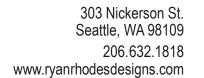
# 800 NE 64TH ST

# STREAMLINED DESIGN REVIEW

09/11/17 Project # 3028279











#### PROJECT INTRODUCTION

PROJECT INFORMATION pg 1

#### VICINITY MAPS

FIVE MILE RADIUS / ONE MILE RADIUS pg 2

> HALF MILE RADIUS pg 3

> > 500 FT RADIUS pg 4

#### NEIGHBORHOOD CONTEXT

STREETSCAPE ELEVATIONS pg 5

> **CONTEXT PHOTOS** pg 6 - 7

SITE SURVEY / EXISTING SITE PHOTOS pg 8

#### DESIGN

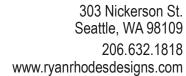
**REQUESTED ADJUSTMENTS** pg 9 **DESIGN GUIDELINES** pg 10 MATERIAL INFLUENCE pg 11 RENDERINGS pg 12 - 13 FLOOR PLANS pg 14 - 18 pg 19 - 22 **ELEVATIONS BUILDING SECTION** pg 23

pg 24 LANDSCAPING PLAN

pg 25 - 30 ARBORIST'S REPORT

pg 31 LIGHTING PLAN







800 NE 64th St

DCI Project # 3028279

STREAMLINED DESIGN REVIEW



Perspective View of Main Entrance on 8th Ave NE

#### 800 NE 64<sup>TH</sup> ST PROJECT INFO:

3028279 Project #

Parcel # 922140-0200

 DEMOLISH EXISTING DUPLEX AND CONSTRUCT NEW 9,700 SF APARTMENT BUILDING TO YIELD 26 UNITS TOTAL **Development Objectives:** 

• PROPOSED ADDRESS / FRONTAGE CHANGE TO 8TH AVE NE

THE WEST HALF OF LOT 15 AND THE WEST HALF OF LOT ADJOINING SAID LOT 15 ON THE SOUTH (KNOWN AS LOT 16, BUT Legal Description:

ERRONEOUSLY SHOWN ON THE PLAT AS LOT 9), BLOCK 2, WEEDIN'S DIVISION OF GREEN LAKE ADDITION TO SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS, PAGE 27, RECORDS OF KING COUNTY, WASHINGTON

#### **ZONING SUMMARY:**

800 NE 64th St 98115 Address: Parking (AUTO):

Base Zone: LR3 (0.75)

Urban Village Overlay: Roosevelt (Residential Urban Village)

Lot Area: 3,812.25 sf

FAR: 3,812.25 sf (1.5 or 2.0 per Table 'A' 23.45.510)

Table A for 23.45.510 - Built Green 4 Star = 7,624.5 sf allowable / 4 floors

= 1,906.125 sf per floor (average)

Density: No Limit Frequent Transit:

Light Rail: RO (Roosevelt) Table B of 23.54.015.II.M

None Required

Long Term / 1:4 dwelling units / 0.75 per SEDU Parking (BIKE):

**Building Height:** Table 'A' of 23.45.514

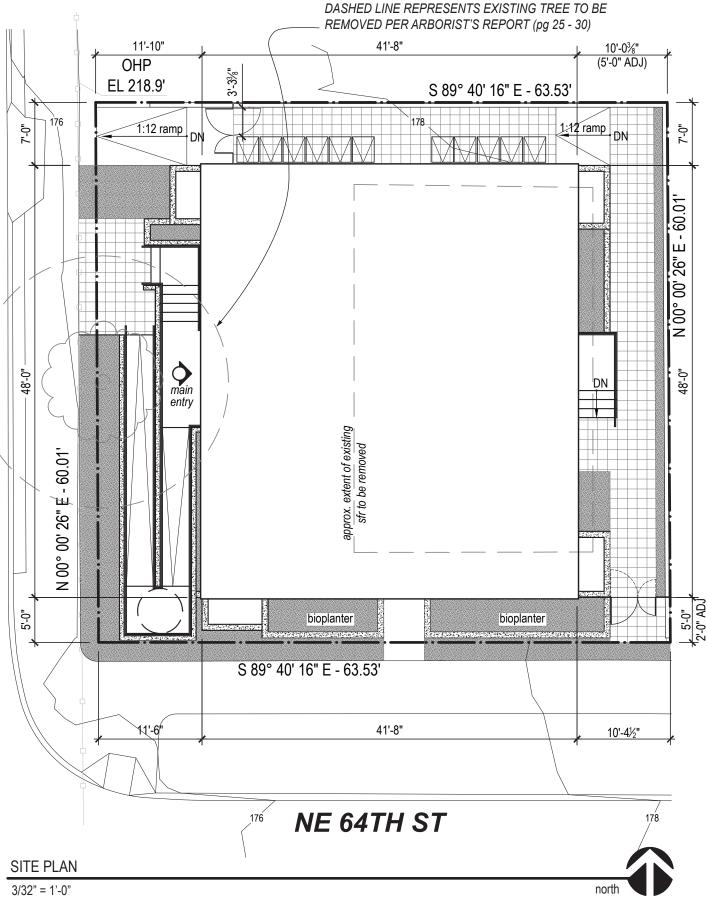
= 40 feet (plus bonus)

Setbacks: per Table 'A' of 23.45.518

Front = 5'-0" min

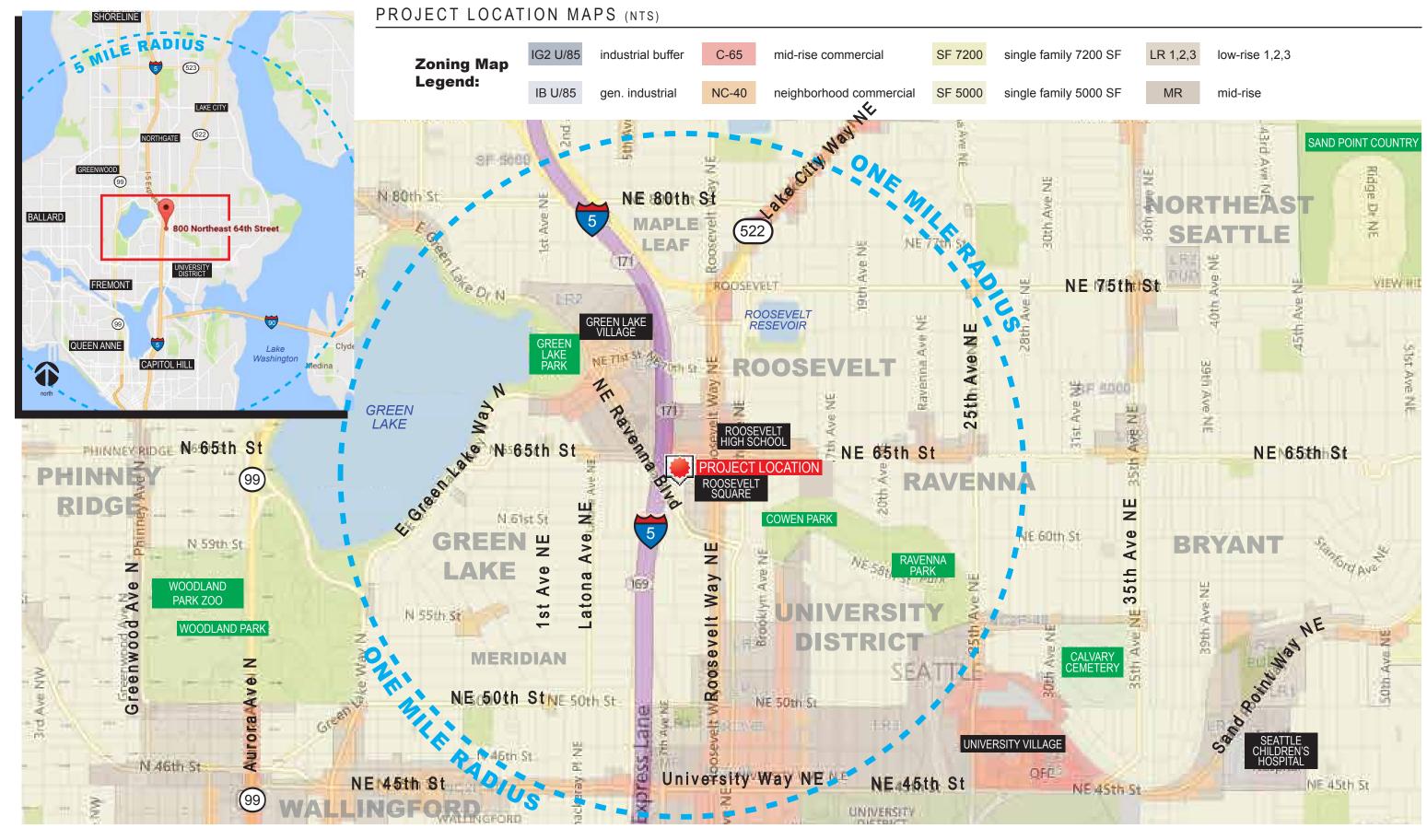
Rear = 15'-0" min (no alley) Sides 5'-0" (facades < 40')

Sides 5'-0" min / 7' avg (facades > 40')

