

ORCAS MOON PROJECT
SEP16-02269

RS 8.5

Parc Pro

NE 107TH PL
RS 3

Subject Property

12.5

PUD
Forbes Cree

20TH AVE

20TH AVE

4TH ST

4TH PL

5TH ST

19TH PL

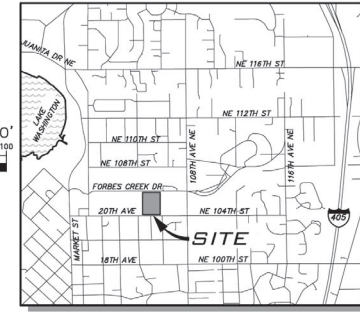
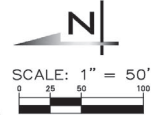
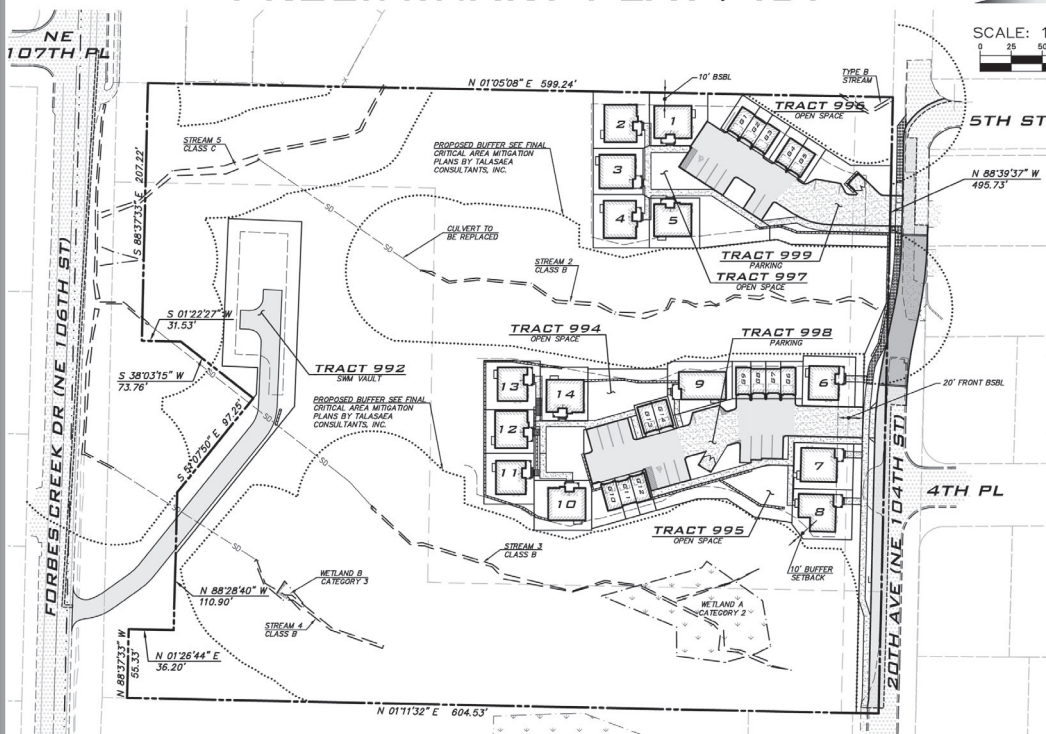
5TH PL



SW 1/4, SEC 32, TWP 26N, R6E, SE W.M.

ORCAS MOON COTTAGES

PRELIMINARY PLAT / IDP



PROJECT TEAM

OWNER
ORCAS MOON LLC
PO BOX 2710
KIRKLAND, WA 98073
(206) 550-5560
CONTACT: ROBERT LONDO
RLONDO@OTBERO.COM

GEOTECHNICAL SURVEYOR
ASSOCIATED EARTH SCIENCES, INC.
911 9TH AVENUE
KIRKLAND, WA 98033
(425) 827-7701
CONTACT: TERRY A. OBERG, PE
TOBERG@THEBLUELINEGROUP.COM

CIVIL ENGINEER
THE BLUELINE GROUP
25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
(206) 723-0658
CONTACT: FAVIERO GREENFOREST
GREENFOREST@CINDASPRING.COM

ARBORIST
GREENFOREST INC.
4547 SOUTH LUCILE STREET
SEATTLE, WA 98118
(206) 723-0658
CONTACT: FAVIERO GREENFOREST
GREENFOREST@CINDASPRING.COM

ARCHITECT
WASH & ASSOCIATES, ARCHITECTS
6003 118TH AVENUE NE
KIRKLAND, WA 98033
CONTACT: MIKE JOHNSON
MIKE@WASH-ARCHITECTS.COM

LOT CALCULATIONS

*SITE IMPERVIOUS IS 50% MAX	
LOT 1 AREA:	1,839 SF
HOUSE S.F.:	1,483 SF
LOT 2 AREA:	2,044 SF
HOUSE S.F.:	1,469 SF
LOT 3 AREA:	1,487 SF
HOUSE S.F.:	1,484 SF
LOT 4 AREA:	1,933 SF
HOUSE S.F.:	1,469 SF
LOT 5 AREA:	1,618 SF
HOUSE S.F.:	1,469 SF
LOT 6 AREA:	1,688 SF
HOUSE S.F.:	1,188 SF
LOT 7 AREA:	1,783 SF
HOUSE S.F.:	1,484 SF
LOT 8 AREA:	1,875 SF
HOUSE S.F.:	1,474 SF
LOT 9 AREA:	1,897 SF
HOUSE S.F.:	1,469 SF
LOT 10 AREA:	1,854 SF
HOUSE S.F.:	1,469 SF
LOT 11 AREA:	1,647 SF
HOUSE S.F.:	1,188 SF
LOT 12 AREA:	1,406 SF
HOUSE S.F.:	1,406 SF
LOT 13 AREA:	1,809 SF
HOUSE S.F.:	1,188 SF
LOT 14 AREA:	1,661 SF
HOUSE S.F.:	1,484 SF
TRACT 992 - SWM VAULT:	11,824 SF
TRACT 993 - OPEN SPACE:	202,514 SF
TRACT 994 - OPEN SPACE:	4,294 SF
TRACT 995 - OPEN SPACE:	2,707 SF
TRACT 996 - OPEN SPACE:	4,285 SF
TRACT 997 - OPEN SPACE:	3,459 SF
TRACT 998 - PARKING:	10,479 SF
TRACT 999 - PARKING:	9,958 SF

MAX DEVELOPMENT POTENTIAL

ZONING:	RS 12.5
TOTAL SITE AREA:	286,713 SF
SENSITIVE AREA (STREAM & WETLAND):	8,502 SF
UNDEVELOPED BUTTER AREA:	146,082 SF
BUILDABLE AREA:	106,809 SF
# SITE IN SENSITIVE AREA BUTTER:	76
MINIMUM LOT SIZE PER LDC CODE:	12,500 SF
DEVELOPMENT FACTOR:	50%
MAXIMUM DEVELOPMENT POTENTIAL:	15,49 DU
PROPOSED DWELLING UNITS:	14 DU

UTILITY PURVEYORS

WATER SUPPLY:	CITY OF KIRKLAND
SANITARY SEWER:	CITY OF KIRKLAND
STORMWATER:	CITY OF KIRKLAND

NOTE

PLANS REFLECT PROPOSED LOT LINE ADJUSTMENT THAT IS BEING PROCESSED CONCURRENTLY WITH PRELIMINARY PLAT/IDP SUBMITTAL.

UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES. TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL, THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

LEGEND	
PROPOSED FEATURES	
BOUNDARY	SEWER MANHOLE
RIGHT-OF-WAY	PIPE FLOW
LOT LINE	SEWER CLEANOUT
CURB FLOWLINE	WATER METER
SIDEWALK	IRRIGATION METER
CENTER LINE	FIRE HYDRANT
EASEMENT	AR/VAC RELEASE VALVE
BUILDING FOOTPRINT	BLOW OFF
BUILDING ROOFLINE	GATE VALVE
BUILDING SETBACK (BSBL)	TEE W/ CONC BLOCKING
WETLAND BUFFER	RESTRAINED JOINT
190 10' PROPOSED CONTOURS	REDUCER
192 2' PROPOSED CONTOURS	SLEEVE
RETAINING WALL	COUPLING
CLEARED AREA	DETECTOR CHECK VALVE
LIMITS OF CLEARING	POST INDICATOR VALVE (PIV)
STORM DRAIN PIPE	MALEBOX
ROOF & FOOTING DRAIN	SEWER SERVICE
SEWER MAIN	WATER MAIN
SEWER SERVICE	TYPE I CB - STANDARD GRATE
WATER MAIN	TYPE II CB - LOOKING LID
TYPE I CB - STANDARD GRATE	TYPE II CB - LOOKING LID
TYPE II CB - LOOKING LID	PIPE FLOW
PIPE FLOW	CULVERT END
CULVERT END	STORM CLEANOUT
EXISTING FEATURES	
ADJACENT PLAT/PARCEL LINE	WATER MANHOLE
ADJACENT RIGHT-OF-WAY	AR/VAC RELEASE VALVE
SECTION LINE	BLOW OFF
CENTERLINE	IRRIGATION METER
EASEMENT	DETECTOR CHECK VALVE
SURFACE FEATURES	WATER WELL
BUILDING FOOTPRINT	HOSE BIB
TOP OF 40% SLOPE	POWER POLE
EDGE OF WETLAND	GUY ANCHOR
WETLAND BUFFER	STREET LIGHT
10' CONTOURS	POLK LIGHT
2' CONTOURS	POWER VAULT
SD - STORM DRAIN PIPE	TRANSFORMER
SS - SEWER MAIN	POWER METER
SSS - SIDE SEWER SERVICE	WATER MAIN
W - WATER MAIN	ADRIAL POWER LINE
QHP - ADRIAL POWER LINE	BURIED POWER LINE
P - BURIED POWER LINE	GAS MAIN
G - GAS MAIN	BURIED CABLE
C - BURIED CABLE	BURIED TV
TV - BURIED TV	ADRIAL TV
QTV - ADRIAL TV	BURIED TELEPHONE LINE
T - BURIED TELEPHONE LINE	ADRIAL TELEPHONE LINE
QTH - ADRIAL TELEPHONE LINE	BURIED POWER/TELEPHONE
P/T - BURIED POWER/TELEPHONE	ADRIAL UTILITIES
QHT - ADRIAL UTILITIES	BURIED FIBER OPTIC CABLE
FO - BURIED FIBER OPTIC CABLE	WIRE FENCE
WF - WIRE FENCE	CHAINLINK FENCE
CF - CHAINLINK FENCE	BOARD FENCE
BF - BOARD FENCE	SD ON OR SINGLE
SD ON OR SINGLE	GUARD RAIL
GUARD RAIL	RETAINING WALL
RETAINING WALL	ROCKERY
ROCKERY	CATCH BASIN, TYPE I
CATCH BASIN, TYPE I	CATCH BASIN, TYPE II
CATCH BASIN, TYPE II	SD PIPE FLOW
SD PIPE FLOW	YARD DRAIN
YARD DRAIN	STORM CLEANOUT
STORM CLEANOUT	STORM DRAIN SUB
STORM DRAIN SUB	STORM CULVERT END
STORM CULVERT END	SEWER MANHOLE
SEWER MANHOLE	SEWER CLEANOUT
SEWER CLEANOUT	SS PIPE FLOW
SS PIPE FLOW	SEWER SUB
SEWER SUB	SEPTIC LID
SEPTIC LID	FIRE HYDRANT
FIRE HYDRANT	WATER METER
WATER METER	GATE VALVE
GATE VALVE	

DATUM

HORIZONTAL DATUM: NAD 83/71 GPS 2011 SMARTNET NORTH AMERICA
VERTICAL DATUM: NAVD 83 PER CITY OF KIRKLAND CONTROL POINT #33
FOUND PUNCH ON 1 1/2" BRASS DISK IN 4"x4" CONCRETE MONUMENT IN CASE DOWN 0.25' AT THE INTERSECTION OF 18TH AVE AND 6TH ST.
ELEVATION: 229.93'
TEMPORARY BENCHMARK:

LEGAL DESCRIPTION

EASEMENTS AND LEGAL DESCRIPTION ARE BASED ON THE SUBDIVISION GUARANTEE BY TITLE RESOURCES GUARANTY COMPANY, FILE NO. 40167319-100-735, DATED MARCH 29, 2016, AT 8:00 A.M.
LOTS 4 AND 8 CITY OF KIRKLAND BOUNDARY LINE ADJUSTMENT NUMBER 04-06-00028, RECORDED AUGUST 28, 2007, UNDER AUDITOR'S NUMBER 20070809001915, BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 32 TOWNSHIP 26 NORTH, RANGE 5 EAST, WILLAMETTE, (ALSO KNOWN AS A PORTION OF LOTS 7 AND 8 KIRKLAND FIVE ACRES TRACTS, UNRECORDED PLATS, KING COUNTY).
SITUATE IN THE CITY OF KIRKLAND, COUNTY OF KING, STATE OF WASHINGTON.

SURVEY NOTES

THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON MAY 2016 AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
UNDERGROUND UTILITIES WERE LOCATED BASED ON THE SURFACE EVIDENCE OF UTILITIES (PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS, ETC.) AND AS-BUILT INFORMATION PROVIDED BY THE UTILITY PURVEYORS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
THIS SURVEY DISCLOSES FACTORS OF RECORD AND ON THE GROUND AFFECTING THE SUBJECT PROPERTY BOUNDARY, BUT IT DOES NOT PURPORT TO LEGALLY RESOLVE RELATED PROPERTY LINE DISPUTES. WHERE AMBIGUOUS, THE SURVEYOR HAS NOTED AND RECOMMENDED THAT THE OWNER CONSULT WITH A LEGAL COUNSEL TO DETERMINE HOW BEST TO INTERPRET THEIR PROPERTY RIGHTS AND ADDRESS ANY POTENTIAL PROPERTY LINE DISPUTES.
WETLAND DELINEATION PROVIDED BY TALASAKA CONSULTANTS, INC. AS SHOWN ON MAP DATED APRIL 21, 2016 NUMBER TAL 018.

BUILDING FOOTPRINT

BUILDING FOOTPRINTS SHOWN ARE CONCEPTUAL AND SUBJECT TO CHANGE.

BASIS OF BEARINGS

WELD A BEARING OF NORTH 88°37'33" WEST BETWEEN THE FOUND MONUMENTS ALONG THE CENTERLINE OF FORBES CREEK DR. (NE 107TH ST).

EQUIPMENT NOTES

PRIMARY CONTROL POINTS AND ACCESSIBLE MONUMENT POSITIONS WERE FIELD MEASURED UTILIZING GLOBAL POSITIONING SYSTEM (GPS) SURVEY TECHNIQUES USING LEICA GST4 GPS/ODS EQUIPMENT. MONUMENT POSITIONS THAT WERE NOT DIRECTLY OBSERVED USING GPS SURVEY TECHNIQUES WERE TIED INTO THE CONTROL POINTS UTILIZING LEICA ELECTRONIC TOTAL STATION. STATIONS FOR THE MEASUREMENT OF BOTH ANGLES AND DISTANCES. THIS SURVEY MEETS OR EXCEEDS THE STANDARDS SET BY WACS 332-130-080/090.

