

GENERAL NOTES

1. **CODE COMPLIANCE:** ALL WORK SHALL COMPLY WITH THE 2015 IRC, 2015 IMC, 2015 IFGC, 2015 IFC, 2015 UPC, 2015 IPMC, 2008 NEC, 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES AND ORDINANCES.
2. **DIMENSIONS:** DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.
3. **DOCUMENT REVIEW/VERIFICATION:** CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.
4. **ROUGH OPENINGS/BACKING:** VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.
5. **FURRING:** PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.
6. **GRADES:** VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).
7. **FLOOR LINES:** "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.
8. **REPETITIVE FEATURES:** OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.
9. **DOORS:** DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.
10. **WOOD MEMBERS IN CONTACT WITH CONCRETE, AND/OR EXPOSED TO WEATHER:** TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 6", TYPICAL.
11. **FRAMING:** ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C., & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C., UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS. EXISTING EXTERIOR WALLS ARE 2X4 STUDS @ 16" O.C., AND ARE TO REMAIN. NEW INTERMEDIATE FRAMING AT EXTERIOR WOOD WALLS REQUIRES HEADERS INSULATED WITH A MIN. R-10 INSULATION.
12. **VENTILATION:** VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED. WSEC R402.4.1.2 REQUIRES THE DWELLING UNIT TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING MUST BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2. NEW CONSTRUCTION MAY BE ISOLATED FROM EXISTING STRUCTURE FOR TESTING.
13. **FLUES:** FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.
14. **DOWNSPOUTS:** LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.
15. **OTHER DOCUMENTATION:** REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.
16. **PROTECTION:** PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.
17. **PERMITS:** SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT.
18. **ROOFING:** PROVIDE NEW ROOFING.
19. **EXHAUST DUCTS:** PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS. PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.
20. **APPLIANCES:** CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.
21. **WATER FLOW:** SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.
22. **SMOKE DETECTORS:** SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION. TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS.
23. **FIREBLOCKING:** FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION PER 2015 IRC SECTION R302.11 SPECIFICALLY: 1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, 2) AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, 3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT T.O. & B.O. RUN, 4) AT OPENINGS AROUND VENTS, PIPES, ETC. AT CEILING AND FLOOR LEVEL.

DUTY OF COOPERATION

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. FAILURE TO DO SO SHALL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS ARE UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

MOUNGER RESIDENCE

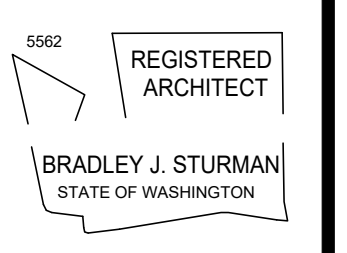
4006 E MERCER WAY MERCER ISLAND, WA 98040



PROJECT TEAM	PROJECT DATA	SHEET INDEX	ENERGY NOTES
<p>OWNER: MITCHEL & WENDY MOUNGER 4006 E MERCER WAY MERCER ISLAND, WA 98040 PHONE: 425.451.7003</p> <p>ARCHITECT: STURMAN ARCHITECTS, INC. 9 - 103RD AVE NE SUITE 203 BELLEVUE, WA 98004 PHONE: 425.451.7003 CONTACT: BRAD STURMAN</p> <p>STRUCTURAL: ANNEE STRUCTURAL ENGINEERING LLC 1801 18TH AVE S. SEATTLE, WA 98144 PHONE: 206.658.5169 CONTACT: MIKE ANNEE</p> <p>CIVIL: NICK BOSSOFF ENGINEERING, INC. 181 NE TARI LANE STEVENSON, WA 98648 PHONE: 425.881.5904 CONTACT: NICK BOSSOFF</p> <p>GEOTECH: PANGEO INC. 3213 EASTLAKE AVE E SEATTLE, WA 98102 PHONE: 206.282.0370 CONTACT: MICHAEL XUJIE</p> <p>ECOLOGIST: THE WATERSHED COMPANY 750 SIXTH STREET SOUTH KIRKLAND, WA 98033 PHONE: 425.822.5242 CONTACT: RYAN KAHLO</p> <p>ARBORIST: ARBORINFO LLC 2406 N CASTLE WAY LYNNWOOD, WA 98036 PHONE: 206.300.9711 CONTACT: TOM HANSON</p> <p>INTERIOR DESIGNER: SUSAN MARINELLO INTERIORS 119 SOUTH MAIN STREET, SUITE #300 SEATTLE, WA 98104 PHONE: 206.344.5551 CONTACT: SUSAN MARINELLO</p>	<p>PROJECT ADDRESS: 4006 E MERCER WAY MERCER ISLAND, WA 98040</p> <p>PROPERTY TAX ID NUMBER: 413190-005</p> <p>SCOPE OF WORK: DEMOLITION OF EXISTING SINGLE FAMILY HOME AND CONSTRUCTION OF NEW 2 STORY SINGLE FAMILY HOME WITH PARTIAL BASEMENT AND ATTACHED GARAGE ON EXISTING SINGLE FAMILY RESIDENTIAL LOT.</p> <p>ZONING: R-9.6</p> <p>CONSTRUCTION TYPE: TYPE V B</p> <p>SEISMIC ZONE: 3</p> <p>NUMBER OF STORIES: 2 STORY</p> <p>FIRE PROTECTION: 130 FIRE SPRINKLER SYSTEM</p> <p>BUILDING HEIGHT: 30 FT ABOVE AVERAGE BUILDING ELEVATION (FLAT ROOF) 35 FT ABOVE AVERAGE BUILDING ELEVATION (SLOPED ROOF)</p> <p>LOT AREA: 36,116 SF</p> <p>SETBACKS: FRONT LOT LINE = 20 FT WATERFRONT LOT LINE = 50 FT SIDE LOT LINES = 15 FT, = 5 FT MIN. EACH</p> <p>GROSS FLOOR AREA: LESSER OF 40.0% LOT AREA OR 8,000 SF = 8,000 SF</p>	<p>T1.0 TITLE SHEET AND PROJECT DATA T1.1 SITE PLAN AND PROJECT DATA</p> <p>A1.0 ENLARGED SITE PLAN A1.2 EXCAVATION PLAN A1.3 TREE PLAN</p> <p>SURVEY</p> <p>C-1 T.E.S.C. PLAN C-2 DRAINAGE PLAN C-3 DETAILS</p> <p>W1 MITIGATION PLAN W2 PLANTING PLAN AND SCHEDULE W3 MITIGATION DETAILS AND NOTES</p> <p>A2.0 LOWER FLOOR PLAN A2.1 MAIN FLOOR PLAN A2.2 UPPER FLOOR PLAN A2.3 ROOF PLAN A3.0 ELEVATIONS A3.1 ELEVATIONS A3.2 RENDERED ELEVATIONS A4.0 BUILDING SECTION A4.1 BUILDING SECTION A4.2 BUILDING SECTION A5.0 WALL SECTION A5.1 WALL SECTION A7.0 INTERIOR STAIR A7.1 INTERIOR STAIR A7.2 FIREPLACE DETAILS A7.3 DECK DRAINAGE AND EXTERIOR RAILINGS A8.0 DETAILS</p> <p>S1.0 STRUCTURAL NOTES S1.1 STRUCTURAL NOTES S2.0 FOUNDATION PLAN S2.1 MAIN FLOOR FRAMING S2.2 UPPER FLOOR FRAMING S2.3 ROOF FRAMING S3.0 STRUCTURAL DETAILS S3.1 STRUCTURAL DETAILS S3.2 STRUCTURAL DETAILS S3.3 STRUCTURAL DETAILS</p>	<p>CODE: 2015 W.S.E.C. & 2015 IRC, WAC 51-11R CLIMATIC ZONE: ZONE #4C - MARINE</p> <p>SPACE HEAT TYPE: NATURAL GAS, FORCED AIR SYSTEM THERMAL STANDARDS UNLIMITED OPTION FOR OPENINGS.</p> <p>INSULATION VALUES: WALLS R-21 FLAT ATTICS/CEILINGS: R-49 VAULTED CEILINGS: R-38 FLOORS (OVER UNHEATED SPACES): R-30 SLAB-ON-GRADE: R-10</p> <p>PER WSEC R401.3: A CERTIFICATE IS REQUIRED TO BE POSTED WITHIN 3 FT OF THE ELECTRICAL PANEL. IT MUST INCLUDE THE FOLLOW: PREDOMINATE R-VALUES, U-VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, AND EFFICIENCIES OF HEATING/COOLING/WATER HEATING EQUIPMENT.</p> <p>AIR INFILTRATION: MANUFACTURED DOORS/WINDOWS: CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE</p> <p>EXTERIOR JOINTS/OPENINGS: SEAL, CAULK, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE</p> <p>MOISTURE CONTROL: WALLS: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH; OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)</p> <p>ATTICS/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE). INSTALL CONTINUOUSLY</p> <p>CRAWL SPACE: 6 MIL POLYETHYLENE</p> <p>VENTILATION: ATTICS WITH LOOSE FILL: N.A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION, MAINTAINING MINIMUM OF R-38</p> <p>HEATING & COOLING: GAS, PROPANE OR OIL-FIRED FURNACE WITH A MINIMUM AFUE OF 94% MAXIMUM OF 86,692 BTU/HR</p> <p>TEMP. CONTROL: FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FARENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.</p> <p>DUCT INSULATION: THERMALLY INSULATE ALL PLenums, DUCTS AND ENCLOSURES IN ACCORDANCE WITH SECTION R403.3.1 OF THE WASHINGTON STATE ENERGY CODE.</p> <p>a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.</p> <p>b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.</p> <p>LIGHTING: RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED. A MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN INTERIOR AND EXTERIOR LIGHTING FIXTURES MUST BE HIGH-EFFICACY LAMPS, PER WSEC R404.1.</p> <p>PIPE INSULATION: ALL HOT WATER PIPES, AND NON-RECIRCULATING COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE, SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.</p>
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.			



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MOUNGER RESIDENCE
**4006 E. MERCER WAY
MERCER ISLAND, WA 98040**

**TITLE SHEET
PROJECT DATA**

REVISIONS:	
DRAWN BY:	JM
CHECKED BY:	BJS

SHEET
T1.0
OF

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

PERMIT SET	10/07/2020
PLOT DATE: 10/7/2020	FILE NAME:

2015 WSEC CREDITS

LARGE DWELLING UNIT: 4.5 CREDITS REQUIRED
 DWELLING UNIT EXCEEDS 5,000 SQUARE FEET OF
 CONDITIONED AREA

CREDITS	OPTION	DESCRIPTION
1.5	2C	REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM. HEAT RECOVERY VENTILATION SYSTEM TO HAVE A MINIMUM RECOVERY EFFICIENCY OF 0.85.
1.0	3A	GAS, PROPANE OR OIL-FIRED FURNACE WITH A MINIMUM AFUE OF 94%.
0.5	5A	SHOWER & KITCHEN SINK < 1.75 GPM LAVATORIES < 1.0GPM
1.5	5C	GAS, PROPANE OR OIL WATER HEATER WITH A MINIMUM EF OF 0.91
TOTAL CREDITS		
4.5		

GROSS FLOOR AREA

PROPOSED LOT SIZE	=	36,116 SF
GFA THRESHOLD	=	6,000 SF
PROPOSED RESIDENCE GFA:		
LOWER FLOOR	=	753 SF
MAIN FLOOR	=	2,260 SF
UPPER FLOOR	=	2,053 SF
20' OPEN AREA (200%)	=	313 SF
GARAGE	=	1,042 SF
TOTAL:	=	6,421 SF
PROPOSED GFA IS 6,421 SF OR 17.8%		

A.B.E.

