SAVING EXISTING MATURE TREES DURING DEVELOPMENT



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HOW DO WE KEEP TREES PROTECTED?



TO REMAIN HEALTHY AND STABLE





WE SAVE TREES WITH...

•Tree Protection Codes

Information

Design

-Application of All



QUALIFIED ARBORIST

ISA Certified Arborist
 PNW-ISA Tree Risk Assessor
 ASCA Registered Consulting Arborist
 ISA Board Certified Master Arborist
 Experience

ON SITE TREE EVALUATION

DOCUMENT: Location **ID** Number **Tree Species Tree Diameter Tree Condition:** Vigor & Structure ■ **Risk of Failure** Maintenance Preservation Value



SITE EVALUATION

Note Valuable **Targets** Clarify Present vs. **Future Exposure** Document Understory Vegetation Existing Soils



ENGINEERING SURVEY OF SIGNIFICANT TREES



ID TAG AND LOCATE TREES



SPECIES RETENTION QUALITIES

DOUGLAS FIR	BEST	TOUGH FAST GROWING. TOLERATES ROOT DISTURBANCE.
WESTERN RED CEDAR	GOOD	SHADE AND WET TOLERANT, GOOD SCREENING TREE.
BIGLEAF MAPLE	GOOD	FAST GROWING AND TOLERATES ROOT DISTURBANCE.
WESTERN HEMILOCK	FAIR TO POOR	SHADE TOLERANT BUT DECLINES FROM ROOT DISTURBANCE.
REDALDER	POOR	POOR ROOTS AND STRUCTURE EVEN WHEN HEALTHY
COTTONWOOD	POOR	FAST GROWING, HUGE TREE, WITH LIMB DROP AND INVASIVE ROOTS.

TREE SIZE AND GROUP

BIG TREES ARE GREAT BUT HARDER TO SAVE.

 SMALLER TREES ARE MORE VIGOROUS-CAN GROW OVER TIME.



TREE CONDITION

■ VIGOR

STRUCTURE





RISK OF FAILURE MUST CONSIDER LOCATION AND TARGET



HAZARD TREES MUST TARGET SOMETHING OF VALUE

RISK OF FAILURE MUST CONSIDER SOILS





MAINTENANCE -To Improve Health, Reduce Risk

Pruning Cabling Watering **Fertilizer** Root Treatment ■ Air Spade



PRESERVATION VALUE



DOCUMENTATION PRELIMINARY TREE REPORT

- Scope of Work
 Site, Soils, and Vegetation Descriptions
 Tree Code
- Tree Evaluation Results
- Site Map with Tree
 Information
- Tree Protection
 Guidelines or
 Specifications



TREE EVALUATION MATRIX

Tree Tag #	Species Common/ Scientific	dbh (in.)	CRZ Perim eter/In terior	Vigor	Structure	Risk of Failure	Maintenance Recommendation	Preser- vation Value	Comments/ Defects
62	Black Locust (<i>Robinia</i> pseudoacacia)	12	6/12	Fair	Fair	Moderate- High	Retain with concerns	Moderate	Healthy & drought resistant but deadwood and thorny suckers can be nuisance.
63	Copper Beach, Fagus sylvatica purpurea	32	16/32	Excellent	Good	Low	Crown Clean	Special	Outstanding long living speciman with character trunk form.
64	Red Alder, <i>Alnus</i> rubra	15	8/15	Poor	Poor	High	Remove	Low to None	Poor tree with poor species characteristics subject to early failure.

SITE MAP WITH TREE INFORMATIO

PARK LAKE TREE EVALUATION

299 SIGNIFICANT TREES HAVE BEEN EVALUATED IN THE FIELD ON THE PARK LAKE SITE. THIS PLAN SHOWS THE TREE TAG NUMBER AND PRESEVATION 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, COMMENTS AND SUITABILITY FOR PRUNING TO 14' IN HEIGHT.

PRESERVATION VALUE SYMBOL EXPLANATION

- SPECIAL, UNIQUE SPECIES, SPECIMEN OR FORM. SAVE
- ← LOW. POOR SPECIMEN OR SPECIES. HIGH MAINTENANCE OR SOME CAUTION IF RETAINED.
- HIGH, GOOD QUALITY, CHARACTER TREE. SAVE IF POSSIBLE.
- MODERATE, COMMON SPECIES, FAIR CONDITION. MAY NEED SPECIAL ATTENTION TO PRESERVE

HAZARD OR DEAD. TREE IS DEAD OR IN VERY POOR CONDITION AND SHOULD BE REMOVED.

> DENOTES EVALUATED TREE NOT SHOWN ON SURVEY

> > 000

ICE



CRITICAL ROOT ZONES (CRZ)

CRZ = 1 FOOT RADIUS FOR EVERY 1 INCH DIAMETER

AT 4.5 FEET ABOVE GRADE.



WHY DRIPLINES DO NOT WORK FOR CRZ

CRITICAL ROOTZONE IN DETAIL



Go to <u>www.urbanforestryservices</u> for More Information on CRZ

COMBINE INFORMATION AND DESIGN

- Provide Information to the Design Team
- Involve the Arborist
- Meet City Tree Preservation or Mitigation Codes



2nd Primary Task - DESIGN DEV./ TREE PROT. PLAN

DESIGN REVIEW

Arborist Should **Review Plans Consider Alternatives to Minimize Impacts to Tree** Consider all Impacts including Landscaping



SUBMIT TREE PROTECTION PLAN

 Include in all Site Pans
 Illustrate Tree Protection Fence Locations
 Tree Protection

Guidelines or Specifications



MARK TREES

Paint Mark Trees to Remove
 Clearly Mark Save Trees
 Paint Both Top and Base





3rd Primary Task -IMPLEMENTATION

APPROVE TREE PROTECTION FENCE AND SIGNS



TREE PROTECTION FENCE NO TRESPASSING ON CRITICAL ROOT ZONE OF THIS TREE WITHOUT DIRECT APPROVAL OF OWNER'S REPRESENTATIVE. WORK WITHIN THE CRITICAL ROOT ZONE SHALL RESULT IN A FINE OF \$1,500 OR THE APPRAISED LANDSCAPE VALUE, WHICHEVER IS GREATER.

> Bigleaf Maple Acer Macrophylum

Appraised Value: \$37,543

PROTECT TREES FIRST





3rd Primary Task -IMPLEMENTATION

COMPLETE TREE MAINTENANCE

PRUNING

ROOT TREATMENT

■ MULCHING

FERTILIZATION

WATERING



CONTACT ARBORIST FOR WORK INSIDE CRZ



Monitor, Approve, Root Prune and Recommend Alternatives

> 3rd Primary Task -IMPLEMENTATION

BORING TO AVOID ROOT DAMAGE



MONITOR TREE PROTECTION FOR COMPLIANCE



Watch for Fence Creep

3rd Primary Task -IMPLEMENTATION

POST CONSTRUCTION MONITORING

Watch for Changing Tree and Site Conditions

SAVING TREES SUMMARY ACTION ITEMS

 Follow Tree Codes
 Evaluate Trees Early
 Share Documented Tree Information and Work with Design Team
 Review and Monitor Work near Trees

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Thank you!

Created June 2010 Presented By: Urban Forestry Services, Inc., Jim Barborinas, ISA Certified Arborist #PN-0135, ASCA Registered Consulting Arborist #356