SITE DATA

SITE ADDRESS:	XXXXX 20TH AVE NE, KIRKLAND WA 98034
PARCEL NUMBER:	3890100050
EXISTING ZONING:	RS 12.5
PROPOSED ZONING:	RS 12.5
GROSS SITE AREA:	6.57 ACRES (286,193 SF)
NET SITE AREA:	6.44 ACRES (280,556 SF AFTER ROW DEDICATION)
NUMBER OF LOTS PROPOSED:	14

SHEET INDEX

1	CV-01	PRELIMINARY PLAT COVER SHEET
2	EC-01	EXISTING CONDITIONS
3	SM-01	SLOPE MAP
4	SP-01	PRELIMINARY SITE PLAN
5	TR-01	PRELIMINARY TREE RETENTION PLAN & DETAILS
6	TR-02	PRELIMINARY TREE RETENTION CALCULATIONS
7	GP-01	PRELIMINARY GRADING PLAN
8	UT-01	PRELIMINARY UTILITY PLAN
9	RP-01	PRELIMINARY ROAD PROFILES
10	LS-01	PRELIMINARY LANDSCAPE PLAN
11	LS-02	PRELIMINARY LANDSCAPE DETAILS

BLUELINE

25 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
P: 425.210.4001 F: 425.210.4002
WWW.THEBLUELINEGROUP.COM

SCALE:
AS NOTED

PROJECT MANAGER:
TODD A. OBERG, PE

PROJECT ENGINEER:
TODD A. OBERG, PE

DESIGNER:
MARY MOORE

ISSUE DATE:
6/6/2019

PRELIMINARY PLAT COVER SHEET

ORCAS MOON COTTAGES

PRELIMINARY PLAT / IDP

PARCEL #3890100050

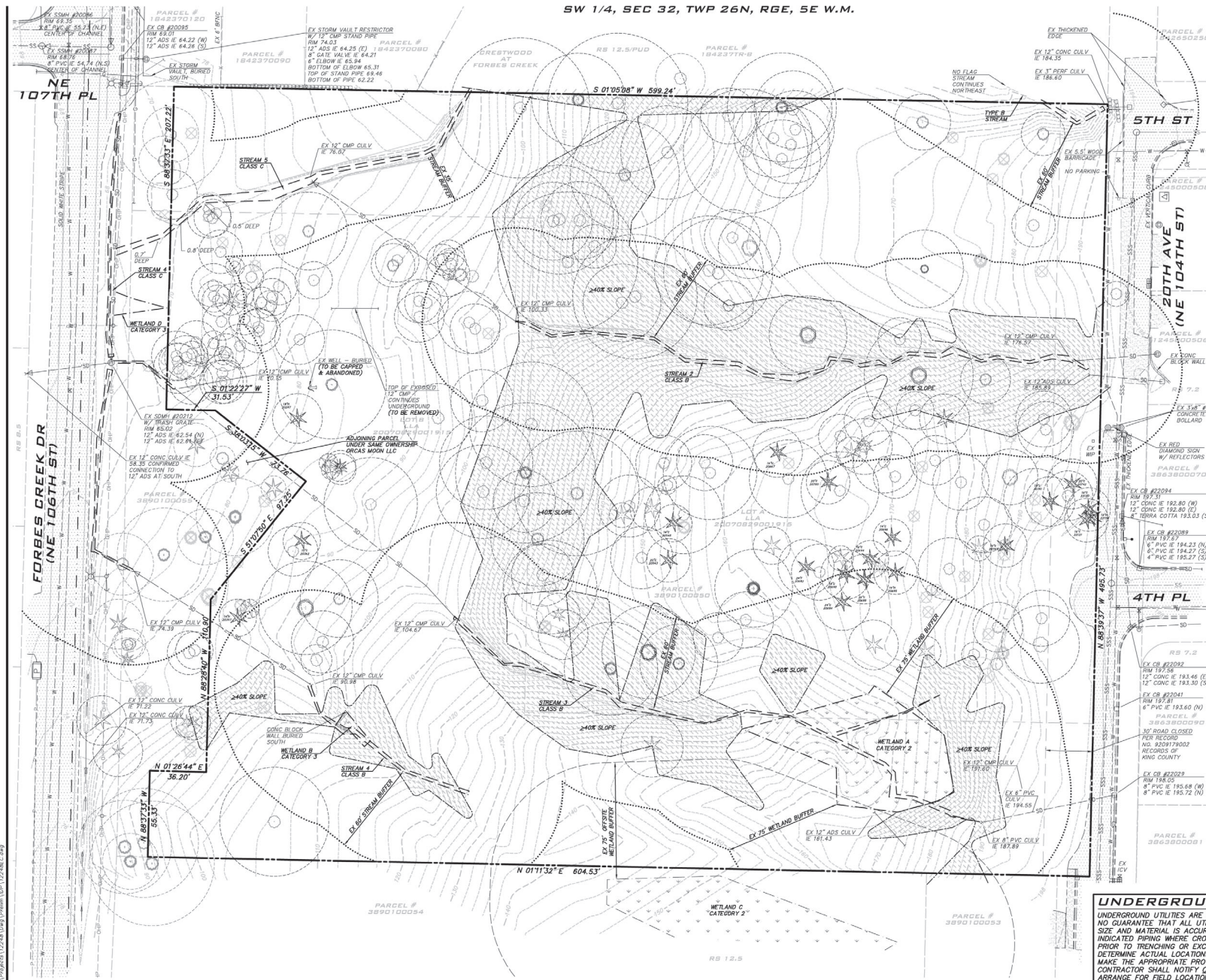
CITY OF KIRKLAND WASHINGTON

6/5/19

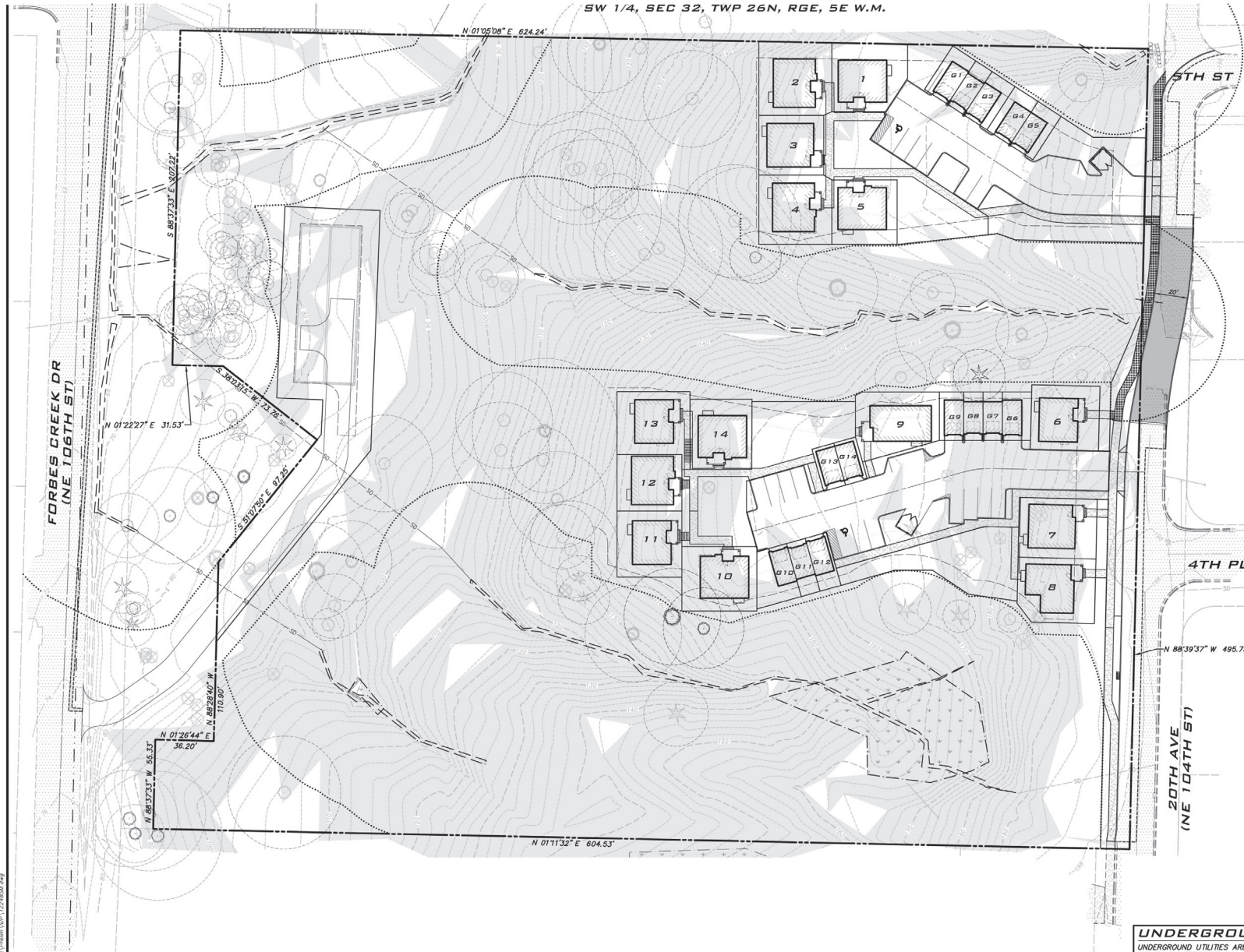
JOB NUMBER:
12-248

SHEET NAME:
CV-01

SHT. 1 OF 11



		28 CENTRAL WAY, SUITE 400 KIRKLAND, WA 98033 P: 425.216.4801 F: 425.216.4802 WWW.BLUELINEGROUP.COM	
		SCALE: AS NOTED PROJECT MANAGER: TERRY A. OBERG, PE PROJECT ENGINEER: TERRY A. OBERG, PE DESIGNER: MARY MOORE ISSUE DATE: 6/6/2019	
NO	DATE	BY	REVISIONS
1	2/20/19	ME	RESPONSE TO COMMENTS DATE 4-24-19
2	6/20/19	ME	RESPONSE TO COMMENTS DATE 6-21-19
EXISTING CONDITIONS ORCAS MOON COTTAGES PRELIMINARY PLAT / IDP PARCEL #3890100050 CITY OF KIRKLAND WASHINGTON			
		6/5/19 JOB NUMBER: 12-248 SHEET NAME: EC-01 SHT. 2 OF 11	



UNDERGROUND UTILITY NOTE

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28 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
P: 425.218.4801 F: 425.218.4802
WWW.THEBLUELINEGROUP.COM

SCALE:
AS NOTED
PROJECT MANAGER:
TODD A. OBERG, PE
PROJECT ENGINEER:
TODD A. OBERG, PE
DESIGNER:
MARY MOORE
ISSUE DATE:
6/6/2019

NO.	DATE	BY	REVISIONS
1	2/27/19	ME	RESPONSE TO COMMENTS DATED 4-24-19
2	6/27/19	ME	RESPONSE TO COMMENTS DATED 6-21-19

SLOPE MAP

ORCAS MOON COTTAGES

PRELIMINARY PLAT / IDP

PARCEL #3890100050

CITY OF KIRKLAND WASHINGTON

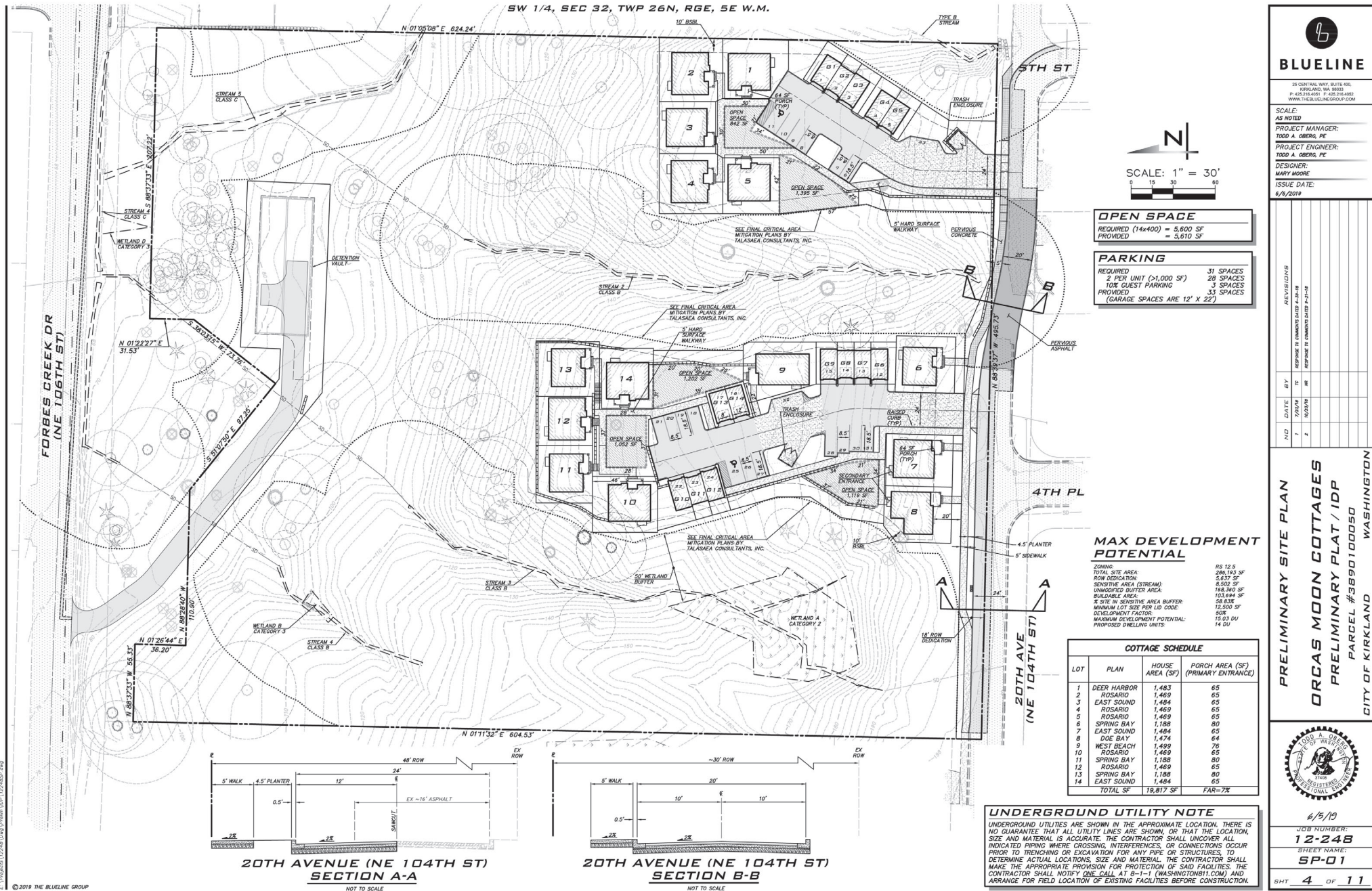


6/5/19

JOB NUMBER:
12-248

SHEET NAME:
SM-01

SHT. **3** OF **11**



BLUELINE

28 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
P: 425.210.4001 F: 425.210.4002
WWW.BLUELINEGROUP.COM