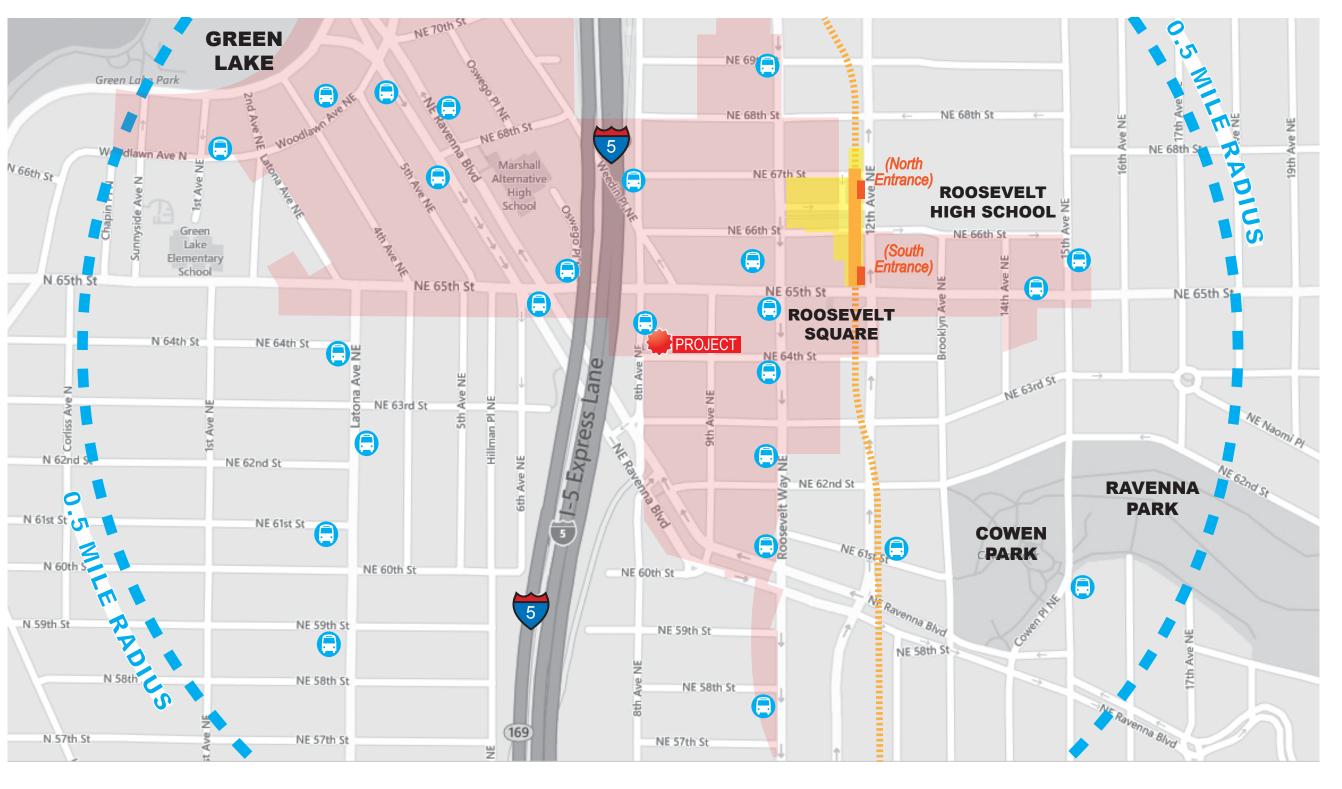


8TH AVE NE









Our site is located within walking distance to Roosevelt Square, Roosevelt High School, and Cowen Park. Many retails shops and restaurants can be found at Roosevelt Square. One can also take a quick bus ride to the University District for additional leisurely activities.

Our site is on the edge of the Frequent Transit Overlay Zone. Within this zone, one can expect a bus to arrive roughly every 15 minutes. The bus stop found adjacent to our project location offers direct access to Wedgwood, Jackson Park, Northgate, and Green Lake: (buses 63, 64, and 76.)

The Roosevelt Link Light Rail Station is to be located on 12th Ave. NE between NE 65th St. and NE 67th St. The station will provide quick access and a convenient link to Downtown as well as other metro neighborhoods, making this Roosevelt neighborhood inviting to small business and commuting city dwellers. The Roosevelt Link Light Rail Station is scheduled for completion in 2019 with service commencing in 2021.

Light Rail Route

Construction Staging Area

Proposed Light Rail Station (below ground) (commences in 2021)

Station Entrance

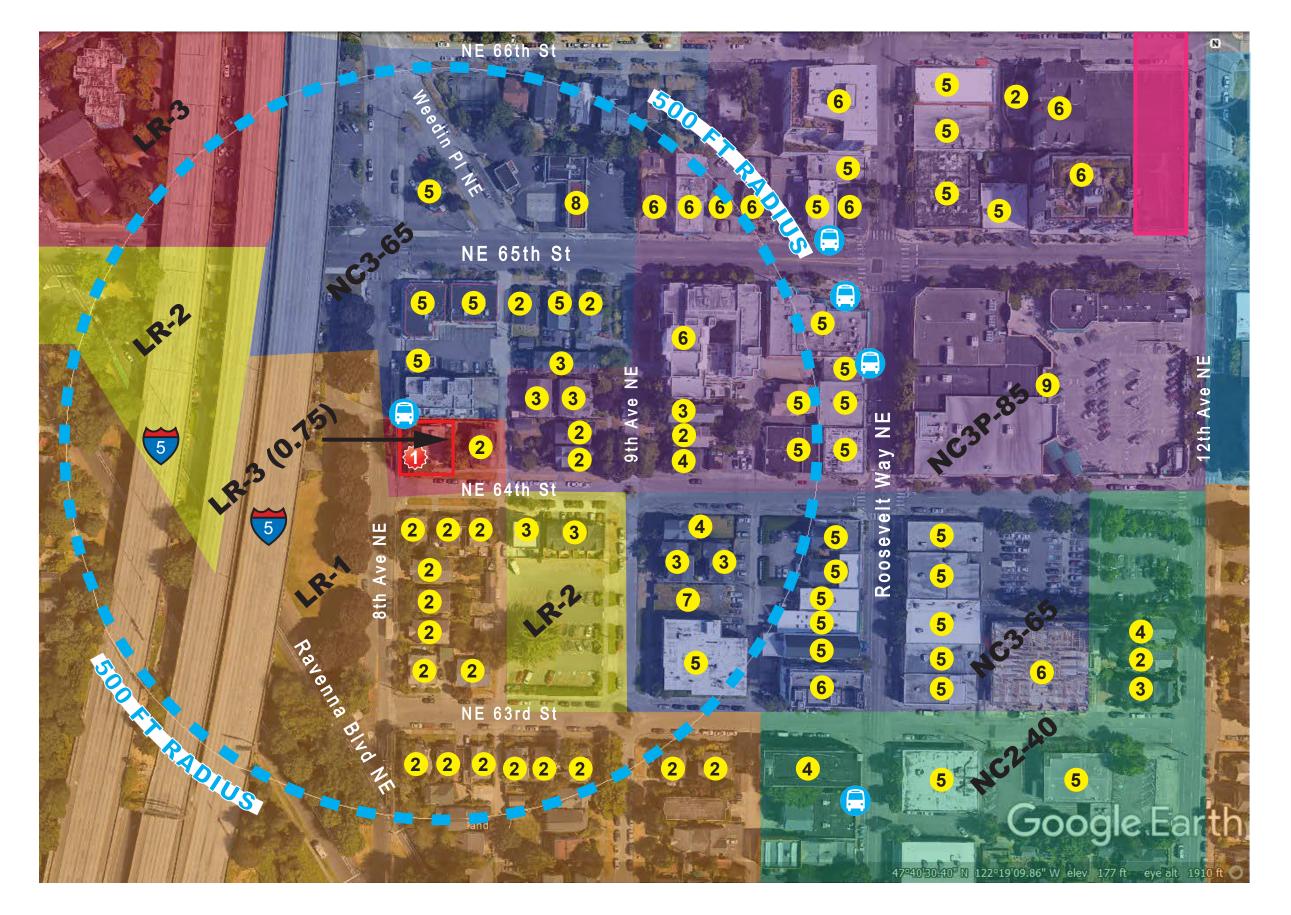
Frequent Transit Overlay

**King County Metro** 

FREQUENT TRANSIT KEY:







#### NEIGHBORING BUILDINGS & USES:

- 1 Project Location
- 2 Single Family Residence
- **3** Townhouses
- 4 Apartment Building
- 5 Small Business
- 6 Mixed Use (Apt/Retail)
- 7 Vacant Lot
- 8 Shell Convenient Store/Gas Station
- 9 Shopping Center (Major Retail) Roosevelt Square
- Future Light Rail Station

One can see from this diagram that the majority of the surrounding buildings are made up of a combination of single family residences, town homes, and apartment buildings. Symbols 5 & 6 (small business and mixed use apartment/retail buildings) appear along the larger arterial streets such as NE 65th St and Roosevelt Way NE.

Roosevelt Square is represented by # 9. It's about a seven minute walk away from our project location.

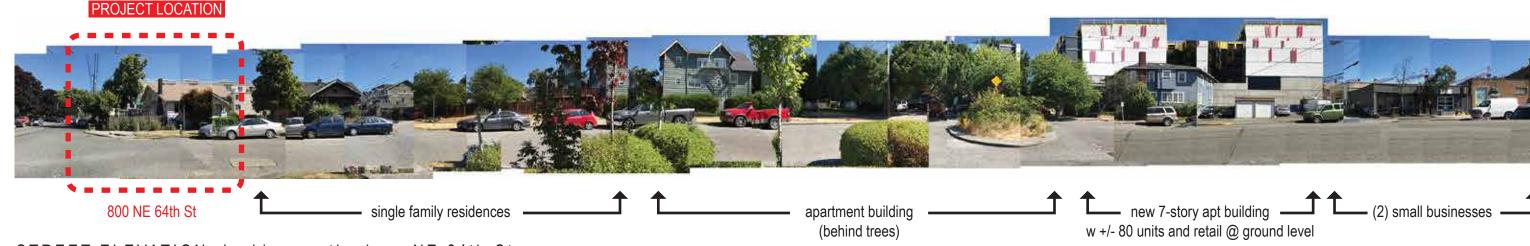
As mentioned on page 3, the bus stop that abuts our site provides residents with direct routes to Wedgwood, Jackson Park, Northgate, and Green Lake.

In terms of other modes of tranportation, NE 65th, Roosevelt Way NE, and Ravenna Blvd NE are all bicycle friendly.









