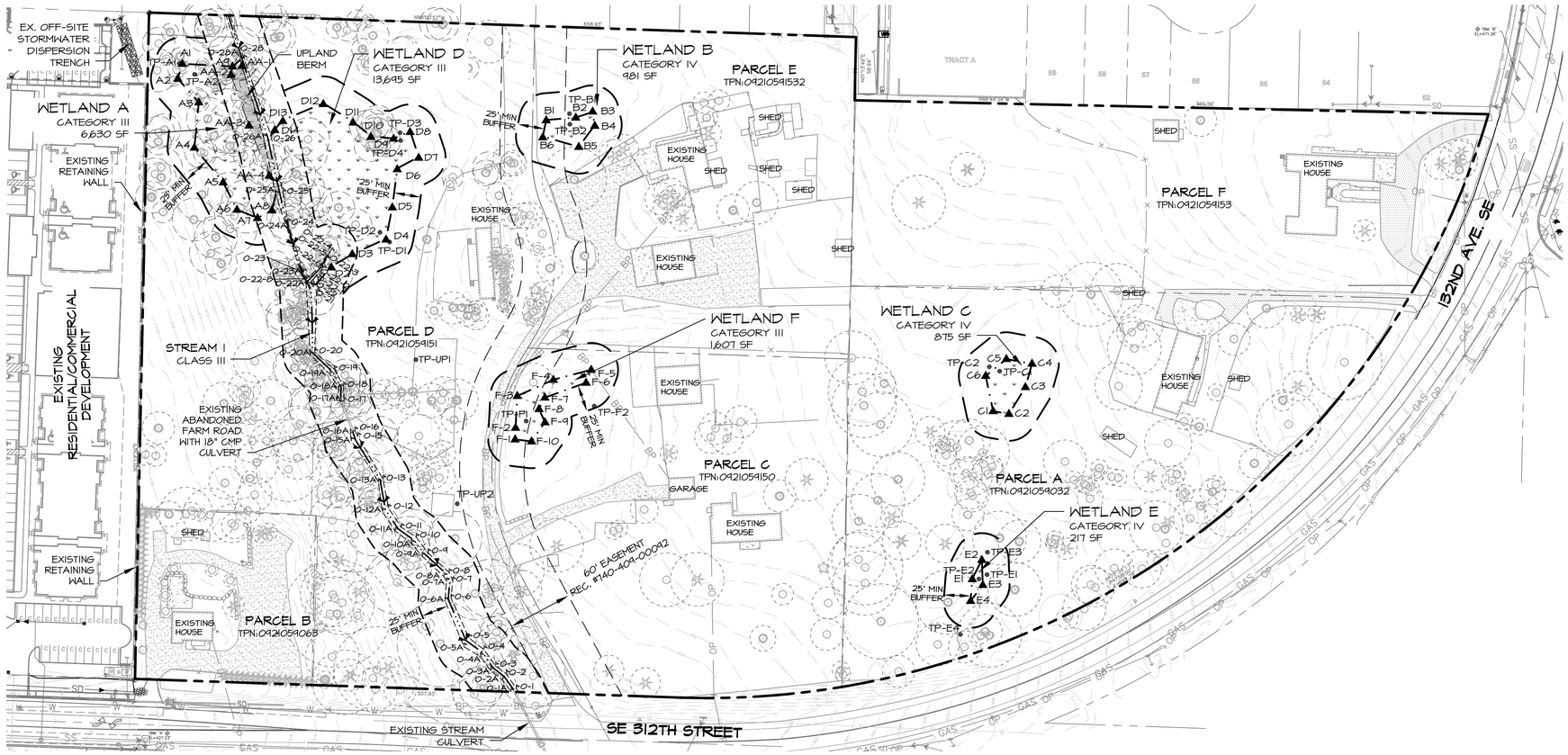


EXISTING CONDITIONS PLAN

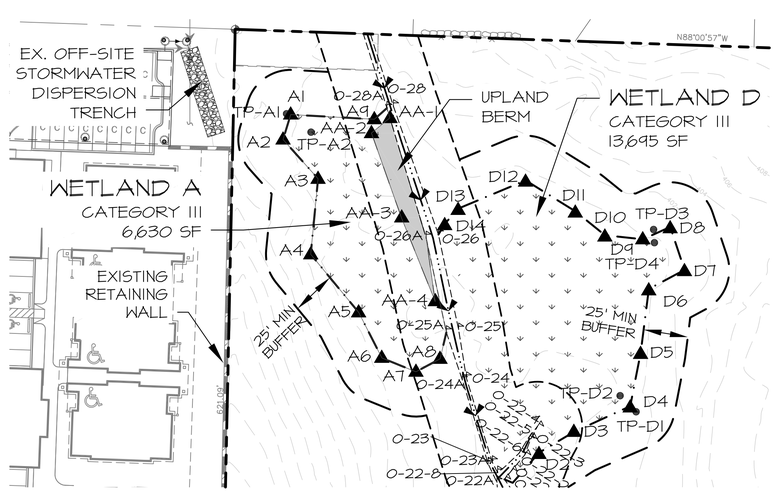
GRAPHIC SCALE (IN FEET)
0 30 60 120
SCALE: 1"=60'

NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- WETLAND BUFFER*
- STREAM CENTERLINE
- STREAM BUFFER - PER CITY OF AUBURN CODE
- STREAM ORDINARY HIGH WATER MARK (OHWM)
- 100 EXISTING CONTOUR
- ▲# WETLAND FLAG LOCATION
- •TP-# SOIL TEST PLOT LOCATION
- ▸ O-# OHWM FLAG LOCATION
- EXISTING TREES (CONIFEROUS/DECIDUOUS) WITH DRIPLINES

*25' FOR CAT III & IV WETLANDS PER CITY OF AUBURN CODE



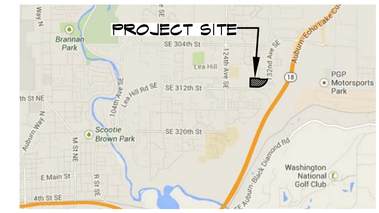
WETLANDS A & D ENLARGEMENT

GRAPHIC SCALE (IN FEET)
0 20 40 80
SCALE: 1"=40'

NORTH

VICINITY MAP

NTS



NORTH

SOURCE: GOOGLE MAPS; WWW.MAPS.GOOGLE.COM (ACCESSED 10/31/2013)

CONTACTS

APPLICANT/OWNER

NAME:	PROMENADE APARTMENTS, LLC
ADDRESS:	10900 NE 8TH, SUITE 1200 BELLEVUE, WA 98004
PHONE:	(425) 453-9551
CONTACT:	JACK HUNDEN

ARCHITECT

NAME:	CASEY & DeCHANT ARCHITECTS, LLC
ADDRESS:	5521 100th ST. SW SUITE A LAKEWOOD, WA 98499
PHONE:	(253) 584-5207
CONTACT:	PAUL CASEY, AIA

SURVEYOR

NAME:	AXIS SURVEY & MAPPING
ADDRESS:	13005 NE 126TH PL. KIRKLAND, WA 98034
PHONE:	(425) 823-5700
CONTACT:	STEVE PHILLIPS, PLS

ENGINEER

NAME:	GPH CONSULTANTS
ADDRESS:	11431 WILLOWS ROAD NE, SUITE 120, REDMOND, WA 98052
PHONE:	(425) 285-2390
CONTACT:	JAMIE SCHROEDER, PE

ENVIRONMENTAL CONSULTANT

NAME:	TALASAEA CONSULTANTS, INC.
ADDRESS:	15020 BEAR CREEK RD. NE WOODINVILLE, WA 98077
PHONE:	(425) 861-7550
CONTACT:	ANN OLSEN, RLA SENIOR PROJECT MANAGER DAVID TEESDALE, PWS

SHEET INDEX

SHEET NUMBER	SHEET TITLE
W1.0	EXISTING CONDITIONS PLAN
W1.1	PROPOSED SITE PLAN, IMPACTS, & MITIGATION OVERVIEW
W2.0	CLEARING, GRUBBING, & GRADING PLAN, NOTES & DETAILS
W2.1	GRADING SPECIFICATIONS
W3.0	PLANTING PLAN, PLANTING TYPICALS, & PLANT LIST
W3.1	PLANT SCHEDULE, NOTES, & DETAILS
W3.2	PLANTING SPECIFICATIONS

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY GPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2390.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY: _____
CITY OF AUBURN DEPARTMENT OF PLANNING

DATE: _____

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

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Box (425) 861-7550 - Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
EXISTING CONDITIONS PLAN
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

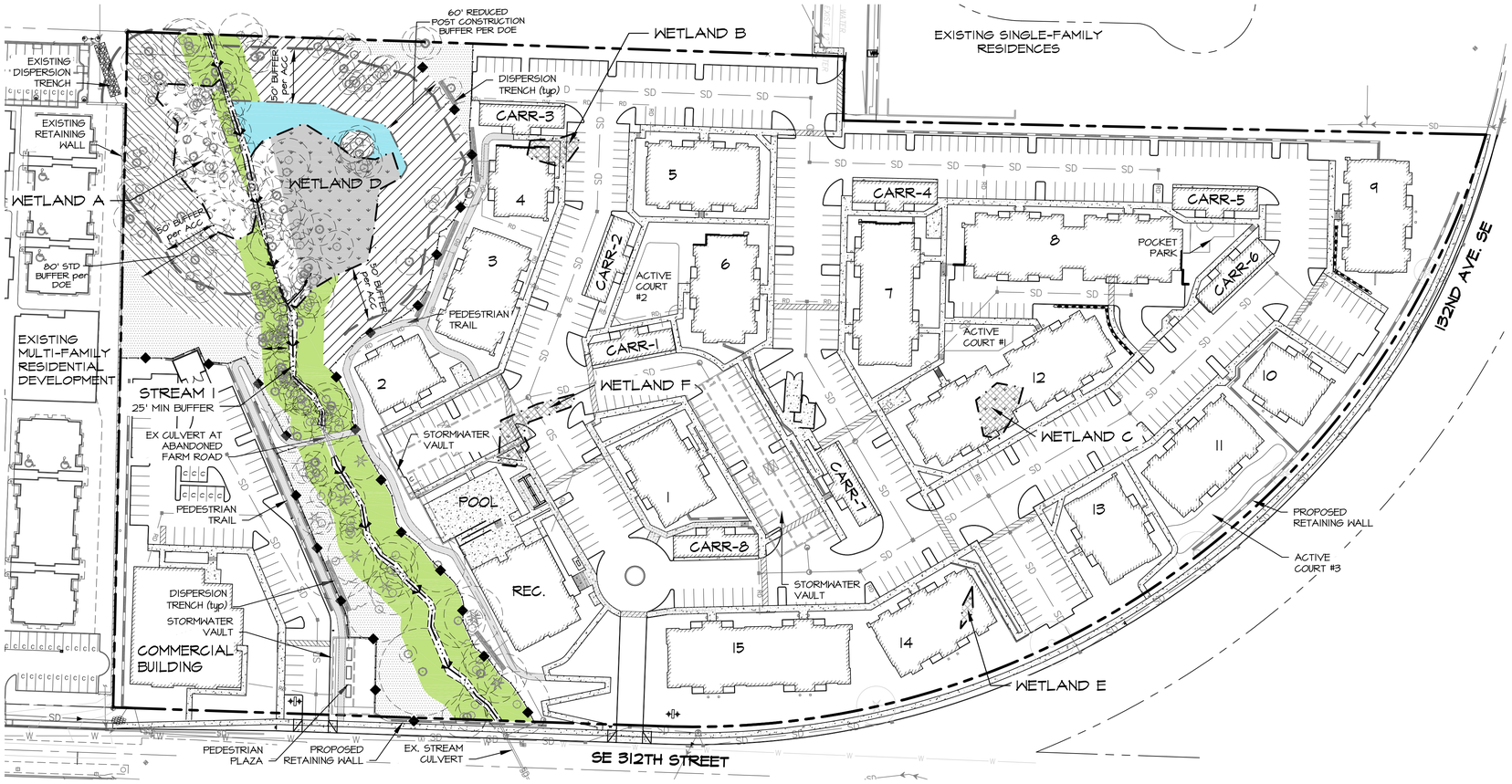
Project #1242

Sheet # W1.0

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WP(5-12-2015).dwg

© Copyright - Talasaea Consultants, INC.