MIDPOINT ELEVATION	SEGMENT LENGTH	MIDPOINT ELEVATION	SEGMENT LENGTH	MIDPOINT ELEVATION	SEGMENT LENGTH
A: 44.7 FT	27.4 FT	G: 39.5 FT	22.5 FT	M: 43.9 FT	41.8 FT
B: 44.6 FT	3.5 FT	H: 38.2 FT	42.0 FT	N: 48.1 FT	39.6 FT
C: 44.6 FT	7.8 FT	I: 37.9 FT	20.6 FT		
D: 44.6 FT	18.1 FT	J: 38.2 FT	4.0 FT		
E: 41.0 FT	20.5 FT	K: 38.9 FT	15.6 FT		
F: 40.0 FT	2.0 FT	L: 39.2 FT	5.2 FT		

MID POINT ELEVATION X SEGMENT LENGTH: = 11,393.4 FT² = 42.2 FT
 TOTAL WALL SEGMENT LENGTH: 269.8 FT

A.B.E.	42.2 FT
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BUILDING AREA

	LOWER FLOOR	MAIN FLOOR	UPPER FLOOR	HEATED SUB-TOTAL	ATTACHED GARAGE	OUTDOOR ROOM	GRAND TOTAL	UNHEATED DECKS
PROPOSED HOUSE:	753 SF	2,260 SF	2,053 SF	5,066 SF	1,042 SF	834 SF	6,942 SF	772 SF

LOT COVERAGE AND HARDSCAPE

LOT COVERAGE						
	GROSS LOT S.F.	ROOF STRUCT.	COVERED DECK	DRIVEWAY	GRAVEL DRIVEWAY	TOTAL LOT COVERAGE
	36,116 SF					
PROPOSED LOT COVERAGE		3,738 SF	772 SF	873 SF	422 SF	5,805 SF
% ALLOWED LOT COVERAGE						12,841 SF ALLOWABLE
						35%

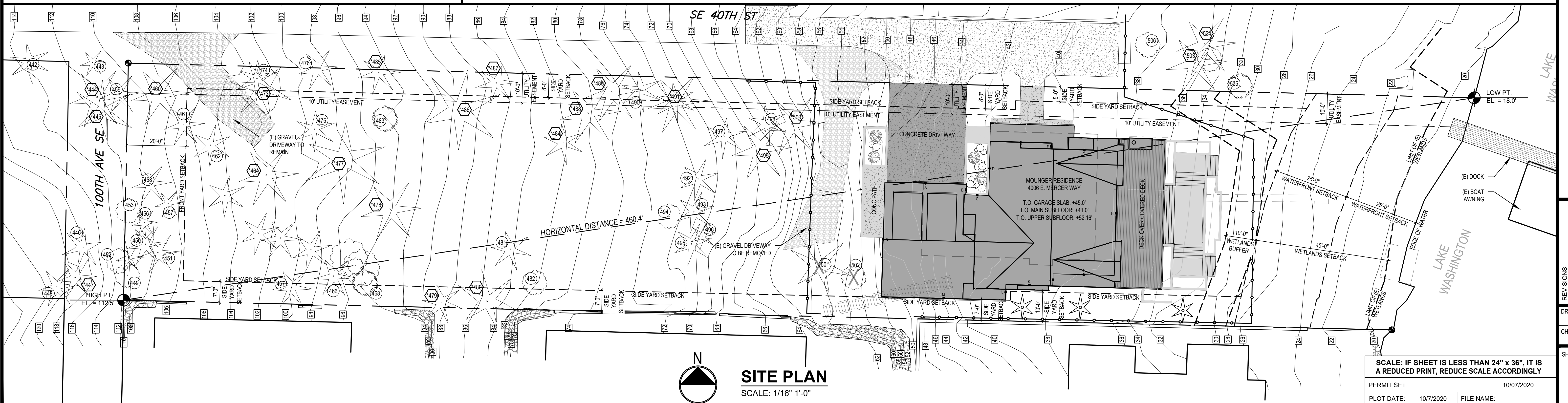
HIGHEST EL: 112.5' -
 LOWEST EL: 18.0'
 ELEVATION DIFFERENCE= 94.5'

94.5' DIVIDED BY 480.4' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = 205

LOT SLOPE IS 20.5%, WHICH IS LESS THAN 30% BUT MORE THAN 15% SO LOT COVERAGE ALLOWED IS 35%.

ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE

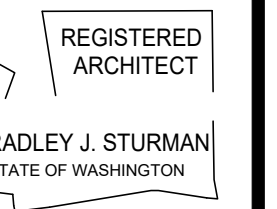
HARDSCAPE						
	GROSS LOT S.F.	CONC ENTRY	REAR PATIO /STAIRS	WALKWAY	ROCKERY	PLANTER/CONC WALL
	36,116 SF					
PROPOSED HARDSCAPE		52.6 SF	534.5 SF	328.6 SF	0 SF	193.9 SF
% ALLOWED HARDSCAPE						3,250.4 SF ALLOWABLE
						9%
UNUSED LOT COVERAGE AVAILABLE FOR HARDSCAPE						6,836 SF AVAILABLE



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



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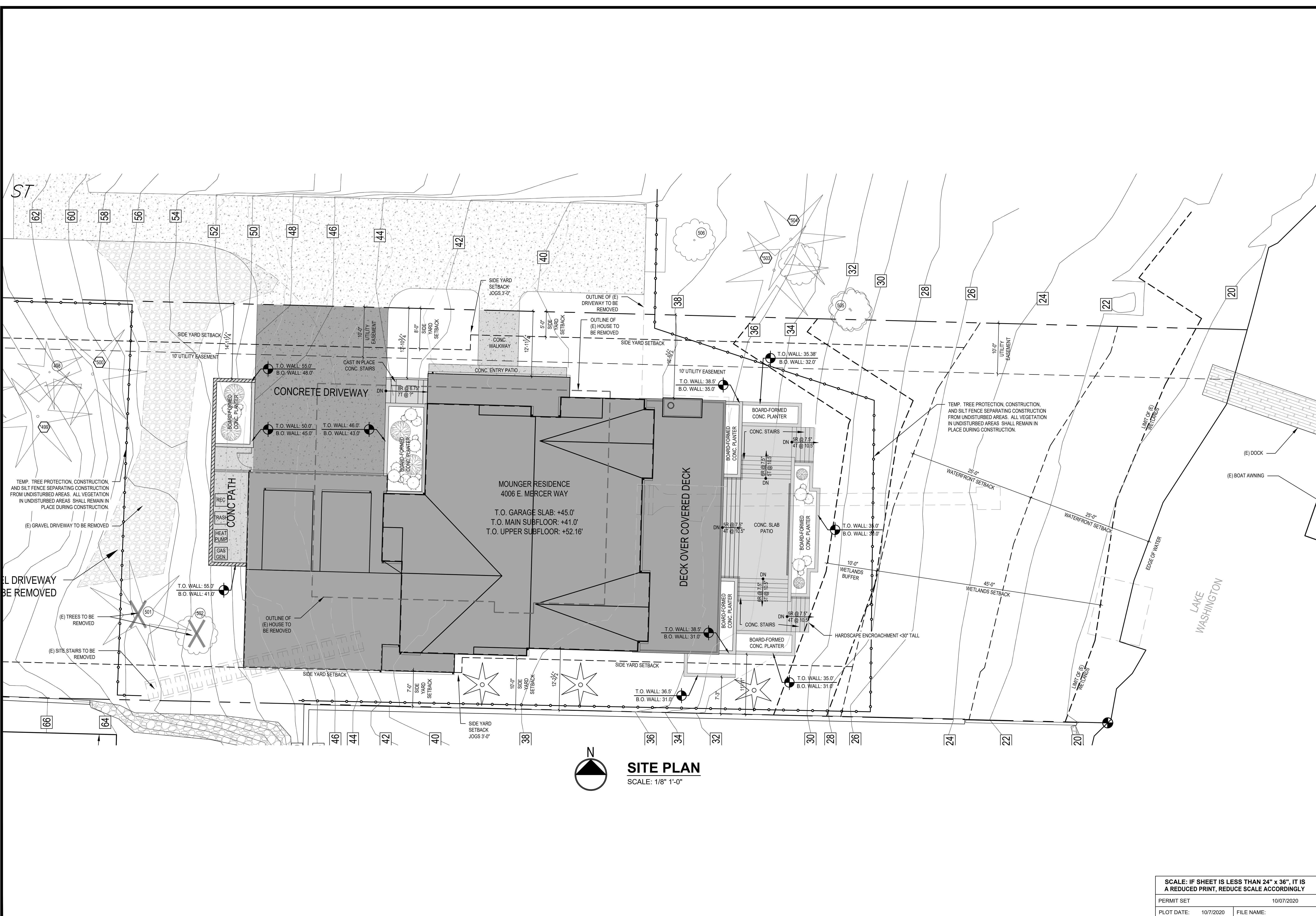
4006 E. MERCER WAY
 MERCER ISLAND, WA 98040

**SITE PLAN
 PROJECT DATA**

REVISIONS:	
DRAWN BY:	JM
CHECKED BY:	BJS
SHEET	T1.1

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

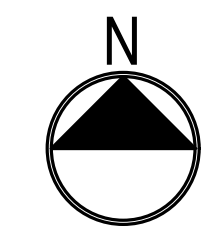
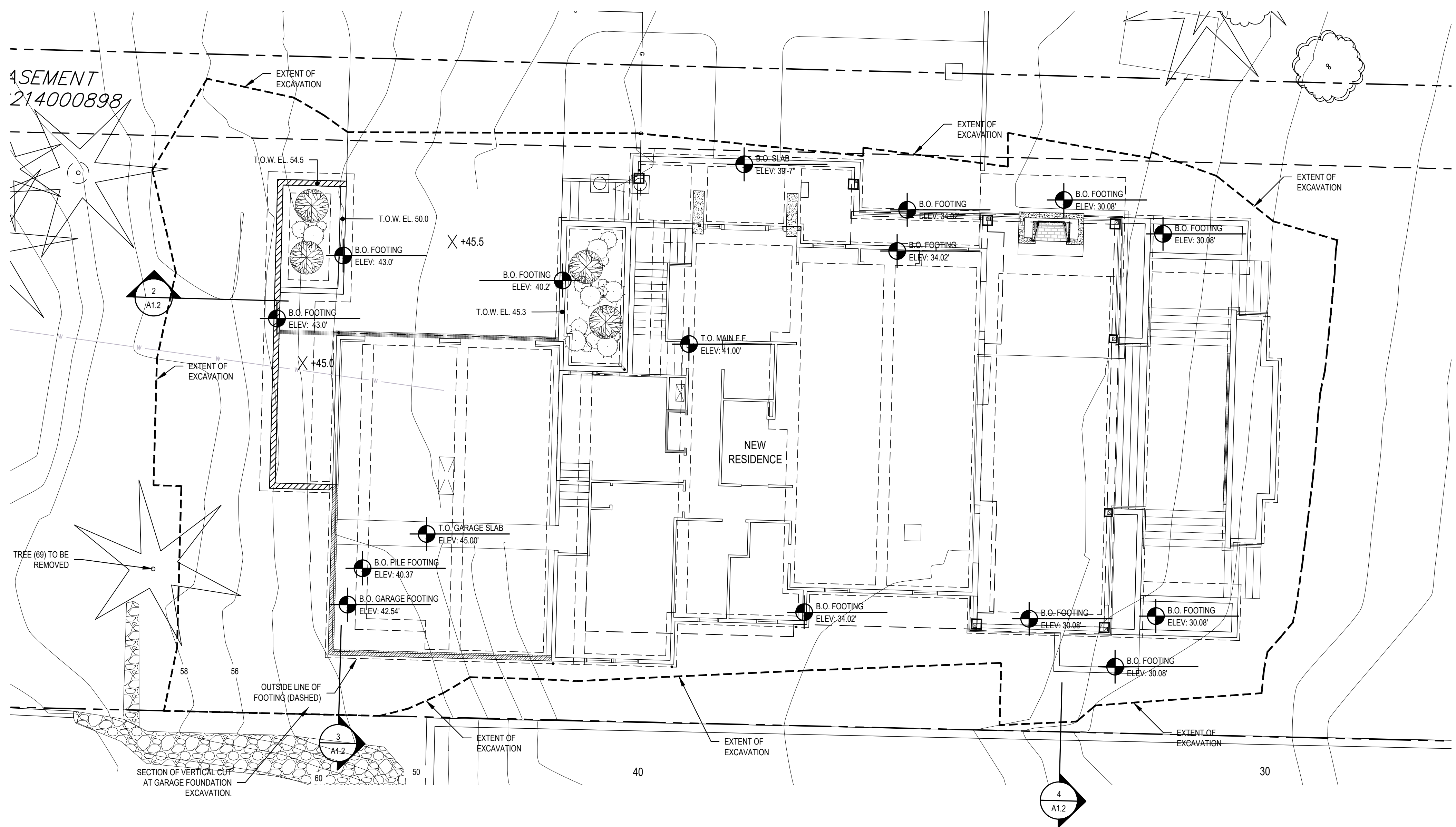
PERMIT SET 10/07/2020
 PLOT DATE: 10/7/2020 FILE NAME:



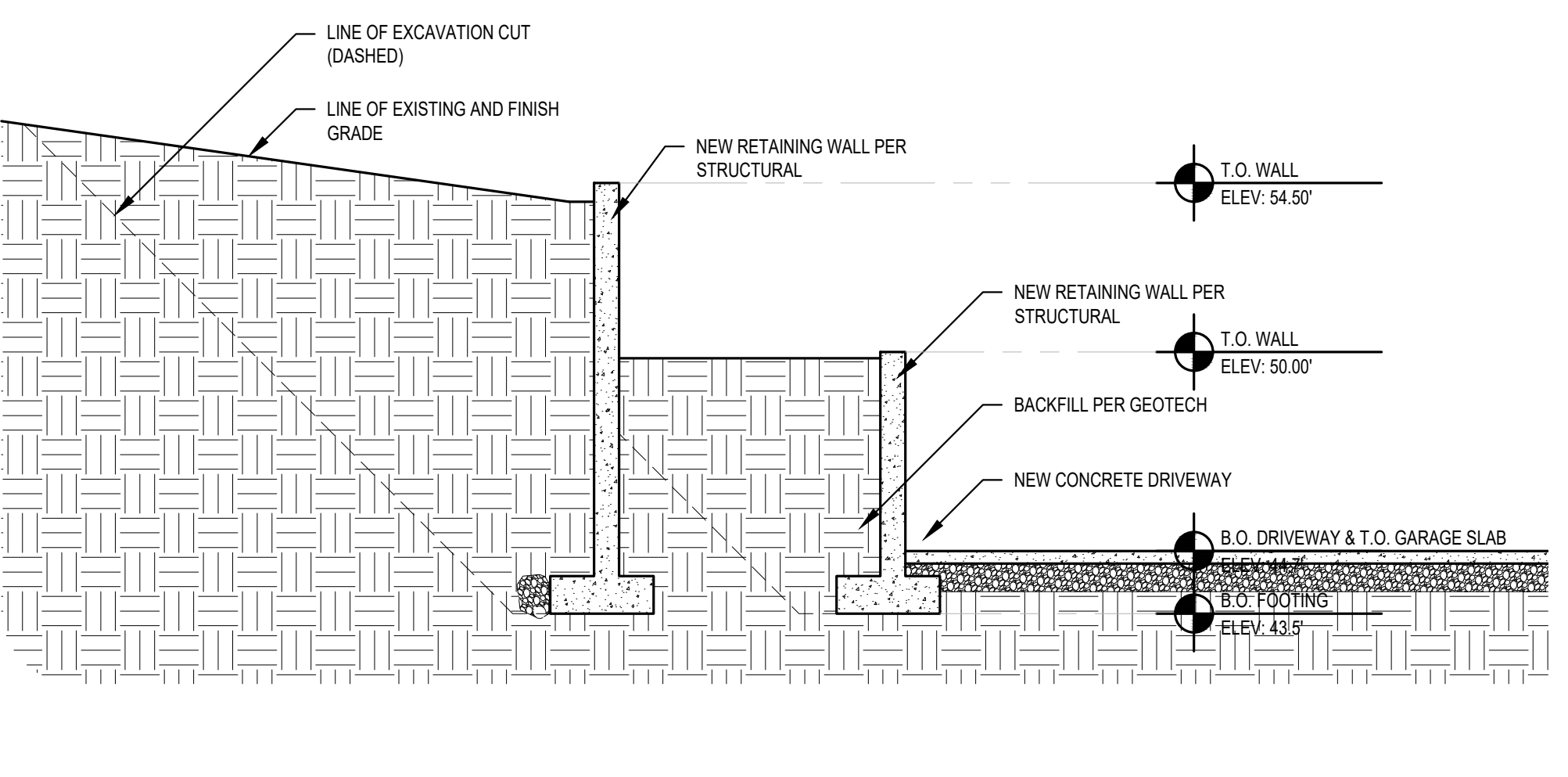
SITE PLAN
SCALE: 1/8" 1'-0"

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

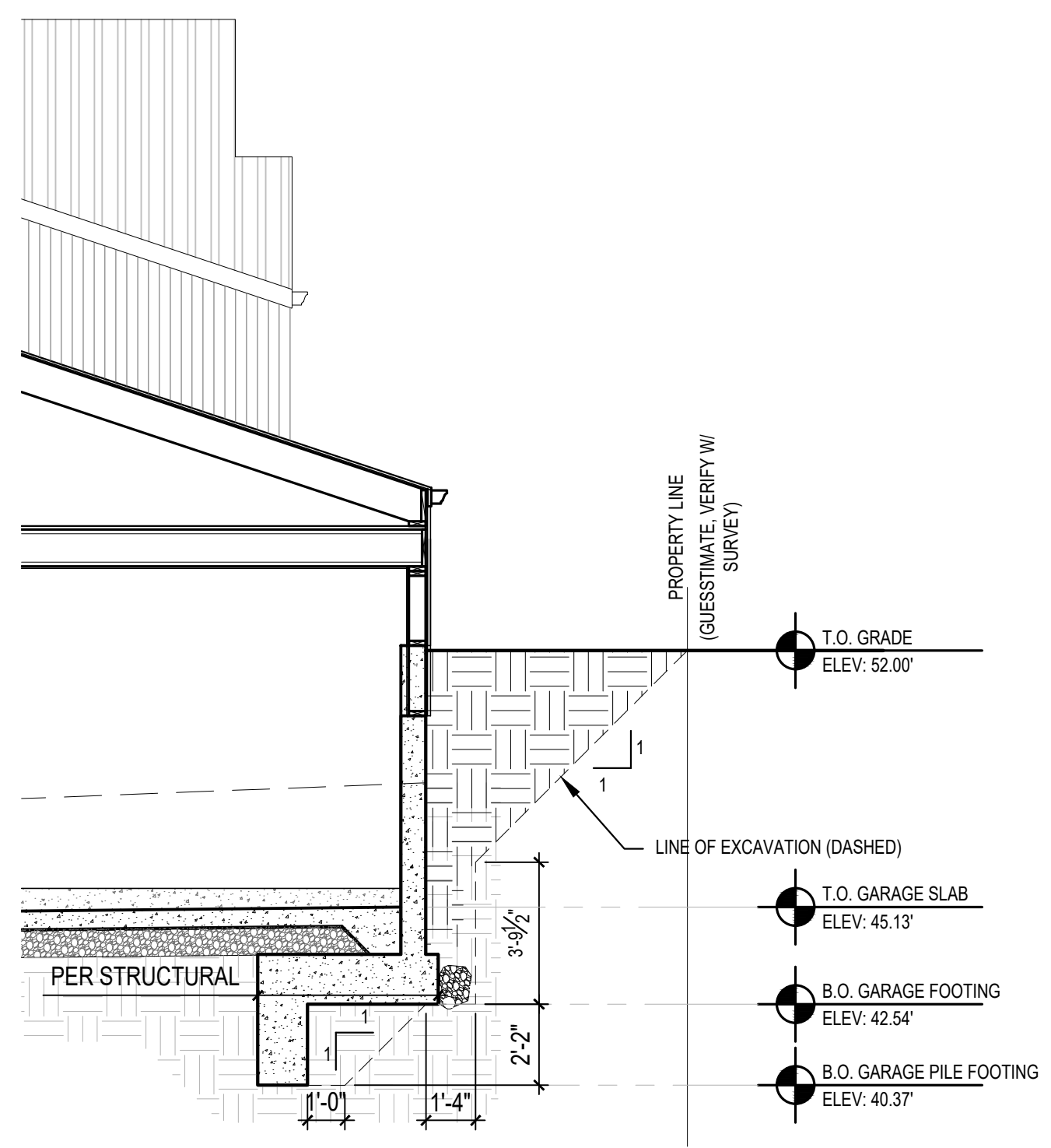
PERMIT SET	10/07/2020
PLOT DATE:	10/7/2020
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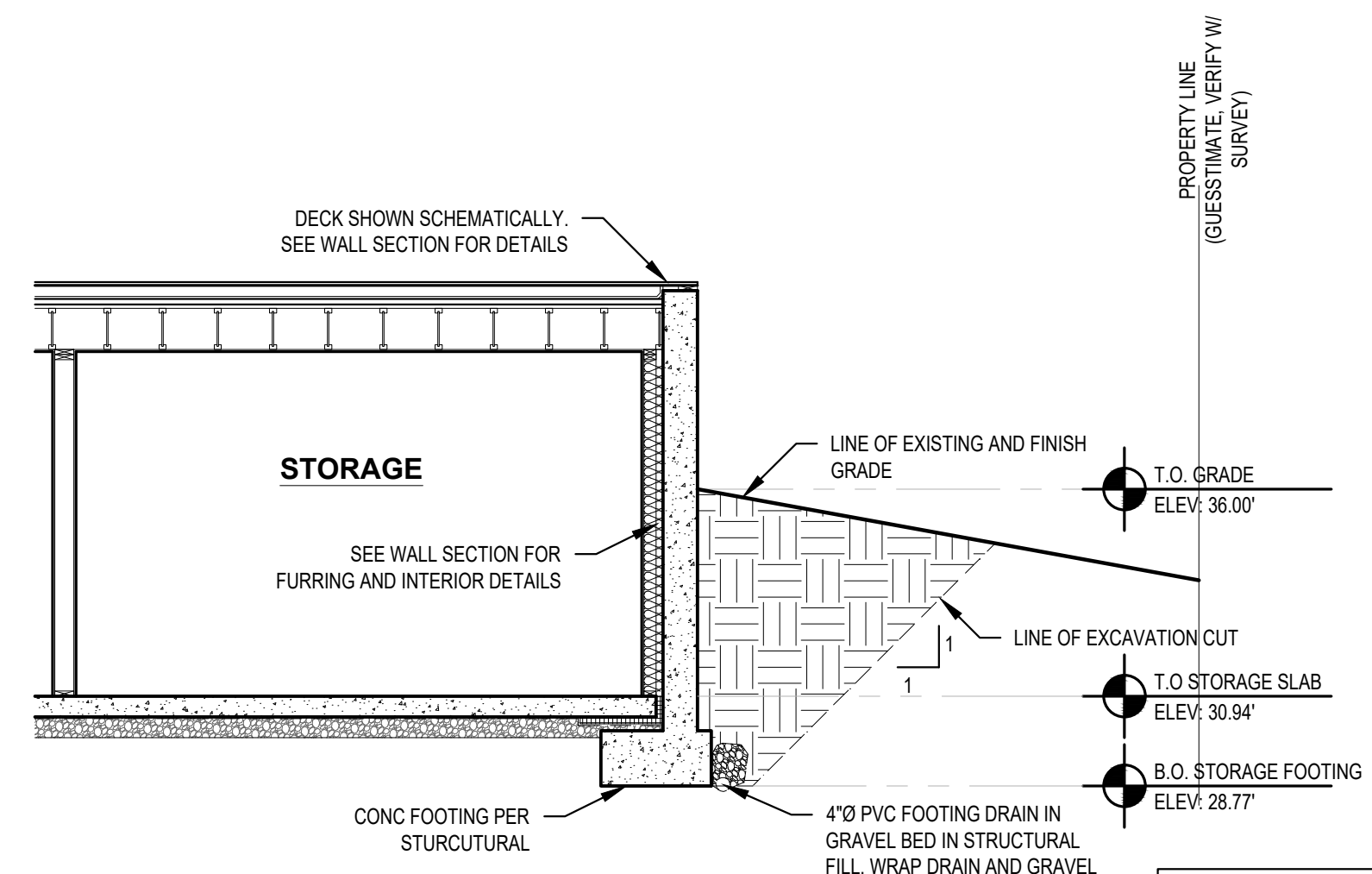
EXCAVATION PLAN
SCALE: 1/8" = 1'-0"