STREET ELEVATION- looking north along NE 64th St

(NTS)



STREET ELEVATION- looking south along NE 64th St

(NTS)



STREET ELEVATION- looking east along 8th Ave N between NE 65th and NE 64th St

800 NE 64th St

(NTS)









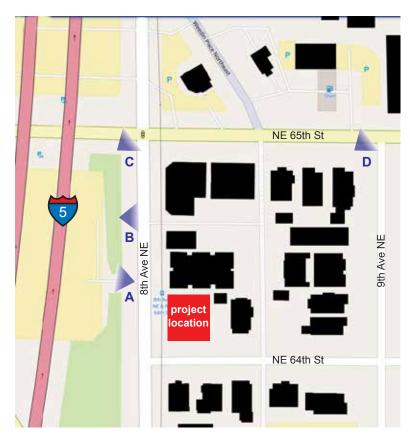
Intersection of 8th Ave NE and NE 65th Ave. Coffee shop and Shell Station.



Example of neighborhood commercial zoning nearby. Jay's Cleaners and The Roosevelt Barbershop.

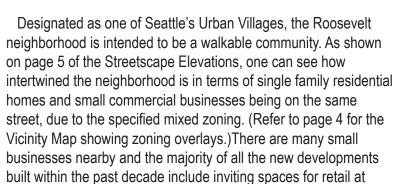


Rooster Apartments (mixed use building in NC3P-85 zone) on NE 65th St. Retail at street level.



REFERENCE MAP:

(NTS)



Our site is located with an LR-3 (0.75) zone. The purpose of an LR3 zone is to "provide opportunities for a variety of multifamily housing types in existing multifamily neighborhoods, and along arterials that have a mix of small to moderate scale residential structures;" and "to establish multifamily neighborhoods of moderate scale and density." (Seattle Municipal Code 2015.)

street level to further encourage the 'walkability' around the area.

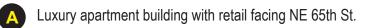
6 NEIGHBORHOOD CONTEXT context photos

STREAMLINED DESIGN REVIEW

800 NE 64th St DCI Project # 3028279









Roosevelt Square. Only a few blocks away form our project location. Grocery shopping at Wholefoods is within walking distance.



Example of retail nearby. Intersection of Roosevelt Way NE and NE 65th St.

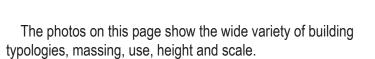


New, large mixed use apartment building with retail at street level, about a block away from our site.



#### REFERENCE MAP:

(NTS)

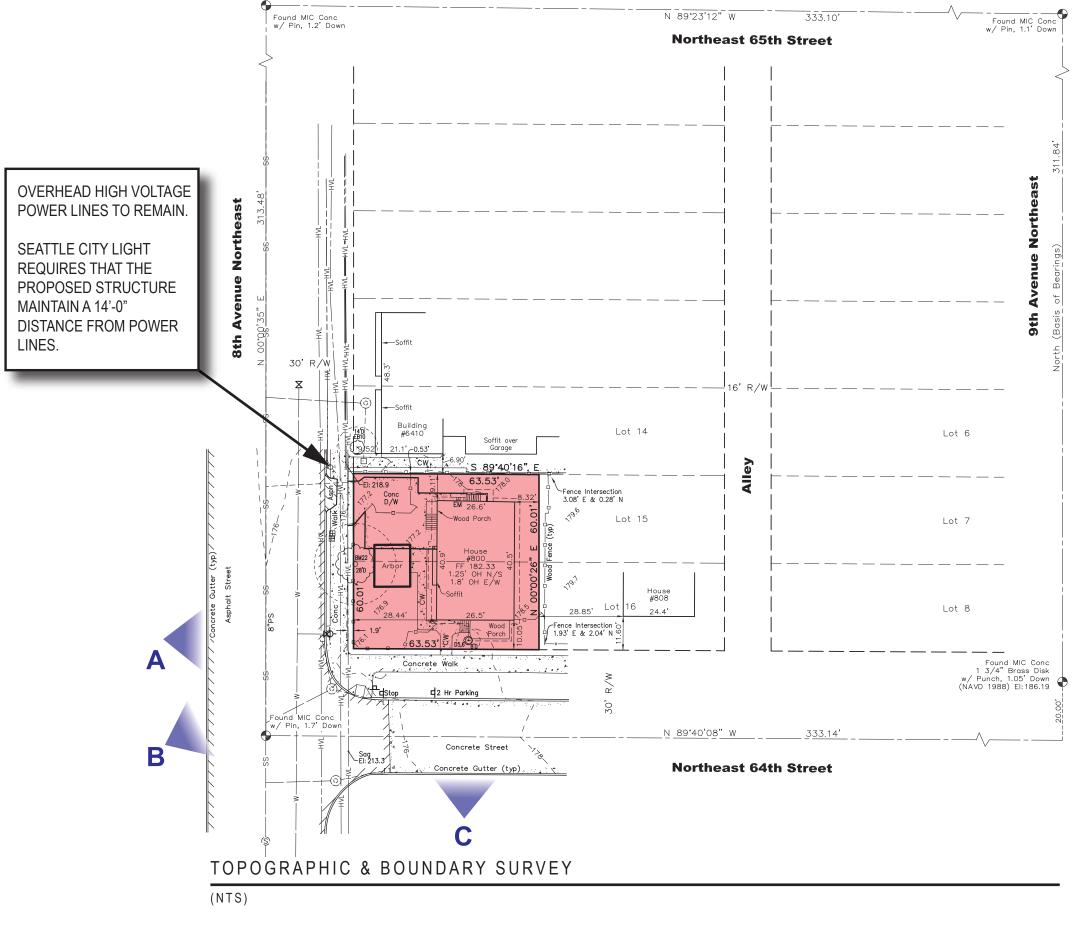


Our development is similar to the new mixed use apartment building being constructed a block away [D. shown to the left] in that it will be taller than its immediate neighbor to the east. We also plan to take advantage of the fact that our site is located on a corner; one that is well traveled upon by vehicles and pedestrians alike.

303 Nickerson St. STREAMLINED DESIGN REVIEW Seattle, WA 98109 800 NE 64th St 206.632.1818 DCI Project # 3028279 www.ryanrhodesdesigns.com



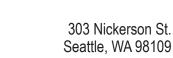




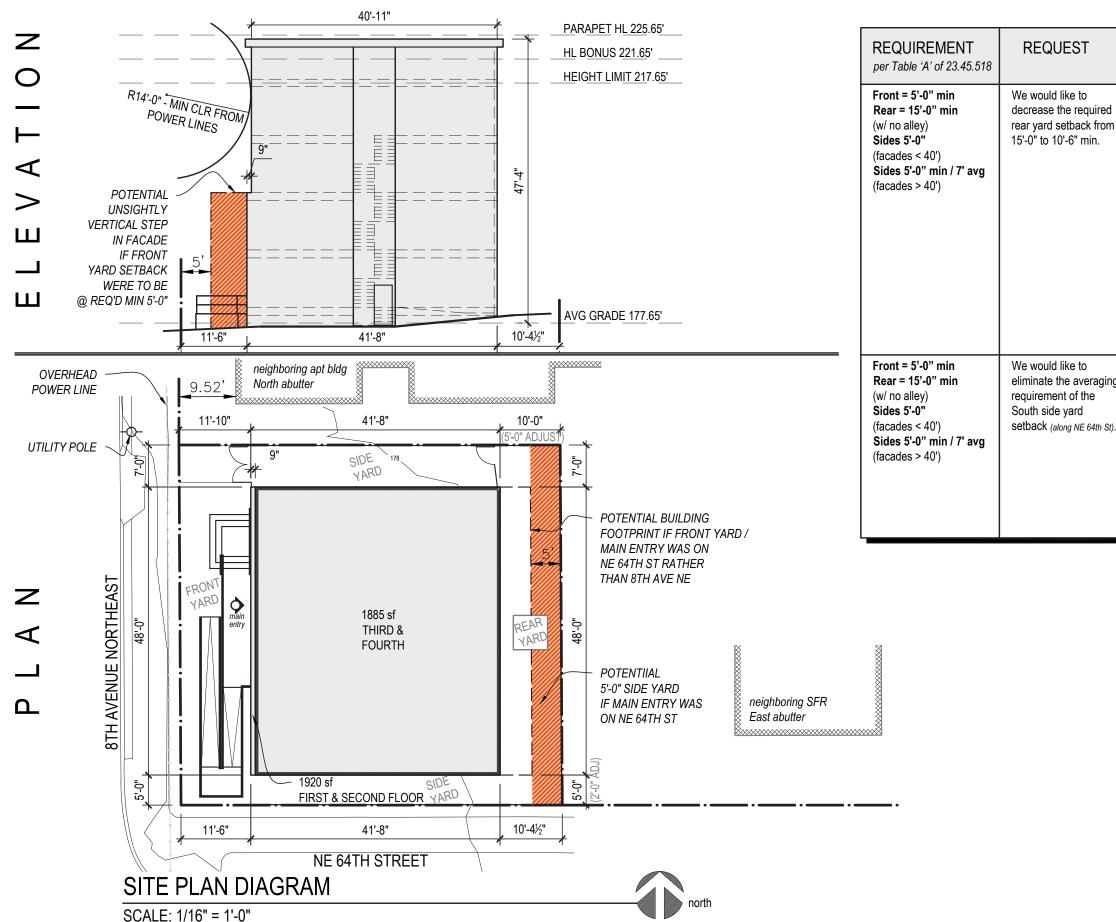








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**REASON FOR** 

**ADJUSTMENT** 

north (per CS1.D and CS2.C).

the street (per CS2.B).

To allow for a increased front yard setback. (5'-0" required; 11'-6" proposed.

