" I.E. IN (SW)
8" OUT (W)
FLOW LINE = 277.1'

SS2 MANHOLE
RIM = 283.68'
8" I.E. IN (S&SE)
8" OUT (NE)
FLOW LINE = 278.3'

STORM NOTES

SD1 CATCH BASIN
RIM = 282.06'
12" I.E. OUT (W) = 279.8'
SUMP = 278.1'

SD2 CATCH BASIN
RIM = 281.93'
12" I.E. IN (E) = 278.4'
12" I.E. OUT (W) = 278.3'
SUMP = 276.4'

SD3 CATCH BASIN
RIM = 282.76'
12" I.E. OUT (NW) = 280.3'
SUMP = 278.3'

SD4 CATCH BASIN
RIM = 284.22'
15" I.E. OUT (SE) = 281.1'
SUMP = 279.8'

SD5 MANHOLE
RIM = 283.70'
12" IN (S)
15" IN (NW)
12" OUT (N)
FLOW LINE = 278.4'

SD6 CATCH BASIN
RIM = 283.0'
12" I.E. OUT (N) = 278.7'
SUMP = 277.2'

SD7 CURB INLET
RIM = 283.74'
GUTTER = 282.98'
24" I.E. IN (NW) = 275.1'
12" I.E. IN (SE) = 275.5'
24" I.E. OUT (S) = 274.9'

LEGEND	
DECIDUOUS TREE	
CONIFEROUS TREE	
FIRE HYDRANT	
WATER METER	
WATER VALVE	
SANITARY SEWER MANHOLE	
STORM SEWER CATCH BASIN	
STORM SEWER MANHOLE	
GAS METER	
GUY WIRE ANCHOR	
UTILITY POLE	
POWER JUNCTION BOX	
POWER TRANSFORMER	
STREET LIGHT	
TELEPHONE/TELEVISION JUNCTION BOX	
TELEPHONE/TELEVISION RISER	
SIGN	
FOUND SURVEY MONUMENT	
RIGHT-OF-WAY LINE	
BOUNDARY LINE	
PROPERTY LINE	
CENTERLINE	
CURB	
EDGE OF PAVEMENT	
EASEMENT	
FENCE LINE	
GRAVEL EDGE	
POWER LINE	
OVERHEAD WIRE	
TELEPHONE LINE	
GAS LINE	
STORM SEWER LINE	
SANITARY SEWER LINE	
WATER LINE	

NOTES

- 1) THE FIELD SURVEY FOR THIS MAP WAS COMPLETED ON MARCH 28, 2022.
- 2) ELEVATIONS AND CONTOURS ARE BASED ON WASHINGTON COUNTY BENCHMARK NUMBER 111. THE BENCHMARK IS A BRASS DISK LOCATED IN THE CURB NEAR THE SOUTHEAST CORNER OF THE INTERSECTION OF SUNSET COURT AND SHERWOOD BOULEVARD, IT HAS AN ELEVATION OF 213.55 FEET ON THE NGVD 1929 DATUM.
- 3) THE BASIS OF BEARINGS FOR THIS SURVEY IS PARTITION PLAT NO. 1991-076, WASHINGTON COUNTY SURVEY RECORDS.
- 4) THE RIGHT-OF-WAY WIDTHS WERE ESTABLISHED USING INFORMATION FROM PLATS, RECORD SURVEYS AND THE TAX ASSESSOR'S MAP.
- 5) THE SURVEYOR WAS NOT PROVIDED WITH A TITLE REPORT FOR THE PROPERTY. IT IS UNKNOWN IF ANY EASEMENTS ENCOMBER OR BENEFIT THE PROPERTY.
- 6) THE UNDERGROUND UTILITIES ARE BASED ON THE MARKINGS PER LOCATE TICKET NUMBERS 22061305, 22061310 AND 22061316.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

