CITY OF KIRKLAND
123 FIFTH AVENUE ● KIRKLAND, WASHINGTON 98033-6189 ● (425) 587-3000

DEPARTMENT OF PUBLIC WORKS
MEMORANDUM

To: Tony Leavitt, Planner

From: Thang Nguyen, Transportation Engineer

Date: September 8, 2011

Subject: ICS Redevelopment TIA review, ZON11-00023

The memo summarizes public works staff review of the proposed expansion of the International Community School.

Project Description

The applicant is proposing to replace the existing International Community School (ICS) and Community School (CES) with a larger building to add 6th graders to the curriculum. The existing building has 46,000 square feet and the proposed building will be 65,000 square feet. The current ICS student enrollment is 380 students with 21 full time staff. The current CES student enrollment is 69 students with four full-time and one part-time staff. The ICS School would expand to a maximum of 445 students with 23 full time staff. The 6th graders will be added to the ICS school curriculum. The CES would remain the same. The proposed expansion would increase the total student population from 449 to 515 students. The completion of the school is anticipated to be at the beginning of 2014.

There are 131 parking spaces on site currently and the proposed project will provide 145 parking spaces.

The existing school has two one-way driveways off NE 65th Street; one entering and one exiting. The new school would consolidate the two driveways into one with full entering and exiting access. In addition, the new site plan proposes two new circular one-way driveways off 111th Avenue NE with the entrance driveway at the south and exit driveway to the north. The driveways off 111th Avenue NE would serve buses and general traffic.

Trip Generation

A trip generation study was completed for the existing school to determine AM, PM and daily trip generation rates for the school. The AM peak coincides with the AM commute peak period while the school PM peak is outside of the PM commuter peak period. A summary of the trip generation rates and calculated trip generation for the proposed project is summarized in Table 1 below. The proposed school is forecasted to generate 323 AM peak hour, 185 PM peak hour and 1,120 daily gross total trips. This is an increase of 55 AM peak hour, 33 PM peak hour and 170 daily net new trips from the addition of 65 new students.

Traffic Concurrency
All developments subject to SEPA review are required to pass traffic concurrency. Traffic concurrency is based on project generated traffic impact during the PM peak hour between 4 and 6 PM. This project passed traffic concurrency.

Traffic Impacts
Project traffic distribution and assignment was based on the existing school traffic counts.

The City 's Traffic Impact Analysis Guidelines (TIAG) requires a Level of Service (LOS) Analysis using the Highway Capacity Manual Operational Method for intersections that have proportionate share greater than 1%. The City requires developers to mitigate traffic impacts when one of the following two conditions is met:

1. An intersection level of service is at E and the project traffic is more than 15% of the intersection traffic volumes.
2. An intersection level of service is at F and the project traffic is more than 5% of the intersection traffic volumes.

All off-site intersections have less than 1% proportional impacts. Therefore, no off-site intersections were required to be analyzed for level of service and thus no off-site specific SEPA traffic mitigation is warranted.

In addition the City requested the applicant traffic engineer to analyze two conditions based on comments from the public:

1. Project impact with the existing school traffic distribution pattern
2. Project impact with school traffic redistributed onto 112th Avenue NE

Based on traffic counts, the adjacent streets are more impacted by the school during the AM peak hour when there is a combination of school and commuter traffic as compared to the school PM peak hour when there is not a mixed of commuter and school traffic since school PM peak is outside of the commuter PM peak. Table 1 illustrates the two-way traffic volumes differences between the two conditions on nearby streets that provide access to the school.

Table 1. AM Peak Hour Traffic

Street		**Two-way Traffic**		
	Capacity per lane direction	***Future without Project***	***Future with Project Existing Pattern (condition 1)***	***Future with Project Redistribute to 112th Ave NE (condition 2)***
110th Ave NE	600 vph	87 vph	90 vph	37 vph
111th Ave NE	600 vph	81 vph	103 vph	31 vph
112th Ave NE	600 vph	143 vph	237 vph	395 vph

vph= vehicle per hour

In both conditions, the traffic volumes increase is well within the capacity of the street. For both conditions, all the driveways are calculated to operate at LOS-C or better. LOS-C is an acceptable level of service and in accordance to the City Traffic Impact Analysis Guidelines under SEPA review no specific mitigation is warranted. Condition 2 represents the worst case scenario for112th Avenue NE, however, it is unlikely that all school traffic will consolidate to use only 112th Avenue NE. However, the school should monitor the traffic on 112th Avenue NE within a year after completion of the school and if the school traffic patterns redistribute to significantly impact 112th Avenue NE with significant queues and traffic disruption then the applicant shall provide signage and notify parents and students to also use 111th Avenue NE and 110th Avenue NE via letter notification with a map showing routing to the school.

The City supports consolidating the driveways off NE 65th Street. It is the City's preference to consolidate driveways when possible to minimize traffic and pedestrian conflicts. By combining the current two driveways off NE 65th Street into one, traffic and pedestrians conflicts are minimized and two traffic conflict points are minimized to one. Furthermore, it provides a more efficient operation of the street system.

School Bus Traffic

There are two school buses that drop off students in the morning and three picking up students in the afternoon. Currently school buses enter the school from NE 65th Street via NE 68th Street, 110th Avenue NE and 112th Avenue NE.

With the project, school buses will enter the school via 111th Avenue NE instead of NE 65th Street to a 2nd parking lot. If buses are routed to only use 111th Avenue NE, then there will be less impact to NE 65th Street and 112th Avenue NE.

Driveway safety

Safe sight distances were analyzed for all the proposed driveways and it was found that all would meet the City's requirements. The applicant shall not install signs, monuments or fixed object that would obstruct safe sight distance at the driveways.

Parking

The applicant is proposing to provide 145 on-site parking stalls, an increase of 14 stalls compared to existing condition. Based on the parking demand study, the demand is 0.20 parking spaces per student. With the increase population of 515 students, the calculated parking demand is approximately 103 spaces on an average day. The proposed parking supply would accommodate the anticipated parking demand. To assure that in the future parking is not reduced that would have a negative impact the expansion shall provide a minimum of 128 parking spaces. This assumes the demand is at the 85%-tile. This would accommodate any fluctuation for daily and seasonal factors. The proposed parking supply is adequate for the expansion.

The school has approximately four special events per year. The school district do not anticipated an increase in special events with the inclusion of 6th graders. The City have not received complaints about significant parking impacts due to the special events in the past, thus the City does not anticipated significant impacts due to the proposed project. However, the school should make the best effort to encourage carpooling to special events to minimize parking spilling out on to the street. Furthermore, the

school should continue its existing parking management efforts with communication to parents and students to exercise courtesy when parking on-street.

Road Impact Fees

Per City's Ordinance 3685, Road Impact Fees per Impact Fee Schedule in effect January 1, 2009 are required for all developments. Road impact fees are used to construct transportation improvements throughout the City. The applicant has requested an independent fee calculation for road impact fee and wish to calculate road impact fee based on the school actual trip generation. The proposed project is calculated to generate 2 new PM peak hour trips during the 4PM to 6PM peak period which road impact fee is based. The fee per trip rate is $3,787. As indicated in the traffic report, ***"ICS and CS are choice schools with students from the entire school district. Students coming from farther distances that are more scattered are also more likely to drive or be driven to and from school..."*** thus, the average trip length for a typical school does not apply. The road impact fee for the proposed expansion is calculated to be $7,574 (2 trips x $3,787 per trip). Final road impact fee will be determined at time of building permit issuance.

Staff Recommendations

Public Works Staff concludes that the proposed project will not create significant traffic impacts that would require specific off-site traffic mitigation. Staff recommends approval of the proposed project with the following conditions:

- Pay Road Impact Fee of $7,574.
- Provide a minimum of 128 parking spaces on-site.
- If there is a pattern of traffic accidents with buses for 3 consecutive years then re-route bus traffic to the school via 111th Avenue NE or 110th Avenue NE where the street is wider than 112th Avenue NE.
- Make traffic counts on 112th Avenue NE within a year after the completion of the expansion and if significant traffic shifts to 112th Avenue NE and southbound queues are 300 feet or more continuously for 10 minutes at the intersection of 112th Avenue NE/NE 65th Street then provide signage and notify parents and students to also use 110th Avenue NE and 111th Avenue NE via letter notification with a map illustrating the route to the school.
- Provide at least 92 parking stalls on-site during construction of the school for school staff and student parking.

If you have any questions, call me at (425) 587-3869.

cc: Advantage

CITY OF KIRKLAND
Planning and Community Development Department
123 Fifth Avenue, Kirkland, WA 98033 425.587.3225
www.kirklandwa.gov

MEMORANDUM

To: Houghton Community Council
Paul Stewart, AICP, Deputy Planning Director

From: Jon Regala, Senior Planner

Date: July 13, 2011

Subject: 2010 MISCELLANEOUS CODE AMENDMENT – SCHOOLS ON COLLECTORS/ARTERIALS

On January 4, 2011, the City Council adopted O-4286 approving the 2010 Miscellaneous Code Amendments. On January 24, 2011, the Houghton Community Council (HCC) subsequently adopted Resolution 2011-2 finalizing the approval of the amendments. The HCC recently inquired about the code change regarding schools and the requirement that they be located on either an arterial or collector street. The 2010 Miscellaneous Code Amendments changed the code so that this requirement no longer applied to existing school sites. The following is an excerpt regarding this topic from the Planning Commission public hearing staff memo dated October 28, 2010:

K. RS and RSA Zones: Schools on Collectors and Arterials

This item was also not addressed at previous study sessions but should be addressed with these amendments. Kirkland's RS, RSA, and RSX zones contain the following special regulation requiring schools and daycare centers to be located on properties served by a collector or arterial street.

There is one school in Kirkland and one school in the annexation area that are not located on collector or arterial streets. The International Children's School/Community Elementary School (ICS) in the Central Houghton Neighborhood is located in the RS 8.5 zone and Frost Elementary School in the Kingsgate Neighborhood is located in the RSA 6 zone. Lake Washington School District is in the process of planning a school modernization project to rebuild the ICS, requiring a Process IIB Master Plan within Houghton Community Council's jurisdiction. The District recently rebuilt Frost Elementary under the County's jurisdiction (the County does not require land use permits for elementary schools and does not have a similar collector/arterial requirement).

Staff recommends eliminating the requirement for existing school sites (see Attachment 1, Amendment #13). The likely intent of the regulation was to establish a standard for anyone looking for a site to build a new school or daycare center. It is not reasonable to expect that an existing school would or could be moved to a new property on a collector or arterial.

The amendment was first introduced at the Planning Commission Public Hearing on November 4, 2010 along with another amendment regarding annexation area vesting provisions. Staff presented the new items as part of the powerpoint presentation. Rick Whitney and John Kappler were attendance at the public hearing. Since the HCC did not hold a public hearing on the miscellaneous code amendments, the Planning Commission public hearing would have been the only time this amendment was presented to HCC members.

Urban Forestry Services, Inc.

Arboricultural Consulting | Wholesale Tree Nursery

Title: International Community School
11133 65th NE Street
Kirkland, Washington
Summary of Tree Inventory, Evaluation and Protection

Prepared For: Lake Washington School District
Attn: Mr. Mike Finnegan
Deputy Program Manager
Support Services Center
15212 NE 95th Street
Redmond, WA 98052

Prepared By: Urban Forestry Services, Inc.
James M. Barborinas
ASCA Registered Consulting Arborist #356
ISA Certified Arborist #PN-0135
Certified Tree Risk Assessor #PNW-0327

Date: July 14, 2011

CONTENTS

ENCLOSURES

Summary

This is a summary of the tree inventory, evaluation and protection of 70 significant trees on the site of the International Community School, located at 11133 NE 65th Street in Kirkland, Washington. This project is being executed in 2 Phases, therefore 2 separate site plans are considered that illustrate the 2 Phases.

