



ARBOR INFO LLC

2406 N Castle Way Brier, WA, 98036

**Tree Assessment
For
Sturman Architects
At
4006 E. Mercer Way
Mercer Island, Washington**



**Date
8/28/2020 (rev 10/27/2024)**

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- I. Tree Assessment Summary Table
- II. Mercer Island Check list
- III. Mercer Island Tree Inventory Form
- IV. Site Plan with Tree Locations

1. Introduction

I was contacted by Brad Sturman, Sturman Architects to describe and assess the condition, viability and protection of trees on and adjacent to 4006 E. Mercer Way, Mercer Island, WA. This report summarizes my observations and conclusions.

2. Competence

- Certified Arborist (International Society of Arboriculture, ISA #23136, PN 0426 A)
- Registered Consulting Arborist (American Society of Consulting Arborists #499).
- Tree Risk Assessment Qualified (ISA).
- Certified forester (Society of American Foresters #951)
- Bachelor of Science degree in Forest Management from the University of Washington
- Licensed Washington State Real Estate Managing Broker #11534

3. Client

The client to whom this report is addressed is:

Sturman Architects
9 -103rd Ave NE, Suite 203
Bellevue, WA 98004

4. Assignment, Purpose and Use of Report

The assignment is to describe and assess the condition and viability of on-site trees and off-site trees potentially affected by development and to provide protection recommendations in conformance with the City of Mercer Island “Tree Submittal Check List”, Attached.

5. Limits of Assignment

The assignment is limited to the information gathered during the site visit August 10, 2020 (date of assessment) and references noted in this report. No excavation or sampling was undertaken to determine unseen defects. No inspection of trees not reported herein was made.

A site plan indicating a proposed development plan was provided and is included in the Addenda with tree locations noted.

6. Site Description

4006 E. Mercer Way, Mercer Island, WA, King County Parcel No. 413190-0005. The subject property consists of a single-family residence on 36,116 square feet.

An existing single-family residence on site is proposed to be demolished and replaced with a new single family residence.

7. Methodology

Each tree was measured for diameter at 4.5-feet above ground, (or equivalent) total height, percentage of live green crown, and dripline (extent of live limbs).

Each tree was assessed as to its condition, or vigor and viability:

Vigor or condition:

Health: Biotic

- Good: No evidence of fungal infection or decay; expected to survive without disturbance to its normal life expectancy. (40-100 years in this case)
- Fair: Tree has initial fungal decay or evidence of insect habitat and is less likely to survive to normal life expectancy. Some with minor defects, are rated viable,
- Poor: Tree has significant fungal decay and defects that render it not likely to survive three years.

Structural: Abiotic

- Good: no significant abiotic or mechanical defects
- Fair: less than preferred form, defects such as breaks in the bole, poor limb attachments, included bark, poor root contact, etc.
- Poor: Broken or cracked bole or limbs; root plate compromised

Viability:

- A measure of whether the tree is likely to live to its “normal” life span or has defects limiting that potential or poses a risk to the residence or proposed development is a simple ‘yes/no’ rating. Trees not likely to survive 10 years are rated as “marginal”.

8. Tree Description

Refer to the attached Site Plan, Tree Assessment Summary Form and City of Mercer Island Tree Inventory & Replacement Submittal Information in the Addenda. A total of fifty-two on-site trees as indicated on the Site Plan provided were found and assessed as well as thirteen offsite trees overhanging the property boundaries.

9. Root Zone Impacts

The limits of disturbance are determined on a case-by-case-basis for each tree in consideration of the tree size, estimate of the extent of the root zone and consideration of the planned root zone disturbance. Distances from the face of each tree to the excavation limit were provided by the client. There appears to be little or no impact to the retained trees.

Only tree No. 501 and 502 will be removed. No other trees are planned for removal or within dripline distance to the excavation.

The root zone of Tree No. 501, a large regulated tree, although generally outside of the footing excavation is 17-18-feet higher than the final garage grade. With this root zone loss on the east leaving this tree in a somewhat precarious location above the house and patio it is recommended for removal.

Tree No. 502, a small tree will end up perched at the edge of the excavation limit and is recommended for removal.

10. Replacement Trees

Trees No. 501 and 502 are planned for removal. Tree No. 501 requires 2 replacement trees and tree No. 502 requires 1 replacement tree. (MCC 19.10.070)

All replacement trees are to be planted in accordance with MICC 19.10.070. trees shall be primarily native to the PNW. Coniferous trees shall be at least 6' tall. Deciduous trees shall be at least 1.5" in caliper. Refer to the attached plan set for a complete landscape and tree replacement plan.

11. Tree Protections

Retained Tree protections should include:

- Certified Arborist on site during excavation activities within the defined root zone of all trees.
- All trees to be retained are to be fenced at the edge of the recommended tree protection zone with 6-foot high cyclone type fencing.
- Utility lines should be bored. Bore access pits to be developed with 18" buckets or hand dug.
- Retaining wall footings to be minimally deep, no more than 12-inches.
- Tree roots over 1-1/2 inches in diameter encountered in all excavations are to be cut cleanly to the trench wall with clean sharp tools. Roots to be covered with soil or wetted burlap if they must remain exposed.
- Supplemental irrigation is to be provided during summer months (generally June-September) for all trees in the construction zones.
- Recommended protected tree root zones are to be covered with 4-inches of hog fuel at all times. Where machinery access is needed, the root zones should be covered with 12-inches of hog fuel, plywood or steel sheets.
- Stumps for trees to be removed are to be ground out (not excavated).

12. Summary

The Tree Assessment Spreadsheet, Tree Submittal Checklist , City of Mercer Island Tree Inventory and Replacement Form and the Site Plan are attached.

13. Assumptions and Limiting Conditions

1. Any legal description provided to the consultant is assumed to be correct. Ownership of the subject trees as provided by the client is assumed to be correct. No responsibility is assumed for legal matters. No opinion as to the property line location is made.
2. Care has been taken to obtain all information from reliable sources. The consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. The consultant shall not be required to give testimony or attend court by reason of this report unless subsequent contractual arrangements are made, including additional fees.
4. This report and any values expressed herein represent the opinion of the consultant, and the consultant's fee is in no way contingent upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

5. The exhibits in this report are included to assist the reader and are not necessarily to scale.
6. Unless expressed otherwise, information in this report covers only items that were examined, and reflects the condition of those items at the time of inspection. The subject site was cleared of all vegetation at the time of inspection therefore the extent of removals is inferred from adjacent undisturbed areas. The inspection is limited to visual examination of accessible portions of the trees and plants.
7. Loss or alteration of any part of the report invalidates the entire report. Ownership of any documents related to this report passes to the client only.
8. The liability of ArborInfo LLC its contractors and employees is limited to the client only and only up to the amount of the fee actually received for the assignment.
9. *There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions, which are not now visible which, could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long-term condition of any tree, but represent my opinion based on the observations made.*
10. *NEARLY ALL TREES IN ANY CONDITION STANDING WITHIN REACH OF IMPROVEMENTS OR HUMAN USE AREAS REPRESENT HAZARDS THAT COULD LEAD TO DAMAGE OR INJURY. THE ASSESSMENT IS VALID FOR TWO YEARS FROM THE DATE OF INSPECTION, ONLY.*
11. PERTINENT JURISDICTION RULES AND REGULATIONS SHOULD BE CONSULTED PRIOR TO THE REMOVAL OF ANY TREE.

Respectfully Submitted,



Thomas M. Hanson, CF, RCA

ADDENDA

- I. Tree Assessment Summary Table
- II. Mercer Island Check list
- III. Mercer Island Tree Inventory Form
- IV. Site Plan with Tree Locations

Tree Assessment

Site: 4006 E. Mercer Way

Date:

Project:

Tree #	Species		DBH (inches)	Height (feet)	Crown Ratio (%)	Dripline				LOD/Inner Root Zone	Vigor		Viable Yes/No	Class	Defects/Comments
	Common	Scientific				N	S	E	W		Health	Structure			
	On Site										50% ave DL				
449	Bigleaf maple	<i>Acer macrophyllum</i>	7.1	25	10	0	0	0	6	1	Poor	Poor	No	Small	
450	Douglas-fir	<i>Pseudotsuga menziesii</i>	11.5	80	30	6	10	10	10	5	Good	Good	Yes	Large	
451	Douglas-fir	<i>Pseudotsuga menziesii</i>	8.9	70	10	4	4	4	4	2	Poor	Good	No	Small	
453	Oregon ash	<i>Fraxinus latifolia</i>	10.4	70	50	12	12	12	14	6	Poor	Poor	No	Large	Bole decay
454	Douglas-fir	<i>Pseudotsuga menziesii</i>	12.8	100	20	12	14	8	16	6	Fair	Good	Yes	Large	
455	Douglas-fir	<i>Pseudotsuga menziesii</i>	11.4	90	30	4	19	8	12	5	Good	Fair	Yes	Large	Crook at 70'
456	Douglas-fir	<i>Pseudotsuga menziesii</i>	6.0	40	30	8	0	12	4	3	Fair	Good	Yes	Small	
457	Western red cedar	<i>Thuja plicata</i>	7.5	30	70	8	12	14	8	5	Goof	Good	Yes	Small	
458	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	9.1	60	70	0	8	6	0	2	Fair	Good	Yes	Small	
460	Douglas-fir	<i>Pseudotsuga menziesii</i>	44.6	150	80	35	35	35	35	18	Good	Good	Yes	Exceptional	
461	Western red cedar	<i>Thuja plicata</i>	9.4	30	80	9	8	8	7	4	Good	Good	Yes	Small	
462	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	14.4	70	80	12	12	14	12	6	Good	Good	Yes	Large	
463	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	19.3	75	50	4	8	8	10	4	Fair	Fair	No	Large	Fork at 40'
464	Western red cedar	<i>Thuja plicata</i>	31.1	80	80	12	14	10	16	7	Good	Good	Yes	Exceptional	Heart rot
465	Bitter cherry	<i>Pruuns emarginata</i>	18.5	35	30	10	10	0	24	6	Good	Poor	No	Large	split trunk, lean
466	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	19.9	80	30	0	12	10	0	3	Good	Good	Yes	Large	
467	Western red cedar	<i>Thuja plicata</i>	10.2	45	10	0	4	4	4	2	Poor	Fair	No	Large	Fork at 10'
468	Red maple	<i>Acer rubra</i>	13.0	40	30	6	12	16	8	5	Good	Fair	Yes	Large	3 codominants
469	Bigleaf maple*	<i>Acer macrophyllum</i>	25.9	90	60	24	25	18	26	12	Good	Good	Yes	Large	
470	Bigleaf maple	<i>Acer macrophyllum</i>	6.9	10	10	0	10	0	0	1	Poor	Poor	No	Small	
471	Bigleaf maple*	<i>Acer macrophyllum</i>	18.4	95	60	20	36	36	10	13	Good	Fair	Yes	Large	
472	Bigleaf maple	<i>Acer macrophyllum</i>	13.4	80	40	0	18	28	0	6	Good	Fair	Yes	Large	
473	Western red cedar	<i>Thuja plicata</i>	37.1	115	80	22	20	20	22	11	Good	Good	Yes	Exceptional	
474	White pine	<i>Pinus monticola</i>	7.1	40	40	16	0	4	6	3	Good	Poor	Yes	Small	Crook at 20'. Leans

Tree Assessment

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Tree #	Species		DBH (inches)	Height (feet)	Crown Ratio (%)	Dripline				LOD/Inner Root Zone	Vigor		Viable Yes/No	Class	Defects/Comments
	Common	Scientific				N	S	E	W		Health	Structure			
On Site															
475	Douglas-fir	<i>Psuedotsuga menziesii</i>	16.7	110	40	14	16	16	16	8	Good	Good	Yes	Large	
476	Sitka spruce	<i>Picea sitchensis</i>	16.2	70	60	14	14	14	14	7	Good	Good	yes	Exceptional	
477	Douglas-fir	<i>Psuedotsuga menziesii</i>	47.5	150	80	30	30	30	30	15	Good	Good	Yes	Exceptional	
478	Douglas-fir	<i>Psuedotsuga menziesii</i>	37.2	150	80	20	24	24	26	12	Good	Good	Yes	Exceptional	
479	Douglas-fir	<i>Psuedotsuga menziesii</i>	24.9	150	40	24	26	24	22	12	Good	Good	Yes	Large	
480	Western red cedar	<i>Thuja plicata</i>	41.0	120	70	28	28	28	28	14	Good	Good	Yes	Exceptional	
481	Douglas-fir	<i>Psuedotsuga menziesii</i>	11.2	80	40	16	16	16	16	8	Good	Good	Yes	Large	
482	Bigleaf maple	<i>Acer macrophyllum</i>	13.1	50	20	20	20	30	4	9	Good	Good	Yes	Large	
483	Holly*	<i>Ilex aquifolium</i>	10.8	35	80	6	14	12	12	6	Good	Good	Yes	Large	
484	Sequoia	<i>Sequoia sempervirens</i>	28.6	120	80	20	20	20	25	11	Good	Good	Yes	Large	
485	Sitka spruce	<i>Picea sitchensis</i>	25	134	80	12	10	10	12	6	Good	Good	Yes	Exceptional	
486	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	46.9	140	90	24	24	24	24	12	Good	Good	Yes	Exceptional	
487	Sitka spruce	<i>Picea sitchensis</i>	26.7	120	80	18	12	18	12	8	Good	Fair	Yes	Exceptional	2 codominants at 6'
488	Western red cedar	<i>Thuja plicata</i>	28.4	125	70	18	12	16	16	8	Good	Good	Yes	Large	
489	Douglas-fir	<i>Psuedotsuga menziesii</i>	32.5	132	70	22	20	14	14	9	Good	Good	Yes	Exceptional	Butt swell, heart rot
490	Western red cedar	<i>Thuja plicata</i>	23.9	90	50	18	16	16	8	7	Good	Good	Yes	Large	
491	Western red cedar	<i>Thuja plicata</i>	33.4	100	70	18	18	18	18	9	Good	Good	Yes	Exceptional	2 codominants
492	Western red cedar	<i>Thuja plicata</i>	18.6	63	80	7	18	7	7	5	Good	Good	Yes	Large	
493	Western red cedar	<i>Thuja plicata</i>	8.8	40	40	7	10	8	4	4	Poor	Poor	No	Small	Bole decay
494	Oregon ash	<i>Fraxinus latifolia</i>	11.5	50	40	12	12	12	12	6	Good	Good	Yes	Large	
495	Western red cedar	<i>Thuja plicata</i>	10.2	60	50	10	10	10	10	5	Good	Good	Yes	Large	
496	Port Orford cedar	<i>Chamaecyparis lawsoniana</i>	6.5	30	30	3	6	12	0	3	Good	Good	Yes	Small	
497	Douglas-fir	<i>Psuedotsuga menziesii</i>	21.5	90	60	18	16	12	18	8	Good	Good	Yes	Large	Pitchy
498	Douglas-fir	<i>Psuedotsuga menziesii</i>	20.8	125	50	10	18	14	10	7	Good	Fair	Yes	Large	Sweep

Tree Assessment

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Date:

Project:

Tree #	Species		DBH (inches)	Height (feet)	Crown Ratio (%)	Dripline				LOD/Inner Root Zone 50% ave DL	Vigor		Viable Yes/No	Class	Defects/Comments
	Common	Scientific				N	S	E	W		Health	Structure			
On Site															
499	Western red cedar	<i>Thuja plicata</i>	26.5	80	60	14	14	12	12	7	Good	Good	Yes	Large	
500	Douglas-fir	<i>Pseudotsuga menziesii</i>	31.0	120	60	12	14	18	6	6	Good	Fair	Marginal	Exceptional	Pistol butt, crooked
501	Western red cedar	<i>Thuja plicata</i>	21.3	60	90	13	13	18	14	7	Good	Good	Yes	Large	2 codominants
502	Holly	<i>Ilex aquifolium</i>	6.0	20	60	6	6	6	6	3	Good	Good	Yes	Small	
Off Site															
442	Western red cedar	<i>Thuja plicata</i>	14.2	50	10	8	8	8	8	4	Poor	Good	No	Large	
443	Western red cedar	<i>Thuja plicata</i>	7.8	50	10	4	4	4	4	2	Poor	Good	No	Small	
444	Douglas-fir	<i>Pseudotsuga menziesii</i>	42.8	140	60	32	8	20	20	10	Good	Good	Yes	Exceptional	Pitchy
445	Douglas-fir	<i>Pseudotsuga menziesii</i>	29.4	120	60	8	36	30	20	12	Good	Good	Yes	Large	
446	Western red cedar	<i>Thuja plicata</i>	21.9	100	80	8	6	8	11	4	Good	Good	Yes	Large	
447	White pine	<i>Pinus monticola</i>	27.5	140	40	9	10	18	8	6	Good	Good	Yes	Large	
448	White pine	<i>Pinus monticola</i>	21.5	140	40	14	6	7	10	5	Good	Good	Yes	Large	
452	Bigleaf maple	<i>Acer macrophyllum</i>	7.1	60	20	14	0	10	10	4	Fair	Good	No	Small	Bole decay
459	Western red cedar	<i>Thuja plicata</i>	13.2	55	20	16	8	12	0	5	Poor	Poor	No	Large	
503	Western red cedar	<i>Thuja plicata</i>	38.2	105	60	18	18	18	18	9	Fair	Poor	Yes	Exceptional	Hollow, butt rot
504	Western red cedar	<i>Thuja plicata</i>	37.4	80	60	22	22	22	12	10	Good	Fair	Yes	Exceptional	2 codominants
505	Holly*	<i>Ilex aquifolium</i>	12.3	28	80	6	12	8	8	4	Good	Good	Yes	Small	
506	Pacific yew	<i>Taxus brevifolia</i>	8.8	12	90	8	18	8	12	6	Good	Good	Yes	Exceptional	

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org

Inspection Requests: Online: www.mybuildingpermit.com VM: 206.275.7730



TREE SUBMITTAL CHECKLIST

If a box is checked, please provide the information in your next submittal

SUBMITTAL ITEMS

1. The Mercer Island Tree Inventory Form

- Provide the City's Mercer Island Tree Inventory Form

2. Arborist report/tree inventory

- Provide an Arborist report, prepared by a qualified Arborist. Include the following information in the arborist report.
 - 1. Description of how the arborist meets the threshold requirements for Qualified Arborist.
 - 2. A complete description of each tree's diameter, species, critical root zone, limits of allowable disturbance, health, condition, and viability.
 - 3. A description of the method(s) used to determine the limits of allowable disturbance (i.e., critical root zone, root plate diameter, or a case-by-case basis description for individual trees).
 - 4. Any special instructions specifically outlining any work proposed within the limits of disturbance protection areas (i.e. hand-digging, air space, tunneling, root pruning, any grade changes, clearing, monitoring, and aftercare).
 - 5. For trees not viable for retention, a description of the reason(s) for removal based on poor health, high risk of failure due to structure, defects, unavoidable isolation, windfirmness, unsuitability species, etc. If there is no reasonable alternative action (pruning, cabling, etc.) possible, replacement recommendations must be given.
 - 6. Describe the impact of necessary tree removal on the remaining trees, including those in a grove or on adjacent properties.
 - 7. Describe timing and installation of tree protection measures. Such measures must include fencing and be in accordance with the tree protection standards as outlined in MICC 19.10.
 - 8. The suggested location and species of replacement trees to be used when required. The report shall include planting and maintenance specifications to ensure long term survival.
 - 9. **A Tree Inventory** containing the following:
 - a. A numbering system of all existing large trees on the property (with corresponding tags on trees). The inventory shall also include large trees on adjacent property with driplines or critical root zones extending into the property.
 - b. Tree size (diameter).
 - c. Proposed tree status (retained or proposed for removal).
 - d. Tree type or species.
 - e. Identify all Exceptional trees and differentiate between those less than 24 inches and those greater than or equal to 24 inches in diameter.
 - f. Brief general health or condition rating of each tree (i.e. poor, fair, good, etc.).