TREE INFORMATION

- 735 SPLIT (2) 5", 6" MAPLE
- 736 SPLIT 6", 7", 9" MADRONE
- 737 SPLIT 11", 13" MADRONE
- 738 12" PINE
- 739 SPLIT 7", 12", 16" MADRONE
- 740 17" MADRONE
- 741 SPLIT (2) 10" MADRONE
- 742 17" PINE
- 743 7" PINE
- 744 SPLIT 19", 20", 21" CHERRY
- 745 12" PINE
- 746 19" PINE
- 747 14" PINE
- 748 8" MADRONE
- 749 6" MADRONE
- 750 SPLIT 7", 8" MADRONE
- 751 12" OAK
- 752 24" FIR
- 753 18" FIR
- 754 SPLIT 10", 16", 17" MAPLE
- 755 9" PINE
- 756 11" MADRONE
- 757 22" PINE
- 758 SPLIT 6", 9" MADRONE
- 759 SPLIT 6", 7" MADRONE
- 760 9" OAK
- 761 18" FIR
- 762 20" FIR
- 763 20" FIR
- 764 SPLIT 6", 7", 8", 9", 10" MADRONE
- 765 16" PINE
- 766 SPLIT 14", (2) 15" MAPLE
- 767 17" FIR
- 768 SPLIT 6", 10", 12", 13" MADRONE
- 769 20" FIR
- 770 21" FIR
- 771 19" FIR
- 772 SPLIT (2) 5", (2) 6", 8" DECIDUOUS
- 773 SPLIT 6", 9" MADRONE
- 774 9" MADRONE
- 775 SPLIT 5", 11" MADRONE
- 776 7" PINE
- 777 20" FIR
- 778 19" FIR
- 779 SPLIT (2) 7", 8" MADRONE
- 780 20" FIR
- 781 18" FIR
- 782 19" FIR
- 783 18" FIR
- 784 19" FIR
- 785 19" FIR
- 786 SPLIT (2) 5", 8", 9", 11" MAPLE
- 787 27" FIR
- 788 SPLIT 6", (3) 7" MADRONE
- 789 8" MADRONE
- 790 6" MADRONE
- 791 7" PINE
- 792 7" MADRONE
- 793 SPLIT 11", 12" MAPLE
- 794 19" FIR
- 795 21" FIR
- 796 22" FIR
- 797 21" FIR
- 798 18" FIR
- 799 SPLIT 5", 9", 10", 12", 17" MAPLE
- 800 22" FIR
- 801 17" FIR
- 802 15" FIR
- 803 SPLIT 7", 10" MADRONE
- 804 18" FIR
- 805 20" FIR
- 806 19" FIR
- 807 6" PINE
- 808 SPLIT (2) 9" MADRONE
- 809 SPLIT 10", 11" MADRONE
- 810 10" OAK
- 811 11" PINE
- 812 10" PINE
- 813 8" PINE
- 814 20" FIR
- 815 17" FIR
- 816 19" FIR
- 817 20" FIR
- 818 20" FIR
- 819 18" FIR
- 820 17" FIR
- 821 18" FIR
- 822 20" FIR
- 823 8" OAK
- 824 15" FIR
- 825 SPLIT (2) 7" HAWTHORN
- 826 7" FIR
- 827 22" FIR
- 828 20" FIR
- 829 SPLIT (2) 10" CHERRY
- 830 9" PINE
- 831 28" OAK
- 832 39" FIR
- 833 28" FIR
- 834 8" FIR
- 835 16" FIR
- 836 9" FIR
- 837 9" FIR
- 838 12" FIR
- 839 10" CEDAR
- 840 11" MADRONE
- 841 SPLIT 6", 11" MADRONE
- 842 15" FIR
- 843 17" FIR
- 844 SPLIT 7", (3) 10" MADRONE
- 845 10" MADRONE
- 846 SPLIT 6", 8", 11" MADRONE
- 847 8" MAPLE
- 848 6" MAPLE
- 849 7" CHERRY
- 850 32" FIR

ORTHWEST SURVEYING, INC.
1815 NW 169TH PLACE, SUITE 2090
BEAVERTON, OR 97006
PH: (503) 848-2127 FAX: (503) 848-2179
EMAIL: nwsurveying@nwsurvey.com

PARCEL 1, PARTITION PLAT NO. 1991-076
LOCATED IN THE SW 1/4 OF SECTION 33,
TOWNSHIP 2 SOUTH, RANGE 1 WEST, W.M.,
CITY OF SHERWOOD,
WASHINGTON COUNTY, OREGON