NE 1/4 SEC. 9, TWP. 21N, RGE. 5E, W.M.



PROPOSED SITE PLAN, IMPACTS & MITIGATION OVERVIEW PLAN

GRAPHIC SCALE (IN FEET)
0 30 60 120
SCALE: 1"=60'

NORTH

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- CREATED WETLAND BOUNDARY
- POST CONSTRUCTION CRITICAL AREA BUFFER/FENCE (2 / NTS)
- STREAM CENTERLINE
- ORDINARY HIGH WATER MARK (OHWM)
- CRITICAL AREA SIGN PER AMC 16.10.120.14(B) - SEE DETAIL (1 / NTS)
- EXISTING TREES TO REMAIN (WITH DRIPLINE)

IMPACTS LEGEND

WETLAND FILL

CATEGORY III WETLAND IMPACTS WETLAND F: 1,607 SF	1,607 SF
CATEGORY IV WETLAND IMPACTS WETLAND B: 981 SF WETLAND C: 875 SF WETLAND E: 217 SF	2,073 SF
TOTAL	3,680 SF

MITIGATION LEGEND

WETLAND MITIGATION*

WETLAND CREATION	3,680 SF
WETLAND ENHANCEMENT	10,574 SF

BUFFER MITIGATION*

WETLAND D BUFFER ENHANCEMENT/RESTORATION	25,297 SF
WETLAND A BUFFER ENHANCEMENT	17,264 SF
STREAM BUFFER ENHANCEMENT	28,052 SF
WETLAND & STREAM BUFFER CREATION (NON-COMPENSATORY)	18,191 SF

* MITIGATION NOTES

1. SEE TABLE 1 FOR MITIGATION RATIOS PER AUBURN CITY CODE (ACC) CHAPTER 16.10.110(C)(2) and (3).
2. SEE TABLE 2 FOR MITIGATION RATIOS PER DOE PUBLICATION #06-06-011a, WETLAND MITIGATION IN WASHINGTON STATE - PART 1: AGENCY POLICIES AND GUIDANCE.
3. PURSUANT TO ACC 16.10.090A; IF THE SITE HAS PREVIOUSLY BEEN DISTURBED, THE BUFFER AREA SHALL BE REVEGETATED PURSUANT TO THIS ENHANCEMENT PLAN.

Table 1. Proposed Wetland Mitigation – City of Auburn Requirements

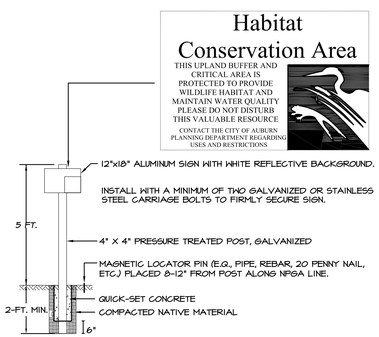
Wetland Category	Wetland Fill (sf)	Required Mitigation Ratios*		Proposed Mitigation	
		Creation Only	Enhancement Only	Creation (sf)	Enhancement (sf)
III (Wetland F)	1,607	2:1		3,214	
			4:1		0
IV (Wetlands B, C, & E)	2,073	1.25:1		0	
			2.5:1		5,182.5
Total	**3,680**			**3,214**	**5,182.5**

*Per ACC §16.10.110(C)(2) and (3)

Table 2. Proposed Wetland Mitigation – DOE Requirements

Wetland Category	Wetland Fill (sf)	Required Mitigation Ratios – Creation and Enhancement Combined*		Proposed Mitigation	
		Creation	Enhancement	Creation (sf)	Enhancement (sf)
III (Wetland F)	1,607	1:1		1,607	
			4:1		6,428
IV (Wetlands B, C, & E)	2,073	1:1		2,073	
			2:1		4,146
Total	**3,680**			**3,680**	**10,574**

*Per DOE Publication #06-06-011a, *Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance*, Section 6.5.2.1, Table 1a.

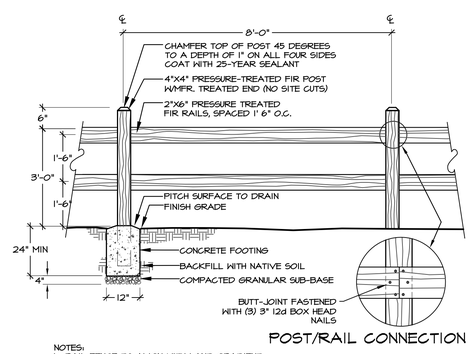


NOTES

1. NSPA SIGN SHALL BE PLACED NO GREATER THAN 50 FEET APART AROUND THE PERIMETER OF THE CRITICAL AREA OR BUFFER AND AT LEAST ONE SIGN SHALL BE PLACED IN ANY LOT THAT BORDERS THE CRITICAL AREA OR BUFFER.
2. SIGN PLACEMENT SHALL BE SUBJECT TO THE APPROVAL OF CITY OF AUBURN. ALTERNATIVE SIGN DESIGNS MAY BE SUBMITTED TO CITY OF AUBURN FOR APPROVAL.
3. ALL SIGNS MUST BE SECURE AND PERMANENT.
4. ONE SIGN PER 50' PER ACC 16.10.120(A)(14)(B)

1 CITY OF AUBURN NSPA SIGN DETAIL

N.T.S.



POST/RAIL CONNECTION

NOTES:
1. RAIL FENCE TO ALIGN WITH LAND GRADIENT.
2. TREAT WITH CLEAR PRESERVATIVE UPON COMPLETION OF INSTALLATION.
3. ALL FASTENERS TO BE GALVANIZED STEEL.
4. PER ACC 16.10.120(A)(14)(C)

2 OPEN 2-BOARD FENCE DETAIL

N.T.S.

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2390.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY:

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE:

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

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7500 - Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
PROPOSED SITE PLAN, IMPACTS & MITIGATION OVERVIEW
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	AS SHOWN
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

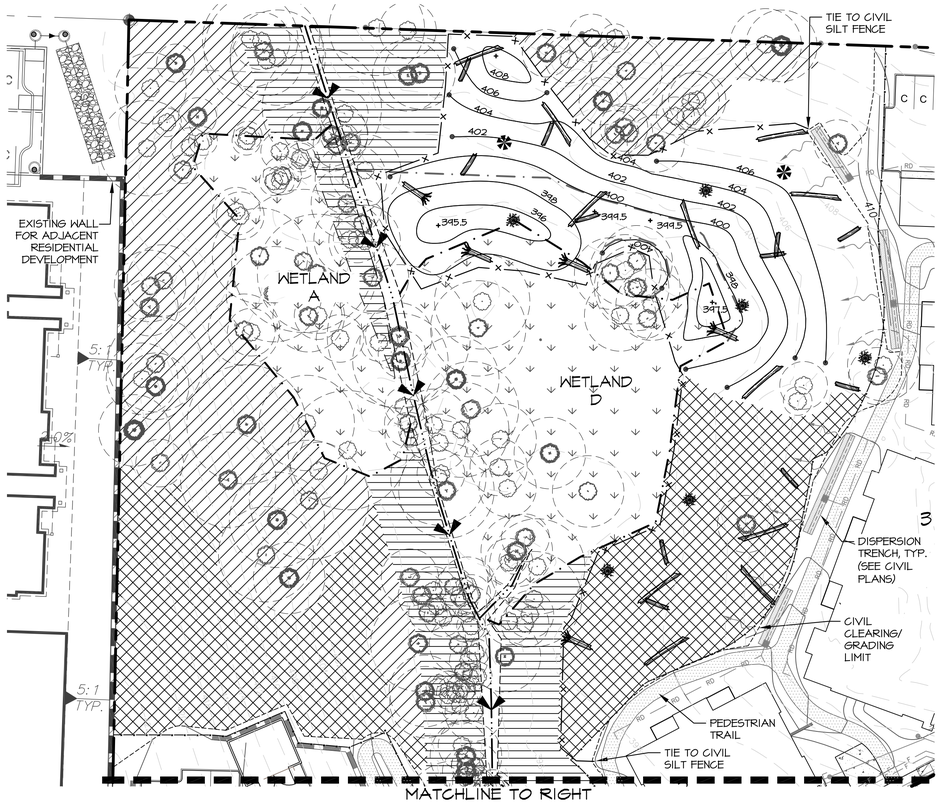
Project #1242

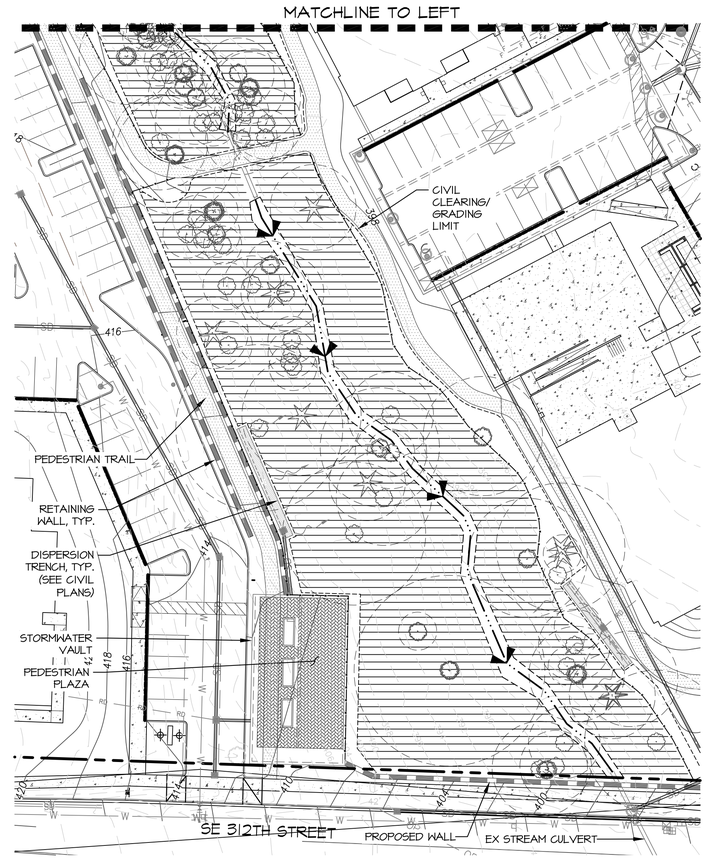
Sheet # W.1

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WF(5-12-2015).dwg

© Copyright - Talasaea Consultants, INC.

NE 1/4 SEC. 9, TWP. 21N, RGE. 5E, W.M.