3. Site/tree retention plan

Indicate the following on all civil/utility and grading sheets. If there are no civil sheets indicate on the architectural site plan

- 1. Location of all proposed improvements (building footprint, access, utilities, buffers, required landscape areas).
- 2. Surveyed location of all large trees and Exceptional trees on the property
- 3. Show the critical root zone of Large trees on adjacent properties if driplines extend over the subject property line.
- 4. Trees labeled corresponding to the tree inventory numbering system on the Mercer Island Tree Inventory Form.
- 5. Identify Exceptional trees using different symbols for trees less than 24 inches and trees greater than or equal to 24 inches.
- 6. Location of tree protection measures.
- 7. Limits of excavation near potential saved trees (e.g. excavation limits for building foundation).
- 8. Indicate clearing limits/limits of disturbance (LOD) around all trees potentially impacted by site disturbances - grading, demolition, construction activities (including approximate LOD of off-site trees with overhanging driplines), etc.
- 9. Proposed tree status (trees to be removed or retained) noted by an 'X' for removal.

4. Replanting plan

- Provide the Replanting plan showing proposed locations of any required replacement trees.

PEER REVIEW AND CONFLICT OF INTEREST

A peer review of the tree permit application by a qualified arborist may be required to verify the adequacy of the information and analysis. **The applicant shall bear the cost of the peer review.**

The City Arborist may require the applicant retain a replacement qualified arborist or may require a peer review where the City Arborist believes a conflict of interest may exist.

For example, if an otherwise qualified arborist is employed by a tree removal company and prepares the arborist report for a development proposal, a replacement qualified arborist or peer review may be required.

ARBORIST QUALIFICATION

For tree reviews associated with a development proposal, a qualified arborist must have

- A minimum of three (3) years' experience working directly with the protection of trees during construction
- Have experience with the likelihood of tree survival after construction
- Be able to prescribe appropriate measures for the preservation of trees during land development
- ISA Tree Risk Assessment Qualification
- Your qualified arborists must have at least one (1) of the following credentials:
 - ISA Certified Arborist;
 - ISA Certified Arborist Municipal Specialist;
 - ISA Board Certified Master Arborist;
 - American Society of Consulting Arborists (ASCA) registered Consulting Arborist;
 - Society of American Foresters (SAF) Certified Forester for Forest Management Plans;

ADDITIONAL INFORMATION

Additional Information. The City Arborist or Code Official may require additional documentation, plans, or information as needed to ensure compliance with applicable City regulations.

CITY OF MERCER ISLAND

COMMUNITY PLANNING & DEVELOPMENT

9611 SE 36TH STREET | MERCER ISLAND, WA 98040

PHONE: 206.275.7605 | www.mercergov.org



MERCER ISLAND TREE INVENTORY & REPLACEMENT SUBMITTAL INFORMATION

PROJECT INFORMATION

Property Owner
Name: _____

Site Address or
Parcel Number: _____

Project Contact
Name: _____

Contact Email
Address: _____

Contact Phone
Number: _____

EXCEPTIONAL TREES

Exceptional Trees- means a tree or group of trees that because of its unique historical, ecological or aesthetic value constitutes an important community resource. A tree that is rare or exceptional by virtue of its size, species, condition, cultural/historical importance, age, and/or contribution as part of a tree grove. Trees with a diameter of more than 36 inches, or with a diameter that is equal to or greater than the diameter listed in the Exceptional Tree Table shown in MICC 19.16 under Tree, Exceptional.

List the total number of trees for each category and the tree identification numbers from the arborist report.

Number of trees 36" or greater _____

List tree numbers: _____

Number of trees 24" or greater (including 36" or greater) _____

List tree numbers: _____

Number of trees from Exceptional Tree Table (MICC 19.16) _____

List tree numbers: _____

LARGE REGULATED TREES

Large Regulated Trees- means any tree with a diameter of 10 inches or more, and any tree that meets the definition of an Exceptional Tree.

Number of Large Regulated Trees on site 24+17=41 (A)

List tree numbers: _____

Number of Large Regulated Trees on site proposed for removal 1 (B)

List tree numbers: _____

Percentage of trees to be retained ((A-B)/Ax100) note: must be at least 30% 97.5 %

RIGHT OF WAY TREES

Right of Way Trees- means a tree that is located in the street right of way adjacent to the project property.

Number of Large Regulated Trees in right of way _____

List tree numbers: _____

Number of Large Regulated Trees in right of way proposed for removal _____

List tree numbers: _____

Reason for removal: _____

TREE REPLACEMENT

Tree replacement- removed trees must be replaced based on the ratio in the table below. Replacement trees shall be conifers at least six feet tall and or deciduous at least one and one-half inches in diameter at base.

Diameter of Removed Tree (measured 4.5' above ground)	Tree replacement Ratio	Number of Trees Proposed for Removal	Number of Tree Required for Replacement Based on Size/Type
Less than 10"*	1		
10" up to 24"	2		
Greater than 24" up to 36"	3		
Greater than 36" and any Exceptional Tree	6		
TOTAL TREE REPLACEMENTS			

***no replacement tree is needed if the tree fits all of the following;
Less than 10 inches in diameter, not an exceptional tree, and not a replacement tree from another tree permit. ***

GENERAL NOTES

1. CODE COMPLIANCE: ALL WORK SHALL COMPLY WITH THE 2021 WSEC, 2021 IRC, 2021 IBC, 2021 IFGC, 2021 UPC, 2021 IFCC, 2021 IMPC, 2020 NEC, 2021 IEC, WITH WA STATE AMENDMENTS, 2009 ICC A117.1, AND ALL LOCAL CODES AND ORDINANCES.

TREE PROTECTION

A TREE PROTECTION INSPECTION IS REQUIRED BEFORE START OF WORK

GEOTECH ENGINEER

GEOTECHNICAL ENGINEER REQUIRED TO BE PRESENT ON SITE DURING EXCAVATION AND AT REGULAR INTERVALS DURING CONSTRUCTION TO MONITOR THE STABILITY OF THE TEMPORARY OPEN CUT EXCAVATIONS PROPOSED FOR SITE RETAINING WALLS AND RESIDENTIAL STRUCTURE EXCAVATIONS.

PROJECT DATA

PROJECT ADDRESS: 4006 E MERCER WAY MERCER ISLAND, WA 98040
PROPERTY TAX ID NUMBER: 413190-0005
SCOPE OF WORK: DEMOLITION OF EXISTING SINGLE-FAMILY RESIDENCE AND CONSTRUCTION OF NEW 2-STORY SINGLE-FAMILY RESIDENCE WITH BASEMENT AND ATTACHED GARAGE ON EXISTING SINGLE-FAMILY RESIDENTIAL LOT.

PROJECT TEAM

OWNER: JASON BROTHERS LLC 50 PONCHO IRVINE, CA 92602 CONTACT: BRAD STURMAN
ARCHITECT: STURMAN ARCHITECTS, INC. 9-103RD AVE NE SUITE 203 BELLEVUE, WA 98004 PHONE: 425.451.7003 CONTACT: BRAD STURMAN

ENERGY NOTES

CLIMATIC ZONE: ZONE #4C-MARINE
THERMAL STANDARDS FOR OPENINGS: UNLIMITED OPTION
CODE: 2021 W.S.E.C. & 2021 IRC, WAC 51-11R
SPACE HEAT TYPE: ELECTRIC AIR SOURCE HEAT PUMP
PER WSEC R401.3, A CERTIFICATE IS REQUIRED TO BE POSTED IN AN APPROVED LOCATION. IT MUST INCLUDE THE FOLLOWING: PREDOMINANT R-VALUES, U-VALUES OF PENETRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, THE EFFICIENCIES OF HEATING/COOLING/WATER HEATING EQUIPMENT AND THE CODE EDITION UNDER WHICH THE STRUCTURE WAS PERMITTED.

WHOLE HOUSE VENTILATION

a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY ERV/HRV W/ INTEGRAL FANS, PROVIDING MIN. 150 CFM RUNNING CONTINUOUSLY PER 2021 IRC TABLES M505.4.3 (182). FAN SHALL BE LESS THAN .35 WATT PER CFM AND RUN CONTINUOUSLY, AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.

Table with 2 columns: Category and Value. Includes BEDROOMS (8), HEATED SQUARE FOOTAGE (8064 SF), CFM = 0.01(8064 SF) + 7.5(8+1 BEDROOMS), AIRFLOW (CFM) (150 CFM MIN.).

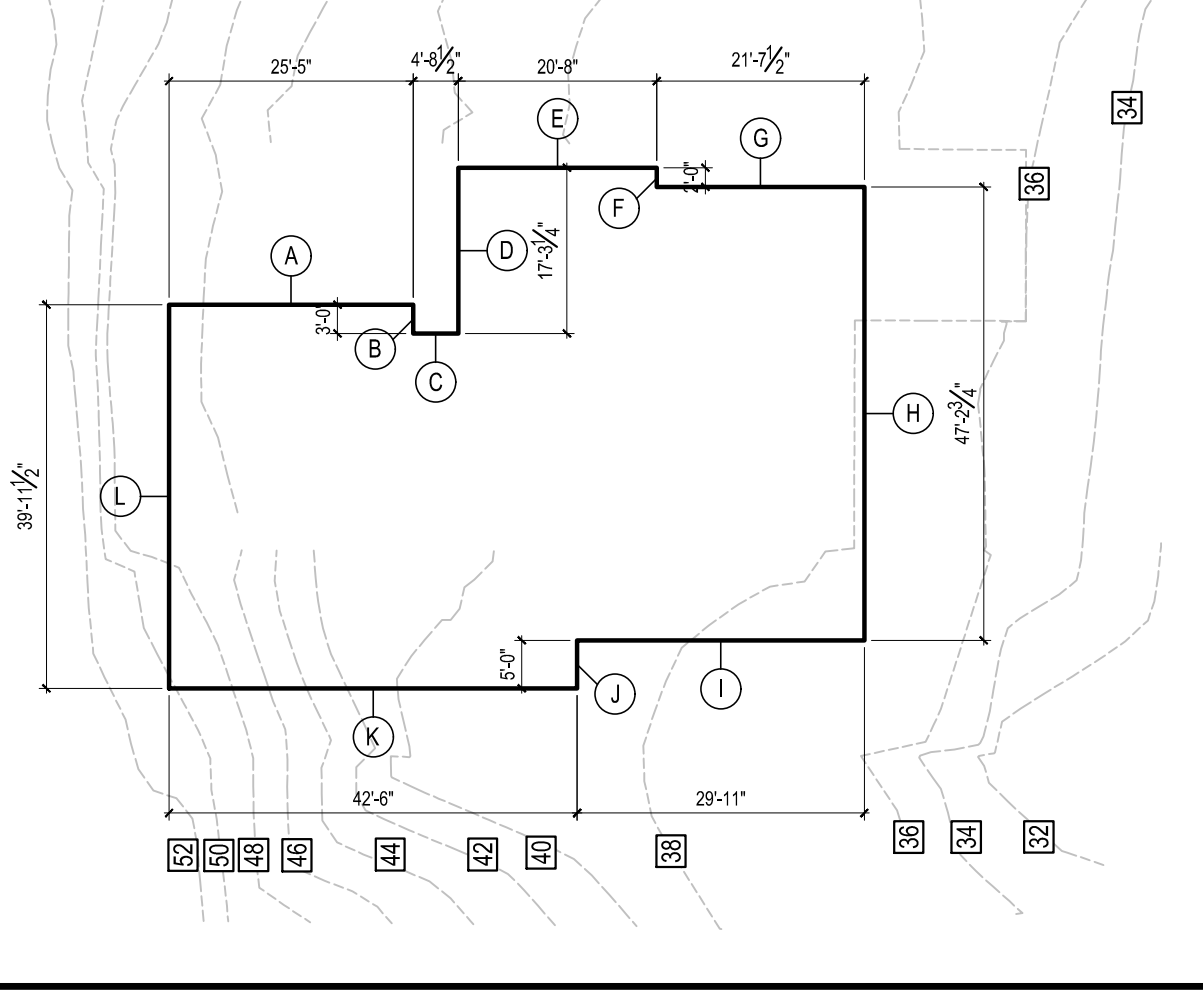
AVERAGE BUILDING ELEV.

Table with 3 columns: Wall Length, Elevation Pt., Wall Length X Elev. Pt. Includes rows A through L and a summary row for Average Building Elevation (41.06).

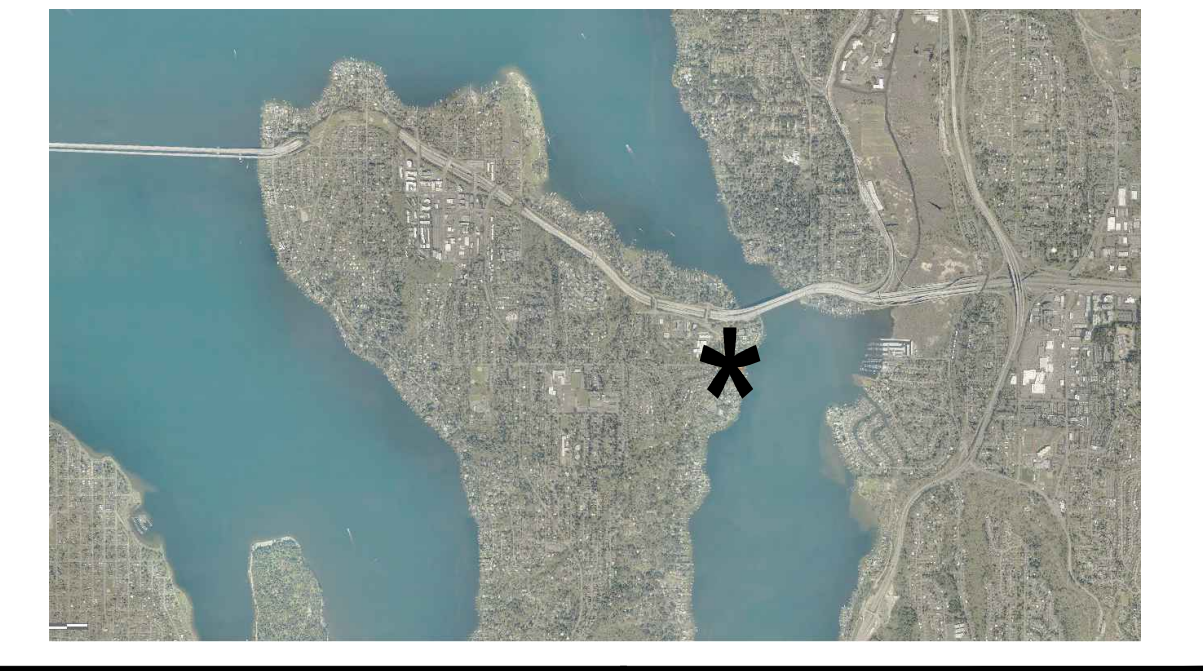
2021 WSEC CREDITS

Table with 3 columns: OPTION, CREDITS, DESCRIPTION. Lists various energy efficiency measures like HEAT PUMP EFFICIENCY, VERTICAL FENESTRATION, and HVAC EQUIP. with associated credit values.

ABE KEY PLAN SCALE: 1" = 20'



VICINITY MAP



DUTY OF COOP.

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS.

NOXIOUS WEEDS

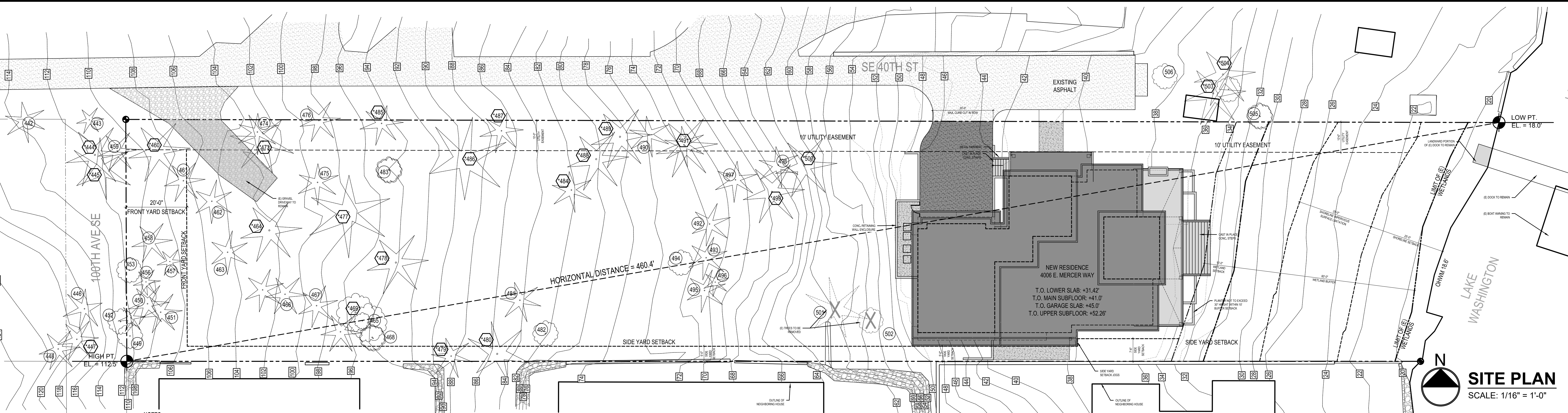
DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST.

