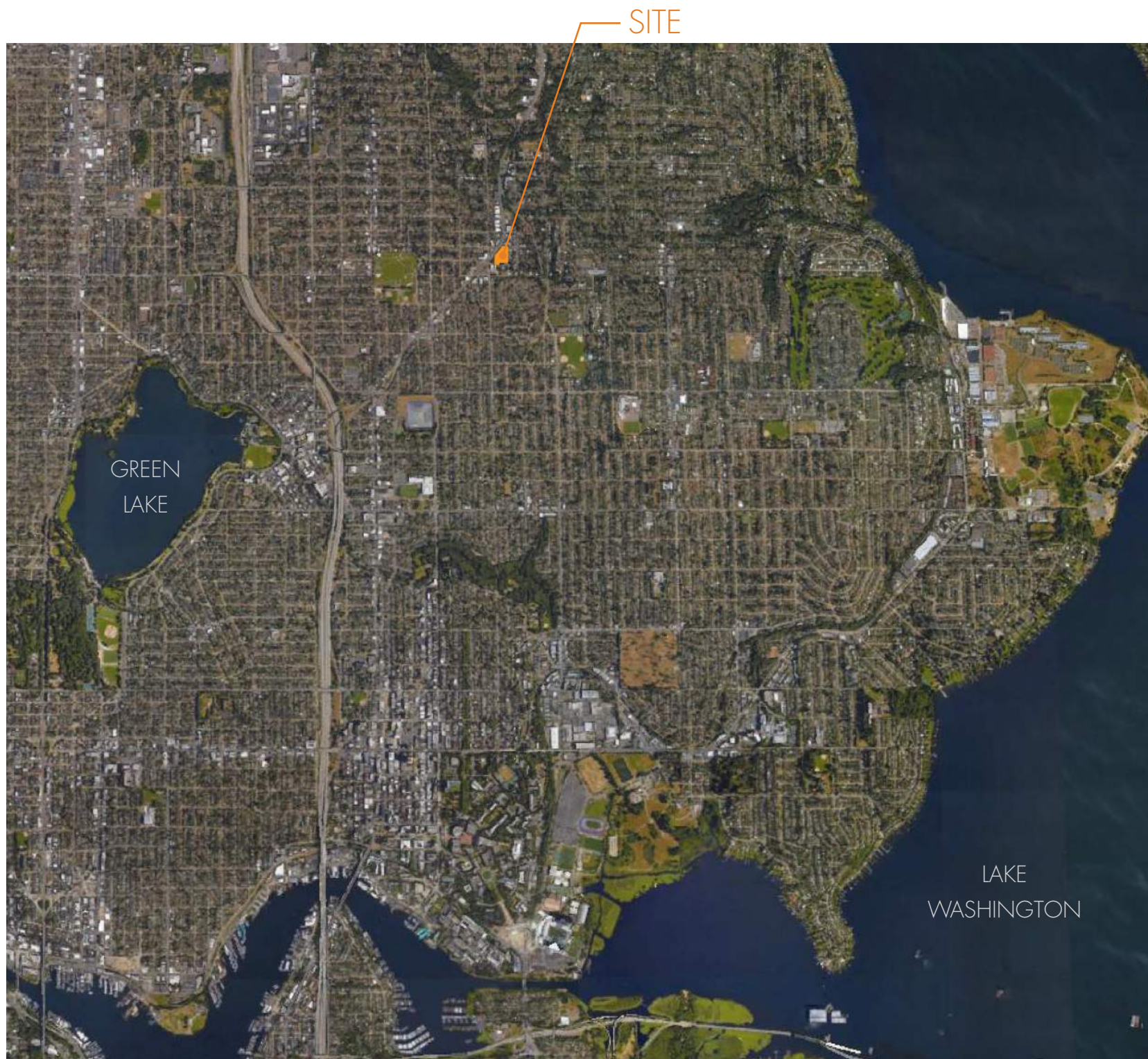


Ravenna North

Full Design Review / Early Design Guidance
2201 NE 88th St.
SDCI #3023106

nk

NICHOLSON KOVALCHICK ARCHITECTS



- Context Analysis 3
 - Development Objectives 4
 - Zoning 5
 - Neighborhood Landmarks 6
 - Transportation Analysis 8
- Site Analysis 9
 - Zoning Summary 10
 - Adjacent Design & Development 12
 - Existing Site Plan & Current Development 13
 - Streetscapes 14
 - Current Conditions 16
 - Survey 17
 - Design Guidelines 18
- Design Concepts 19
 - Option 1 20
 - Option 2 22
 - Preferred Option 3 24
 - Landscape Studies 26
 - Tree Analysis 28
 - Site Movement Analysis 32
 - Shadow Studies 33
- Appendix 34
 - Previous Work 34

Index

CONTEXT ANALYSIS

DEVELOPMENT OBJECTIVES
ZONING
NEIGHBORHOOD LANDMARKS
TRANSPORTATION ANALYSIS

Context Analysis

Development Objectives

PROJECT TEAM:

Applicant: 23rd Ave NE Townhomes, LLC
419 Occidental Ave S
Seattle, WA 98104
Contact: David MacDuff

Architect: NK Architects
310 First Ave S.
Suite 4S
Seattle, WA 98104
Contact: Chris Jones

Landscape Architect: Weisman Design Group Inc
2329 E. Madison St
Seattle, WA 98112
Contact: Nick Hagan

SDCI Project #3023106
Contact: Carly Guillory

EXISTING SITE:

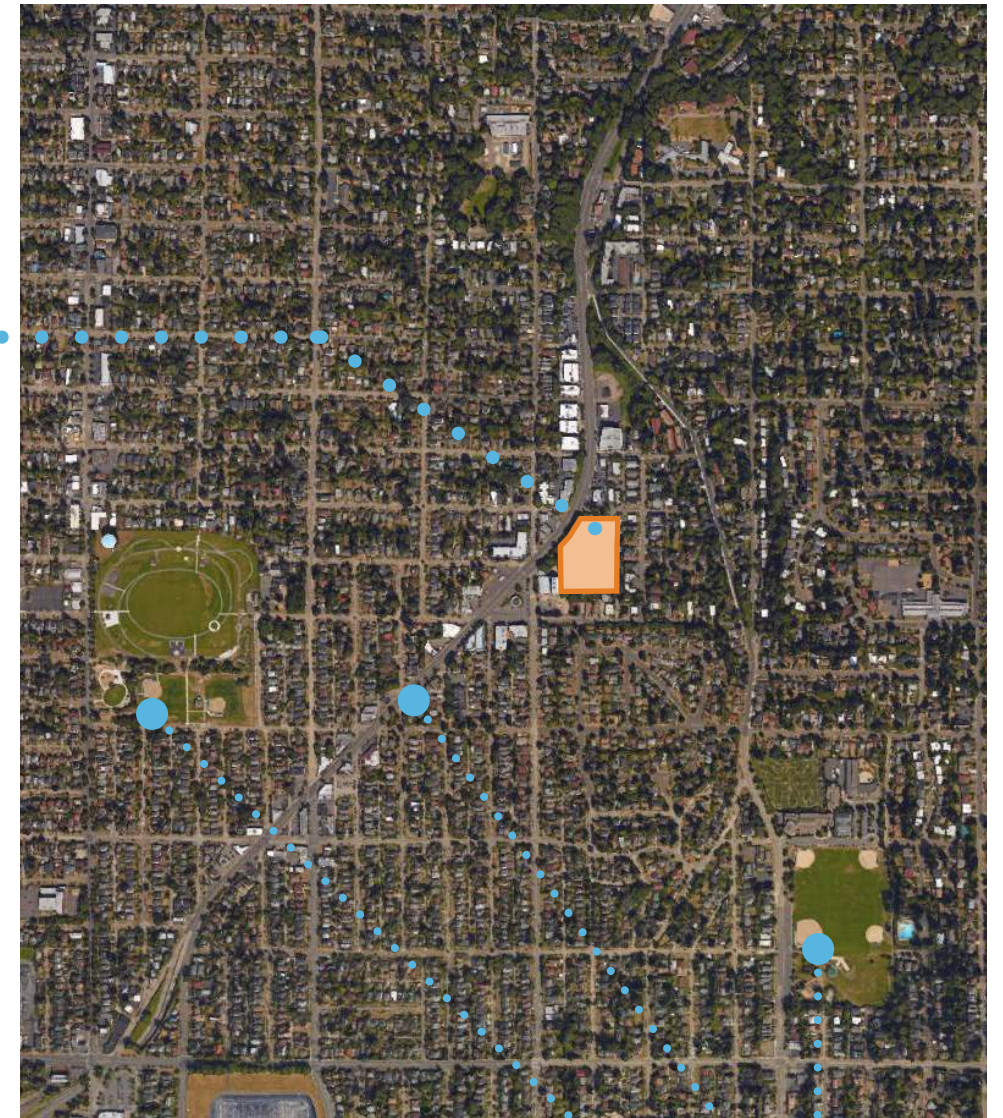
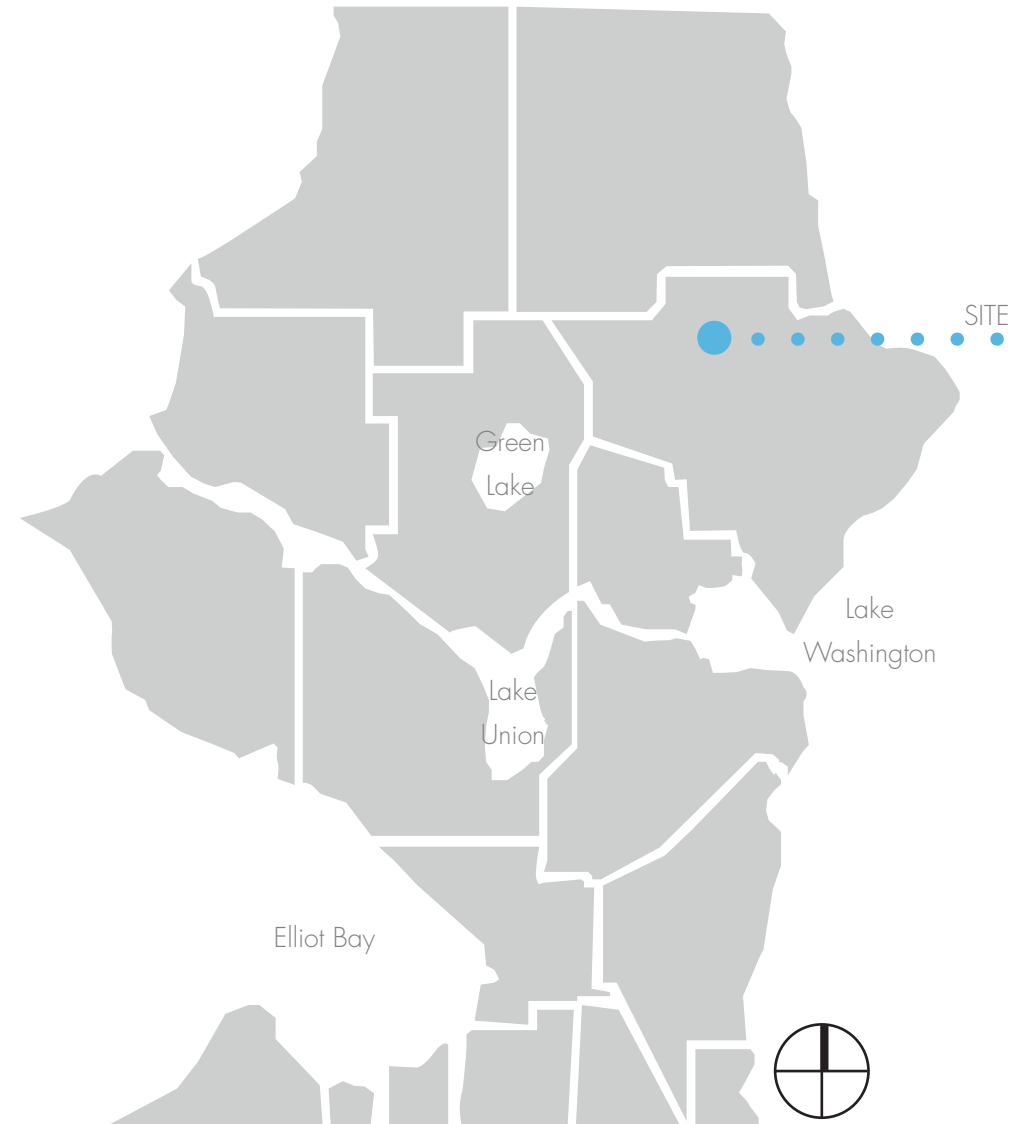
Address: 2201 NE 88th St.
Location: SE corner of Lake City Way NE and NE 88th St
Site Area: 157,639 Sq Ft (or 3.62 Acres)
Existing Development: 1 existing structure (recreation bld) and approximately 75 mobile homes.