Rather than having our front entry along NE 64th St, we would like it to be

environment, and form a visual relationship to the vegated buffer of trees

neighboring apartment building to the north is set back from its property line

by 9.52' (refer to survey on pg 8), a slightly increased front yard on our site

continue the pattern language by extending the existing tree buffer from the

Our rationale for this slight adjustment of setbacks is if we were to have the

front entry along NE 64th St, this East side yard setback would only be a

what it potentially would have been as a 5'-0" side yard setback.

the West front yard setback by much greater than what's required.

that would probably result in an unsightly vertical step in the facade.

required 5'-0". By making this East side yard a rear yard, we are respecting

We feel this 2'-0" adjustment will allow us to maintain an interactive facade

on the South that allows a more direct relationship with the street corner.

Holding the building closer along this edge will help connect the building to

In addition, to compensate for this requested adjustment, we are increasing

(Rather than 5'-0", we are proposing an 11'-6" min front yard setback.) An increased West front yard setback will give a more visually appealing facade and overall massing since there is a required setback from the existing OHP

our neighboring 'residential edge' (per PL3.C) by increasing the setback from

along 8th Ave NE. This will better enhance the existing pedestrian

which blocks the view of I-5 (refer to rendering on pg 13). Since the

will better conform with the immediate urban context and allows us to

#### CONTEXT AND SITE

CS1: NATURAL SYSTEMS AND SITE FEATURES

D. PLANTS AND HABITAT

CS2: URBAN PATTERN AND FORM

B. ADJACENT SITES, STREETS, AND OPEN SPACES

C. RELATIONSHIP TO THE BLOCK
D. HEIGHT, BULK, AND SCALE

CS3: ARCHITECTURAL CONTEXT AND CHARACTER

A. EMPHASIZING POSITIVE NEIGHBORHOOD ATTRIBUTES

#### PUBLIC LIFE

PL3: STREET LEVEL INTERACTION

A. ENTRIES

C. RESIDENTIAL EDGES

#### **DESIGN CONCEPT**

DC2: ARCHITECTURAL CONCEPT

A. MASSING

B. ARCHITECTURAL AND FACADE COMPOSITION

D. SCALE AND TEXTURE

DC4: EXTERIOR ELEMENTS AND MATERIALS

A. EXTERIOR ELEMENTS AND FINISHES

D. TREES, LANDSCAPE, AND HARDSCAPE MATERIALS

#### SITE RECONNAISSANCE

1. ROW IMPROVEMENTS

CURB, GUTTER, SIDEWALK:
DESIGN RIGHT OF WAY BETWEEN PROPERTY LINE AND
SIDEWALK TO ENHANCE PUBLIC RIGHT OF WAY
AND TRANSITION.

- 2. TREES (LARGE & SIGNIFICANT TREES, GROVE):
  PROVIDE AN ARBORIST REPORT.
- 3. STRUCTURES ON SITE (TO REMAIN?):
  TO BE DEMOLISHED

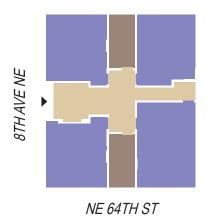
CONTEXT AND SITE: Located on a corner lot within the transitional zone of LR3 at 8th Ave NE and NE 64th St, our goals for this project are to create a community development of small-scale, multi-functional dwelling units that will add visual appeal to the existing mixed-use neighborhood context as a whole. The existing neighborhood is comprised of mainly single family homes, larger-scale apartment buildings, and small businesses (east of the site, closer to Roosevelt Way NE and around the corner on 8th Ave NE closer to NE 65th St.) The immediately adjacent buildings to our project location are a mid-rise apartment building to the north and a single family residence to the east. Interstate I-5 lies to the west of the site with a Park & Ride below it. There are many large trees that act as a buffer zone between our lot and this area which will oppose our building's main entrance. Although we plan to remove the existing tree to the west of the site, we propose replacing it with three new street trees (Persian Ironwoods) that will compliment the architecture and streetscape, and will relate better to the human scale because of their reduced size. We are also proposing two Espresso Kentucky Coffee trees to the south, along NE 64th St.

In terms of relating to the neighboring buildings and block, our building's height limit is 40'-0", about the same height as the neighboring apartment building to the north. It will not appear to tower over the single family abutter to the east either, because of the existing grade/site conditions (there is a slight slope up to the east and two large trees on the neighboring site). Our project will act as a visual anchor point along the corner of 8th Ave NE and NE 64th. We plan on using high quality materials, and will utilize large floor to ceiling windows along both these facades and projecting overhangs with cedar soffits to create a warm and inviting overall appearance. The "bulk" of our building will be reduced by the large fenestration penetrations and its projecting roofs.

PUBLIC LIFE: Our design "parti" can be simplied to a square broken down into quadrants (determined by our lot constraints) with circulation in between and vertical circulation zones at the north and south. There are entry points in the middle of each side of the square. The main entrance has been positioned along 8th Ave NE where there is considerably more foot traffic. This entrance is opposite the large open space created by the Park & Ride below I-5. "Residential edges" shall be respected with permeable thresholds such as the beautiful street trees we've selected, and a horizontal slat fence made of warm wood. Trash receptacles will oppose the larger apartment building's site to the north (kept out of sight with a fence) whereas the area to the east of our site, opposing our single family abutter will be used mainly for bike/pedestrian traffic. On the main floor of our building, we are proving ample bike storage for the residents. Rather than having them carry their bikes through the entire building to exit onto 8th Ave NE, they can use this more privatized East exit onto NE 64th St.

DESIGN CONCEPT: As mentioned before, our building acts as a visitual transition between the larger apartment building to the north and the single family residence to the east. Page 9 depicts our design option, determined by a.) the utility pole located in the NW corner of the site and b.) the fact that this is a corner lot and the front yard can be located either on 8th Ave NE or NE 64th St. The main entrance/front yard has been located on 8th Ave NE where there is more foot traffic. We are asking for a 5'-0" reduction of the rear yard in order to optimize our FAR and still meet all the other site constraints and requirements. The rear yard will be about 10'-10" wide which will act as amenity space for residents. The upper two floors have been recessed by approximately 9" from the lower two floors. Not only does this resolve the clearance needed from the power lines, it provides an interesting undulation of the facade planes along 8th Ave NE, which is where our primary entrance has been proposed. Where the planes differ by 9", we have placed large projecting overhangs, to further enhance the visual interest of our building. These planes also act to reduce the verticality of the structure.

Windows make up approximately 27% of the street facing West facade along 8th Ave NE. The fenestration aligns with cable railings at the roof, creating an overall interesting play of positive and negative space or 'voids vs. solid' areas for visual impact. Large projecting overhangs help to add yet another level of interesting articulation to this street-facing facade as well as to embellish the recessed main entrance of the building at grade (per SMC 23.45.529.C.3.B). To help highlight the other three entrances (one per each facade), we propose to use bright green and white painted panels that complimentarily contrast the predominantly neutral gray fiber cement panels. They also offer textural interest at the human scale, especially when placed against the rigid grid-like organization of the fiber cement panels. See pages 19-22 for colored elevations.



Simplied building parti shown to the left.

Building can be broken down in to quadrants, separated by circulation.

Vertical circulation is shown at the North and South of the building.

See building floor plans on pages 15-18 for more information.

The guidelines shown on this page are from the Department of Construction and Inspection of the City of Seattle, dated July 12, 2017.







- A Fiber cement panels, painted white, in between window groupings.
- **B** Cedar soffit.

  Dramatic projections.
- **C** Fiber cement panels, painted gray.



- **D** Horizontal cedar slat fence
- **E** Architectural concrete planters/landscaping.
- F Bright white vinyl windows
- **G** Fiber cement boards, rainscreen, painted green.







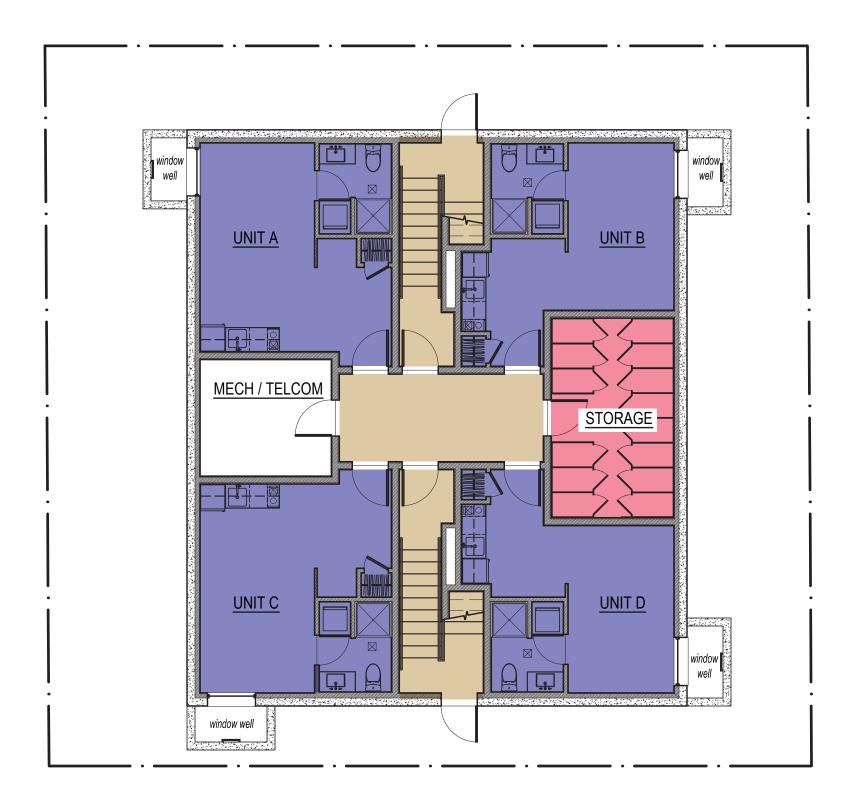




PERSPECTIVE VIEW LOOKING EAST SHOWING MAIN ENTRANCE ALONG 8TH AVE NE.



PERSPECTIVE VIEW LOOKING WEST TOWARD INTERSTATE I-5 (AND TREE BUFFER AS MENTIONED ON PAGE 10).