LEGAL DESCRIPTION

PER STATUTORY WARRANTY DEED REC. NO. 20200423001396
LOT 1, LAKEHOLM ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 52, RECORDS OF KING COUNTY, WASHINGTON.

SHEET INDEX

- A1.0 COVER SHEET - GENERAL & ENERGY NOTES, LEGAL, PROJECT DATA, CUT-FILL CALC, INDEX, SITE PLAN
A1.1 FULL SITE PLAN, SITE CALCS
A1.2 EXCAVATION PLAN
A1.3 EXISTING TREE PLAN PT. 2
A1.4 DOOR AND WINDOW SCHEDULE, POTENTIAL SUBDIVISION PLAN



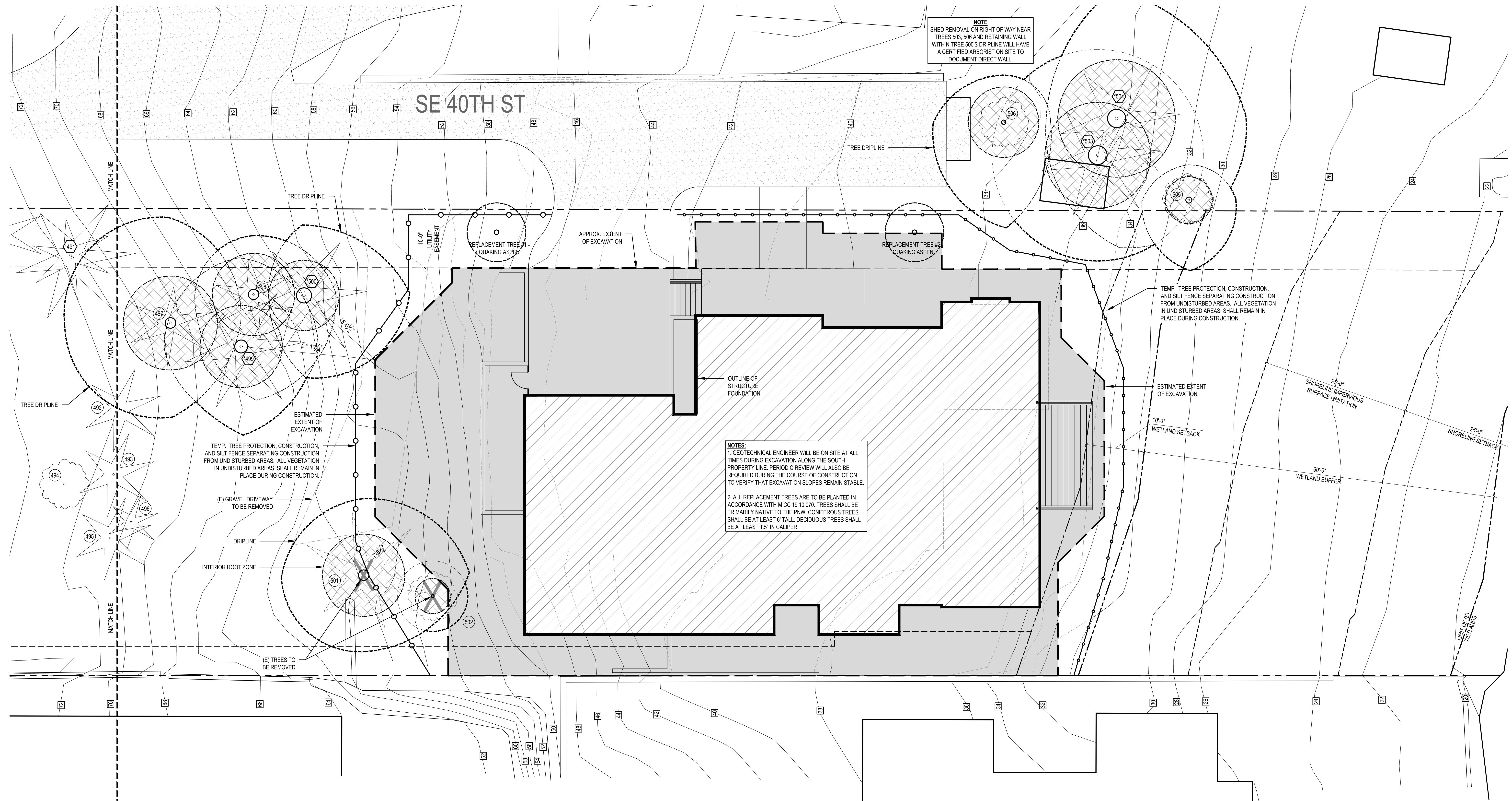
SITE PLAN SCALE: 1/16" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36" IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

Vertical sidebar containing STURMAN ARCHITECTS logo, contact information (4006 E MERCER WAY, MERCER ISLAND, WA 98040), and permit set details.

SITE PLAN PROJECT DATA

Revisions table, plot date (10/26/2024), drawn by (KE, JM), checked by (BJS), and sheet number (A1.0).



NOTE
 SHED REMOVAL ON RIGHT OF WAY NEAR TREES 503, 506 AND RETAINING WALL WITHIN TREE 500'S DRIPLINE WILL HAVE A CERTIFIED ARBORIST ON SITE TO DOCUMENT DIRECT WALL.

NOTES:
 1. GEOTECHNICAL ENGINEER WILL BE ON SITE AT ALL TIMES DURING EXCAVATION ALONG THE SOUTH PROPERTY LINE. PERIODIC REVIEW WILL ALSO BE REQUIRED DURING THE COURSE OF CONSTRUCTION TO VERIFY THAT EXCAVATION SLOPES REMAIN STABLE.
 2. ALL REPLACEMENT TREES ARE TO BE PLANTED IN ACCORDANCE WITH MCC 19.10.070. TREES SHALL BE PRIMARILY NATIVE TO THE PNW. CONIFEROUS TREES SHALL BE AT LEAST 8' TALL. DECIDUOUS TREES SHALL BE AT LEAST 1.5" IN CALIPER.

EXCAVATION PLAN
 SCALE: 1/8" = 1'-0"

RECOMMENDATIONS TO BE IMPLEMENTED FOR TREES:

DO NOT ALLOW EXCAVATION TO ENCOACH FARTHER INTO THE CRITICAL ROOT ZONE OF WHAT IS CURRENTLY PROPOSED ON THE MOST RECENT PLANS.

INSTALL TREE PROTECTION FENCING CONSISTING OF 6-FOOT-TALL CHAIN-LINK FENCING AT THE PROPOSED LIMITS OF EXCAVATION.

CUT ANY ROOTS EXPOSED BY EXCAVATION CLEANLY AND IMMEDIATELY BACKFILL TO PREVENT DESICCATION.

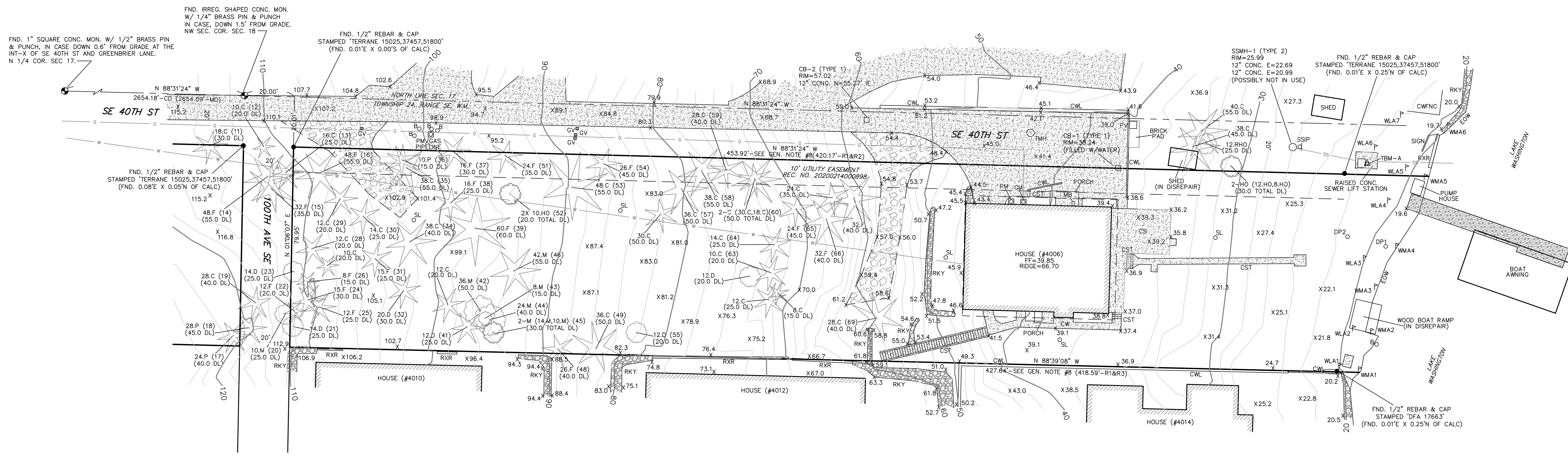
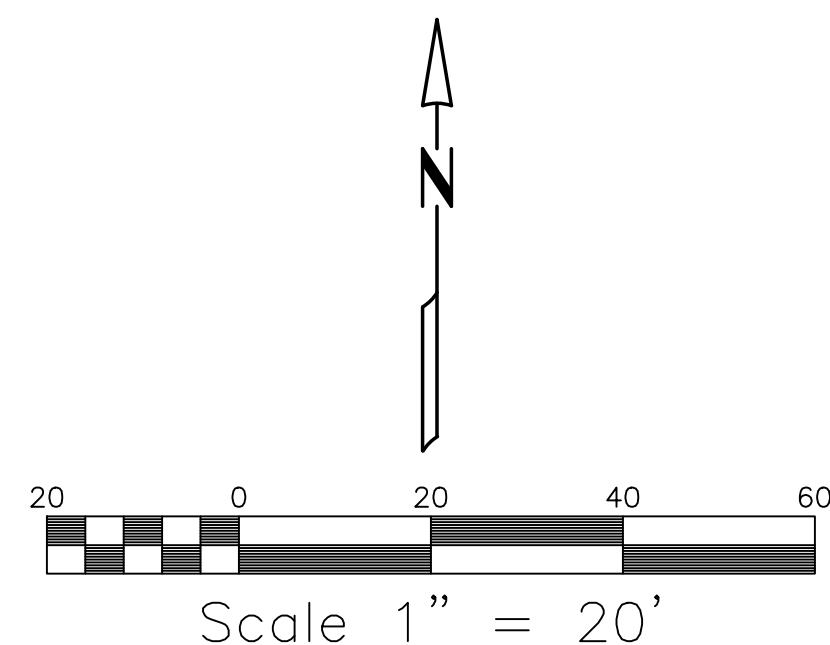
NOTIFY THE PROJECT ARBORIST IF ANY ROOTS IN EXCESS OF 2-INCHES ARE EXPOSED BY EXCAVATION SO THAT IMPACTS MAY BE REASSESSED.

CONSIDER INSTALLING A 4-INCH LAYER OF COARSE WOODY MULCH (ARBORIST WOODCHIPS) TO THE CRITICAL ROOT ZONES OF TREES CLOSEST TO AREA OF WORK TO MITIGATE CONSTRUCTION STRESS AND IMPROVE SOIL STRUCTURE.

REVISIONS:

1		
2		
3		
4		
5		

PLOT DATE: 10/26/2024
 DRAWN BY: JM
 CHECKED BY: BJS



MERIDIAN

ASSUMED— BASIS OF BEARING N. LINE OF SEC. 17, T.24N, R.5E, W.M. AS SHOWN HEREON

LEGEND:

- FOUND MONUMENT AS DESCRIBED
- FOUND EXISTING PROP. COR. AS SHOWN
- ▲ TEMPORARY BENCHMARK AS SHOWN ON MAP
- B BOLLARD
- C CEDAR TREE
- CB CATCH BASIN
- CD CALCULATED DIMENSION
- CS CONCRETE SLAB
- CST CONCRETE STAIRS
- CW CONCRETE WALK
- CWL CONCRETE WALL
- CWFNC CHICKEN WIRE FENCE
- D DECIDUOUS TREE
- DL DRIP LINE
- DP DATA POINT
- EW EDGE OF WATER
- F FIR TREE
- FF FINISH FLOOR ELEVATION
- GM GAS METER
- GV GAS VALVE
- HO HOLLY TREE
- IE INVERT ELEVATION
- M MAPLE TREE
- MB MALBON
- MD MEASURED DIMENSION
- P PINE TREE
- PM POWER METER
- PV POWER VAULT
- RXR RAILROAD TIE WALL
- RHO RHODODENDRON TREE
- RKY ROCKERY
- SL SOIL LOG
- TMH TELEPHONE MANHOLE
- WM WATER METER
- WMA WATER LOCATION FLAG
- WLA WETLAND FLAG

LEGAL DESCRIPTION

PER STATUTORY WARRANTY DEED REC. NO. 20200423001396
 LOT 1, LAKEHOLM ADDITION, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 12 OF PLATS, PAGE 52, RECORDS OF KING COUNTY, WASHINGTON;
 TOGETHER WITH SECOND CLASS SHORELANDS ADJACENT OR ABUTTING THEREON.
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

CONTOUR INTERVAL = 2'

EQUIPMENT & PROCEDURES

FIELD SURVEY CONDUCTED USING A COMBINATION OF GPS USING A REFERENCE NETWORK AND A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. SURVEY PROCEDURES MEET OR EXCEED STATE STANDARDS AS SPECIFIED BY W.A.C. 332-130 WITH REGARD TO LINEAR AND ANGULAR CLOSURES. ALL MEASURING INSTRUMENTS FOR THIS SURVEY HAVE BEEN MAINTAINED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND HAVE BEEN COMPARED WITH A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE WITHIN THE LAST 12 MONTHS.

REFERENCES

1. ALTA/NSPS LAND TITLE SURVEY BY TERRANE; PROVIDED BY CLIENT (R1)
2. RECORD OF SURVEY; VOL. 54 OF SURVEYS, PAGE 202; REC. NO. 198704019003 (R2)
3. RECORD OF SURVEY; VOL. 164 OF SURVEYS, PAGE 03; REC. NO. 20031029900002 (R3)

GENERAL NOTES

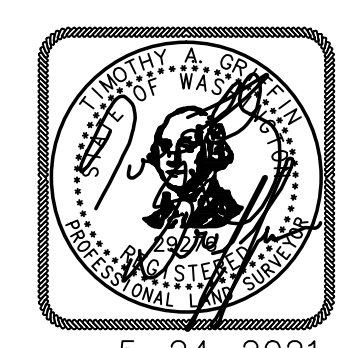
1. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
2. UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, TYEE SURVEYORS DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST. TREES MEASURED IN INCHES AT BREAST HEIGHT, DRIP LINES SHOWN ARE DIAMETER, IN FEET. (XX) IS NUMBER OF TREE TAG, IF AVAILABLE.
4. NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.
5. MAP SYMBOLS ARE NOT TO SCALE, AND ARE FOR GRAPHIC PURPOSES ONLY.
6. THIS SURVEY WAS CREATED USING A COMBINATION OF INTERNAL RECORDS, KING COUNTY RECORDS OF SURVEY NO'S. 20031029900002 & 198704019003 AND THE PLAT OF LAKEHOLM ADD.
7. THE INTENT OF THIS SURVEY IS TO AID WITH DESIGN/PLANNING FOR THIS SITE.
8. THE NORTH AND SOUTH PROPERTY LINES WERE CREATED FROM AND MATCH R1, R2, & R3 IN BEARING RELATIONSHIP BUT HAVE BEEN EXTENDED TO THE EDGE OF EXISTING LOCATIONS DONE BY TYEE SURVEYORS ON 5-20-2020.

BENCHMARK & DATUM INFO

VERTICAL DATUM: NAVD88
 ORIGINAL BM: CITY OF MERCER ISLAND BM-MI 1074; FND. 1" SQUARE CONC. MON. W/ 1/2" BRASS SPIN & PUNCH, IN CASE DOWN 0.6' FROM GRADE AT THE INT-X OF SE 40TH ST AND GREENBRIER LANE. ELEV. = 305.67
 TBM - A: CITY OF MERCER ISLAND BM-PS 12; FND. 2" BRASS DISC SURFACE MON. STAMPED 'CITY OF MERCER ISLAND GPS CONTROL' SET ON TOP OF A RAISED SEWER LIFT STATION VAULT NEAR THE NE CORNER OF THE SITE AS SHOWN ON MAP. ELEV. = 24.18