SCALE:
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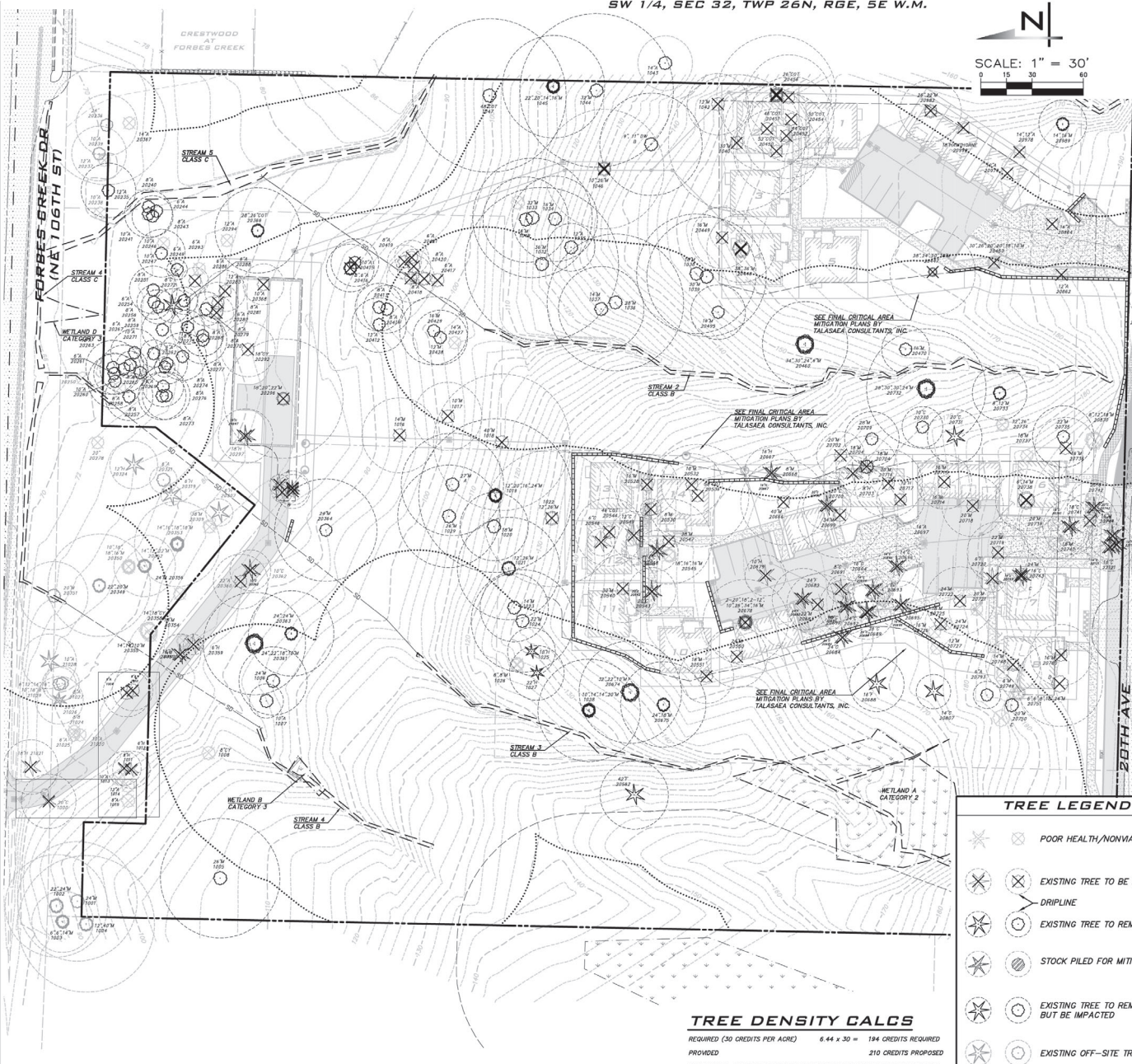
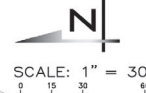
REVISIONS

NO	DATE	BY	DESCRIPTION
1	2/27/19	ME	RESPONSE TO COMMENTS DATED 4-24-19
2	5/22/19	ME	RESPONSE TO COMMENTS DATED 5-21-19

PRELIMINARY SITE PLAN
ORCAS MOON COTTAGES
PRELIMINARY PLAT / IDP
PARCEL #3890100050
CITY OF KIRKLAND WASHINGTON

6/5/19
JOB NUMBER:
12-248
SHEET NAME:
SP-01
SHT 4 OF 11

SW 1/4, SEC 32, TWP 26N, R6E, SE W.M.

**TREE DENSITY CALCS**

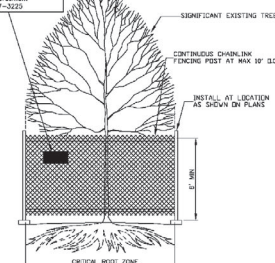
REQUIRED (NO CREDITS PER ACRE) 6.44 x 30 = 194 CREDITS REQUIRED
 PROVIDED 310 CREDITS PROPOSED

ADDITIONAL TREES TO REMAIN NOT SURVEYED OR SHOWN BUT EXIST IN CRITICAL AREA BUFFERS. ACTUAL TREE CREDITS WILL BE HIGHER THAN PROPOSED

TREE PROTECTION MEASURES

1. TREE PROTECTION FENCES WILL NEED TO BE PLACED AROUND EACH TREE OR GROUP OF TREES TO BE RETAINED.
2. TREE PROTECTION FENCES ARE TO BE PLACED ACCORDING TO CITY STANDARD PLAN NO. CK-R-49 AND AS NOTED IN THE TREE INVENTORY/CONDITIONS SPREADSHEET, COLUMN 8 - LIMITS OF DISTURBANCE (SEE ARBORIST REPORT DATED 4/14/19).
3. TREE PROTECTION FENCES MUST BE INSPECTED PRIOR TO THE BEGINNING OF ANY CONSTRUCTION WORK/ACTIVITIES.
4. NOTHING MUST BE PARKED OR STORED WITHIN THE TREE PROTECTION FENCES—NO EQUIPMENT, VEHICLES, SOIL, DEBRIS, OR CONSTRUCTION SUPPLIES OF ANY SORTS.
5. THE TREE PROTECTION FENCES NEED TO BE CLEARLY MARKED WITH THE FOLLOWING OR SIMILAR TEXT IN FOUR INCH OR LARGER LETTERS:
 TREE PROTECTION AREA, ENTRANCE PROHIBITED
 TO REPORT VIOLATIONS CONTACT
 CITY CODE ENFORCEMENT AT
 425-587-3225
6. THE AREA WITHIN THE TREE PROTECTION FENCING MUST BE COVERED WITH WOOD CHIPS, HOG FUEL, OR SIMILAR MATERIALS TO A DEPTH OF 4 TO 10 INCHES. THE MATERIALS SHOULD BE PLACED PRIOR TO BEGINNING CONSTRUCTION AND REMAIN UNTIL THE TREE PROTECTION FENCING IS TAKEN DOWN.
7. WHEN EXCAVATION OCCURS NEAR TREES THAT ARE SCHEDULED FOR RETENTION, THE FOLLOWING PROCEDURE MUST BE FOLLOWED TO PROTECT THE LONG TERM SURVIVABILITY OF THE TREE:
 A. AN INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) CERTIFIED ARBORIST MUST BE WORKING WITH ALL EQUIPMENT OPERATOR.
 B. THE CERTIFIED ARBORIST SHOULD BE OUTFITTED WITH A SHOVEL, HAND PRUNERS, A PAIR OF LOPPERS, A HANDSAW, AND A POWER SAW (A "SAWSALL" IS RECOMMENDED).
 C. THE HOE MUST BE PLACED TO "COMB" THE MATERIAL DIRECTLY AWAY FROM THE TRUNK AS OPPOSED TO CUTTING ACROSS THE ROOTS.
 D. COMBING IS THE GRADUAL EXCAVATION OF THE GROUND COVER PLANTS AND SOIL IN DEPTHS THAT ONLY EXTEND AS DEEP AS THE TINES OF THE HOE.
 E. WHEN ANY ROOTS OF ONE INCH DIAMETER OR GREATER OF THE TREE TO BE RETAINED, IS STRUCK BY THE EQUIPMENT, THE CERTIFIED ARBORIST SHOULD STOP THE EQUIPMENT OPERATOR.
 F. THE CERTIFIED ARBORIST SHOULD THEN EXCAVATE AROUND THE TREE ROOT BY HAND/SHOVEL AND CLEANLY CUT THE TREE ROOT.
 G. THE CERTIFIED ARBORIST SHOULD THEN INSTRUCT THE EQUIPMENT OPERATOR TO CONTINUE.
8. PUTTING UTILITIES UNDER THE ROOT ZONE:
 A. BORING UNDER THE ROOT SYSTEMS OF TREES (AND OTHER VEGETATION) SHALL BE DONE UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST. THIS IS TO BE ACCOMPLISHED BY EXCAVATING A LIMITED TRENCH (FT) ON EACH SIDE OF THE CRITICAL ROOT ZONE OF THE TREE AND THEN HAND DIGGING OR PUSHING THE PIPE THROUGH THE SOIL UNDER THE TREE. THE CLOSEST PIT WALLS SHALL BE A MINIMUM OF 7 FEET FROM THE CENTER OF THE TREE AND SHALL BE SUFFICIENT DEPTH TO LAY THE PIPE AT THE GRADE AS SHOWN ON THE PLAN AND PROFILE.
 B. TUNNELING UNDER THE ROOTS OF TREES SHALL BE DONE UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST IN AN OPEN TRENCH BY CAREFULLY EXCAVATING AND HAND DIGGING AROUND AREAS WHERE LARGER ROOTS ARE FOUND. NO ROOTS 1 INCH IN DIAMETER OR LARGER SHALL BE CUT.
 C. THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF EXISTING UTILITIES TO AVOID CONFLICTS AND MAINTAIN MINIMUM CLEARANCES. ADJUSTMENT SHALL BE MADE TO THE GRADE OF THE NEW UTILITY AS REQUIRED.
9. WATERING:
 A. THE TREES WILL REQUIRE SIGNIFICANT WATERING THROUGHOUT THE SUMMER AND EARLY FALL IN ORDER TO SURVIVE LONG-TERM. AN EASY AND ECONOMICAL WATERING CAN BE DONE USING SOAKER HOSES PLACED THREE FEET FROM THE TRUNK OF THE TREE AND SPACED AROUND THE TREE. ONE 75-FOOT SOAKER HOSE PER TREE IS RECOMMENDED. IT IS BEST TO PLACE THE SOAKERS USING LANDSCAPE STAPLES (AVAILABLE FROM NO FLOWERS IN BELLEVUE FOR PENNIES APiece) THEY COVER THE AREA WITH TWO TO THREE INCHES COMPOSTED MATERIALS. THE COMPOSTED MATERIALS WILL ACT AS A MULCH TO MINIMIZE EVAPORATION AND WILL ALSO STIMULATE THE MICROBIAL ACTIVITY OF THE SOIL WHICH IS ANOTHER BENEFIT TO THE HEALTHY OF THE TREE.
 B. WATER THE TREE TO A DEPTH OF 18 TO 20 INCHES. I RECOMMEND LEAVING THE WATER ON THE SOAKER HOSES FOR SIX TO EIGHT HOURS AND THEN DIGGING DOWN TO DETERMINE HOW DEEP YOUR WATER IS PENETRATING. THEN ADJUST ACCORDINGLY. IT MAY TAKE A GOOD TWO DAYS OF WATERING TO REACH THE PROPER DEPTH.
 C. ONCE THE WATER REACHES THE PROPER DEPTH, TURN OFF THE HOSES FOR FOUR WEEKS AND THEN WATER AGAIN. WATER MORE OFTEN WHEN TEMPERATURES INCREASE—EVERY THREE WEEKS WHEN TEMPERATURES EXCEED 80 DEGREES AND EVERY TWO WEEKS WHEN TEMPERATURES EXCEED 90 DEGREES. THIS DRYING OUT OF THE SOIL IN BETWEEN WATERING IS IMPORTANT TO PREVENT SOIL PATHOGENS FROM ATTACKING THE TREES.

FENCING SIGN DETAIL
 Tree Protection Area, Entrance Prohibited
 To Report Violations Contact
 City Code Enforcement
 At (425) 587-3225

**NOTES**

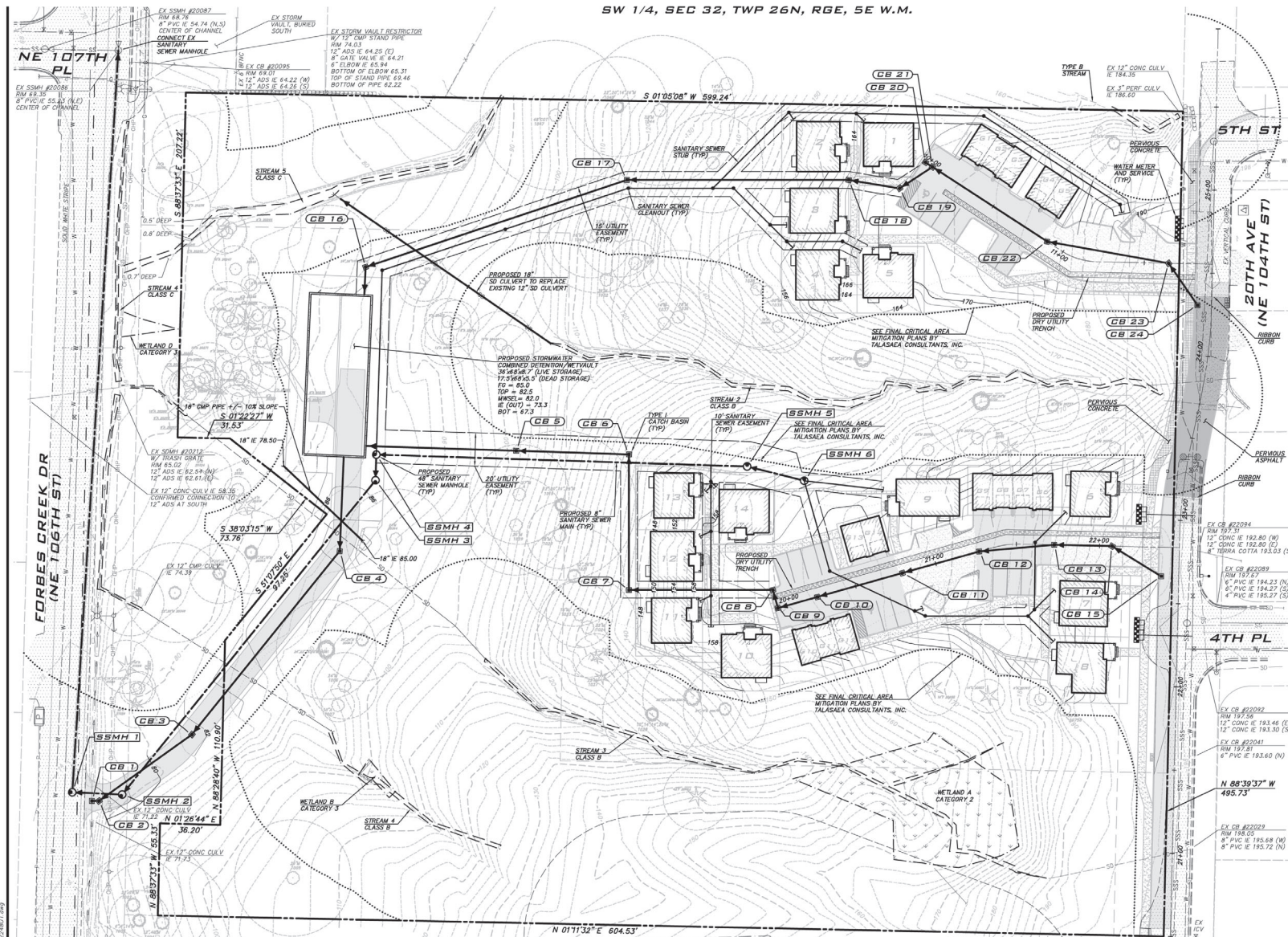
1. MINIMUM SIX (6) FOOT HIGH TEMPORARY CHAIN-LINK FENCE SHALL BE PLACED AT THE CRITICAL ROOT ZONE OR DESIGNATED LIMIT OF DISTURBANCE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCLOSE THE CRITICAL ROOT ZONE, SOIL, FENCE POSTS, AND/OR BUCKING SHALL BE PLACED AT STAKES AND MAJOR TRUNKS.
2. TREATMENT OF ROOTS EXPOSED DURING CONSTRUCTION FOR ROOTS OVER ONE (1) INCH DIAMETER DAMAGED DURING CONSTRUCTION, MAKE A CLEAN STRAIGHT CUT TO REMOVE DAMAGED PORTION OF ROOT. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP SUBSOIL TO PREVENT DRYING, AND COVERED WITH SOIL AS SOON AS POSSIBLE.
3. NO STORING OF MATERIALS, VEHICLES, TRAILERS, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING. FENCING SHALL NOT BE MOVED OR REMOVED WITHOUT APPROVAL BY THE CITY PLANNING OFFICIAL. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY UNDER THE SUPERVISION OF THE ON-SITE ARBORIST AND WITH PRIOR APPROVAL BY THE CITY PLANNING OFFICIAL.
4. FENCING SIGNAGE AS DETAILED ABOVE MUST BE POSTED EVERY FIFTEEN (15) FEET ALONG THE FENCE. SIGN TO BE MINIMUM 11"X17", AND MADE OF WEATHER-PROOF MATERIAL.