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The information here and attached is supplemental to the Tree Preservation Plan Phase I and Phase II Site Plans and Tree Evaluation Matrix which includes:

- **Illustration of the retained and removed trees on the site as required by the city.**
- **The Clearing Limit lines for the 2 Phases.**
- **All documented tree information taken during the evaluation.**
- **The General Tree Protection Guidelines.**
- **Hazard Tree Matrix Sheet for tree #38 (Submitted earlier)**

Tree Preservation Summary Totals

- **A total of 70 trees were surveyed onsite.**
- **Thirty-seven (37) significant trees are proposed for retention.**
- **Thirty-three (33) trees are proposed for removal.**
- **In Phase I, 4 of 29 trees will be retained.**
- **In Phase II, 33 of 41 trees will be retained.**
- **This is a retention of 53% of the significant trees on the site.**

In summary, and in our opinion, most of the best trees on this site are being retained. The majority of the trees being retained are evergreens along the southern edge of the site and for the most part are retained as a long continuous tree canopy.

Method of Evaluation

The methodology used to evaluate each tree is described in "Evaluation of Hazard Trees in Urban Areas", Second Edition by Matheny & Clark, 1994. The condition of each tree was determined based on visual inspection of the above-ground portions of the trees. Of particular concern was trunk soundness, tree structure, bud fullness and color, twig length, crown ratio, density of leaves, evidence of disease-causing bacteria, fungi or virus, deadwood, and dead or broken hanging limbs. Invasive procedures, such as increment borer or Resistograph, were not considered necessary to confirm soundness. While no one can predict with absolute certainty which trees will fail and which trees will remain healthy, one can by methodical process, predict those most likely to fail by the conditions observed and take appropriate action to reduce or eliminate the potential hazard.

Tree Protection

A list of '**General Tree Protection Guidelines'** is on both of the Tree Preservation Plans and is attached. These Guidelines should be placed on the Clearing and Grading Construction Documents. Their recommendations should be followed, especially the installation of the Tree Protection Fences before any site clearing begins.

An Explanation of the **Critical Root Zone** (**CRZ**) is also attached. This is provided to help illustrate the optimum tree protection area and the consequences of increasing the disturbance within the CRZ.

The Consulting Arborist shall meet with the Project Manager to confirm the trees that will be retained and the clearing limits near them. The Tree Protection Fence location shall be approved and staked. Changes to tree retention or confirmation of clearing limits shall be discussed at that time. In some cases or location, the tree Protection fence will have to be removed temporarily to allow demolition of required work. However, immediately after that work is completed, the tree protection fence shall be returned to its original location or that approved by the Consulting Arborist.

Continue to follow the balance of the **General Tree Protection Guidelines** attached. These guidelines are critical whenever any work is proposed within the CRZ of any retained tree. Whenever this occurs, the ISA Certified Arborist shall be notified. He or she shall review the proposed work and will propose construction or protection methods that will maintain the longterm viability of the tree.

Call Urban Forestry Services, Inc at 360-428-5810 for any questions.

Urban Forestry Services, Inc.
Arboricultural Consulting | Wholesale Tree Nursery

General Tree Protection Guidelines

1. These Guidelines pertain to any disturbance, use or activity within the Critical Root Zone of any retained tree on this project. See attached **Critical Root Zone Explanation**. The owner's arborist and general contractor shall meet onsite before any site work begins to discuss and agree on the methods used to protect the retained trees during construction.

2. No soil disturbance shall take place before tree protection fences are installed. All evaluated trees to be retained within these areas are clearly illustrated on the Site Plan. The owner's arborist and contractor shall confirm on site which trees are to be removed and those to be retained. Directional felling of trees to be removed will be completed with great care not to damage retained trees.

3. The **Tree Protection Site Plan** shows the recommended location of the Tree Protection Fence (TPF). Immediately after clearing and grading stakes are set in the field, the owner's arborist, during review and discussion with the contractor will make a final determination on the tree protection requirements depending on construction limits and impact on major roots. The arborist may adjust clearing limits in the field so that, in his/her opinion, tree roots are protected while necessary work can proceed.

4. The Tree Protection Fence (TPF) shall be installed along the clearing limits, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to 1-foot radius for every 1-inch diameter of tree. For example, a 10-inch diameter tree has a CRZ of 10-foot radius. Work within that area may be limited to hand work. The Tree Protection Fence (TPF) shall be constructed with a steel posts driven into the ground with 6-ft. chain link fence attached. The arborist upon consultation with the contractor shall determine the placement of the fence and the extent and method of clearing near preserved trees. Additional follow-up determinations may be required later on in the project. See attached **Critical Root Zone Explanation**.

5. Where the CRZ includes an area covered by hardscape, the TPF can be placed along the edge of the hardscape if and until it is removed. After removal, the available CRZ should be backfilled with soil up to 6 inches deep and protected with the TPF.

6. No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the TPF.

7. Tree protection signs shall be attached to the fence only and shall be shown as required on the Site Plan. They should read "Protect Critical Root Zone (CRZ) of trees to be retained. No

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soil disturbance, parking, storage, dumping, or burning of materials is allowed beyond the Tree Protection Fence. Work within this area shall be reviewed with and approved by the owner's arborist. Call 360-770-9921 for Questions."

8. Where vehicular access is required within the CRZ of any preserved tree that is not protected with hardscape, the soil shall be protected with 18" of woodchips and/or plywood or metal sheets to protect from soil compaction and damage to roots of retained trees.

9. The Tree Protection Fence will not be moved without authorization by the owner's arborist or City. The Fence shall be left up for the duration of the project.

10. Great care will be exercised when landscaping within the CRZ of any tree. Roots of preserved trees and other vegetation shall not be damaged by planting or irrigation lines. The owner's arborist shall review the Landscape Plan and approve those activities within the CRZ of retained trees

11. The owner's arborist will determine to what extent backfilling is allowed within the CRZ of a preserved tree. Only sandy, gravelly pit run is recommended for backfilling. Grade cuts are usually more detrimental than grade filling within the CRZ.

12. Trees recommended for maintenance and approved by the owner, shall be pruned for deadwood, low hanging limbs, and proper balance, as recommended for safety, clearance or aesthetics. An International Society of Arboriculture Certified Arborist is recommended to perform the pruning. ANSI A300 American Standards for Pruning shall be used. Limbs of retained trees within 10 feet or more, of any power line depending on power line voltage, may only be pruned by a Utility Certified Arborist. This pruning must be coordinated with the local power company or a private company with this certification.

13. Required work may result in the cutting of roots of retained trees. Severed roots of retained trees shall be cut off cleanly with a sharp saw or pruning shears. No pruning paint on trunk or root wounds is recommended. Severed roots shall be covered immediately after final pruning with moist soil or covered with mulch until covered with soil. Excavation equipment operators shall take extreme care not to hook roots and pull them back towards retained trees. This work shall be under the direct supervision of the owner's arborist.

14. If clearing is performed during the summer, supplemental watering and/or mulching over the root systems of preserved trees may be required by the owner's arborist. He or she should be notified in this event. Supplemental watering and mulching over the root systems of root impacted or stressed trees are strongly recommended to compensate for root loss and initiate new root growth. Long periods of slow drip irrigation will be most effective. Water once per week and check soils for at least 12 inches infiltration. This work shall be under the direct supervision of the owner's arborist.

15. Additional tree protection recommendations may be required as needed.

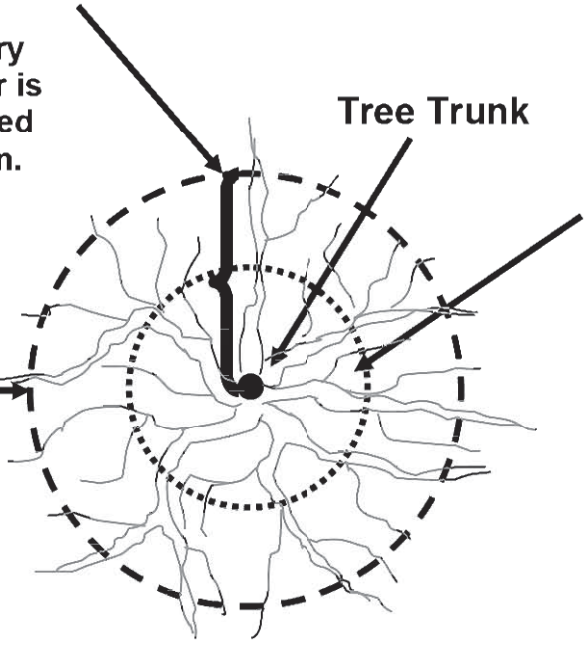
16. The owner's arborist may be required to monitor work when disturbance occurs near retained trees and shall make periodic site visits to report to the owner and city if tree protection guidelines are being followed.

17. The owner's arborist shall make a final site visit to report on retained tree condition following completed work and shall report to the city to release the bond for the retained trees.

Critical Root Zone (CRZ) =
12" Radius for every Tree inch diameter is generally considered optimum protection.

Perimeter Critical Root Zone (PCRZ) = the outer half of the CRZ

The greater the disturbance allowed in this area, the greater Post Care is required.



Interior Critical Root Zone (ICRZ) = the inner half of the CRZ
Protecting only this area would cause significant impact to the tree, potentially life threatening, and would require maximum Post Care Treatment to retain the tree. See Post Care Treatment below.

The Critical Root Zone (CRZ) of a tree is established on the basis of the trunk diameter. The CRZ is a circular area which has a radius of 12 inches to every inch diameter of trunk measured at 4.5 feet above grade. Root systems will vary both in depth and spread depending on size of tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire area should result in no adverse impact to the tree.

The above CRZ drawing has been further differentiated into the 'Perimeter' (PCRZ) and 'Interior' (ICRZ) to help define potential impact and required Post Care. Generally, the full PCRZ is considered the optimum amount of root protection for a tree. As one encroaches into the "Perimeter CRZ, but not into the "Interior CRZ" the greater Post Care the tree would require to remain alive and stable. The 'Interior CRZ is half the radius of the full PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline.

The absolute maximum disturbance allowed should leave the 'Interior' CRZ undisturbed if the tree is to have any chance of survival. This 'Interior' CRZ would approximately equal the size of a rootball needed to transplant this tree which in turn would require extensive **Post Care** and possibly guying. **Post Care Treatment** includes but may not be limited to; regular irrigation, misting, root treatment with special root hormones, mulching, guying and monitoring for several years.

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, WA 98273

Title: **Explanation of Critical Root Zone (CRZ)**
Source: Urban Forestry Services, Inc
Jim Barborinas, ISA Certified Arborist PN-0135
ASCA Registered Consulting Arborist #356,
Certified Tree Risk Assessor #PNW-0327

Date: 2011 Not to Scale

General Tree Protection Guidelines

International Community School Project

Project Summary

- A total of 70 Trees were surveyed onsite
- Thirty-Thirty-seven (37) significant trees are proposed for retention
- Thirty-three (33) trees are proposed for removal.
- In Phase 1, 4 of 29 trees will be retained
- In Phase 2. 33 of 41 trees will be retained.
- This is a retention of 53% of the significant trees. on the site.