HATCH LEGEND

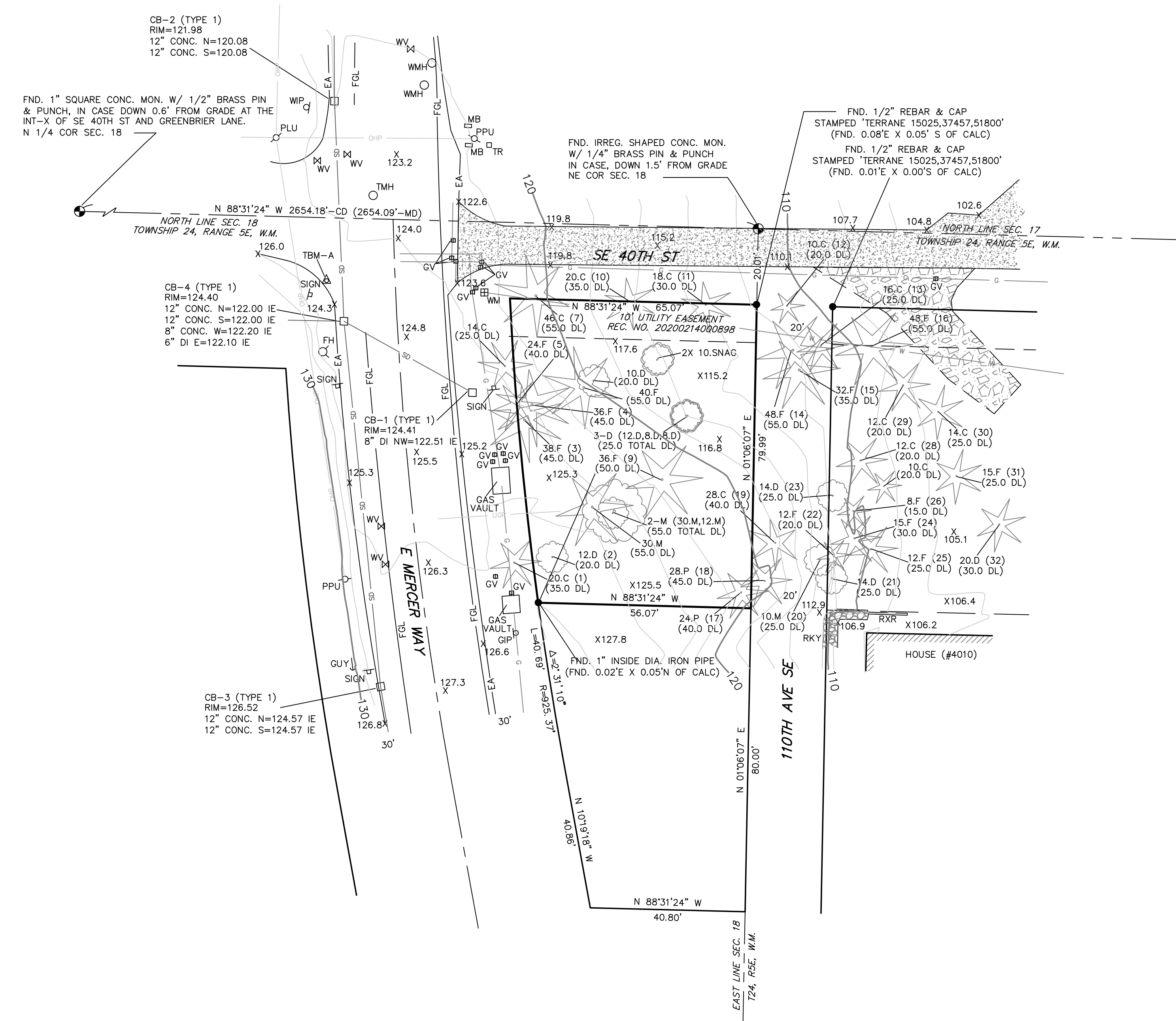
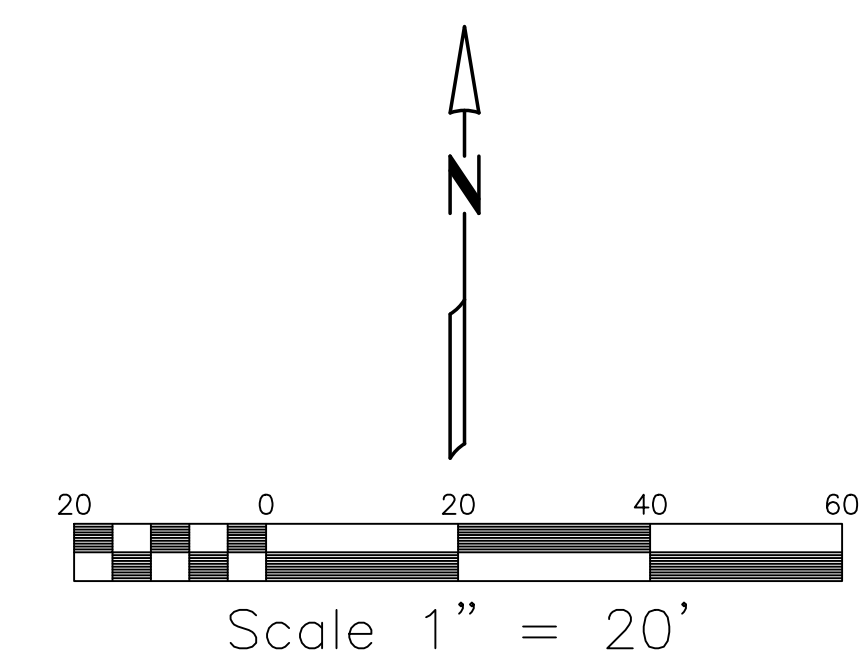
- DECK HATCH
- CONCRETE HATCH
- ROCKERY HATCH
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- SANITARY SEWER LINE
- SPOT ELEVATION
- CONIFER TREE
- DECIDUOUS TREE
- BUILDING HATCH
- GRAVEL HATCH



5-24-2021

SITE ADDRESS: 4006 E MERCER WAY
 PARCEL NUMBER: 413190-0005
 NW1/4, NW1/4, SEC. 17, T. 24 N., R. 5 E., W.M.
 CITY OF MERCER ISLAND, WASHINGTON

TOPOGRAPHIC SURVEY for MITCH MOUNGER		
4006 E MERCER WAY MERCER ISLAND, WASHINGTON 98040		
Tye Surveyors PROFESSIONAL LAND SURVEYORS 10007 GREENWOOD AV. N. SEATTLE, WA. 98133 206-525-3660		
DRAWN BY: AA	DATE: 5-24-2021	JOB NO.: 20057
CHKD BY: TG	SCALE: 1" = 20'	SHEET: 1 OF 2



MERIDIAN
 ASSUMED— BASIS OF BEARING N. LINE OF SEC. 18, T.24N, R.5E, W.M. AS SHOWN HEREON

- LEGEND:**
- FOUND MONUMENT AS DESCRIBED
 - FOUND EXISTING PROP. COR. AS SHOWN
 - △ TEMPORARY BENCHMARK AS SHOWN ON MAP
- | | | | |
|-----|----------------------|-----|-------------------------------|
| C | CEDAR TREE | MD | MEASURED DIMENSION |
| CB | CATCH BASIN | P | PINE TREE |
| CD | CALCULATED DIMENSION | PM | POWER METER |
| D | DECIDUOUS TREE | PPU | POWER POLE W/UNDERGD. |
| DL | DRIP LINE | PPL | POWER POLE W/LIGHT |
| EA | EDGE ASPHALT | PLU | POWER POLE W/LIGHT + UNDERGD. |
| F | FIR TREE | PV | POWER VAULT |
| FGL | FOG LINE | RXR | RAILROAD TIE WALL |
| GIP | GAS INDICATOR POST | RHO | RHOODENDRON TREE |
| GUY | GUY WIRE | RKY | ROCKERY |
| GV | GAS VALVE | TRM | TELEPHONE MANHOLE |
| IE | INVERT ELEVATION | TR | TELEPHONE RISER |
| M | MAPLE TREE | WIP | WATER INDICATOR POST |
| MB | MAILBOX | WM | WATER METER |
-
- | | | | |
|--|----------------|--|----------------|
| | ROCKERY HATCH | | BUILDING HATCH |
| | CONCRETE HATCH | | GRAVEL HATCH |
-
- | | |
|--|-----------------------------|
| | UGP— UNDERGROUND POWER LINE |
| | OHP— OVERHEAD POWER LINE |
| | UGL— UNDERGROUND GAS LINE |
| | W— UNDERGROUND WATER LINE |
-
- XXXX.X SPOT ELEVATION
- CONIFER TREE DECIDUOUS TREE

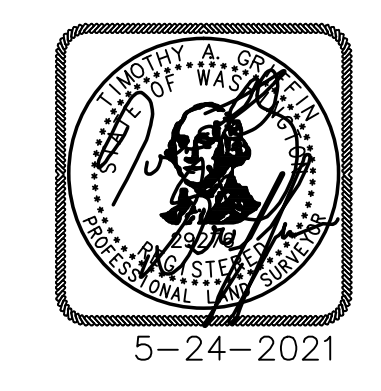
CONTOUR INTERVAL = 2'

BENCHMARK & DATUM INFO
 VERTICAL DATUM: NAVD88
 ORIGINAL BM: CITY OF MERCER ISLAND BM-MI 1074: FND. 1" SQUARE CONC. MON. W/ 1/2" BRASS SPIN & PUNCH, IN CASE DOWN 0.6' FROM GRADE AT THE INT-X OF SE 40TH ST AND GREENBRIER LANE
 ELEV. = 305.67
 TBM - A: MAG NAIL SET AT IN THE SW QUAD OF THE INT-X OF E MERCER WAY & SE 40TH ST.
 ELEV. = 124.31

LEGAL DESCRIPTION
 (PER FIDELITY NATIONAL TITLE COMPANY EXHIBIT 'A', ORDER NO. 611232976)
 THE NORTH 80 FEET OF THE SOUTH 160 FEET OF THE NORTH 180 FEET OF THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 18, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON, LYING EAST OF EAST MERCER WAY.

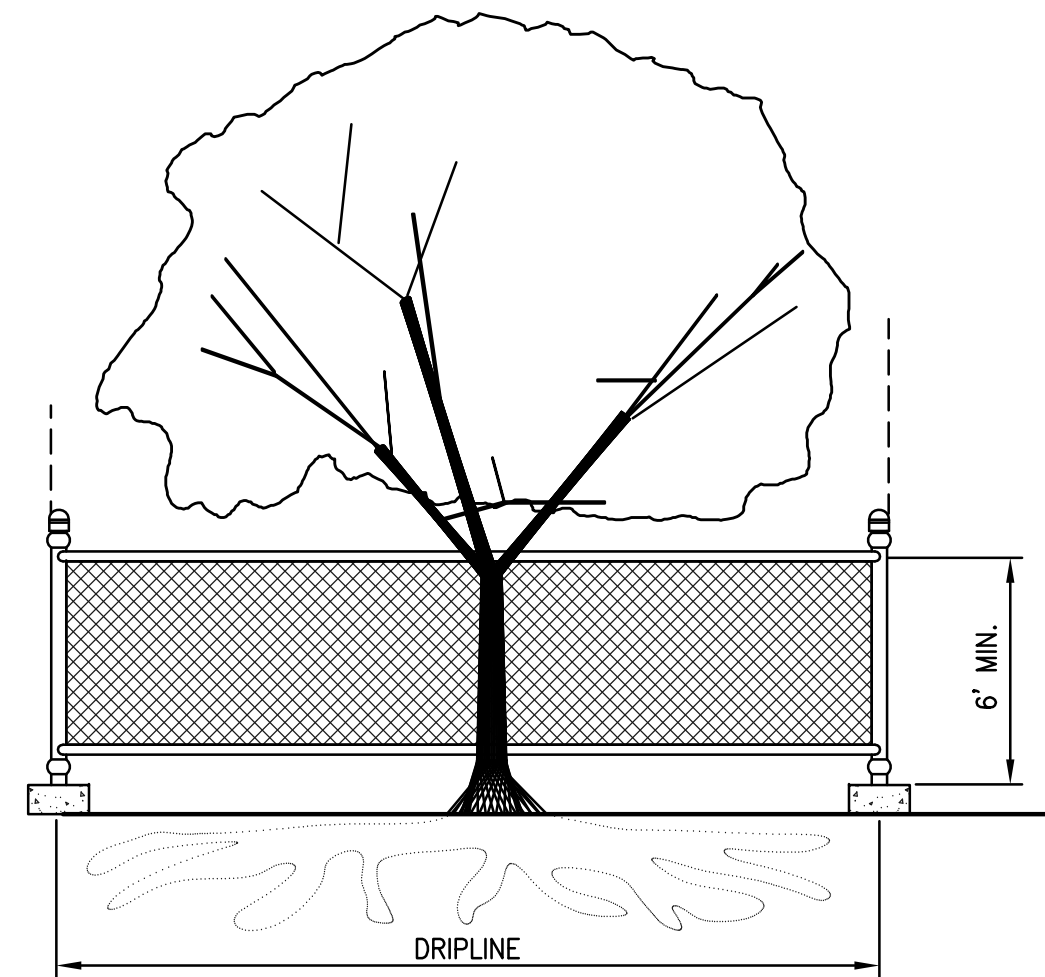
- GENERAL NOTES**
1. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME.
 2. UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS ETC.) THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 3. TREE SIZES WERE LOCATED & SPECIES DETERMINED TO THE BEST OF OUR ABILITY. HOWEVER, TYEE SURVEYORS DOES NOT WARRANT THE ACCURACY OF SIZE & SPECIES SHOWN HEREON. ANY TREES CONSIDERED TO BE CRITICAL SHOULD BE VERIFIED BY A TRAINED ARBORIST.
 4. TREE SIZES MEASURED IN INCHES AT BREAST HEIGHT. DL = DRIP LINE DIAMETER IN FEET WITH A DESIGNATION OF (XX) FOR THE TREE TAG NUMBER IF MARKED ON TREE.
 5. NO PROPERTY CORNERS WERE SET IN CONJUNCTION WITH THIS SURVEY.
 6. MAP SYMBOLS ARE NOT TO SCALE, AND ARE FOR GRAPHIC PURPOSES ONLY.
 7. THIS SURVEY WAS CREATED USING A COMBINATION OF INTERNAL RECORDS AND KING COUNTY RECORDS OF SURVEY NO'S. 20031029900002 & 198704019003.
 8. THE INTENT OF THIS SURVEY IS TO AID WITH DESIGN/PLANNING FOR THIS SITE.

EQUIPMENT & PROCEDURES
 FIELD SURVEY CONDUCTED USING A COMBINATION OF GPS USING A REFERENCE NETWORK AND A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. SURVEY PROCEDURES MEET OR EXCEED STATE STANDARDS AS SPECIFIED BY W.A.C. 332-130 WITH REGARD TO LINEAR AND ANGULAR CLOSURES. ALL MEASURING INSTRUMENTS FOR THIS SURVEY HAVE BEEN MAINTAINED ACCORDING TO MANUFACTURERS SPECIFICATIONS AND HAVE BEEN COMPARED WITH A NATIONAL GEODETIC SURVEY CALIBRATED BASELINE WITHIN THE LAST 12 MONTHS.



PARCEL NUMBER: 182405-9028
 NE1/4, NE1/4, SEC. 18, T. 24 N., R. 5 E., W.M.
 CITY OF MERCER ISLAND, WASHINGTON

TOPOGRAPHIC SURVEY for MITCH MOUNGER		Tyee Surveyors PROFESSIONAL LAND SURVEYORS 10007 GREENWOOD AV. N. SEATTLE, WA. 98133 206-525-3660	
DRAWN BY: AA	DATE: 5-24-2021	JOB NO.:	20057
CHKD BY: TG	SCALE: 1" = 20'	SHEET:	2 OF 2
4006 E MERCER WAY		MERCER ISLAND, WASHINGTON 98040	



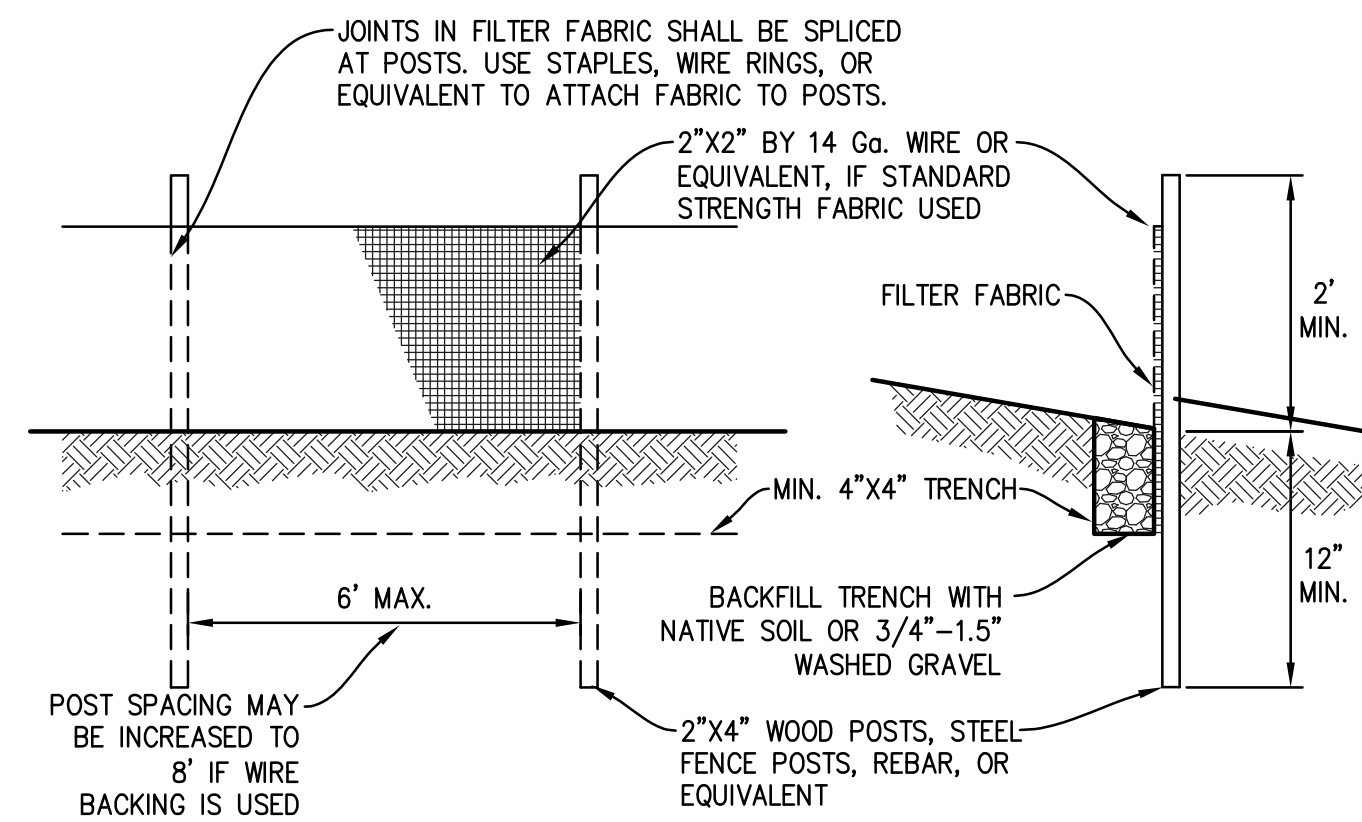
TREE PROTECTION DURING CONSTRUCTION

- 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIROLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
- FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
- WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