UNDERGROUND UTILITY NOTE

UNDERGROUND UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL EXISTING OLD PIPING WHERE CROSSINGS, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES. TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL, THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

 BLUELINE 28 CENTRAL WAY, SUITE 400 KIRKLAND, WA 98033 P: 425.216.4001 F: 425.216.4002 WWW.BLUELINEDESIGN.COM		SCALE: AS NOTED PROJECT MANAGER: TERRY A. OBERG, PE PROJECT ENGINEER: TERRY A. OBERG, PE DESIGNER: MARY MOORE ISSUE DATE: 6/5/2019	
		RECEIVED RESPONSE BY (DATE) DATE P-1-11 RESPONSE BY (DATE) DATE P-1-11	
NO	DATE	BY	NO
1	5/22/19	ME	1
PRELIMINARY TREE RETENTION PLAN & DETAILS ORCAS MOON COTTAGES PRELIMINARY PLAN / IDP PARCEL #3890100050 CITY OF KIRKLAND WASHINGTON		 CITY OF KIRKLAND PLAN NO. CK-R-49 TREE PROTECTION	
6/5/19 JOB NUMBER: 12-248 SHEET NAME: TR-01		6/5/19 JOB NUMBER: 12-248 SHEET NAME: TR-01	
5 OF 11		5 OF 11	

SW 1/4, SEC 32, TWP 26N, RGE, 5E W.M.

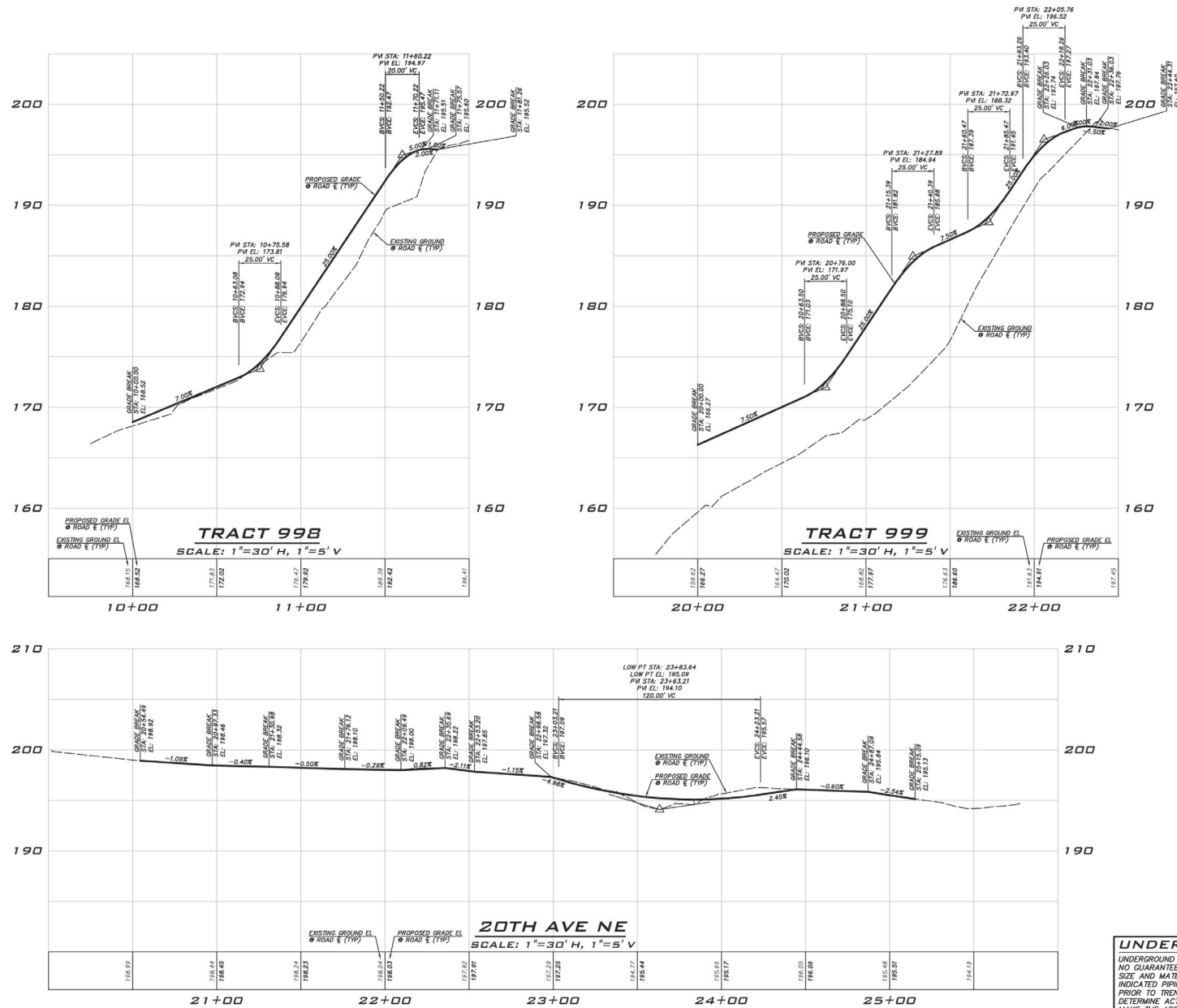


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<p>BLUELINE</p> <p>28 CENTRAL WAY, SUITE 400 KIRKLAND, WA 98033 P: 425.218.4801 F: 425.218.4802 WWW.THEBLUELINEGROUP.COM</p>		<p>SCALE: AS NOTED</p> <p>PROJECT MANAGER: TODD A. OBERG, PE</p> <p>PROJECT ENGINEER: TODD A. OBERG, PE</p> <p>DESIGNER: MARY MOORE</p> <p>ISSUE DATE: 6/6/2019</p>											
		<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2/20/19</td> <td>ME</td> <td>RESPONSE TO COMMENTS DATED 4-24-19</td> </tr> <tr> <td>2</td> <td>5/22/19</td> <td>ME</td> <td>RESPONSE TO COMMENTS DATED 5-21-19</td> </tr> </tbody> </table>		NO.	DATE	BY	DESCRIPTION	1	2/20/19	ME	RESPONSE TO COMMENTS DATED 4-24-19	2	5/22/19
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<p>PRELIMINARY UTILITY PLAN</p> <p>ORCAS MOON COTTAGES</p> <p>PRELIMINARY PLAT / IDP</p> <p>PARCEL #3890100050</p> <p>CITY OF KIRKLAND WASHINGTON</p>		<p>6/5/19</p> <p>JOB NUMBER: 12-248</p> <p>SHEET NAME: UT-01</p> <p>SHT. 8 OF 11</p>											

SW 1/4, SEC 32, TWP 26N, RGE, SE W.M.

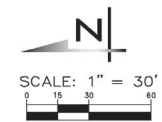


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		28 CENTRAL WAY, SUITE 400 KIRKLAND, WA 98033 P: 425.216.4001 F: 425.216.4002 WWW.THEBLUelineGROUP.COM	
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NO	DATE	BY	REVISIONS
1	2/27/19	ME	RESPONSE TO COMMENTS DATED 4-24-19
2	6/27/19	ME	RESPONSE TO COMMENTS DATED 6-27-19
PRELIMINARY ROAD PROFILES ORCAS MOON COTTAGES PRELIMINARY PLAT / IDP PARCEL #3890100050 CITY OF KIRKLAND WASHINGTON			
		6/5/19 JOB NUMBER: 12-248 SHEET NAME: RP-01 GHT: 9 OF 11	

SW 1/4, SEC 32, TWP 26N, RGE, SE W.M.



28 CENTRAL WAY, SUITE 400
KIRKLAND, WA 98033
P: 425.216.4851 F: 425.216.4852
WWW.THEBLUELINEGROUP.COM

SCALE:
AS NOTED
PROJECT MANAGER:
TODD A. OBERG, PE
PROJECT ENGINEER:
TODD A. OBERG, PE
DESIGNER:
MARY MOORE
ISSUE DATE:
6/6/2019

NO.	DATE	BY	REVISIONS
1	2/27/19	ME	RESPONSE TO COMMENTS DATED 4-24-19
2	6/27/19	ME	RESPONSE TO COMMENTS DATED 6-27-19

PRELIMINARY LANDSCAPE PLAN
ORCAS MOON COTTAGES
PRELIMINARY PLAT / IDP
PARCEL #3890100050
CITY OF KIRKLAND WASHINGTON



6/5/19
JOB NUMBER:
12-248
SHEET NAME:
LS-01

SHT. 10 OF 11

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
	ACER CIRCINATUM / VINE MAPLE
	ACER PALMATUM 'SANGO KAKU' / CORAL BARK MAPLE
	CHAMAECIPARIS NOOTKATENSIS 'GREEN ARROW' / GREEN ARROW NOOT
	CORNUS NUTTALLII / WESTERN FLOWERING DOGWOOD
	THALIA PLICATA / WESTERN RED CEDAR
	TSUGA HETEROPHYLLA / WESTERN HEMLOCK
	ZELKOVA SERRATA / SAWLEAF ZELKOVA
SHRUBS	BOTANICAL / COMMON NAME
	BERBERIS THUNBERGII 'CRIMSON PYGMY' / CRIMSON PYGMY BARBERRY
	CALLUNA VULGARIS / HEATHER
	CORNUS SERICEA / RED TWIG DOGWOOD
	HOLODISCUS DISCOLOR / OCEAN-SPRAY
	IMPERATA CYLINDRICA / JAPANESE BLOOD GRASS
	LAVANDULA ANGUSTIFOLIA / ENGLISH LAVENDER
	NANDINA DOMESTICA 'FIRE POWER' / FIREPOWER NANDINA
	PENNISETUM ALOPECUROIDES 'HAEMEL' / HAEMEL DWARF FOUNTAIN GR.
	PRUNUS LAUROCERASUS 'OTTO LUYKEN' / LUYKEN'S LAUREL
	RHOODODENDRON OCCIDENTALE / WESTERN AZALEA
	RHOODODENDRON X 'SCARLET WONDER' / SCARLET WONDER DWARF RHOD.
	RIBES SANGUINEUM / RED FLOWERING CURRANT
	SPIRAEA JAPONICA 'GOLDMOUND' / SPIREA
	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY

UNDERGROUND UTILITY NOTE

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LANDSCAPE NOTES

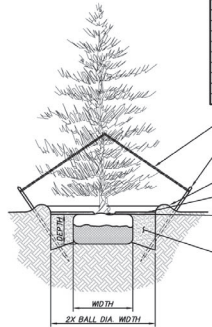
-ANY PERIMETER BUFFER LANDSCAPING REQUIRED PER 95.40
WILL BE DESIGNED AND SUBMITTED WITH THE LSM PLAN SET.
-ANY SUPPLEMENTAL PLANTINGS REQUIRED PER 95.41 WILL BE
DESIGNED AND SUBMITTED WITH THE LSM PLAN SET.
-A PLANTING PLAN WILL BE SUBMITTED WITH LSM TO MITIGATE
THE BARE GROUND AFTER REMOVAL OF INVASIVE PLANTS PER
95.51(3).

SW 1/4, SEC 32, TWP 26N, RGE, SE W.M.

PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME	CONT.	SIZE
	ACER CIRCINATUM / VINE MAPLE	B & B	2" CAL.
	ACER PALMATUM "SANGO KAKU" / CORAL BARK MAPLE	B & B	2" CAL.
	CHAMAECYPARIS NODIKATENSIS "GREEN ARROW" / GREEN ARROW NODDIA CYPRESS	B & B	8" MIN PLANTED HT.
	CORNUS HUTTALII / WESTERN FLOWERING DOGWOOD	B & B	1.5" CAL.
	THUJA PLICATA / WESTERN RED CEDAR	B & B	10" MIN. HT.
	TSUGA HETEROPHYLLA / WESTERN HEMLOCK	B & B	12" MIN. HT.
	ZELKOVA SERRATA / SAMLEAF ZELKOVA	B & B	2" CAL.
SHRUBS	BOTANICAL / COMMON NAME	SIZE	HEIGHT
	BERBERIS THUNBERGII "CRIMSON PYGMY" / CRIMSON PYGMY BARBERRY	5 GAL.	24" MIN. HT.
	CALLUNA VULGARIS / HEATHER	1 GAL.	6" MIN. HT.
	CORNUS SERICEA / RED TWIG DOGWOOD	2 GAL.	18" MIN. HT.
	HOLODISCUS DISCOLOR / OCEAN-SPRAY	2 GAL.	24" MIN. HT.
	IMPERATA CYLINDRICA / JAPANESE BLOOD GRASS	3 GAL.	
	LAVANDULA ANGSTOLIA / ENGLISH LAVENDER	1 GAL.	
	NANDINA DOMESTICA "FIRE POWER" / FIREPOWER NANDINA	2 GAL.	
	PENNISETUM ALOPECUROIDES "HAEMEL" / HAEMEL DWARF FOUNTAIN GRASS	3 GAL.	
	PRUNUS LAUROCESTRUS "OTTO LUYKEN" / LUYKEN'S LAUREL	5 GAL.	24" MIN. HT.
	RHOODODENDRON OCCIDENTALE / WESTERN AZALEA	3 GAL.	24" MIN. HT.
	RHOODODENDRON X "SCARLET WONDER" / SCARLET WONDER DWARF RHOODODENDRON	5 GAL.	24" MIN. HT.
	RIBES SANGUINEUM / RED FLOWERING CURRANT	3 GAL.	21" MIN. HT.
	SPIRAEA JAPONICA "GOLDMOUND" / SPIREA	2 GAL.	
	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	3 GAL.	24" MIN. HT.