PROJECT PROGRAM:

Number of Residential Units: 89
Number of Parking Stalls: 157
Area of Residential Use: Approximately 151,432 Sq Ft
Area of Garage Use: Approximately 25,400 Sq Ft
Total Area: Approximately 176,832 Sq Ft

DEVELOPMENT OBJECTIVE:

To provide a community of attractive, owner-occupied townhomes that combine a clean and contemporary style with active outdoor spaces, resulting in a project that enhances the neighborhood while respecting its neighbors.



- Dahl Playfield
- Lake City Way NE
- Maple Leaf Reservoir Park

Context Analysis

Zoning

SITE

- Zoned LR2 with a small portion of C1-65 in the South West corner of the property
- Parcels to the North and West zoned C1-65/40
- Parcels to the East and South zoned LR1
- Transition zone between high density C1 lots adjacent Lake City Way and lower density LR and SF zoning to the SW.

NEIGHBORHOOD DEVELOPMENT:

Located on the east side of where Lake City Way where it curves to the north, and at the boundary between Ravenna and Northgate, this lowrise residential site is surrounded by a mix of commercial and multi-family zones, transitioning to single family a block away to the east and south. Although some properties are older or have not been maintained to the highest conditions (including the existing mobile home park on the development site), new development in the form of several townhouse sites and a new apartment building to the west are bringing change to the area.

North of the project and across NE 88th Street sits a used car lot atop a substantial slope above the project, as well as a pair of small apartment buildings. Abutting the southwest side of the site is a small vacant lot just north of a larger parcel containing the aforementioned new apartment building. This building is five stories facing the developments site and stands higher on the hill, overlooking the project site. To the south and east of the project are a mix of mostly small apartment buildings and townhouses, all facing away from the site towards their respective streets. New townhouses were recently built abutting the northeast corner of the site.

Across Lake City Way lies a gas station which is seasonally screened by street trees within the right-of-way and on the project site. Substantial apartment buildings are located at the intersections on either side of the gas station. Further south along Lake City Way, there is a mix of retail and commercial buildings providing restaurants, three auto repair shops, a motorcycle dealership, a convenience store, and several small office and retail centers. Bus service to the site is provided by a stop located about a block south, and is served by routes 309 and 312.

To the north lies the previously described used car lot, then a series of retail buildings facing Lake City Way that include private storage, two more auto repair shops, a Thai restaurant, assisted living facility, and other small office and retail spaces. Wedgwood Elementary School is three blocks to the east.



Context Analysis

Neighborhood Landmarks



A. Pandora's Night Club



B. Metro Heated Storage



C. Wild West Cars and Trucks

Context Analysis

Neighborhood Landmarks



D. Two Cranes Aikido



G. Pierre's Pre-Owned Center



E. Ying's Drive-In



H. Cook's Auto Rebuild



J. The Shanty Tavern



F. Shell Gas Station & Convenience Store



I. Apartment Building



K. Mexican Food Truck - Typically parked at Shell Gas Station

Transportation Analysis

TRANSIT

The project site is directly served by King County Metro routes 309 and 312 at the Lake City Way and NE 85th St. bus stop located .2 miles from the site. These two routes do not combine to provide for frequent transit service to the site. Additionally, Route 72, located at Ravenna Ave NE and NE 90th St, is .3 miles from the site. These 3 routes provide service from Lake City north to Bothell/Kenmore area, and south to the University District and Downtown.











CYCLING

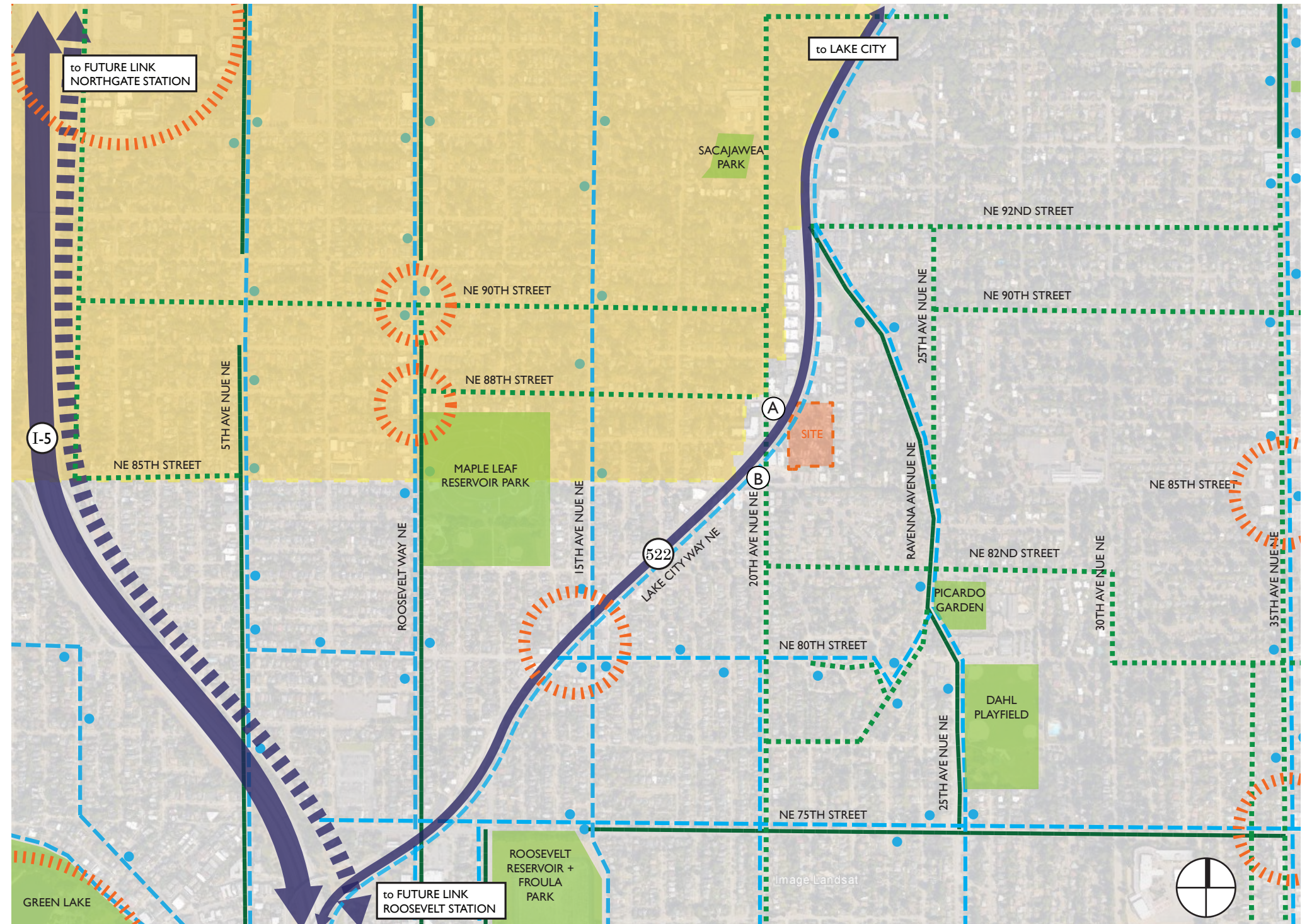
The project site is not directly served by roads with dedicated bike lanes. However, it is decently located for cycling opportunities at Maple Leaf Reservoir Park, Green Lake, and the Burke Gilman Trail is 1.8 miles to the east, best accessed via NE 95th St.

