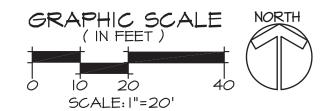
EXISTING CONDITIONS PLAN



EXISTING WETLAND WETLAND BUFFER - STANDARD CENTERLINE OF STREAM & FLOW DIRECTION ----APPROXIMATE OHWM ------ STREAM BUFFER - STANDARD

A-# WETLAND FLAG LOCATION ●TP-# SOIL TEST PLOT LOCATION

EXISTING TREES

VICINITY MAP

PROJECT SITE

SOURCE: WWW.MAPQUEST.COM



CONTACTS

NAME:

SANG HOU

7022 EAST MERCER WAY MERCER ISLAND, WA 98040

(206) 948-7698 PHONE:

<u>SURVEYOR</u>

CONTACT:

ADDRESS:

NAME: ESM CONSULTING ENGINEERS ADDRESS:

33400 8TH AVE S #205 FEDERAL WAY, WA 98003

(253) 838-6113 PHONE: CONTACT:

ENVIRONMENTAL CONSULTANT

TALASAEA CONSULTANTS, INC. NAME: ADDRESS: 15020 BEAR CREEK RD. NE

WOODINVILLE, WA 98077

(425) 861-7550 PHONE:

ANN M. OLSEN, RLA SENIOR PROJECT MANAGER

JENNIFER MARRIOTT, PWS SENIOR WETLAND ECOLOGIST

SHEET INDEX

SHEET # SHEET TITLE

WI.O EXISTING CONDITIONS PLAN

PROPOSED SITE PLAN, IMPACTS \$

MI.I MITIGATION PLAN

PLANTING PLAN, SCHEDULE, NOTES & DETAILS

WI.3 PLANTING SPECIFICATIONS

EAGLE MANAGEMENT, MONITORING

WI.4 PLAN, & BONDING ESTIMATE

NOT FOR CONSTRUCTION THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND APPROVAL. UNTIL APPROVED, THESE PLANS ARE:

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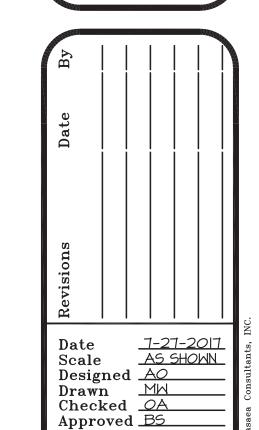


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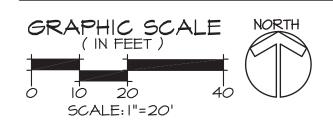


Project #1129B

Sheet # W.O



PROPOSED SITE IPLAN, IMPACTS & MITIGATION PLAN



EXISTING WETLAND - WETLAND BUFFER - REDUCED WETLAND BUFFER - STANDARD · —— CENTERLINE OF STREAM & FLOW DIRECTION ----APPROXIMATE OHWM ------ STREAM BUFFER - STANDARD ■ PROPOSED CRITICAL AREAS BUFFER EXISTING TREES TO REMAIN

EXISTING TREES TO BE REMOVED

STREAM BUFFER AVERAGING LEGEND

	BUFFER REDUCTION	354 SF
	BUFFER REPLACEMENT	333 SF
	TEMPORARY CONSTRUCTION IMPACTS	357 SF

MITIGATION LEGEND

	WETLAND BUFFER ENHANCEMENT	10,376 SF
	RESTORED BUFFER	357 SF
	LARGE WOODY DEBRIS	

*DURING CONSTRUCTION HEDERA HELIX WILL BE FIELD LOCATED AND REMOVED IN ENHANCEMENT AREAS. ALL INVASIVE WEEDS WILL BE DISPOSED OF OFF SITE.

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Scale Designed AO
Drawn MM Checked <u>OA</u> Approved <u>BS</u> Project #<u>1129B</u>

Sheet # M.

PLANTING PLAN

GRAPHIC SCALE (IN FEET) 10 20 SCALE:1"=20'

EXISTING WETLAND ----- CENTERLINE OF STREAM & FLOW DIRECTION

----APPROXIMATE OHWM PROPOSED CRITICAL AREAS BUFFER EXISTING TREES TO REMAIN

> EXISTING TREES TO BE REMOVED LARGE WOODY DEBRIS

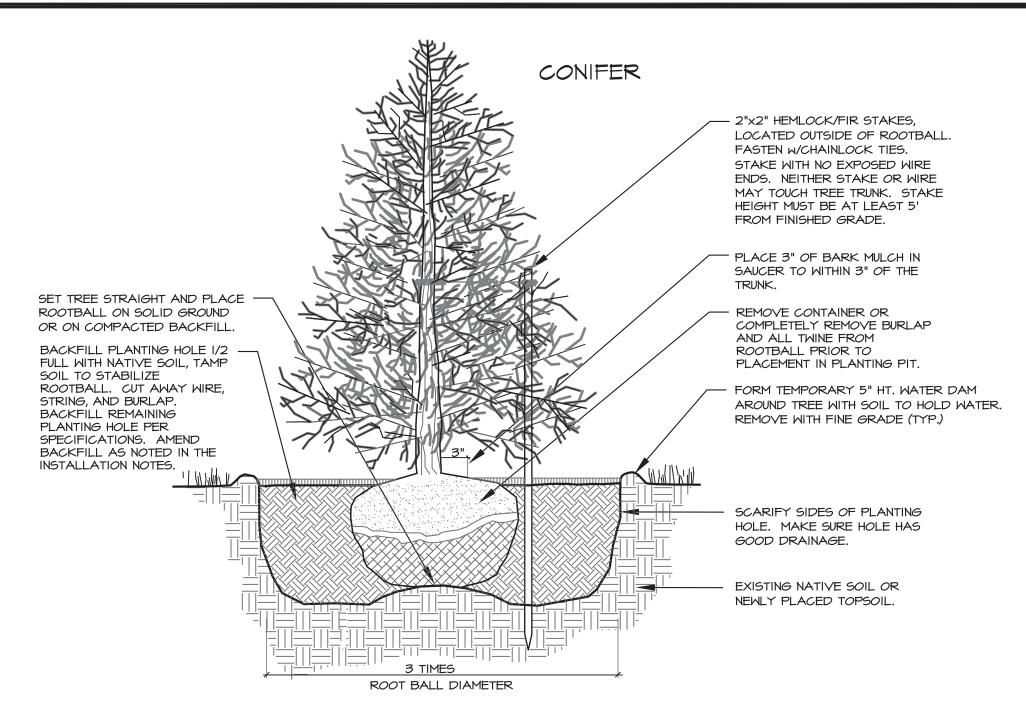
PLANT SCHEDULE

SYMBOL	SCIENTIFIC NAME	COMMON NAME	WL STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
*	ACER CIRCINATUM	VINE MAPLE	FAC	10	AS SHOWN	I GAL.	FULL & BUSHY
(+)	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	FACU	6	AS SHOWN	I GAL.	B&B, FULL & BUSHY
	ATAOIJA PLICATA	WESTERN RED CEDAR	FAC	П	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
	THUJA PLICATA	WESTERN RED CEDAR	FAC	4	AS SHOWN	I GAL.	B&B, FULL & BUSHY