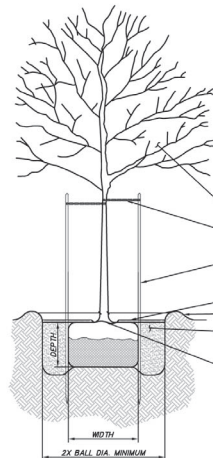
TYPES 1, 2, AND 3 Spreading, semi-spreading, broad spreading, globe, and compact upright	Types 4 & 5 Pyramidal, broad upright		Type 6* Columnar	
Spread (Types 1 and 2) Height (Type 3) (Type 3)	Minimum diameter ball Caliper	Height/ Caliper	Minimum diameter ball Caliper	Height/ Caliper
9 in.	8 in.	12 in.	8 in.	12 in.
12 in.	10 in.	15 in.	10 in.	15 in.
15 in.	12 in.	18 in.	12 in.	18 in.
18 in.	14 in.	24 in.	14 in.	24 in.
24 in.	16 in.	30 in.	16 in.	30 in.
30 in.	18 in.	36 in.	18 in.	36 in.
36 in.	24 in.	42 in.	24 in.	42 in.
42 in.	28 in.	48 in.	28 in.	48 in.
48 in.	32 in.	54 in.	32 in.	54 in.
54 in.	36 in.	60 in.	36 in.	60 in.
60 in.	40 in.	66 in.	40 in.	66 in.
66 in.	44 in.	72 in.	44 in.	72 in.
72 in.	48 in.	78 in.	48 in.	78 in.
78 in.	52 in.	84 in.	52 in.	84 in.
84 in.	56 in.	90 in.	56 in.	90 in.
90 in.	60 in.	96 in.	60 in.	96 in.



CONIFER DETAIL

NOT TO SCALE

TYPE 1 and Type 2 Shade Trees	Caliper	Minimum diameter root ball
1/2 in.	12 in.	
3/4 in.	14 in.	
1 in.	16 in.	
1 1/4 in.	18 in.	
1 1/2 in.	20 in.	
1 3/4 in.	22 in.	
2 in.	24 in.	
2 1/4 in.	26 in.	
2 1/2 in.	28 in.	
2 3/4 in.	30 in.	
3 in.	32 in.	
3 1/2 in.	34 in.	
4 in.	36 in.	
4 1/2 in.	38 in.	
5 in.	40 in.	
5 1/2 in.	42 in.	
6 in.	44 in.	
7 in.	46 in.	
8 in.	48 in.	

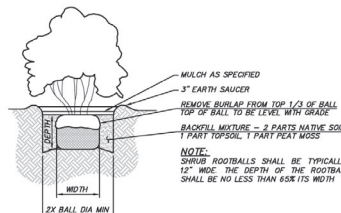


DECIDUOUS DETAIL

NOT TO SCALE

LANDSCAPE NOTES

- IN THE EVENT THAT ANY DISCREPANCIES BETWEEN THE QUANTITIES OF PLANTS INDICATED ON THE PLANT SCHEDULES AND THOSE INDICATED ON THE PLAN, THE QUANTITIES INDICATED ON THE PLAN SHALL GOVERN.
- NO SUBSTITUTIONS SHALL BE ACCEPTED, EXCEPT WITH THE WRITTEN PERMISSION OF THE LANDSCAPE ARCHITECT OR HIS AGENT.
- THE LANDSCAPE ARCHITECT OR HIS AGENT SHALL BE THE SOLE JUDGE OF THE QUALITY AND ACCEPTABILITY OF THE MATERIALS. ALL REJECTED MATERIALS SHALL BE IMMEDIATELY REPLACED WITH ACCEPTABLE MATERIAL AT NO ADDITIONAL COST.
- ALL PLANT BEDS SHALL BE MULCHED WITH A MINIMUM OF 3" SHREDED BARK MULCH OR OTHER MATERIAL APPROVED BY THE LANDSCAPE ARCHITECT. ALL PROPOSED PLANT MATERIAL SHALL BE FULLY GUARANTEED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE AND SHALL BE IN HEALTHY AND VIGOROUS CONDITION. ANY PLANT MATERIAL WHICH DIES WITHIN THAT PERIOD SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES OF PLANT MATERIAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.
- PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.
- THE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITION CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.
- QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" AND 260 (MOST RECENT EDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERMEN, INC.
- B & B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY. PLANTS WITH BROKEN, SPLIT OR DAMAGED ROOT BALLS SHALL BE REJECTED.
- TREES SHALL BE LOCATED IN A MANNER WHICH WILL NOT OBSTRUCT ACCESS TO FIRE HYDRANT OR HYDRO-PNEUMATIC TANKS.
- PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITION ARE SUITABLE.
- SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN THE CENTER OF THE PLANTING PIT.
- TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING IN ACCORDANCE WITH THE PLANTING DETAILS.
- THE LOCATION OF ALL PLANT MATERIAL IS DIAGRAMMATIC. FINAL LOCATION OF ALL PLANT MATERIAL SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR HIS AGENT.
- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY BEARING UPON THE PERFORMANCE OF THE WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL FOR UTILITY LOCATIONS, IF NECESSARY.
- AMENDED SOIL AS REQUIRED IN ALL LANDSCAPED AREAS (OTHER THAN BURENMENT AREAS). SOIL MUST MEET WA STATE DEPARTMENT OF ECOLOGY BMP TS13.

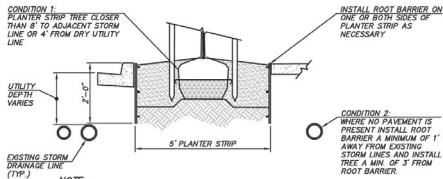


SHRUB DETAIL

NOT TO SCALE

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NOTE:

- ROOT BARRIER TO BE NDS, MODEL RP-2450, OR APPROVED EQUIVALENT.
- INSTALL PRODUCT PER MANUFACTURER'S SPECIFICATIONS.
- INSTALL PRODUCT A MINIMUM OF 3" BEYOND CENTER OF TREE IN EACH DIRECTION PARALLEL TO UTILITY LINE.
- ALL TREES LOCATED WITHIN PLANTER STRIPS TO RECEIVE ROOT BARRIER.

ROOT BARRIER DETAIL

NOT TO SCALE

 28 CENTRAL WAY, SUITE 400 KIRKLAND, WA 98033 P: 425.216.4801 F: 425.216.4802 WWW.BLUELINEGROUP.COM		SCALE: AS NOTED	
		PROJECT MANAGER: TODD A. OBERG, PE	
PROJECT ENGINEER: TODD A. OBERG, PE		DESIGNER: MARY MOORE	
ISSUE DATE: 6/5/2019		REVISIONS	
NO	DATE	BY	REVISION
1	5/20/19	SM	RESPONSE TO COMMENTS DATED 4-24-19
2	5/22/19	SM	RESPONSE TO COMMENTS DATED 5-21-19
PRELIM LANDSCAPE DETAILS ORCAS MOON COTTAGES PRELIMINARY PLAT / IDP PARCEL #3890100050 CITY OF KIRKLAND WASHINGTON			
STATE OF WASHINGTON DEPARTMENT OF ECOLOGY DIVISION OF LAND USE PLANNING & DEVELOPMENT REVIEWED & APPROVED 6/5/19 JOB NUMBER: 12-248 SHEET NUMBER: 15-02 GHT 11 OF 11			



CITY OF KIRKLAND
 Planning and Building Department
 123 5th Avenue, Kirkland, WA 98033
 425.587.3600 ~ www.kirklandwa.gov

DEVELOPMENT STANDARDS LIST

File: ORCAS MOON COTTAGES/SUBDIVISION/BUFFER MODIFICATION
 SUB16-02267

SUBDIVISION STANDARDS

22.28.130 Vehicular Access Easements. The applicant shall comply with the requirements found in the Zoning Code for vehicular access easements or tracts.

22.28.210 Significant Trees. A Tree Retention Plan was submitted with the short plat in which the location of all proposed improvements are known. These trees have been assessed by the City's Urban Forester. They are identified by number in the following chart.

Significant Trees:	High Retention Value	Moderate Retention Value	Low Retention Value (V) – Viable (NV) – Not Viable (UDI) – Unavoidable Development Impacts
1005		X	
1006		X	
1007		X	
1008			NV
1016			NV - UDI
1017			NV - UDI
1018			NV - UDI
1019		X	
1020		X	
1021		X	
1022		X	
1023		X	
1024*		X	
1025*		X	
1026			NV
1027*		X	
1028		X	
1029		X	
1030			NV
1031		X	NV - UDI
1032		X	
1033*		X	
1034		X	

1035		X	
1036		X	
1037		X	
1038		X	
1039		X	
1040			NV - UDI
1041			NV - UDI
1042		X	
1044		X	
1045		X	
1046			NV - UDI
1047		X	
1048			NV
1049		X	
2-A		X	
2-B		X	
20235		X	
20240			NV
20241		X	
20243		X	
20244			NV
20246			NV
20247		X	
20249		X	
20251		X	
20254		X	
20256		X	
20257			NV
20258			NV
20259		X	
20260		X	
20261		X	
20262		X	
20263		X	
20264		X	
20265		X	
20266		X	
20267		X	
20268		X	
20269		X	
20270		X	
20271		X	
20272*		X	
20273		X	
20274		X	
20275		X	

20276		X	
20277		X	
20278			NV
20279		X	
20280			NV - UDI
20281			NV - UDI
20283			NV - UDI
20286		X	
20288		X	
20292			NV - UDI
20293			NV
20294			NV
20296			NV - UDI
20297*			NV - UDI
20357			NV
20359			NV - UDI
20360			NV
20361		X	
20362*			NV - UDI
20363		X	
20364*		X	
20366		X	
20367			NV
20368			NV
20412		X	
20413		X	
20414		X	
20415			NV - UDI
20416			NV - UDI
20417		X	
20418		X	
20419		X	
20420		X	
20421		X	
20427			NV
20428		X	
20429			NV
20447			NV - UDI
20448			NV - UDI
20449*			NV - UDI
20450			NV - UDI
20451			NV - UDI
20452			NV - UDI
20453			NV
20454			NV - UDI
20456			NV - UDI

20460		X	
20470		X	
20495*		X	
20528			NV – UDI
20530			NV – UDI
20532			NV – UDI
20536*			NV – UDI
20540			NV – UDI
20543*			NV – UDI
20544			NV – UDI
20545			NV
20546			NV – UDI
20547			NV – UDI
20548			NV – UDI
20549			NV – UDI
20550			NV – UDI
20551			NV – UDI
20562*		X	
20666			NV – UDI
20667*			NV – UDI
20668			NV
20674		X	
20675		X	
20678			NV – UDI
20679			NV – UDI
20682*			NV – UDI
20683			NV – UDI
20684*			NV – UDI
20688*		X	
20689*			NV – UDI
20690*			NV – UDI
20691*			NV – UDI
20692*			NV – UDI
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20714			NV
20715			NV – UDI

20716*			NV – UDI
20717			NV – UDI
20718*			NV – UDI
20719			NV – UDI
20720			NV - UDI
20721			NV
20722			NV - UDI
20724			NV
20725			NV - UDI
20726			NV
20727			NV
20730*		X	
20731*		X	
Unmarked cedar*		X	
20732		X	
20733		X	
20734			NV
20735		X	
20736			NV - UDI
20737			NV
20738			NV - UDI
20739			NV
20740			NV
20741*			NV – UDI
20742*			NV - UDI
20743*			NV - UDI
20744			NV
20748			NV – UDI
20749			NV
20751			NV
20780			NV – UDI
20793		X	
20807*		X	
20862			NV
20864*			NV - UDI
20870			NV
20934*			NV - UDI
20978			NV
20979			NV
20982			NV - UDI
20989		X	
20990			NV
21020*			NV
21021*		X	NV - UDI
22119			NV
22120*	X		

22121*	X		
A*		X	
B*		X	
C			NV
D*	X		
E			NV
* indicates a tree that is categorized as a 'good-excellent' conifer or 'excellent' deciduous			

Offsite trees proposed for removal: 1009, 1010, 1011, 1012, 1013, 1014, 1015, 21021, 1000

Subject Property:

The surveyed trees on the subject property are all native species with the exception of two weeping willows. It is a mixed coniferous-deciduous forest and consists of Douglas fir (*Pseudotsuga menziesii*), Western hemlock (*Tsuga heterophylla*), Western red cedar (*Thuja plicata*), big-leaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), and bitter cherry (*Prunus emarginata*). The site has a northern aspect with varying topography and development on the property is constrained due to the presence of critical areas, which includes wetlands, streams and steep slopes. Please note that not all trees on the subject property were surveyed by the consulting arborist because they are located within areas where no work will occur within the stream and wetland buffers.

From an urban forestry perspective, the most desirable trees surveyed are located in the area where the majority of the construction will occur. Figure 1 shows the best trees based on health and structural condition. The darkest green circles indicate conifer species in 'excellent' condition while the lighter shade of this color shows conifer species in 'good' condition. Chartreuse green indicates deciduous trees in 'excellent' condition. In addition, this area is also relatively free of invasive species and has a healthy native understory shrub layer consisting of sword fern, salmonberry, Indian plum, trailing blackberry, Oregon grape, red huckleberry, thimbleberry as well as others. Although there are many trees in the eastern portion of the property with good health and structural condition, a good majority of them will be removed with the development as they do not qualify as 'high retention value' trees per Kirkland Zoning Code (KZC) 95.10(13). Figure 2 shows the retention value of all surveyed trees.

In contrast, the eastern portion of the property is comprised of smaller deciduous species with only a few conifers in 'good-excellent' condition (Figure 1). This area is also heavily inundated with invasive species such as Himalayan blackberry, English ivy, Japanese knotweed, red canary grass, and a very large climbing grape vine. There are some native understory shrub species

present as well including beaked hazelnut, Pacific dogwood, sword fern, Indian plum, and red elderberry. Only a few of trees will be affected by the proposed development.

Conflicts between trees and utilities: Yes ☐ No ☒

Acceptable Tree Protection Fencing Shown on plans: Yes ☐ No ☒ Redline Suggestions Below

Remarks on arborist report accuracy, reasonableness of limits of disturbance, likely windfirmness of retained trees, lot setbacks and any additional discussion:

The arborist report is fairly accurate although I'd like to note the following:

- There are a handful of trees where I downgraded the health and/or structure from what the consulting arborist had determined in the arborist report. Doing so resulted in a few trees being non-viable. All other downgraded trees did not result in a change in their retention value.
- There is a large (~24" dbh) Douglas fir on the site that is actively failing and could be considered a high risk if people are entering the site. The approximate location is marked as a large red X in Figure 1.
- I found one significant Western red-cedar located approximately 5' north of tree #20731 that was not included in the tree inventory. It is good health (rating of '1') and structural condition (rating of '2') with a slight sweep and co-dominant stems that measure 5.3" and 7.6".
- Tree #21022 in the tree inventory table is not shown on the site maps. It is located near tree #21021.