FUTURE TRANSPORTATION

SR 522 is a candidate in the upcoming Sound Transit 3 expansion for BRT (Bus Rapid Transit) or a Light Rail extension. Both options study a possible connection for the Kenmore/Bothell region with the Northgate Station along SR 522 at NE 145th. ST3 is an ongoing study and will be addressed on the November 2016 ballot. Additionally, Metro Route 72 will directly connect residents with the Roosevelt Light Rail Station upon completion (estimated completion date is 2020).

MAP KEY

- | | |
|--|---|
|  SITE |  BUS ROUTE |
|  PARK |  BUS STOP |
|  NORTHGATE OVERLAY DISTRICT |  BIKE DEDICATED LANES |
|  NODE |  BIKE FRIENDLY LANES |
| |  INTERSTATE/ STATE ROUTE |
| |  FUTURE LIGHT RAIL |



SITE ANALYSIS

ZONING SUMMARY
ADJACENT DESIGN & DEVELOPMENT
EXISTING SITE PLAN & CURRENT DEVELOPMENT
STREETSCAPES
CURRENT CONDITIONS
SURVEY
DESIGN GUIDELINES

CODE ANALYSIS

PARCEL #: 510140-0770

ZONING: LR2, C1-65

OVERLAYS: none

LOT AREA: 157,639 Sq Ft (or 3.62 Acres)

ECA: Steep Slope, Liquefaction

PERMITTED USES (23.45.504)

Permitted Outright: Residential

FLOOR AREA RATIO (23.45.510):

LR2	C1-65
Townhouses: 1.0 or 1.2*	Single Use: 4.25

DENSITY LIMIT (23.45.512):

Townhouses: 1/1600 or no limit*

* In LR zones, in order to qualify for the higher FAR & density limit shown, green building performance and other site access and parking standards shall be met

STRUCTURE HEIGHT (23.45.514):

30' base height limit

+5' for roof w/ minimum 6:12 pitch

+3' for shed or butterfly roofs

+4' for apartments w/a story that is partially below grade (caveats)

+10' for stair or mechanical penthouses (limited to 20% roof coverage if mech is on roof)

Roofs enclosed by a parapet may exceed the height limit by 75% provided the lowest point of the roof is at or below the height limit.

SETBACKS (23.45.518):

Front: 5' min + 7' Avg

Rear: 7' avg + 5' min

Side (Up to 40' façade): 5' min

Side (Over 40' façade): 7' avg + 5' min

AMENITY AREA (23.45.522):

25% of the lot area = 39,410 SF required amenity area

GREEN FACTOR (23.45.524):

Landscaping that achieves a Green Factor score of 0.6 or greater

STRUCTURE WIDTH (23.45.527):

Townhouses: 90' max

Max side façade length: 65% of side lot line for portions within 15' of lot line

AUTOMOBILE PARKING (23.45.536):

1 stall per unit

BICYCLE PARKING (23.54.015) Table D:

1 long-term stall per every 4 units

SOLID WASTE (23.54.040):

Shared collection (min horiz dimension = 12'):

9-15 residential units 150sf

16-25 dwelling units 225sf

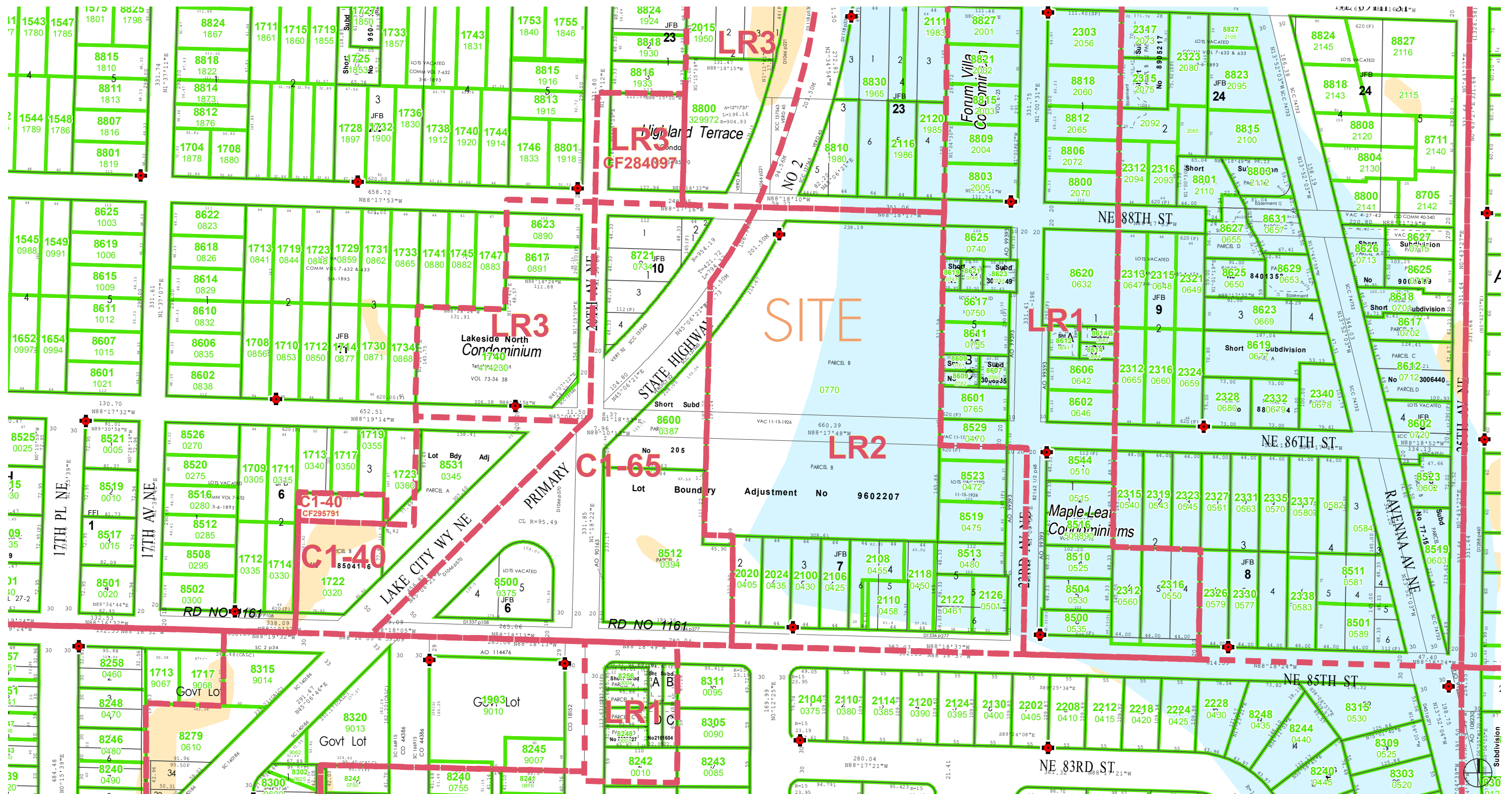
26-50 dwelling units 375sf

51-100 dwelling units 375sf + 4sf for each unit above 50

101+ dwelling units 575sf + 4sf for each unit above 100

Individual collection:

2' x 6' storage area for each dwelling unit located on the same lot



Zoning Map from SDCI

Site Analysis

Adjacent Design & Development



A. Row Houses - Photo from Windermere Real Estate
 B. Aegis Living Future Development - Ankrom Moisan
 C. Single Family Home
 D. Future Multi-Family - Driscoll Architects

E. Multi-unit Townhome Project
 F. Single Family Home - Photo from Sage Homes
 G. 4 Single Families - Build Urban
 H. Single Family Home - Photo from Redfin

I. Single Family Home - Photo from NWMLS
 J. Future Development - Isola Townhomes
 K. Single Family Home



Site Analysis

Existing Site Plan and Current Development

CURRENT DEVELOPMENT PLAN



- C COMMERCIAL
- MF MULTI-FAMILY
- SF SINGLE FAMILY
- EXCEPTIONAL TREE
- NON-EXCEPTIONAL TREE
- UTILITY POLE
- OVERHEAD POWER LINE

Site Analysis

Streetscapes



A. NE 88TH ST (Looking South)

PROJECT SITE (PROPOSED FRONTAGE)