2 EXCAVATION SECTION
SCALE: 1/4" = 1'-0"



3 EXCAVATION SECTION
SCALE: 1/4" = 1'-0"

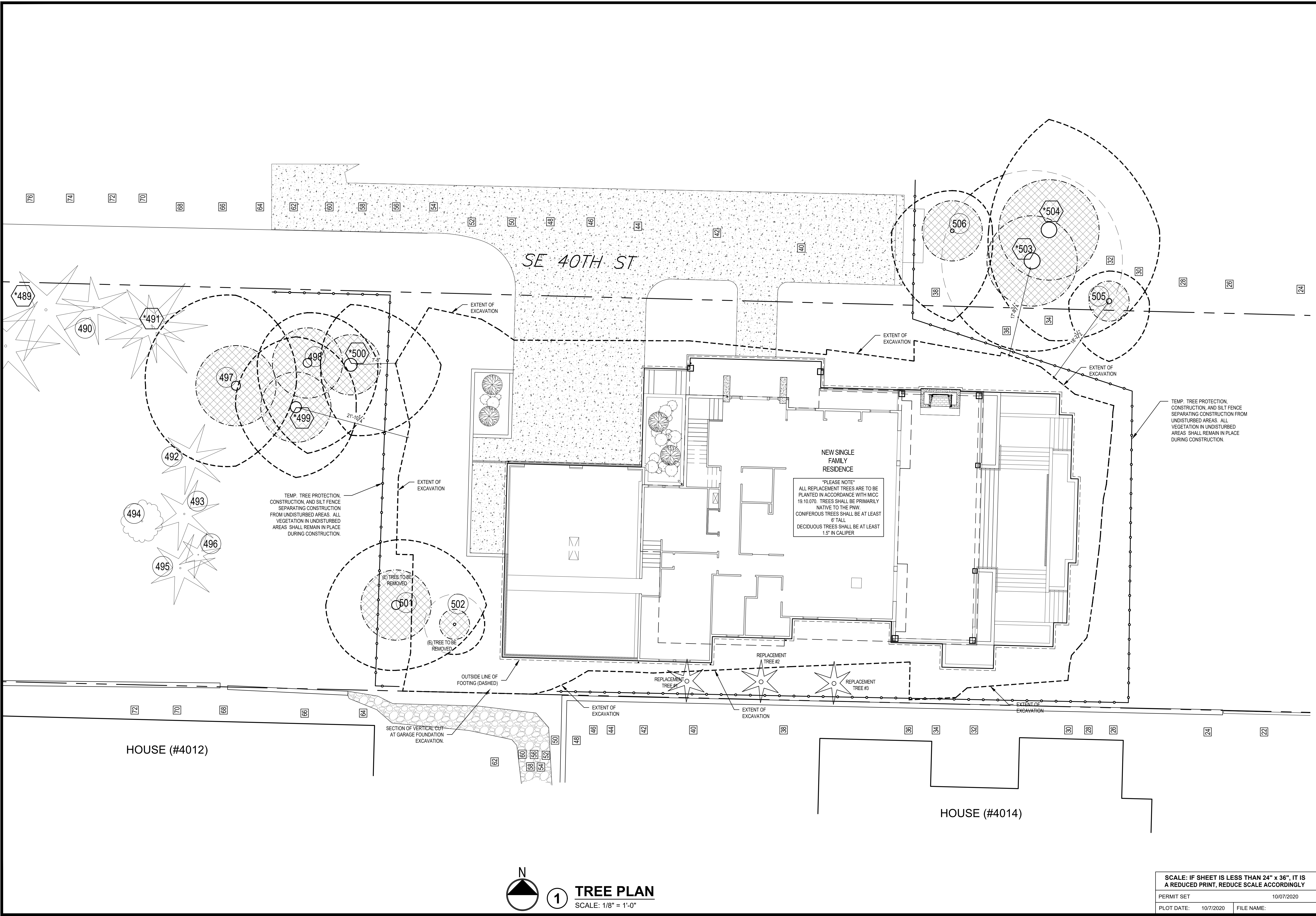


4 EXCAVATION SECTION
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
 PERMIT SET 10/07/2020
 PLOT DATE: 10/7/2020 FILE NAME:

REVISIONS:

DRAWN BY: JM
 CHECKED BY: BUS

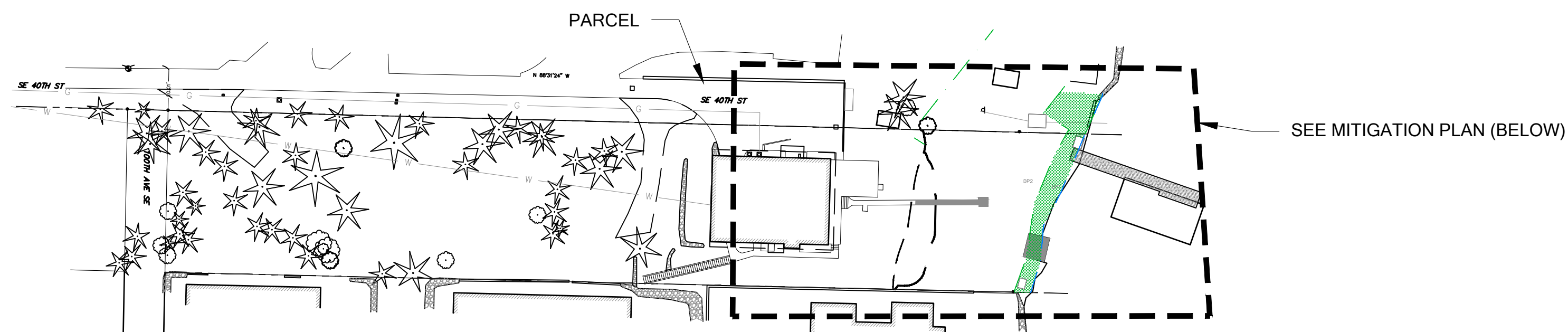


1 TREE PLAN
SCALE: 1/8" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY	
PERMIT SET	10/07/2020
PLOT DATE: 10/7/2020	FILE NAME:

REVISIONS:	
DRAWN BY:	KE
CHECKED BY:	BJS
SHEET	A1.3
	OF

MOUNGER RESIDENCE



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

IMPACTS LEGEND

- PRE-EXISTING CRITICAL AREA IMPACT TO BE REMOVED (224 SF)
- PROPOSED WETLAND BUFFER REDUCTION (771 SF)
- REDUCED WETLAND BUFFER

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

MITIGATION LEGEND

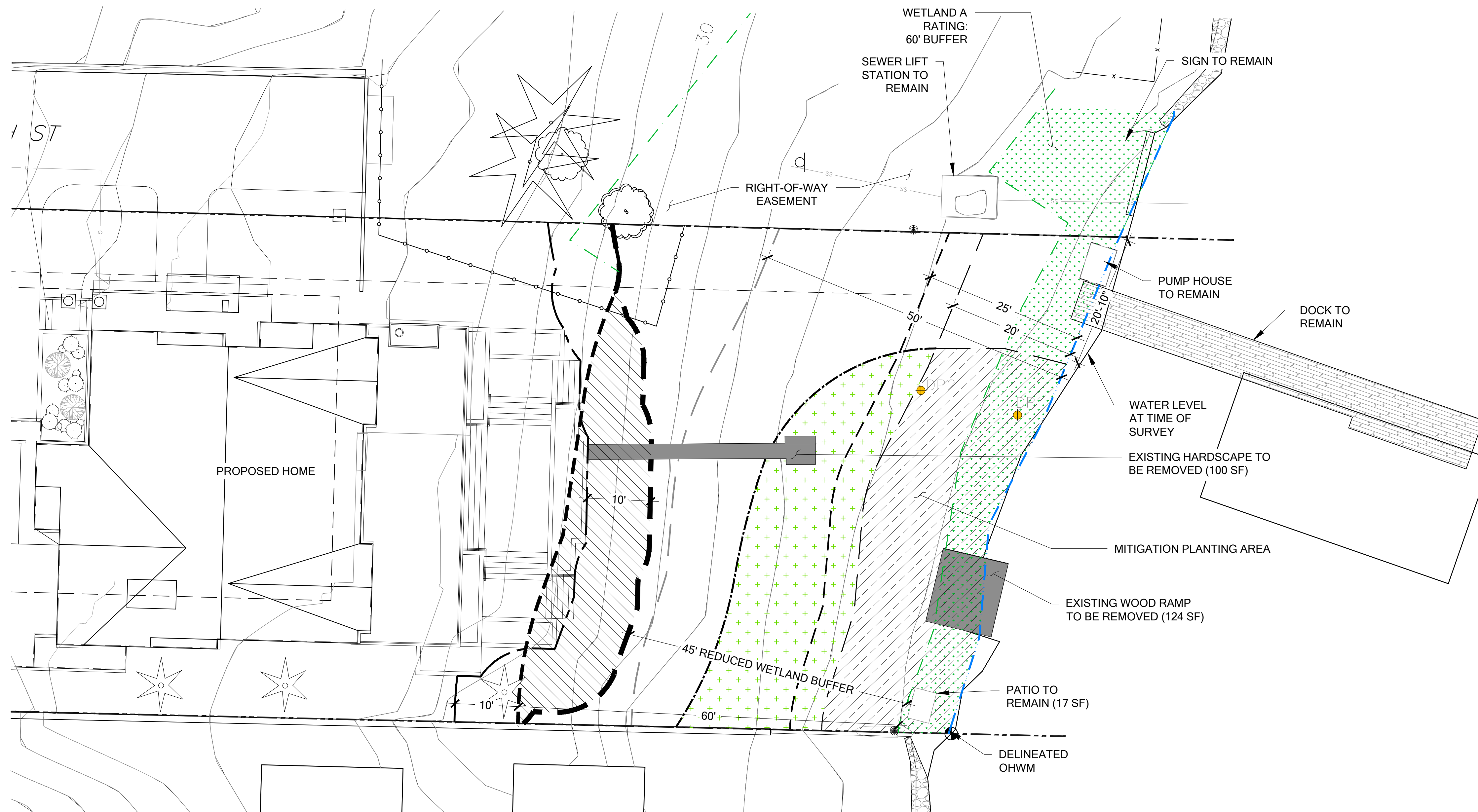
- PRE-EXISTING IMPACT IN WETLAND
- BUFFER REDUCTION AREA (771 SF)
- BUFFER ENHANCEMENT AREA (1,091 SF) 1.4:1 RATIO
- 20' SHORELINE ENHANCEMENT (770 SF)
- SHORELINE ENHANCEMENT OVER WETLAND (481 SF)

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

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MOUNGER RESIDENCE
SHORELINE MITIGATION PLAN
PREPARED FOR: BRAD STURMAN