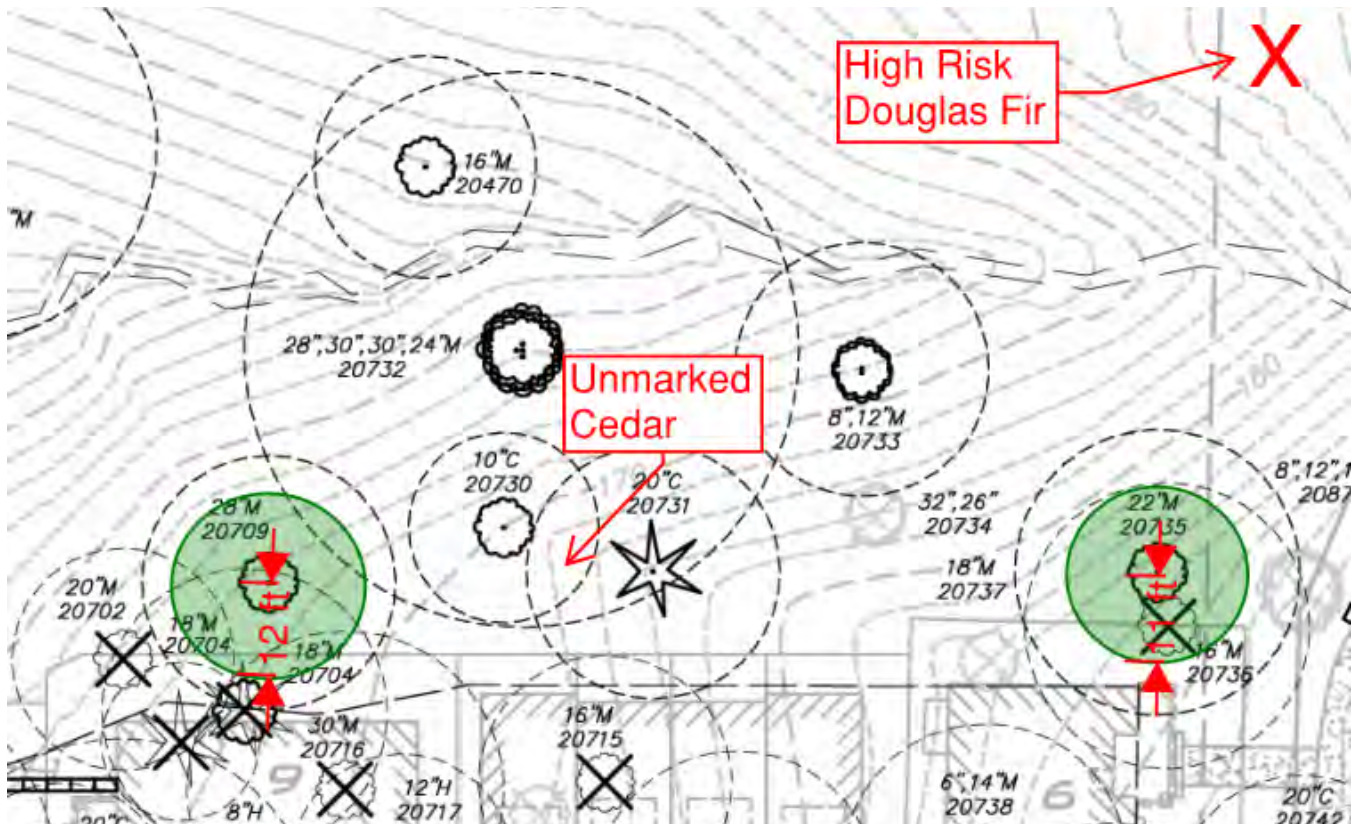


Figure 1 – Tree #20709 and 20736 LOD's in green, location of the unmarked cedar and location of the high risk Douglas fir tree

Comments:

1. The proposed development shows that excavation and construction will occur within the drip lines of tree #1033, 1034, 1038, 1039, A, 1019, 20495. It would be prudent for the applicant to have their arborist complete a report to evaluate the impacts of construction on these trees and to provide LOD's.
2. Both tree #20735 and #20709 are big leaf maples proposed to be retained. Based on the plans, fill will be added within the LOD's of both trees. Big leaf maples are intolerant of fill. The site plans could be altered to avoid this. See Figure 1.
3. If culverts are replaced additional trees will need to be added to the arborist report.
4. Remove the leaning Douglas fir prior to work occurring on the site. See Figure 1.

Adjacent Property:

Right-of-way or parks trees impacted: Yes ☒ No ☐ Discuss: 20934 appears to be a ROW tree and is proposed for removal.

Trees on adjoining property impacted: Yes ☐ No ☒ Discuss:

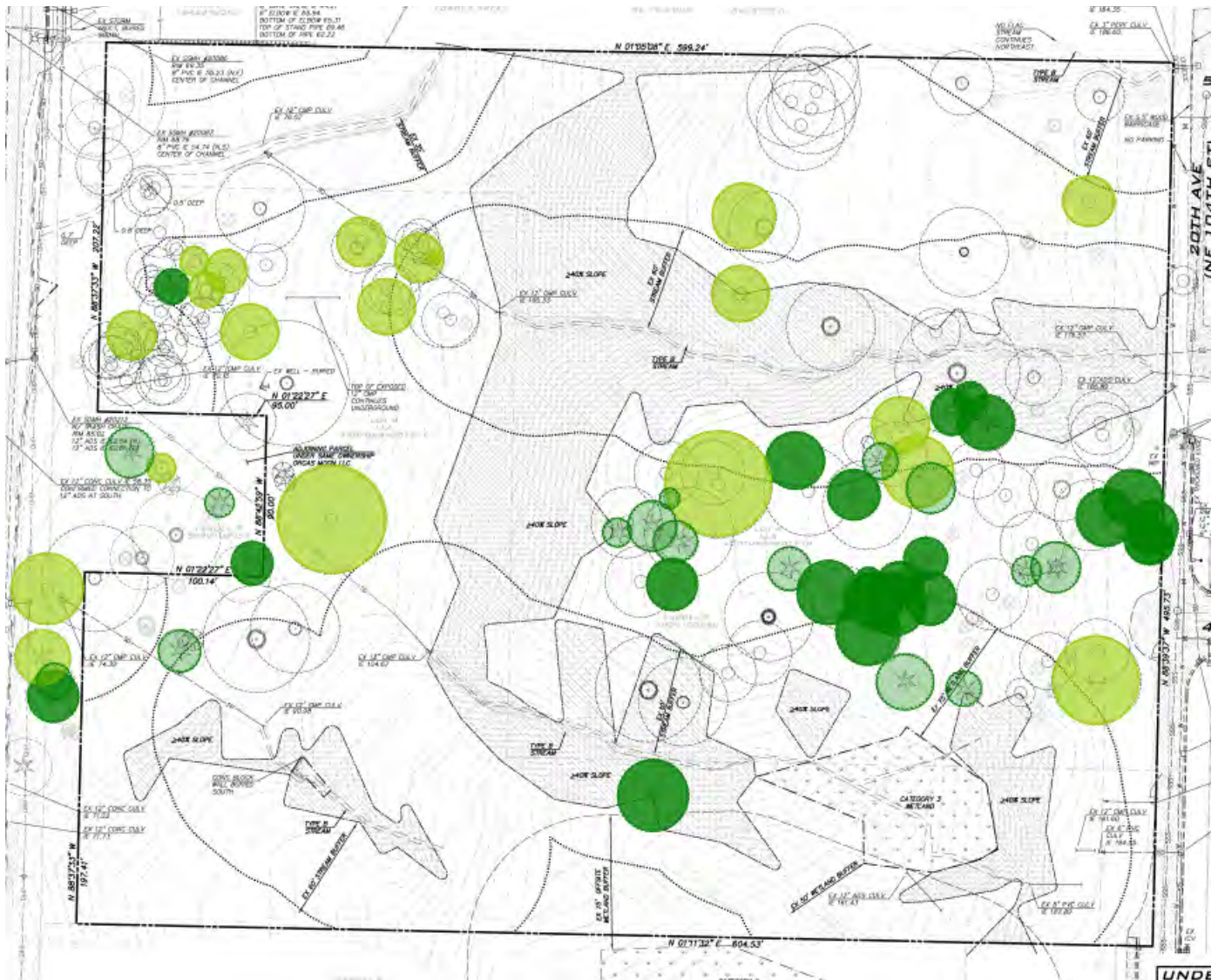


Figure 2 - Figure 2 shows the best trees based on health and structural condition. The darkest green circles indicate conifer species in 'excellent' condition while the lighter shade of this color shows conifer species in 'good' condition. Chartreuse green indicates deciduous trees in 'excellent' condition.

An updated arborist report and tree retention plan shall be submitted with the Land Surface Modification permit.

22.32.010 Utility System Improvements. All utility system improvements must be designed and installed in accordance with all standards of the applicable serving utility.

22.32.030 Stormwater Control System. The applicant shall comply with the construction phase and permanent stormwater control requirements of the Municipal Code.

22.32.050 Transmission Line Undergrounding. The applicant shall comply with the utility lines and appurtenances requirements of the Zoning Code.

22.32.060 Utility Easements. Except in unusual circumstances, easements for utilities should

be at least ten feet in width.

Prior to Recording:

22.16.030 Final Plat - Lot Corners. The exterior plat boundary, and all interior lot corners shall be set by a registered land surveyor.

22.16.040 Final Plat - Title Report. The applicant shall submit a title company certification which is not more than 30 calendar days old verifying ownership of the subject property on the date that the property owner(s) (as indicated in the report) sign(s) the subdivision documents; containing a legal description of the entire parcel to be subdivided; describing any easements or restrictions affecting the property with a description, purpose and reference by auditor's file number and/or recording number; any encumbrances on the property; and any delinquent taxes or assessments on the property.

22.16.150 Final Plat - Improvements. The owner shall complete or bond all required right-of-way, easement, utility and other similar improvements.

22.26.460 Plat Alteration - Lot Corners. The exterior plat boundary and all interior lot corners shall be set by a registered land surveyor.

22.26.470 Plat Alteration - Title Report. The applicant shall submit a title company certification which is not more than 30 calendar days old verifying ownership of the subject property on the date that the property owner(s) (as indicated in the report) sign(s) the plat alteration documents.

22.26.480 Plat Alteration - Improvements. The owner shall complete or bond all required right-of-way, easement, utility and other similar improvements.

22.26.680 Plat Vacation - Lot Corners. The exterior plat boundary and all interior lot corners shall be set by a registered land surveyor.

22.26.690 Plat Vacation - Title Report. The applicant shall submit a title company certification which is not more than 30 calendar days old verifying ownership of the subject property on the date that the property owner(s) (as indicated in the report) sign(s) the plat vacation documents..

22.26.700 Plat Vacation - Improvements. The owner shall complete or bond all required right-of-way, easement, utility, and other similar improvements.

22.32.020 Water System. The applicant shall install a system to provide potable water, adequate fire flow and all required fire-fighting infrastructure and appurtenances to each lot created.

22.32.040 Sanitary Sewer System. The developer shall install a sanitary sewer system to serve each lot created.

22.32.080 Performance Bonds. In lieu of installing all required improvements and components as part of a plat or short plat, the applicant may propose to post a bond, or submit evidence that an adequate security device has been submitted and accepted by the service provider (City of Kirkland and/or Northshore Utility District), for a period of one year to ensure completion of these requirements within one year of plat/short plat approval.

Prior to occupancy:

22.32.020 Water System. The applicant shall install a system to provide potable water, adequate fire flow and all required fire-fighting infrastructure and appurtenances to each lot created.

22.32.040 Sanitary Sewer System. The developer shall install a sanitary sewer system to serve each lot created.

22.32.090 Maintenance Bonds. A two-year maintenance bond may be required for any of the improvements or landscaping installed or maintained under this title.

ZONING CODE STANDARDS

90.45 Wetlands and Wetland Buffers. No land surface modification may take place and no improvement may be located in a wetland or within the environmentally sensitive area buffers for a wetland, except as specifically provided in this Section.

90.50 Wetland Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the wetland buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.55 Monitoring and Maintenance of Wetland Buffer Modifications: Modification of a wetland buffer will require that the applicant submit a 5-year monitoring and maintenance plan consistent with the criteria found in 95.55 and which is prepared by a qualified professional and reviewed by the City's wetland consultant. The cost of the plan and the City's review shall be borne by the applicant.

90.80 Streams. No land surface modification may take place and no improvements may be located in a stream except as specifically provided in this Section.

90.90 Stream Buffers. No land surface modification may take place and no improvement may be located within the environmentally sensitive buffer for a stream, except as provided in this Section.

90.95 Stream Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the entire stream buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.100.3 Monitoring and Maintenance of Stream Buffer Modifications: Modification of a stream buffer will require that the applicant submit a 5-year monitoring and maintenance plan consistent with KZC section 95.55. This plan shall be prepared by a qualified professional and reviewed by the City's wetland consultant. The cost of the plan and the City's review shall be borne by the applicant.

90.125 Frequently Flooded Areas. No land surface modification may take place and no improvements may be located in a frequently flooded area, except as specifically provided in Chapter 21.56 of the Kirkland Municipal Code.

95.51.2.a Required Landscaping. All required landscaping shall be maintained throughout the life of the development. The applicant shall submit an agreement to the city to be recorded with King County which will perpetually maintain required landscaping. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City.

95.44 Parking Area Landscape Islands. Landscape islands must be included in parking areas as provided in this section.

95.50 Tree Installation Standards. All supplemental trees to be planted shall conform to the Kirkland Plant List. All installation standards shall conform to Kirkland Zoning Code Section 95.45.

95.52 Prohibited Vegetation. Plants listed as prohibited in the Kirkland Plant List shall not be planted in the City.

105.18 Pedestrian Walkways. All uses, except single family dwelling units and duplex structures, must provide pedestrian walkways designed to minimize walking distances from the building entrance to the right of way and adjacent transit facilities, pedestrian connections to adjacent properties, between primary entrances of all uses on the subject property, through parking lots and parking garages to building entrances. Easements may be required. In design

districts through block pathways or other pedestrian improvements may be required. See also Plates 34 in Chapter 180.

105.20 Required Parking. See staff report for required parking.

105.65 Compact Parking Stalls. Up to 50% of the number of parking spaces may be designated for compact cars.

105.60.2 Parking Area Driveways. Driveways which are not driving aisles within a parking area shall be a minimum width of 20 feet.

105.60.3 Wheelstops. Parking areas must be constructed so that car wheels are kept at least 2' from pedestrian and landscape areas.

105.60.4 Parking Lot Walkways. All parking lots which contain more than 25 stalls must include pedestrian walkways through the parking lot to the main building entrance or a central location. Lots with more than 25,000 sq. ft. of paved area must provide pedestrian routes for every 3 aisles to the main entrance.

105.77 Parking Area Curbing. All parking areas and driveways, for uses other than detached dwelling units must be surrounded by a 6" high vertical concrete curb.

110.60.5 Street Trees. All trees planted in the right-of-way must be approved as to species by the City. All trees must be two inches in diameter at the time of planting as measured using the standards of the American Association of Nurserymen with a canopy that starts at least six feet above finished grade and does not obstruct any adjoining sidewalks or driving lanes.

115.25 Work Hours. It is a violation of this Code to engage in any development activity or to operate any heavy equipment before 7:00 am. or after 8:00 pm Monday through Friday, or before 9:00 am or after 6:00 pm Saturday. No development activity or use of heavy equipment may occur on Sundays or on the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas Day. The applicant will be required to comply with these regulations and any violation of this section will result in enforcement action, unless written permission is obtained from the Planning official.