TREE PROTECTION

SCALE: NTS

1



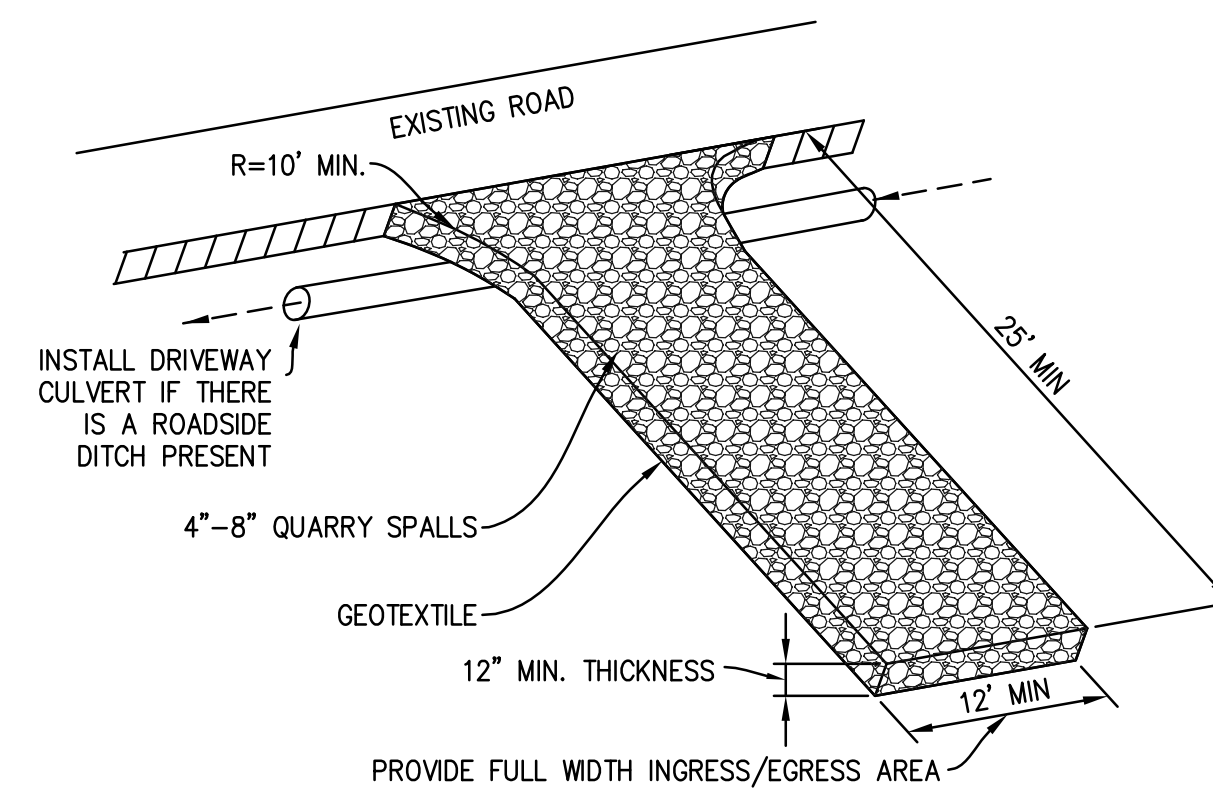
MAINTENANCE STANDARDS

- ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCUR, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.
- IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE

SCALE: NTS

2



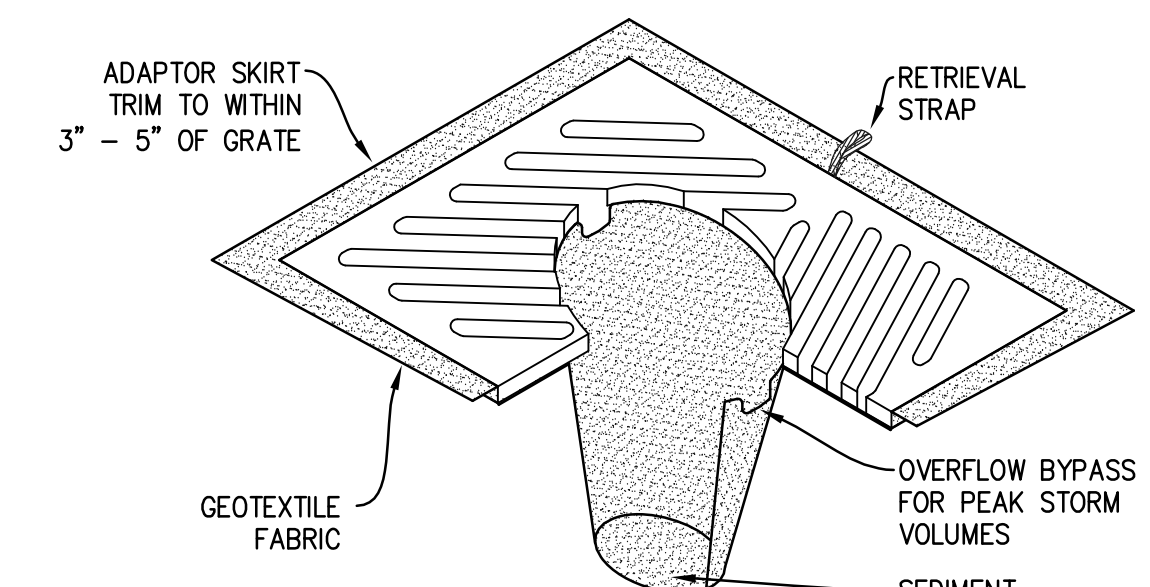
MAINTENANCE STANDARDS

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

ROCK CONSTRUCTION ENTRANCE

SCALE: NTS

3



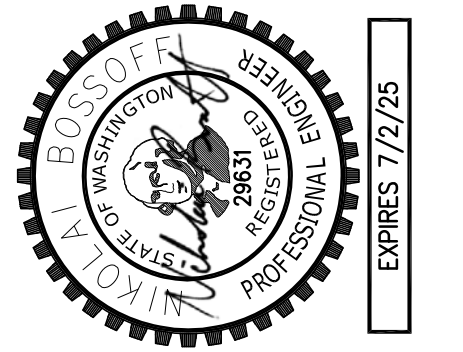
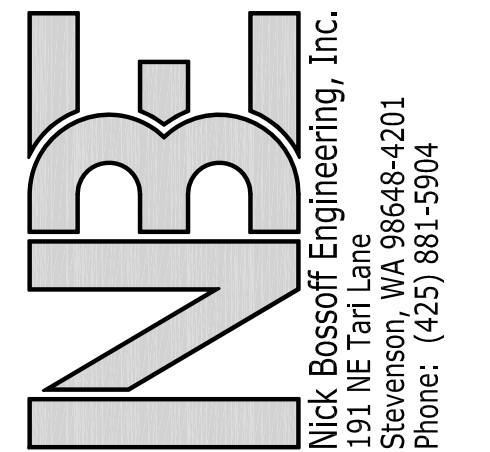
NOTES

- INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
- SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
- SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

CB INSERT

SCALE: NTS

4



NO.	DATE	REVISION
1	07/14/21	BUD SCOPE CHANGE & CITY COMMENTS
2	10/08/21	WALL REVISION
3	02/07/22	CITY COMMENTS
4	04/29/22	REVISED BUILDING
5	06/06/22	CITY COMMENTS
6	08/24/22	CITY COMMENTS
7	10/20/22	CITY COMMENTS
8	09/11/24	REVISED BUILDING

N. BOSSOFF, P.E.
 PROJECT MANAGER: NB
 DESIGNED: TKB
 DRAWN: SARC-2002
 JOB NUMBER: SARC-2002pln.dwg
 FILE NAME: SARC-2002pln.dwg

JASON RESIDENCE
4006 E MERCER WAY

WASHINGTON

MERCER ISLAND

TITLE:
DETAILS

SHEET:
C-3

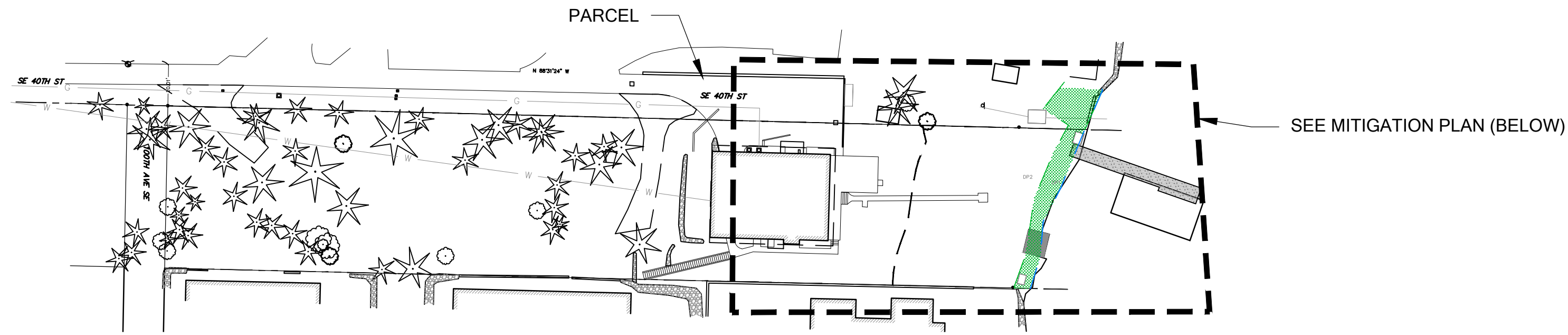
JASON BROTHERS, INC. RESIDENCE



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science &



PARCEL OVERVIEW

SCALE 1"= 50'

LEGEND

- PARCEL BOUNDARY
- DELINEATED OHWM
- DATA POINT
- WETLAND FLAGS
- DELINEATED WETLAND BOUNDARY
- SHORELINE SETBACK (50 FT)
- SHORELINE BUFFER (25 FT)
- WETLAND BUFFER (60 FT)
- WETLAND BUFFER BSBL

MITIGATION LEGEND

- PRE-EXISTING IMPACT IN WETLAND
- 20' SHORELINE ENHANCEMENT (770 SF)
- SHORELINE ENHANCEMENT OVER WETLAND (481 SF)

MITIGATION AREA NOTES

1. TOTAL AREA WITHIN 20 FT OF THE OHWM = 1,668 SF
2. TOTAL PLANTED SHORELINE AREA = 75% = 1,251 SF
3. TOTAL ACCESS AREA = 25% = 417 SF

SHEET INDEX

- W1 MITIGATION PLAN AND PARCEL OVERVIEW
- W2 PLANTING PLAN AND SCHEDULE
- W3 MITIGATION DETAILS AND NOTES

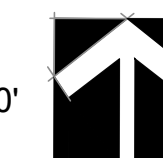
NOTES

1. WETLAND AND OHWM DELINEATED BY THE WATERSHED COMPANY ON MAY 19, 2020
2. SITE PLAN PROVIDED BY STURMAN ARCHITECTS; 103RD AVENUE NE, SUITE 203, BELLEVUE, WA 98004 (425) 451-7003



MITIGATION PLAN

SCALE 1:10



PERMIT SET

NOT FOR CONSTRUCTION

-

JASON BROTHERS, INC RESIDENCE
SHORELINE MITIGATION PLAN
PREPARED FOR: BRAD STURMAN

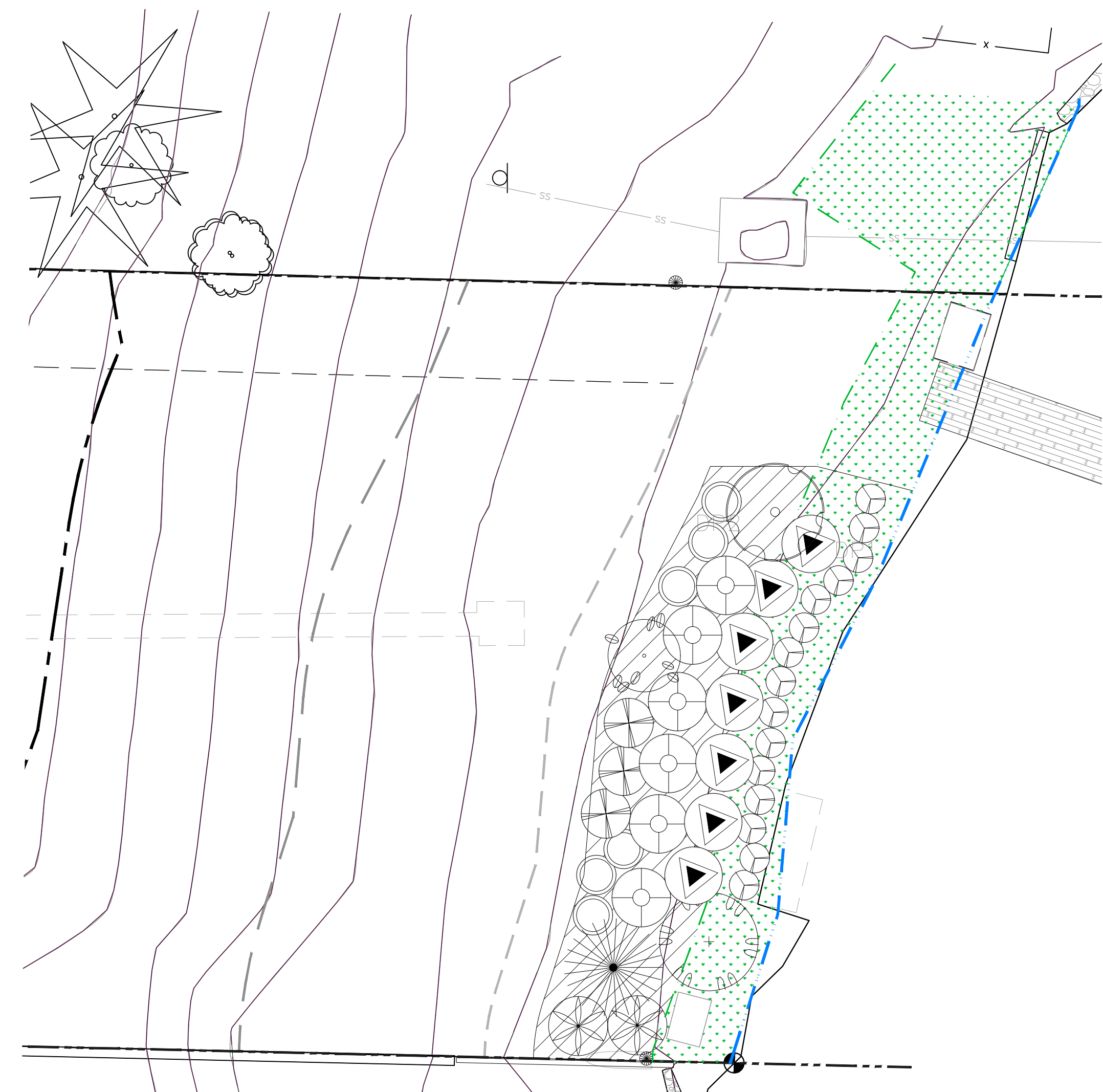
4006 EAST MERCER WAY
 MERCER ISLAND, WA 98040

SUBMITTALS & REVISIONS		BY	DATE	DESCRIPTION
1	08-20-2020	AS/MF	MITIGATION PLANTING PLAN	
2	06-07-2021	AF	MITIGATION PLANTING PLAN REVISED	
	04-28-2022	AF	MITIGATION PLAN REVISED	

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: RK
DESIGNED: RK/MF
DRAFTED: AS/MF/AF
CHECKED: RK

JOB NUMBER:
200509
SHEET NUMBER:
W1 OF 3



PLANT INSTALLATION SPECIFICATIONS

GENERAL NOTES

- QUALITY ASSURANCE**
- PLANTS SHALL MEET OR EXCEED THE SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
 - PLANTS SHALL BE HEALTHY, VIGOROUS, AND WELL-FORMED, WITH WELL DEVELOPED, FIBROUS ROOT SYSTEMS, FREE FROM DEAD BRANCHES OR ROOTS. PLANTS SHALL BE FREE FROM DAMAGE CAUSED BY TEMPERATURE EXTREMES, LACK OR EXCESS OF MOISTURE, INSECTS, DISEASE, AND MECHANICAL INJURY. PLANTS IN LEAF SHALL BE WELL FOLIATED AND OF GOOD COLOR. PLANTS SHALL BE HABITUATED TO THE OUTDOOR ENVIRONMENTAL CONDITIONS INTO WHICH THEY WILL BE PLANTED (HARDENED-OFF).
 - TREES WITH DAMAGED, CROOKED, MULTIPLE OR BROKEN LEADERS WILL BE REJECTED. WOODY PLANTS WITH ABRASIONS OF THE BARK OR SUN SCALD WILL BE REJECTED.
 - NOMENCLATURE: PLANT NAMES SHALL CONFORM TO FLORA OF THE PACIFIC NORTHWEST BY HITCHCOCK AND CRONQUIST, UNIVERSITY OF WASHINGTON PRESS, 1973 AND/OR TO A FIELD GUIDE TO THE COMMON WETLAND PLANTS OF WESTERN WASHINGTON & NORTHWESTERN OREGON, ED. SARAH SPEAR COOKE, SEATTLE AUDUBON SOCIETY, 1997.

DEFINITIONS

- PLANTS/PLANT MATERIALS. PLANTS AND PLANT MATERIALS SHALL INCLUDE ANY LIVE PLANT MATERIAL USED ON THE PROJECT. THIS INCLUDES BUT IS NOT LIMITED TO CONTAINER GROWN, B&B OR BAREROOT PLANTS; LIVE STAKES AND FASCINES (WATTLES); TUBERS, CORMS, BULBS, ETC.; SPRIGS, PLUGS, AND LINERS.
- CONTAINER GROWN. CONTAINER GROWN PLANTS ARE THOSE WHOSE ROOTBALLS ARE ENCLOSED IN A POT OR BAG IN WHICH THAT PLANT GREW.

SUBSTITUTIONS

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SPECIFIED MATERIALS IN ADVANCE IF SPECIAL GROWING, MARKETING OR OTHER ARRANGEMENTS MUST BE MADE IN ORDER TO SUPPLY SPECIFIED MATERIALS.
- SUBSTITUTION OF PLANT MATERIALS NOT ON THE PROJECT LIST WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE RESTORATION CONSULTANT.
- IF PROOF IS SUBMITTED THAT ANY PLANT MATERIAL SPECIFIED IS NOT OBTAINABLE, A PROPOSAL WILL BE CONSIDERED FOR USE OF THE NEAREST EQUIVALENT SIZE OR ALTERNATIVE SPECIES, WITH CORRESPONDING ADJUSTMENT OF CONTRACT PRICE.
- SUCH PROOF WILL BE SUBSTANTIATED AND SUBMITTED IN WRITING TO THE CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION.

INSPECTION

- PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE RESTORATION CONSULTANT FOR CONFORMANCE TO SPECIFICATIONS, EITHER AT TIME OF DELIVERY ON-SITE OR AT THE GROWER'S NURSERY. APPROVAL OF PLANT MATERIALS AT ANY TIME SHALL NOT IMPAIR THE SUBSEQUENT RIGHT OF INSPECTION AND REJECTION DURING PROGRESS OF THE WORK.
- PLANTS INSPECTED ON SITE AND REJECTED FOR NOT MEETING SPECIFICATIONS MUST BE REMOVED IMMEDIATELY FROM SITE OR RED-TAGGED AND REMOVED AS SOON AS POSSIBLE.
- THE RESTORATION CONSULTANT MAY ELECT TO INSPECT PLANT MATERIALS AT THE PLACE OF GROWTH. AFTER INSPECTION AND ACCEPTANCE, THE RESTORATION CONSULTANT MAY REQUIRE THE INSPECTED PLANTS BE LABELED AND RESERVED FOR PROJECT. SUBSTITUTION OF THESE PLANTS WITH OTHER INDIVIDUALS, EVEN OF THE SAME SPECIES AND SIZE, IS UNACCEPTABLE.