4006 EAST MERCER WAY
 MERCER ISLAND, WA 98040

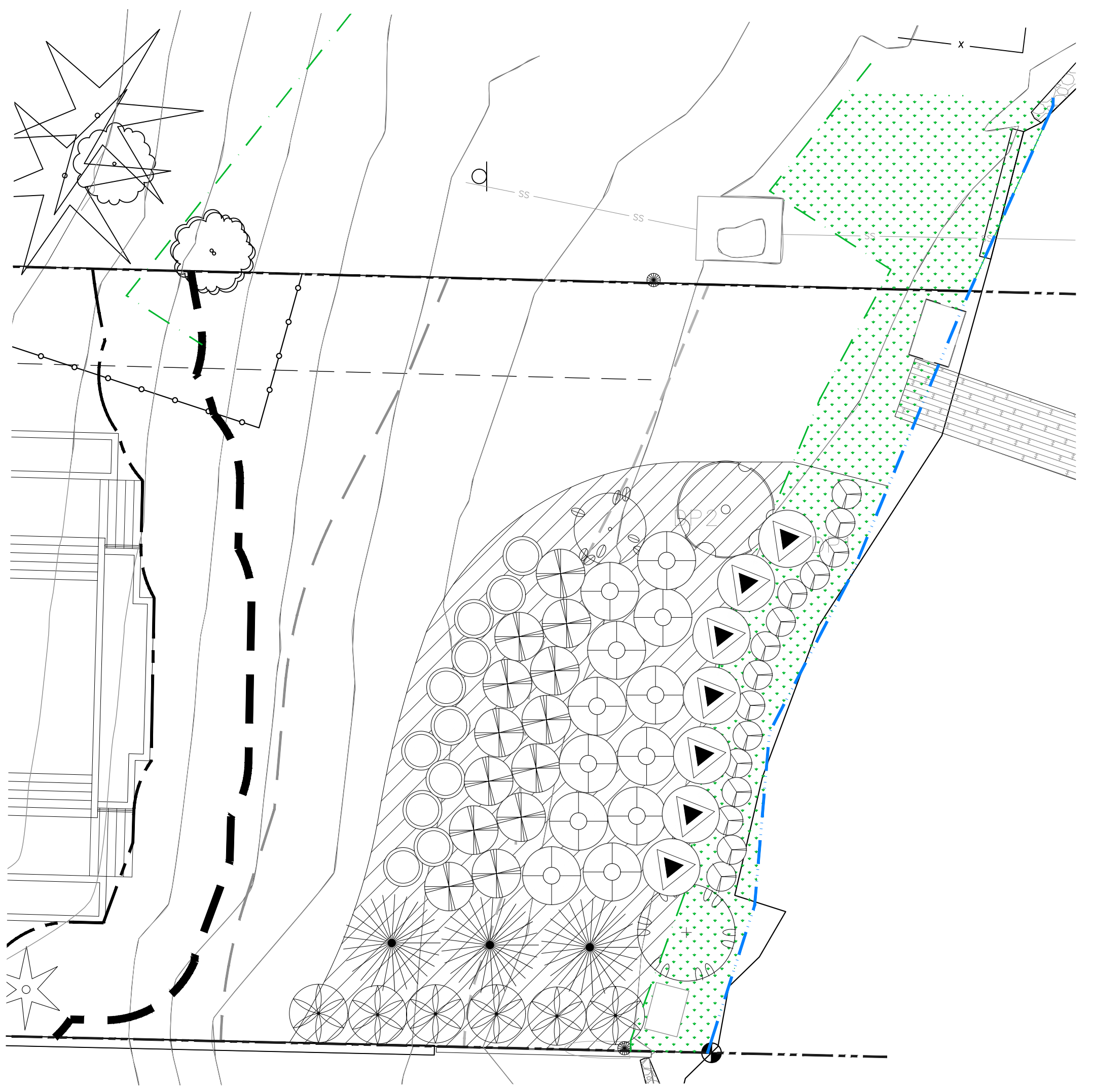
NO.	DATE	DESCRIPTION	BY
1	08-20-2020	MITIGATION PLANTING PLAN	AS/MF

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

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

JOB NUMBER:
200509
SHEET NUMBER:
W1 OF 3

DATE PRINTED BY FILENAME



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	GROUND COVER	COMMON / BOTANICAL NAME	SIZE	SPACING	QTY	REMARKS
	PAPER BIRCH / BETULA PAPIRIFERA	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	3		SMALL-FRUITED BULRUSH / SCIRPUS MICROCARPUS	4" POT/PLUG	24" O.C.	25	
	VINE MAPLE / ACER CIRCINATUM	10 GAL.	1		WESTERN COLUMBINE / AQUILEGIA FORMOSA	1 GAL.	24" O.C.	30	PLANT IN SAME SPECIES GROUPINGS 5-12 PLANTS IN CLUSTERS THROUGHOUT PLANTING BED
	CORNUS SERICEA 'KELSEY' / RED-TWIG DOGWOOD	1 GAL.	15		SWORD FERN / POLYSTICHUM MUNITUM	1 GAL.	24" O.C.	60	
	PACIFIC BAYBERRY / MORELLA CALIFORNICA	5 GAL.	6		OREGON STONECROP / SEDUM OREGONUM	4" POT	15" O.C.	80	
	MOCK ORANGE / PHILADELPHUS LEWISII	1 GAL.	12		TOUGH-LEAF IRIS / IRIS TENAX	1 GAL.	24" O.C.	30	
	CLUSTERED WILD ROSE / ROSA PISOCARPA	1 GAL.	7						
	ROSE SPIREA / SPIRAEA DENSIFLORA	1 GAL.	11						
	VACCINIUM OVATUM / EVERGREEN HUCKLEBERRY	2 GAL.	13						

PLANTING PLAN AND SCHEDULE
SCALE 1:10



NOTES

- SEE SHEET W3 FOR SITE PREPARATION AND PLANTING DETAILS.

PERMIT SET
-
NOT FOR CONSTRUCTION

NO.	DATE	DESCRIPTION	BY
1	08-20-2020	MITIGATION PLANTING PLAN	AS/MF

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

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

JOB NUMBER: 200509
SHEET NUMBER: W2 OF 3

MITIGATION SPECIFICATIONS

OVERVIEW

A COMPREHENSIVE FIVE-YEAR MAINTENANCE AND MONITORING PLAN IS INCLUDED AS PART OF THE 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 NATIVE TREE SPECIES, SEVEN NATIVE SHRUB SPECIES, AND SEVEN NATIVE GROUNDCOVER SPECIES SUITABLE TO THE SITE. THREE NATIVE TREE, SEVEN NATIVE SHRUB AND SEVEN NATIVE GROUNDCOVER SPECIES ARE PROPOSED IN THE MITIGATION AREA. THE PLAN CALLS FOR NEW PLANTINGS WITHIN THE INNER 20-FOOT SHORELINE SETBACK AREA, INCLUDING WITHIN WETLAND A, AND MUCH OF THE REDUCED WETLAND BUFFER. NATIVE PLANTINGS ARE INTENDED TO INCREASE NATIVE PLANT COVER, IMPROVE NATIVE SPECIES DIVERSITY, 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.

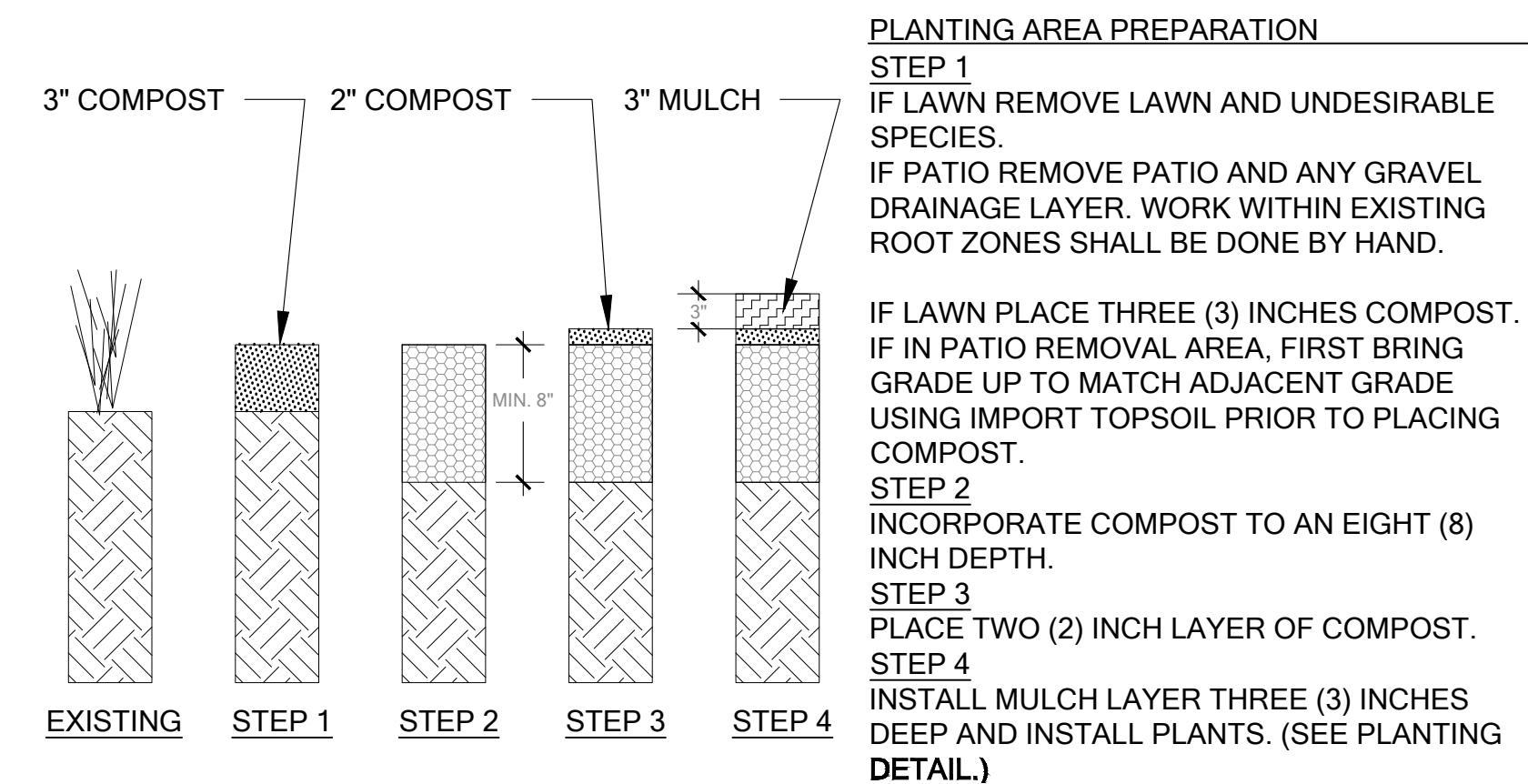
- 1. REPLACE EACH PLANT FOUND DEAD IN THE SUMMER MONITORING VISIT DURING THE UPCOMING FALL DORMANT SEASON (OCTOBER 15TH TO MARCH 1ST).
- 2. INVASIVE SPECIES MAINTENANCE PLAN: HIMALAYAN BLACKBERRY, ENGLISH IVY, ENGLISH LAUREL, AND OTHER INVASIVE WOODY VEGETATION WILL BE GRUBBED OUT BY HAND ON AN ONGOING 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