1. These Guidelines pertain to any disturbance, use or activity within the Critical Root Zone of any retained tree on this project. See attached Critical Root Zone Explanation. The owner's arborist and general contractor shall meet onsite before any site work begins to discuss and agree on the methods used to protect the retained trees during construction.

2. No soil disturbance shall take place before tree protection fences are installed. All evaluated trees to be retained within these areas are clearly illustrated on the Site Plan. The owner's arborist and contractor shall confirm on site which trees are to be removed and those to be retained. Directional felling of trees to be removed will be completed with great care not to damage retained trees.

3. The Tree Preservation Plan shows the recommended location of the Tree Protection Fence (TPF) Immediately after clearing and grading stakes are set in the field, the owner's arborist, during review and discussion with the contractor will make a final determination on the tree protection requirements depending on construction limits and impact on major roots. The arborist may adjust clearing limits in the field so that, in his/her opinion, tree roots are protected while necessary work can proceed.

4. The Tree Protection Fence (TPF) shall be installed along the clearing limits, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to 1-foot radius for every 1-inch diameter of tree. For example, a 10-inch diameter tree has a CRZ of 10-foot radius. Work within that area may be limited to hand work. The Tree Protection Fence (TPF) shall be constructed with 4 steel posts driven into the ground with 6-ft chain link fence attached. The arborist upon consultation with the contractor shall determine the placement of the fence and the extent and method of clearing near preserved trees. Additional follow-up determinations may be required later on in the project. See attached Critical Root Zone Explanation.

5. Where the CRZ includes an area covered by hardscape, the TPF can be placed along the edge of the hardscape if and until it is removed. After removal, the available CRZ should be backfilled with soil up to 6 inches deep and protected with the TPF.

6. No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the TPF.

7. Tree protection signs shall be attached to the fence only and shall be shown as required on the Site Plan. They should read "Protect Critical Root Zone (CRZ) of trees to be retained. No soil disturbance, parking, storage, dumping, or burning of materials is allowed beyond the Tree Protection Fence. Work within this area shall be reviewed with and approved by the owner's arborist. Call 360-770-9921 for Questions."

8. Where vehicular access is required within the CRZ of any preserved tree that is not protected with hardscape, the soil shall be protected with 18" of woodchips and/or plywood or metal sheets to protect from soil compaction and damage to roots of retained trees.

9. The Tree Protection Fence will not be moved without authorization by the owner's arborist or City. The Fence shall be left up for the duration of the project.

10. Great care will be exercised when landscaping within the CRZ of any tree. Roots of preserved trees and other vegetation shall not be damaged by planting or irrigation lines. The owner's arborist shall review the Landscape Plan and approve those activities within the CRZ of retained trees.

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14. If clearing is performed during the summer, supplemental watering and/or mulching over the root systems of preserved trees may be required by the owner's arborist. He or she should be notified in this event. Supplemental watering and mulching over the root systems of root impacted or stressed trees are strongly recommended to compensate for root loss and initiate new root growth. Long periods of slow drip irrigation will be most effective. Water once per week and check soils for at least 12 inches infiltration. This work shall be under the direct supervision of the owner's arborist.

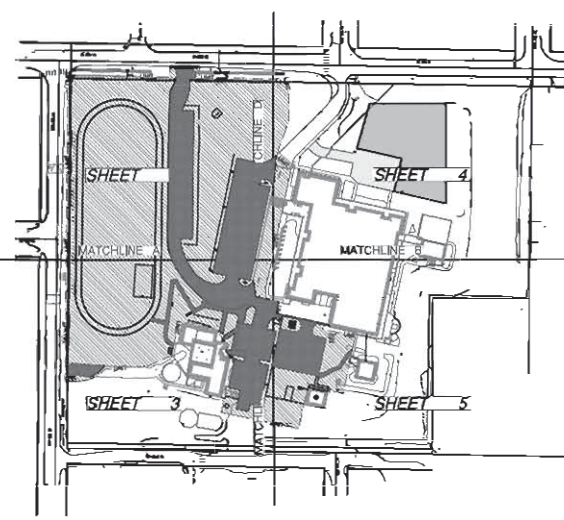
15. Additional tree protection recommendations may be required as needed.

16. The owner's arborist may be required to monitor work when disturbance occurs near retained trees and shall make periodic site visits to report to the owner and city if tree protection guidelines are being followed.

17. The owner's arborist shall make a final visit to report on retained tree condition following completed work and shall report to the city to release the bond for the retained trees.

GRAPHIC SCALE

(IN FEET)
1 inch = 100 feet



International Community School Tree Evaluation

70 significant trees have been evaluated in the field on the International Community School site. This plan shows the tree tag number and Preservation Value Symbol next to each tree. The Preservation Value rating is based on information documented for each tree available on an Excel file. Information available includes Tree & Survey number, common & scientific name, diameter, vigor, structure, risk of failure, maintenance recommendation, preservation value and comments.

This project is being executed in 2 phases; therefore 2 separate Tree Preservation Plans are provided that illustrate the 2 Phases.

Preservation Value Symbol Explanation

- Special, unique species, specimen or form. Save
- High, good quality character tree. Save if possible.
- Moderate, common species, fair condition, may need special attention to preserve
- Low, poor specimen or species, high maintenance or some caution if retained.
- Hazard or dead, tree is dead or in very poor condition and should be removed

X Denotes remove tree

Denotes CRZ (Critical Root Zone)

Denotes Tree Protection Fence

—LIMITS— Denotes Clearing Limits

Genus Species Abbreviations are:

Code	Scientific name	Common name
AcPl =	Acer platanoides	Norway Maple
AcRu =	Acer rubrum	Red Maple
BePe =	Betula pendula	European White Birch
BePe =	Betula pendula 'Youngii'	Young's Weeping Birch
CeAt =	Cedrus atlantica	Atlas Cedar
CeDe =	Cedrus deodara	Deodara Cedar
CoCo =	Corylus cornuta	Western Hazelnut
CrPh =	Crataegus phaenopyrum	Washington Hawthorn
FrPe =	Fraxinus pennsylvanica	Green Ash
PiCo =	Pinus contorta var. latifolia	Lodgepole Pine
PiNi =	Pinus nigra	Austrian Pine
PiPu =	Picea pungens	Colorado Blue Spruce
PoTr =	Populus trichocarpa,	Black Cottonwood
PrAv =	Prunus avium,	Mazzard Cherry
PrCe =	Prunus cerasifera cv.,	Purple Flowering Plum
PrSe =	Prunus serrulata 'Shirofugen'	Shirofugen
PrSp =	Prunus sp.	Flowering Plum
PrYe =	Prunus x yedoensis 'Akebono'	Akebono Cherry
PsMe =	Pseudotsuga menziesii	Douglas Fir
QuPa =	Quercus palustris	Pin Oak
QuRu =	Quercus rubra	Red Oak
SaBa =	Salix babylonica	Weeping Willow
ThPl =	Thuja plicata	Western Red Cedar

The Critical Root Zone (CRZ) of a tree is established on the basis of the trunk diameter. The CRZ is a circular area which has a radius of 12 inches to every inch diameter of trunk, measured at 4.5 feet above the grade. Root systems will vary both in depth and spread depending on size of the tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire area should result in no adverse impact to the tree.

This CRZ drawing has been further differentiated into the 'Perimeter' (PCRZ) and 'Interior' (ICRZ) to help define potential impact and required Post Care. Generally, the full PCRZ is considered the optimum amount of root protection for a tree. As one encroaches into the 'Perimeter' CRZ, but not into the 'Interior' CRZ the greater Post Care the tree would require to remain alive and stable. The 'Interior' CRZ is half the radius of the Full PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline.

The absolute maximum disturbance allowed should leave the 'Interior' CRZ undisturbed if the tree is to have any chance of survival. The 'Interior' CRZ would approximately equal the size of a rootball needed to transplant this tree which in turn would require extensive Post Care and possibly guying. Post Care Treatment includes but may not be limited to regular irrigation, misting, root treatment with special root hormones, mulching, guying and monitoring for several years.

CRZ EXPLANATION
NOT TO SCALE

Urban Forestry Services, Inc.

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, WA 98273
(360)428-6810/FAX(360)428-1822

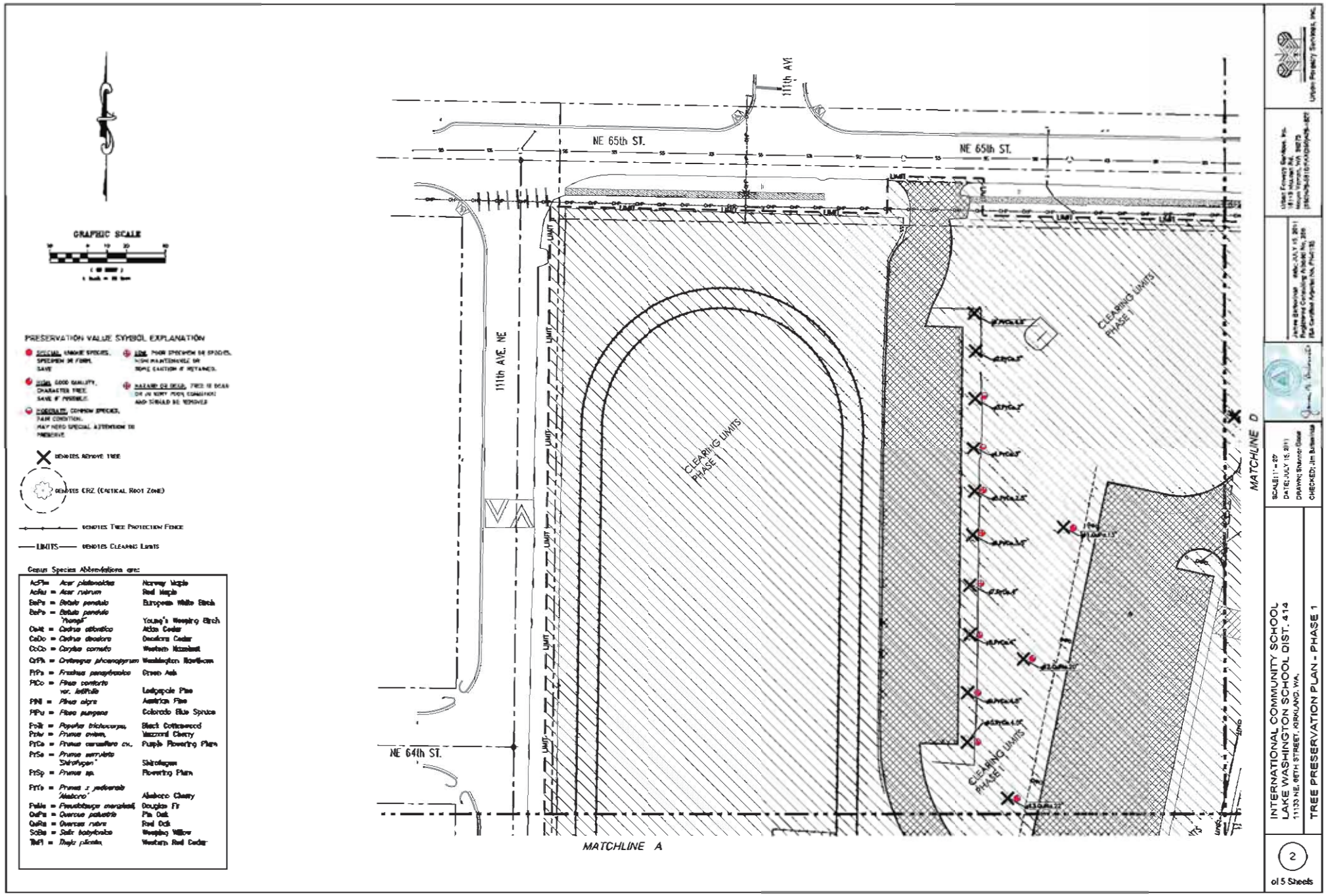
James Barbelinas date: JULY 15, 2011
Registered Consulting Arborist No. 359
ISA Certified Arborist No. PN-0136