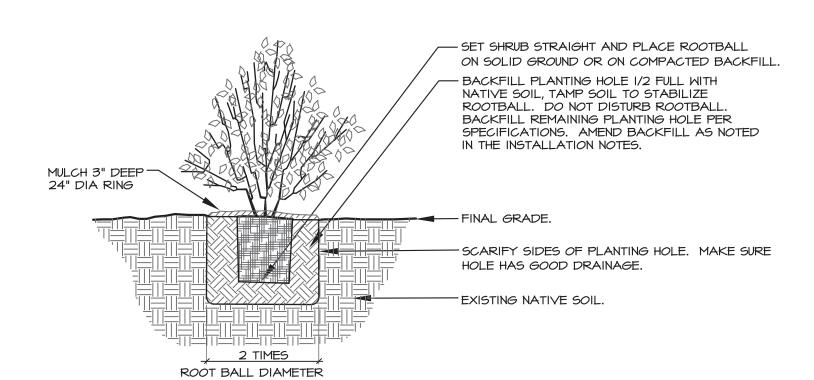
St	1 R	UB	S

TREES

SYME	3 <i>0</i> L	SCIENTIFIC NAME	COMMON NAME	ML STATUS	QTY.	SPACING	SIZE (MIN.)	NOTES
	\bigcirc	OEMLERIA CERASIFORMIS	INDIAN PLUM	FACU	22	5' <i>O.C</i> .	I GAL.	MULTI-CANE (3 MIN.)
*		POLYSTICHUM MUNITUM	SWORD FERN	FACU	32	3' O.C.	18" HT	FULL & BUSHY
	(ROSA GYMNOCARPA	BALDHIP ROSE	FACU	II	3' O.C.	18" HT.	MULTI-CANE (3 MIN.)
\oslash		RUBUS SPECTABILIS	SALMONBERRY	FAC	18	3' O.C.	I GAL.	FULL & BUSHY



ARGE CONIFER TREE PLANTING (TYP.



2) CONTAINER TREE/SHRUB PLANTING (TYP.) SCALE: NTS

GENERAL PLANTING INSTALLATION NOTES

- PLANT TREE \$ /OR SHRUB I/2" HIGHER THAN DEPTH GROWN AT NURSERY.
- FOR CONTAINER TREES \$/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
- AFTER PLANTING, STAKE TREES ONLY IF NECESSARY (LEANING OR DROOPING) OR IN EXPOSED AREAS.
- TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
- WATER IMMEDIATELY AND THOROUGHLY, HEAVIER AT FIRST, 2 OR 3 TIMES PER WEEK THROUGH THE DRY SEASON, THEN LESS UNTIL ESTABLISHED.

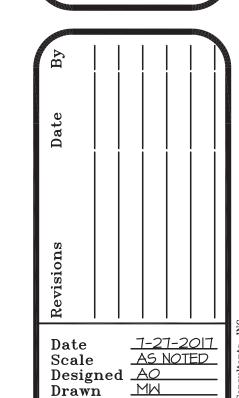
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Project #1129B

Sheet # M.2

Checked <u>OA</u> Approved <u>BS</u>

I.I SEQUENCING

A. <u>GENERAL CONSTRUCTION</u>

- I. CONTRACTOR SHALL GIVE TALASAEA CONSULTANTS A MINIMUM OF TEN (IO) DAYS NOTICE PRIOR TO COMMENCING CONSTRUCTION.
- 2. NO CONSTRUCTION WORK SHALL COMMENCE UNTIL THERE IS A MEETING BETWEEN THE CLIENT, TALASAEA CONSULTANTS, THE GENERAL, CLEARING, AND/OR EARTHWORK CONTRACTORS, AND THE LANDSCAPE CONTRACTOR. THE APPROVED PLANS AND SPECIFICATIONS SHALL BE REVIEWED TO ENSURE THAT ALL PARTIES INVOLVED UNDERSTAND THE INTENT AND THE SPECIFIC DETAILS RELATED TO THE CONSTRUCTION DOCUMENTS, SPECIFICATIONS, AND SITE CONSTRAINTS.
- 3. LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO: (I) INDEPENDENTLY VERIFY THE ACCURACY OF UTILITY LOCATIONS, AND (2) DISCOVER AND AVOID ANY UTILITIES WITHIN THE MITIGATION AREA(S) THAT ARE NOT SHOWN, BUT WHICH MAY BE AFFECTED BY IMPLEMENTATION OF THE PLAN. SUCH AREA(S) ARE TO BE CLEARLY MARKED IN THE FIELD. TALASAEA CONSULTANTS SHALL RESOLVE ANY CONFLICTS WITH THE APPROVED GRADING PLAN PRIOR TO START
- 4. A COPY OF THE APPROVED PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS, AND SHALL REMAIN ON SITE UNTIL PROJECT COMPLETION.
- 5. CONSTRUCTION MUST BE PERFORMED IN ACCORDANCE WITH ALL AGENCY STANDARDS, RULES, CODES, PERMIT CONDITIONS, AND/OR OTHER APPLICABLE ORDINANCES AND POLICIES.
- 6. THE PROJECT OWNER/APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER RELATED OR REQUIRED PERMITS PRIOR TO THE START OF CONSTRUCTION.
- 7. A QUALIFIED WETLAND CONSULTANT SHALL BE ON SITE, AS NECESSARY, TO MONITOR CONSTRUCTION AND APPROVE MINOR REVISIONS TO THE PLAN.
- 8.DURING CONSTRUCTION, THE CONTRACTOR MUST USE MATERIALS AND CONSTRUCTION METHODS THAT PREVENT TOXIC SUBSTANCES AND OTHER POLLUTANTS FROM ENTERING MITIGATION AREAS OR OTHER NATURAL WATERS OF
- 9. PREVENTATIVE MEASURES SHALL BE USED TO PROTECT EXISTING STORM DRAINAGE SYSTEMS, EXISTING UTILITIES, AND ROADS.
- 10. PROVIDE SEDIMENT AND EROSION CONTROLS AROUND THE PROJECT AREA PRIOR TO SOIL DISTURBANCE FROM CONSTRUCTION ACTIVITY.
- B. <u>MITIGATION CONSTRUCTION SEQUENCE</u>: THE FOLLOWING PROVIDES THE GENERAL SEQUENCE OF ACTIVITIES ANTICIPATED TO BE NECESSARY TO COMPLETE THE PLANTING PORTION OF THE MITIGATION PROJECT. SOME OF THESE ACTIVITIES MAY BE CONDUCTED CONCURRENTLY AS THE PROJECT PROGRESSES.
- I. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, TALASAEA CONSULTANTS, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, STAGING/STOCKPILE AREAS, AND MATERIAL DISPOSAL

2. SURVEY LIMITS OF WORK

- 3. FLAG EXISTING VEGETATION, DOWN LOGS, AND BOULDERS TO BE PRESERVED.
- 4. PLACE HABITAT FEATURES.
- 5. AMEND PLANTING PITS WITH TOPSOIL.
- 6. PLANT TREES AND SHRUBS AS INDICATED ON MITIGATION PLANS.
- 7. MULCH PLANTS INSTALLED IN BUFFER AREAS.