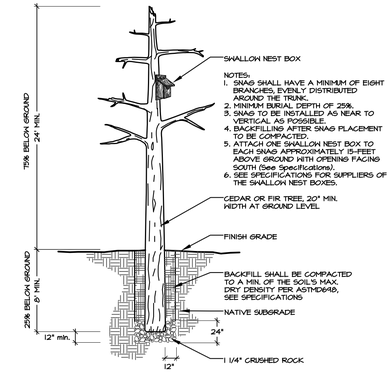




CLEARING, GRUBBING AND GRADING PLAN

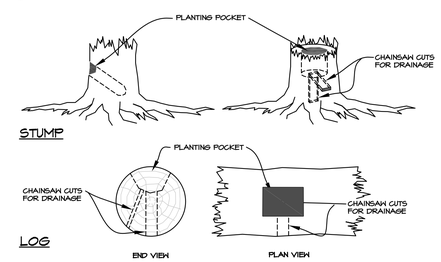
GRAPHIC SCALE (IN FEET)
0 15 30 60
SCALE: 1"=30'

NORTH

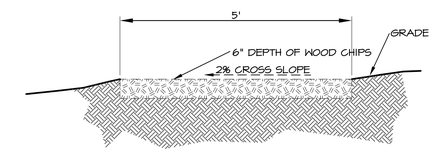


NOTES:
1. SNAG SHALL HAVE A MINIMUM OF EIGHT BRANCHES, EVENLY DISTRIBUTED AROUND THE TRUNK.
2. MINIMUM BURIAL DEPTH OF 25%.
3. SNAG TO BE INSTALLED AS NEAR TO VERTICAL AS POSSIBLE.
4. BACKFILLING AFTER SNAG PLACEMENT TO BE COMPACTED.
5. ATTACH ONE SHALLOW NEST BOX TO EACH SNAG APPROXIMATELY 15-FEET ABOVE GROUND WITH OPENING FACING SOUTH (See Specifications).
6. SEE SPECIFICATIONS FOR SUPPLIERS OF THE SHALLOW NEST BOXES.

1 SNAG WITH NEST BOX DETAIL
N.T.S.



2 STUMP WITH PLANTING POCKETS DETAIL
1"=1'



NOTES:
1. TALASAEA CONSULTANTS SHALL FIELD LOCATE AND STAKE TRAIL CENTERLINE IN THE UNDISTURBED BUFFER AREAS AS DEPICTED ON DRAWING W1.0 AND W2.1.
3. TALASAEA CONSULTANTS SHALL REVIEW AND APPROVE TRAIL LOCATION PRIOR TO CONSTRUCTION.

3 PEDESTRIAN TRAIL DETAIL
N.T.S.

PLAN LEGEND

- PROPERTY LINE
- EXISTING WETLAND
- POST CONSTRUCTION WETLAND BUFFER
- STREAM CENTERLINE
- STREAM BUFFER
- ORDINARY HIGH WATER MARK (OHWM)
- 100 EXISTING CONTOUR
- EXISTING TREES TO REMAIN (WITH DRIPLINE)

CLEARING & GRUBBING LEGEND

MAJOR GRUBBING OF BLACKBERRY BY HAND OR MACHINE	18,507 SF
MAJOR GRUBBING OF BLACKBERRY BY MACHINE	17,698 SF
MINOR SELECT GRUBBING BY HAND	35,234 SF
TOTAL:	71,439 SF

GRADING LEGEND

- CREATED WETLAND
- SILT FENCE
- 100 PROPOSED CONTOUR
- SNAG, SEE DETAIL 1/W2.0
- DOWN LOGS
- STUMP, SEE DETAIL 2/W2.0

CONSTRUCTION SEQUENCE

THE FOLLOWING PROVIDES THE GENERAL SEQUENCE OF ACTIVITIES ANTICIPATED TO BE NECESSARY TO COMPLETE THIS MITIGATION PROJECT. SOME OF THESE ACTIVITIES MAY BE CONDUCTED CONCURRENTLY AS THE PROJECT PROGRESSES.

1. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, TALASAEA CONSULTANTS, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, WORK AREAS, STAGING/STOCKPILE AREAS, MATERIAL DISPOSAL AREAS, AND EXISTING VEGETATION TO BE RETAINED.
2. SURVEY CLEARING/GRADING LIMITS.
3. TALASAEA SHALL REVIEW CLEARING LIMITS AND SHALL FLAG TREES AND OTHER EXISTING VEGETATION TO REMAIN WITHIN THE WORK AREA. TALASAEA SHALL ALSO FLAG ANY WOODY MATERIAL TO BE SAVED AND STOCKPILED FOR LATER USE AS HABITAT FEATURES (STUMPS, SNAGS, DOWN LOGS, & BOULDERS)
4. INSTALL SILT FENCE AND ANY OTHER EROSION AND SEDIMENTATION CONTROL BMPS NECESSARY FOR WORK IN THE PROJECT AREAS.
5. INSTALL TREE PROTECTION FENCING AROUND EXISTING TREES AND VEGETATION TO REMAIN.
6. CLEAR AND GRUB GRADING AREAS.
7. GRUB OUT ALL INVASIVE SPECIES FROM BUFFER ENHANCEMENT AREAS AS SHOWN ON PLANS. INVASIVE SPECIES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO: SCOT'S BROOM, ENGLISH IVY, HIMALAYAN AND EVERGREEN BLACKBERRY, PURPLE LOOSESTRIFE, HEDGE BINDWEED, JAPANESE KNOTWEED, CANADA THISTLE, AND CREEPING NIGHTSHADE. ALL ROOTS SHALL BE REMOVED TO THE MAXIMUM EXTENT PRACTICABLE. TALASAEA CONSULTANTS SHALL REVIEW AREAS TO BE GRUBBED TO DETERMINE WHICH AREAS MAY BE GRUBBED BY MACHINE AND WHICH SHALL BE GRUBBED BY HAND.
8. SURVEY EARTHWORK AREAS AND SET GRADE STAKES AS REQUIRED.
9. COMPLETE EXCAVATION OF MITIGATION AREAS TO SUBGRADE PER GRADING PLAN.
10. INSTALL SNAGS.
11. PLACE TOPSOIL.
12. PLACE WOODY DEBRIS (LONG & SHORT DOWN LOGS, ROOTWADS, STUMPS).
13. MULCH ALL CLEARED/GRADED BUFFER AREAS.
14. COMPLETE SITE CLEANUP AND INSTALL PLANT MATERIAL AS INDICATED ON THE MITIGATION PLANTING PLAN.
15. INSTALL CRITICAL AREA FENCE & SIGNS.

GRADING NOTES

1. SILT FENCING AND OTHER EROSION CONTROL BMPS WILL BE INSTALLED ALONG EXISTING WETLAND EDGE ADJACENT TO CONSTRUCTION AND AT THE CLEARING LIMITS DURING IMPLEMENTATION OF THE MITIGATION PLAN.
2. SEE CIVIL PLANS FOR CLEARING/GRADING, DRAINAGE, AND EROSION CONTROL BMP'S FOR SITE CONSTRUCTION.
3. TALASAEA SHALL FLAG EXISTING VEGETATION TO REMAIN. ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AROUND FLAGGED VEGETATION PRIOR TO CLEARING AND GRADING.
4. SEE CIVIL PLANS FOR ALL CONSTRUCTION RELATING TO THE STORMWATER FEATURES (OUTLET/INLET PIPE, ELEVATIONS, AND CB'S).
5. SEE CONSTRUCTION SPECIFICATION FOR DETAILS RELATING TO IMPLEMENTATION OF THIS PLAN.

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2340.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY:

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE:

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

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast – Woodinville, Washington 98077
Box (425) 861-7500 – Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
CLEARING, GRUBBING & GRADING PLAN, NOTES & DETAILS
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	AS SHOWN
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

Project #1242

Sheet # W2.0

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WP(5-12-2015).dwg

© Copyright – Talasaea Consultants, INC.

GRADING SPECIFICATIONS

PART 1: GENERAL

1.1 SEQUENCING

A. GENERAL CONSTRUCTION:
1. CONTRACTOR SHALL GIVE TALASAEA CONSULTANTS A MINIMUM OF TEN (10) DAYS NOTICE PRIOR TO BEGINNING CONSTRUCTION.
2. NO CONSTRUCTION WORK SHALL COMMENCE UNTIL THERE IS A MEETING BETWEEN THE CLIENT, TALASAEA CONSULTANTS, 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: (1) INDEPENDENTLY VERIFY THE ACCURACY OF UTILITY LOCATIONS AND (2) DISCOVER AND AVOID ANY UTILITIES WITHIN THE MITIGATION PLAN 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 REVIEW ANY CONFLICTS WITH THE APPROVED GRADING PLAN PRIOR TO START OF CONSTRUCTION.
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. TOPOGRAPHIC ELEVATIONS REPRESENTED ON MITIGATION PLANS ARE BASED UPON TOPOGRAPHIC MAPS SUPPLIED BY THE SURVEYOR. FINAL ELEVATIONS MAY VARY DEPENDING ON SITE-SPECIFIC CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY PRE-CONSTRUCTION TOPOGRAPHIC ELEVATIONS FOR ACCURACY PRIOR TO GRADING. CONTRACTOR SHALL NOTIFY TALASAEA CONSULTANTS IMMEDIATELY IF ANY MODIFICATIONS TO THE PLANS MAY BE NECESSARY DUE TO INACCURACIES OF THE ORIGINAL SURVEY.
9. 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 THE STATE.
10. PREVENTATIVE MEASURES SHALL BE USED TO PROTECT EXISTING STORM DRAINAGE SYSTEMS, EXISTING UTILITIES, AND ROADS.
11. THE CONTRACTOR SHALL PROVIDE SEDIMENT AND EROSION CONTROLS AROUND THE PROJECT AREA PRIOR TO SOIL DISTURBANCE FROM CONSTRUCTION ACTIVITY.

B. MITIGATION CONSTRUCTION: THE FOLLOWING PROVIDES THE GENERAL SEQUENCE OF ACTIVITIES ANTICIPATED TO BE NECESSARY TO COMPLETE THIS MITIGATION PROJECT. SOME OF THESE ACTIVITIES MAY BE CONDUCTED CONCURRENTLY AS THE PROJECT PROGRESSES.
1. CONDUCT A SITE MEETING BETWEEN THE CONTRACTOR, TALASAEA CONSULTANTS, AND THE OWNER'S REPRESENTATIVE TO REVIEW THE PROJECT PLANS, WORK AREAS, STAGING/STOCKPILE AREAS, MATERIAL DISPOSAL AREAS, AND EXISTING VEGETATION TO BE RETAINED.
2. SURVEY CLEARING/GRADING LIMITS.
3. TALASAEA SHALL REVIEW CLEARING LIMITS AND SHALL FLAG TREES AND OTHER EXISTING VEGETATION TO REMAIN WITHIN THE WORK AREA. TALASAEA SHALL ALSO FLAG ANY WOODY MATERIAL TO BE SAVED AND STOCKPILED FOR LATER USE AS HABITAT FEATURES (STUMPS, SNAGS, DOWN LOGS, & BOULDERS)
4. INSTALL SILT FENCE AND ANY OTHER EROSION AND SEDIMENTATION CONTROL BMPS NECESSARY FOR WORK IN THE PROJECT AREAS.
5. INSTALL TREE PROTECTION FENCING AROUND EXISTING TREES AND VEGETATION TO REMAIN.
6. CLEAR AND GRUB GRADING AREAS.
7. GRUB OUT ALL INVASIVE SPECIES FROM BUFFER ENHANCEMENT AREAS AS SHOWN ON PLANS. INVASIVE SPECIES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO: SCOT'S BROOM, ENGLISH IVY, HIMALAYAN AND EVERGREEN BLACKBERRY, PURPLE LOOSESTRIFE, HEDGE BINDWEED, JAPANESE KNOTWEED, CANADA THISTLE, AND CREEPING NIGHTSHADE. ALL ROOTS SHALL BE REMOVED TO THE MAXIMUM EXTENT PRACTICABLE. TALASAEA CONSULTANTS SHALL REVIEW AREAS TO BE GRUBBED TO DETERMINE WHICH AREAS MAY BE GRUBBED BY MACHINE AND WHICH SHALL BE GRUBBED BY HAND.
8. SURVEY EARTHWORK AREAS AND SET GRADE STAKES AS REQUIRED.
9. COMPLETE EXCAVATION OF MITIGATION AREAS TO SUBGRADE PER GRADING PLAN.
10. INSTALL SNAGS.
11. PLACE TOPSOIL.
12. PLACE WOODY DEBRIS (LONG & SHORT DOWN LOGS, ROOTWADS, STUMPS).
13. MULCH ALL CLEARED/GRADED BUFFER AREAS.
14. COMPLETE SITE CLEANUP AND INSTALL PLANT MATERIAL AS INDICATED ON THE MITIGATION PLANTING PLAN.
15. INSTALL CRITICAL AREA FENCE & SIGNS.