115.40 Fence Location. Fences over 6 feet in height may not be located in a required setback yard. A detached dwelling unit abutting a neighborhood access or collector street may not have a fence over 3.5 feet in height within the required front yard. No fence may be placed within a high waterline setback yard or within any portion of a north or south property line yard, which is coincident with the high waterline setback yard.

A detached dwelling unit may not have a fence over 3.5 feet in height within 3 feet of the property line abutting a principal or minor arterial except where the abutting arterial contains an improved landscape strip between the street and sidewalk. The area between the fence and property line shall be planted with vegetation and maintained by the property owner.

115.45 Garbage and Recycling Placement and Screening. For uses other than detached dwelling units, duplexes, moorage facilities, parks, and construction sites, all garbage receptacles and dumpsters must be setback from property lines, located outside landscape buffers, and screened from view from the street, adjacent properties and pedestrian walkways or parks by a solid sight-obscuring enclosure.

115.75.2 Fill Material. All materials used as fill must be non-dissolving and non-decomposing. Fill material must not contain organic or inorganic material that would be detrimental to the water quality, or existing habitat, or create any other significant adverse impacts to the environment.

115.90 Calculating Lot Coverage. The total area of all structures and pavement and any other impervious surface on the subject property is limited to a maximum percentage of total lot area. See the Use Zone charts for maximum lot coverage percentages allowed. Section 115.90 lists exceptions to total lot coverage calculations See Section 115.90 for a more detailed explanation of these exceptions.

115.95 Noise Standards. The City of Kirkland adopts by reference the Maximum Environmental Noise Levels established pursuant to the Noise Control Act of 1974, RCW 70.107. See Chapter 173-60 WAC. Any noise, which injures, endangers the comfort, repose, health or

safety of persons, or in any way renders persons insecure in life, or in the use of property is a violation of this Code.

115.115 Required Setback Yards. This section establishes what structures, improvements and activities may be within required setback yards as established for each use in each zone.

115.115.3.g Rockerries and Retaining Walls. Rockeries and retaining walls are limited to a maximum height of four feet in a required yard unless certain modification criteria in this section are met. The combined height of fences and retaining walls within five feet of each other in a required yard is limited to a maximum height of 6 feet, unless certain modification criteria in this section are met.

115.115.3.p HVAC and Similar Equipment: These may be placed no closer than five feet of a side or rear property line, and shall not be located within a required front yard; provided, that HVAC equipment may be located in a storage shed approved pursuant to subsection (3)(m) of this section or a garage approved pursuant to subsection (3)(o)(2) of this section. All HVAC equipment shall be baffled, shielded, enclosed, or placed on the property in a manner that will ensure compliance with the noise provisions of KZC 115.95.

150.22.2 Public Notice Signs. Within seven (7) calendar days after the end of the 21-day period following the City's final decision on the permit, the applicant shall remove all public notice signs.

Prior to recording:

110.60.6 Mailboxes. Mailboxes shall be installed in the development in a location approved by the Postal Service and the Planning Official. The applicant shall, to the maximum extent possible, group mailboxes for units or uses in the development.

Prior to issuance of a grading or building permit:

85.25.1 Geotechnical Report Recommendations. A written acknowledgment must be added to the face of the plans signed by the architect, engineer, and/or designer that he/she has reviewed the geotechnical recommendations and incorporated these recommendations into the plans.

85.45 Liability. The applicant shall enter into an agreement with the City, which runs with the property, in a form acceptable to the City Attorney, indemnifying the City for any damage resulting from development activity on the subject property which is related to the physical condition of the property.

90.50 Wetland Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the wetland buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.95 Stream Buffer Fence. Prior to development, the applicant shall install a six-foot high construction phase fence along the upland boundary of the entire stream buffer with silt screen fabric installed per City standard. The fence shall remain upright in the approved location for the duration of development activities. Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either 1) a permanent 3 to 4 foot tall split rail fence, or 2) permanent planting of equal barrier value.

90.150 Natural Greenbelt Protective Easement. The applicant shall submit for recording a natural greenbelt protective easement, in a form acceptable to the City Attorney, for recording with King County.

90.155 Liability. The applicant shall enter into an agreement with the City which runs with the property, in a form acceptable to the City Attorney, indemnifying the City for any damage resulting from development activity on the subject property which is related to the physical

condition of the stream, minor lake, or wetland.

95.30(4) Tree Protection Techniques. A description and location of tree protection measures during construction for trees to be retained must be shown on demolition and grading plans.

95.34 Tree Protection. Prior to development activity or initiating tree removal on the site, vegetated areas and individual trees to be preserved shall be protected from potentially damaging activities. Protection measures for trees to be retained shall include (1) placing no construction material or equipment within the protected area of any tree to be retained; (2) providing a visible temporary protective chain link fence at least 6 feet in height around the protected area of retained trees or groups of trees until the Planning Official authorizes their removal; (3) installing visible signs spaced no further apart than 15 feet along the protective fence stating "Tree Protection Area, Entrance Prohibited" with the City code enforcement phone number; (4) prohibiting excavation or compaction of earth or other damaging activities within the barriers unless approved by the Planning Official and supervised by a qualified professional; and (5) ensuring that approved landscaping in a protected zone shall be done with light machinery or by hand.

27.06.030 Park Impact Fees. New residential units are required to pay park impact fees prior to issuance of a building permit. Please see KMC 27.06 for the current rate. Exemptions and/or credits may apply pursuant to KMC 27.06.050 and KMC 27.06.060. If a property contains an existing unit to be removed, a "credit" for that unit shall apply to the first building permit of the subdivision.

Prior to occupancy:

85.25.3 Geotechnical Professional On-Site. The geotechnical engineer shall submit a final report certifying substantial compliance with the geotechnical recommendations and geotechnical related permit requirements.

90.145 Bonds. The City may require a bond and/or a perpetual landscape maintenance agreement to ensure compliance with any aspect of the Drainage Basins chapter or any decision or determination made under this chapter.

95.51.2.a Required Landscaping. All required landscaping shall be maintained throughout the life of the development. The applicant shall submit an agreement to the city to be recorded with King County which will perpetually maintain required landscaping. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and an agreement to maintain and replace all landscaping that is required by the City

95.51.2.b Tree Maintenance. For detached dwelling units, the applicant shall submit a 5-year tree maintenance agreement to the Planning and Building Department to maintain all pre-existing trees designated for preservation and any supplemental trees required to be planted.

110.60.6 Mailboxes. Mailboxes shall be installed in the development in a location approved by the Postal Service and the Planning Official. The applicant shall, to the maximum extent possible, group mailboxes for units or uses in the development.

110.75 Bonds. The City may require or permit a bond to ensure compliance with any of the requirements of the Required Public Improvements chapter.

Permit #: SUB16-02267

Project Name: Forbes Creek Cottages

Project Address: No Address

Date: May 20, 2019

PUBLIC WORKS CONDITIONS

Public Works Staff Contacts

Land Use and Pre-Submittal Process:

Building and Land Surface Modification (Grading) Permit Process:

John Burkhalter, Development Engineer Supervisor

Phone: 425-587-3846 Fax: 425-587-3807

E-mail: jb Burkhalter@kirklandwa.gov

General Conditions:

1. All public improvements associated with this project including street and utility improvements, must meet the [City of Kirkland Public Works Pre-Approved Plans and Policies Manual](#). A Public Works Pre-Approved Plans and Policies manual can be purchased from the Public Works Department, or it may be retrieved from the Public Works Department's page at the City of Kirkland's web site.
2. This project will be subject to [Public Works Permit and Connection Fees](#). It is the applicant's responsibility to contact the Public Works Department by phone or in person to determine the fees. The applicant should anticipate the following fees:
 - Water, Sewer, and Surface Water Connection Fees (paid with the issuance of a Building Permit)
 - Side Sewer Inspection Fee (paid with the issuance of a Building Permit)
 - Water Meter Fee (paid with the issuance of a Building Permit)
 - Right-of-way Fee
 - Review and Inspection Fee (for utilities and street improvements).
 - Building Permits associated with this proposed project will be subject to the traffic, park, and school impact fees per Chapter 27 of the Kirkland Municipal Code. The impact fees shall be paid prior to issuance of the Building Permit(s).
3. All street and utility improvements shall be permitted by obtaining a [Land Surface Modification \(LSM\) Permit](#), including the required [LSM Checklist](#).
4. Subdivision Performance and Maintenance Securities:
 - The subdivision can be recorded in advance of installing all the required street and utility improvements by posting a performance security equal to 130% of the value of work. This security amount will be determined by using the City of Kirkland's Improvement Evaluation Packet (available in either [Excel](#) or [PDF](#)). Contact the Development Engineer assigned to this project to assist with this process.

- If the Developer will be installing the improvements prior to recording of the subdivision, there is a standard right of way restoration security ranging from \$10,000.00 to 30,000.00 (value determined based on amount of right-of-way disruption). This security will be held until the project has been completed.
 - Once the subdivision has been completed there will be a condition of the permit to establish a two year Maintenance security.
 - If a recording Performance Security has not yet been posted, then prior to issuance of the LSM Permit a standard right of way restoration security ranging from \$10,000.00 to 30,000.00 (value determined based on amount of ROW disruption) shall be posted with Public Works Department. This security will be held until the project has been completed
5. Prior to submittal of a Building or Zoning Permit, the applicant must apply for a Concurrency Test Notice. Contact Thang Nguyen, Transportation Engineer, at 425-587-3869 for more information. A separate Concurrency Permit will be created. A concurrency test was passed for water, sewer and traffic on August 22, 2016, which expires in 6 years from the date of issuance if all building permits have not been approved.
 6. All civil engineering plans which are submitted in conjunction with a building, grading, or right-of-way permit must conform to the [Public Works Policy G-7, Engineering Plan Requirements](#). This policy is contained in the Public Works Pre-Approved Plans and Policies manual.
 7. All street improvements and underground utility improvements (storm, sewer, and water) must be designed by a Washington State Licensed Engineer; all drawings shall bear the engineers stamp.
 8. All plans submitted in conjunction with a building, grading or right-of-way permit must have elevations which are based on the King County datum only (NAVD 88).
 9. Prior to issuance of any commercial or multifamily Building Permit, the applicant shall provide a plan for garbage storage and pickup. The plan shall conform to [Policy G-9](#) in the Public Works Pre-approved Plans and be approved by Waste Management and the City.
 10. The required tree plan shall include any significant tree in the public right-of-way along the property frontage.
 11. All subdivision recording documents shall include the following language:

- Utility Maintenance: Each property owner shall be responsible for maintenance of the sanitary sewer, storm water stub, rain garden, permeable pavement, or any infiltration facilities (known as Low Impact Development) from the point of use on their own property to the point of connection in the City sanitary sewer main or storm water main. Any portion of a sanitary sewer, surface water stub, rain garden, permeable pavement, or any infiltration facilities, which jointly serves more than one property, shall be jointly maintained and repaired by the property owners sharing such stub. The joint use and maintenance shall “run with the land” and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.
- Public Right-of-way Sidewalk and Vegetation Maintenance: Each property owner shall be responsible for keeping the sidewalk abutting the subject property clean and litter free. The property owner shall also be responsible for the maintenance of the vegetation within the abutting landscape strip. The maintenance shall “run with the land” and will be binding on all property owners within this subdivision, including their heirs, successors and assigns.

If the lots have on-site private storm water facilities, include this language on the subdivision recording document:

- Maintenance of On-site Private Stormwater Facilities: Each Lot within the Subdivision has a stormwater facility (infiltration trench, dry wells, dispersion systems, rain garden, and permeable pavement) which is designed to aid storm water flow control for the development. The stormwater facility within the property shall be owned, operated and maintained by the Owner. The City of Kirkland shall have the right to ingress and egress the Property for inspection of and to reasonable monitoring of the performance, operational flows, or defects of the stormwater/flow control facility.
If the City of Kirkland determines related maintenance or repair work of the stormwater facility is required, the City of Kirkland shall give notice to the Owner of the specific maintenance and/or repair work required. If the above required maintenance or repair is not completed within the time set by the City of Kirkland, the City of Kirkland may perform the required maintenance or repair, or contract with a private company capable of performing the stormwater facility maintenance or repair and the Owner will be required to reimburse the City for any such work performed.
The Owner is required to obtain written approval from the City of Kirkland prior to replacing, altering, modifying or maintaining the storm water facility.

If the project contains LID storm improvements that will be installed as a condition of the new home Building Permit, then include this condition on the Short Plat recording documents:

- Installation of Low Impact Development (LID) storm drainage improvements with Building Permits: All LID storm drainage features depicted on Sheet ____ of ____ of issued permit LSM1X-0XXXX shall be installed in conjunction with the construction of each new home on lots X to X. The LID improvements include, but are not limited to the rain gardens and the pervious driveways. The Building Permit for the new signal family home on lots X to X will not receive a final inspection until said LID improvements are installed. The pervious access road/Tract serving lots X and X shall be constructed or secured by a performance bond prior to recording of the short plat

Sanitary Sewer Conditions:

1. The applicant shall extend the existing public sewer system to provide sanitary sewer service for each unit within the proposed project. Extend an 8" sewer main along Forbes Creek Drive to a point where the sewer may enter the property (as currently shown is acceptable), and terminate with a manhole. Extend sewer into the project to serve the proposed units by gravity. No sewer stub shall be longer than 200 feet, and all 8" pipe shall have manholes at bends and terminations.
2. A Sanitary Sewer Latecomers Agreement may be recorded with the sewer extension
3. Provide a plan and profile design for the sewer line extension
4. A 20 foot wide public sanitary sewer easement must be recorded with the property.
5. Access for maintenance of the sewer manholes is required. Provide a 15' wide access easement from the right-of-way to each sanitary sewer manhole.
6. Provide a 6-inch minimum side sewer stub to each unit.
7. All side sewer stubs serving the property shall be PVC type pipe per Public Works Pre-approved Plans Sanitary Sewer Design Criteria and meet the requirements of the Department of Ecology Orange Book.

Water System Conditions:

1. The existing water main in the public right-of-way along the front of the subject property is adequate to serve this proposed development.
2. Provide a separate 1" minimum water service from the water main to the meter for each unit; City of Kirkland will set the water meter. The water size is determined when the Building Permit is submitted and is sized per the Uniform Plumbing Code. A ¾" meter is the typical size for new single-family home. A single master meter may serve

the project if set up as a condo association. Any sub-meters for the units will not be read or billed separately by the City of Kirkland.