TOPOGRAPHIC SURVEY

SHERWOOD
TAX LOT 600

OREGON
TAX MAP 2S-1-33CB

DRAWING NO.: 2426 TOPO
SCALE: AS NOTED
DRAWING GENERATED BY: LD2004
DRAWN BY: BJA
CHECKED BY: CHS

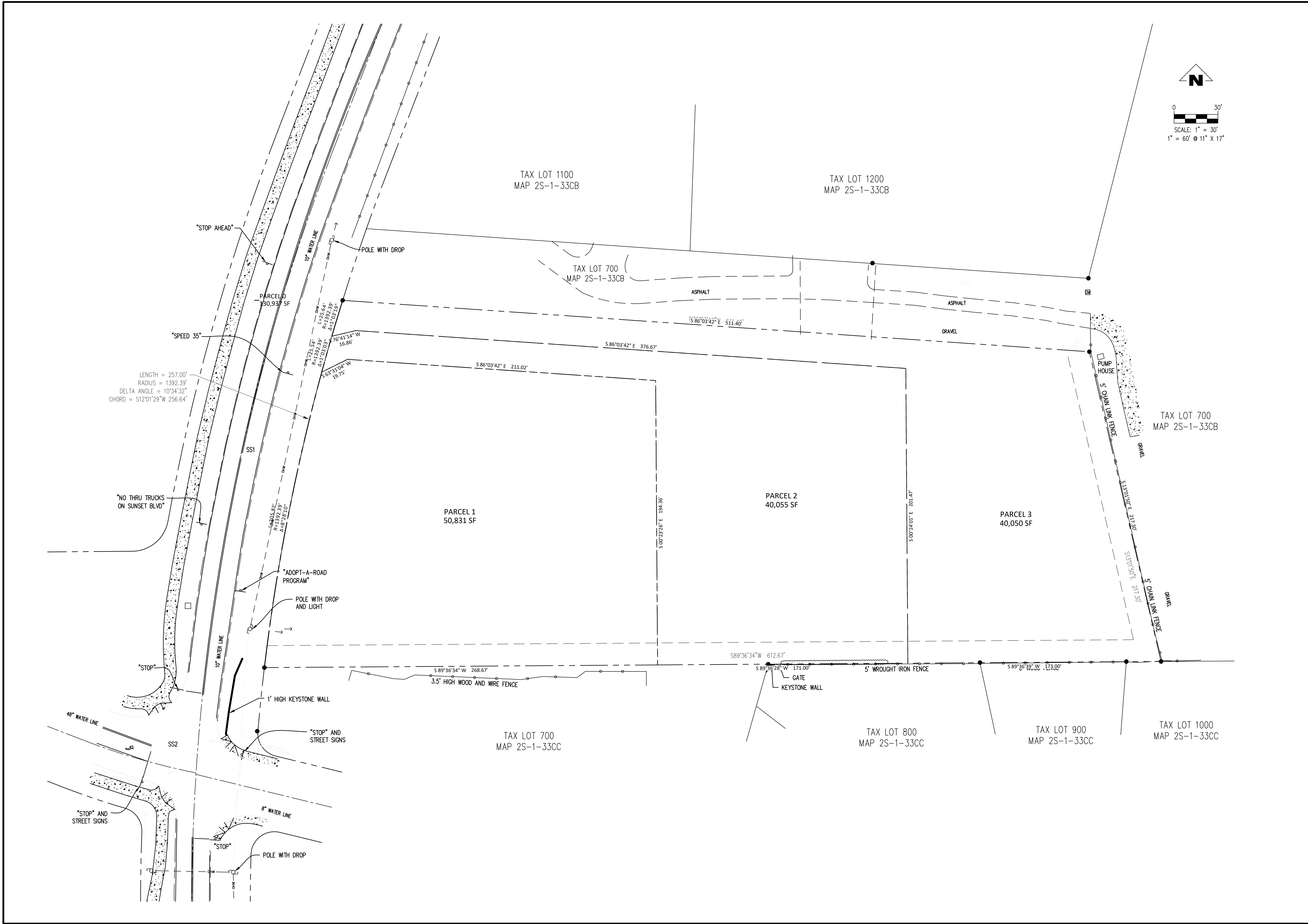
PREPARED FOR:
J.T. ROTH CONSTRUCTION
12600 SW 72ND AVE., SUITE 200
PORTLAND, OR 97223
PORTLAND, OR 97223