1.2 PROJECT CONDITIONS

A. PROTECTION AND MAINTENANCE OF OFF-SITE AREAS: CONTRACTOR SHALL ENSURE THAT CONSTRUCTION RELATED ACTIVITIES DO NOT DAMAGE OFF-SITE FEATURES OR ADJACENT VEGETATION. TALASAEA CONSULTANTS SHALL BE NOTIFIED IMMEDIATELY IF ACCIDENTAL DAMAGE OCCURS. CONTRACTOR SHALL ENSURE THAT ADJACENT ROADS ARE MAINTAINED AND KEPT CLEAR OF SOIL AND/OR OTHER DEBRIS AT ALL TIMES DURING CONSTRUCTION. CONTRACTOR SHALL COMPLY WITH THE GOVERNING JURISDICTION'S CODES REGARDING STREET MAINTENANCE/CLEANING DURING CONSTRUCTION.

B. PLAN CHANGES AND MODIFICATIONS: ANY CHANGES OR MODIFICATIONS TO THE MITIGATION PLANS OR SPECIFICATIONS MUST RECEIVE PRIOR APPROVAL FROM THE OWNER'S REPRESENTATIVE, TALASAEA CONSULTANTS, AND APPLICABLE AGENCIES.

1.3 WARRANTY

A. WARRANTY TERMS AND CONDITIONS: A 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 PHASES OF SUCH WORK HAVE BEEN COMPLETED AND ARE ACCEPTED BY THE OWNER'S REPRESENTATIVE, TALASAEA CONSULTANTS, AND APPLICABLE AGENCIES. CONTRACTOR'S WARRANTY SHALL INCLUDE GRADING CORRECTIONS.

PART 2: PRODUCTS AND MATERIALS

2.1 HABITAT FEATURES

A. SWALLOW NESTING BOXES / BAT HOUSES:
1. SWALLOW NESTING BOXES AND BAT ROOSTING BOXES SHALL BE CONSTRUCTED OF CEDAR OR CYPRESS.
2. CONTRACTOR MAY PURCHASE SWALLOW NESTING BOXES AT:
   a. TALASAEA CONSULTANTS, (425) 861-7550 OR,
   b. SEATTLE AUDUBON SOCIETY, (206) 523-4483 OR,
   c. WILD BIRDS UNLIMITED, (206) 575-4001
3. CONTRACTOR MAY PURCHASE BAT ROOSTING BOXES AT:
   a. TALASAEA CONSULTANTS, (425) 861-7550 OR,
   b. SEATTLE AUDUBON SOCIETY, (206) 523-4483 OR,
   c. BEN MEADOWS COMPANY, (800) 241-6401

B. SNAGS: SNAGS SHALL BE CEDAR OR FIR SPECIES, 24-53 FEET LONG, WITH A MINIMUM OF EIGHT MAIN BRANCHES, AND A MINIMUM DIAMETER OF 20 INCHES AT GROUND LEVEL AFTER INSTALLATION.

C. DOWN LOGS: DOWN LOGS SHALL BE CEDAR OR FIR SPECIES, HAVE A 15 FOOT MINIMUM LENGTH, WITH OR WITHOUT ROOTS, AND A MINIMUM DIAMETER OF 15 INCHES. BARK SHALL BE KEPT INTACT. ENDS THAT HAVE BEEN CUT SHALL BE DISTRESSED AND NOT BLUNT.

D. ROOTWADS: ROOTWADS SHALL HAVE 6-10 FEET OF TRUNK WITH ROOTS.

E. STUMPS: 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 NOT BLUNT.

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

2.3 SOFT-SURFACE PATH

A. TRAIL SURFACING SHALL BE CLEAN WOOD CHIPS PRODUCED FROM CONIFEROUS TREE SPECIES. WOOD CHIPS SHALL NOT EXCEED A MAX. SIZE OF 1.5 INCHES IN ANY DIMENSION. WOOD CHIPS SHALL NOT CONTAIN AN EXCESS OF SMALL TWIG AND BRANCH MATERIAL OR GREEN MATERIAL SUCH AS NEEDLES OR LEAVES, AND SHALL BE COMPLETELY FREE OF DIRT, TRASH, ROCKS, OR OTHER NON-WOODY DEBRIS.

2.4 TOPSOIL

A. TOPSOIL: TOPSOIL THAT HAS BEEN STOCKPILED ON-SITE FOR REUSE IN PROJECT AREA(S) OR IMPORTED FROM OFF-SITE SOURCES SHALL BE FERTILE, FRIABLE, SANDY LOAM SURFACE SOIL, FREE OF SUBSOIL, CLAY LUMPS, BRUSH, WEEDS, ROOTS, STUMPS, STONES LARGER THAN 1 INCH IN ANY DIMENSION, LITTER, OR ANY OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.

B. ORGANIC CONTENT: 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.

2.5 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 SIEVE.

2.6 SEED MIX FOR WETLANDS

A. SEEDS FOR WETLAND MIX SHALL HAVE BEEN HARVESTED A MAXIMUM OF ONE YEAR PRIOR TO DATE OF SEED APPLICATION, AND STRATIFIED OR OTHERWISE PROCESSED TO ENSURE OPTIMAL GERMINATION RATE. INITIAL SEEDING MUST OCCUR BY SEPTEMBER 1ST.

PART 3: EXECUTION

A. SURVEY/STAKE/FLAG LIMITS OF CLEARING:
1. PRIOR TO ANY CONSTRUCTION, A LICENSED SURVEYOR SHALL SURVEY, STAKE, AND FLAG CLEARING LIMITS. CLEARING LIMITS ARE DEPICTED ON THE MITIGATION PLANS. TALASAEA CONSULTANTS SHALL REVIEW AND APPROVE FLAGGING OF CLEARING LIMITS PRIOR TO ANY VEGETATION REMOVAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ACTUAL LOCATIONS OF VEGETATION TO BE SAVED AND REQUEST THAT TALASAEA CONSULTANTS MODIFY THE GRADING PLAN AS NECESSARY TO AVOID ALL SIGNIFICANT NATIVE VEGETATION.

B. FLAG AND PROTECT EXISTING VEGETATION TO REMAIN:
1. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING DISTURBANCE TO EXISTING VEGETATION LOCATED OUTSIDE THE CLEARING LIMITS. NO REMOVAL OF ANY VEGETATION SHALL OCCUR WITHOUT PRIOR APPROVAL BY TALASAEA CONSULTANTS.
2. TALASAEA CONSULTANTS SHALL FLAG EXISTING VEGETATION TO REMAIN LOCATED WITHIN THE PROJECT AREA(S). PRIOR TO GRADING, CONTRACTOR SHALL INSTALL ORANGE BARRIER FENCING 2 FEET BEYOND THE DRIPLINE OF FLAGGED EXISTING VEGETATION. FLAGGED VEGETATION SHALL NOT BE DISTURBED, UNLESS APPROVED IN WRITING BY TALASAEA CONSULTANTS. FENCING SHALL REMAIN IN PLACE UNTIL THE COMPLETION OF EARTHWORK.
3. CONTRACTOR SHALL EXERCISE CARE TO PREVENT INJURY TO THE TRUNK, ROOTS, AND BRANCHES OF TREES AND SHRUBS TO REMAIN. ANY WOODY PLANT TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION SHALL BE TREATED IMMEDIATELY AFTER DAMAGE OCCURS, AND TALASAEA CONSULTANTS SHALL BE NOTIFIED OF 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.

C. FLAG VEGETATION & WOODY MATERIAL FOR FUTURE USE AS HABITAT FEATURES:
1. TALASAEA CONSULTANTS SHALL FLAG EXISTING VEGETATION AND WOODY MATERIAL (SNAGS, STUMPS, DOWN LOGS, AND BOULDERS), IF AVAILABLE, TO BE RELOCATED BY THE CONTRACTOR FROM WITHIN THE DEVELOPMENT FOOTPRINT FOR USE AS HABITAT FEATURES IN THE MITIGATION AREA(S). WHENEVER POSSIBLE, HABITAT FEATURES SHALL BE MOVED DIRECTLY TO PERMANENT LOCATIONS. SNAGS SHALL ONLY BE MOVED ONCE TO PREVENT BRANCH BREAKAGE. IF NECESSARY, HABITAT FEATURES SHALL BE PLACED IN STOCKPILE AREAS AS NEAR TO PERMANENT LOCATIONS AS POSSIBLE. TALASAEA CONSULTANTS SHALL DESIGNATE STOCKPILE AREAS.
2. CONTRACTOR SHALL EXERCISE CARE WHEN MOVING HABITAT FEATURES TO AVOID BREAKING BRANCHES, SCUFFING BARK, OR BREAKING ROOTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BREAK PIECES INTO USABLE SIZES.
3. IF HABITAT FEATURES ARE NOT AVAILABLE FROM ANY PORTION OF THE DEVELOPMENT FOOTPRINT, THEN FEATURES SHALL BE PROVIDED BY THE CONTRACTOR.

D. PLACE EROSION CONTROL MEASURES:
1. CONTRACTOR SHALL INSTALL SILT FENCING DOWNSLOPE OF THE CLEARING LIMITS DEPICTED ON THE MITIGATION GRADING PLANS PRIOR TO ANY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL MAINTAIN EROSION CONTROL FACILITIES UNTIL COMPLETION OF CONSTRUCTION. TALASAEA CONSULTANTS SHALL VERIFY AND APPROVE LOCATIONS OF EROSION CONTROL MEASURES PRIOR TO SITE GRADING.
2. SITE AREAS EXPOSED DURING GRADING AND CONSTRUCTION MUST BE COVERED WITH MULCH (MAXIMUM DEPTH 3 INCHES), EROSION CONTROL NETTING, PLASTIC SHEETING, OR PERMANENT EROSION CONTROL WITHIN 48 HOURS OF DISTURBANCE, OR AS REQUIRED FOR NPDES OR LOCAL JURISDICTION COMPLIANCE.
3. CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES FOR THE DURATION OF THE PROJECT. THESE MEASURES SHALL REMAIN IN PLACE UNTIL AUTHORIZATION IS GIVEN BY TALASAEA CONSULTANTS FOR REMOVAL OR LOCATION ADJUSTMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL EROSION CONTROL MEASURES ADJACENT TO CRITICAL AREAS WHEN AUTHORIZED BY TALASAEA CONSULTANTS.
4. AS CONSTRUCTION PROGRESSES AND SEASONAL CONDITIONS DICTATE, EROSION CONTROL FACILITIES SHALL BE MAINTAINED AND/OR ALTERED AS REQUIRED BY TALASAEA CONSULTANTS TO ENSURE CONTINUED EROSION/SEDIMENTATION CONTROL.
5. WHERE POSSIBLE, NATURAL GROUND COVER VEGETATION SHALL BE MAINTAINED FOR SILT CONTROL.