3. No public water main shall be extended in to the project unless required to service hydrants by the Fire Department.

Surface Water Conditions:

1. Provide temporary and permanent storm water control per the 2016 King County Surface Water Design Manual and the Kirkland Addendum ([Policy D-10](#)). See Policies [D-2](#) and [D-3](#) in the PW Pre-Approved Plans for drainage review information, or contact city of Kirkland Surface Water staff at (425) 587-3800 for help in determining drainage review requirements. The drainage review levels can be determined using the [Drainage Review Flow Chart](#). This project triggers a full drainage review based on site and project characteristics:
 - Full Drainage Review
 - ✓ A full drainage review is required for any proposed project, new or redevelopment, that will:
 - ✓ Adds 5,000ft² or more of new impervious surface area or 10,000ft² or more of new plus replaced impervious surface area,
 - ✓ Propose 7,000ft² or more of new pervious surface or,
 - ✓ Be a redevelopment project on a single or multiple parcel site in which the total of new plus replaced impervious surface area is 5,000ft² or more and whose valuation of proposed improvements (including interior improvements but excluding required mitigation and frontage improvements) exceeds 50% of the assessed value of the existing site improvements.
2. A preliminary drainage report (Technical Information Report) must be submitted with the subdivision application. This must include a downstream analysis for all projects (except small project Type 1).
3. Evaluate the feasibility and applicability of dispersion, infiltration, and other stormwater low impact development facilities on-site (per section 5.2 in the 2009 King County Surface Water Design Manual). If feasible, stormwater low impact development facilities are required. See PW Pre-Approved Plan Policy L-1 or L-2 (depending on drainage review) for more information on this requirement.
4. Because this project site is one acre or greater, the following conditions apply:
 - Amended soil requirements (per Ecology BMP T5.13) must be used in all landscaped areas.
 - If the project meets minimum criteria for water quality treatment (5,000ft² pollution generating impervious surface area), the enhanced level of treatment is required if

- the project is multi-family residential, commercial, or industrial. Enhanced treatment targets the removal of metals such as copper and zinc.
- The applicant is responsible to apply for a Construction Stormwater General Permit from Washington State Department of Ecology. Provide the City with a copy of the Notice of Intent for the permit. Permit Information can be found at the following website: <http://www.ecy.wa.gov/programs/wq/stormwater/construction/>
 - Among other requirements, this permit requires the applicant to prepare a Storm Water Pollution Prevention Plan (SWPPP) and identify a Certified Erosion and Sediment Control Lead (CESCL) prior to the start of construction. The CESCL shall attend the City of Kirkland PW Dept. pre-construction meeting with a completed SWPPP.
 - Turbidity monitoring by the developer/contractor is required if a project contains a lake, stream, or wetland.
 - A Stormwater Pollution Prevention and Spill (SWPPS) Plan must be kept on site during all phases of construction and shall address construction-related pollution generating activities. Follow the guidelines in the 2009 King County Surface Water Design Manual for plan preparation.
5. A storm water detention system is required, it shall be designed to Level II standards. Historic (forested) conditions shall be used as the pre-developed modeling condition.
6. This project is creating or replacing more than 5000 square feet of new impervious area that will be used by vehicles (PGIS - pollution generating impervious surface). Provide storm water quality treatment per the 2009 King County Surface Water Design Manual.
7. Provide a level one off-site analysis (based on the King County Surface Water Design Manual, core requirement #2). Additionally, evaluate the following for each of the three (3) culverts shown on the property:
- Capacity analysis and inlet analysis
 - Clean and video pipes to ensure no repairs/replacement is needed
 - Remove sediment downstream of outlet(s)
8. It doesn't appear that any work within an existing ditch will be required, however the developer has been given notice that the Army Corps of Engineers (COE) has asserted jurisdiction over upland ditches draining to streams. Either an existing Nationwide COE permit or an Individual COE permit may be necessary for work within ditches, depending on the project activities.
- Applicants should obtain the applicable COE permit; information about COE permits can be found at: U.S. Army Corps of Engineers, Seattle District Regulatory Branch
<http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits.aspx>

Specific questions can be directed to: Seattle District, Corps of Engineers, Regulatory Branch, CENWS-OD-RG, Post Office Box 3755, Seattle, WA 98124-3755, Phone: (206) 764-3495

9. A Hydraulic Project Approval (HPA) from WA State Department of Fish and Wildlife (WDFW) may be required for this project. Contact WDFW at 425-313-5681 or Christa.Heller@dfw.wa.gov for determination, obtain an HPA if required, and submit a copy to COK. If an HPA is not required, the applicant may be required to provide written documentation from WDFW as verification. More information on HPAs can be found at the following website: <http://wdfw.wa.gov/licensing/hpa/>
10. Provide an erosion control report and plan with Building or Land Surface Modification Permit application. The plan shall be in accordance with the 2009 King County Surface Water Design Manual.
11. Provide collection and conveyance of right-of-way storm drainage.
12. Provide a separate storm drainage connection for each unit/lot. All roof and driveway drainage must be tight-lined to the storm drainage system or utilize low impact development techniques. The tight line connections shall be installed with the individual new houses.
13. Provide a plan and profile design for the storm sewer system.
14. Provide a 15' wide access easement to the storm detention control manhole; easement must be improved with 10' of asphalt and drainage control to protect against erosion.
15. The cottage housing regulations require the project to use Low Impact Design drainage features unless deemed unfeasible by a geotechnical engineer. The civil engineer shall provide a plan to the Public Works Department addressing how the project will be designed to incorporate LID into all aspects of the development proposal to match pre-development hydrologic conditions. If full implementation is not feasible, the civil engineer shall provide an analysis supporting this conclusion and shall provide a plan which utilizes the following preferred stormwater management techniques, where feasible, together with an analysis of those techniques which are not feasible to implement.
 - Retention of significant vegetated areas;
 - Limited site disturbance
 - Permeable pavements/materials
 - On-site infiltration
 - Bioretention swales/rain gardens
 - Reduced impervious surface
 - Soil amendment

The intent is for the project to provide and allow the preservation of natural hydrology, reduced impervious surfaces, treatment of stormwater in numerous small, decentralized structures, use of natural topography for drainageways and storage areas, preservation of portions of the site in undisturbed, natural conditions, and reduction of the use of piped systems. Whenever possible, site design should use multifunctional open drainage systems such as vegetated swales or filter strips which also help to fulfill landscaping and open space requirements.

Street and Pedestrian Improvement Conditions:

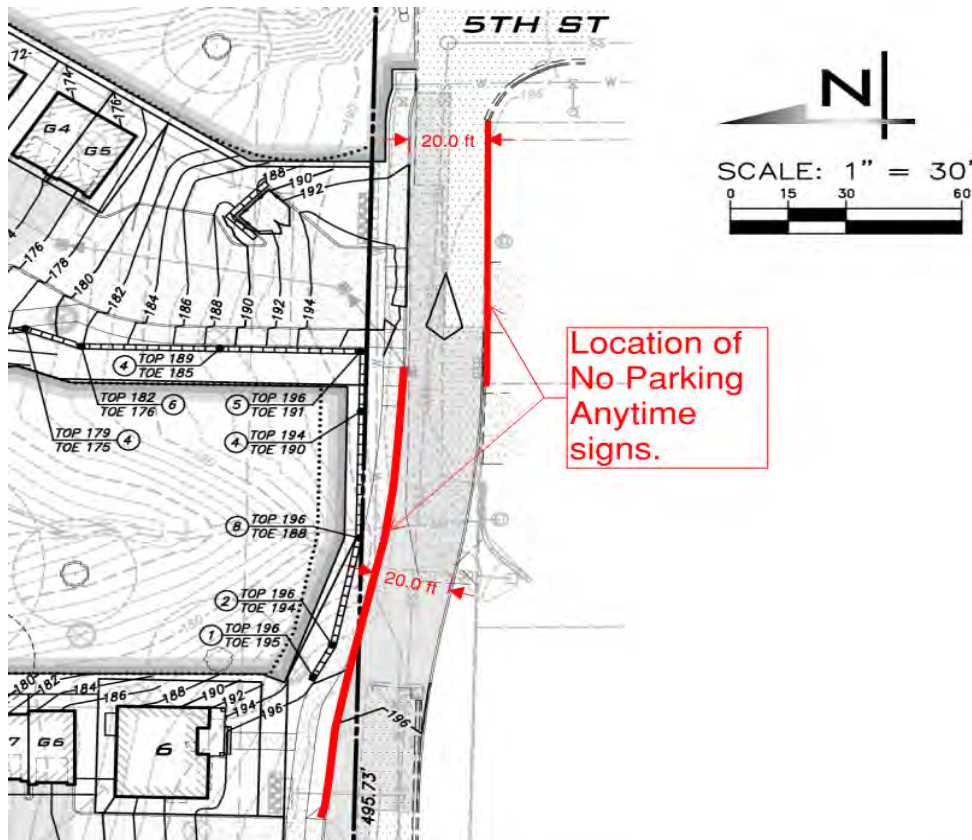
1. The subject property abuts Forbes Creek Drive and 20th Avenue. These streets are Collector and Neighborhood Access type streets, respectively. Zoning Code sections 110.10 and 110.25 require the applicant to make half-street improvements in rights-of-way abutting the subject property. Section 110.30-110.50 establishes that this street must be improved with the following:
 - A. Forbes Creek Drive Improvements:
 - Due to a Lot Line Alteration the Project does not have any frontage on Forbes Creek Drive and therefore no right-of-way improvements are required.
 - B. 20th Avenue Improvements:
 - Install Type A curb and gutter 8 feet north of the south property line to face of curb (match existing curb line to the west). Provide a minimum of 20 feet of paving adjacent to the new curb (applies to areas where there is currently no paved street section along 20th Avenue). On the east end of the project set the new Type A curb 24 feet from the existing curb and extend to the east property line.
 - Behind the curb provide a 4.5 feet landscape strip with street trees 30 foot on center and a 5 foot wide sidewalk.
 - Dedicate a minimum of 20 feet of right-of-way along the project frontage starting at the west property line for approximately 290 feet then tapering back to the existing right-of-way line on a straight line taper for 50 feet; dedication to encompass all the required improvements.
 - Eradicate Knotweed via injection methods prior to installing any frontage improvements.
 - These improvements may need to be modified pending any unforeseen environmental analysis. Attachment 2 shows the modified frontage improvements based on the environmental analysis to date and is approved by the Public Works Department.
 - C. 5th St. Improvements:
 - Provide safety signage per ASHTO at the intersection with 20th Ave; nine point diamond sign.
 - D. 4th Pl. Improvements:
 - Provide safety signage per ASHTO at the intersection with 20th Ave, nine point diamond sign.

2. Provide a pedestrian connection between 20th Ave and Forbes Creek Drive. The pedestrian path may be made up of a combination of the 8' asphalt pathway, 5' concrete sidewalk, and timber stairs with hand rails as necessary. Record a 10 foot public pedestrian easement to encompassing the path between 20th Ave and Forbes Creek Drive (regardless of the configuration of the LLA the easement needs to span these two rights-of-way). The path needs to be clearly delineated from future driveways and vault access to ensure pedestrian are comfortable using it and future property owners understand the use.

The City would support a modification per KZC 105.103.3(b) to allow the path to be constructed in Juanita Bay Park (parcel 3226059022); 3' wide soft surface path with timber stairs and hand rails as necessary. The path connection at Forbes Creek Drive shall meet stopping sight distance requirements, have adequate lighting, and connect to a striped crosswalk with signage.

3. When three or more utility trench crossings occur within 150 lineal ft. of street length or where utility trenches parallel the street centerline, the street shall be overlaid with new asphalt or the existing asphalt shall be removed and replaced per the City of Kirkland [Street Asphalt Overlay Policy R-7](#).
 - Existing streets with 4-inches or more of existing asphalt shall receive a 2-inch (minimum thickness) asphalt overlay. Grinding of the existing asphalt to blend in the overlay will be required along all match lines.
 - Existing streets with 3-inches or less of existing asphalt shall have the existing asphalt removed and replaced with an asphalt thickness equal or greater than the existing asphalt provided however that no asphalt shall be less than 2-inches thick and the subgrade shall be compacted to 95% density.
4. The access tract must meet the requirements of the City of Kirkland [Driveway Pre-Approved Policy R-4](#).
 - No backing into the right-of-way shall be allowed.
 - Driveway landings shall be no greater than 6% slope for the first 20 feet.
 - 24 foot wide drive aisle entrance.
5. All street and driveway intersections shall not have any visual obstructions within the sight distance triangle. See [Public Works Pre-approved Policy R.13](#) for the sight distance criteria and specifications.
 - Provide site distance analysis for each driveway.
6. Prior to the final of the building or grading permit, pay for the installation of any stop and street signs at the new/existing intersections. Other caution signage may be required and will be determined during permit review by the City's Traffic Engineer.

7. Install "NO PARKING ANYTIME" signs along any portion of 20th Avenue frontage that has less than 24 feet of paved width.
8. Install "NO PARKING ANYTIME" signs along the frontage of 457 20th Avenue. The existing street edge abuts private property at this location and the neighbor does not want passengers exiting vehicles to trespass on their property. The neighbor will need to provide an easement for sign installation prior to the signs being placed.



9. Install new monuments at the intersections along 20th Ave, two (2) total.
10. It shall be the responsibility of the applicant to relocate any above-ground or below-ground utilities which conflict with the project associated street or utility improvements.
11. Underground all new and existing on-site utility lines and overhead transmission lines.
12. Underground any new off-site transmission lines.
13. New street lights may be required per Puget Power design and Public Works approval. Contact the INTO Light Division at PSE for a lighting analysis. If lighting is necessary, design must be submitted prior to issuance of a grading or building permit. New street lighting must be LED.

Links

- [City of Kirkland Pre-Approved Plans and Policies](#)
 - [Public Works Development Fees](#)
 - [Stormwater FAQs](#)
 - Application Forms ([Electronic](#), [Paper](#))
 - [KZC105 – Private Drive, Private and Pedestrian Walkway Requirements](#)
 - [KZC110 - Public Right-of-way Improvement Requirements](#)
-

FIRE DEPARTMENT COMMENTS

Contact: Grace Steuart at 425-587-3660; or gsteuart@kirklandwa.gov

ACCESS

Since the grade of the access to each cluster of cottages is over 15 percent, units 1-5 and 10-15 will need to be sprinklered. (The other units are close enough to the 20th Ave Right of Way that sprinklers are not required.)

HYDRANTS

Existing hydrants are adequate to provide coverage for the project. The hydrants on 5th Street and 4th Place shall be equipped with 5" Storz fittings.

FIRE FLOW

Fire flow is adequate on 20th Ave; available flow ranges between 1300 and 1800 gpm.

BUILDING DEPARTMENT CONDITIONS

You may contact Tanya Elder at 425-587-3614 for Building Department questions related to this permit.

1. Any existing structures (to remain) shall not be made non-code compliant or less code compliant due to the location of proposed property line(s). Please consider fire separation distances and exterior walls, openings in exterior walls, overhangs and projections. IBC and IRC.
2. Any new structures to be built upon the properties) shall be designed to comply with IBC or IRC fire-resistance-rated construction code requirements for exterior walls, openings in exterior walls, overhangs and projections. Fire separation distance shall be determined using real property lines or imaginary property lines if there are no real property lines between buildings.

3. The approved plans shall not be changed, modified, or altered without authorization from the building official. The approved plans are required to be on the job site.
4. This SUB Permit does not authorize any cutting or digging for new footings or foundations. A SEPERATE BUILDING PERMIT MUST BE ISSUED PRIOR TO ANY FOOTING OR FOUNDATION WORK.
5. No excavation or fill is authorized to encroach upon a neighboring property without explicit agreement by the adjoining property owner.
6. Separate demolition permit(s) are required prior to removal of any existing structures.
7. Separate building permit(s) are required for construction of any new buildings.
8. A separate building permit is required for a cast-in-place storm water detention vault, if one is to be constructed.
9. Separate building permit(s) are required for cast-in-place retaining wall(s) that are 4' or greater in height, measured from the BOTTOM OF FOOTING to the TOP OF WALL.
10. A separate building permit is required for any shoring that protects an adjacent property. If shoring is required for excavation or construction of any new structure, the shoring may be included as part of the building permit for that structure.
11. A geotechnical evaluation may be required at the time of each building permit submittal.
12. No structural or fire and life safety review has occurred for the proposed buildings, as they require separate building permit applications for review and approval.