OPPOSITE PROJECT SITE

B. NE 88TH ST (Looking North)



C. Lake City Way NE (Looking North West)



PROJECT SITE

D. Lake City Way NE (Looking South East)



Streetscapes



E. 23rd Ave NE (Looking West)

PROJECT SITE



F. 23rd Ave NE (Looking East)

Site Analysis

Current Conditions



Site Analysis

Survey

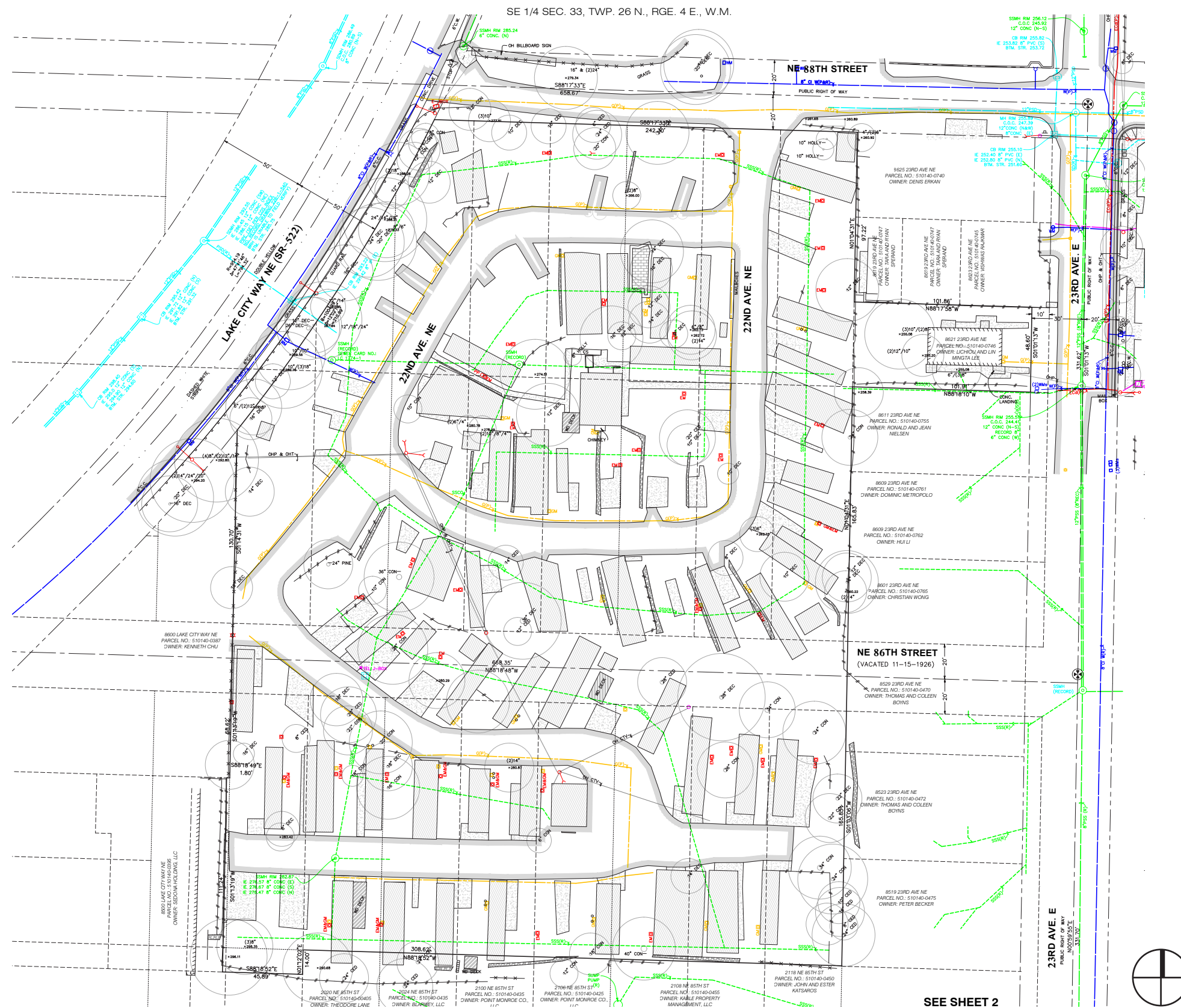
SITE FEATURES - EXISTING

The development site at 2201 NE 88th St. consists of a large irregularly shaped parcel with multiple, underlying, historic parcels from the original neighborhood plat. The property fronts to NE 88th Street on the north and meets Lake City Way NE along the northeast corner of the site. The remainder of the west side and the entirety of the south and east property lines meet the rear of smaller properties containing a mix of primarily multi-family projects.

The site slopes from the southwest down towards the northeast at an approximate 5-6% grade, and features three areas of steep slope that were created as part of previous grading operations to develop this and adjacent sites as well as Lake City Way. There are numerous trees on and adjacent to the site, as well as a substantial number that provide screening from Lake City Way. An asphalt paved driveway serves the site and is accessed from NE 88th Street, which is a sub-standard roadway to be improved per SDOT standards.

Storm drainage is connected to a city storm main located in 23rd Ave NE, through a line across an adjacently owned parcel. Additionally, several parcels to the south of the site connect to the storm system through the development site, as well as a pipe from Lake City Way. Water is provided from a main located in Lake City Way.

The development site contains two small permanent buildings, a two-story office building for the mobile home park and a storage building located at the southernmost hairpin turn in the driveway. The remaining structures are all older mobile homes, carports, decks, and shed structures. Fencing surrounds the majority of the site.



Design Guidelines

CONTEXT AND SITE

CS1 - Natural Systems and Site Features

- C. Topography
- D. Plants & Habitat

CS2 - Urban Pattern & Form

- B. Adjacent Sites, Streets, & Open Spaces
- C. Relationship to the Block
- D. Height, Bulk, and Scale

CS3 - Architectural Context & Character

- A. Emphasizing Positive Neighborhood Attributes

Located on Lake City Way on a lot that slopes away from the street and is hidden from the view of passers-by by a series of large street trees, this 3.6 acre site currently hosts a mobile home park accessed from NE 88th Street. Surrounded on three sides by an eclectic mix of multi-family, commercial, and a small number of single family properties that all face away from the site, we see this as an inwardly focused project that serves as an oasis for its residents and minimizes the impact to its neighbors.

The topography of the site slopes moderately from the southwest to the northeast, with a couple of localized steep-slope areas created by adjacent grading for prior development and roadways. The site hosts numerous exceptional trees, which will be preserved around the perimeter to maintain their benefit to the neighborhood for wildlife, character, and visual screening. The interior of the site will be regraded to allow the change from a layout conducive to mobile homes to one that supports permanent structures, resulting in a removal of interior plantings to be replaced with well considered landscaping that is sustainable in the long term.

The north edge of the site fronting NE 88th Street will serve as the projects public face and point of vehicular and pedestrian access. Front doors for homes facing this street will be accessed directly from the public sidewalk and work with the topography to present a two-story facade to the street. A welcoming landscaped open space at the northeast corner of the site next to the entrance creates opportunity for interaction between residents, their guests, and the neighborhood.

More generous setbacks than required by code are provided on the east, west, and south sides of the site to preserve trees, minimize retaining walls, and provide additional buffer and amenity space. What could have been a long, uninterrupted wall of identical townhouses facing the neighbors have been oriented to minimize facade length, and massing has been broken down into clusters of 4-5 homes per building. Finally, while roof decks have become the expectation for Seattle townhomes, this project envisions typical gabled roofs in keeping with the character of the neighborhood.

PUBLIC LIFE

PL1 - Connectivity

- B. Walkways and Connections
- C. Outdoor Uses and Activities

PL2 - Walkability

- B. Safety & Security
- D. Wayfinding

PL3 - Street-Level Interaction

- A. Entries
- B. Residential Edges

PL4 - Active Transportation

- A. Entry Locations & Relationships

While most people will access this site by car due to its location next to a noisy, high-volume arterial, there is a bus stop and some commercial activity to the south within easy walking distance. Our intention is to improve the condition of NE 88th Street in accordance with SDOT street improvement requirements to connect the existing sidewalk along Lake City Way to the site for pedestrian access. While not the shortest path to reach destinations to the south, we feel controlling access to a single point provides improved pedestrian vs. vehicle safety as well as heightened security for residents both within and adjacent to the development.

Once pedestrians and drivers alike arrive at the site entrance, they will first encounter the landscaped open space that serves as the project's front yard. This area will contain the mail station, benches, project signage, and provide for more public gatherings and play. The entrance drive has been intentionally mis-aligned with the internal driveway to slow traffic and features textured paving to reflect the interface between pedestrians and auto traffic at this location. The internal sidewalk loop and main driveway ring a central cluster of townhouses, and serve as the hub for access to the rest of the site. Where secondary pathways cross the main driveway, a mixture of paving material changes and landscaping features will combine to indicate the path of travel and slow vehicular traffic.

Buildings at the perimeter of the site have been inwardly oriented and clustered so that front porches and walkways combine with landscaping to create generous courtyards for communal gathering, while access to garage parking is via a separate motor court. The spacing of these courts has been controlled to provide a larger, east/west, greenspace through the center of the site. This area accommodates planting space for larger trees, more private outdoor gathering areas for residents, and an opportunity for an interior view corridor. The project will maintain and enhance the row of screening trees along Lake City Way.

In addition to providing ample garage parking for the residents, small clusters of surface parking has been provided in locations throughout the site to minimize impacts to greenspace, accommodate guests, and alleviate overflow parking concerns for the neighborhood.

DESIGN CONCEPT

DC1 - Project Uses & Activities

- A. Arrangement of Interior Uses
- B. Vehicular Access and Circulation
- C. Parking and Service Uses

DC2 - Architectural Concept

- A. Massing
- D. Scale and Texture

DC3 - Open Space Concept

- B. Open Spaces Uses and Activities
- C. Design

DC4 - Materials

- A. Exterior Elements and Finishes
- C. Lighting
- D. Trees, Landscape and Hardscape Materials

As previously described, this project is perceived as inwardly-focused, and intended to create a series of townhome clusters that form pocket communities within the larger development. A ring of existing trees, buffer spaces, and controlled physical and visual connections considerably blend the site into the neighborhood as a whole. Gathering spaces are distributed throughout the property, with an opportunity to connect to the street and larger neighborhood at NE 88th Street. Vehicular access is pulled closer to the northeast corner, away from the intersection with Lake City Way, allowing cars to slow down and navigate the downhill slope of NE 88th Street before entering the site. Internal circulation is provided in the middle of the site which minimizes the impact to surrounding properties, with privacy fencing and plantings to further reduce light and glare where necessary.