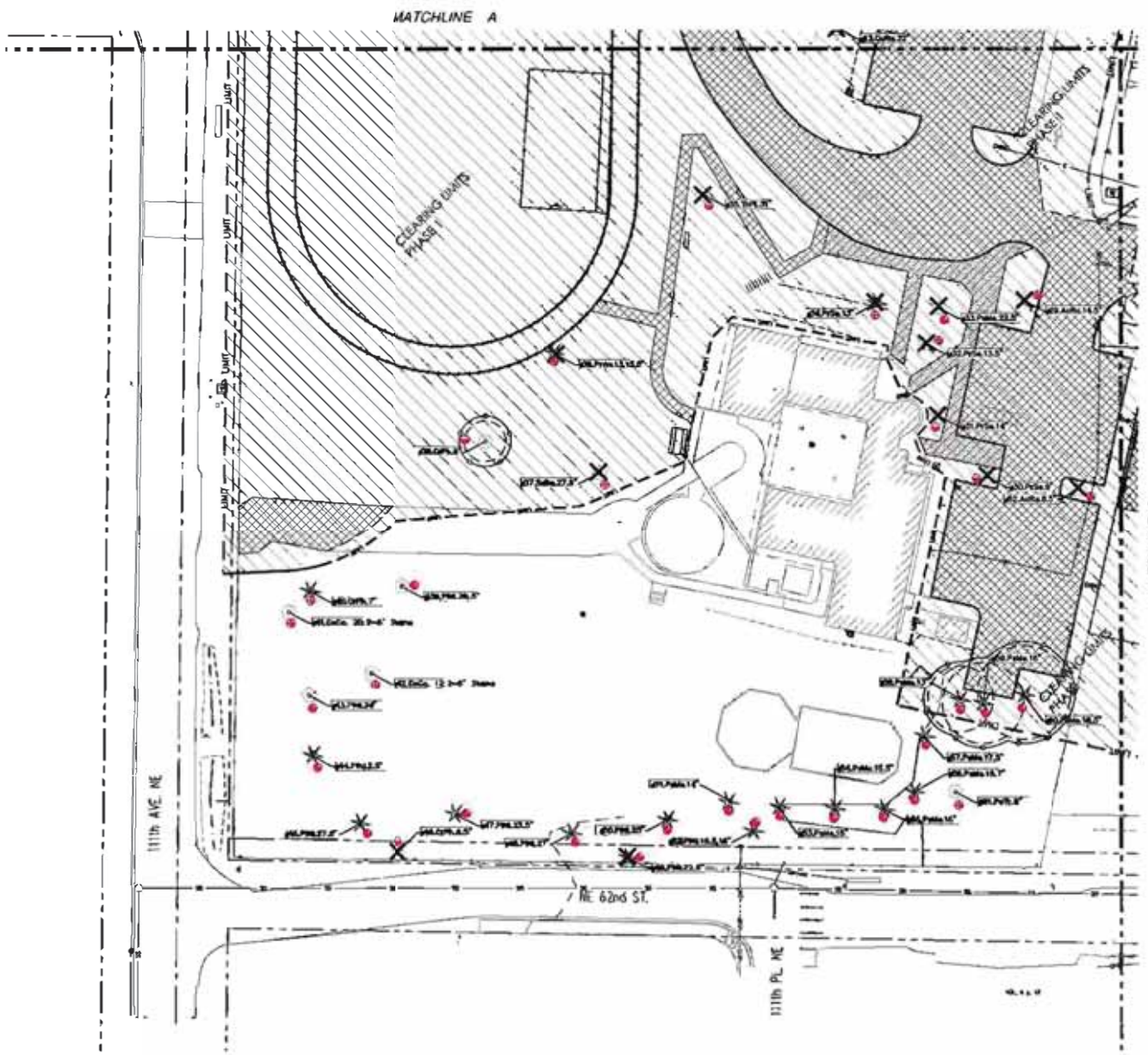
SCALE: 1" = 100'
DATE: JULY 15, 2011
DRAWN: Shannon Good
CHECKED: Jim Barbelinas

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 65TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 1

1
of 5 Sheets


GRAPHIC SCALE
PRESERVATION VALUE SYMBOL EXPLANATION
SIGNIFICANT, UNUSUAL SPECIES, SPECIMEN OR FORM. SAVE
GOOD, GOOD QUALITY, CHARACTER TREE. SAVE IF POSSIBLE.
COMMON, COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
POOR, POOR SPECIMEN OR SPECIES, NOT MAINTENANCE OR REMOVE CAUTION IF RETAINED.
HAZARD OR DEAD, TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED
DENOTES REMOVE TREE
DENOTES CRZ (CRITICAL ROOT ZONE)
DENOTES TREE PROTECTION FENCE
—LIMITS— DENOTES CLEARING LIMITS
Genus Species Abbreviations are:
AcPla = Acer platanoides Norway Maple
AcRu = Acer rubrum Red Maple
BePe = Betula pendula European White Birch
BePe = Betula pendula 'Youngii' Young's Weeping Birch
CeAt = Cedrus atlantica Atlas Cedar
CeDo = Cedrus deodora Deodora Cedar
CoCo = Cornus cornuta Western Hazelnut
CrPh = Crataegus phaenopyrum Washington Hawthorn
FrPe = Fraxinus pennsylvanica Green Ash
PiCo = Pinus contorta var. latifolia Lodgepole Pine
PiNi = Pinus nigra Austrian Pine
PiPu = Pinus pungens Colorado Blue Spruce
PoBt = Populus trichocarpa, Black Cottonwood
PrAv = Prunus avium, Mazzard Cherry
PrCe = Prunus cerasifera cv. Purple Flowering Plum
PrSe = Prunus serrulata 'Shirofugen' Shirofugen
PrSp = Prunus sp. Flowering Plum
PrYe = Prunus x yedoensis 'Akebono' Akebono Cherry
PsMe = Pseudotsuga menziesii, Douglas Fir
QuPa = Quercus palustris Pin Oak
QuRu = Quercus rubra Red Oak
SaBa = Salix babylonica Weeping Willow
ThPl = Thuja plicata Western Red Cedar
NE 65th ST.
111th AVE. NE
NE 64th ST.
CLEARING LIMITS PHASE I
MATCHLINE A
MATCHLINE D
INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 66TH STREET, KIRKLAND, WA.
TREE PRESERVATION PLAN - PHASE 1
SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Close
CHECKED: Jim Ballantine
2
of 5 Sheets



GRAPHIC SCALE

PRESERVATION VALUE SYMBOL EXPLANATION

- RETAIN: UNIQUE SPECIES, SPECIMEN OR FEATURE, SAVE
- RETAIN: GOOD QUALITY, CHARACTER TREE, SAVE IF FEASIBLE
- RETAIN: COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- REMOVE: POOR SPECIMEN OR SPECIES, HIGH MAINTENANCE OR HAZARD POTENTIAL
- REMOVE: HAZARD OR DEAD, TREE IS DEAD OR IN VERY POOR CONDITION, AND SHOULD BE REMOVED

DENOTES ABOVE TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

—LIMITS— DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPla	*Acer platanoides*	Norway Maple
AcRu	*Acer rubrum*	Red Maple
BePe	*Betula pendula*	European White Birch
BePe	*Betula pendula 'Youngii'*	Young's Weeping Birch
CeAt	*Cedrus atlantica*	Atlas Cedar
CeDo	*Cedrus deodara*	Deodara Cedar
CoCo	*Corylus cornuta*	Western Hazelnut
CrPh	*Crataegus phaenopyrum*	Washington Hawthorn
FrPe	*Fraxinus pennsylvanica*	Green Ash
PiCo	*Pinus contorta var. latifolia*	Lodgepole Pine
PiNi	*Pinus nigra*	Austrian Pine
PiPu	*Pinus pungens*	Colorado Blue Spruce
PoBt	*Populus trichocarpa*	Black Cottonwood
PrAv	*Prunus avium*	Mazzard Cherry
PrCe	*Prunus cerasifera cv.*	Purple Flowering Plum
PrSe	*Prunus serrulata 'Shirotagen'*	Shirotagen
PrSp	*Prunus sp.*	Flowering Plum
PrYe	*Prunus x yedoensis 'Akebono'*	Akebono Cherry
PsMe	*Pseudotsuga menziesii*	Douglas Fir
QuPa	*Quercus palustris*	Pin Oak
QuRu	*Quercus rubra*	Red Oak
SaBa	*Salix babylonica*	Weeping Willow
ThPl	*Thuja plicata*	Western Red Cedar

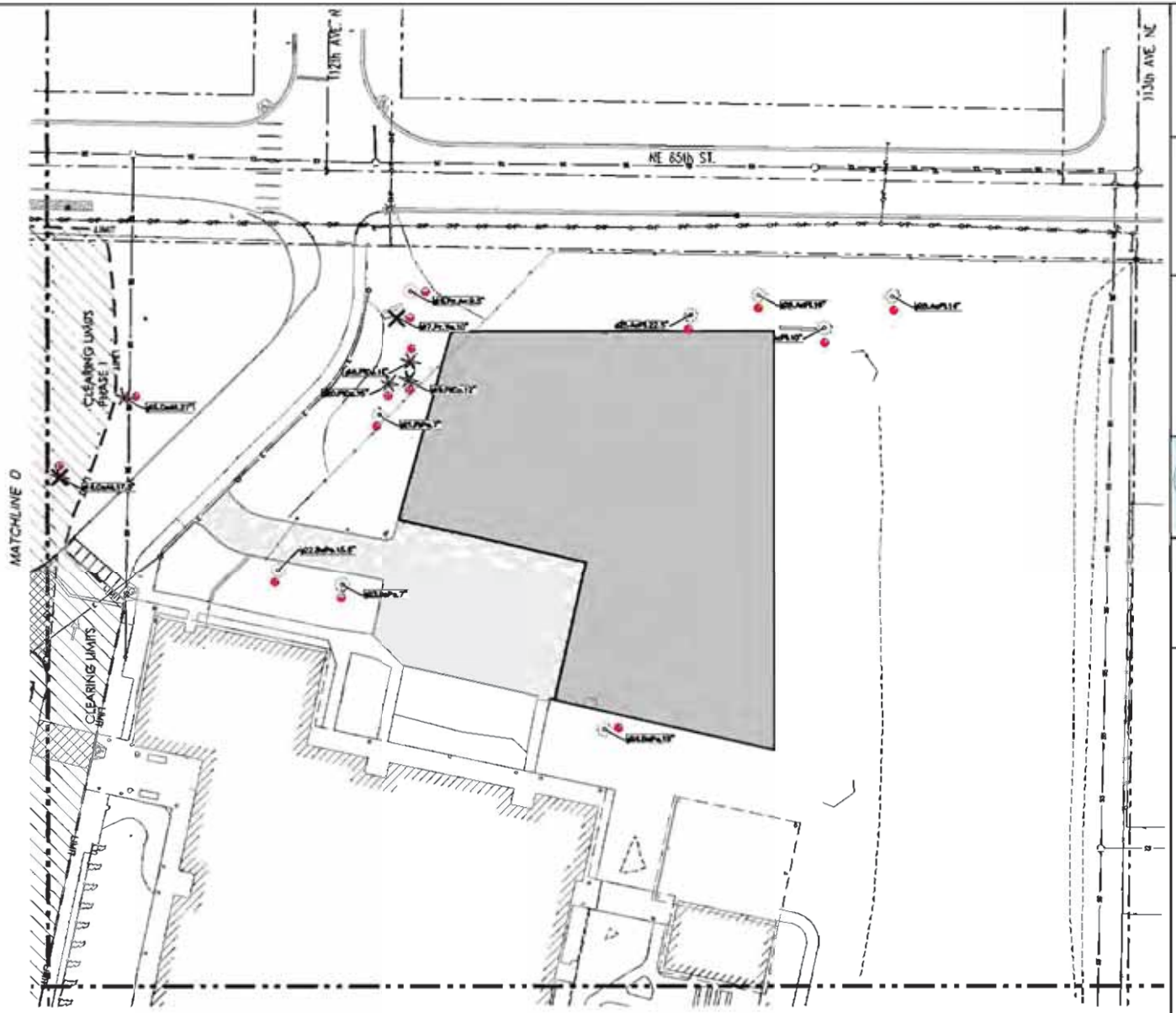
INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 85TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 1