MEASUREMENT OF PLANTS

- PLANTS SHALL CONFORM TO SIZES SPECIFIED UNLESS SUBSTITUTIONS ARE MADE AS OUTLINED IN THIS CONTRACT.
- HEIGHT AND SPREAD DIMENSIONS SPECIFIED REFER TO MAIN BODY OF PLANT AND NOT BRANCH OR ROOT TIP TO TIP. PLANT DIMENSIONS SHALL BE MEASURED WHEN THEIR BRANCHES OR ROOTS ARE IN THEIR NORMAL POSITION.
- WHERE A RANGE OF SIZE IS GIVEN, NO PLANT SHALL BE LESS THAN THE MINIMUM SIZE AND AT LEAST 50% OF THE PLANTS SHALL BE AS LARGE AS THE MEDIAN OF THE SIZE RANGE. (EXAMPLE: IF THE SIZE RANGE IS 12" TO 18", AT LEAST 50% OF PLANTS MUST BE 15" TALL.)

SUBMITTALS

- PROPOSED PLANT SOURCES**
- WITHIN 45 DAYS AFTER AWARD OF THE CONTRACT, SUBMIT A COMPLETE LIST OF PLANT MATERIALS PROPOSED

TO BE PROVIDED DEMONSTRATING CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. INCLUDE THE NAMES AND ADDRESSES OF ALL GROWERS AND NURSERIES.

PRODUCT CERTIFICATES

- PLANT MATERIALS LIST - SUBMIT DOCUMENTATION TO CONSULTANT AT LEAST 30 DAYS PRIOR TO START OF WORK UNDER THIS SECTION THAT PLANT MATERIALS HAVE BEEN ORDERED. ARRANGE PROCEDURE FOR INSPECTION OF PLANT MATERIAL WITH CONSULTANT AT TIME OF SUBMISSION.
- HAVE COPIES OF VENDOR'S OR GROWER'S INVOICES OR PACKING SLIPS FOR ALL PLANTS ON SITE DURING INSTALLATION. INVOICE OR PACKING SLIP SHOULD LIST SPECIES BY SCIENTIFIC NAME, QUANTITY, AND DATE DELIVERED (AND GENETIC ORIGIN IF THAT INFORMATION WAS PREVIOUSLY REQUESTED).

DELIVERY, HANDLING, & STORAGE

NOTIFICATION
CONTRACTOR MUST NOTIFY CONSULTANT 48 HOURS OR MORE IN ADVANCE OF DELIVERIES SO THAT CONSULTANT MAY ARRANGE FOR INSPECTION.

PLANT MATERIALS

- TRANSPORTATION - DURING SHIPPING, PLANTS SHALL BE PACKED TO PROVIDE PROTECTION AGAINST CLIMATE EXTREMES, BREAKAGE AND DRYING. PROPER VENTILATION AND PREVENTION OF DAMAGE TO BARK, BRANCHES, AND ROOT SYSTEMS MUST BE ENSURED.
- SCHEDULING AND STORAGE - PLANTS SHALL BE DELIVERED AS CLOSE TO PLANTING AS POSSIBLE. PLANTS IN STORAGE MUST BE PROTECTED AGAINST ANY CONDITION THAT IS DETRIMENTAL TO THEIR CONTINUED HEALTH AND VIGOR.
- HANDLING - PLANT MATERIALS SHALL NOT BE HANDLED BY THE TRUNK, LIMBS, OR FOLIAGE BUT ONLY BY THE CONTAINER, BALL, BOX, OR OTHER PROTECTIVE STRUCTURE. EXCEPT BAREROOT PLANTS SHALL BE KEPT IN BUNDLES UNTIL PLANTING AND THEN HANDLED CAREFULLY BY THE TRUNK OR STEM.
- LABELS - PLANTS SHALL HAVE DURABLE, LEGIBLE LABELS STATING CORRECT SCIENTIFIC NAME AND SIZE. TEN PERCENT OF CONTAINER GROWN PLANTS IN INDIVIDUAL POTS SHALL BE LABELED. PLANTS SUPPLIED IN FLATS, RACKS, BOXES, BAGS, OR BUNDLES SHALL HAVE ONE LABEL PER GROUP.

WARRANTY

PLANT WARRANTY
PLANTS MUST BE GUARANTEED TO BE TRUE TO SCIENTIFIC NAME AND SPECIFIED SIZE, AND TO BE HEALTHY AND CAPABLE OF VIGOROUS GROWTH.

REPLACEMENT

- PLANTS NOT FOUND MEETING ALL OF THE REQUIRED CONDITIONS AT THE CONSULTANT'S DISCRETION MUST BE REMOVED FROM SITE AND REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- PLANTS NOT SURVIVING AFTER ONE YEAR TO BE REPLACED AT THE CONTRACTOR'S EXPENSE.

PLANT MATERIAL

GENERAL

- PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES UNDER CLIMATIC CONDITIONS SIMILAR TO OR MORE SEVERE THAN THOSE OF THE PROJECT SITE.
- PLANTS SHALL BE TRUE TO SPECIES AND VARIETY OR SUBSPECIES. NO CULTIVARS OR NAMED VARIETIES SHALL BE USED UNLESS SPECIFIED AS SUCH.

QUANTITIES

SEE PLANT LIST ON ACCOMPANYING PLANS AND PLANT SCHEDULES.

ROOT TREATMENT

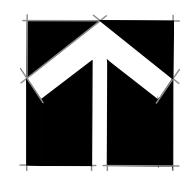
- CONTAINER GROWN PLANTS (INCLUDES PLUGS): PLANT ROOT BALLS MUST HOLD TOGETHER WHEN THE PLANT IS REMOVED FROM THE POT, EXCEPT THAT A SMALL AMOUNT OF LOOSE SOIL MAY BE ON THE TOP OF THE ROOTBALL.
- PLANTS MUST NOT BE ROOT-BOUND; THERE MUST BE NO CIRCLING ROOTS PRESENT IN ANY PLANT INSPECTED.
- ROOTBALLS THAT HAVE CRACKED OR BROKEN WHEN REMOVED FROM THE CONTAINER SHALL BE REJECTED.

PLANT SCHEDULE

TREES	COMMON / BOTANICAL NAME	SIZE	QTY	GROUNDCOVER	COMMON / BOTANICAL NAME	SIZE	SPACING	QTY	REMARKS
	PAPER BIRCH / BETULA PAPYRIFERA	1.5" CAL	1		GOATSBEARD / ARUNCUS SYLVESTER	1 GAL.	24" O.C.	25	PLANT IN SAME-SPECIES GROUPINGS OF 3-9 PLANTS
	OREGON ASH / FRAXINUS LATIFOLIA	5 GAL.	1		TUFTED HAIRGRASS / DESCHAMPSIA CESPITOSA	1 GAL.	24" O.C.	25	
	SHORE PINE / PINUS CONTORTA	6 FT B&B	1		SMALL-FRUITED BULRUSH / SCIRPUS MICROCARPUS	4" POT/PLUG	24" O.C.	25	
	COMMON / BOTANICAL NAME	SIZE	QTY		WESTERN COLUMBINE / AQUILEGIA FORMOSA	1 GAL.	24" O.C.	12	PLANT IN SAME SPECIES GROUPINGS 5-9 PLANTS IN CLUSTERS THROUGHOUT PLANTING BED
	VINE MAPLE / ACER CIRCINATUM	10 GAL.	1		SWORD FERN / POLYSTICHUM MUNITUM	1 GAL.	24" O.C.	24	
	CORNUS SERICEA 'KELSEY' / RED-TWIG DOGWOOD	1 GAL.	15		OREGON STONECROP / SEDUM OREGONUM	4" POT	15" O.C.	32	
	PACIFIC BAYBERRY / MORELLA CALIFORNICA	5 GAL.	2		TOUGH-LEAF IRIS / IRIS TENAX	1 GAL.	24" O.C.	12	
	MOCK ORANGE / PHILADELPHUS LEWISII	1 GAL.	6						
	CLUSTERED WILD ROSE / ROSA PISOCARPA	1 GAL.	7						
	ROSE SPIREA / SPIRAEA DENSIFLORA	1 GAL.	6						
VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL.	3							

PLANTING PLAN AND SCHEDULE

SCALE 1:10



NOTES

- SEE SHEET W3 FOR SITE PREPARATION AND PLANTING DETAILS.

PERMIT SET

NOT FOR CONSTRUCTION

SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

PROJECT MANAGER: RK
DESIGNED: RK/MF
DRAFTED: AS/MF/AF
CHECKED: RK

JOB NUMBER: 200509

SHEET NUMBER: W2 OF 3

SUBMITTALS & REVISIONS		NO.	DATE	DESCRIPTION	BY
1	08-20-2020	MITIGATION PLANTING PLAN	AS/MF		
2	06-07-2021	MITIGATION PLANTING PLAN REVISED	AF		
	04-28-2022	MITIGATION PLANTING PLAN REVISED	AF		

MITIGATION SPECIFICATIONS

OVERVIEW

A COMPREHENSIVE FIVE-YEAR MAINTENANCE AND MONITORING PLAN IS INCLUDED AS PART OF THE SHORELINE AND WETLAND/WETLAND BUFFER ENHANCEMENT. THE PLAN SPECIFIES APPROPRIATE SPECIES FOR PLANTING AND PLANTING TECHNIQUES, DESCRIBES PROPER MAINTENANCE ACTIVITIES, AND SETS FORTH PERFORMANCE STANDARDS TO BE MET YEARLY DURING MONITORING. THIS WILL ENSURE THAT ENHANCEMENT/RESTORATION PLANTINGS WILL BE MAINTAINED, MONITORED, AND SUCCESSFULLY ESTABLISHED WITHIN THE FIRST FIVE YEARS FOLLOWING IMPLEMENTATION.

PROPOSED RESTORATION BEGINS WITH INCORPORATING COMPOST INTO THE BUFFER ENHANCEMENT AREA. NO COMPOST SHALL BE APPLIED IN THE WETLAND. THIS WILL BE FOLLOWED BY INSTALLATION OF THREE NATIVE TREE SPECIES, SEVEN NATIVE SHRUB SPECIES, AND EIGHT NATIVE GROUNDCOVER SPECIES SUITABLE TO THE SITE. THE PLAN CALLS FOR NEW PLANTINGS WITHIN THE INNER 20-FOOT SHORELINE SETBACK AREA, INCLUDING WITHIN WETLAND A AND THE OVERLAPPING SHORELINE SETBACK/WETLAND A BUFFER. NATIVE PLANTINGS ARE INTENDED TO INCREASE NATIVE PLANT COVER, IMPROVE NATIVE SPECIES DIVERSITY, IMPROVE VEGETATIVE SCREENING, INCREASE VEGETATIVE STRUCTURE, AND PROVIDE FOOD AND OTHER HABITAT RESOURCES FOR WILDLIFE.

GOALS

ENHANCE SHORELINE BUFFERS.

- a. REDUCE THE AMOUNT OF IMPERVIOUS SURFACE AREA WITHIN THE WETLAND BUFFER AND SHORELINE SETBACK.
- b. ESTABLISH DENSE AND DIVERSE NATIVE TREE, SHRUB, AND GROUNDCOVER VEGETATION THROUGHOUT THE MITIGATION AREA.

PERFORMANCE STANDARDS

THE STANDARDS LISTED BELOW WILL BE USED TO JUDGE THE SUCCESS OF THE PLAN OVER TIME. IF THE STANDARDS ARE MET AT THE END OF THE FIVE-YEAR MONITORING PERIOD, THE CITY SHALL ISSUE RELEASE OF THE PERFORMANCE BOND.

1. SURVIVAL:
 - a. 100% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS AT THE END OF YEAR-1. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
 - b. 80% SURVIVAL OF ALL INSTALLED TREES AND SHRUBS AT THE END OF YEAR 2. THIS STANDARD MAY BE MET THROUGH ESTABLISHMENT OF INSTALLED PLANTS OR BY REPLANTING AS NECESSARY TO ACHIEVE THE REQUIRED NUMBERS.
2. NATIVE VEGETATION COVER IN PLANTED AREAS:
 - a. ACHIEVE AT LEAST 60% COVER OF NATIVE TREES, SHRUBS, AND GROUNDCOVERS IN PLANTED AREAS BY THE END OF YEAR 3. VOLUNTEER SPECIES MAY COUNT TOWARD THIS STANDARD.
 - b. ACHIEVE AT LEAST 80% COVER OF NATIVE TREES, SHRUBS, AND GROUNDCOVERS IN PLANTED AREAS BY THE END OF YEAR 5. VOLUNTEER SPECIES MAY COUNT TOWARD THIS STANDARD.
3. DIVERSITY: A MINIMUM OF TWO TREE SPECIES, FIVE SHRUB SPECIES, AND FIVE EMERGENT SPECIES WILL BE PRESENT IN THE MITIGATION AREA IN YEARS 3 - 5.
4. INVASIVE SPECIES STANDARD: NO MORE THAN 10% COVER OF INVASIVE SPECIES IN THE PLANTING AREA IN ANY MONITORING YEAR. INVASIVE SPECIES ARE DEFINED AS ANY CLASS A, B, OR C NOXIOUS WEEDS AS LISTED BY THE KING COUNTY NOXIOUS WEED CONTROL BOARD.

MONITORING METHODS

THIS MONITORING PROGRAM IS DESIGNED TO TRACK THE SUCCESS OF THE MITIGATION SITE OVER TIME BY MEASURING THE DEGREE TO WHICH THE PERFORMANCE STANDARDS LISTED ABOVE ARE BEING MET. AN AS-BUILT PLAN WILL BE PREPARED WITHIN 30 DAYS OF SUBSTANTIALLY COMPLETE CONSTRUCTION OF THE MITIGATION AREAS. THE AS-BUILT PLAN WILL DOCUMENT CONFORMANCE WITH THESE PLANS AND WILL DISCLOSE ANY SUBSTITUTIONS OR OTHER NON-CRITICAL DEPARTURES. THE AS-BUILT PLAN WILL ESTABLISH BASELINE PLANT INSTALLATION QUANTITIES AND PHOTOPOINTS THAT WILL BE USED THROUGHOUT THE MONITORING PERIOD TO VISUALLY DOCUMENT SITE CHANGES OVER TIME.

MONITORING WILL OCCUR ANNUALLY FOR FIVE YEARS. THE INSPECTION WILL OCCUR IN LATE SUMMER OR FALL AND WILL RECORD THE FOLLOWING AND BE SUBMITTED IN AN ANNUAL REPORT TO THE CITY:

1. COUNTS OF SURVIVING AND DEAD/DYING PLANTS BY SPECIES IN THE PLANTING AREAS.
2. ESTIMATES OF NATIVE SPECIES COVER USING COVER CLASS METHOD.
3. ESTIMATES OF INVASIVE SPECIES COVER USING COVER CLASS METHOD.
4. PHOTOGRAPHIC DOCUMENTATION AT PERMANENT PHOTOPOINTS.
5. RECOMMENDATIONS FOR MAINTENANCE IN THE MITIGATION AREAS.
6. RECOMMENDATIONS FOR REPLACEMENT OF ALL DEAD OR DYING PLANT MATERIAL WITH SAME OR LIKE SPECIES AND NUMBER AS ON THE APPROVED PLAN.

CONSTRUCTION NOTES AND SPECIFICATIONS

GENERAL NOTES

THE RESTORATION SPECIALIST WILL OVERSEE THE FOLLOWING:

1. CLEARING, SOIL DECOMPACTION, AND COMPOST INCORPORATION;
2. INVASIVE WEED CLEARING; AND
3. PLANT MATERIAL INSPECTION.
 - a) PLANT DELIVERY INSPECTION.
 - b) 100% PLANT INSTALLATION INSPECTION.

WORK SEQUENCE

1. CLEAR THE PLANTING AREA OF ALL INVASIVE SPECIES USING HAND TOOLS.
2. ROTO-TILL THREE INCHES OF COMPOST INTO THE UPPER 9 INCHES OF THE SOIL IN BUFFER AREAS ONLY. DO NOT APPLY COMPOST WITHIN THE WETLAND AREA.
3. ALL PLANT INSTALLATION WILL TAKE PLACE DURING THE DORMANT SEASON (OCTOBER 15TH TO MARCH 1ST).
4. LAYOUT VEGETATION TO BE INSTALLED PER THE PLANTING PLAN AND PLANT SCHEDULE.
5. PREPARE A PLANTING PIT FOR EACH PLANT AND INSTALL PER THE PLANTING DETAILS.
6. MULCH EACH TREE AND SHRUB WITH A CIRCULAR WOOD CHIP MULCH RING, FOUR INCHES THICK AND EXTENDING SIX INCHES FROM THE BASE OF THE PLANT (12-INCH DIAMETER) IN THE BUFFER AREAS ONLY. DO NOT APPLY MULCH IN WETLAND AREA. ALTERNATIVELY, A BLANKET MULCH APPLICATION MAY BE APPLIED TO THE ENTIRE RESTORATION AREA.

MAINTENANCE

THIS SITE WILL BE MAINTAINED FOR FIVE YEARS FOLLOWING COMPLETION OF THE PLANT INSTALLATION.