1.2 SUBMITTALS

- A. PRODUCT DATA: FURNISH THE FOLLOWING WITH EACH PLANT MATERIAL DELIVERY:
- I. INVOICES INDICATING SIZES AND VARIETY OF PLANT MATERIAL
- 2. CERTIFICATES OF INSPECTION REQUIRED BY STATE AND FEDERAL AGENCIES.

B. QUALITY CONTROL SUBMITTALS:

- I. PRIOR TO DELIVERY OF MATERIALS, CERTIFICATES OF COMPLIANCE ATTESTING THAT MATERIALS MEET THE SPECIFIED REQUIREMENTS SHALL BE FURNISHED FOR THE FOLLOWING: PLANTS, TOPSOIL, FERTILIZER, AND ORGANIC MULCH. CERTIFIED COPIES OF THE MATERIAL CERTIFICATES SHALL INCLUDE THE FOLLOWING: a.PLANT MATERIALS: BOTANICAL NAME, COMMON NAME, SIZE, QUANTITY BY SPECIES, AND LOCATION WHERE
- b.IMPORTED TOPSOIL: PARTICLE SIZE, PH, ORGANIC MATTER CONTENT, TEXTURAL CLASS, SOLUBLE SALTS,
- CHEMICAL AND MECHANICAL ANALYSES. c.FERTILIZER: CHEMICAL ANALYSIS AND PERCENT COMPOSITION.
- d.IMPORTED MULCH: COMPOSITION AND SOURCE.

1.3 REFERENCES

- A. <u>SIZE AND GRADING STANDARDS:</u> SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- 1.4 QUALITY ASSURANCE
- A. <u>WORKER'S QUALIFICATIONS:</u> THE PERSONS PERFORMING THE PLANTING AND THEIR SUPERVISOR(S) SHALL BE PERSONALLY EXPERIENCED WITH PLANTING AND CARING FOR PLANT MATERIAL, AND SHALL HAVE BEEN REGULARLY EMPLOYED BY A COMPANY ENGAGED IN PLANTING AND CARING FOR PLANT MATERIAL FOR A MINIMUM OF 2 YEARS.
- B. <u>PLANT MATERIAL:</u> ALL PLANT MATERIALS SHALL BE LOCALLY GROWN OR REGIONALLY ACCLIMATIZED TO THE PACIFIC NORTHWEST.

1.5 DELIVERY, INSPECTION, STORAGE AND HANDLING

- A. DELIVERY: A DELIVERY SCHEDULE SHALL BE PROVIDED AT LEAST 10 CALENDAR DAYS PRIOR TO THE FIRST DAY OF DELIVERY. PLANT MATERIALS SHALL BE DELIVERED TO THE JOB SITE NOT MORE THAN 7 WORKING DAYS PRIOR TO THEIR RESPECTIVE PLANTING DATES.
- B. PROTECTION DURING DELIVERY: PLANT MATERIAL SHALL BE PROTECTED DURING DELIVERY TO PREVENT DESICCATION AND DAMAGE TO THE BRANCHES, TRUNK, ROOT SYSTEM, OR EARTH BALL. BRANCHES SHALL BE PROTECTED BY TYING-IN. EXPOSED BRANCHES SHALL BE COVERED DURING TRANSPORT.
- C. FERTILIZER: FERTILIZER SHALL BE DELIVERED IN MANUFACTURER'S STANDARD SIZED BAGS SHOWING WEIGHT, ANALYSIS, AND MANUFACTURER'S NAME. STORE UNDER A WATERPROOF COVER OR IN A DRY PLACE AS DESIGNATED BY THE OWNER'S REPRESENTATIVE.
- D. <u>INSPECTION:</u> ALL PLANT MATERIALS SHALL BE INSPECTED UPON ARRIVAL AT THE JOB SITE BY THE OWNER'S REPRESENTATIVE FOR CONFORMITY TO TYPE AND QUANTITY WITH REGARD TO THEIR RESPECTIVE SPECIFICATIONS.
- E. MULCH: A MULCH SAMPLE SHALL BE INSPECTED BY TALASAEA CONSULTANTS PRIOR TO THE MULCH BEING

DELIVERED TO THE SITE. F. <u>STORAGE</u>:

- I. PLANT MATERIAL NOT INSTALLED ON THE DAY OF ARRIVAL AT THE SITE SHALL BE STORED AND PROTECTED IN DESIGNATED AREAS. PLANTS STORED ON THE PROJECT SITE SHALL BE PROTECTED FROM EXTREME WEATHER CONDITIONS BY INSULATING THE ROOTS, ROOT BALLS OR CONTAINERS WITH SAWDUST, SOIL, COMPOST, BARK OR WOODCHIPS. PLANT MATERIAL SHALL BE PROTECTED FROM DIRECT EXPOSURE TO WIND AND SUN. BARE-ROOT PLANT MATERIAL SHALL BE HEELED-IN. CUTTINGS AND EMERGENT PLANTS MUST BE PROTECTED FROM DRYING AT ALL TIMES AND SHALL BE HEELED-IN WITH MOIST SOIL OR OTHER INSULATING MATERIAL. ALL PLANT MATERIAL STORED ON-SITE SHALL BE WATERED DAILY UNTIL INSTALLED.
- 2. STORAGE OF OTHER MATERIALS SHALL BE IN DESIGNATED AREAS.

1.6 SCHEDULING

- A. PLANTING SEASON: INSTALL WOODY PLANTS BETWEEN OCTOBER I AND FEBRUARY IS WHENEVER THE TEMPERATURE IS ABOVE 32 DEGREES F AND THE SOIL IS IN A WORKABLE CONDITION, UNLESS OTHERWISE APPROVED IN WRITING. CUTTINGS SHALL ONLY BE USED IF PLANTING OCCURS BETWEEN DECEMBER IST AND APRIL IST.
- B. PLANT INSTALLATION: EXCEPT FOR CONTAINER-GROWN PLANT MATERIAL, THE MAXIMUM TIME BETWEEN THE DIGGING AND INSTALLATION OF PLANT MATERIAL SHALL BE 21 DAYS. THE MAXIMUM TIME BETWEEN PLANT INSTALLATION AND MULCH PLACEMENT SHALL BE 72 HOURS.

1.7 WARRANTY

- A. <u>WARRANTY PERIOD:</u> THE CONTRACTOR-PROVIDED WARRANTY SHALL EXTEND FOR A PERIOD OF ONE YEAR FROM THE DATE OF PHYSICAL COMPLETION. PHYSICAL COMPLETION FOR THE WORK OF THIS SECTION IS THE DATE WHEN ALL GRADING, PLANTING, IRRIGATION, AND RELATED WORK HAS BEEN COMPLETED AND IS ACCEPTED BY THE OWNER'S REPRESENTATIVE, TALASAEA CONSULTANTS, AND APPLICABLE AGENCIES.
- B. WARRANTY TERMS: CONTRACTOR'S WARRANTY SHALL INCLUDE REPLACEMENT OF PLANTS DUE TO MORTALITY (SAME SIZE AND SPECIES SHOWN ON THE DRAWINGS). PLANTS REPLACED UNDER THIS WARRANTY SHALL BE WARRANTED FOR AN ADDITIONAL YEAR AFTER REPLACEMENT.
- C. EXCEPTIONS: LOSS DUE TO EXCESSIVELY SEVERE CLIMATOLOGICAL CONDITIONS (SUBSTANTIATED BY IO-YEAR RECORDED WEATHER CHARTS), OR CASES OF NEGLECT BY OWNER, OR CASES OF ABUSE/DAMAGE BY OTHERS.