REVISIONS:
INITIAL RELEASE: APR. 15, 2022

REGISTERED PROFESSIONAL LAND SURVEYOR
Clinton H. Stubbs Jr.
5548913
RENEWS: 06/30/22

JOB NUMBER
2426

SHEET
1 OF 1



23364 SW MURDOCK ROAD
 TAX MAP 2S1W 33CB
 TAX LOT 00600
 SHERWOOD, OREGON

PRELIMINARY PLAT

REVISIONS	
NO.	DATE

EMERIO
 ENGINEERING • SURVEYING • DESIGN
 646630 W. ALLEN BLVD. SUITE 200, SHERWOOD, OR 97140
 TEL: (503) 746-8812
 FAX: (503) 639-8592
 www.emeriodesign.com

FILE C:\Projects\0200-015 Murdock Parcel\dwg\0200-015Prelim Plat Layout - Prelim Plat.dwg | Date: 4/29/2022 12:50 PM, by: Pat Torfaro

Appendix C - Inventory

ObjectID	Surveyor ID	Common Name	Scientific Name	DBH	Trees Retained	Canopy Spread	Condition Health	Condition Structure	Critical Root Zone
9	754	Bigleaf Maple	Acer macrophyllum	26		35	Good	Good	13
42	776	Bigleaf Maple	Acer macrophyllum	23	1	30	Good	Fair	11.5
54	786	Bigleaf Maple	Acer macrophyllum	21		35	Good	Good	10.5
68	793	Bigleaf Maple	Acer macrophyllum	17		25	Good	Good	8.5
76	799	Bigleaf Maple	Acer macrophyllum	24		25	Good	Good	12
107	1848	Bigleaf Maple	Acer macrophyllum	9		24	Poor	Poor	4.5
108	1847	Bigleaf Maple	Acer macrophyllum	9		25	Poor	Poor	4.5
106	1849	Cherry		8		19	Fair	Fair	4
114	1829	Cherry		13	1	30	Fair	Fair	6.5
84	1819	Doug Fir	Pseudotsuga menziesii	20		38	Good	Fair	10
85	1805	Doug Fir	Pseudotsuga menziesii	26		40	Good	Fair	13
86	1806	Doug Fir	Pseudotsuga menziesii	25		40	Good	Good	12.5
87	1804	Doug Fir	Pseudotsuga menziesii	27		40	Good	Good	13.5
88	1820	Doug Fir	Pseudotsuga menziesii	27		42	Good	Good	13.5
89	1821	Doug Fir	Pseudotsuga menziesii	28		38	Fair	Good	14
90	1822	Doug Fir	Pseudotsuga menziesii	27		39	Fair	Good	13.5
91	1824	Doug Fir	Pseudotsuga menziesii	25		32	Poor	Poor	12.5
93	1802	Doug Fir	Pseudotsuga menziesii	26		38	Fair	Fair	13
94	1801	Doug Fir	Pseudotsuga menziesii	27		36	Fair	Fair	13.5
95	1842	Doug Fir	Pseudotsuga menziesii	25		36	Fair	Fair	12.5
99	1838	Doug Fir	Pseudotsuga menziesii	16	1	36	God	Good	8
100	1843	Doug Fir	Pseudotsuga menziesii	16		39	Fair	Good	8
101	1836	Doug Fir	Pseudotsuga menziesii	10	1	28	Fair	Fair	5
103	1834	Doug Fir	Pseudotsuga menziesii	8	1	14	Good	Fair	4
104	1833	Doug Fir	Pseudotsuga menziesii	32	1	48	Fair	Fair	16
105	1850	Doug Fir	Pseudotsuga menziesii	36	1	52	Good	Good	18
115	1835	Doug Fir	Pseudotsuga menziesii	20	1	32	Fair	Fair	10
117	1832	Doug Fir	Pseudotsuga menziesii	37	1	62	Good	Good	18.5