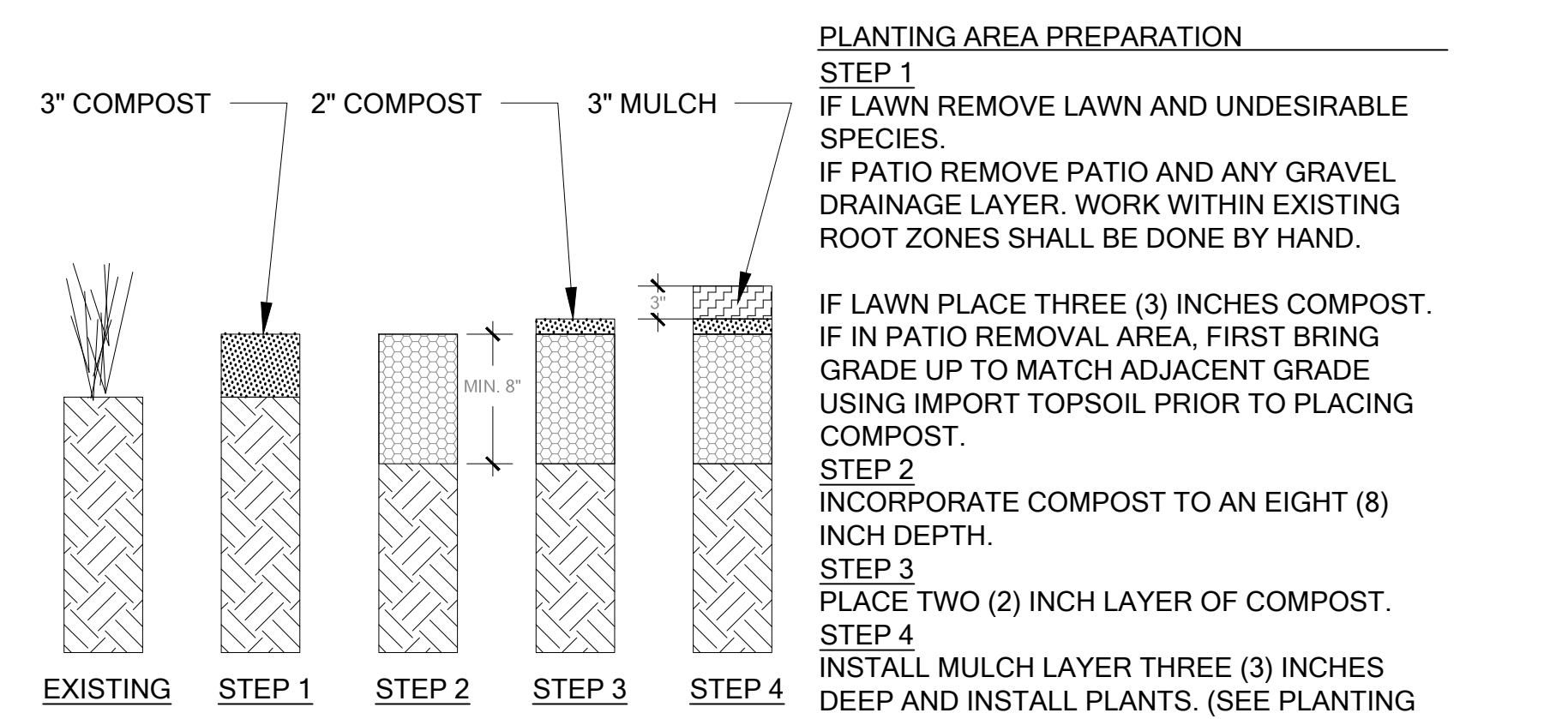
1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISIT DURING THE UPCOMING FALL DORMANT SEASON (OCTOBER 15TH TO MARCH 1ST).
2. INVASIVE SPECIES MAINTENANCE PLAN: HIMALAYAN BLACKBERRY, ENGLISH IVY, ENGLISH LAUREL, AND OTHER INVASIVE WOODY VEGETATION WILL BE GRUBBED OUT BY HAND ON AN ONGOING BASIS, WITH CARE TAKEN TO GRUB OUT ROOTS EXCEPT WHERE SUCH WORK WILL JEOPARDIZE THE ROOTS OF INSTALLED OR VOLUNTEER NATIVE PLANTS.
3. AT LEAST TWICE YEARLY, REMOVE BY HAND ALL COMPETING WEEDS AND WEED ROOTS FROM BENEATH EACH INSTALLED PLANT AND ANY DESIRABLE VOLUNTEER VEGETATION TO A DISTANCE OF 12 INCHES FROM THE MAIN PLANT STEM. WEEDING SHOULD OCCUR AS NEEDED DURING THE SPRING AND SUMMER. FREQUENT WEEDING WILL RESULT IN LOWER MORTALITY AND LOWER PLANT REPLACEMENT COSTS.
4. DO NOT WEED THE AREA NEAR THE PLANT BASES WITH STRING TRIMMER (WEED WHACKER). NATIVE PLANTS ARE EASILY DAMAGED OR KILLED, AND WEEDS EASILY RECOVER AFTER TRIMMING.
5. MULCH THE WEEDED AREAS BENEATH EACH PLANT WITH WOOD CHIP MULCH AS NECESSARY TO MAINTAIN A MINIMUM 4-INCH-THICK, 12-INCH-DIAMETER MULCH RING.
6. THE TEMPORARY IRRIGATION SYSTEM WILL BE OPERATED TO ENSURE THAT PLANTS RECEIVE A MINIMUM OF ONE INCH OF WATER PER WEEK FROM JUNE 1ST THROUGH SEPTEMBER 30TH FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION. IRRIGATION BEYOND THE SECOND YEAR MAY BE NEEDED BASED ON SITE PERFORMANCE OR SIGNIFICANT REPLANTING.

CONTINGENCY PLAN

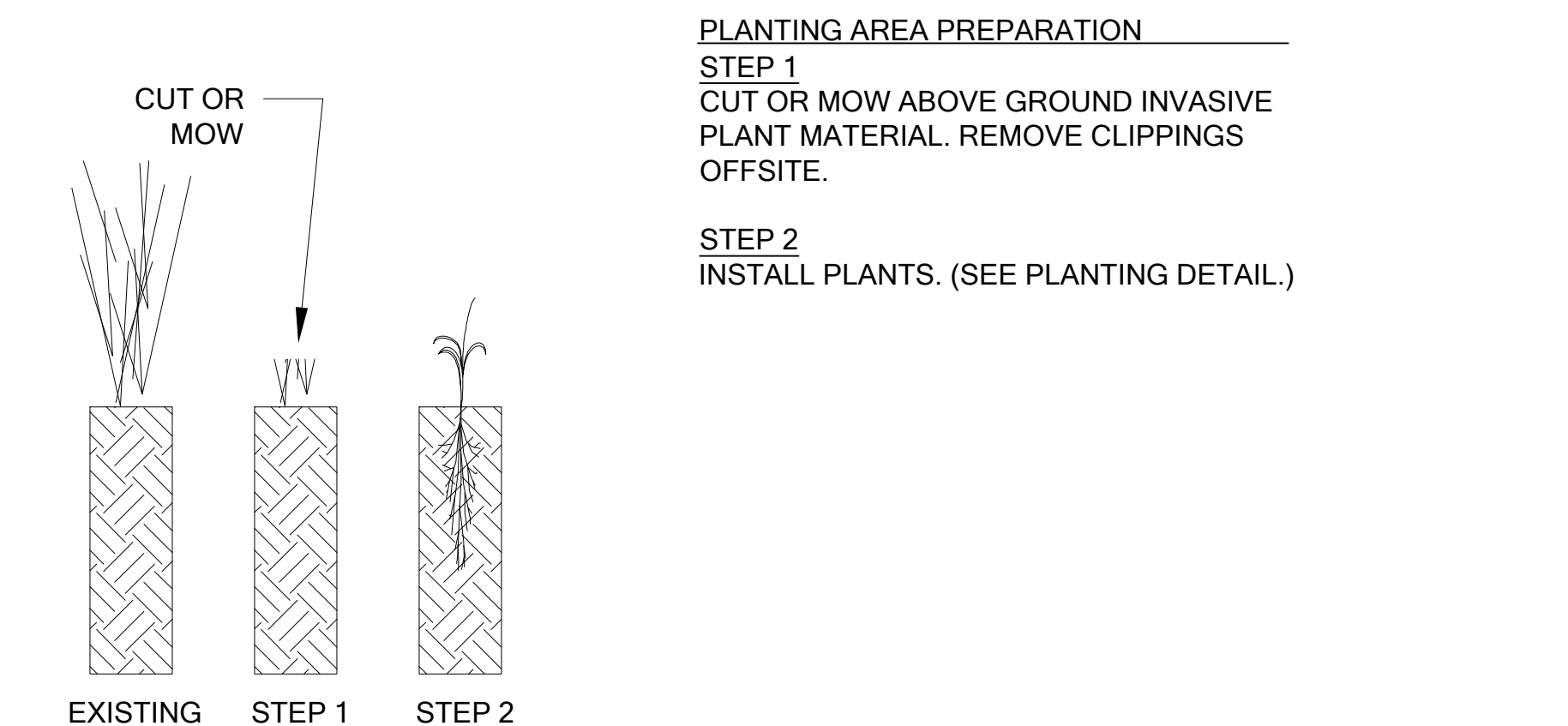
IF ALL OR PART OF THE MITIGATION AREA FAILS TO ESTABLISH ACCORDING TO THE GOALS AND PERFORMANCE STANDARDS, A CONTINGENCY PLAN SHALL BE DEVELOPED. CONTINGENCY MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, PLANT SPECIES SUBSTITUTIONS, SOIL AMENDMENTS, HERBIVORE EXCLUSION FENCING, MODIFIED IRRIGATION SCHEDULE, AND ADAPTIVE WEED MANAGEMENT.

MATERIAL SPECIFICATIONS AND DEFINITIONS

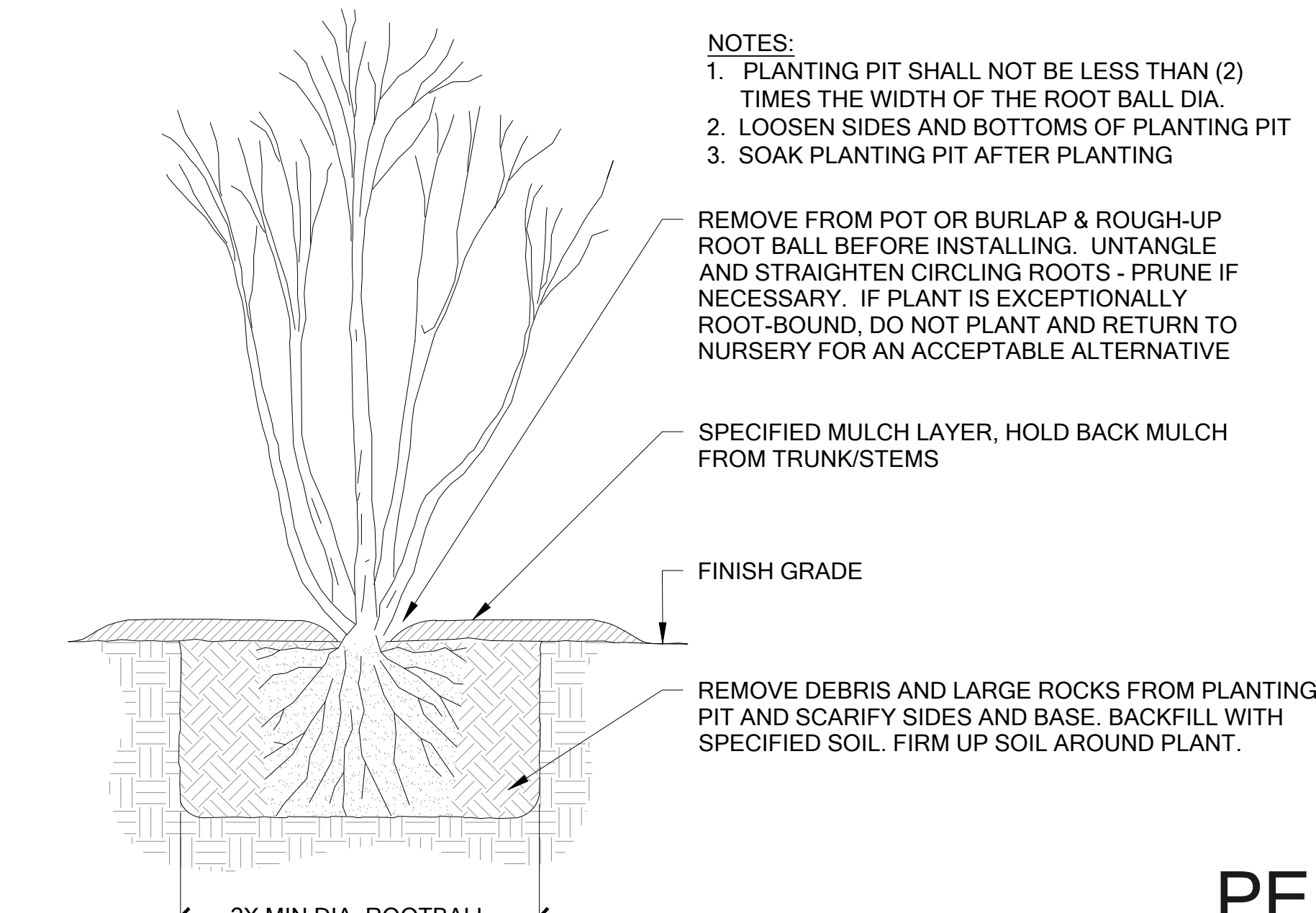
1. IRRIGATION SYSTEM: AUTOMATED SYSTEM CAPABLE OF DELIVERING AT LEAST ONE INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION.
2. RESTORATION PROFESSIONAL: WATERSHED COMPANY [(425) 822-5242] PERSONNEL, OR OTHER PERSONS QUALIFIED TO EVALUATE ENVIRONMENTAL RESTORATION PROJECTS.
3. WOOD CHIP MULCH: ARBORIST CHIPS (CHIPPED WOODY MATERIAL) APPROXIMATELY 1 TO 3 INCHES IN MAXIMUM DIMENSION (NOT SAWDUST OR COARSE HOG FUEL). THIS MATERIAL IS COMMONLY AVAILABLE IN LARGE QUANTITIES FROM ARBORISTS OR TREE-PRUNING COMPANIES. THIS MATERIAL IS SOLD AS "ANIMAL FRIENDLY HOG FUEL" AT PACIFIC TOPSOILS [(800) 884-7645]. MULCH MUST NOT CONTAIN APPRECIABLE QUANTITIES OF GARBAGE, PLASTIC, METAL, SOIL, AND DIMENSIONAL LUMBER OR CONSTRUCTION/DEMOLITION DEBRIS. QUANTITY REQUIRED: 17 CUBIC YARDS.
4. COMPOST: CEDAR GROVE COMPOST OR EQUIVALENT "COMPOSTED MATERIAL" PER WASHINGTON ADMIN. CODE 173-350-220. QUANTITY REQUIRED: 28 CUBIC YARDS.



A BUFFER MITIGATION AREA SITE PREPARATION SEE SHEET W1 Scale: NTS



B WETLAND MITIGATION AREA SITE PREPARATION SEE SHEET W1 Scale: NTS



C CONTAINER PLANTING DETAIL Scale: NTS

MITIGATION DETAILS AND NOTES

PERMIT SET
 NOT FOR CONSTRUCTION

THE WATERSHED COMPANY
 750 Sixth Street South
 Kirkland WA 98033
 p 425.822.5242
 www.watershedco.com
 Science & Design

JASON BROTHERS, INC. RESIDENCE
SHORELINE MITIGATION PLAN
 PREPARED FOR: BRAD STURMAN
 4006 EAST MERCER WAY
 MERCER ISLAND, WA 98040

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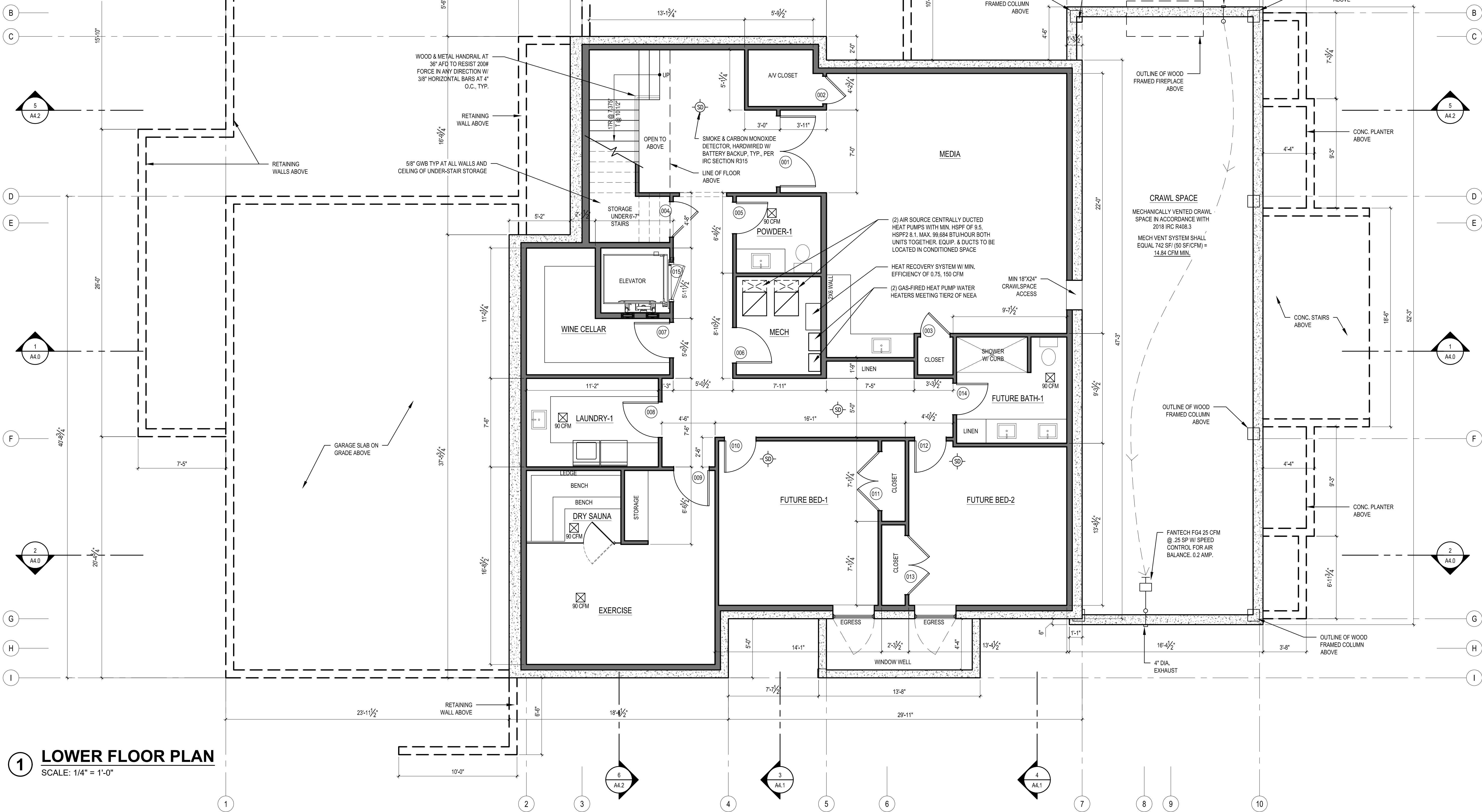
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PROJECT MANAGER: RK
 DESIGNED: RK/MF
 DRAFTED: AS/MF/AF
 CHECKED: RK

JOB NUMBER: 200509
 SHEET NUMBER: W3 OF 3

WALL PARTITION TYPES:

- T.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS).
- TYPICAL EXTERIOR WALL**
EXTERIOR WALL FINISH @ 2" LAYERS 60# BLDG. PAPER @ 1/2" CDX PLYWOOD @ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR & R-21 BATT INSULATION EXCEPT AROUND GARAGE.
- TYPICAL INTERIOR PARTITION**
UNLESS ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
- TYPICAL FURRED WALL**
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
- 1HR. FIRE RATED WALL**
5/8" THK GWB, TYPE 'X' O' 2x6 WOOD STUDS @ 16" O.C. PANELS NAILED 7" O.C., 1 7/8" CEM. CTD. NAILS. JOINTS EXP OR FIN - PERM CAULKED. UL DES U305 & U314 - JOINTS FIN



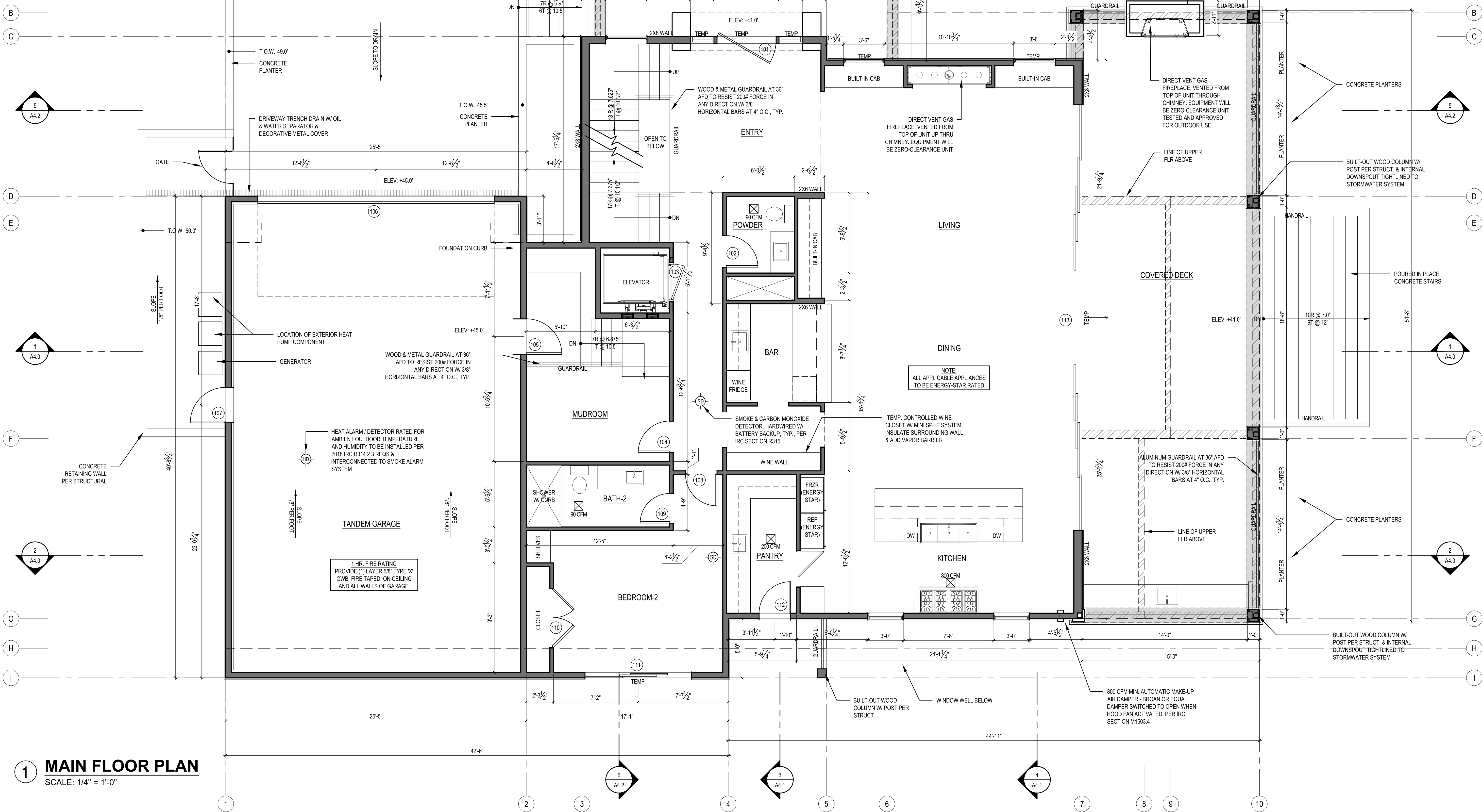
1 LOWER FLOOR PLAN
SCALE: 1/4" = 1'-0"

REVISIONS:

PLOT DATE: 10/26/2024
DRAWN BY: KE
CHECKED BY: BJS
SHEET

WALL PARTITION TYPES:

- N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)
- TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH (2) LAYERS 60# BLDG. PAPER @ 1/2" CDX PLYWOOD or 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR & R-21 BATT INSULATION EXCEPT AROUND GARAGE.
- TYPICAL INTERIOR PARTITION
UNO ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
- TYPICAL FURRED WALL
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
- 1HR. FIRE RATED WALL
5/8" THK GWB, TYPE 'X' OI 2X6 WID STUDS @ 16" O.C. PANELS NAILED 7" O.C. 1 7/8" CEM CRTD NAILS. JOINTS EXP OR FIN - PERIM CAULKED. UL DES U365 & U314- JOINTS FIN



1 MAIN FLOOR PLAN
SCALE: 1/4" = 1'-0"

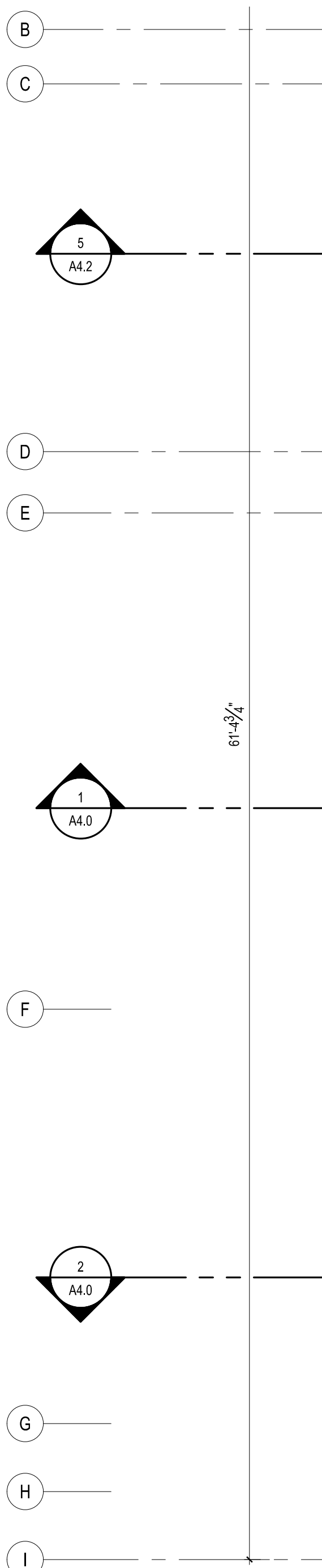
REVISIONS:

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PLOT DATE: 10/26/2024
DRAWN BY: KE
CHECKED BY: BJS
SHEET

WALL PARTITION TYPES:

- T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)
- TYPICAL EXTERIOR WALL**
EXTERIOR WALL FINISH @ (2) LAYERS 60# BLDG. PAPER @ 1/2" CDX PLYWOOD @ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR & R-21 BATT INSULATION EXCEPT AROUND GARAGE.
- TYPICAL INTERIOR PARTITION**
U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
- TYPICAL FURRED WALL**
2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
- 1HR. FIRE RATED WALL**
5/8" THK GWB, TYPE 'X' @ 2x6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C. 1 7/8" CEM CTR. NAILS- JOINTS EXP OR FIN- PERIM CAULKED. UL DES U365 & U314- JOINTS FIN



1 UPPER FLOOR PLAN
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 10/26/2024

STURMAN ARCHITECTS
9-103rd Ave NE Suite 303
Bellevue, WA 98004
TEL: 425-451-7003

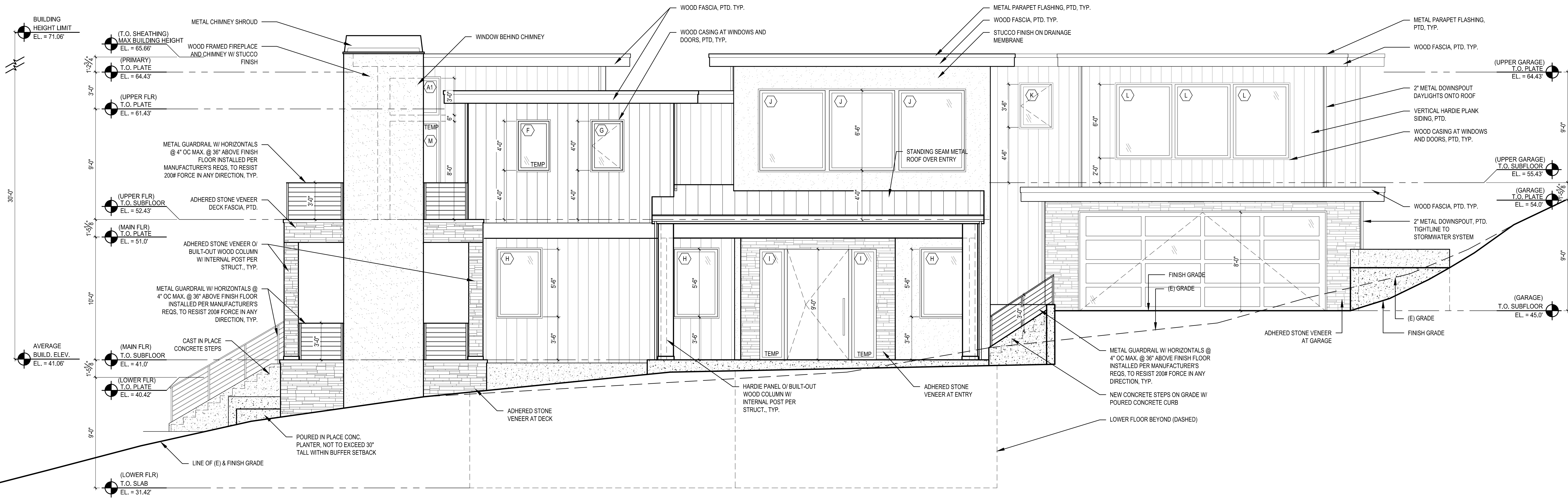
REGISTERED ARCHITECT
BRADLEY L. STURMAN
STATE OF WASHINGTON

JASON PERMIT SET
4006 E MERCER WAY
MERCER ISLAND, WA 98040

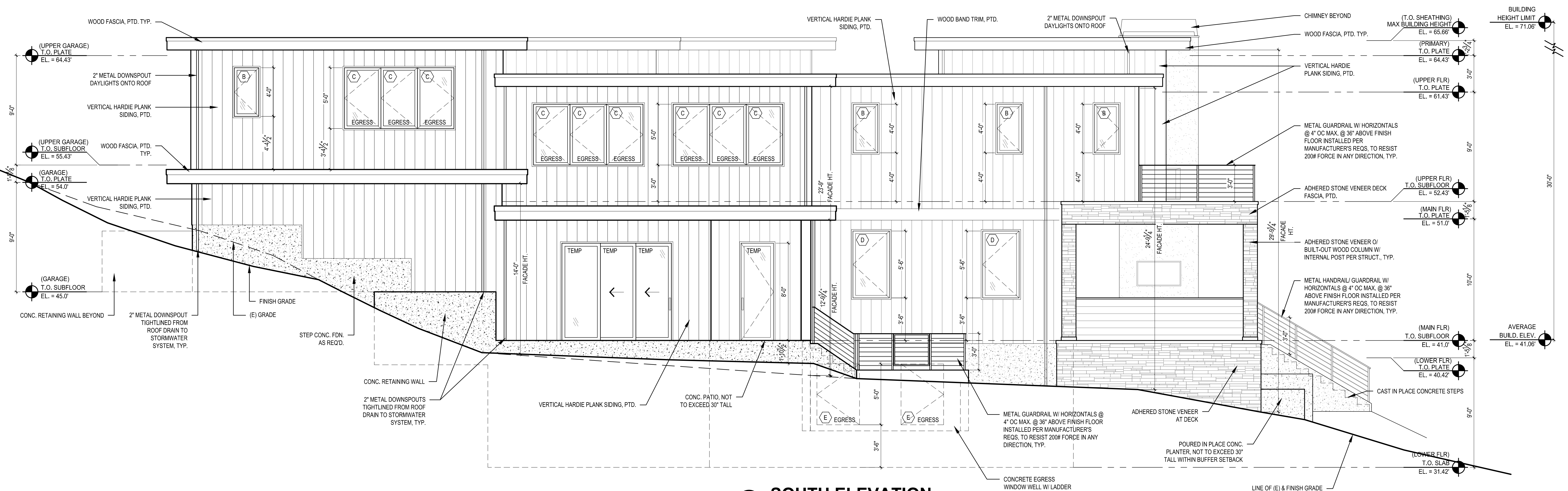
UPPER FLOOR PLAN

REVISIONS:
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A2.2



1 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



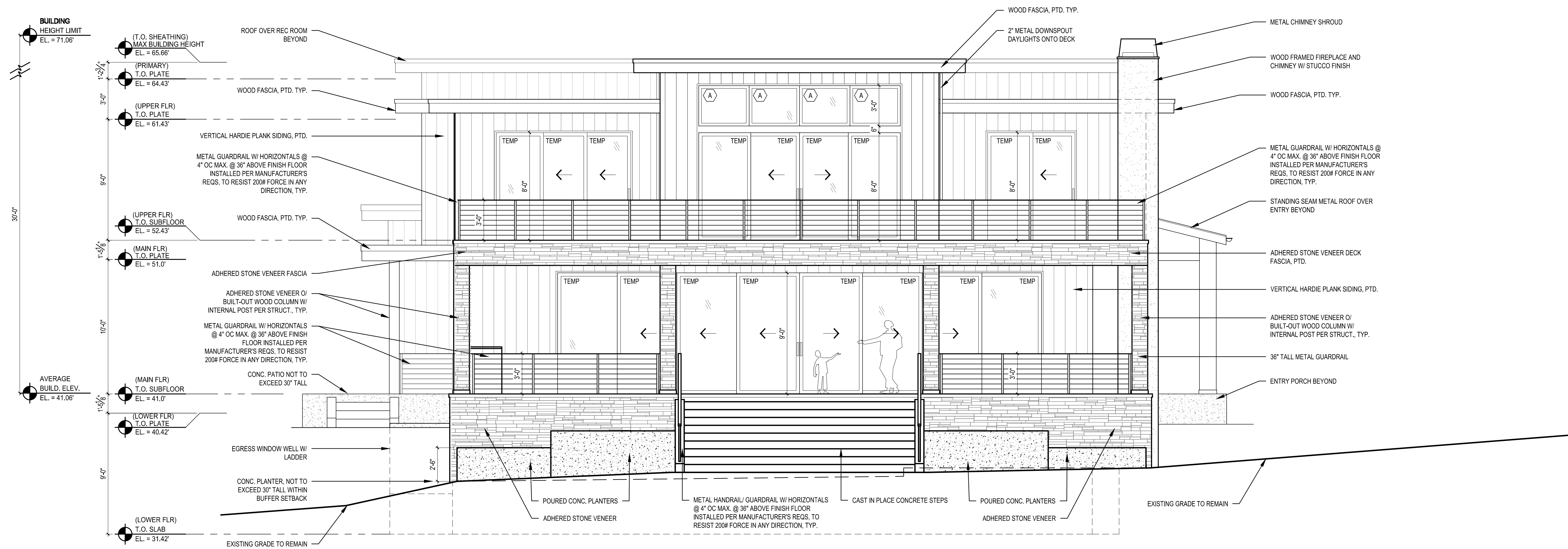
2 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 10/26/2024

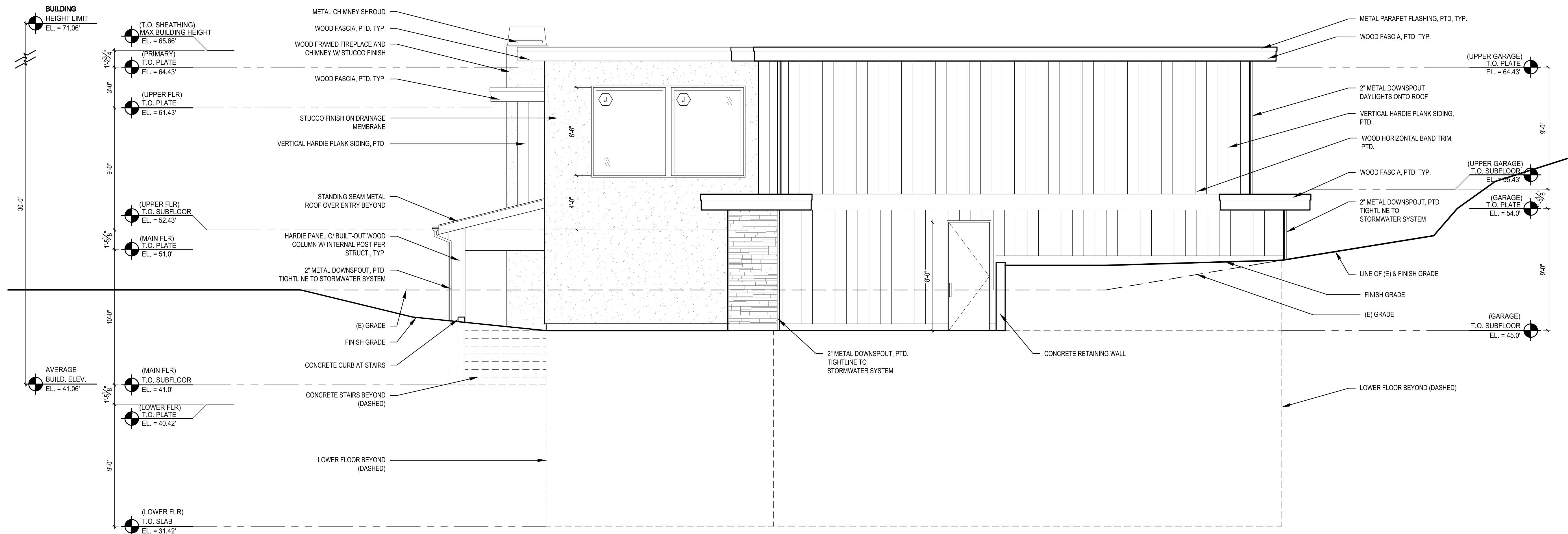
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CHECKED BY: BJS
SHEET



3 EAST ELEVATION
SCALE: 1/4" = 1'-0"



4 WEST ELEVATION
SCALE: 1/4" = 1'-0"