PART 2: PRODUCTS AND MATERIALS

2.IHABITAT FEATURES

- A. DOWN LOGS: DOWN LOGS SHALL BE CEDAR OR FIR SPECIES, HAVE A 20 FOOT MINIMUM LENGTH, WITH OR WITHOUT ROOTS, AND A MINIMUM DIAMETER OF 18 INCHES. BARK SHALL BE KEPT INTACT. ENDS THAT HAVE BEEN CUT SHALL BE DISTRESSED AND NOT BLUNT.
- B. <u>STUMPS</u>: STUMPS SHALL BE EITHER PART-DECAYED, RELOCATED STUMPS, OR CUT LIVE ROOTWADS WITH A MINIMUM OF THREE FEET OF TRUNK 20 INCHES IN DIAMETER MINIMUM. ENDS THAT HAVE BEEN CUT SHALL BE DISTRESSED AND

C. BOULDERS:

I. USE BOULDERS UNCOVERED FROM ON-SITE GRADING OPERATIONS, IF AVAILABLE. 2. ONE OR TWO-PERSON MINIMUM SIZE WITH TWELVE INCHES MINIMUM DIAMETER.

A. GENERAL: ALL PLANT MATERIAL WILL CONFORM TO THE VARIETIES SPECIFIED OR SHOWN IN THE PLANT LIST(S) INDICATED ON THE MITIGATION PLANS AND BE TRUE TO BOTANICAL NAME AS LISTED IN: HITCHCOCK, C.L., AND A. CRONQUIST. 1973, FLORA OF THE PACIFIC NORTHWEST. UNIVERSITY OF WASHINGTON PRESS.

B. SHRUBS AND TREES:

- I. TALASAEA SHALL EXAMINE PLANT MATERIAL PRIOR TO PLANTING, ANY MATERIAL NOT MEETING THE REQUIRED SPECIFICATIONS SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND REPLACED WITH LIKE MATERIAL THAT MEETS THE REQUIRED STANDARDS. PLANT MATERIAL SHALL MEET THE REQUIREMENTS OF STATE AND FEDERAL LAWS WITH RESPECT TO PLANT DISEASE AND INFESTATIONS. INSPECTION CERTIFICATES, REQUIRED BY LAW, SHALL ACCOMPANY EACH AND EVERY SHIPMENT AND SHALL BE SUBMITTED TO TALASAEA UPON CONTRACTOR'S RECEIPT OF PLANT MATERIAL.
- 2. PLANT MATERIALS SHALL BE LOCALLY GROWN (WESTERN WASHINGTON, WESTERN OREGON, OR WESTERN BC, HEALTHY, BUSHY, IN VIGOROUS GROWING CONDITION, AND GUARANTEED TO BE TRUE TO SIZE, NAME, AND VARIETY. IF REPLACEMENT OF PLANT MATERIAL IS NECESSARY DUE TO CONSTRUCTION DAMAGE OR PLANT FAILURE WITHIN ONE YEAR OF INSTALLATION, THE SIZES, SPECIES, AND QUANTITIES SHALL BE EQUAL TO SPECIFIED PLANTS, AS INDICATED ON THE PLANS.
- 3. PLANTS SHALL BE NURSERY GROWN, WELL-ROOTED, OF NORMAL GROWTH AND CHARACTER, AND FREE FROM DISEASE OR INFESTATION. TALASAEA CONSULTANTS RESERVES THE RIGHT TO REQUIRE REPLACEMENT OR SUBSTITUTION OF ANY PLANTS DEEMED UNSUITABLE.
- 4. TREES SHALL HAVE UNIFORM BRANCHING, SINGLE STRAIGHT TRUNKS (UNLESS SPECIFIED AS MULTI-STEM MULTI-CANE, OR MULTI-TRUNK), AND AN INTACT AND UNDAMAGED CENTRAL LEADER. CONTAINER STOCK SHALL HAVE BEEN GROWN IN A CONTAINER FOR AT LEAST ONE FULL GROWING SEASON AND SHALL HAVE A WELL DEVELOPED ROOT SYSTEM. PLANT MATERIAL THAT IS ROOT-BOUND OR HAS DAMAGED ROOT ZONES OR BROKEN
- 5. CONIFEROUS TREES SHALL BE NURSERY GROWN, FULL AND BUSHY, WITH UNIFORM BRANCHING AND A NATURAL, NON-SHEARED FORM. ORIGINAL CENTRAL LEADER MUST BE HEALTHY AND UNDAMAGED. MAXIMUM GAP BETWEEN BRANCHING SHALL NOT EXCEED 9 INCHES, AND LENGTH OF TOP LEADER SHALL NOT EXCEED 12 INCHES.
- 6. SHRUBS SHALL HAVE A MINIMUM OF THREE STEMS AND SHALL BE A MINIMUM HEIGHT OF 18 INCHES. 7. TREES AND SHRUBS SHALL HAVE DEVELOPED ROOT AND BRANCH SYSTEMS, DO NOT PRUNE BRANCHES BEFORE
- 8.PLANTS SHALL BE FREE OF SPLITS AND CHECKS, BARK ABRASIONS, AND DISFIGURING KNOTS. 9. FOR DECIDUOUS PLANTS, BUDS SHALL BE INTACT AND REASONABLY CLOSED AT TIME OF PLANTING, IF DORMANT. 10. BALLED AND BURLAPPED PLANTS SHALL HOLD A NATURAL BALL. MANUFACTURED ROOT BALLS ARE
- UNACCEPTABLE. II. PLANTS SHALL CONFORM TO SIZES INDICATED ON THE PLANT SCHEDULE. PLANTS MAY BE LARGER THAN THE MINIMUM SIZES SPECIFIED.
- C. NOXIOUS SPECIES: ALL PLANT STOCK AND OTHER RE-VEGETATION MATERIALS SHALL BE FREE FROM THE SEED OR OTHER PLANT COMPONENTS OF ANY NOXIOUS OR INVASIVE SPECIES, AS IDENTIFIED BY THE KING COUNTY NOXIOUS
- D. <u>SUBSTITUTIONS:</u> SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT A WRITTEN REQUEST AND APPROVAL FROM THE OWNER'S REPRESENTATIVE, TALASAEA CONSULTANTS, AND APPLICABLE AGENCIES.