KEY:

UNITS

RESIDENTIAL AMENITY SPACE

CIRCULATION

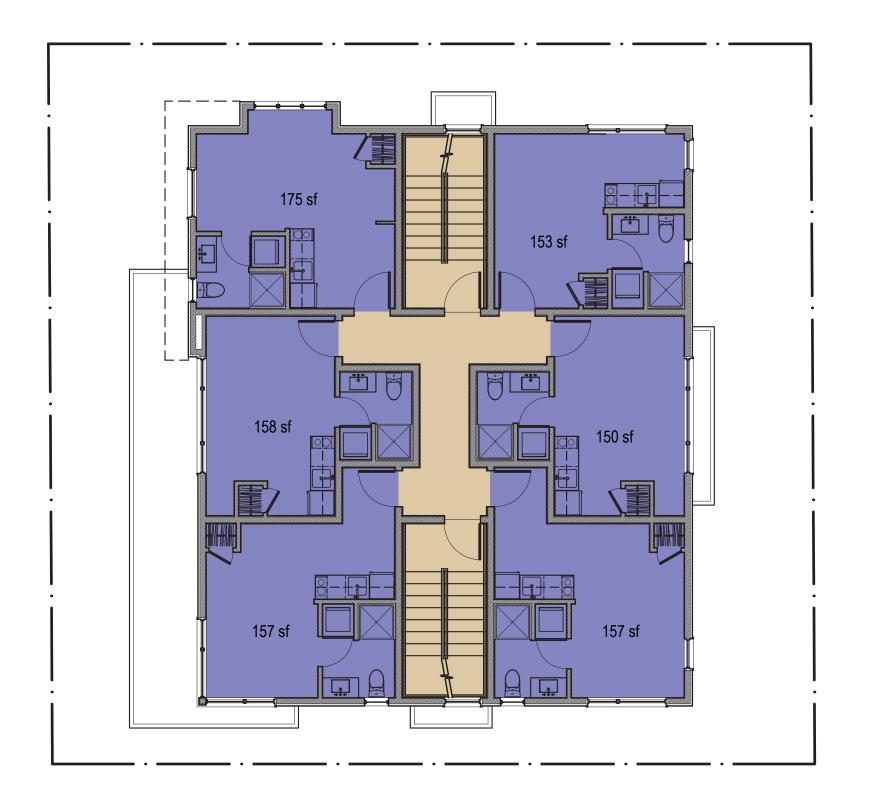
**BASEMENT FLOOR PLAN** 

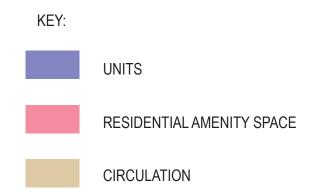






KEY: UNITS RESIDENTIAL AMENITY SPACE CIRCULATION

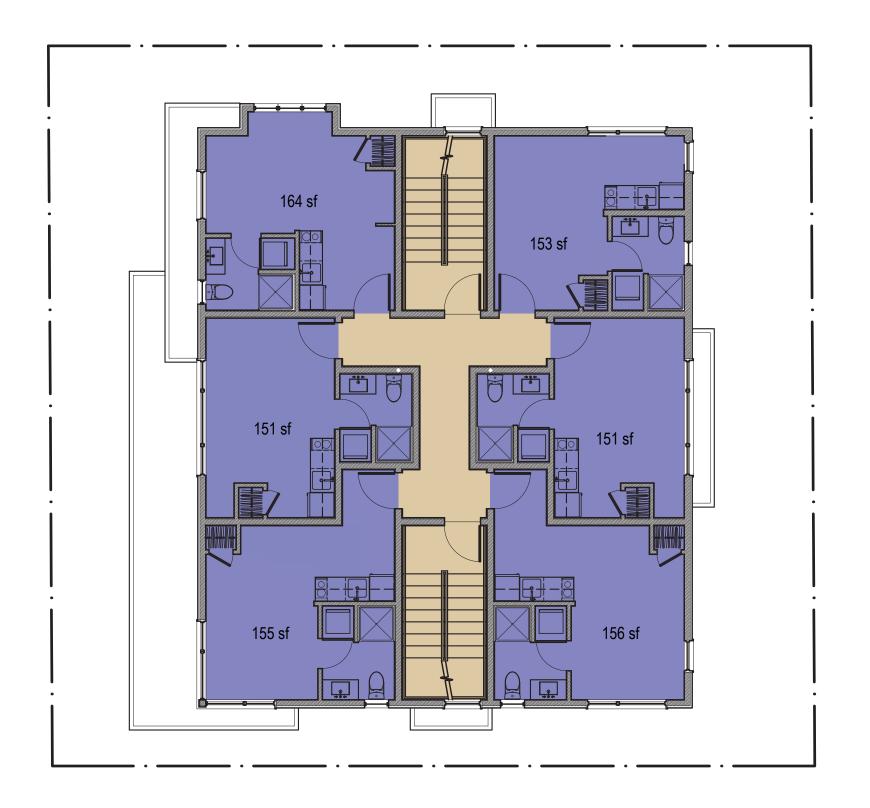




SECOND FLOOR PLAN



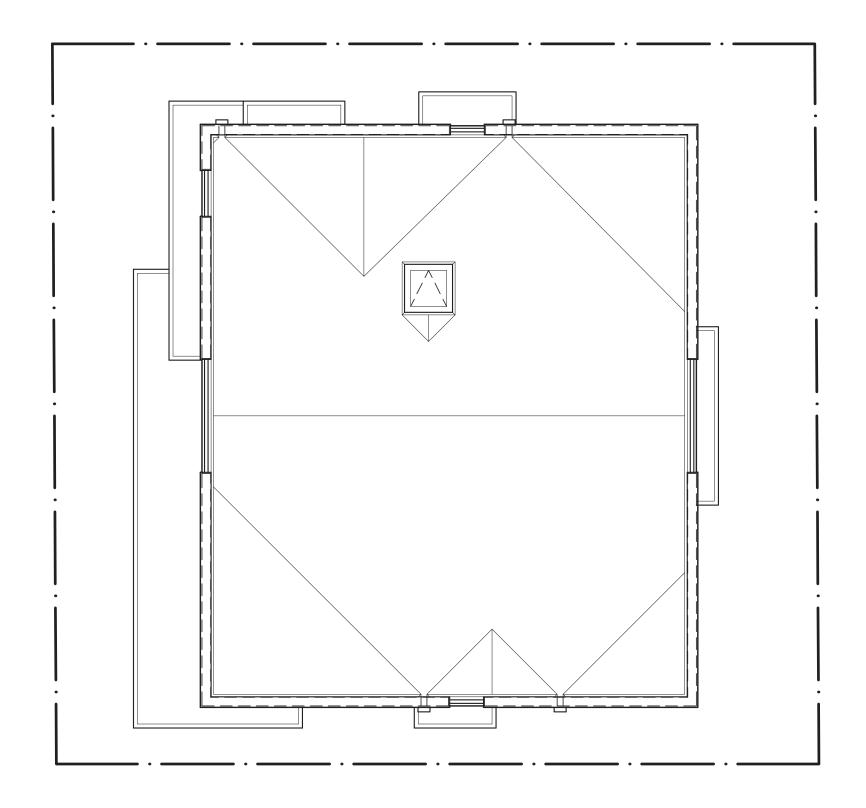






## THIRD/FOURTH FLOOR PLAN





# **ROOF PLAN**

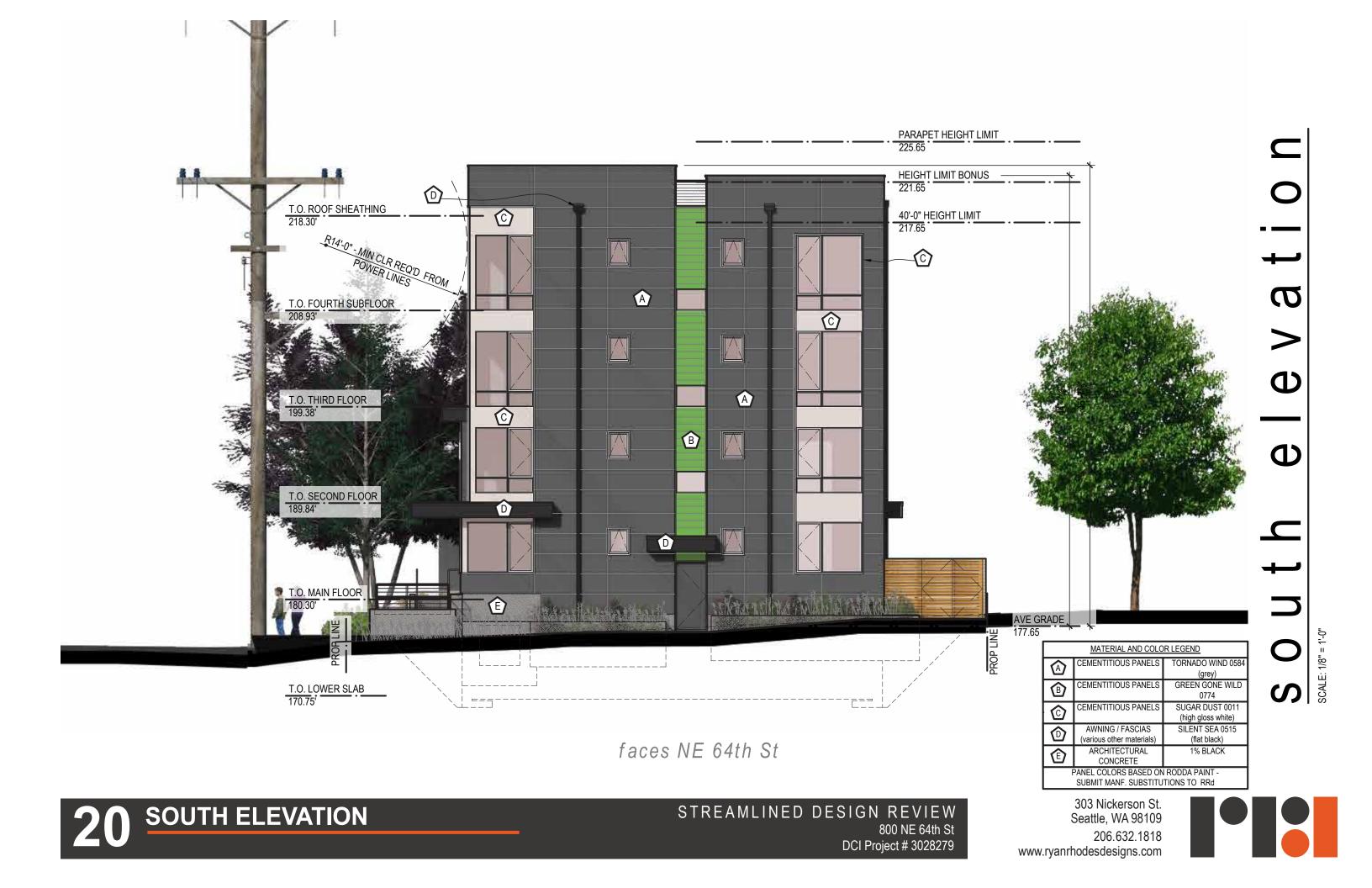


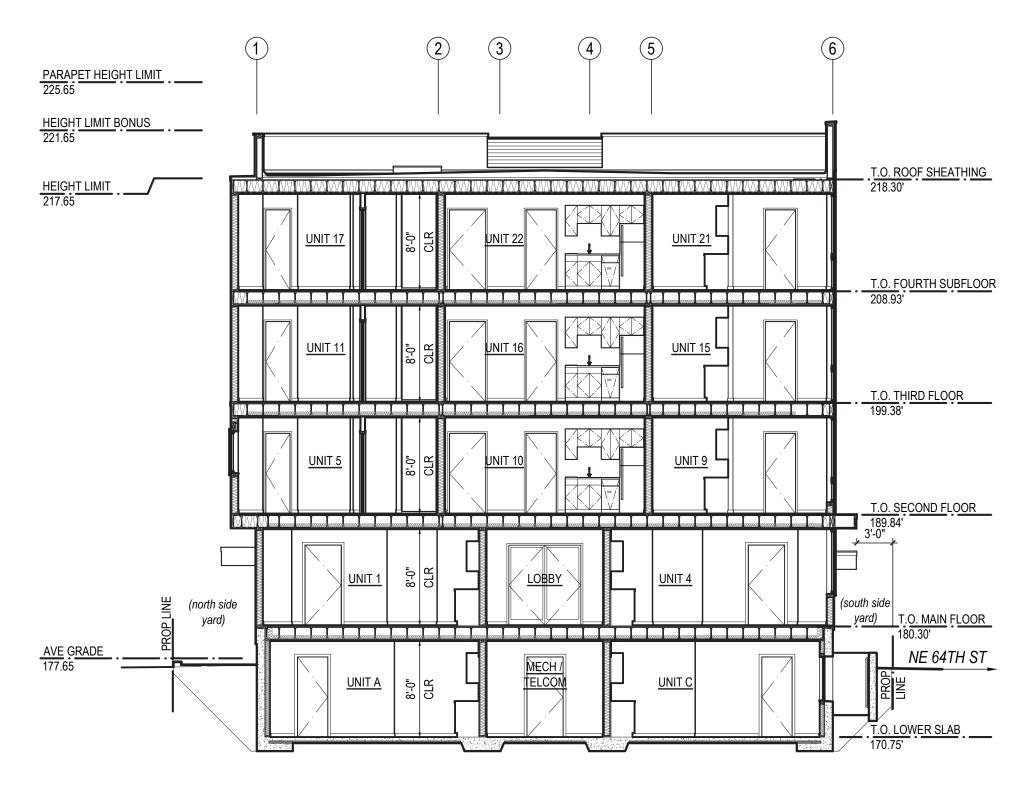


faces 8th Ave NE

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### **BUILDING SECTION**



#### PLANT SCHEDULE

QUANT	BOTANICAL NAME	COMMON NAME	SIZE
2	GYMNOCLADUS DIOICUS 'ESPRESSO-JFS'	ESPRESSO KENTUCKY COFFEE TREE	2.0" CAL
	STREET TREE FORM		
3	PARROTIA PERSICA 'VANESSA'	VANESSA IRONWOOD TREE	2.5" CAL
	STREET TREE FORM		
<b>*</b> 88 #	SHRUB WITH MATURE HEIGHT OF AT LEAST 24"		2 GAL
	PLANTING AREA, TYPICAL		
	PREMIUM RYE GRASS SOD		

FOR EACH HATCH AREA PROVIDE AMOUNT OF PLANTINGS LISTED ADJACENT TO HATCH

\* SHRUB WITH A MATURE HEIGHT OF 24" OR GREATER, (FOR GREEN FACTOR CALCULATIONS)

PLANT SHRUBS AND GROUNDCOVERS A MINIMUM OF 18" FROM PAVED SURFACES

# DROUGHT TOLERANT SHRUB OR GROUNDCOVER, ONCE ESTABLISHED, NOTE SOME SPECIES ARE DRAUGHT TOLERANT WHEN GROWN IN SHADE AS THEY ARE ON THIS PLAN

SEE ARCHITECTURAL PLANS FOR ALL RAILS AND RAILINGS COORDINATE ALL WORK WITH ARCHITECTURAL AND CIVIL DRAWINGS.

COORDINATE TREE LOCATIONS WITH UTILITY PLANS, TREES MUST BE 5' MINIMUM HORIZONTAL DISTANCE FROM UNDERGROUND UTILITIES. COORDINATE WITH OWNER AND LANDSCAPE ARCHITECT IF TREES NEED TO BE LOCATED SUBSTANTIAL DIFFERENT FROM LOCATIONS AS SHOWN ON PLANS.

CONTACT SDOT URBAN FORESTRY (206-684-5693) TO COORDINATE STREET TREE SELECTION, AS WELL AS ANY OTHER WORK IN THE RIGHT OF WAY **BEFORE** WORK COMMENCES ON-SITE. ALSO CONTACT URBAN FORESTRY FOR INSPECTION AND APPROVAL OF NEW STREET TREES. STREET TREE VARIETIES APPROVED BY BEN ROBERTS, SDOT, VIA EMAIL 8-17-2017

PEA GRAVEL, 4" DEEP, OVER FILTER FABRIC AND OVER A MINIMUM OF 24" OF SOIL, COUNTED AS PERMEABLE IN GREEN FACTOR



PAVERS OVER 24" OF GRAVEL AND SOIL, MUST MEET SPU DEFINITION FOR PERMEABLE PAVERS



CONCRETE OR ASPHALT PAVING, NOT COUNTED TOWARD GREEN FACTOR

800 NE 64th St

DCI Project # 3028279

STREAMLINED DESIGN REVIEW

--- GREEN SCREEN METAL LATTICE, SEE GREEN FACTOR EXIHIBIT SHEETS FOR WIDTH BY HEIGHT DIMENSIONS