The buildings themselves are kept moderate in size, are intended to step with the sloping grade, and have their surfaces modulated by bays, material transitions, porches, and other such elements allowing the individuality of each unit to be expressed while still harmonious to the building as a whole. A clean, contemporary design style is assumed, but is anticipated to blend with a more traditional gabled or shed roof form. By not relying on roof decks for amenity space and in conjunction with existing trees at the site edges, visual privacy both within and without is preserved.

Materials will be textured and durable, and colors will vary to provide distinction between buildings or clusters of buildings while staying within a shared overall palette to prevent a checkerboard appearance. Individual porch and garage fixtures will provide primary wayfinding lighting, supplemented by post and path lights as needed for safety. Light fixtures will be shielded to prevent spillover to neighboring properties. Accents such as architectural railings and fixtures, landscape seating and equipment, and hardscape surfaces will be chosen to enhance and unify the project aesthetic.

DESIGN CONCEPTS

OPTION 1 - HIGH YIELD & GARAGE ORIENTED

OPTION 2 - GARAGE ORIENTED

OPTION 3 - PEDESTRIAN ORIENTED & PREFERRED

LANDSCAPE CONCEPT PLAN

TREE ANALYSIS

SITE MOVEMENT ANALYSIS

SHADOW STUDY

PREVIOUS WORK

Design Options

Option 1 - High Yield & Garage Oriented

DISTINGUISHING FEATURES

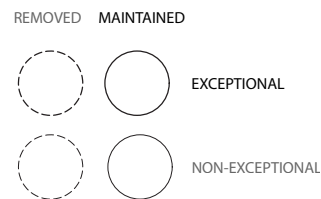
Total Units: 113 (15' x 38')
 Resident Parking Stalls: 113 (113 Garage parked)
 Guest Parking Stalls: 15
 Average Unit Size (includes garage): 1590 Sq Ft
 Total Gross Floor Area: 214,700 Sq Ft
 FAR Net Floor Area: 182,292 Sq Ft
 FAR Achieved: 182,292 / 157,639 = 1.16
 FAR Target: 1.20

PROS

- Code compliant
- Maintains majority of existing topography
- Achieves highest FAR

CONS

- Single unit type results in high yield, but less variety.
- Predominantly Auto Court Oriented, less pedestrian friendly
- Greater facade lengths along property lines
- Doesn't preserve perimeter trees as perimeter trees as much as other options.
- Greenspaces are typically steeply sloping, minimizing utility.
- Slopes precluded entrance from greenspace-facing facades.
- Fewer surface parking stalls brings overflow parking into the neighborhood
- Townhomes along West and South have numerous units with windows facing into neighboring properties
- Sidewalks chopped up by driveways





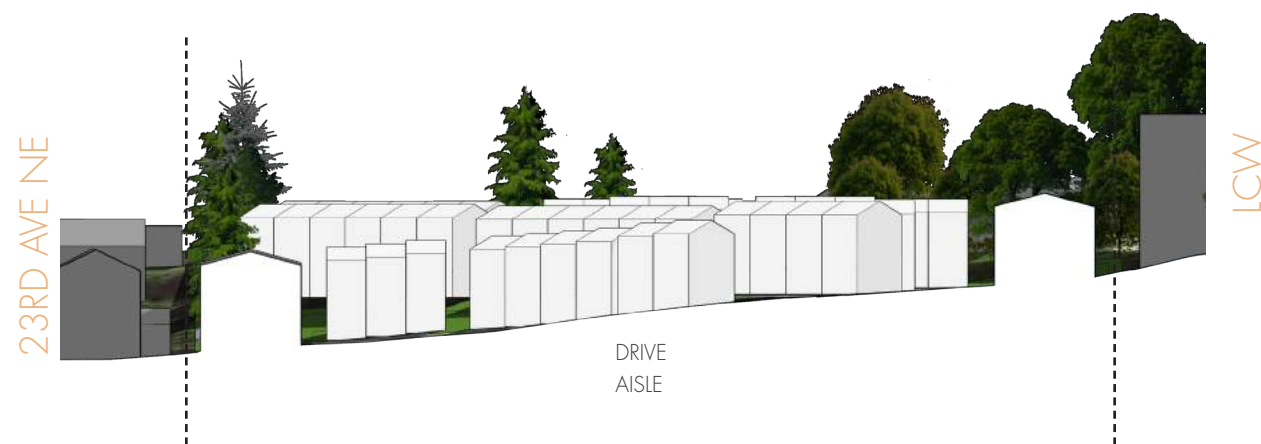
Aerial looking Northwest towards site



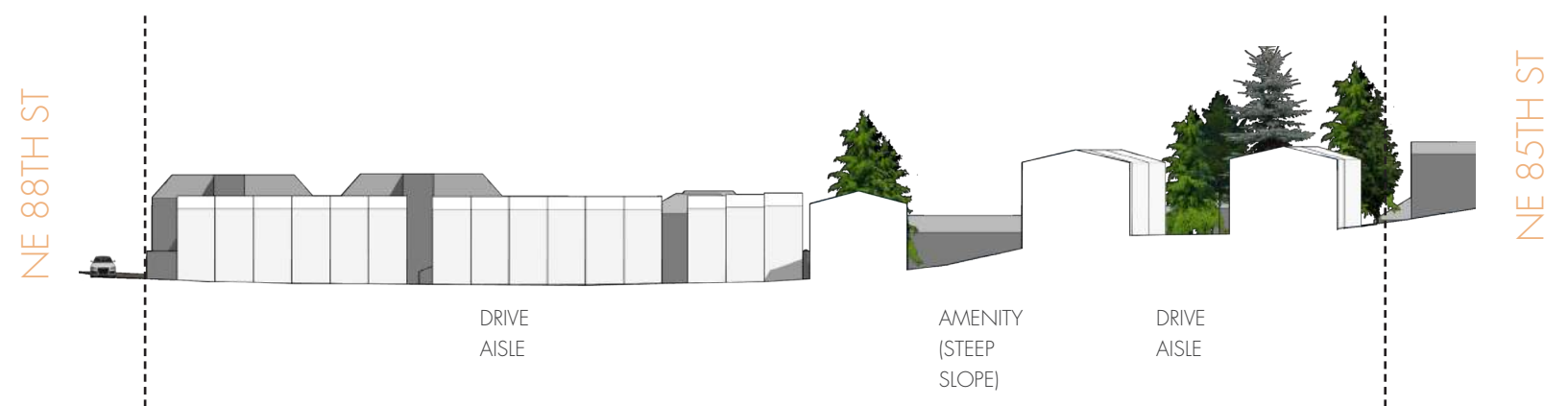
Example of common green space



View looking North up West driveway on site



Section: E/W Looking South



Section: N/S Looking East

Design Options

Option 2 - Garage Oriented

DISTINGUISHING FEATURES

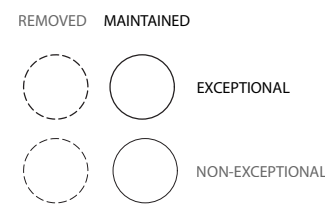
Total Units: 98 (16' x 38' and 20' x 36')
 Resident Parking Stalls: 118 (78 1-car Garage parked and 20 2-car garages)
 Guest Parking Stalls: 21
 Average Unit Size (includes garage): 1630 Sq Ft
 Total Gross Floor Area: 185,472 Sq Ft
 FAR Net Floor Area: 174,974 Sq Ft
 FAR Achieved: 174,974 / 157,639 = 1.11
 FAR Target: 1.20

PROS

- Maintains perimeter Exceptional Trees
- Provides a mix of two unit types
- Community oriented space at entry of the site

CONS

- Driveway alignment and east townhomes orientation creates a long line of garage doors
- High number of townhomes on east side with back windows facing neighboring properties
- Predominantly automobile oriented, less pedestrian friendly
- Minimized shared open spaces