SCALE: 1" = 40'
DATE: JULY 15, 2011
DRAWING: Shannon Close
CHECKED: Jim Battenhouse

Urban Forestry Services, Inc.
Urban Forestry Solutions, Inc.
James Battenhouse, ISA Certified Arborist No. PN-0130A, Registered Consulting Arborist No. 355, ISA Certified Arborist No. PN-0130

3
of 5 Sheets



GRAPHIC SCALE

PRESERVATION VALUE SYMBOL EXPLANATION

- HIGH: GOOD QUALITY, CHARACTER TREE, RARE OR UNUSUAL
- MODERATE: COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- LOW: POOR SPECIMEN OR SPECIES, HIGH MAINTENANCE OR HIGH CAUTION IF RETAINED.
- HAZARD OR DEAD: TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED

X DENOTES ABOVE TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

—LIMITS— DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPla	*Acer platanoides*	Norway Maple
AcRu	*Acer rubrum*	Red Maple
BePe	*Betula pendula*	European White Birch
BePe	*Betula pendula 'Youngii'*	Young's Weeping Birch
CeAt	*Cedrus atlantica*	Atlas Cedar
CeDo	*Cedrus deodara*	Deodara Cedar
CoCo	*Corylus cornuta*	Western Hazelnut
CrPh	*Crataegus phaenopyrum*	Washington Hawthorn
FrPe	*Fraxinus pennsylvanica*	Green Ash
PiCo	*Pinus contorta var. latifolia*	Lodgepole Pine
PiNi	*Pinus nigra*	Austrian Pine
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QuPa	*Quercus palustris*	Pin Oak
QuRu	*Quercus rubra*	Red Oak
SaBa	*Salix babylonica*	Weeping Willow
ThPl	*Thuja plicata,*	Western Red Cedar

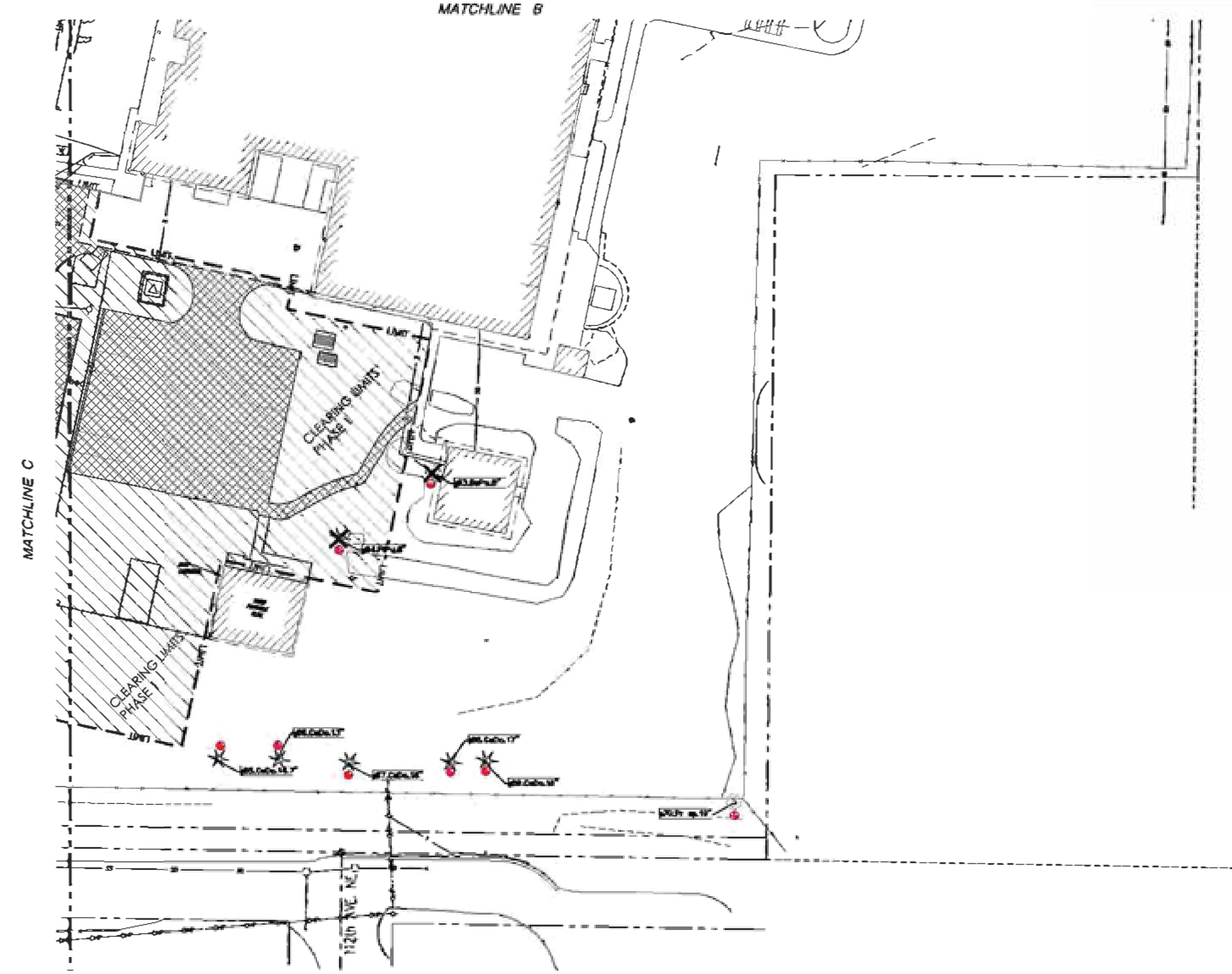
Urban Forestry Services, Inc.

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: SHannon Olsen
CHECKED: Jim Balsamini

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 66TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 1

4
of 5 Sheets



PRESERVATION VALUE SYMBOL EXPLANATION

- **SPECIAL:** UNIQUE SPECIES, SPECIMEN OR FORM. SAVE
- **HIGH:** GOOD QUALITY, CHARACTER TREE. SAVE IF POSSIBLE.
- **MODERATE:** COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- **LOW:** POOR SPECIMEN OR SPECIES, HIGH MAINTENANCE OR SOME CAUTION IF RETAINED.
- **HAZARD OR DEAD:** TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED

X DENOTES REMOVE TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

—LIMITS— DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPl =	*Acer platanoides*	Norway Maple
AcRu =	*Acer rubrum*	Red Maple
BePe =	*Betula pendula*	European White Birch
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Urban Forestry Services, Inc.

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Glass
CHECKED: Jim Barborinas

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE, 65TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 1

5 of 5 Sheets

General Tree Protection Guidelines
International Community School Project

Project Summary

A total of 70 Trees were surveyed onsite.
Thirty-Thirty-seven (37) significant trees are proposed for retention.
Thirty-three (33) trees are proposed for removal.
In Phase 1, 4 of 29 trees will be retained.
In Phase 2, 33 of 41 trees will be retained.
This is a retention of 53% of the significant trees, on the site.

1 These Guidelines pertain to any disturbance, use or activity within the Critical Root Zone of any retained tree on this project. See attached Critical Root Zone Explanation. The owner's arborist and general contractor shall meet onsite before any site work begins to discuss and agree on the methods used to protect the retained trees during construction.

2 No soil disturbance shall take place before tree protection fences are installed. All evaluated trees to be retained within these areas are clearly illustrated on the Site Plan. The owner's arborist and contractor shall confirm on site which trees are to be removed and those to be retained. Directional felling of trees to be removed will be completed with great care not to damage retained trees.

3. The Tree Preservation Plan shows the recommended location of the Tree Protection Fence (TPF). Immediately after clearing and grading stakes are set in the field, the owner's arborist, during review and discussion with the contractor will make a final determination on the tree protection requirements depending on construction limits and impact on major roots. The arborist may adjust clearing limits in the field so that, in his/her opinion, tree roots are protected while necessary work can proceed.

4. The Tree Protection Fence (TPF) shall be installed along the clearing limits, with special consideration of the Critical Root Zone (CRZ) of trees to be preserved. The CRZ of a tree is generally described as an area equal to 1-foot radius for every 1-inch diameter of tree. For example, a 10-inch diameter tree has a CRZ of 10-foot radius. Work within that area may be limited to hand work. The Tree Protection Fence (TPF) shall be constructed with 4 steel posts driven into the ground with 6-ft chain link fence attached. The arborist upon consultation with the contractor shall determine the placement of the fence and the extent and method of clearing near preserved trees. Additional follow-up determinations may be required later on in the project. See attached Critical Root Zone Explanation.

5. Where the CRZ includes an area covered by hardscape, the TPF can be placed along the edge of the hardscape if and until it is removed. After removal, the available CRZ should be backfilled with soil up to 6 inches deep and protected with the TPF.

6. No parking, storage, dumping, or burning of materials is allowed beyond the clearing limits or within the TPF.

7. Tree protection signs shall be attached to the fence only and shall be shown as required on the Site Plan. They should read "Protect Critical Root Zone (CRZ) of trees to be retained. No soil disturbance, parking, storage, dumping, or burning of materials is allowed beyond the Tree Protection Fence. Work within this area shall be reviewed with and approved by the owner's arborist. Call 360-770-9921 for Questions."

8. Where vehicular access is required within the CRZ of any preserved tree that is not protected with hardscape, the soil shall be protected with 18" of woodchips and/or plywood or metal sheets to protect from soil compaction and damage to roots of retained trees.

9. The Tree Protection Fence will not be moved without authorization by the owner's arborist or City. The Fence shall be left up for the duration of the project.

10. Great care will be exercised when landscaping within the CRZ of any tree. Roots of preserved trees and other vegetation shall not be damaged by planting or irrigation lines. The owner's arborist shall review the Landscape Plan and approve those activities within the CRZ of retained trees.

11. The owner's arborist will determine to what extent backfilling is allowed within the CRZ of a preserved tree. Only sandy, gravelly pit run is recommended for backfilling. Grade cuts are usually more detrimental than grade filling within the CRZ.

12. Trees recommended for maintenance and approved by the owner, shall be pruned for deadwood, low hanging limbs, and proper balance, as recommended for safety, clearance or aesthetics. An International Society of Arboriculture Certified Arborist is recommended to perform the pruning. ANSI A300 American Standards for Pruning shall be used. Limbs of retained trees within 10 feet or more, of any power line depending on power line voltage, may only be pruned by a Utility Certified Arborist. This pruning must be coordinated with the local power company or a private company with this certification.