44	761	Douglas Fir	Pseudotsuga menziesii	19		25	Good	Good	9.5
45	762	Douglas Fir	Pseudotsuga menziesii	20		25	Good	Good	10
46	763	Douglas Fir	Pseudotsuga menziesii	21		25	Good	Good	10.5
48	780	Douglas Fir	Pseudotsuga menziesii	21		35	Good	Good	10.5
49	781	Douglas Fir	Pseudotsuga menziesii	18		35	Good	Good	9
50	783	Douglas Fir	Pseudotsuga menziesii	18		35	Good	Good	9
51	785	Douglas Fir	Pseudotsuga menziesii	20		35	Good	Good	10
52	784	Douglas Fir	Pseudotsuga menziesii	20		35	Good	Good	10
53	782	Douglas Fir	Pseudotsuga menziesii	20		35	Good	Good	10
55	787	Douglas Fir	Pseudotsuga menziesii	27		35	Good	Good	13.5
61	1827	Douglas Fir	Pseudotsuga menziesii	22	1	30	Good	Good	11
62	1828	Douglas Fir	Pseudotsuga menziesii	21	1	30	Good	Good	10.5
64	No tag	Douglas Fir	Pseudotsuga menziesii	18		30	Good	Good	9
65	1818	Douglas Fir	Pseudotsuga menziesii	22		30	Good	Good	11
66	1817	Douglas Fir	Pseudotsuga menziesii	21		25	Good	Good	10.5
67	1816	Douglas Fir	Pseudotsuga menziesii	18.5		25	Good	Good	9.25
69	794	Douglas Fir	Pseudotsuga menziesii	18		25	Good	Good	9
70	1815	Douglas Fir	Pseudotsuga menziesii	18		25	Good	Good	9
71	795	Douglas Fir	Pseudotsuga menziesii	21		25	Good	Good	10.5
72	796	Douglas Fir	Pseudotsuga menziesii	22		25	Good	Good	11
73	797	Douglas Fir	Pseudotsuga menziesii	22		25	Good	Good	11
74	800	Douglas Fir	Pseudotsuga menziesii	22		25	Good	Good	11
75	798	Douglas Fir	Pseudotsuga menziesii	18.5		25	Good	Good	9.25
77	1814	Douglas Fir	Pseudotsuga menziesii	20		25	Good	Good	10
1	751	Douglas Fir	Pseudotsuga menziesii	17.5		30	Good	Good	8.75
2	752	Douglas Fir	Pseudotsuga menziesii	25		30	Good	Fair	12.5
27	777	Douglas Fir	Pseudotsuga menziesii	21		30	Good	Good	10.5
28	773	Douglas Fir	Arbutus menziesii	11.5	1	20	Good	Good	5.75
29	774	Douglas Fir	Arbutus menziesii	9	1	20	Good	Good	4.5
34	771	Douglas Fir	Pseudotsuga menziesii	19.5		25	Good	Good	9.75
35	771	Douglas Fir	Pseudotsuga menziesii	19.5		25	Good	Good	9.75
36	769	Douglas Fir	Pseudotsuga menziesii	20		25	Good	Good	10
39	767	Douglas Fir	Pseudotsuga menziesii	17		24	Good	Fair	8.5
40	778	Douglas Fir	Pseudotsuga menziesii	20		20	Good	Fair	10