- A. TOPSOIL: TOPSOIL SHALL BE OBTAINED FROM OUTSIDE SOURCES. STOCKPILED OR IMPORTED TOPSOIL SHALL BE FERTILE, FRIABLE, SANDY LOAM SURFACE SOIL, FREE OF SUBSOIL, CLAY LUMPS, BRUSH, WEEDS, ROOTS, STUMPS, STONES LARGER THAN I INCH IN ANY DIMENSION, LITTER, OR ANY OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL
- B. <u>ORGANIC CONTENT:</u> IMPORTED TOPSOIL SHALL CONSIST OF ORGANIC MATERIALS AMENDED AS NECESSARY TO PRODUCE A BULK ORGANIC CONTENT OF AT LEAST 10 PERCENT AND NOT GREATER THAN 20 PERCENT, AS DETERMINED BY AASHTO-T-194.
- C. <u>COMPOST:</u> COMPOST SHALL MEET THE DEFINITION FOR COMPOSTED MATERIALS AS DEFINED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
- D. <u>SOIL AMENDMENTS:</u> WOODY PLANTINGS SHALL BE FERTILIZED WITH A SLOW-RELEASE GENERAL GRANULAR FERTILIZER (16-16-16), OR SLOW-RELEASE FERTILIZER TABLETS, WITH APPLICATION RATES AS SPECIFIED BY MANUFACTURER. FERTILIZER SHALL BE APPLIED AFTER PLANTING PIT IS BACKFILLED (OR DURING BACKFILL IN THE CASE OF TABLETS), AND PRIOR TO APPLICATION OF MULCH. FERTILIZER SHALL NOT BE APPLIED BETWEEN NOVEMBER AND MARCH.

2.3 MULCH

- A. BARK OR WOODCHIP MULCH SHALL BE DERIVED FROM DOUGLAS FIR, PINE, OR HEMLOCK SPECIES. THE MULCH SHALL NOT CONTAIN RESIN, TANNIN, OR OTHER COMPOUNDS IN QUANTITIES THAT WOULD BE DETRIMENTAL TO ANIMAL, PLANT LIFE, OR WATER QUALITY. SAWDUST SHALL NOT BE USED AS MULCH.
- B. MULCH SHALL BE MEDIUM-COARSE GROUND WITH AN APPROXIMATELY 3-INCH MINUS PARTICLE SIZE. FINE PARTICLES SHALL BE MINIMIZED SO THAT NOT MORE THAN 30%, BY LOOSE VOLUME, WILL PASS THROUGH A US NO. 4

2.4 MISCELLANEOUS MATERIALS

- A. STAKES, DEADMEN AND GUY STAKES: SOUND, DURABLE, WESTERN RED CEDAR, OR OTHER APPROVED WOOD, FREE OF INSECT OR FUNGUS INFESTATION.
- B. <u>CHAIN-LOCK TREE TIES:</u> 1/2-INCH WIDE, PLASTIC.

PART 3: EXECUTION

3.ISOIL PREPARATION

- A. LIMITS OF WORK: PLANTING AREAS SHALL BE SURVEYED BY CONTRACTOR AND DEFINED AT THE PERIMETERS WITH LATH STAKES.
- B. <u>PLANTING AREA CONDITIONS:</u> CONTRACTOR SHALL VERIFY THAT PLANT INSTALLATION CONDITIONS ARE SUITABLE WITHIN THE PROJECT AREA(S). ANY UNSATISFACTORY CONDITIONS SHALL BE CORRECTED PRIOR TO START OF WORK, WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, POOR DRAINAGE, COMPACTED SOILS, SIGNIFICANT EXISTING OR INVASIVE VEGETATION, OR OTHER OBSTRUCTIONS, CONTRACTOR SHALL NOTIFY TALASAEA CONSULTANTS PRIOR TO PLANTING. THE BEGINNING OF WORK BY THE CONTRACTOR CONSTITUTES ACCEPTANCE OF CONDITIONS AS SATISFACTORY.
- C. PLANTING IN UNDISTURBED, NON-GRADED AREAS: PLANTS INSTALLED IN UNDISTURBED AREAS SHALL BE INTEGRATED WITH EXISTING NATIVE VEGETATION AND PLANTED IN A RANDOM, NATURALISTIC PATTERN. PRIOR TO INSTALLATION OF PLANTINGS, ALL CONSTRUCTION DEBRIS, TRASH, AND NON-NATIVE INVASIVE PLANT MATERIAL SHALL BE REMOVED FROM THE PROJECT AREA. IN NON-GRADED AREAS, TREES AND SHRUBS SHALL BE PIT PLANTED AS SHOWN IN TYPICAL PLANTING DETAILS. PLANTING PITS SHALL BE BACKFILLED WITH A 50/50 MIXTURE OF IMPORTED, WEED-FREE TOPSOIL AND THE SOIL FROM THE PLANTING PIT.
- D. <u>PLANTING IN GRADED AREAS:</u> IN GRADED PLANTING AREAS PLANTS SHALL BE INSTALLED IN NEWLY PLACED
- E. <u>SOIL DECOMPACTION/SCARIFICATION:</u> SOILS IN GRADED/DISTURBED AREAS THAT ARE COMPACTED AND UNSUITABLE FOR PROPER PLANT GROWTH SHALL BE DECOMPACTED AND/OR SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES <u>PRIOR</u> TO TOPSOIL INSTALLATION.

3.2 PLANTING

- A. <u>HABITAT FEATURES:</u> PLACE HABITAT FEATURES UPON COMPLETION OF CLEARING AND GRUBBING, AS DEPICTED ON THE MITIGATION PLANS AND DETAILS. TALASAEA CONSULTANTS SHALL APPROVE LOCATIONS PRIOR TO PLACEMENT.
- I. DOWN LOGS: TO CUT/BREAK DOWN LOGS, FIRST SCORE THE LOG AT THE DESIRED LENGTH BY MECHANICAL MEANS, THEN SNAP THE LOG AT THE SCORED LOCATION TO CREATE A NATURAL LOOK TO THE BREAK. TWIST BROKEN ENDS TO DISGUISE SAW CUTS. HABITAT FEATURES THAT HAVE BEEN CUT SHALL HAVE NO BLUNT ENDS.
- 2. STUMPS: STUMPS SHALL BE SET UPRIGHT.
- 3. BOULDERS: IF AVAILABLE, BOULDERS SHALL BE PLACED IN PILES AT LEAST 2 ROCKS DEEP (5 ROCK MIN. PER PILE), IN A MANNER THAT PROVIDES BOTH PHYSICAL STABILITY AND LARGE

- B. <u>PLANT LAYOUT:</u> PROPOSED LOCATIONS OF TREES AND SHRUBS SHALL BE STAKED AND IDENTIFIED WITH AN APPROVED CODING SYSTEM OR BY PLACEMENT OF THE ACTUAL PLANT MATERIAL. FOR LARGE GROUPINGS OF A SINGLE SPECIES OF SHRUB, LANDSCAPE CONTRACTOR MAY STAKE THE PLANTING BOUNDARIES.
- C. OBTAIN LAYOUT APPROVAL FROM TALASAEA CONSULTANTS PRIOR TO EXCAVATION OF PLANTING PITS.

D. PLANTING PIT DIMENSIONS:

- 3. PIT DEPTH: NOT TO EXCEED THE ROOT BALL OR CONTAINER DEPTH.
- 4. PIT WIDTH: MEASURED AT THE GROUND SURFACE, 2 TIMES THE WIDTH OF THE ROOT BALL OR CONTAINER, AS INDICATED IN TYPICAL PLANTING DETAILS.
- a.BARE-ROOT PLANTS: DIAMETER EQUAL TO THE WIDTH OF THE ROOT SPREAD.