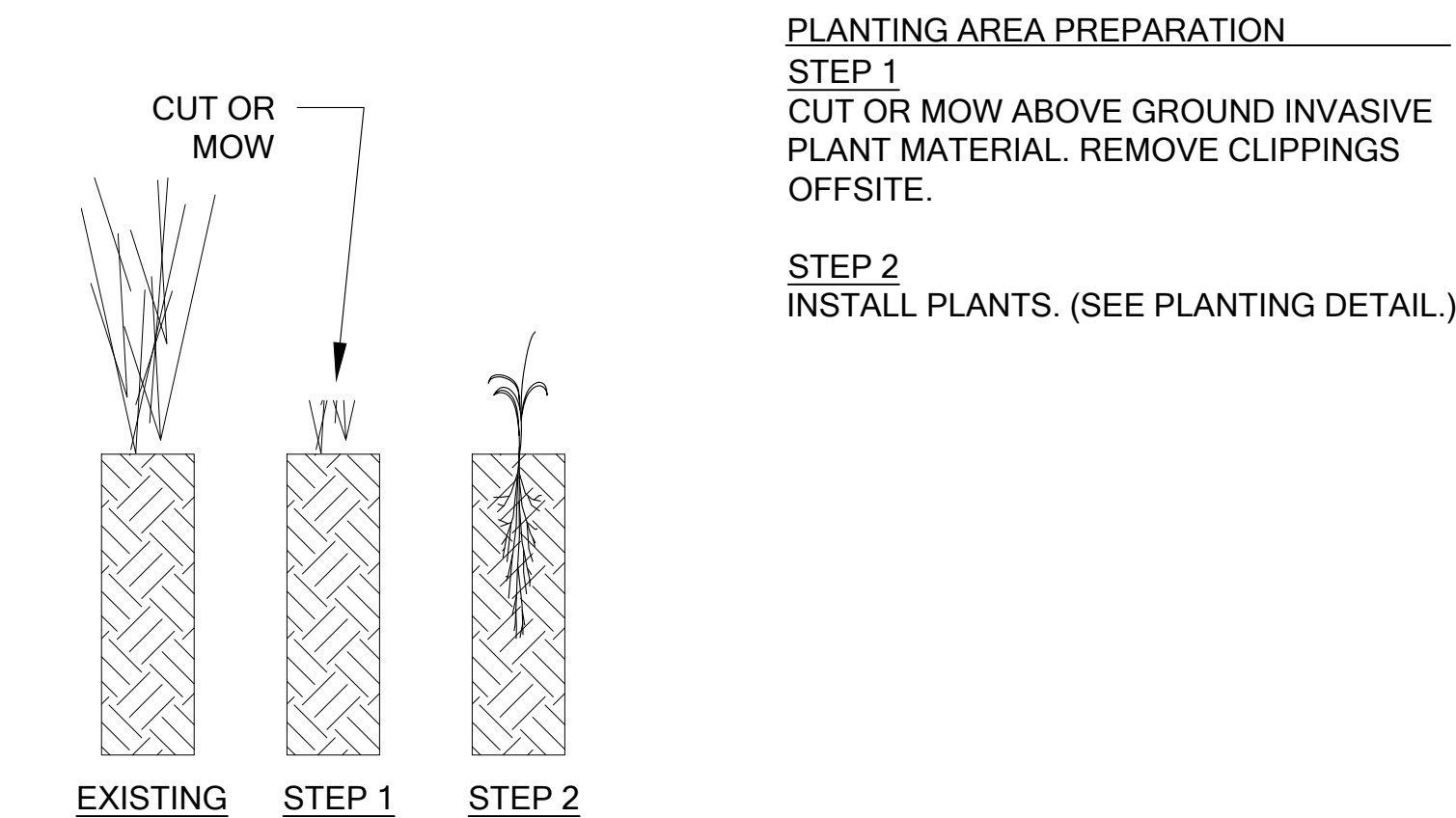
IF ALL OR PART OF THE MITIGATION AREA FAILS TO ESTABLISH ACCORDING TO THE GOALS AND PERFORMANCE STANDARDS, A CONTINGENCY PLAN SHALL BE DEVELOPED. CONTINGENCY MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO, PLANT SPECIES SUBSTITUTIONS, SOIL AMENDMENTS, HERBIVORE EXCLUSION FENCING, MODIFIED IRRIGATION SCHEDULE,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

MATERIAL SPECIFICATIONS AND DEFINITIONS

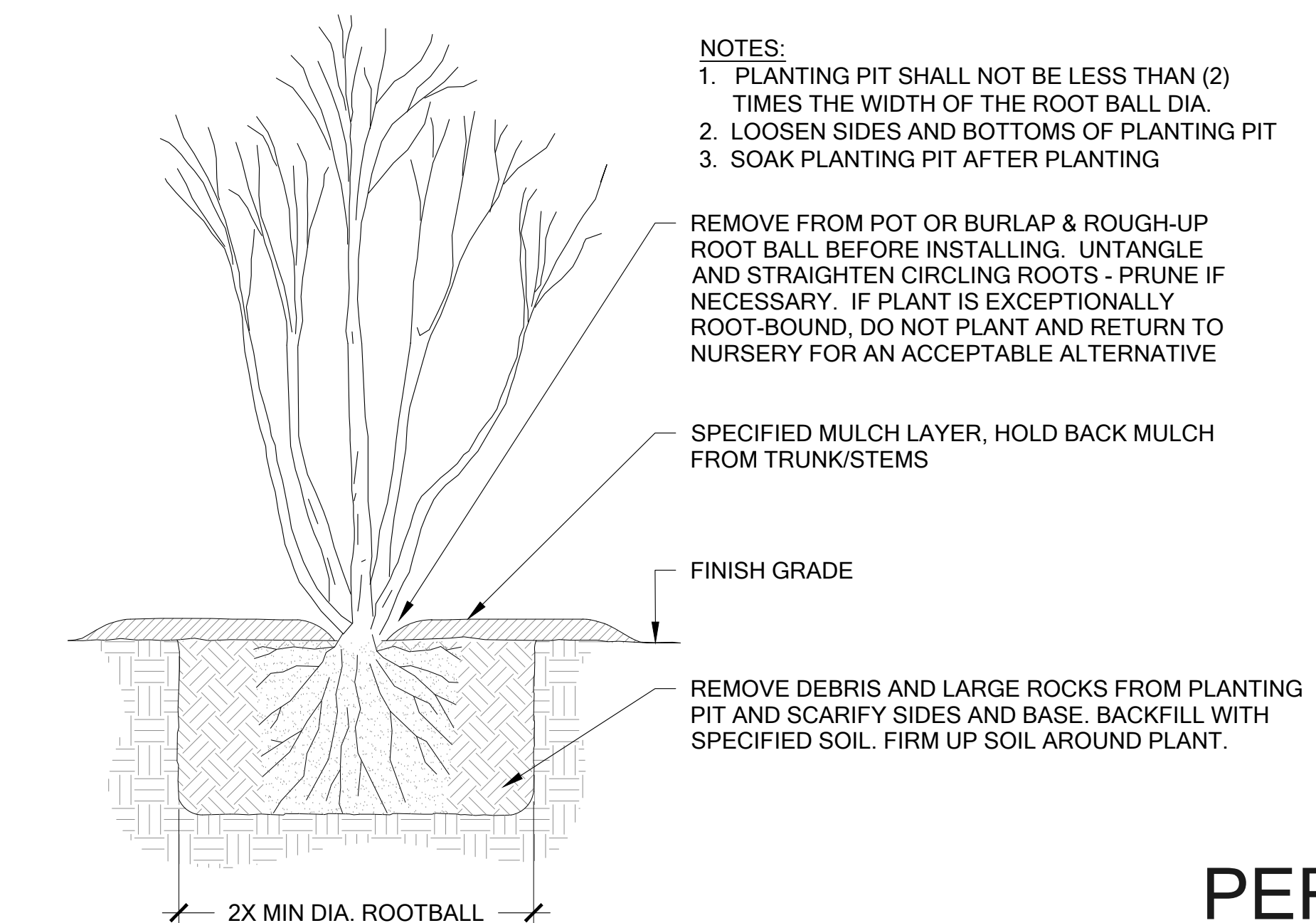
- 1. IRRIGATION SYSTEM: AUTOMATED SYSTEM CAPABLE OF DELIVERING AT LEAST ONE INCH OF WATER PER WEEK FROM JUNE 1 THROUGH SEPTEMBER 30 FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION.
- 2. RESTORATION PROFESSIONAL: WATERSHED COMPANY [(425) 822-5242] PERSONNEL, OR OTHER PERSONS QUALIFIED TO EVALUATE ENVIRONMENTAL 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 Scale: NTS



B WETLAND MITIGATION AREA SITE PREPARATION Scale: NTS



C CONTAINER PLANTING DETAIL Scale: NTS

MITIGATION DETAILS AND NOTES



750 Sixth Street South
Kirkland WA 98033

p 425.822.5242
www.watershedco.com

Science & Design

MOUNGER RESIDENCE
SHORELINE MITIGATION PLAN
PREPARED FOR: BRAD STURMAN

4006 EAST MERCER WAY
MERCER ISLAND, WA 98040

NO.	DATE	DESCRIPTION	BY
1	08-20-2020	MITIGATION PLANTING PLAN	AS/MF

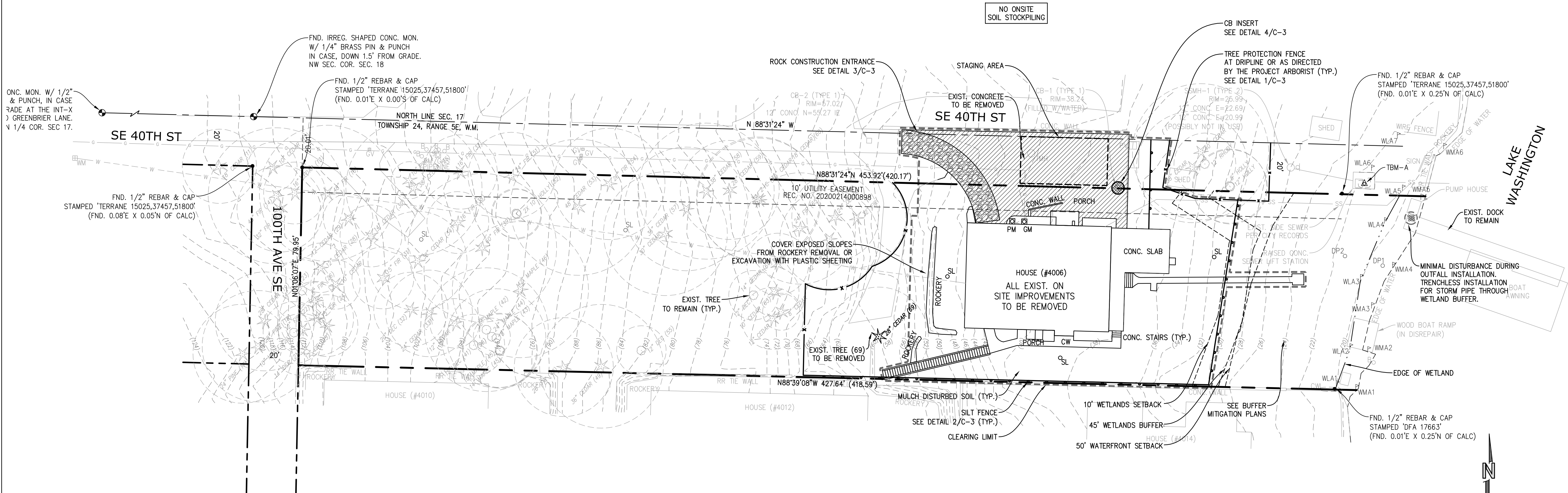
SHEET SIZE:
ORIGINAL PLAN IS 22" x 34".
SCALE ACCORDINGLY.

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

JOB NUMBER: 200509

SHEET NUMBER: W3 OF 3

PERMIT SET
-
NOT FOR CONSTRUCTION



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.

BENCHMARK & DATUM

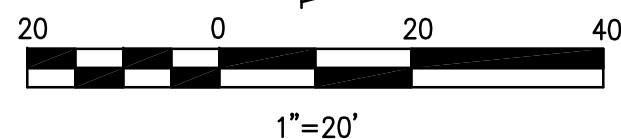
VERTICAL DATUM: NAVD88
ORIGINAL BM: CITY OF MERCER ISLAND BM-MI 1074: FND. 1" SQUARE CONC. MON. W/ 1/2" BRASS SPIN & PUNCH, IN CASE DOWN 0.6' FROM GRADE AT THE INT-X OF SE 40TH ST AND GREENBRIER LANE ELEV.=305.67
TBM A: CITY OF MERCER ISLAND BM-PS 12: FND. 2" BRASS DISC SURFACE MON. STAMPED 'CITY OF 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

EROSION AND SEDIMENT CONTROL NOTES

- APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

POLLUTION PREVENTION AND SPILL CONTROL

- STORAGE AND HANDLING OF LIQUIDS**
- MINIMIZE AMOUNT OF LIQUIDS STORED ON SITE.
 - STORE AND CONTAIN LIQUID MATERIALS IN SUCH A MANNER THAT IF A VESSEL IS RUPTURED OR LEAKS, THE CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR GROUNDWATER. TYPICALLY THIS MEANS INSTALLING SECONDARY CONTAINMENT, SUCH AS A LINED EXCAVATION, LARGER CONTAINER, OR USING A DOUBLE-WALLED TANK OR SIMILAR COMMERCIALY AVAILABLE CONTAINMENT FACILITY.
 - PLACE TIGHT-FITTING LIDS ON ALL CONTAINERS.
 - ENCLOSE OR COVER THE CONTAINERS WHERE THEY ARE STORED TO PROTECT FROM RAIN. THE LOCAL FIRE DISTRICT MUST BE CONSULTED FOR LIMITATIONS ON CLEARANCE OF ROOF COVERS OVER CONTAINERS USED TO STORE FLAMMABLE MATERIALS.
 - RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS PROVISIONS FOR SPILL CONTROL.
 - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
 - STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
 - CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
 - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- FUELING**
- LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
 - USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS.
 - IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
 - STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
 - IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
- CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL**
- SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS.
 - CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE.
 - UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
 - HAND TOOLS INCLUDING, BUT NOT LIMITED, SCREEDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT.
 - EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
 - WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
 - WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS. CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME DAY.