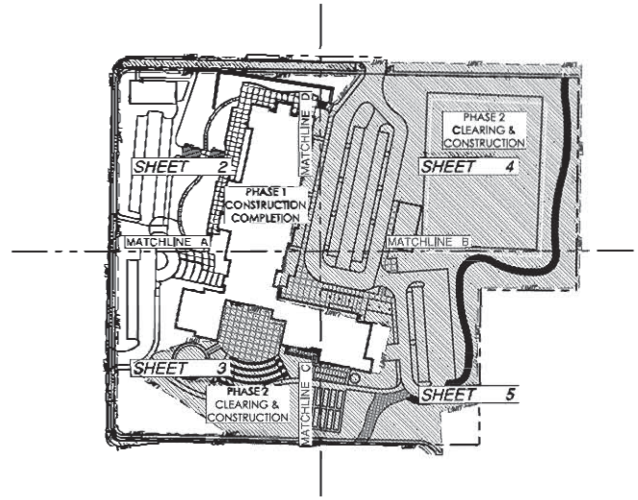
13. Required work may result in the cutting of roots of retained trees. Severed roots of retained trees shall be cut off cleanly with a sharp saw or pruning shears. No pruning paint on trunk or root wounds is recommended. Severed roots shall be covered immediately after final pruning with moist soil or covered with mulch until covered with soil. Excavation equipment operators shall take extreme care not to hook roots and pull them back towards retained trees. This work shall be under the direct supervision of the owner's arborist.

14. If clearing is performed during the summer, supplemental watering and/or mulching over the root systems of preserved trees may be required by the owner's arborist. He or she should be notified in this event. Supplemental watering and mulching over the root systems of root impacted or stressed trees are strongly recommended to compensate for root loss and initiate new root growth. Long periods of slow drip irrigation will be most effective. Water once per week and check soils for at least 12 inches infiltration. This work shall be under the direct supervision of the owner's arborist.

15 Additional tree protection recommendations may be required as needed.

16 The owner's arborist may be required to monitor work when disturbance occurs near retained trees and shall make periodic site visits to report to the owner and city if tree protection guidelines are being followed.

17. The owner's arborist shall make a final visit to report on retained tree condition following completed work and shall report to the city to release the bond for the retained trees.



INTERNATIONAL COMMUNITY SCHOOL
TREE EVALUATION

70 significant trees have been evaluated in the field on the INTERNATIONAL COMMUNITY School site. This plan shows the tree tag number and Preservation Value Symbol next to each tree. The Preservation Value rating is based on information documented for each tree available on an Excel file. Information available includes Tree & Survey number, common & scientific name, diameter, vigor, structure, risk of failure, maintenance recommendation, preservation value and comments.

This project is being executed in 2 phases, therefore 2 separate Tree Preservation Plans are provided that illustrate the 2 phases.

PRESERVATION VALUE SYMBOL EXPLANATION

- Special: unique species, specimen or form. Save.
- High: good quality, character tree. Save if possible.
- Moderate: common species, fair condition. May need special attention to preserve.
- Low: poor specimen or species. High maintenance or some caution if retained.
- Hazard or Dead: tree is dead or in very poor condition and should be removed.

X denotes remove tree

Denotes CRZ (Critical Root Zone)

Denotes Tree Protection Fence

—LIMITS— denotes Clearing Limits

Genus Species Abbreviations are:

AcPl =	*Acer platanoides*	Norway Maple
AcRu =	*Acer rubrum*	Red Maple
BePe =	*Betula pendula*	European White Birch
BePe =	*Betula pendula 'Youngii'*	Young's Weeping Birch
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ThPl =	*Thuja plicata,*	Western Red Cedar

Urban Forestry Services, Inc.

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, WA 98273
(360)424-6910/FAX(360)428-1822

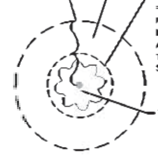
James Barbelmas date: JULY 15, 2011
Registered Consulting Arborist No. 396
ISA Certified Arborist No. PN-0156

SCALE: 1" = 100'
DATE: JULY 15, 2011
DRAWN: Shannon Good
CHECKED: Jim Barbelmas

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 65TH STREET, KIRKLAND, WA

TREE PRESERVATION PLAN - PHASE 2

1
of 5 Sheets



The Critical Root Zone (CRZ) of a tree is established on the basis of the trunk diameter. The CRZ is a circular area which has a radius of 12 inches to every inch diameter of trunk, measured at 4.5 feet above the grade. Root systems will vary both in depth and spread depending on size of the tree, soils, water table, species and other factors. However, this CRZ description is generally accepted in the tree industry. Protecting this entire area should result in no adverse impact to the tree.

This CRZ drawing has been further differentiated into the 'Perimeter' (PCRZ) and 'Interior' (ICRZ) to help define potential impact and required Post Care. Generally, the full PCRZ is considered the optimum amount of root protection for a tree, as any encroaches into the 'Perimeter' CRZ, but not into the 'Interior' CRZ the greater Post Care the tree would require to remain alive and stable. The 'Interior' CRZ is half the radius of the full PCRZ. Disturbance into the ICRZ could destabilize or cause the tree to decline.

The absolute maximum disturbance allowed should leave the 'Interior' CRZ undisturbed if the tree is to have any chance of survival. The 'Interior' CRZ would approximately equal the size of a rootball needed to transplant this tree which in turn would require extensive Post Care and possibly guying. Post Care Treatment includes but may not be limited to; regular irrigation, misting, root treatment with special root hormones, mulching, guying and monitoring for several years

PRESERVATION VALUE SYMBOL EXPLANATION

- SPECIAL: UNIQUE SPECIES, SPECIMEN OR FORM. SAVE.
- HIGH: GOOD QUALITY, CHARACTER TREE. SAVE IF POSSIBLE.
- MODERATE: COMMON SPECIES, FAIR CONDITION. MAY NEED SPECIAL ATTENTION TO PRESERVE
- LOW: POOR SPECIMEN OR SPECIES, HIGH MAINTENANCE OR SOME CAUTION IF RETAINED.
- HAZARD OR DEAD: TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED.

X DENOTES REMOVE TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

—LIMITS— DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

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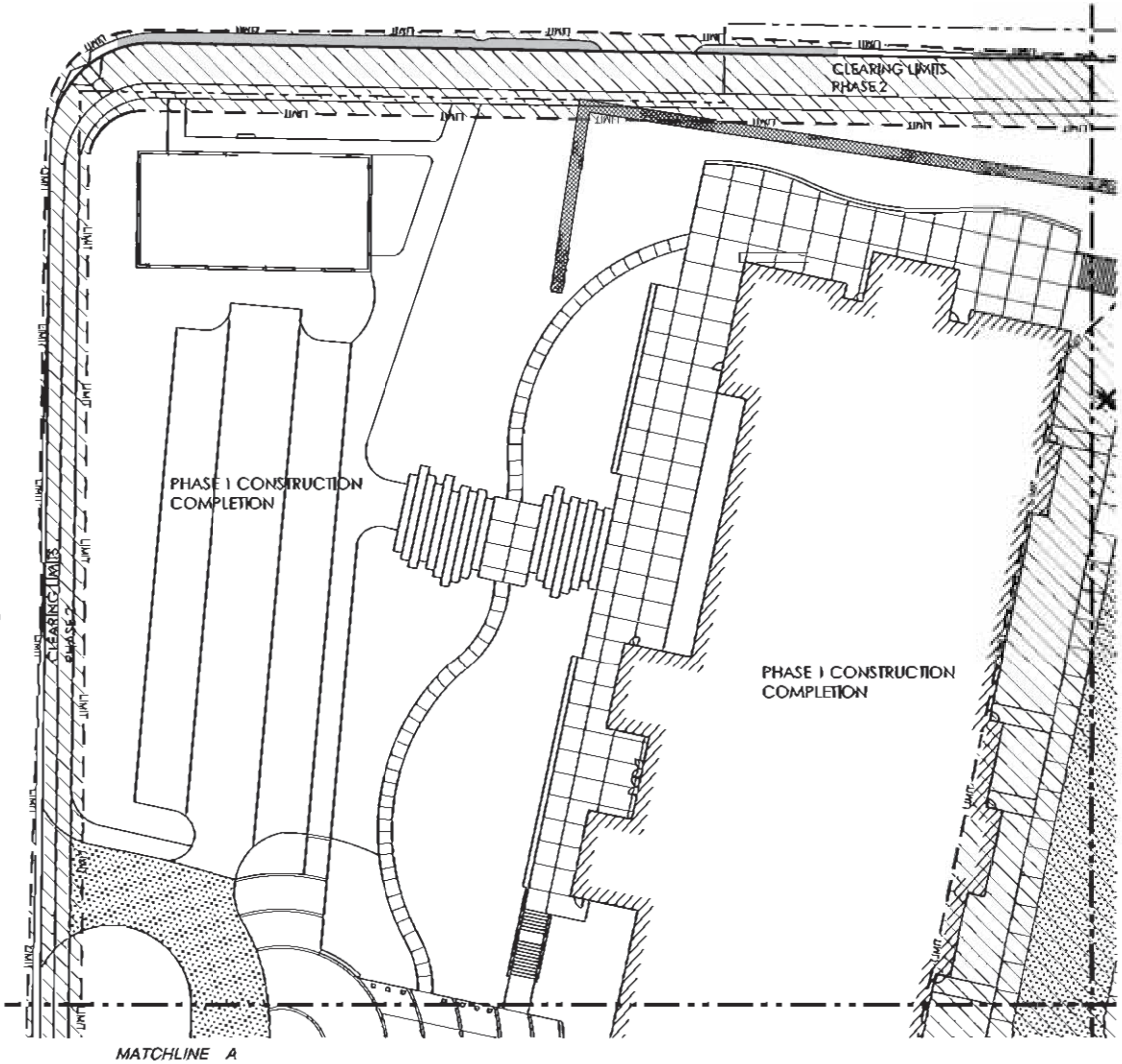


Urban Forestry Services, Inc.