D. <u>SETTING PLANTS:</u>

- I. BALLED PLANTS: SET PLANTS IN POSITION AND BACKFILL I/2 DEPTH OF BALL. COMPLETELY REMOVE CAGE AND TWINE FROM PLANT AND PULL BURLAP DOWN AS FAR AS POSSIBLE. COMPLETE BACKFILL AND SETTLE WITH WATER. ROOT COLLAR SHALL REMAIN I INCH ABOVE ADJACENT GRADE.
- 2. BARE-ROOT PLANTS: PRUNE BRUISED OR BROKEN ROOTS, SET PLANT IN POSITION AND PLACE WETLAND PLANTING SOIL AROUND ROOTS, USE CARE TO AVOID BRUISING OR BREAKING ROOTS WHEN FIRMING SOIL. SETTLE
- 3. SHRUB/TREE PLANTING: SHRUB AND TREE STOCK SHALL BE PLANTED IN HAND-DUG HOLES ACCORDING TO PLANTING DETAILS SHOWN ON THE MITIGATION PLANS, SHRUB AND TREE ROOT BALLS SHALL BE SET SO THAT ROOT COLLARS ARE I INCH ABOVE ADJACENT GRADE. ALL BACKFILL SHALL BE GENTLY TAMPED IN PLACE.
- 4. SURFACE FINISH: FORM A SAUCER AS INDICATED ON TYPICAL PLANTING DETAILS, OR AS DIRECTED. GRADE SOIL TO FORM A BASIN ON THE LOWER SIDE OF SLOPE PLANTINGS TO CATCH AND RETAIN WATER. 5. IN FORESTED AREAS, CONTRACTOR SHALL LOOSELY TIE A 2 FOOT PIECE OF BIODEGRADABLE FLAGGING TO THE
- TOP PORTION (NOT THE CENTRAL LEADER) OF ALL PLANTED VEGETATION TO FACILITATE POST-CONSTRUCTION PERFORMANCE AND MAINTENANCE REVIEW BY TALASAEA CONSULTANTS AND REGULATORY AGENCIES. 6. ACTUAL PLANT SYMBOL QUANTITIES SHOWN ON THE PLANS SHALL PREVAIL OVER QUANTITIES SHOWN ON THE PLANT SCHEDULE IN THE EVENT OF A DISCREPANCY.

- I. GRADED BUFFER AREAS: ARE MULCHED PRIOR TO PLANT INSTALLATION AS DIRECTED IN THE GRADING
- 2. NON-GRADED BUFFER AREAS: PROVIDE A 36-INCH DIAMETER, 3-INCH DEEP MULCH RING AROUND THE BASE OF EACH TREE, AND A 24-INCH DIAMETER, 3-INCH DEEP MULCH RING AROUND THE BASE OF EACH SHRUB. 3. WATER PLANTS THOROUGHLY AFTER MULCHING.
- F. PRUNING: PRUNE IMMEDIATELY AFTER PLANTING ONLY AS DIRECTED BY TALASAEA CONSULTANTS.
- G. TREE STAKES AND TIES: STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET OR OVER IN HEIGHT WITH ONE (I) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR BALL, IN LINE WITH THE PREVAILING WIND, AND AT A 10 DEGREE ANGLE FROM THE TREE TRUNK. LOOSELY ATTACH STAKE TO TREE USING CHAIN-LOCK TIES; TREE SHOULD BE ABLE TO SWAY.

H. <u>RESTORE EXISTING NATURAL OR LANDSCAPED AREAS:</u>

- I. EXISTING NATURAL OR LANDSCAPED AREAS THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION, UNLESS IMPROVEMENTS OR MODIFICATIONS ARE SPECIFIED FOR THOSE AREAS.
- 2. CONTRACTOR SHALL EXERCISE CARE TO PREVENT INJURY TO THE TRUNK, ROOTS, OR BRANCHES OF ANY TREES OR SHRUBS THAT ARE TO REMAIN. ANY LIVING, WOODY PLANT THAT IS DAMAGED DURING CONSTRUCTION SHALL BE TREATED WITHIN 24 HOURS OF OCCURRENCE, AND TALASAEA CONSULTANTS SHALL BE NOTIFIED IMMEDIATELY OF THE INCIDENT. DAMAGE TREATMENT SHALL INCLUDE EVENLY CUTTING BROKEN BRANCHES, BROKEN ROOTS, AND DAMAGED TREE BARK. INJURED PLANTS SHALL BE THOROUGHLY WATERED AND ADDITIONAL MEASURES SHALL BE TAKEN, AS APPROPRIATE, TO AID IN PLANT SURVIVAL
- I. <u>FINAL INSPECTION AND APPROVAL:</u> THE CONTRACTOR SHALL NOTIFY TALASAEA CONSULTANTS IN WRITING AT LEAST TEN DAYS PRIOR TO THE REQUESTED DATE OF A PROJECT COMPLETION INSPECTION. IF ITEMS ARE TO BE CORRECTED, A PUNCH LIST SHALL BE PREPARED BY TALASAEA CONSULTANTS AND SUBMITTED TO THE CONTRACTOR FOR COMPLETION. AFTER PUNCH LIST ITEMS HAVE BEEN COMPLETED, TALASAEA CONSULTANTS SHALL REVIEW THE PROJECT AGAIN FOR FINAL ACCEPTANCE OF PLAN IMPLEMENTATION. IF PUNCH LIST ITEMS REQUIRE PLANT REPLACEMENT, AND THE INSPECTION OCCURS OUTSIDE OF A SUITABLE PLANTING SEASON, PLANTS SHALL BE REPLACED DURING THE NEXT PLANTING SEASON.
- J. <u>AS-BUILT PLAN:</u> CONTRACTOR IS RESPONSIBLE FOR VERIFYING PLANT LOCATIONS AND QUANTITIES ON THE PLANT SCHEDULE WITH THOSE REPRESENTED AS SYMBOLS ON THE MITIGATION PLANS. CONTRACTOR SHALL KEEP A COMPLETE SET OF PRINTS AT THE JOB SITE DURING CONSTRUCTION FOR THE PURPOSE OF RECORDING IN-THE-FIELD CHANGES OR MODIFICATIONS TO THE APPROVED PLANS. THIS INFORMATION SHALL BE UPDATED ON A DAILY BASIS AS NECESSARY.

PART 4: ONE YEAR CONTRACTOR WARRANTY

NOTE: THESE MAINTENANCE SPECIFICATIONS APPLY TO THE ONE-YEAR CONTRACTOR WARRANTY PERIOD ONLY. IF THIS MITIGATION PROJECT REQUIRES LONG-TERM PERFORMANCE MONITORING, AS DETERMINED BY THE GOVERNING JURISDICTION, THE MAINTENANCE SPECIFICATIONS AND GUIDELINES ASSOCIATED WITH THE PERFORMANCE MONITORING STANDARDS ARE INCLUDED IN THE MITIGATION REPORT ASSOCIATED WITH THIS PLAN SET, AND MAY ALSO BE INCLUDED ON A SEPARATE PLAN SHEET IF REQUIRED.