E. CLEAR AND GRUB SITE:
1. CONTRACTOR SHALL CLEAR AND GRUB AREAS WITHIN THE CLEARING LIMITS SHOWN ON THE MITIGATION PLANS, WITH THE EXCEPTION OF FLAGGED EXISTING VEGETATION TO REMAIN. IN AREAS OF EXISTING VEGETATION, CONTRACTOR SHALL REMOVE BLACKBERRY AND OTHER INVASIVE SPECIES BY HAND OR WITH A MACHINE, WITH MINIMAL DISTURBANCE TO THE EXISTING VEGETATION. CLEARED AND GRUBBED VEGETATION SHALL BE EXPORTED FROM THE SITE. INVASIVE/EXOTIC PLANT SPECIES TO BE REMOVED AND TREATED IN THE MITIGATION AREA(S) INCLUDE: SCOT'S BROOM, ENGLISH IVY, HIMALAYAN AND EVERGREEN BLACKBERRY, REED CANARYGRASS, PURPLE LOOSESTRIFE, HEDGE BINDWEED (MORNING GLORY), JAPANESE KNOTWEED, THISTLE, AND CREEPING NIGHTSHADE. FOR REED CANARYGRASS, ROOTS SHALL BE REMOVED DOWN TO A MINIMUM DEPTH OF 12 INCHES.
2. TALASAEA CONSULTANTS SHALL DESIGNATE ANY ADDITIONAL PLANT SPECIES TO BE REMOVED PRIOR TO CONSTRUCTION.

F. SURVEY/STAKE/FLAG PROPOSED GRADES: A LICENSED SURVEYOR SHALL SURVEY, STAKE, AND FLAG PROPOSED GRADES WITHIN THE MITIGATION AREA(S). GRADES SHALL BE STAKED AND FLAGGED AT 25' INTERVALS AND AT ALL HIGH AND LOW POINTS. TALASAEA CONSULTANTS SHALL APPROVE GRADE STAKING PRIOR TO EXCAVATION AND SHALL MONITOR DURING CONSTRUCTION.

G. STOCKPILE TOPSOIL:
1. CONTRACTOR SHALL SALVAGE AND STOCKPILE TOPSOIL AT APPROPRIATE LOCATIONS ADJACENT TO MITIGATION AREAS.
2. IF TOPSOIL CONTAINS DEBRIS, OR IS DETERMINED UNSUITABLE BY TALASAEA CONSULTANTS, CONTRACTOR SHALL DISPOSE OF MATERIAL OFF SITE AND IMPORT SUITABLE MATERIAL.

H. EXCAVATE MITIGATION AREAS:
1. CONTRACTOR SHALL EXCAVATE GRADED AREAS PER GRADING PLAN WITHOUT REMOVING GRADE STAKES. TALASAEA CONSULTANTS TO MAKE MINOR FIELD ADJUSTMENTS TO GRADING PLAN, AS NECESSARY, TO ENSURE PROPER FUNCTION OF THE MITIGATION AREA(S).
2. IN THE MITIGATION AREA(S), OVER-EXCAVATE 6 INCHES BELOW FINISHED GRADES SHOWN ON PLANS TO ALLOW FOR PLACEMENT OF 6 INCHES OF STOCKPILED OR IMPORTED TOPSOIL. EXCAVATED SOILS SHALL BE USED ON-SITE, IF POSSIBLE, OTHERWISE THEY SHALL BE EXPORTED OFF-SITE.
3. FILL SOILS PROPOSED FOR USE WITHIN THE MITIGATION AREA(S) SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR ANALYSIS AND APPROVAL PRIOR TO USE, AND SHALL MEET ALL APPLICABLE SPECIFICATIONS FOR FILL SOILS PER THE PROJECT GEOTECHNICAL ENGINEER. IN AREAS OF FILL PLACEMENT, CONTRACTOR SHALL COMPACT SOIL IN LIFTS ACCORDING TO GEOTECHNICAL ENGINEERING SPECIFICATIONS. GEOTECHNICAL ENGINEER SHALL APPROVE ALL AREAS OF FILL PLACEMENT TO ENSURE ADEQUACY OF COMPACTION. CONTRACTOR SHALL BE NOTIFIED BY THE GENERAL CONTRACTOR AS TO WHO THE GEOTECHNICAL ENGINEER WILL BE.
4. UPON COMPLETION OF EXCAVATION, TALASAEA CONSULTANTS SHALL REVIEW AND APPROVE SUBGRADE IN RELATION TO ORIGINAL GRADE STAKES. IF GRADE STAKES ARE REMOVED PRIOR TO APPROVAL BY TALASAEA CONSULTANTS, AN AS-BUILT SURVEY WILL BE REQUIRED. THE AS-BUILT SURVEY, BY A LICENSED SURVEYOR, WILL INCLUDE ONE-FOOT CONTOUR INTERVALS WITH SPOT ELEVATIONS OF HIGH AND LOW POINTS, POND SURFACE ELEVATIONS, AND THE CREATED WETLAND BOUNDARIES.
5. AFTER SUBGRADE APPROVAL, THE CONTRACTOR SHALL REMOVE GRADE STAKES AND PROCEED WITH TOPSOIL AND HABITAT FEATURE PLACEMENT.

I. INSTALL SNAGS:
1. INSTALL SNAGS UPON COMPLETION OF SUBGRADE EARTHWORK AT LOCATIONS DEPICTED ON MITIGATION PLANS. SNAGS SHALL BE ANCHORED INTO SUBGRADE A MINIMUM OF 25 PERCENT OF THE TOTAL LENGTH, AS DEPICTED IN THE PLAN DETAIL. TALASAEA CONSULTANTS SHALL APPROVE SNAG LOCATIONS PRIOR TO INSTALLATION.

J. CLAY LINER CONTINGENCY:
1. UPON COMPLETION OF EXCAVATION, AND PRIOR TO INSTALLATION OF HABITAT FEATURES AND TOPSOIL, A GEOTECHNICAL ENGINEER SHALL REVIEW SUBGRADE MATERIAL TO DETERMINE WHETHER A CLAY LINER WILL BE REQUIRED TO RETARD WATER INFILTRATION IN WETLAND CREATION AREAS..
2. IF A CLAY LINER IS REQUIRED, CLAY LINER SHALL BE INSTALLED OVER SUBGRADE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE GEOTECHNICAL ENGINEER SHALL APPROVE LINER PRIOR TO PLACEMENT OF HABITAT FEATURES AND TOPSOIL. CONTRACTOR SHALL PROVIDE A UNIT COST PER SQUARE FOOT FOR INSTALLED CLAY LINER (BENTOMAT, BENTONITE CLAY MESH, NATIVE CLAY, OR APPROVED EQUAL) AS AN ADDITIVE ALTERNATE TO THE BASE PROJECT COST.

K. PLACE TOPSOIL:
1. IN ALL GRADED PROJECT AREAS, 6 INCHES OF STOCKPILED OR IMPORTED TOPSOIL SHALL BE PLACED OVER SUBGRADE. NOTE: PRIOR TO PLACING TOPSOIL, SUBGRADE SHALL BE DECOMPACTED OR SCARIFIED TO A MINIMUM DEPTH OF 6 INCHES IF SUBSOIL IS EXCESSIVELY COMPACTED AND UNSUITABLE FOR PLANT GROWTH.

L. HABITAT FEATURES: PLACE HABITAT FEATURES UPON COMPLETION OF TOPSOIL PLACEMENT, AS DEPICTED ON THE MITIGATION PLANS AND DETAILS. TALASAEA CONSULTANTS SHALL APPROVE LOCATIONS PRIOR TO PLACEMENT.
1. SWALLOW NESTING BOXES: ATTACH ONE NESTING BOX TO EACH INSTALLED SNAG A MINIMUM OF 15 FEET OFF THE GROUND ON THE SOUTHEAST SIDE OF THE SNAG.
2. BAT ROOSTING BOXES: ATTACH 3 BAT ROOSTING BOXES A MINIMUM OF FIFTEEN FEET OFF THE GROUND ON THE SOUTHEAST SIDE OF EXISTING SIGNIFICANT TREES TO REMAIN OR INSTALLED SNAGS. TALASAEA CONSULTANTS SHALL FLAG TREES OR SNAGS DESIGNATED FOR BAT ROOSTING BOXES PRIOR TO INSTALLATION.
3. 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.
4. ROOTWADS: TALASAEA CONSULTANTS SHALL APPROVE LOCATIONS PRIOR TO INSTALLATION.
5. STUMPS: STUMPS SHALL BE SET UPRIGHT.
6. 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 INTERNAL VOIDS.

M. MULCH GRADED BUFFERS: TALASAEA CONSULTANTS SHALL BE PROVIDED A MULCH SAMPLE PRIOR TO IT BEING DELIVERED TO THE SITE. NO BUFFER AREAS SHALL BE SEEDED.
1. CONTRACTOR SHALL SPREAD MULCH OVER ALL GRADED BUFFER AREAS TO ACHIEVE A UNIFORM DEPTH OF 3 INCHES. NOTE: 3-INCH DEPTH IS THE MINIMUM AFTER SETTLING. IF MULCH IS INSTALLED BY BLOWER TRUCK IT SHALL BE INSTALLED AT A 4-INCH DEPTH TO ENSURE A MINIMUM 3-INCH DEPTH AFTER SETTLING.

N. GRADING INSPECTIONS: PRIOR TO PLANT INSTALLATION, TALASAEA CONSULTANTS SHALL APPROVE ALL GRADING WORK, AND ALL STRUCTURE AND HABITAT FEATURE PLACEMENT. 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 FOR FINAL INTERNAL ACCEPTANCE OF GRADING PLAN IMPLEMENTATION, AND PLANTING MAY THEN PROCEED.

O. SOIL STABILIZATION: IF THERE IS A DELAY IN CONSTRUCTION FOR ANY REASON, CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF EROSION CONTROL MEASURES, DRAINAGE, AND TEMPORARY IRRIGATION DURING CONSTRUCTION DELAY PERIOD, UNLESS OTHERWISE STATED IN WRITING.

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2340.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY: _____

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE: _____

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

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast – Woodinville, Washington 98077
Box (425) 861-7550 – Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
GRADING SPECIFICATIONS
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	NTS
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