3	735	Japanese Maple	Acer japonica	9.5	1	25	Fair	Fair	4.75
118	1831	Oregon oak	Quercus carryanna	35		68	Good	Good	17.5
8	751	Oregon White Oak	Quercus garryana	12		15	Good	Good	6
4	736	Pacific Madrone	Arbutus menziesii	12		20	Poor	Failed	6
5	737	Pacific Madrone	Arbutus menziesii	16.5		20	Poor	Failing	8.25
7	739	Pacific Madrone	Arbutus menziesii	22		25	Poor	Failing	11
10	740	Pacific Madrone	Arbutus menziesii	18	1	35	Good	Fair	9
11	741	Pacific Madrone	Arbutus menziesii	14	1	35	Fair	Fair	7
18	748	Pacific Madrone	Arbutus menziesii	8	1	25	Good	Fair	4
19	749	Pacific Madrone	Arbutus menziesii	7	1	25	Good	Fair	3.5
20	750	Pacific Madrone	Arbutus menziesii	11	1	25	Good	Fair	5.5
22	756	Pacific Madrone	Arbutus menziesii	11	1	15	Good	Fair	5.5
24	758	Pacific Madrone	Pinus ssp.	11	1	35	Good	Fair	5.5
25	759	Pacific Madrone	Arbutus menziesii	9.5	1	35	Fair	Fair	4.75
30	775	Pacific Madrone	Arbutus menziesii	12	1	20	Good	Good	6
33	788	Pacific Madrone	Arbutus menziesii	12.5		25	Good	Good	6.25
37	768	Pacific Madrone	Arbutus menziesii	20.5		35	Fair	Fair	10.25
41	779	Pacific Madrone	Arbutus menziesii	13.5		30	Good	Fair	6.75
47	764	Pacific Madrone	Pseudotsuga menziesii	19		35	Good	Good	9.5
56	789	Pacific Madrone	Arbutus menziesii	8	1	15	Good	Good	4
57	790	Pacific Madrone	Arbutus menziesii	9	1	15	Good	Good	4.5
59	792	Pacific Madrone	Arbutus menziesii	7		15	Good	Good	3.5
80	1809	Pacific madrone	Arbutus menziesii	15.5		28	Good	Fair	7.75
81	1808	Pacific madrone	Arbutus menziesii	14		26	Fair	Fair	7
96	1840	Pacific madrone	Arbutus menziesii	14		28	Fair	Fair	7
97	1841	Pacific madrone	Arbutus menziesii	16		30	Fair	Fair	8
98	No tag	Pacific madrone	Arbutus menziesii	14		32	Fair	Fair	7
109	1846	Pacific madrone	Arbutus menziesii	15	1	28	Poor	Fair	7.5
110	1845	Pacific madrone	Arbutus menziesii	14	1	29	Poor	Fair	7
111	1844	Pacific madrone	Arbutus menziesii	16.5		36	Fair	Fair	8.25
38	760	Pin oak	Quercus palustris	10		20	Fair	Fair	5
12	742	Pine	Pinus ssp.	18	1	25	Fair	Fair	9
13	743	Pine	Pinus ssp.	7	1	15	Fair	Fair	3.5
15	745	Pine	Pinus ssp.	12	1	25	Fair	Fair	6

16	746	Pine	Pinus ssp.	19	1	25	Good	Fair	9.5
17	747	Pine	Pinus ssp.	14	1	25	Good	Fair	7
21	755	Pine	Pinus ssp.	9	1	25	Good	Fair	4.5
23	757	Pine	Pinus ssp.	22	1	15	Good	Fair	11
31	776	Pine	Pinus ssp	7	1	15	Good	Good	3.5
32	No tag	Pine	Pinus ssp	6.5		15	Good	Good	3.25
43	765	Pine	Pine ssp	17		25	Poor	Fair	8.5
6	738	Pine	Pinus contorta	11	1	15	Good	Fair	5.5
58	791	Pine	Pinus ssp	7	1	15	Good	Good	3.5
60	1826	Pine	Pinus ssp	8	1	20	Good	Good	4
26	772	Scouler Willow	Salix scouleriana	16	1	20	Fair	Fair	8
14	744	Sweet cherry	Prunus avium	42	1	45	Fair	Fair	21
63	1829	Sweet Cherry	Prunus avium	12	1	30	Good	Good	6
83	1810	Sweet gum	Liquidambar styraciflua	10		29	Good	Good	5
92	1839	Western red cedar	Thuja plicata	11		12	Poor	Poor	5.5
78	1812	Western white pine	Pinus Monticello	13		26	Fair	Good	6.5
79	1813	Western white pine	Pinus Monticola	8		22	Poor	Good	4
82	1811	Western white pine	Pinus Monticola	13		18	Fair	Good	6.5
102	1837	Western white pine	Pinus monticola	9	1	25	Fair	Fair	4.5
116	1830	Western white pine	Pinus monticola	10	1	26	Good	Good	5
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Species	Total Retained	Canopy SQ FT	Total Canopy SQ FT
Bigleaf Maple	1	1963	1963
Douglas Fir	11	1385	15235
Pacific Madrone	13	1963	25519
Pine	13	706	9178
Sweet Cherry	3	706	2118
Other (Small Canopy)	2	490	980
	43		54993
		Retention Credit	109986
Total SQ FT of Property	130931		
Canopy Coverage Needed at 40%	52372.4		
Total Canopy Coverage Retained	109986		