- A. REVIEW OF MAINTENANCE REQUIREMENTS: CONTRACTOR SHALL REVIEW LANDSCAPE MAINTENANCE RECOMMENDATIONS WITH A QUALIFIED WETLAND BIOLOGIST FROM TALASAEA CONSULTANTS WHO IS FAMILIAR WITH THE STATED GOALS AND OBJECTIVES OF THE PROJECT PLAN.
- B. MAINTENANCE ACTIVITIES: CONTRACTOR SHALL MAINTAIN TREES AND SHRUBS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE IN ORDER TO MAINTAIN HEALTHY GROWTH AND HABITAT DIVERSITY. MAINTENANCE ACTIVITIES SHALL INCLUDE, BUT ARE NOT LIMITED TO: (A) REPLACING PLANTS DUE TO MORTALITY, (B) TIGHTENING AND REPAIRING TREE STAKES, (C) RESETTING PLANTS TO PROPER GRADES AND UPRIGHT POSITIONS, AND (D) CORRECTING DRAINAGE PROBLEMS AS REQUIRED.
- D. <u>STAKE AND TIE REMOVAL:</u> CONTRACTOR SHALL REMOVE TREE STAKES AND TIES ONE YEAR AFTER INSTALLATION, UNLESS RECEIVING WRITTEN PERMISSION FROM TALASAEA CONSULTANTS TO DELAY REMOVAL OF STAKES AND TIES
- E. <u>EROSION AND DRAINAGE:</u> CONTRACTOR SHALL CORRECT EROSION AND DRAINAGE PROBLEMS AS REQUIRED.
- F. ADD THE FOLLOWING NOTE IF NO IRRIGATION WILL BE INSTALLED: WATERING: THE CONTRACTOR SHALL PROVIDE MANUAL WATERING OF THE MITIGATION PLANTINGS BETWEEN JUNE 15TH AND OCTOBER 15TH. SUPPLEMENTAL WATERING MAY ALSO BE REQUIRED IF HOT, DRY WEATHER OCCURS EITHER BEFORE OR AFTER THESE DATES. DURING THE FIRST YEAR AFTER INSTALLATION, PLANTINGS SHALL BE WATERED A MINIMUM OF ONE INCH PER WEEK. WATERING FREQUENCY MAY BE INCREASED AS NECESSARY DURING PROLONGED

<u>NOT FOR CONSTRUCTION</u> THESE PLANS HAVE BEEN

SUBMITTED TO THE APPROPRIATE

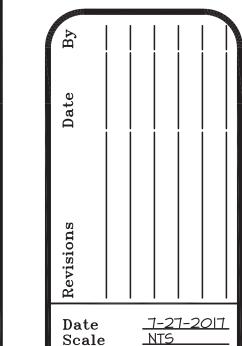
AGENCIES FOR REVIEW AND

PERIODS OF HOT, DRY WEATHER TO PREVENT PLANT MORTALITY.

APPROVAL. UNTIL APPROVED, THESE PLANS ARE: SUBJECT TO REVISION

Know what's **below**. Call before you dig.

- SURVEY PROVIDED BY ESM CONSULTING ENGINEERS, 33400 8TH AVE S #205, FEDERAL WAY, WA 98003.
- SOURCE DRAWING WAS MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL
- ENHANCEMENT. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN JULY, 2017.



Checked <u>OA</u> Approved <u>BS</u>

Sheet #

Designed AO Drawn <u>MW</u> Project <u>#1129B</u>

EAGLE MANAGEMENT PLAN CONDITIONS

PER THE EAGLE MANAGEMENT PLAN DATED 19 MARCH 2009 EXCAVATION CAN BEGIN AFTER JULY 20 OR WHEN FLEDGLING OCCURS.

EAGLE MANAGEMENT PLAN PROVIDED BY WASHINGTON DEPARTMENT OF FISH AND WILDLIFE DATED APRIL 12, 2007.

CONDITIONS

The following condition(s) apply to the entire parcel or lot and are intended to protect bald eagles and their habitat. This Agreement is project and owner specific; any further development or change in ownership will require an additional Bald Eagle Management Plan.

- 1. Retain all conifer trees ≥20 inches diameter at breast height (d.b.h.) on the property, EXCEPT that one >32 inch Douglas fir may be removed from the building site. No other conifer trees ≥ 20 inches d.b.h. located on the parcel may be cut or sustain damage resulting in a mortality.
- 2. No more than 10% of the conifer trees < 20 inches d.b.h., located outside of the building envelope and driveway footprint as shown in Figure 1, may be cut or killed on the property. This provision is intended to allow for flexibility in the construction, although the current landowner goal is to retain native trees outside of the building envelope.
- 3. Driveway construction shall not cause damage to tree roots in the eagle tree protection zone, and should be constructed as far from the wildlife tree as possible. To avoid soil compaction near the eagle nest tree a protection zone is to be established per Condition 4. Any excavation adjacent to this area must be done under the supervision of a certified arborist to ensure that there is no damage that will weaken or result in the decline of the wildlife tree. Drainage from site construction on the property, including the driveway, shall be directed away from the eagle tree protection zone.
- 4. An eagle tree protection zone shall be established to protect the critical root zone of the wildlife tree within a radius of 20 feet from the bole (trunk) of the nest tree, as shown in Figure 1. This zone shall be enclosed by durable, high-visibility construction fencing before the start of any construction, and shall remain in place until all construction is completed. No entry of any kind may take place within the eagle tree protection zone during construction, including materials storage. The placement of the construction fencing must be verified by City of Mercer Island or WDFW prior to commencing any work.
- 5. The eagle tree protection zone shall remain in native vegetation, with no landscaping, no irrigation, and no maintenance other than the removal of non-native plants (ivy) and the planting of native plants (e.g. salal and sword fern), if desired. Outside the eagle tree protection zone, landscaping may occur as desired, although native plants are encouraged.
- 6. Mitigation is required for removal of the >32 inch Douglas fir adjacent to the building envelope. No fewer than two Douglas fir or grand fir trees shall be planted and maintained on the property. The conifers shall be at least 2 feet tall at time of planting. They must be planted at least 10 feet from the house or other structures, and at least 10 feet from any other conifer tree. The trees must be maintained with summer watering for at least 2 summers. The landowner shall replace mitigation tree mortalities that occur within ten years of planting.

Mercer Island Central, Skall April 12 2007 Page 2 of 7

- 7. Windowing and low limbing of trees is acceptable provided no more than 30% of the live crown is removed, EXCEPT that no trimming of the nest tree is permitted. Limiting other live branch removal to < 25% is recommended. Topping of trees is not allowed.
- 8. There are no mandatory timing restrictions on construction activities. However, in light of the close proximity of the nest tree to the proposed activity, sensitivity in timing of construction is encouraged to minimize disturbance of nesting eagles. Eagles are more subject to disturbance during the early phase of nesting (February - April) and are less likely to abandon once they have begun incubating by mid April. Refer to Appendix B for disturbance avoidance recommendations.

SECTION 19, TOWNSHIP 24N, RANGE 5E, W.M.

MONITORING PLAN

I.O MONITORING METHODOLOGY

Following successful installation of the CRITICAL AREAS MITIGATION PLAN, performance monitoring of the mitigation areas will be conducted for a period of three years according to the City of Mercer Island.