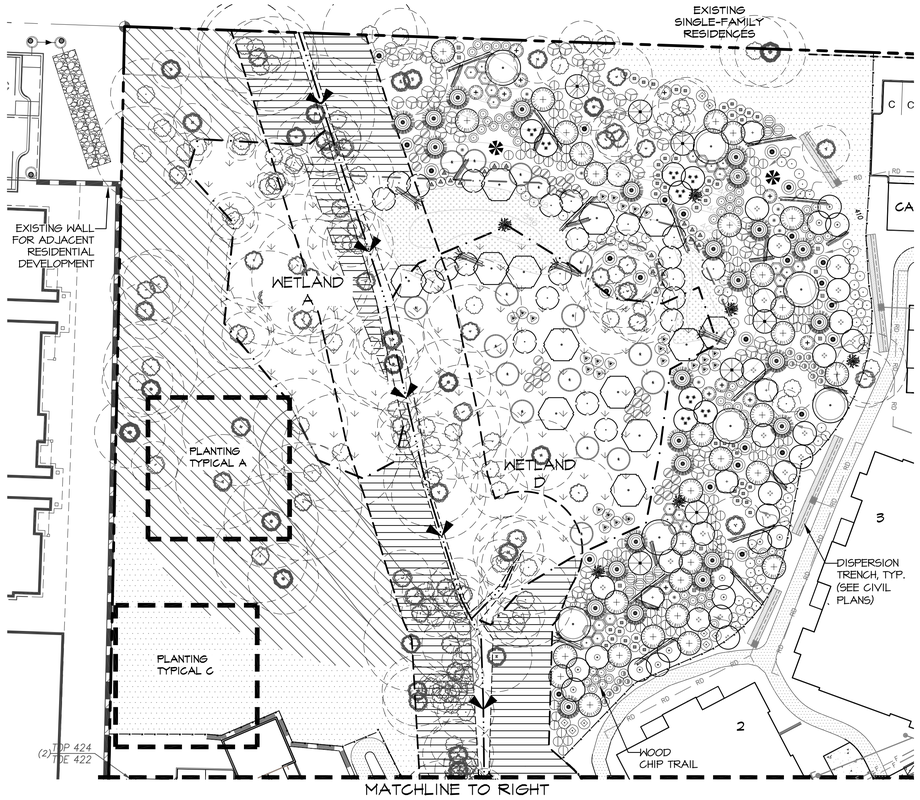
Project #1242

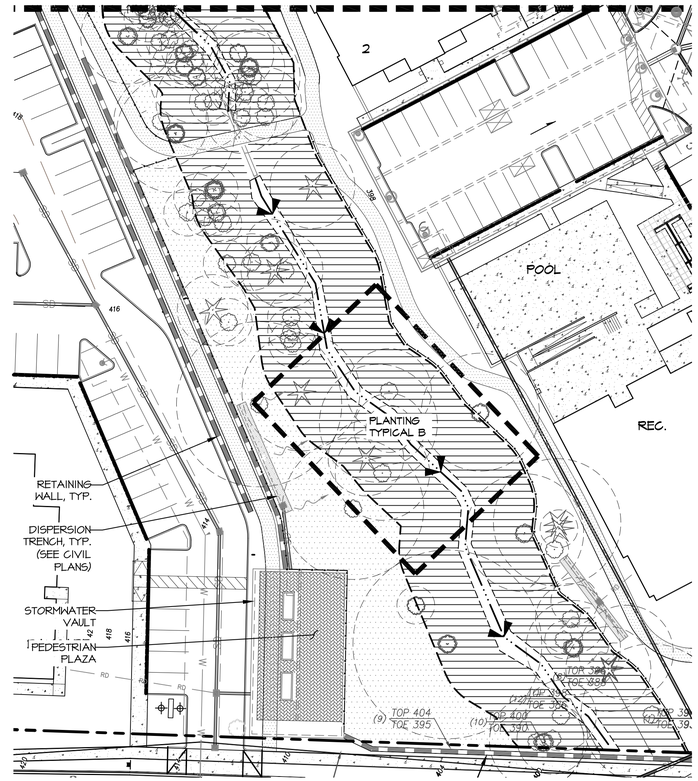
Sheet # W2.1

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WF(5-12-2015).dwg

© Copyright – Talasaea Consultants, INC.

NE 1/4 SEC. 9, TWP. 21N, RGE. 5E, W.M.





PLANT LIST*

TREES

SCIENTIFIC NAME	COMMON NAME
ACER MACROPHYLLUM	BIG-LEAF MAPLE
BETULA PAPYRIFERA	PAPER BIRCH
CORNUS NUTTALLII	PACIFIC DOGWOOD
FRAXINUS LATIFOLIA	OREGON ASH
PICEA SITCHENSIS	SITKA SPRUCE
PSEUDOTSUGA MENZIESII	DOUGLAS FIR
PSEUDOTSUGA MENZIESII	DOUGLAS FIR
THUJA PLICATA	WESTERN RED CEDAR
THUJA PLICATA	WESTERN RED CEDAR
TSUGA HETEROPHYLLA	WESTERN HEMLOCK

SMALL TREES/LARGE SHRUBS

SCIENTIFIC NAME	COMMON NAME
ACER CIRCINATUM	VINE MAPLE
AMELANCHIER ALNIFOLIA	SERVICEBERRY
CORYLUS CORNUTA	WESTERN HAZELNUT
CRATAEGUS DOUGLASII	BLACK HAWTHORN
HOLODISCUS DISCOLOR	OCEAN SPRAY
OEMLERIA CERASIFORMIS	INDIAN PLUM
PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK
PYRUS (MALUS) FUSCA	WESTERN CRABAPPLE
RHODODENDRON MACROPHYLLUM	PACIFIC RHODODENDRON
RIBES SANGUINEUM	RED CURRANT
SAMBUCUS RACEMOSA	RED ELDERBERRY

MASSING SHRUBS

SCIENTIFIC NAME	COMMON NAME
CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD
LONICERA INVOLUCRATA	BLACK TWIN-BERRY
MAHONIA AQUIFOLIUM	OREGONGRAPE
ROSA GYMNOCARPA	BALDHIP ROSE
RUBUS PARVIFLORUS	THIMBLEBERRY
RUBUS SPECTABILIS	SALMONBERRY
SYMPHORICARPOS ALBUS	COMMON SNOWBERRY

GROUNDCOVER**

	SCIENTIFIC NAME	COMMON NAME
NO SYMBOL	GAULTHERIA SHALLON	SALAL
NO SYMBOL	POLYSTICHUM MUNITUM	SWORD FERN

EMERGENTS

SCIENTIFIC NAME	COMMON NAME
CAREX OBNUPTA	SLOUGH SEDGE
SCIRPUS MICROCARPUS	SMALL FRUITED BULRUSH

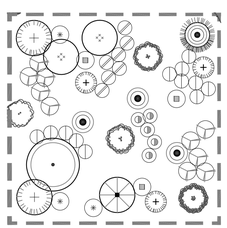
NOTES:
* SEE W3.1 FOR PLANT SCHEDULE
** GROUNDCOVER SYMBOLS NOT SHOWN. GROUNDCOVER SHALL BE PLANTED UNDER DECIDUOUS TREES IN BUFFER AREAS ONLY AT SPACING SHOWN IN PLANT SCHEDULE. DO NOT PLANT WITHIN 2.5' RADIUS OF TREE TRUNKS. TALASAEA SHALL REVIEW AND APPROVE PLANTING LOCATIONS WITH CONTRACTOR PRIOR TO PLANTING.

PLANTING PLAN

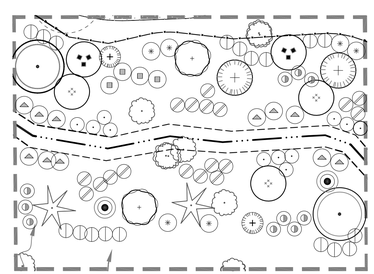
GRAPHIC SCALE (IN FEET) 0 15 30 60
SCALE: 1"=30'
NORTH

PLAN LEGEND

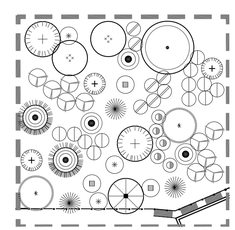
- PROPERTY LINE
- EXISTING WETLAND
- POST CONSTRUCTION CRITICAL AREA BUFFER/FENCE (2 W3.1)
- STREAM CENTERLINE
- ORDINARY HIGH WATER MARK (OHWM)
- STREAM BUFFER



PLANTING TYPICAL A
WETLAND A BUFFER
SCALE 1"=20'



PLANTING TYPICAL B
STREAM 1 BUFFER
SCALE 1"=20'



PLANTING TYPICAL C
BUFFER CREATION (NON-COMPENSATORY)
SCALE 1"=20'

PLANTING TYPICALS

NOTE: LAYOUT OF ALL PLANTINGS SHALL BE REVIEWED AND APPROVED BY TALASAEA.

GRAPHIC SCALE (IN FEET) 0 10 20 40
SCALE: 1"=20'
NORTH

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

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2340.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY:

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE:

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15000 Bear Creek Road, Woodinville, Washington 98077
Phn (425) 861-7550 – Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
PLANTING PLAN, PLANTING TYPICALS, & PLANT LIST
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	AS SHOWN
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

Project #1242

Sheet # W3.0

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WF(5-12-2015).dwg

© Copyright – Talasaea Consultants, INC.

PLANT SCHEDULE

TREES

SCIENTIFIC NAME	COMMON NAME	QTY. (CREATED WETLAND, GRADED BUFFER, & ENHANCED WETLAND D)	QTY. (ENHANCED WETLAND A BUFFER)	QTY. (ENHANCED STREAM 1 BUFFER)	QTY. (BUFFER CREATION (NON-COMPENSATORY))	WL STATUS	SPACING (MIN.)	SIZE (MIN.)	NOTES
ACER MACROPHYLLUM	BIG-LEAF MAPLE	7	10	9	10	FACU	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
BETULA PAPYRIFERA	PAPER BIRCH	13	0	0	0	FAC	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
CORNUS NUTTALLII	PACIFIC DOGWOOD	4	0	9	0	FACU	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
FRAXINUS LATIFOLIA	OREGON ASH	13	0	0	0	FACW	AS SHOWN	4-5' HT.	SINGLE TRUNK, WELL BRANCHED
PICEA SITCHENSIS	SITKA SPRUCE	17	0	0	31	FAC	AS SHOWN	2-3' HT.	2 GAL., FULL & BUSHY
PICEA SITCHENSIS	SITKA SPRUCE	17	0	0	21	FAC	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
PSEUDOTSUGA MENZIESII	DOUGLAS FIR	11	29	9	31	FACU	AS SHOWN	2-3' HT.	2 GAL., FULL & BUSHY
PSEUDOTSUGA MENZIESII	DOUGLAS FIR	26	19	9	21	FACU	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
THUJA PLICATA	WESTERN RED CEDAR	26	29	9	31	FAC	AS SHOWN	2-3' HT.	2 GAL., FULL & BUSHY
THUJA PLICATA	WESTERN RED CEDAR	25	10	0	21	FAC	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY
TSUGA HETEROPHYLLA	WESTERN HEMLOCK	7	0	0	10	FACU	AS SHOWN	4-5' HT.	B&B, FULL & BUSHY

SMALL TREES/LARGE SHRUBS

SCIENTIFIC NAME	COMMON NAME	QTY.	QTY.	QTY.	QTY.	WL STATUS	SPACING (MIN.)	SIZE (MIN.)	NOTES
ACER CIRCINATUM	VINE MAPLE	25	19	14	21	FAC	AS SHOWN	4' HT.	MULTI-STEM (3 MIN.)
AMELANCHIER ALNIFOLIA	SERVICEBERRY	8	29	28	31	FACU	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
CORYLUS CORNUTA	WESTERN HAZELNUT	8	0	0	0	FACU	AS SHOWN	4' HT.	MULTI-STEM (3 MIN.)
CRATAEGUS DOUGLASII	BLACK HAWTHORN	26	0	0	0	FAC	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
HOLODISCUS DISCOLOR	OCEAN SPRAY	30	0	0	0	FACU	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
OEMLERIA CERASIFORMIS	INDIAN PLUM	59	0	0	103	FACU	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	0	0	51	0	FACW	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
PYRUS (MALUS) FUSCA	WESTERN CRABAPPLE	22	0	0	0	FACW	AS SHOWN	4' HT.	SINGLE TRUNK, WELL BRANCHED
RHODODENDRON MACROPHYLLUM	PACIFIC RHODODENDRON	8	0	0	0	NL	5' O.C.	24" HT.	FULL & BUSHY
RIBES SANGUINEUM	RED CURRANT	8	68	82	0	NL	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)
SAMBUCUS RACEMOSA	RED ELDERBERRY	9	29	19	31	FACU	5' O.C.	24" HT.	MULTI-CANE (3 MIN.)

MASSING SHRUBS

SCIENTIFIC NAME	COMMON NAME	QTY.	QTY.	QTY.	QTY.	WL STATUS	SPACING (MIN.)	SIZE (MIN.)	NOTES
CORNUS ALBA (SERICEA)	RED-OSIER DOGWOOD	64	0	51	0	FACW	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
LONICERA INVOLUCRATA	BLACK TWIN-BERRY	19	0	0	0	FAC	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
MAHONIA AQUIFOLIUM	OREGONGRAPE	41	0	0	0	FACU	4' O.C.	18" HT.	FULL & BUSHY
ROSA GYMNOCARPA	BALDHIP ROSE	50	0	0	0	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
RUBUS PARVIFLORUS	THIMBLEBERRY	15	49	47	51	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
RUBUS SPECTABILIS	SALMONBERRY	17	0	84	72	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)
SYMPHORICARPOS ALBUS	COMMON SNOWBERRY	80	0	75	123	FACU	4' O.C.	18" HT.	MULTI-CANE (3 MIN.)