**Zsofia Pasztor** 



#### Tree Evaluation August 2017

Zsofia Pasztor
Certified Horticulturist CPH 2459
Arborist PN-5795A, and Tree Risk Assessor Qualified
Landscape Designer; Certified LID Consultant
10 – 108th St. SE
Everett, Washington 98208
425-210-5541
zs.pasztor2011@gmail.com

Dear Mr. Gordon,

During the summer of 2017, at your request, I performed a tree identification and evaluation at the address of 800 NE 64<sup>th</sup> St Seattle WA.

This report is a summary of my observations and conclusions as well as a list of some of the findings.

#### **Definition of the assignment**

You contacted me because you are planning to build on the property and the city of Seattle requires that a certified arborist, tree risk assessor evaluate the trees on site.

As you and I discussed, my assignment was to:

- evaluate the health and condition of the tree at this time
- determine if preservation is possible
- recommend a mitigation method to the risks the tree represents
- write and submit to you a report

#### **Summary of findings**

Visiting the site and examining the tree I found that it is not an exceptional tree. I also found that it is damaging structures in its surroundings, has been excessively pruned for years in order to keep it away from the utility lines, and its successful preservation during and after construction is uncertain.

#### Methodology

To evaluate the tree and to prepare the report, I drew upon my 30 years of experience in the field of horticulture, site management, and arboriculture and my formal education in natural resources management, natural habitat ecology, plant identification, and plant physiology. I also followed the protocol of the International Society of Arboriculture (ISA) for Visual and Level 2 Assessment (VA and L2) that includes looking at the overall health of the tree as well as the site conditions. This is a scientifically based process to look at the entire site, surrounding landscape and soil, as well as a complete look at the tree itself.

In examining the tree, I looked at such factors as: size, vigor, canopy and foliage condition, density of leaves, injury, insect activity, root damage and root collar health, crown health, evidence of disease-causing bacteria, fungi or virus, dead wood and hanging limbs.