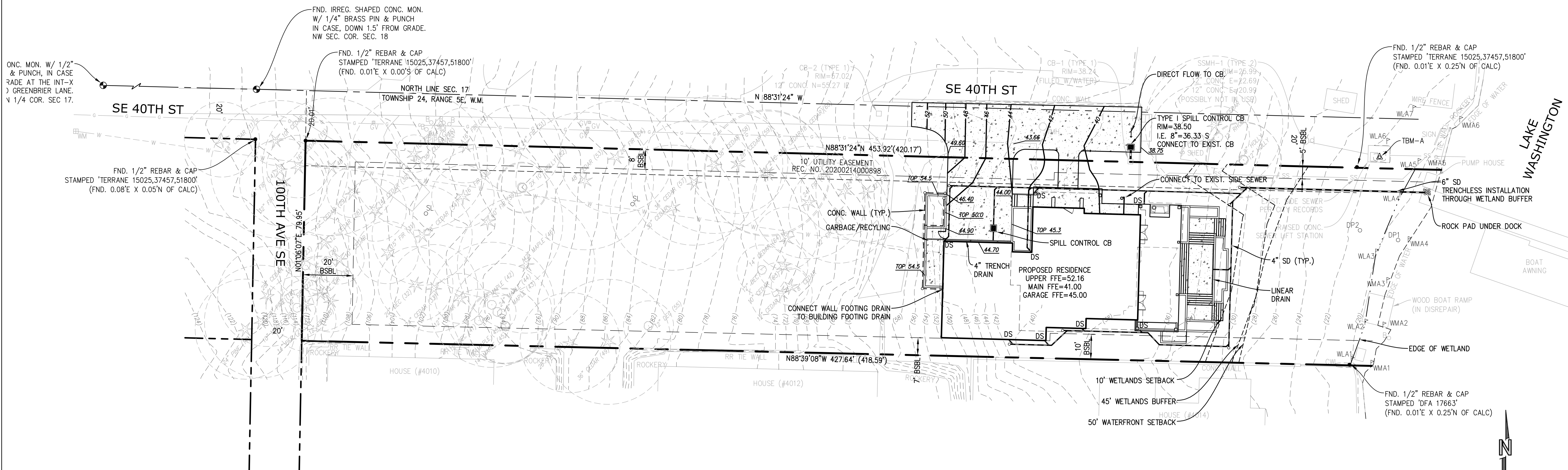
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N. BOSSOFF, P.E.
PROJECT MANAGER: NB
DESIGNED: TKB
DRAWN: SARC-2002
JOB NUMBER: SARC-2002pln.dwg
FILE NAME:

MOUNGER RESIDENCE
4006 E MERCER WAY
WASHINGTON
MERCER ISLAND

TITLE: T.E.S.C. PLAN
SHEET: C-1

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POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES

- A. SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
- B. SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
 1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
 2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
 3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
 - A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
 - B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.
- C. IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
 1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
 2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PREAPPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
 3. STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
 4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

ADDITIONAL NOTES:

1. ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
2. EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
5. ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT WELDED SCHEDULE 40 PVC OR PVC ASTM D3034 SDR35 UNLESS SHOWN OTHERWISE. PVC PIPE LAID AT A SLOPE IN EXCESS OF 20% SHALL BE SOLVENT WELDED SCHEDULE 40 PVC. STORM PIPE IN THE RIGHT-OF-WAY SHALL BE HIGH-DENSITY POLYETHYLENE DOUBLE-WALLED SMOOTH INTERIOR PIPE SUCH AS ADS N-12 OR EQUIVALENT.
6. FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC CONFORMING TO D2729, PERFORATIONS DOWN. GRANULAR BACKFILL SHALL BE PLACED AROUND AND ABOVE THE DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. FILTER FABRIC (MIRAFI 140N OR EQUIVALENT) SHALL BE PLACED BETWEEN THE GRANULAR BACKFILL AND NATIVE SOILS. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12-INCHES ABOVE THE STORM LINE.
7. EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
8. PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION.
9. EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
10. USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
11. VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5' SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45°.
12. DOWNSPOUT LOCATIONS SHOWN ARE PRELIMINARY. REFER TO ARCHITECTURAL PLANS FOR FINAL DOWNSPOUT LOCATIONS.
13. AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
14. WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED PER SECTION R310.2.3.2 OF THE INTERNATIONAL RESIDENTIAL CODE. A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP 1 SOILS, AS DETAILED IN TABLE R405.1 OF THE IRC.