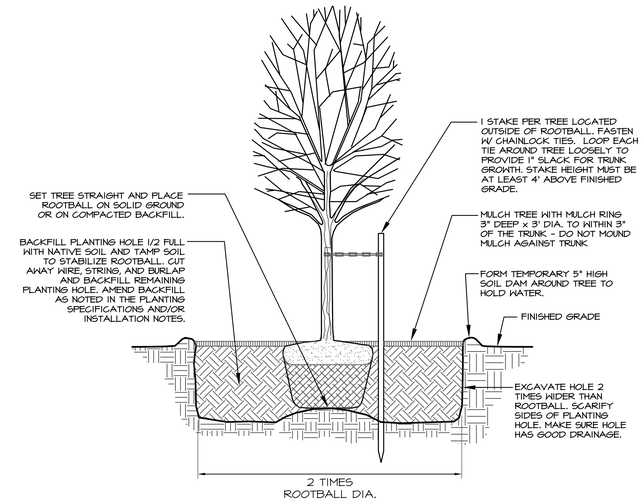
GROUNDCOVER*

	SCIENTIFIC NAME	COMMON NAME	QTY.	QTY.	QTY.	QTY.	WL STATUS	SPACING (MIN.)	SIZE (MIN.)	NOTES
NO SYMBOL	GAULTHERIA SHALLON	SALAL	0	615	0	0	FACU	2' O.C.	1 GAL.	FULL & BUSHY
NO SYMBOL	POLYSTICHUM MUNITUM	SWORD FERN	0	270	0	0	FACU	3' O.C.	1 GAL.	FULL & BUSHY

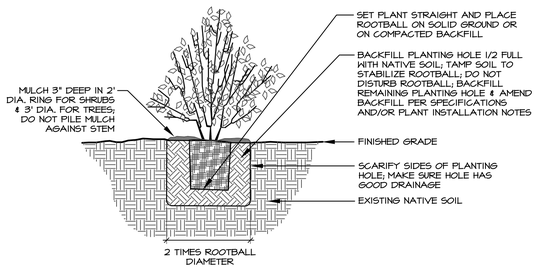
NOTE:
* GROUNDCOVER SYMBOLS NOT SHOWN. GROUNDCOVER SHALL BE PLANTED UNDER DECIDUOUS TREES IN BUFFER AREAS ONLY AT SPACING SHOWN IN PLANT SCHEDULE. DO NOT PLANT WITHIN 2.5' RADIUS OF TREE TRUNKS. TALASAEA SHALL REVIEW AND APPROVE PLANTING LOCATIONS WITH CONTRACTOR PRIOR TO PLANTING.

EMERGENTS

SCIENTIFIC NAME	COMMON NAME	QTY.	QTY.	QTY.	QTY.	WL STATUS	SPACING (MIN.)	SIZE (MIN.)	NOTES
CAREX OBNUPTA	SLOUGH SEDGE	780	0	0	0	OBL	18" O.C.	BARE ROOT	WELL ROOTED
SCIRPUS MICROCARPUS	SMALL FRUITED BULRUSH	780	0	0	0	OBL	18" O.C.	BARE ROOT	WELL ROOTED



1 B&B TREE PLANTING DETAIL.
NTS



2 CONTAINER STOCK PLANTING DETAIL
N.T.S.

GENERAL PLANT INSTALLATION NOTES

1. PLANT TREES AND/OR SHRUBS 1" HIGHER THAN DEPTH GROWN AT NURSERY.
2. FOR CONTAINER TREES AND/OR SHRUBS, SCORE FOUR SIDES OF ROOTBALL PRIOR TO PLANTING. BUTTERFLY ROOTBALL IF ROOT CIRCLING IS EVIDENT.
3. STAKE DECIDUOUS AND EVERGREEN TREES 4 FEET AND OVER IN HEIGHT WITH ONE (1) STAKE PER TREE. STAKE TREES IMMEDIATELY AFTER PLANTING. PLACE STAKE AT THE OUTER EDGE OF THE ROOTS OR ROOTBALL, IN LINE WITH THE PREVAILING WIND. STAKES SHALL BE LOOSELY ATTACHED USING CHAIN-LOCK TREE TIES TO ALLOW FOR SOME TRUNK MOVEMENT.
4. TREE STAKES TO BE VERTICAL, PARALLEL, EVEN-TOPPED, UNSCARRED AND DRIVEN INTO UNDISTURBED SUBGRADE. REMOVE AFTER ONE YEAR.
5. WATER PLANTS IMMEDIATELY UPON PLANTING, THEN PROVIDE MANUAL WATERING OR A TEMPORARY IRRIGATION SYSTEM (IF SPECIFIED IN THE PLANTING SPECIFICATIONS) TO PREVENT PLANT MORTALITY AND ENSURE PROPER PLANT ESTABLISHMENT. PLANTS SHALL RECEIVE A MINIMUM OF APPROXIMATELY ONE INCH OF WATER EVERY WEEK DURING THE DRY SEASON (GENERALLY JUNE 15TH - OCTOBER 15TH, OR EARLIER OR LATER IF CONDITIONS WARRANT) FOR THE FIRST SEASON AFTER PLANTING. IRRIGATION AMOUNTS MAY NEED TO BE INCREASED DURING PROLONGED PERIODS OF HOT, DRY WEATHER.
6. FERTILIZE ALL TREES AND SHRUBS WITH A SLOW-RELEASE GENERAL PURPOSE GRANULAR FERTILIZER OR SLOW-RELEASE TABLETS AT MANUFACTURER'S SPECIFIED RATE.

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2390.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY:

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE:

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

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7500 - Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
PLANT SCHEDULE, NOTES & DETAILS
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date	1-31-14
Scale	NTS
Designed	AO
Drawn	ABS
Checked	AO
Approved	BS

Project #1242

Sheet # W3.1

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WF(5-12-2015).dwg

© Copyright - Talasaea Consultants, INC.

PLANTING SPECIFICATIONS

PART 1: GENERAL

1.1 SEQUENCING

A. GENERAL CONSTRUCTION

1. CONTRACTOR SHALL GIVE TALASAEA CONSULTANTS A MINIMUM OF TEN (10) 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: (1) 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 OF CONSTRUCTION.
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 THE STATE.
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. MITIGATION CONSTRUCTION: 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.

1. 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 AREAS.
2. PLANT TREES AND SHRUBS AS INDICATED ON MITIGATION PLANS.
3. PLANT WETLAND EMERGENTS AND STAKES (CUTTINGS).
4. MULCH PLANTS INSTALLED IN NON-GRADED BUFFER AREAS.
5. INSTALL TEMPORARY IRRIGATION SYSTEM AND PROGRAM FOR 0.5 INCHES OF WATER EVERY 3 DAYS.
6. INSTALL FENCING AND CRITICAL AREA PROTECTION SIGNS (IF REQUIRED).

1.2 SUBMITTALS

A. PRODUCT DATA: FURNISH THE FOLLOWING WITH EACH PLANT MATERIAL DELIVERY:

1. INVOICES INDICATING SIZES AND VARIETY OF PLANT MATERIAL.
2. CERTIFICATES OF INSPECTION REQUIRED BY STATE AND FEDERAL AGENCIES.

B. QUALITY CONTROL SUBMITTALS:

1. 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 GROWN.
   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. SIZE AND GRADING STANDARDS: 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. WORKER'S QUALIFICATIONS: 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. PLANT MATERIAL: 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. INSPECTION: 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. STORAGE:

1. 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 1 AND FEBRUARY 15 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 1ST AND APRIL 1ST.

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. WARRANTY PERIOD: 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 10-YEAR RECORDED WEATHER CHARTS), OR CASES OF NEGLECT BY OWNER, OR CASES OF ABUSE/DAMAGE BY OTHERS.

PART 2: PRODUCTS AND MATERIALS

2.1 PLANTS

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:

1. 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 ROOT BALLS WILL NOT BE ACCEPTED.
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 DELIVERY.
8. NATIVE PLANT CUTTINGS SHALL BE GROWN AND COLLECTED IN THE MARITIME PACIFIC NORTHWEST. CUTTINGS SHALL BE OF ONE TO TWO-YEAR-OLD WOOD, ½ INCH DIAMETER MINIMUM. CUTTINGS SHALL BE A MINIMUM OF 4 FEET IN LENGTH WITH 4 LATERAL BUDS EXPOSED ABOVE GROUND AFTER PLANTING. THE TOP OF EACH CUTTING SHALL BE A MINIMUM OF 1 INCH ABOVE A LEAF BUD, THE BOTTOM CUT 2 INCHES BELOW A BUD. THE BASAL ENDS OF THE CUTTINGS SHALL BE CUT AT A 45 DEGREE ANGLE AND MARKED CLEARLY SO THAT THE ROOTING END IS PLANTED IN THE SOIL. CUTTINGS MUST BE KEPT COVERED AND MOIST DURING STORAGE AND TRANSPORT, AND NO CUTTINGS SHALL BE STORED MORE THAN THREE DAYS FROM DATE OF CUTTING. CUTTINGS SHALL ONLY BE USED IF PLANTING OCCURS BETWEEN DECEMBER 1ST AND APRIL 1ST. FOR PLANTING BETWEEN APRIL 1ST AND DECEMBER 1ST, CONTAINER PLANTS SHALL BE USED.
9. PLANTS SHALL BE FREE OF SPLITS AND CHECKS, BARK ABRASIONS, AND DISFIGURING KNOTS.
10. FOR DECIDUOUS PLANTS, BUDS SHALL BE INTACT AND REASONABLY CLOSED AT TIME OF PLANTING, IF DORMANT.
11. BALLED AND BURLAPPED PLANTS SHALL HOLD A NATURAL BALL. MANUFACTURED ROOT BALLS ARE UNACCEPTABLE.
12. PLANTS SHALL CONFORM TO SIZES INDICATED ON THE PLANT SCHEDULE. PLANTS MAY BE LARGER THAN THE MINIMUM SIZES SPECIFIED.

C. WETLAND EMERGENT PLANTS:

1. SPECIES OF EMERGENT PLANTS SHALL BE PROVIDED AS DESCRIBED ON THE MITIGATION PLANS.
2. HERBACEOUS PLANTS SPECIFIED AS CLUMP DIVISIONS SHALL BE WELL-ROOTED PORTIONS OF MATURE PLANTS WITH A MINIMUM HEIGHT OF 6 INCHES OF VIGOROUS, VEGETATIVE GROWTH ABOVE THE GROUND SURFACE. OTHER HERBACEOUS PLANTS, OTHER THAN CLUMP DIVISIONS, SHALL BE DORMANT PROPAGULES SUCH AS RHIZOMES, TUBERS, CORMS, AND BULBS. PROPAGULE SHOOTS SHALL EXHIBIT TURGOR AND BE LIGHT IN COLOR, AND PROPAGULE BODIES SHALL BE RIGID TO THE TOUCH. IF THE BODIES OF THE PROPAGULES ARE SOFT AND MUSHY AND THE SHOOTS LACK TURGOR AND ARE DARK IN COLOR, THE PLANT MATERIALS SHALL BE REJECTED.
3. RHIZOMES, TUBERS, CORMS, AND BULBS SHALL HAVE A MINIMUM DIAMETER OF 1½ INCHES.

D. 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 WEED CONTROL BOARD.

E. SUBSTITUTIONS: SUBSTITUTIONS WILL NOT BE PERMITTED WITHOUT A WRITTEN REQUEST AND APPROVAL FROM THE OWNER'S REPRESENTATIVE, TALASAEA CONSULTANTS, AND APPLICABLE AGENCIES.

2.2 PLANTING SOIL

A. TOPSOIL: IF SUITABLE STOCKPILED NATIVE TOPSOIL IS NOT AVAILABLE FOR MITIGATION PLANTINGS, 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 1 INCH IN ANY DIMENSION, LITTER, OR ANY OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.