**TREE EVALUATION AUGUST 2017** 

800 NE 64<sup>th</sup> St Seattle WA

Page 2

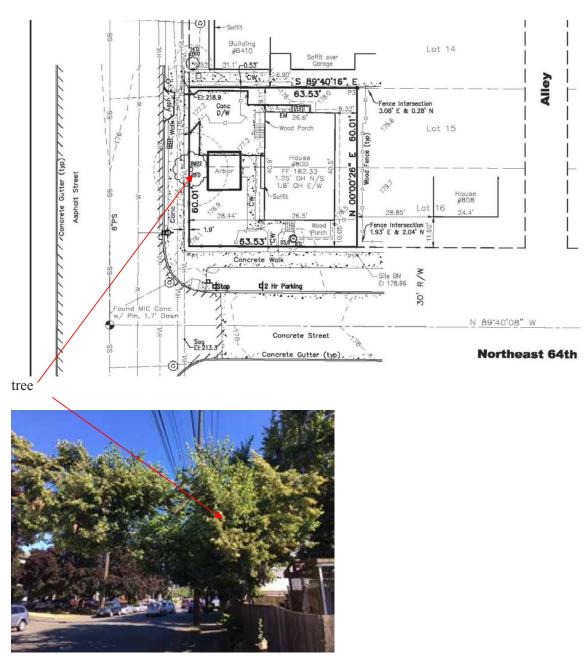


#### Field Data

The tree is a *Tillia cordata*, Littleleaf Linden, about 35 feet tall, it measures 22" at 4.5 feet off the ground and it has a canopy 36 feet diameter. The tree shows decay in the canopy since it has been topped and excessively pruned repeatedly, many times during the past decades.

#### Recommendation

I recommend removal.



800 NE 64<sup>th</sup> St Seattle WA Page 3



The tree in the fence.

#### Waiver of Liability

There are many conditions affecting a tree's health and stability, which may be present and cannot be ascertained, such as, root rot, previous or unexposed construction damage, internal cracks, stem rot and more which may be hidden. Changes in circumstances and conditions can also cause a rapid deterioration of a tree's health and stability. Adverse weather conditions can dramatically affect the health and safety of a tree in a very short amount of time.

While I have used every reasonable means to examine these trees, this evaluation represents my opinion of the tree health at this point in time. These findings do not guarantee future safety nor are they predictions of future events.

The tree evaluation consists of an external visual inspection of an individual tree's root flare, trunk, and canopy from the ground only unless otherwise specified. The inspection may also consist of taking trunk or root soundings for sound comparisons to aid the evaluator in determining the possible extent of decay within a tree. Soundings are only an aid to the evaluation process and do not replace the use of other more sophisticated diagnostic tools for determining the extent of decay within a tree.

As conditions change, especially during and after development, it is the responsibility of the property owners to schedule additional site visits by the necessary professionals to ensure that the long-term success of the project is ensured. It is the responsibility of the property owner to

800 NE 64<sup>th</sup> St Seattle WA

obtain all required permits from city, county, state, or federal agencies. It is the responsibility of the property owner to comply with all applicable laws, regulations, and permit conditions. If there is a homeowners association, it is the responsibility of the property owner to comply with all Codes, Covenants, and Restrictions (CC&R's) that apply to tree pruning and tree removal.

This tree evaluation is to be used to inform and guide the client in the management of their trees. This in no way implies that the evaluator is responsible for performing recommended actions or using other methods or tools to further determine the extent of internal tree problems without written authorization from the client. Furthermore, the evaluator in no way holds that the opinions and recommendations are the only actions required to insure that the tree will not fail. A second maybe sought if client feels it's necessary. The client shall hold the evaluator harmless for any and all injuries or damages incurred if the tree examined fails for any reason or if the evaluator's recommendations are not followed or for acts of nature beyond the evaluator's reasonable expectations, such as severe winds, excessive rains, heavy snow loads, etc.

Should you have any questions or concerns, or if I may be of further assistance, please call. Sincerely,

Zsofia Pasztor:

Certified Horticulturist Cert. # 2459

Certified Arborist Cert. # PN5795A;

Tree Risk Assessor Qualified

Certified LID Consultant and Designer

Landscape Designer and Construction Consultant

800 NE 64<sup>th</sup> St Seattle WA Page 5

#### Tree Evaluation August 2017

#### **ATTACHMENT 1 - GLOSSARY**

#### Terms Used in This Report, on the Tree Condition and Their Significance

In an effort to clearly present the information for each tree in a manner that facilitates the reader's ability to understand the conclusions I have drawn for each tree, I have collected the information in a report format. This report was developed by Zsofia Pasztor and it is based upon the Tree Risk Assessment in Urban Areas and the Urban/Rural Interface course manual and the Tree Risk Assessment Form, both sponsored by the International Society of Arboriculture, and the Hazard Tree Evaluation Form from the book, The Evaluation of Hazard Trees in Urban Areas, by Matheny and Clarke. The descriptions were left brief in the report in an effort to include as much pertinent information as possible, to make the report manageable, and to avoid boring the reader with infinite levels of detail. However, a review of these terms and descriptions will allow the reader to rapidly move through the report and understand the information.

- 1) **TREE LOCATION--**indicates what general area of the site the tree is on, or whether the tree is Off the Project property.
- 2) **TREE** #—the individual number of each tree.
- 3) **SPECIES**—this describes the species of each tree with both most readily accepted common name and the officially accepted scientific name.
- 4) **DBH**—Diameter-at-Breast-Height. This is the standard measurement of trees taken at 4.5 feet above the average ground level of the tree base.
  - i) Occasionally it is not practical to measure a tree at 4.5 feet above the ground. The most representative area of the trunk near 4.5 feet is then measured and noted on the spreadsheet. For instance, a tree that forks at 4.5 feet can have an unusually large swelling at that point. The measurement is taken below the swelling and noted as, '28.4" at 36"".
  - ii) Trees with multiple stems are listed as a "clump of x," with x being the number of trunks in the clump. Measurements may be given as an average of all the trunks, or individual measurements for each trunk may be listed.
  - (iii) Every effort is made to distinguish between a single tree with multiple stems and several trees growing close together at the bases.
- 5) **DRIP LINE**—the radius, the distance from the trunk to the furthest branch tips (sometimes the average of these measurements around the tree).
- 6) **% LCR**—Percentage of Live Crown Ratio: the relative proportion of green crown to overall tree height. This is an important indication of a tree's health. If a tree has a high percentage of Live Crown Ratio, it is likely producing enough photosynthetic activity to support the tree. If a tree has less than 30 to 40% LCR it can create a shortage of needed energy and can indicate poor health and vigor.

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- 7) **SYMMETRY**—is the description of the form of the canopy. That is, the balance or overall shape of the canopy and crown. This is the place I list any major defects in the tree shape—does the tree have all its foliage on one side or in one unusual area. Symmetry can be important if there are additional defects in the tree such as rot pockets, cracks, loose roots, weak crown etc. Symmetry is generally categorized as Generally Symmetrical, Minor Asymmetry or Major Asymmetry:
  - i) Gen. Sym.—Generally Symmetrical. The canopy/foliage is generally even on all sides with spacing of scaffold branches typical for the species, both vertically and radially.
  - ii) Min. Asym.—Minor Asymmetry. The canopy/foliage has a slightly irregular shape with more weight on one side but appears to be no problem for the tree.
  - iii) Maj. Asym.—Major Asymmetry. The canopy/foliage has a highly irregular shape for the species with the majority of the weight on one side of the tree. This can have a significant impact on the tree's stability, health and hazard potential—especially if other defects are noted such as cracks, rot, root defects.
- 8) **FOLIAGE/BRANCH**—describes the foliage of the tree in relation to a perfect specimen of that particular species. First the branch growth and foliage density is described, and then any signs or symptoms of stress and/or disease are noted. The condition of the foliage, or the branches and buds for deciduous trees in the dormant season, are important indications of a tree's health and vigor.
  - i) For Deciduous trees in the dormant season:
  - The structure of the tree is visible,
  - The quantity and quality of buds indicates health, and is described as good bud set, average bud set, or poor bud set. These are abbreviated in the spreadsheet as: gbs, abs, or pbs.
  - The amount of annual shoot elongation is visible and is another major indication of tree health and vigor. This is described as:
    - a) Excellent, Good, Average, or Short Shoot Elongation. These are abbreviated in the spreadsheet as ESE, GSE, ASE, OR SSE.
    - ii) For evergreen trees year round and deciduous trees in leaf, the color and density of the foliage indicates if the tree is healthy or stressed, or if an insect infestation, a bacterial, fungal, or viral infection is present. Foliage is categorized on a scale from:
  - Dense—extremely thick foliage, an indication of healthy vigorous growth,
  - Good—thick foliage, thicker than average for the species,
  - Normal/Average—thick foliage, average for the species, an indication of healthy growth,
  - Thin or Thinning—needles and leaves becoming less dense so that sunlight readily passes through; an indication that the tree is under serious stress that could impact the long-term survivability and safety
  - Sparse—few leaves or needles on the twigs, an indication that the tree is under extreme stress and could indicate the future death of the tree
  - Necrosis—the presence of dead twigs and branchlets. This is another significant indication of tree health. A few dead twigs and branches are reasonably typical in most trees of size. However, if there are dead

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- twigs and branchlets all over a certain portion of the tree, or all over the tree, these are indications of stress or attack that can have an impact on the tree's long-term health.
- Hangers—a term to describe a large branch or limb that has broken off but is still hanging up in the tree. These can be particularly dangerous in adverse weather conditions.
- 9) **CROWN CONDITION**—the crown is uppermost portion of the tree, generally considered the top 10 to 20% of the canopy or that part of the canopy above the main trunk in deciduous trees and above the secondary bark in evergreen trees.
  - i) The condition of the tree's crown is a reflection of the overall health and vigor of the entire tree. The crown is one of the first places a tree will demonstrate stress and pathogenic attack such as root rot.
  - ii) If the Crown Condition is healthy and strong, this is a good sign. If the crown condition is weak, broken out, or shows other signs of decline, it is an indication that the tree is under stress. It is such an important indication of health and vigor that this is the first place a trained forester or arborist looks to begin the evaluation of a tree. Current research reveals that, by the time trees with root rot show significant signs of decline in the crown, fully 50% or more of the roots have already rotted away. **Crown Condition** can be described as:
  - Healthy Crown—exceptional growth for the species.
  - Average Crown—typical for the species.
  - Weak Crown—thin spindly growth with thin or sparse needles.
  - Flagging Crown—describes a tree crown that is weak and unable to grow straight up.
  - Dying Crown—describes obvious decline that is nearing death.
  - Dead Crown—the crown has died due to pathological or physical injury. The tree is considered to have significant stress and/or weakness if the crown is dead.
  - Broken out—a formerly weak crown condition that has been broken off by adverse weather conditions or other mechanical means.
  - Regenerated or Regenerating—formerly broken out crowns that are now growing back, Regenerating crowns may appear healthy, average, or weak and indicate current health of the tree.
  - Suppressed—a term used to describe poor condition of an entire tree or just the crown. Suppressed crowns are those that are entirely below the general level of the canopy of surrounding trees which receive no direct sunlight. They are generally in poor health and vigor.
  - Suppressed trees are generally trees that are smaller and growing in the shade of larger trees around them. They generally have thin or sparse needles, weak or missing crowns, and are prone to insect attack as well as bacterial and fungal infections.
- 10) **TRUNK**—this is the area to note any defects that can have an impact on the tree's stability or hazard potential. Typical things noted are:
  - i) FORKED—bifurcation of branches or trunks that often occur at a narrow angle.