NO.	DATE	REVISION
1	09/25/20	PERMIT SUBMITAL

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

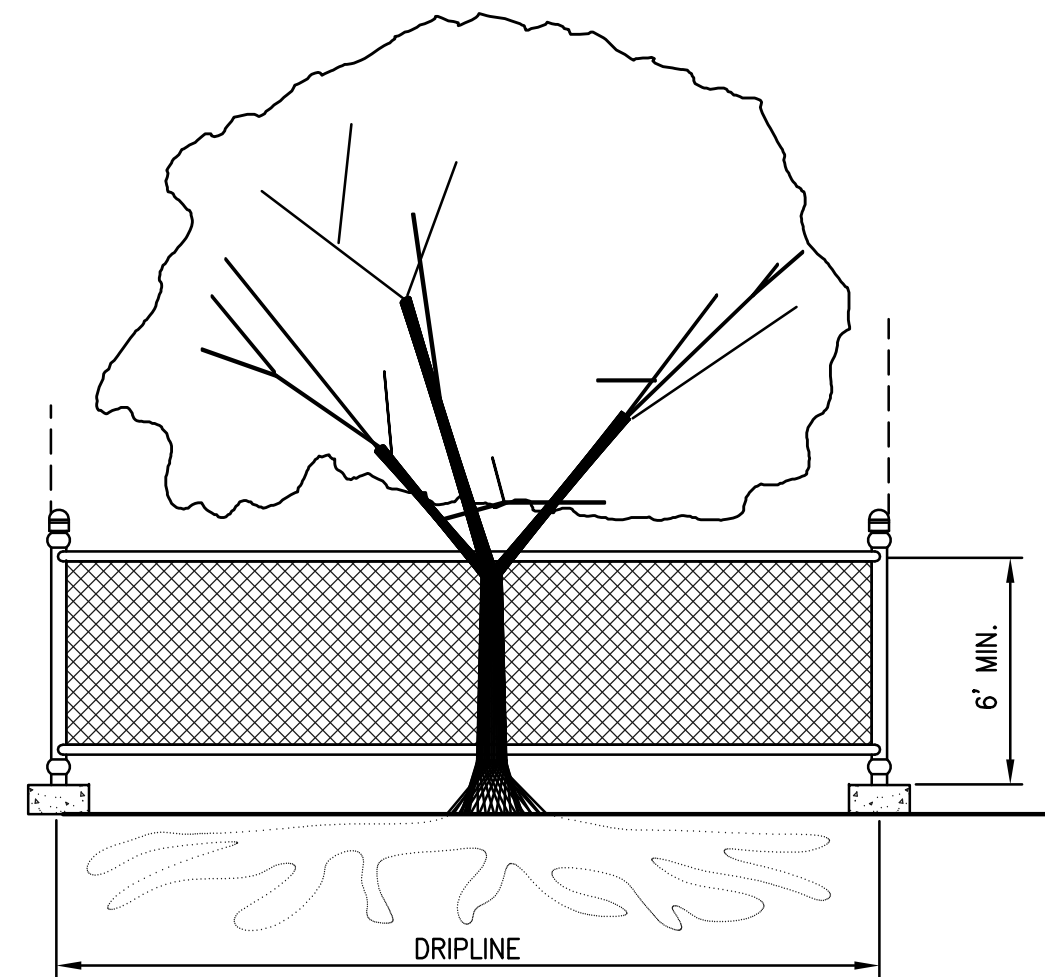
WASHINGTON

MOUNGER RESIDENCE
4006 E MERCER WAY

MERCER ISLAND

TITLE: **DRAINAGE PLAN**

SHEET: **C-2**



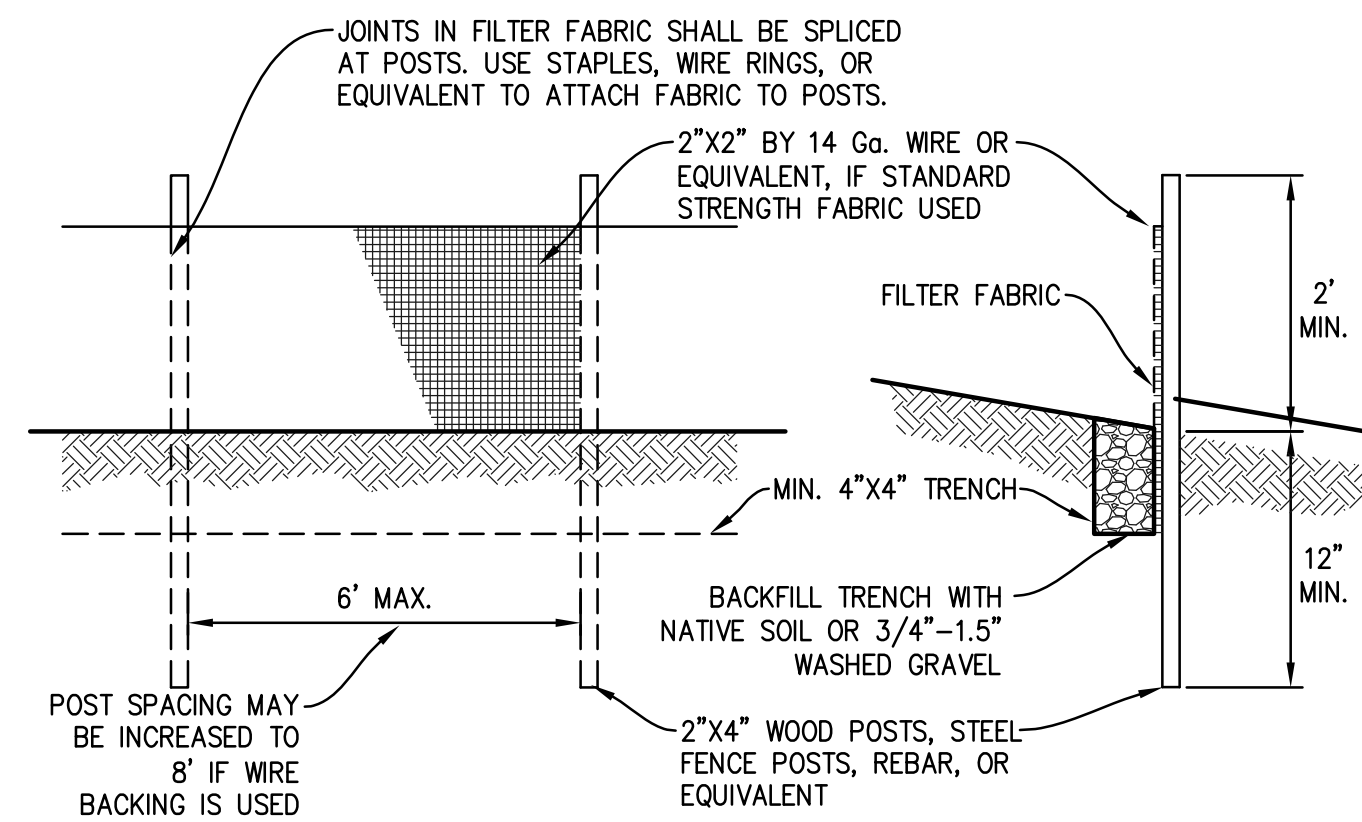
TREE PROTECTION DURING CONSTRUCTION

- 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



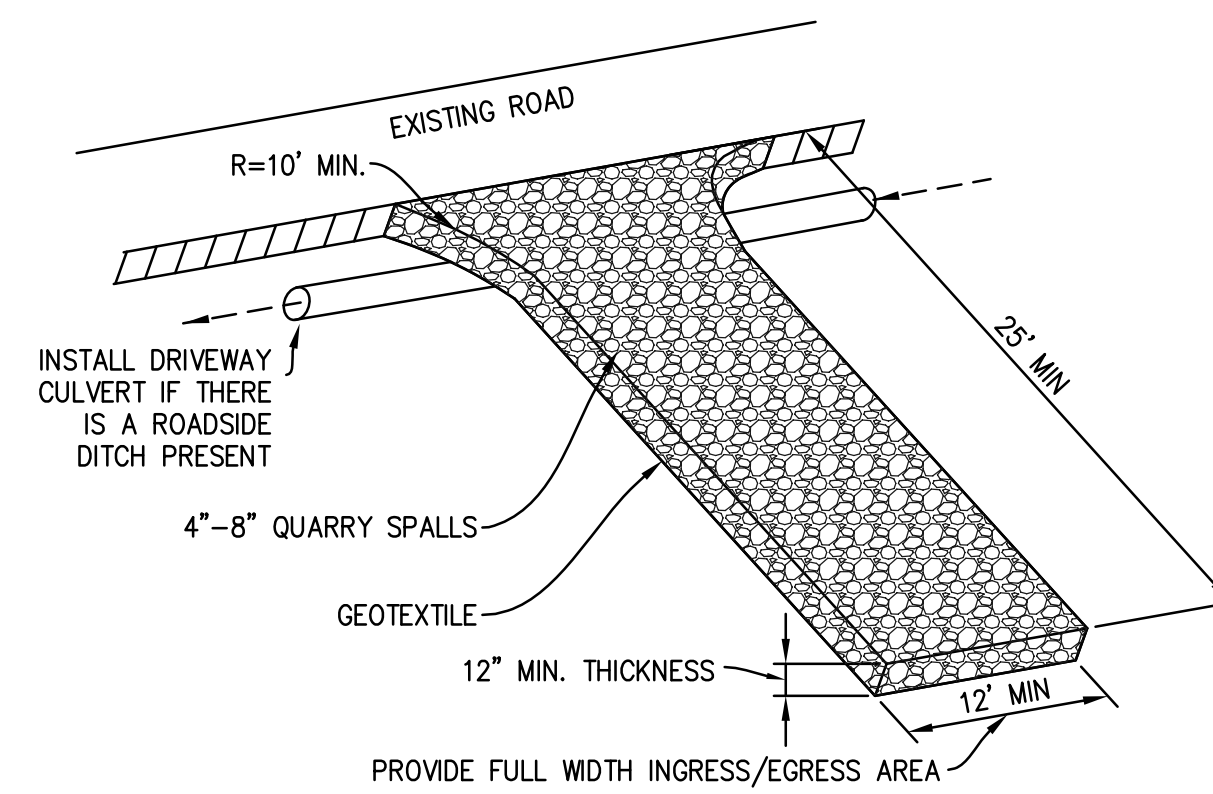
MAINTENANCE STANDARDS

- 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



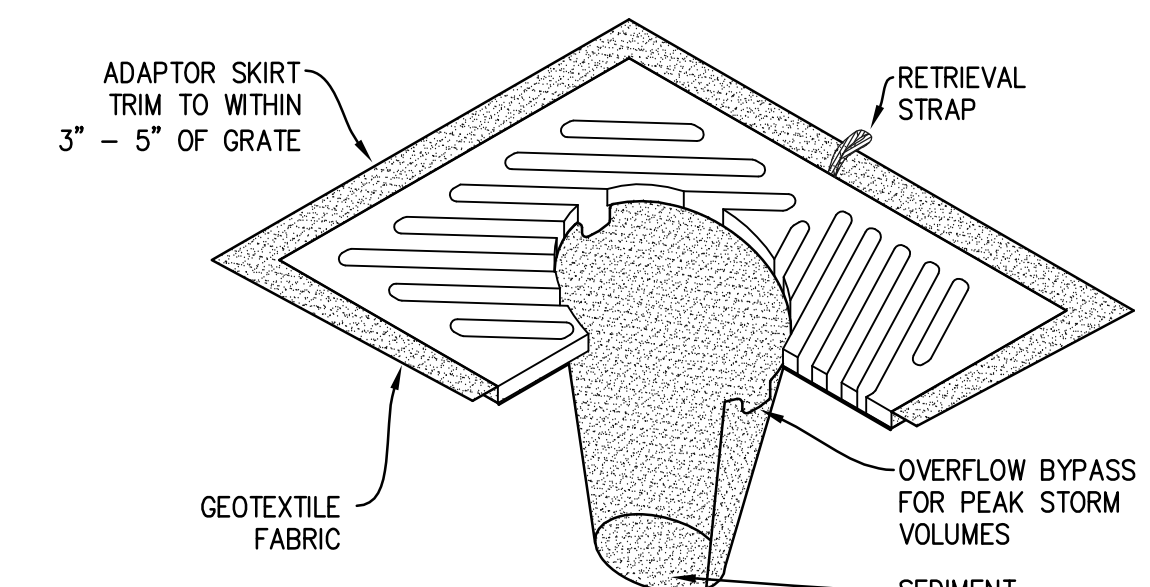
MAINTENANCE STANDARDS

- 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 LOOSENEED 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



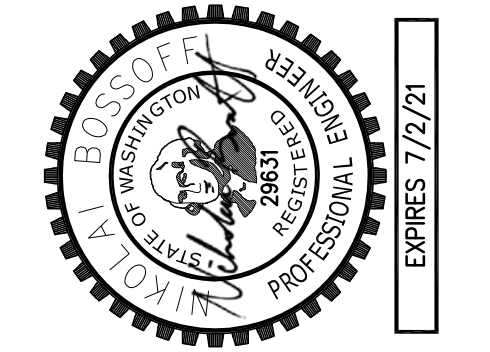
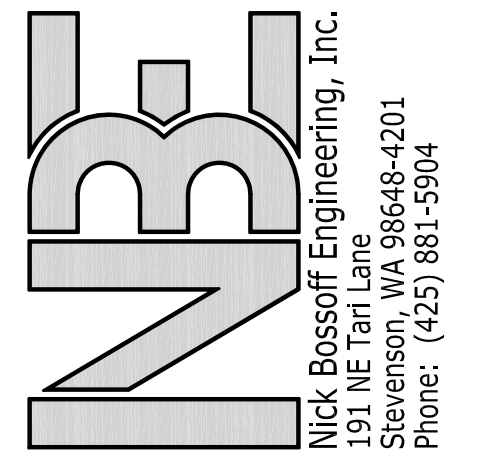
NOTES

- 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



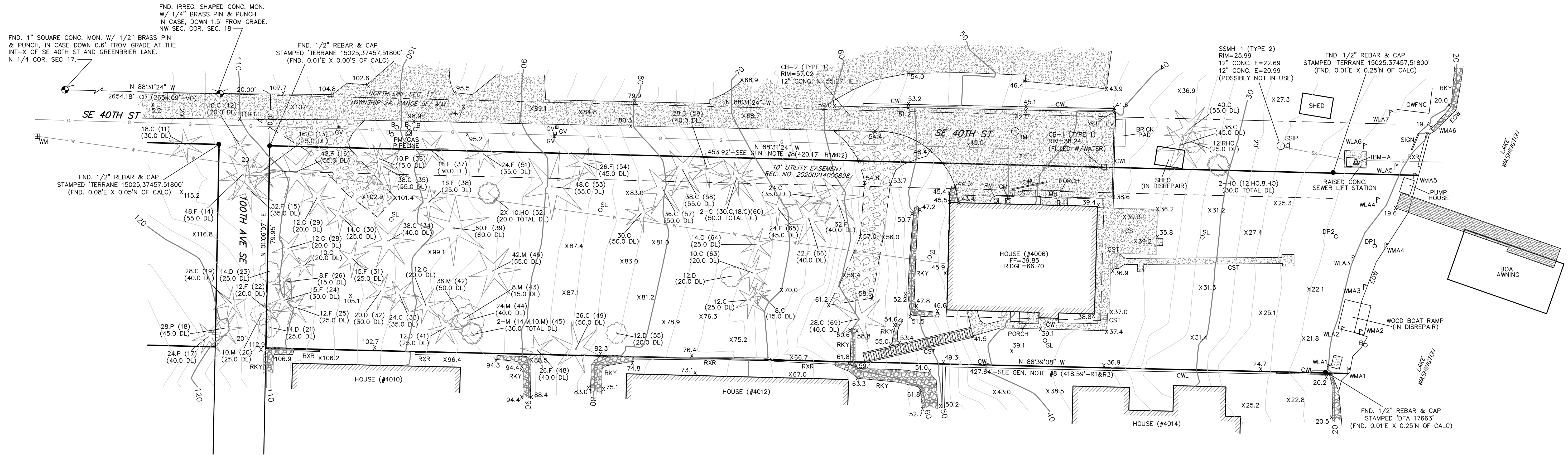
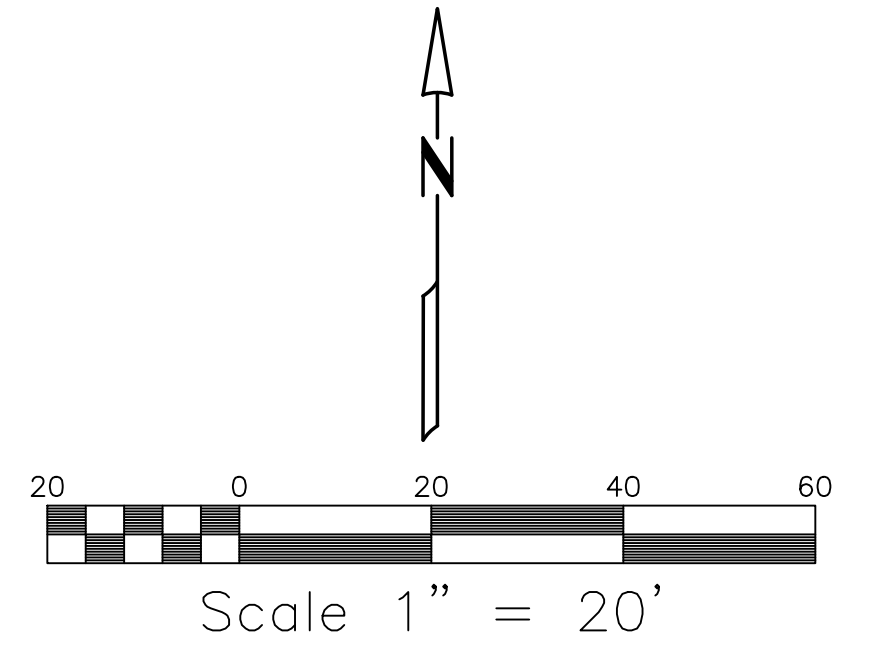
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N. BOSSOFF, P.E.	
PROJECT MANAGER:	
DESIGNED:	
TKB	
DRAWN:	
SARC-2002	
JOB NUMBER:	
SARC-2002pln.dwg	
FILE NAME:	

MOUNGER RESIDENCE
4006 E MERCER WAY
MERCER ISLAND
WASHINGTON

TITLE:
DETAILS

SHEET:
C-3



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
- EOW 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 MAILBOX
- 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, TIEE 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 WATER LOCATIONS DONE BY TIEE 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
- BUILDING HATCH
- GRAVEL HATCH
- W UNDERGROUND WATER LINE
- G UNDERGROUND GAS LINE
- SS SANITARY SEWER LINE
- XXXX SPOT ELEVATION
- CONIFER TREE
- DECIDUOUS TREE



6-10-2020

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: 6-10-2020	JOB NO.: 20057
CHKD BY: TG	SCALE: 1" = 20'	SHEET: 1 OF 1