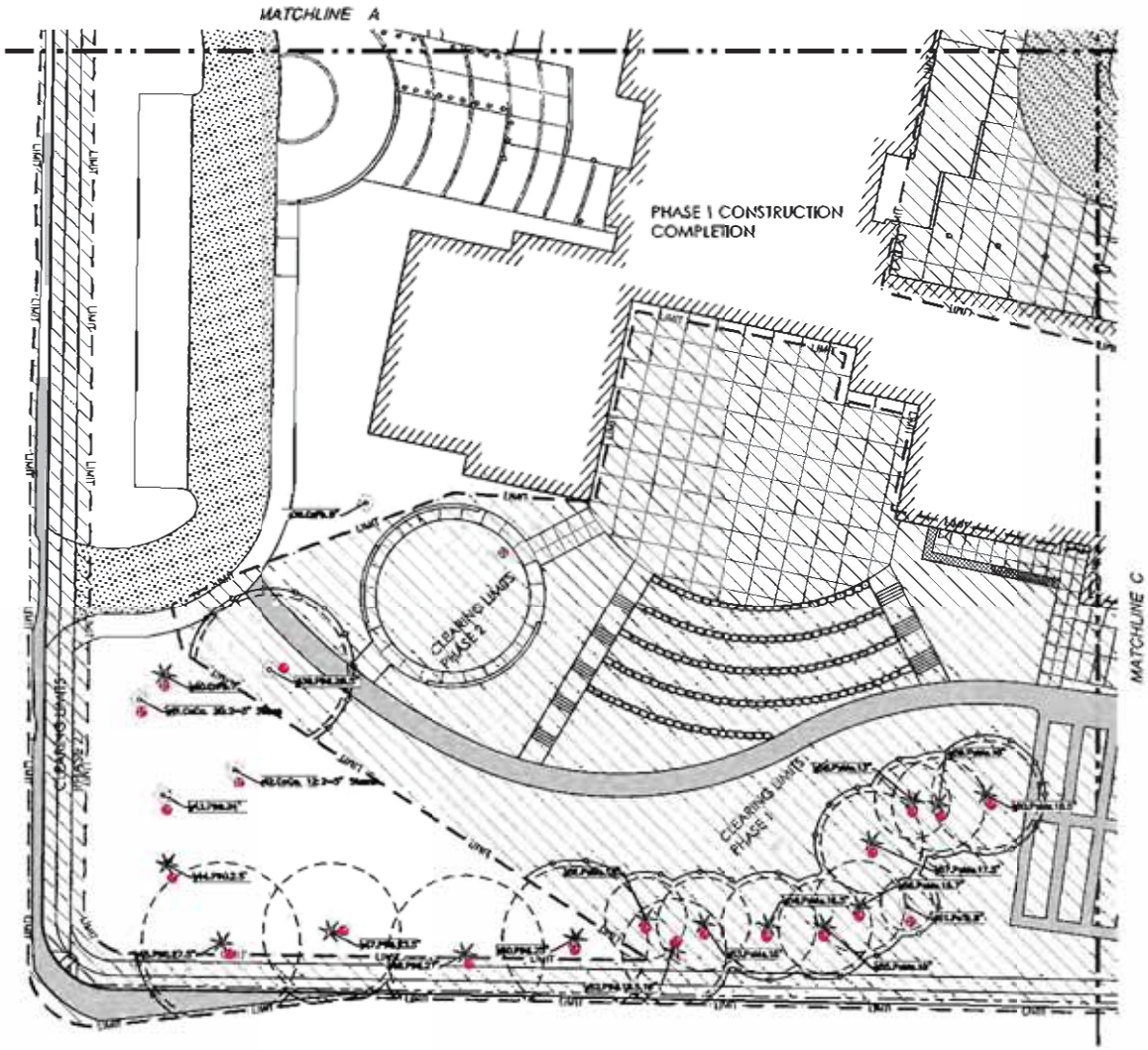
James Barborinas date: JULY 15, 2011

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Bass
CHECKED: Jim Barborinas

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE, 65TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 2

2
of 5 Sheets



PRESERVATION VALUE SYMBOL EXPLANATION

- SIGNAL: UNIQUE SPECIES, SPECIMEN OR STAND, SAVE
- HIGH: GOOD QUALITY, CHARACTER TREE, SAVE IF FEASIBLE
- MODERATE: COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- LOW: POOR SPECIMEN OR SPECIES NEAR MAINTENANCE OR SOME CAUTION IF RETAINED
- HAZARD OR DEAD: TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED

X DENOTES REMOVED TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

—LIMITS— DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPl=	*Acer platanoides*	Norway Maple	
AcRu=	*Acer rubrum*	Red Maple	
BePe=	*Betula pendula*	European White Birch	
BePe=	*Betula pendula 'Youngii'*	Young's Weeping Birch	
CeAt=	*Cedrus atlantica*	Atlas Cedar	
CeDe=	*Cedrus deodara*	Deodara Cedar	
CoCo=	*Corylus cornuta*	Western Hazelnut	
CrPh=	*Crataegus phaenopyrum*	Washington Hawthorn	
FrPe=	*Fraxinus pennsylvanica*	Green Ash	
PiCo=	*Pinus contorta var. latifolia*	Lodgepole Pine	
PiNi=	*Pinus nigra*	Austrian Pine	
PiPu=	*Pinus pungens*	Colorado Blue Spruce	
PoTr=	*Populus trichocarpa*	Black Cottonwood	
PrAv=	*Prunus avium*	Mazzard Cherry	
PrCe=	*Prunus cerasifera cv.*	Purple Flowering Plum	
PrSe=	*Prunus serrulata 'Shirofugen'*	Shirofugen Flowering Plum	
PrSp=	*Prunus sp.*		
PrYe=	*Prunus x yedoensis 'Akebono'*	Akebono Cherry	
PsMe=	*Pseudotsuga menziesii*	Douglas Fir	
QuPa=	*Quercus palustris*	Pin Oak	
QuRu=	*Quercus rubra*	Red Oak	
SaBa=	*Salix babylonica*	Weeping Willow	
ThPl=	*Thuja plicata*	Western Red Cedar	

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 68TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 2

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Glass
CHECKED: Jim Battenfeld

Urban Forestry Services, Inc.

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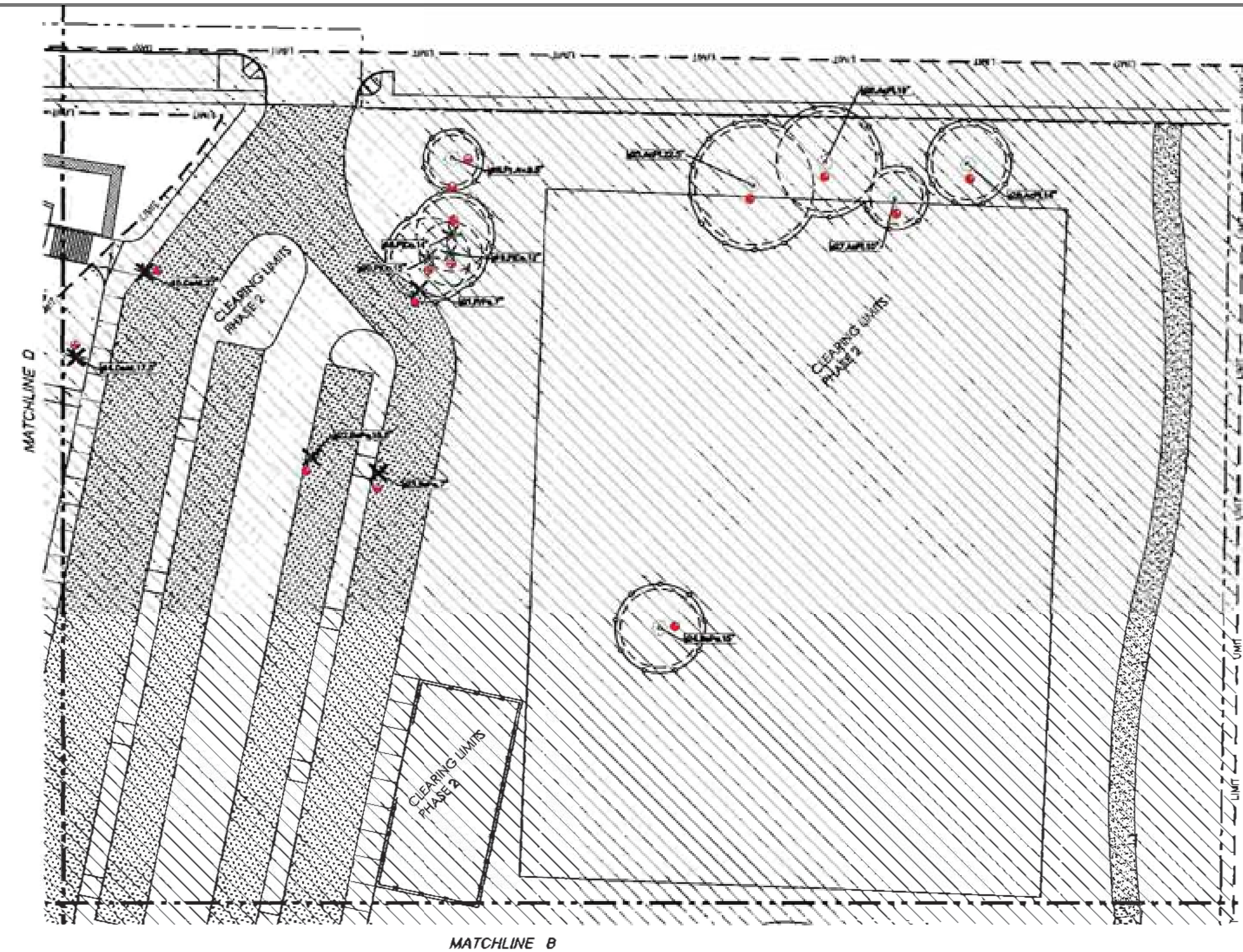
of 5 Sheets

GRAPHIC SCALE



PRESERVATION VALUE SYMBOL EXPLANATION

- SPECIAL: UNIQUE SPECIES, SPECIMEN OR FORM, RARE
- HIGH: GOOD QUALITY, CHARACTER TREE, SAVE IF POSSIBLE
- MODERATE: COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- LOW: POOR SPECIMEN OR SPECIES, HIGH MAINTENANCE OR SOME CAUTION IF RETAINED
- HAZARD OR DEAD: TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED

X DENOTES REMOVE TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

LIMITS DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPla	*Acer platanoides*	Norway Maple
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Urban Forestry Services, Inc.

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, WA 98273

James Barborinas
Registered Consulting Arborist No. 359
ISA Certified Arborist No. PN-0135

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Glass
CHECKED: Jim Barborinas

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE. 65TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 2

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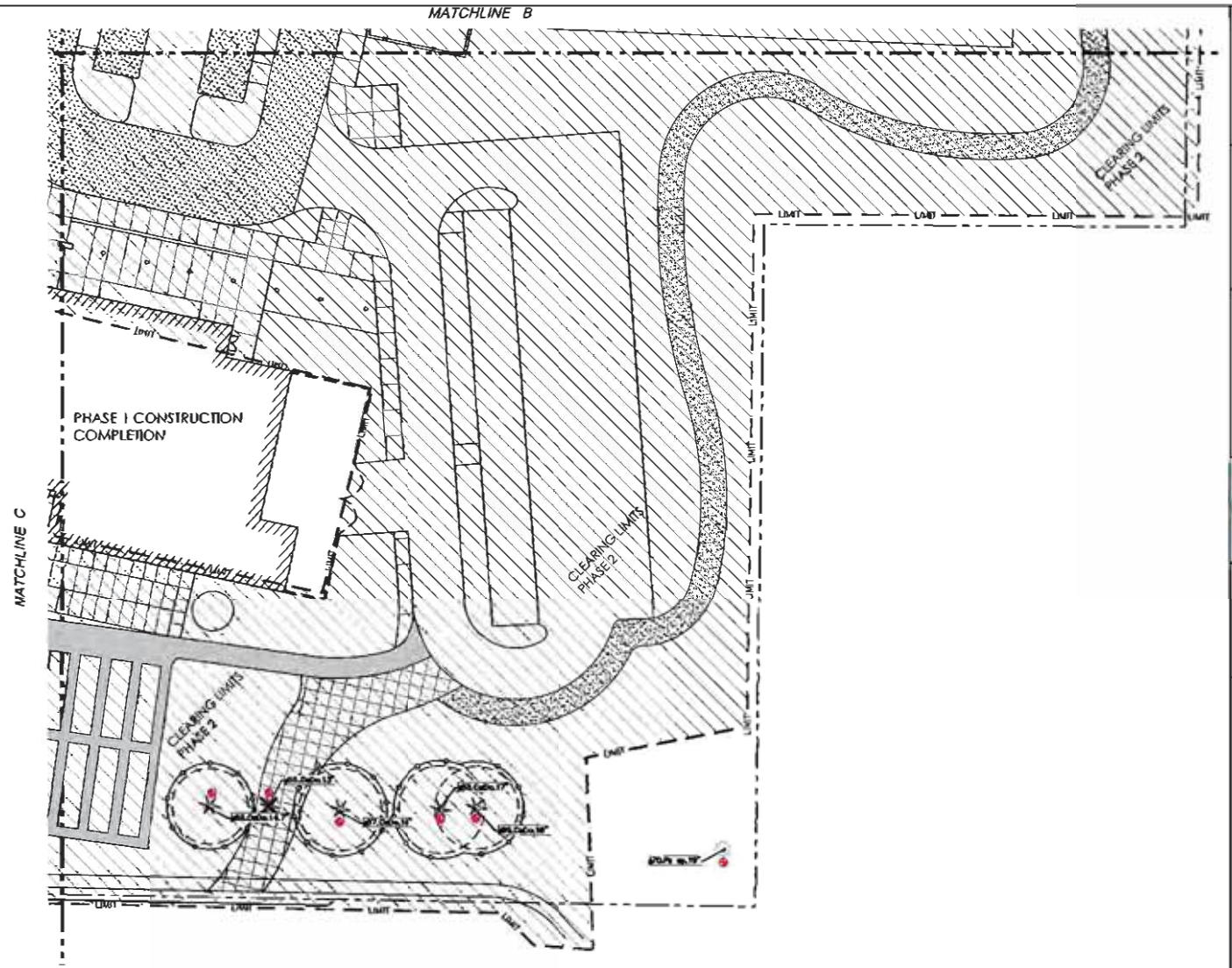