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- ii) INCLUDED BARK—a pattern of development at branch or trunk junctions where bark is turned inward rather than pushed out. This can be a serious structural defect in a tree that can and often does lead to failure of one or more of the branches or trunks especially during severe adverse weather conditions.
- iii) EPICORMIC GROWTH—this is generally seen as dense thick growth near the trunk of a tree. Although this looks like a healthy condition, it is in fact the opposite. Trees with Epicormic Growth have used their reserve stores of energy in a last ditch effort to produce enough additional photosynthetic surface area to produce more sugars, starches and carbohydrates to support the continued growth of the tree. Generally speaking, when conifers in the Pacific Northwest exhibit heavy amounts of Epicormic Growth, they are not producing enough food to support their current mass and are already in serious decline.
- iv) INTERNAL STRUCTURAL WEAKNESS—a physical characteristic of the tree trunk, such as a kink, crack, rot pocket, or rot column that predisposes the tree trunk to failure at the point of greatest weakness.
- v) BOWED—a gradual curve of the trunk. This can indicate an Internal Structural Weakness or an overall weak tree. It can also indicate slow movement of soils or historic damage of the tree that has been corrected by the curved growth.
- vi) KINKED—a sharp angle in the tree trunk that indicates that the normal growth pattern is disrupted. Generally this means that the internal fibers and annual rings are weaker than straight trunks and prone to failure, especially in adverse weather conditions. vii)GROUND FLOWER—an area of deformed bark near the base of a tree trunk that indicates long-term root rot.
- 11) **ROOT COLLAR**—this is the area where the trunk enters the soil and the buttress roots flare out away from the trunk into the soil. It is here that signs of rot, decay, insect infestation, or fungal or bacterial infection are noted. **NAD** stands for **No Apparent D**efects.
- 12) **ROOTS**—any abnormalities such as girdling roots, roots that wrap around the tree itself that strangle the cambium layer and kill the tree, are noted here.
- 13) **COMMENTS**—this is the area to note any additional information that would not fit in the previous boxes or attributes about the tree that have bearing on the health and structure of the tree.
- 14) **CURRENT HEALTH RATING**—A description of the tree's general health ranging from dead, dying, poor, senescent, suppressed, fair, good, very good, to excellent.
- 15) PNW-ISA TREE RISK ASSESSMENT RATINGS FOR HAZARD POTENTIAL-- The Pacific Northwest Chapter of the International Society of Arboriculture now certifies arborists as Certified Tree Risk Assessors using an adjusted scale Low to Extreme. They are:
  - i) **TARGET RATING--**A scale of zero to three points depending upon the amount of use within the range of the tree and the amount of injury or damage that might occur if the tree or component part does fail. Target is both the level of use and the quality/value of

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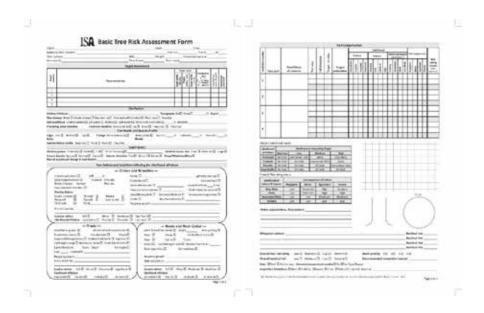
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the target combined with the foreseeable amount of injury or damage that will likely occur should the tree or component part fail.

- 0 Points, no target. **No Hazard.**
- 1 Point, Low human use is rare and random for short periods of time and/or low target value. (country roads, long-term or overflow parking, remote parks, wilderness trails)
- 2 Points, Moderate human use less than 50% time, occasional (any given time) and/or moderate target value. (picnic areas, camping areas, minor rural roads, moderate use
- 3 Points, Moderately high human use more than 50% of the time, frequent or high value target and/or moderate target value. (bus stops, roads, parking areas, most rarely used vacation homes, playgrounds, etc.)
- 4 Points, High or constant human use and/or high target value. (Schools, hospitals, residential and family homes, utilities, visitor centers, emergency access roads and stations)
- ii) SIZE OF PART-- The larger the tree or component part that fails, the greater the potential for injury or damage.
- iii) **PROBABILITY OF FAILURE--**This component ranks the likelihood that the observed defect(s) will fail in a reasonable amount of time in the foreseeable future. The probability of failure automatically has associated with it threshold of action recommended to reduce or minimize the potential failure and associated injuries or damages that might occur.

#### iiii) CONSEQUENCES

16) ISA HAZARD or RISK RATING--The combined component ratings used within a specific Matrix.



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- 17) **RECOMMENDATION** this is an estimate of whether or not the tree is of sufficient health, vigor, and structure that it is worth retaining. Specific recommendations for each tree are included in this column. They may include anything from pruning dead wood, mulching, aerating, injecting tree-based fertilizer into the root system, shortening into a habitat tree or wildlife snag, or to completely removing the tree.
  - i) Monitor: "Monitor" is a specific recommendation that the tree be reevaluated on a routine basis to determine if there are any significant changes in health or structural stability. "Monitor annually" (or bi-annually, triannually, etc.)" means the tree should be looked at once every year (or every 2 or 3 years, etc.) This yearly monitoring can be a quick look at the trees to see if there are any significant changes. Significant changes such as storm damage, loss of crown, partial failure of one or more roots, etc. require that a full evaluation be done of the tree at that time.

#### **NOTE:** TREES WITH THE SAME DESCRIPTION AND DIFFERENT RATINGS:

Two trees may have the same descriptions in the matrix boxes, one may be marked "Hazard," while another may be marked "Non-Hazard." The difference is in the degree of the descriptionearly "necrosis" versus advanced "necrosis" for instance. Another example is center rot or base rot. In a Western Red Cedar or Oak tree the presence of low or even moderate rot is not significant and does not diminish the strength of the tree. However, low levels of rot in the base of a Douglas Fir or Big Leaf Maple tree in an area known to have virulent pathogens present is highly significant and predisposes that tree to windthrow. Again, these descriptions were left brief in an effort to include as much pertinent information as possible, to make the report manageable, and, not to bore the reader with infinite levels of detail.

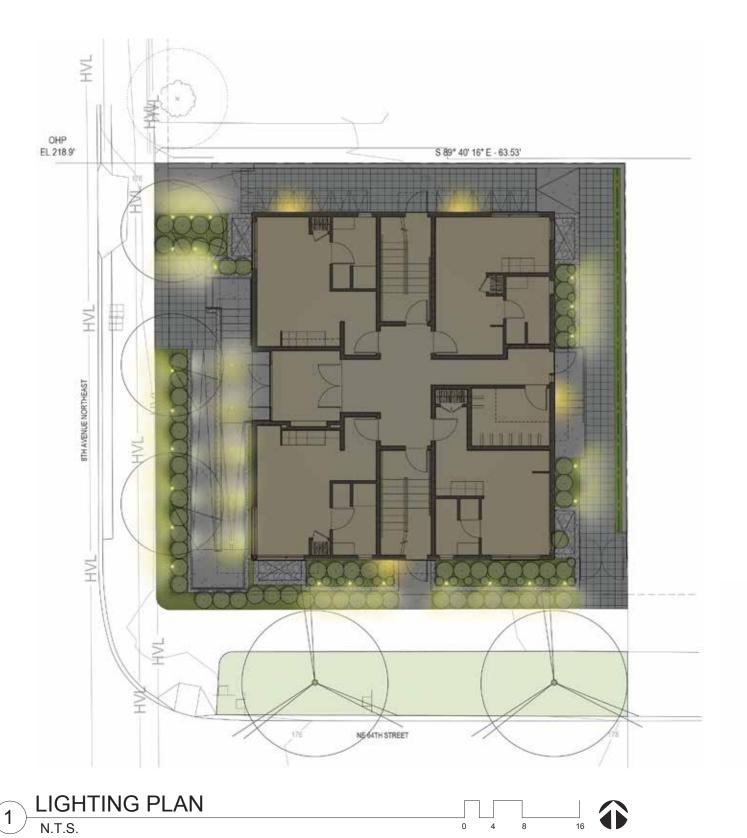
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#### FIXTURE SCHEDULE

	QUANT	MANUFACTURER/MODEL NUMBER	NOTES
_	5	RECESSED CAN LIGHT (EXTERIOR RATED)	NOTES
-		NEOLOGED ONN EIGHT (EXTENION INTED)	
_			
Section 1			
	24	LANDSCAPE LIGHTING; DIRECTIONAL WELL LIGHTS	
-			
Street, Street,			
	4	WALL MOUNTED SCONCE	
THE PERSON NAMED IN			
Charles and the			
1000000	8	CONCRETE STEP LIGHT	
_			

NOTE: ALL EXTERIOR LIGHTING TO BE SHIELDED AND DIRECTED AWAY FROM ADJACENT PROPERTIES









DIRECTIONAL WELL LIGHT

WALL MOUNTED SCONCE

RECESSED CAN LIGHT

CONCRETE STEP LIGHT