Performance monitoring will be conducted annually during the fall for the three years of performance monitoring that will be conducted in the fall. Performance monitoring reports will be submitted annually to the CITY OF MERCER ISLAND following the completion of each years fall monitoring event.

Table I below displays the performance monitoring schedule, including maintenance reviews and reports.

TABLE I: PROJECTED CALENDAR FOR PERFORMANCE MONITORING \$ MAINTENANCE EVENTS

I IZ III I LIVE II		9			
YEAR	DATE	MAINTENANCE REVIEW	PERFORMAN MONITORING		ΝE
BA*	FALL	×	×	×	
I	FALL	×	X	×	
2	FALL	×	×	×	
3	FALL	X	×	×**	
****	ACCECCS.	<i>/─</i>	ACCECCNENT + III	りにつしてものしなし	

*BASELINE ASSESSMENT **FINAL ASSESSMENT & JURISDICTIONAL REVIEW

2.0 BASELINE ASSESSMENT

A baseline assessment will be conducted following construction approval from the CITY OF MERCER ISLAND. Baseline vegetation plots will be established to provide a reference for future monitoring of plant survival and percent cover. The baseline evaluation will include: a) photo-documentation at designated points located on the site, b) a general description of the conditions of the installed plant material, c) estimates of percent vegetative cover, plant survival and undesirable species, d) an overall qualitative assessment of project success for the buffer areas. This baseline report will occur immediately following approval of construction of the CRITICAL AREAS MITIGATION PLAN.

2.I PERFORMANCE MONITORING

Performance monitoring will begin in the season following construction and will collect data based upon the vegetation sampling plots established during the baseline assessment. Monitoring will include documentation of vegetation in the mitigation wetland area. If the performance criteria are met, annual monitoring will cease after the third year, unless objectives are met at an earlier date and the City accepts the mitigation project as successfully completed.

2.I.I VEGETATION

Permanent vegetation sampling transects will be established at selected locations within the mitigation areas to incorporate all of the representative plant communities. The same monitoring point will be revisited each year, with a record kept of all plant species found. Vegetation will be recorded on the basis of relative percent cover of the dominant species within the vegetative strata. All monitoring will be conducted by a qualified ecologist.

Locations will be established within the mitigation area from which photographs will be taken throughout the monitoring period. These photographs will document general appearance and relative changes within the plant community. Review of the photos over time will provide a semi-quantitative representation of success of the planting plan.

Vegetation sampling plot and photo-point locations will be submitted with the baseline assessment report.

2.1.2 SUCCESS CRITERIA FOR PLANT ESTABLISHMENT

Overall success of the mitigation plantings following construction will be evaluated according to the schedule shown above. Data gathered from the vegetation plots will be incorporated into the overall plant evaluation portion of the monitoring plan. Success of plant establishment within the mitigation areas will be evaluated on the basis of both percent survival and percent cover. For conifer trees, success will be based on 100% percent survival rate and 75% for the restored buffer.

3.0 MAINTENANCE (M) AND CONTINGENCY (C)

Maintenance will be performed at least once per year to address any conditions that could jeopardize the success of the mitigation areas. Established performance standards for the project will be compared to the monitoring results to judge the success of the mitigation project. If there is a significant problem with achieving the performance standards, the bondholder shall work with the City to develop a contingency plan. Contingency plans can include, but are not limited to: re-grading, additional plant installation, erosion control, modifications to hydrology, and plant substitutions of type, size, quantity, and location. Contingencies will include many of the items listed below and would be implemented if these performance standards are not met. If any portion of the project is found to have failed and the contingency plan is activated, the monitoring period of the contingency work shall re-commence for the area(s) of failure for a period of not less than three years, unless otherwise approved by the City of Mercer Island.

Maintenance and remedial action on the site will be done within 30 days following completion of the monitoring event (unless otherwise specifically indicated below).

• During year one, replace all dead plant material. (M)

- Water all plantings at a rate of 1" of water at least every week between June 15 October 15 during the
- first year after installation, and for the first year after any replacement plantings. (C & M)
- •Replace dead plants with the same species or a substitute species that meets the goals and objectives of the mitigation plan, subject to Talasaea and agency approval. (C)
- •Re-plant area after reason for failure has been identified (e.q., moisture regime, poor plant stock,
- disease, shade/sun conditions, wildlife damage, etc.). (C) •Remove/control weedy or exotic invasive plants (e.g., Scot's broom, reed canarygrass, Himalayan blackberry, purple loosestrife, etc.) by manual or chemical means approved by the City. Use of herbicides or pesticides within the mitigation area would only be implemented if other measures failed or were considered unlikely to be successful, and would require prior agency approval. Trees and shrubs should be weeded to the dripline and mulched to a depth of three inches. All non-native vegetation must be
- removed and dumped off-site. (C & M) Clean-up trash and other debris. (M)
- Selectively prune woody plants to meet the mitigation plan's goals and objectives (e.g., thinning and
- removal of dead or diseased portions of trees/shrubs). (M)
- Repair or replace damaged structures including fences, signs, and bird boxes. (M) • After consulting with City staff, minor excavations will be made to correct surface drainage patterns. (C)

4.0 AS-BUILT PLAN

Following completion of construction activities, a set of "as-built" plans for the mitigation areas will be provided to the CITY OF MERCER ISLAND. The plans will identify and describe any changes in relation to the original approved plan.

BONDING ESTIMATE

A PERFORMANCE BOND OR OTHER SURETY DEVICE WILL BE POSTED WITH CITY OF MERCER ISLAND BY THE PROPERTY OWNER TO COVER 100% OF THE COST OF LABOR, MATERIALS, MAINTENANCE, AND MONITORING. THE BOND OR ASSIGNMENT MAY BE RELEASED IN PARTIAL AMOUNTS AT THE SOLE DISCRETION OFCITY OF MERCER ISLAND IN PROPORTION TO WORK SUCCESSFULLY COMPLETED OVER THE THREE YEAR MONITORING PERIOD, AS THE APPLICANT DEMONSTRATES PERFORMANCE AND CORRECTIVE MEASURES.

CITY OF MERCER ISLAND WETLANDS AND BUFFER MITIGATION BOND REQUIREMENT

DATE: 7/19/17 TO: CITY OF MERCER ISLAND DEPARTMENT OF PLANNING APPLICANT: SANG HOU 7022 EASTE MERCER WAY MERCER ISLAND, WA 98040 PHONE: (206) 948-7698 CONTACT PERSON: SANG HOU

BOND TYPE: MITIGATION PLAN INCLUDED: PLANT INSTALLATION, TOPSOIL, MULCHING, MONITORING & MAINTENANCE FOR 3 YEARS =

\$17,494.01

7-27-2017

Scale

Designed AO Drawn <u>MM</u>

Checked <u>OA</u>

Approved <u>BS</u>

Project #<u>1129B</u>

Sheet #

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NOTES

- SURVEY PROVIDED BY ESM CONSULTING ENGINEERS, 33400 8TH AVE S #205, FEDERAL WAY, WA 98003.
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- 3. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT PREPARED BY TALASAEA CONSULTANTS IN JULY, 2017.

<u>NOT FOR CONSTRUCTION</u>

THESE PLANS HAVE BEEN SUBMITTED TO THE APPROPRIATE AGENCIES FOR REVIEW AND