Design Options

Option 2



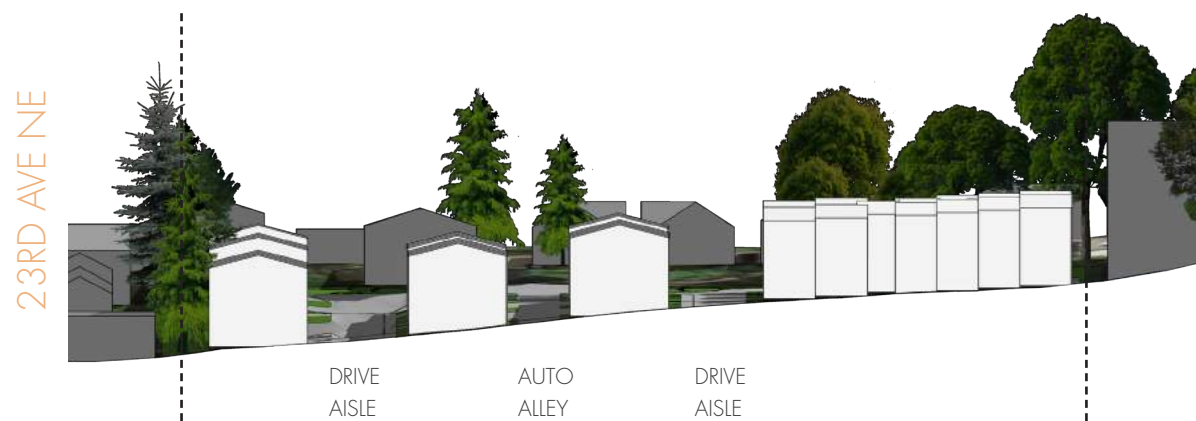
Aerial looking Northwest towards site



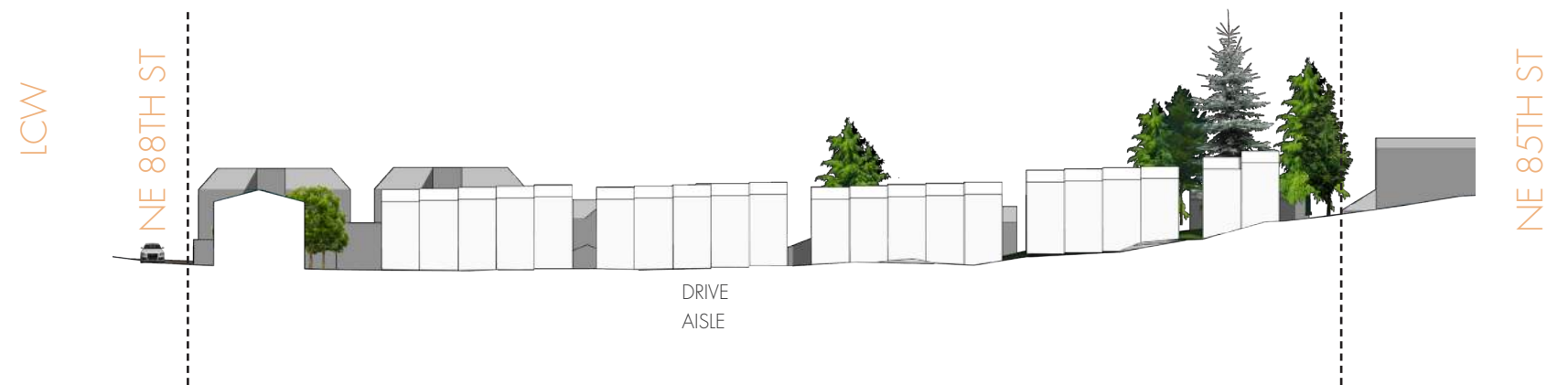
Example of common green space



View looking North along West driveway on site



Section: E/W Looking South



Section: N/S Looking East

Design Options

Option 3 - Pedestrian Oriented & Preferred

DISTINGUISHING FEATURES

Total Units: 89 (16' x 38', 16' x 40', and 20' x 36')
 Resident Parking Stalls: 127 (36 two-car garages & 55 1-car garages)
 Guest Parking Stalls: 27
 Average Unit Size (includes garage): 1,943 Sq Ft
 Total Gross Floor Area: 176,832 Sq Ft
 FAR Net Floor Area: 162,685 Sq Ft
 FAR achieved: 162,685 / 157,639 = 1.03
 Target FAR: 1.20

PROS

- Central Amenity Space featuring significant landscaping and gathering space
- Additional guest parking relieves side streets of overflow parking
- Additional unit types offer variety of options for future buyers
- Hidden garage doors in central alley and motor courts
- Meandering roads and center aisle increase pedestrian safety
- Instead of garage doors, residential entries & unit end-walls face the driveway.
- Majority of unit fronts have greater planting space
- Greater privacy for neighboring properties
- Community oriented space at entry of the site

CONS

- Greater amount of paved surfaces due to increased guest parking.



Design Options

Option 3 - Preferred



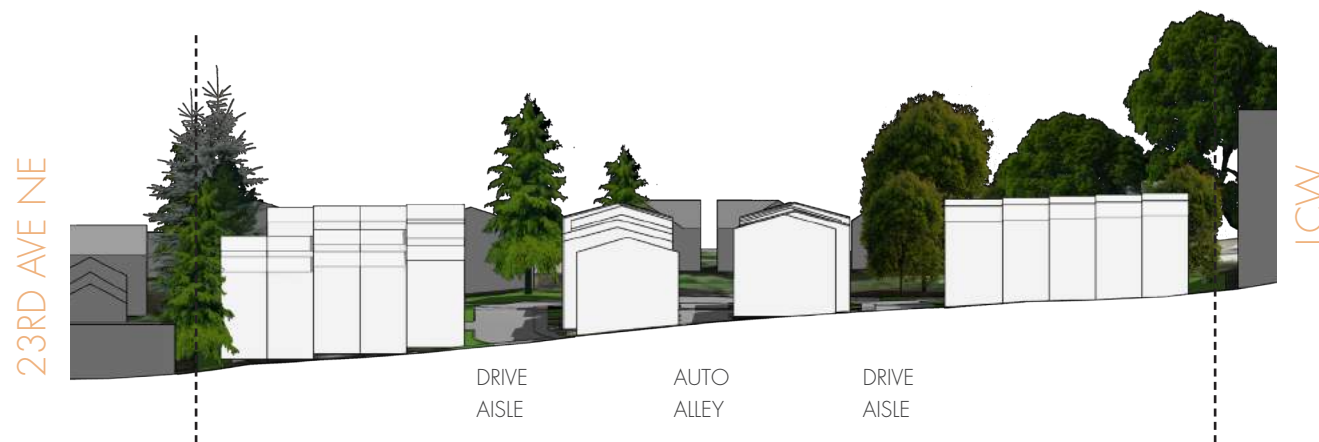
Aerial looking Northwest towards site



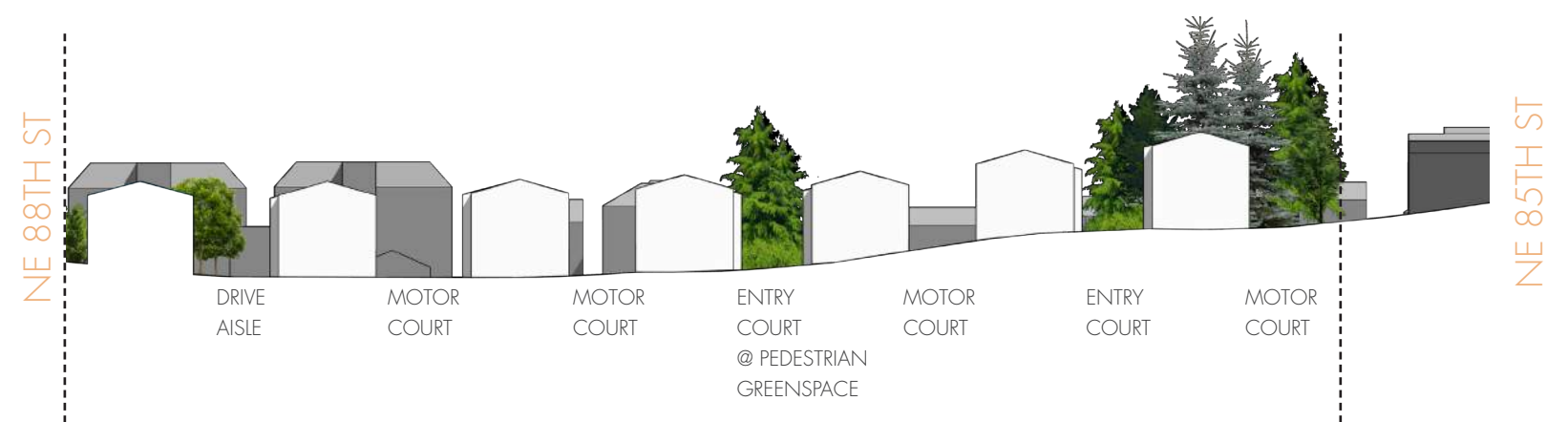
Example of common green space



View looking North along West driveway on site



Section: E/W Looking South



Section: N/S Looking East

Design Options

Preferred Option Landscape Concept Plan



WEISMANDESIGNGROUP



Custom Benches



Custom Benches



Fence with Wood Slats



Accent Pavers or stamped concrete



Textured Paving



Common Area Table and Chairs



'The Cube' Play Structure



Common Area Table and Chairs

WEISMANDESIGNGROUP



Acer Cirinatum
Vine Maple - Spring



Acer Cirinatum
Vine Maple - Fall



Cornus Nuttalli
Pacific Dogwood



Stewartia Pseudocamellia
Japanese Stewartia



Mahonia Repens



Physocarpus Capitatus



Cornus Sericea 'Kelseyii'



Cornus Stolonifera



Aster Modestus



Gaultheria Shallon, Sallal



Saracococca Hookeriana
Var, Humilis, Sweet Box



Cornus Stolonifera



Abies Grandis
Grand Fir



Pseudotsuga Menzies II
Douglas-Fir



Thuja Plicata
Western Red Cedar



Quercus Coccinea
Scarlet Oak



Gleditsia Triacanthos 'Inermis'
Honey Locust



Fagus Sylvatica
European Beech



Cercidiphyllum Japonicum
Katsura



Liriodendron Tulipifera
Tulip Tree



Taxus x media
Hicksii



Juncus Tenuis



Acorus Gramineusw
Japanese Sweet Flag



Polystichum Mnitum
Sword Fern



Miscanthus Sinensis
Eulalia



Tellima Grandiflora



Athyrium Filix
Femina



Carex Elata 'Aurea'
Bowles Golden Sage

Tree Analysis - Site Plan

ARBORIST ANALYSIS & RECOMMENDATIONS

-50 Significant trees On-site, 8 shared, 4 adjacent
-31 classified as exceptional due to size, being part of a grove, or both.

From the Arborist:
"Given the need to build new roads and utility corridors to serve the development, the perimeter of the site would be the most likely area for [tree retention]. The lack of foundations on the site means that tree root systems are likely to be spreading out far from tree bases with few barriers."