PRESERVATION VALUE SYMBOL EXPLANATION

- HIGH, UNIQUE SPECIES, SPECIMEN OR FORM, SAVE
- HIGH, GOOD QUALITY, CHARACTER TREE, SAVE IF POSSIBLE
- MODERATE, COMMON SPECIES, FAIR CONDITION, MAY NEED SPECIAL ATTENTION TO PRESERVE
- LOW, POOR SPECIMEN OR SPECIES NEAR MAINTENANCE OR SOME CAUTION IF RETAINED
- HAZARD OR DEAD, TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED

X DENOTES REMOVED TREE

DENOTES CRZ (CRITICAL ROOT ZONE)

DENOTES TREE PROTECTION FENCE

LIMITS DENOTES CLEARING LIMITS

Genus Species Abbreviations are:

AcPla	*Acer platanoides*	Norway Maple	PoTr	*Populus trichocarpa,*	Black Cottonwood
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PiPu	*Pinus pungens*	Colorado Blue Spruce			

INTERNATIONAL COMMUNITY SCHOOL
LAKE WASHINGTON SCHOOL DIST. 414
11133 NE 66TH STREET, KIRKLAND, WA.

TREE PRESERVATION PLAN - PHASE 2

SCALE: 1" = 20'
DATE: JULY 15, 2011
DRAWN: Shannon Goss
CHECKED: Jim Ballantine

Urban Forestry Services, PLLC

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of 5 Sheets

Urban Forestry Services, Inc.
Arboricultural Consulting | Wholesale Tree Nursery

January 18, 2011

Title: Tree Risk Assessment for International Community School, LWSD, Kirkland, Washington

Prepared for: Lake Washington School District
Attention: Mike Finnegan
Support Services Center
15212 NE 95th Street
Redmond, WA 98052

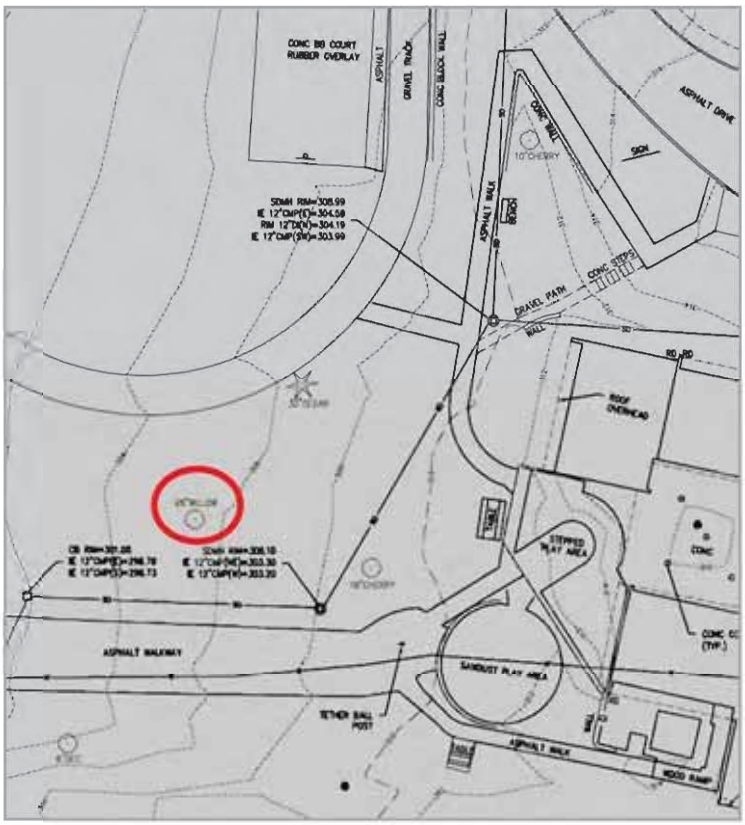
Prepared by: James M. Barborinas
ASCA Registered Consulting Arborist #356
ISA Certified Arborist #PN-135
Certified Tree Risk Assessor #PNW-0327

Christina Pfeiffer
ISA Certified Arborist # PN-124
Certified Tree Risk Assessor #PNW-0628

Contents: Summary
Site plan
Tree Risk Assessment Table

This report is for a weeping willow tree with extensive trunk decay discovered during our site inventory conducted on December 7, 2010 on the ICS property. We feel this tree poses a potential risk to the public and should be attended to at this time. It is located between the pedestrian paths at the south west corner of the site. **It should be removed in the near future.**

Please let us know if you have any questions or require any further information.



NORTH

15119 McLean Road
Mount Vernon, WA 98273

Office (360) 428-5810
Fax (360) 428-1822
Cell (360) 770-9921

Email: jimb-ufsinc@wavecable.com
www.urbanforestryservices.com

Tree #	Species	dbh (in.)	Vigor	Structure	Risk of Failure	Defects	Probability of failure	Size of part	Targe rating	TRACE Rating	Treatment Recommended	Action Completed *(date & init)*
38	Weeping willow (*Salix babylonica)*	27.5	Fair	Poor	High	Extensive decay along main trunk. Possible trunk failure. Nearby trails and active pedestrian area.	4	3	4	11	REMOVE	

URBAN FORESTRY SERVICES, INC
Jim Barborinas,Reg. Consulting Arborist #356
ISA Certified Arborist #0135

UFS, INC.
15119 McLean Road
Mount Vernon, WA 98273
(360) 428-5810

ASSUMPTIONS AND LIMITING CONDITIONS

Urban Forestry Services, Inc.
15119 McLean Rd.
Mount Vernon, Washington 98273

1. **Limitations of this Assessment**
   This Assessment is based on the circumstances and observations as they existed at the time of the site inspection of the Client's Property and the trees inspected by Urban Forestry Services, Inc. and upon information provided by the Client to Urban Forestry Services, Inc. The opinions in this Assessment are given based on observations made and using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage, and disease, the results, observations, recommendations, and analysis took place and no guarantee, warranty, representation, or opinion is offered or made by Urban Forestry Services, Inc. as to the length of the validity of the results, observations, recommendations, and analysis contained within this Assessment. As a result, the Client shall not rely upon this Assessment, save and except for representing the circumstances and observations, analysis, and recommendations that were made as at the date of such inspections. It is recommended that the trees discussed in this Assessment should be re-assessed periodically.

   Urban Forestry Services, Inc. shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in our fee schedule and contract of engagement.

   Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

2. **Reaction of Assessment**
   The Assessment carried out was restricted to the Property. No assessment of any other trees or plants has been undertaken by Urban Forestry Services, Inc. Urban Forestry Services, Inc. is not legally liable for any other trees or plants on the Property except those expressly discussed herein. The conclusions of this Assessment do not apply to any areas, trees, plants, or any other property not covered or referenced in this Assessment.

3. **Professional Responsibility**
   In carrying out this Assessment, Urban Forestry Services, Inc. and any Assessor appointed for and on behalf of Urban Forestry Services, Inc. to perform and carry out the Assessment has exercised a reasonable standard of care, skill, and diligence as would be customarily and normally provided in carrying out this Assessment. The Assessment has been made using accepted arboricultural techniques. These include a visual examination of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack, discolored foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the current or planned proximity of property and people. Except where specifically noted in the Assessment, none of the trees examined on the property were dissected, cored, probed, or climbed and detailed root crown examinations involving excavation were not undertaken.

   While reasonable efforts have been made to ensure that the trees recommended for retention are healthy, no guarantees are offered, or implied, that these trees, or all parts of them will remain standing. It is

professionally impossible to predict with absolute certainty the behavior of any single tree or group of trees, or all their component parts, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential to fall, lean, or otherwise pose a danger to property and persons in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Without limiting the foregoing, no liability is assumed by Urban Forestry Services, Inc. or its directors, officers, employers, contractors, agents, or Assessors for:

- any legal description provided with respect to the Property;
- issues of title and or ownership respect to the Property;
- the accuracy of the Property line locations or boundaries with respect to the Property; and
- the accuracy of any other information provided to Urban Forestry Services, Inc. by the Client or third parties;
- any consequential loss, injury, or damages suffered by the Client or any third parties, including but not limited to replacement costs, loss of use, earnings, and business interruption; and
- the unauthorized distribution of the Assessment.

The total monetary amount of all claims or causes of action the Client may have as against Urban Forestry Services, Inc. including but not limited to claims for negligence, negligent misrepresentation, and breach of contract, shall be strictly limited to solely to the total amount of fees paid by the Client to Urban Forestry Services, Inc. pursuant to the Contract for Services as dated for which this Assessment was carried out. Further, under no circumstance may any claims be initiated or commenced by the Client against Urban Forestry Services, Inc. or any of its directors, officers, employees, contractors, agents, or Assessors, in contract or in tort, more than 12 months after the date of this Assessment.

4. **Third Party Liability**

This Assessment was prepared by Urban Forestry Services, Inc. exclusively for the Client. The contents reflect Urban Forestry Services, Inc. best assessment of the trees and plants on the Property in light of the information available to it at the time of preparation of this Assessment. Any use which a third party makes of this Assessment, or any reliance on or decisions made based upon this Assessment, are made a the sole risk of any such third parties. Urban Forestry Services, Inc. accepts no responsibility for any damages or loss suffered by any third party or by the Client as a result of decisions made or actions based upon the use of reliance of this Assessment by any such party.

5. **General**

Any plans and/or illustrations in this Assessment are included only to help the Client visualize the issues in this Assessment and shall not be relied upon for any other purpose.

This report and any values expressed herein represent the opinion of Urban Forestry Services, Inc. Our fee is in no way contingent upon any specified value, a result or occurrence of a subsequent event, nor upon any finding reported.

The Assessment report shall be considered as a whole, no sections are severable, and the Assessment shall be considered incomplete if any pages are missing. The right is reserved to adjust tree valuations, if additional relevant information is made available. This Assessment is for the exclusive use of the Client.