B. ORGANIC CONTENT: 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. COMPOST: COMPOST SHALL MEET THE DEFINITION FOR COMPOSTED MATERIALS AS DEFINED BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

D. SOIL AMENDMENTS: 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 SIEVE.

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. CHAIN-LOCK TREE TIES: ½-INCH WIDE, PLASTIC.

PART 3: EXECUTION

3.1 SOIL PREPARATION

A. PLANTING AREA CONDITIONS: 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.

B. 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.

C. PLANTING IN GRADED AREAS: IN GRADED PLANTING AREAS PLANTS SHALL BE INSTALLED IN NEWLY PLACED TOPSOIL.

D. SOIL DECOMPACTION/SCARIFICATION: 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 PRIOR TO TOPSOIL INSTALLATION.

3.2 PLANTING

A. PLANT LAYOUT: 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.

B. OBTAIN LAYOUT APPROVAL FROM TALASAEA CONSULTANTS PRIOR TO EXCAVATION OF PLANTING PITS.

C. PLANTING PIT DIMENSIONS:

1. PIT DEPTH: NOT TO EXCEED THE ROOT BALL OR CONTAINER DEPTH.
2. 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. SETTING PLANTS:

1. BALLED PLANTS: SET PLANTS IN POSITION AND BACKFILL 1/2 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 1 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 WITH WATER.
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 1 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.

E. MULCHING:

1. GRADED BUFFER AREAS: ARE MULCHED PRIOR TO PLANT INSTALLATION AS DIRECTED IN THE GRADING SPECIFICATIONS.
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 (1) 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. INSTALLING TEMPORARY IRRIGATION

1. GENERAL REQUIREMENTS: CONTRACTOR SHALL PROVIDE AN ABOVE-GROUND TEMPORARY IRRIGATION SYSTEM CAPABLE OF FULL HEAD-TO-HEAD COVERAGE OF ALL PLANTED PROJECT AREAS (ENHANCEMENT PLANTINGS WITHIN EXISTING VEGETATED WETLAND AREAS MAY NOT NEED COVERAGE BY TEMPORARY IRRIGATION SYSTEM, TALASAEA CONSULTANTS SHALL CONFIRM AREAS OF COVERAGE FOR TEMPORARY IRRIGATION SYSTEM). THE TEMPORARY IRRIGATION SYSTEM SHALL EITHER UTILIZE CONTROLLER AND POINT OF CONNECTION (POC) FROM THE SITE IRRIGATION SYSTEM OR SHALL INCLUDE A SEPARATE POC AND CONTROLLER WITH A BACKFLOW PREVENTION DEVICE PER WATER JURISDICTION INSPECTION AND APPROVAL. THE SYSTEM SHALL BE ZONED TO PROVIDE OPTIMAL PRESSURE AND UNIFORMITY OF COVERAGE, AS WELL AS SEPARATION BETWEEN AREAS OF FULL SUN AND SHADE AND FOR SLOPES IN EXCESS OF 5 PERCENT. THE SYSTEM SHALL BE OPERATIONAL FOR A MINIMUM OF THE FIRST TWO GROWING SEASONS AFTER PLANTING (THE FIRST TWO YEARS OF THE PERFORMANCE MONITORING PERIOD), OR LONGER IF REQUIRED TO ENSURE PROPER PLANT ESTABLISHMENT. THE SYSTEM SHALL BE REMOVED UPON FINAL APPROVAL OF THE MITIGATION PROJECT AT THE END OF THE PERFORMANCE MONITORING PERIOD.
2. SYSTEM DESIGN AND MATERIALS: ELECTRONIC VALVES SHALL BE THE SAME MANUFACTURER AS THOSE USED FOR THE SITE IRRIGATION SYSTEM, OR SHALL BE RAIN BIRD PEB SERIES OR EQUAL IF SYSTEM IS NOT CONTIGUOUS WITH THE SITE SYSTEM. VALVES SHALL BE SIZED TO ACCOMMODATE PRESSURE AND ZONE CONSUMPTION REQUIREMENTS OF THE SYSTEM AND SHALL BE INSTALLED BELOW GRADE IN CARSON (OR EQUAL) VALVE BOXES. WIRING SHALL BE INSULATED MULTI-STRAND, TAPED TO THE MAIN AT 6-INCH INTERVALS WITH DUCT TAPE WRAPS. ON-GRADE MAIN AND LATERAL LINES SHALL BE CLASS 200 PVC BELL PIPE WITH SOLVENT WELDED FITTINGS, SECURED IN-PLACE WITH WIRE STAPLES WHERE NECESSARY ON SLOPED AREAS. LINES SHALL BE PLACED 12 INCHES BELOW GRADE IN 4 INCH PCV SLEEVES WHERE VEHICULAR OR MAINTENANCE ACCESS IS NEEDED ACROSS LINES TO THE PROJECT AREA(S). MAXIMUM MAIN LINE SIZE SHALL BE 1½ INCHES AND MAY BE LOOPED BACK TO THE POC TO REDUCE PRESSURE LOSS. LATERAL LINES SHALL BE SIZED IN DECREASING DOWNSTREAM ORDER PER RAIN BIRD DESIGN STANDARDS; THE MINIMUM LATERAL SIZE SHALL BE ¾ INCH. HEADS SHALL BE ROTOR OR IMPACT TYPE INSTALLED 4 FEET ABOVE FINISHED GRADE ON 2-INCH DIAMETER WOOD TREE STAKES. STAKES SHALL BE SECURE IN THE GROUND, EMBEDDED TO A MINIMUM DEPTH OF 24 INCHES. HEADS AND ¾ INCH PVC RISERS SHALL BE SECURED TO STAKES WITH CONSTRICTING HOSE CLAMPS; NO FUNNY PIPE SHALL BE USED. HEADS AND NOZZLES SHALL PROVIDE MATCHED PRECIPITATION RATES FOR EACH ZONE.
3. PROGRAMMING: IRRIGATION SYSTEM SHALL BE PROGRAMMED TO PROVIDE APPROXIMATELY 1/2 INCH OF WATER EVERY THREE DAYS DURING THE DRY SEASON (APPROXIMATELY JUNE 15TH TO OCTOBER 15TH). IRRIGATION AMOUNTS IN ZONES LOCATED IN THE SHADE OR ON STEEP SLOPES MAY BE REDUCED IF APPROVED BY TALASAEA CONSULTANTS OR THE PROJECT ECOLOGIST/BIOLOGIST.
4. WATER AND POWER SUPPLY FOR SYSTEM: THE OWNER SHALL PROVIDE WATER AND ELECTRICITY FOR THE SYSTEM.
5. AS-BUILT DRAWING: A CHART DESCRIBING THE LOCATION OF ALL INSTALLED OR OPEN ZONES AND CORRESPONDING CONTROLLER NUMBERS SHALL BE PROVIDED BY THE CONTRACTOR AND PLACED INSIDE THE CONTROLLER AND GIVEN TO THE OWNER'S REPRESENTATIVE.
6. WARRANTY: THE IRRIGATION SYSTEM SHALL INCLUDE A ONE-YEAR WARRANTY AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FROM THE DATE OF FINAL PROJECT ACCEPTANCE. THE WARRANTY SHALL INCLUDE SYSTEM ACTIVATION AND WINTERIZATION FOR THE FIRST YEAR AND IMMEDIATE REPAIR OF THE SYSTEM IF IT IS OBSERVED TO BE MALFUNCTIONING.

I. CRITICAL AREAS FENCE AND SIGNS: INSTALL CRITICAL AREAS FENCE AND CRITICAL AREAS SIGNS WHERE SHOWN ON PLANS PER INSTALLATION DETAILS PROVIDED ON PLANS.

J. RESTORE EXISTING NATURAL OR LANDSCAPED AREAS:

1. 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.

K. FINAL INSPECTION AND APPROVAL: 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.

L. AS-BUILT PLAN: 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.

C. IRRIGATION:

1. SYSTEM MAINTENANCE AND REPAIR: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACTIVATING, WINTERIZING, MAINTAINING, AND CONTINUALLY VERIFYING THE ADEQUATE OPERATION OF THE TEMPORARY IRRIGATION SYSTEM FOR THE FIRST GROWING SEASON FOLLOWING INSTALLATION. SYSTEM FUNCTION (INCLUDING ELECTRONIC VALVE AND CONTROLLER FUNCTION) SHALL BE INSPECTED FOR OPERATION AND FULL COVERAGE OF ALL PLANTED AREAS DURING EACH MAINTENANCE VISIT. THE SYSTEM SHALL BE REPAIRED IMMEDIATELY IF FOUND TO BE DAMAGED OR MALFUNCTIONING. SYSTEM SHALL BE PROGRAMMED AND MAINTAINED TO PROVIDE APPROXIMATELY ½ INCH OF WATER EVERY THREE DAYS.

D. STAKE AND TIE REMOVAL: 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. EROSION AND DRAINAGE: CONTRACTOR SHALL CORRECT EROSION AND DRAINAGE PROBLEMS AS REQUIRED.

F. IRRIGATION SYSTEM REMOVAL: CONTRACTOR SHALL REMOVE IRRIGATION SYSTEM APPROXIMATELY 2 YEARS AFTER PLANTING, OR AS APPROVED BY TALASAEA CONSULTANTS.

G. FINAL MAINTENANCE INSPECTION AND APPROVAL: UPON COMPLETION OF THE ONE-YEAR MAINTENANCE PERIOD, AN INSPECTION BY TALASAEA CONSULTANTS SHALL BE CONDUCTED TO CONFIRM THAT THE PROJECT AREA WAS PROPERLY MAINTAINED. IF ITEMS ARE TO BE CORRECTED, A PUNCH LIST SHALL BE PREPARED AND SUBMITTED TO THE CONTRACTOR FOR CORRECTION. UPON CORRECTION OF THE PUNCH LIST ITEMS, THE PROJECT SHALL BE REVIEWED BY TALASAEA CONSULTANTS FOR FINAL CLOSEOUT OF PLAN IMPLEMENTATION.

H. 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 PERIODS OF HOT, DRY WEATHER TO PREVENT PLANT MORTALITY.

Know what's below. Call before you dig.

NOTES

1. SURVEY PROVIDED BY AXIS SURVEY & MAPPING, 13005 NE 126TH PL., KIRKLAND, WA 98034; (425) 823-5700.
2. SITE PLAN PROVIDED BY CPH CONSULTANTS, 11431 WILLOWS ROAD NE SUITE 120, REDMOND, WA 98052; (425) 285-2390.
3. SOURCE DRAWINGS HAVE BEEN MODIFIED BY TALASAEA CONSULTANTS FOR VISUAL ENHANCEMENT.
4. THIS PLAN IS AN ATTACHMENT TO THE CRITICAL AREAS REPORT AND FINAL MITIGATION PLAN PREPARED BY TALASAEA CONSULTANTS IN MAY 2015.

APPROVED FOR CONSTRUCTION

BY: ____________________

CITY OF AUBURN DEPARTMENT OF PLANNING

DATE: ____________________

TALASAEA CONSULTANTS, INC.
Resource & Environmental Planning
15020 Bear Creek Road Northeast - Woodinville, Washington 98077
Bus (425) 861-7550 - Fax (425) 861-7549

DETAILED CRITICAL AREAS MITIGATION PLAN
PLANTING SPECIFICATIONS
PROMENADE APARTMENTS
AUBURN, WASHINGTON

Revisions	Date	By
SEPA SUBMITTAL	10/24/14	AO
SEPA COMMENTS	5/12/15	AO/ABS

Date 1-31-14
Scale NTS
Designed AO
Drawn ABS
Checked AO
Approved BS

Project #1242

Sheet # W3.2

Z:\DRAWING\1200-1299\TAL1242\Plans\TAL-1242 WP(5-12-2015).dwg

© Copyright - Talasaea Consultants, INC.