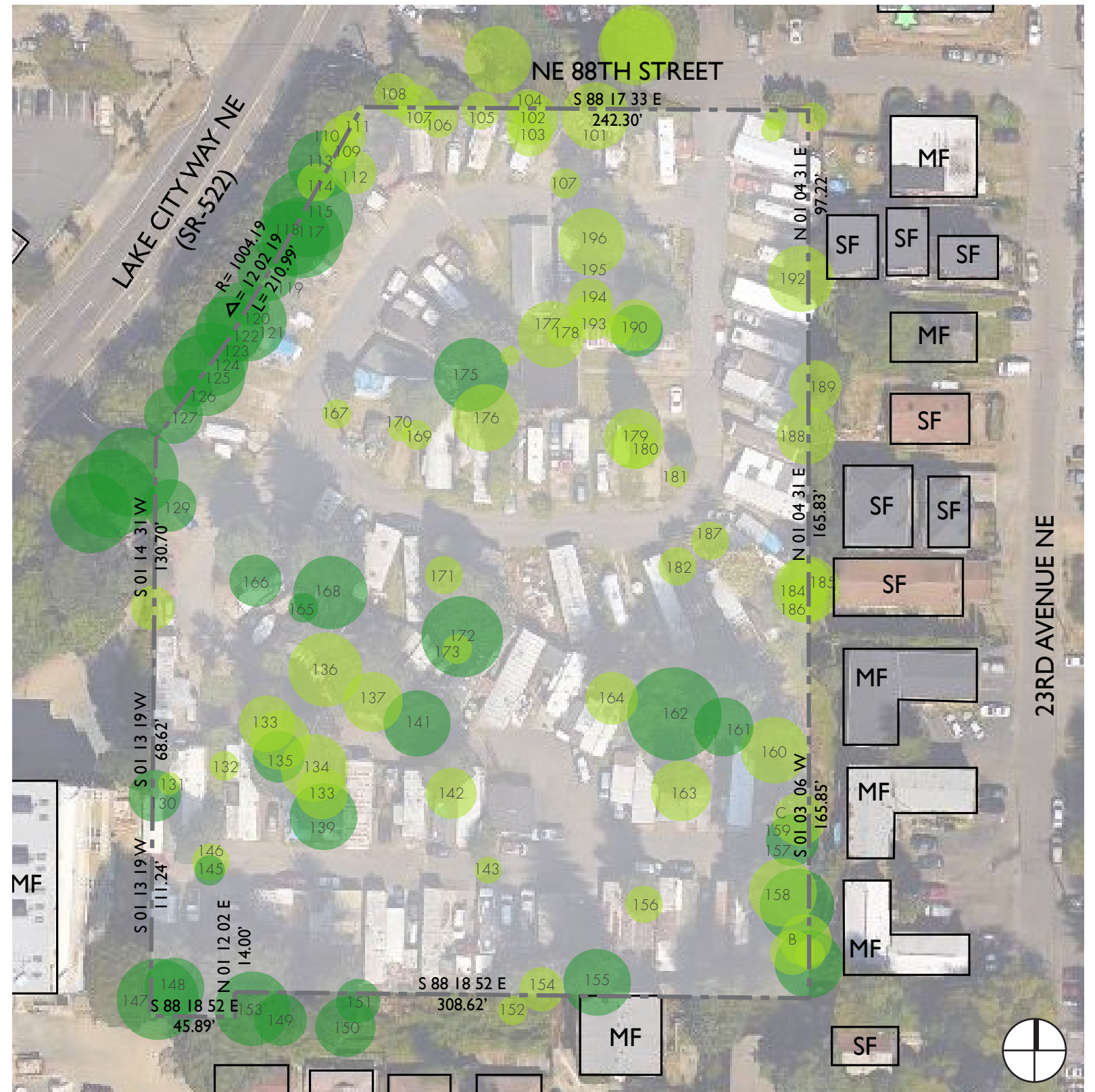
Tree Solutions "Frankly [they] do not think it likely that it will be feasible to work around large trees and meet [the] FAR requirements for the project."

"Another tree that might be considered is tree # 130 a Lombardy poplar. This tree is quite large, and in mature form. The species is not considered appropriate in confined locations and at this age would likely be problematic post project completion. We do not recommend that you try and retain this tree."

PROJECT IMPLEMENTATION

The preferred site plan option retains the perimeter exceptional trees as recommended by the arborist. Exceptional trees at the ROW of NE 88th St are assumed to be removed due to the street improvements required by SDOT. New street trees will be planted in accordance with SDOT standards. The design team proposes to replace removed trees with new plantings that are sustainable over time and with the new development.

Maintaining the perimeter trees is in accordance with Design Guidelines CS1.D, CS2.B3, PL3.A, DC2.A, & DC3.C3.



Tree Analysis - Tree List

I.D.	COMMON NAME	DIAM	EXCEPTION-AL?	CONDITION
101	DOUGLAS FIR	24.5	NO	GOOD
102	WESTERN RED	23.5	NO	FAIR
103	WESTERN RED	6.5	NO	FAIR
104	AUSTRIAN BLACK	20.3	NO	FAIR
105	WESTERN RED	14.0	NO	FAIR
106	BIGLEAF MAPLE	10.0	NO	FAIR
107	ENGLISH HOLLY	12.6	NO	GOOD
108	DOUGLAS FIR	15.0	NO	FAIR
109	JAPANESE BLACK	14.0	NO	FAIR
110	JAPANESE BLACK	6.5	NO	FAIR
111	JAPANESE BLACK	8.0	NO	FAIR
112	FLOWERING PLUM	9.0	NO	FAIR
113	BIGLEAF MAPLE	24.2	NO (Grove)	FAIR
114	BIGLEAF MAPLE	14.0	NO (Grove)	POOR
115	BIGLEAF MAPLE	26.9	NO (Grove)	FAIR
116	BIGLEAF MAPLE	7.0	NO	POOR
117	BIGLEAF MAPLE	20.0	NO (Grove)	FAIR
118	BIGLEAF MAPLE	25.6	NO (Grove)	POOR
119	BIGLEAF MAPLE	15.0	NO (Grove)	FAIR
120	BIGLEAF MAPLE	18.0	NO (Grove)	POOR
121	BIGLEAF MAPLE	22.4	NO (Grove)	FAIR
122	BIGLEAF MAPLE	16.0	NO (Grove)	POOR
123	BIGLEAF MAPLE	12.0	NO (Grove)	POOR
124	BIGLEAF MAPLE	23.3	NO (Grove)	GOOD
125	BIGLEAF MAPLE	24.2	NO (Grove)	POOR
126	BIGLEAF MAPLE	13.9	NO (Grove)	FAIR
127	BIGLEAF MAPLE	21.4	NO (Grove)	POOR
128	BIGLEAF MAPLE	14.0	NO (Grove)	POOR
129	BITTER CHERRY	14.0	NO (Grove)	GOOD
130	LOMBARDY POPLAR	37.0	YES	GOOD*
131	LOMBARDY POPLAR	18.0	NO	GOOD
132	LOMBARDY POPLAR	8.8	NO	GOOD
133	CORKSCREW	18.0	NO	FAIR
134	WESTERN RED	22.0	NO	GOOD

I.D.	COMMON NAME	DIAM	EXCEPTION-AL?	CONDITION
135	WESTERN HEMLOCK	25.0	YES	FAIR/POOR
136	DOUGLAS FIR	29.0	NO	GOOD
137	BIGLEAF MAPLE	20.2	NO	FAIR
138	EUROP. WHITE BIRCH	18.0	NO	FAIR
139	DOUGLAS FIR	17.0	NO	FAIR
140	WESTERN HEMLOCK	22.0	NO	FAIR
141	STONE PINE	27.7	YES	GOOD
142	EUROP. WHITE BIRCH	19.8	NO	FAIR
143	DOUGLAS FIR	7.0	NO	GOOD
144	NORWAY SPRUCE	22.0	NO	POOR
145	MOSS CYPRESS	28.9	YES	GOOD
146	EUROP.	7.0	NO	GOOD
147	BIGLEAF MAPLE	34.0	YES (Sz/Grove)	GOOD
148	BIGLEAF MAPLE	13.6	NO (Grove)	FAIR/POOR
149	WESTERN RED	22.0	NO (Grove)	GOOD
150	WESTERN RED	33.0	YES (Sz/Grove)	FAIR
151	DOUGLAS FIR	23.0	NO (Grove)	GOOD
152	WESTERN RED	11.5	NO	GOOD
153	BIGLEAF MAPLE	25.2	NO (Grove)	GOOD
154	DOUGLAS FIR	21.5	NO	GOOD
155	DOUGLAS FIR	36.0	YES	GOOD
156	EUROP. WHITE BIRCH	14.0	NO	GOOD
157	DOUGLAS FIR	34.0	YES	GOOD
158	SHORE PINE	14.0	YES (Grove)	GOOD
159	DOUGLAS FIR	28.0	NO (Grove)	GOOD
160	DOUGLAS FIR	22.0	NO	GOOD
161	DOUGLAS FIR	35.5	YES	GOOD
162	CORKSCREW	31.2	YES	FAIR/POOR
163	NORWAY SPRUCE	28.0	NO	GOOD
164	WESTERN RED	27.0	NO	FAIR
165	SITKA SPRUCE	10.0	YES	GOOD
166	WESTERN WHITE	25.0	YES	GOOD
167	DOUGLAS FIR	8.0	NO	GOOD
168	DOUGLAS FIR	38.5	YES	GOOD

I.D.	COMMON NAME	DIAM	EXCEPTION-AL?	CONDITION
169	CHERRY	14.3	NO	GOOD
170	CHERRY	9.8	NO	GOOD
171	LAWSON CYPRESS	15.2	NO	FAIR
172	BIGLEAF MAPLE	37.2	YES	GOOD
173	WESTERN RED	16.0	NO	GOOD
174	ENGLISH HOLLY	10.0	NO	GOOD
175	BIGLEAF MAPLE	31.8	YES	FAIR
176	SAUCER MAGNOLIA	12.7	NO	FAIR
177	BITTER CHERRY	18.0	NO	POOR
178	CHERRY	12.0	NO	POOR
179	SAWARA CYPRESS	16.0	NO	GOOD
180	ENGLISH HOLLY	9.0	NO	FAIR
181	ENGLISH HOLLY	14.0	NO	FAIR
182	NORWAY MAPLE	8.0	NO	GOOD
183	NORWAY MAPLE	9.5	NO	GOOD
184	PORTUGUESE LAUREL	13.0	NO	GOOD
185	PORTUGUESE LAUREL	14.0	NO	GOOD
186	PORTUGUESE LAUREL	16.3	NO	GOOD
187	CHERRY	7.1	NO	GOOD
188	DOUGLAS FIR	23.0	NO	GOOD
189	WESTERN RED	-	NO	GOOD
190	QUAKING ASPEN	19.9	YES	FAIR
191	CHERRY	14.3	NO	POOR
192	RED ALDER	13.0	NO	GOOD
193	CHERRY	12.0	NO	POOR
194	CHERRY	12.6	NO	GOOD
195	BLACK	16.0	NO	GOOD
196	CORKSCREW	18.0	NO	GOOD
197	ORNAMENTAL	21.9	NO	FAIR
198	RED ALDER	14.5	NO	FAIR
199	BIGLEAF MAPLE	13.3	NO	GOOD

Notes:

* Tree not suitable for retention as deemed by arborist

Refer to Arborist Report for additional details

Design Options

Tree Analysis - FAR / Exceptional Tree Study

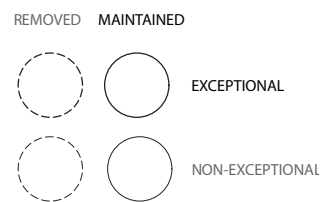
Total Units: 63 (16' x 40' and 20' x 36')
 Resident Parking Stalls: 79 (16 two-car garages & 47 1-car garages)
 Guest Parking Stalls: 5
 Average Unit Size (includes garage): 2,141 sf
 Total Gross Floor Area: 134,880 sf
 FAR Net Floor Area: 128,400 sf
 FAR achieved: $128,400 / 157,639 = 0.81$
 FAR Target: 1.20
 Departures Required:
 - Structure Width Limit: Increase from 90' up to 180'.
 - No other departures provide additional developable lot area

This development graphic illustrates the implications of maintaining all exceptional trees and groves on site. It is notable that the arborist report indicates that due to the lack of existing building foundations on the site, the existing roots have spread outward unrestricted and may be subject to damage and failure beyond the tree canopy limits. Additionally, many of the exceptional and grove trees are in poor condition and should be removed regardless of development.

In order to accommodate the exceptional trees and provide fire access to all buildings on the site (most driveways would be sloped at 10% grade), the developable area for the site is substantially reduced as shown at right, only achieving a FAR of 0.81, well below the 1.20 allowable and resulting in a financially unfeasible project.

The preferred Option 3 proposes a FAR of 1.03, already below the allowable FAR to accommodate preserving perimeter trees, enhanced amenity areas, a fire apparatus access route, and guest parking at a reasonable level for the neighborhood. Preferred Option 3 maintains the three groves and other exceptional trees around the perimeter of the site, but removes 11 exceptional trees on the interior in favor of re-grading and establishing a sustainable landscape to mature with the new construction.

In all layouts, it is assumed that trees along NE 88th St will be removed in favor of new street trees and right-of-way improvements as required for the project.



Tree Replacement & Central Amenity



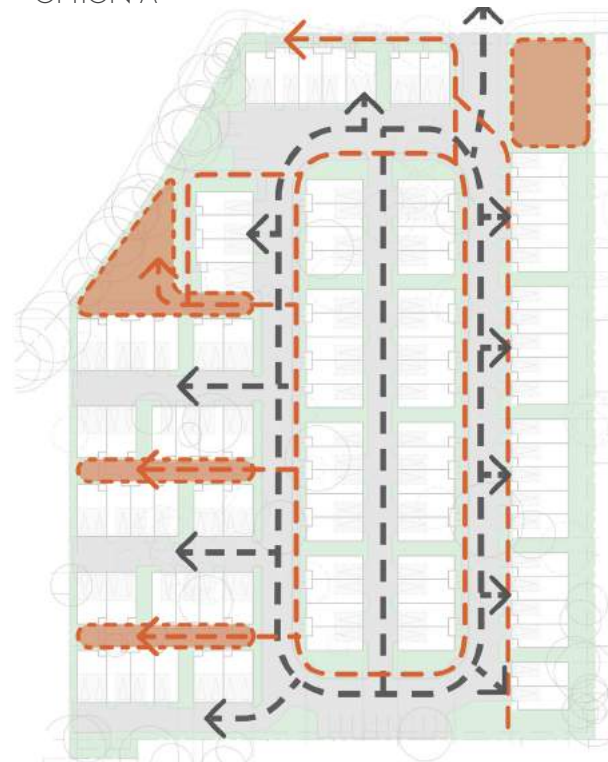
PEDESTRIAN GREENSPACE



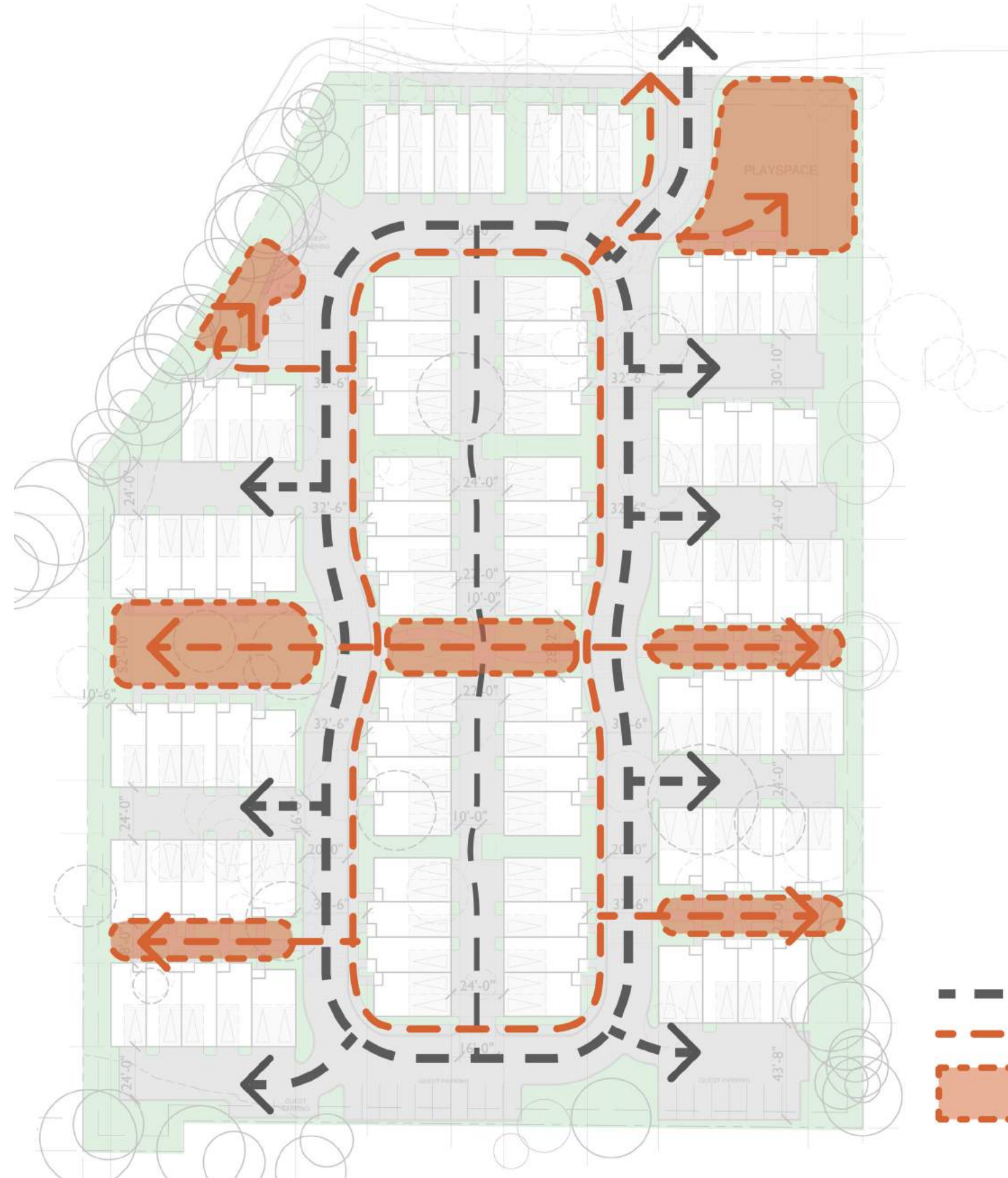
- A. Buffer between site and Lake City Way at full foliage
- B. Buffer between site and Lake City Way at low foliage
- C. View of buffer from site out toward Lake City Way at low foliage



OPTION A



OPTION B



9:00 AM

NOON

3:00 PM

JUNE



MARCH/SEPTEMBER



DECEMBER



Appendix

NK Project Examples



FOURTH + ROY TOWNHOMES



HARBOR LIVE/WORK



17TH CAPITOL HILL TOWNHOMES



CREEKSIDE TOWNHOMES



15TH BALLARD LIVE/WORK



GALER 8 TOWNHOMES



ADMIRAL LOFT TOWNHOMES



WOODLAND PARK TOWNHOMES



SALVEO TOWNHOMES



CENTERRA



SPRING PEAK TOWNHOMES



PERSPECTIVE AT TERRAINE & WEST JULIAN STREET



RALLY TOWNHOMES



ELEMENT



COPPERIDGE