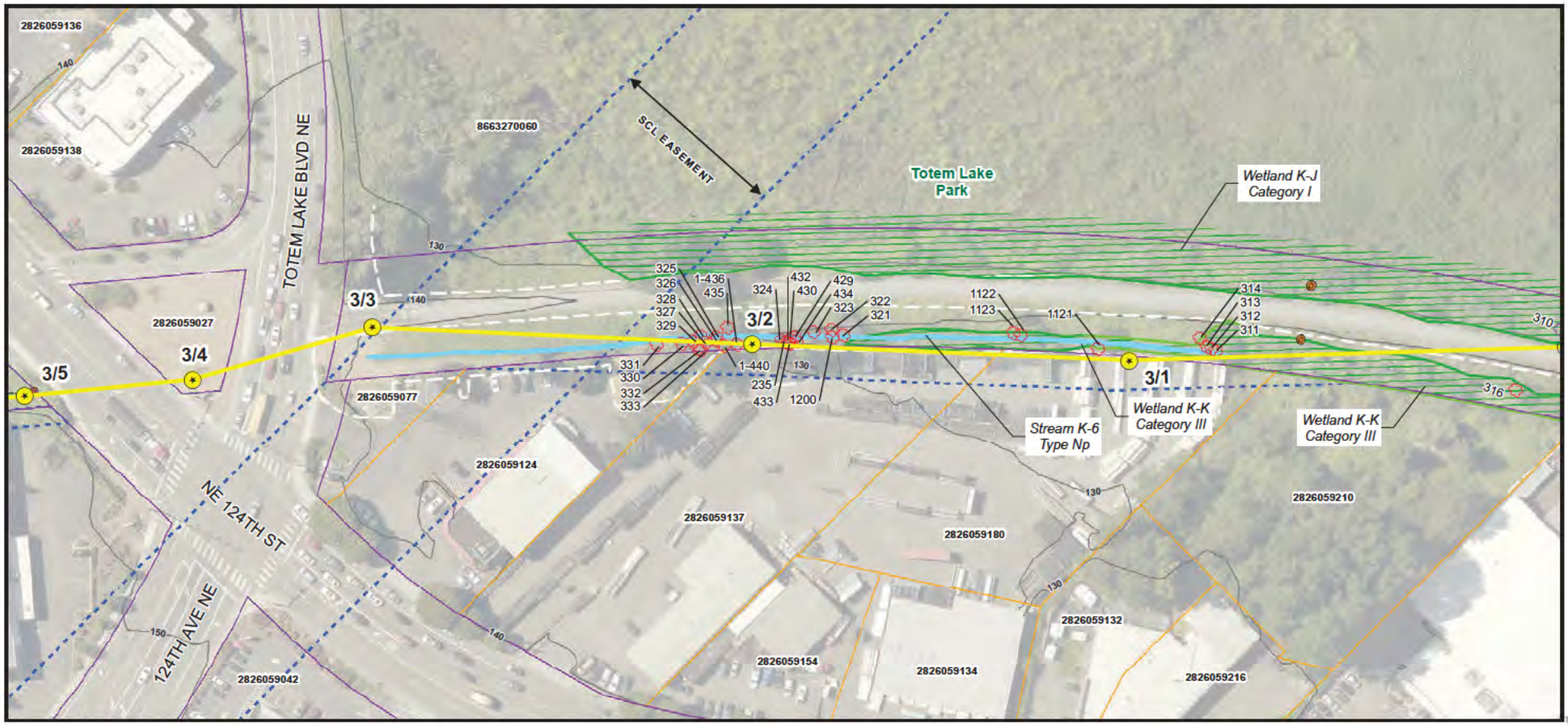

New 115kV Pole
Replacement 115kV Pole
Remove 115kV Pole
Existing 115kV Pole
Replacement Distribution Pole
115kV Transmission Line
Easement
WSDOT Permit

Delineated Stream (survey accuracy)
Delineated Stream (mapping accuracy)
Delineated Wetland Boundary (survey accuracy)
Delineated Wetland Boundary (mapping accuracy)
Estimated Wetland/Stream Boundary (digitized accuracy)
Wetland/Stream Buffer
Wetland
Ditch (mapping accuracy)
Culvert

Tax Parcel
ROW Line
Contour (10 ft interval)
City Limits
Proposed Wall
Impacted Trees
Trees to Remove

0 80 160
Feet
1 inch = 80 feet

Background ESRI World Imagery, World Street Map
Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

Map 16 of 24

February 2020

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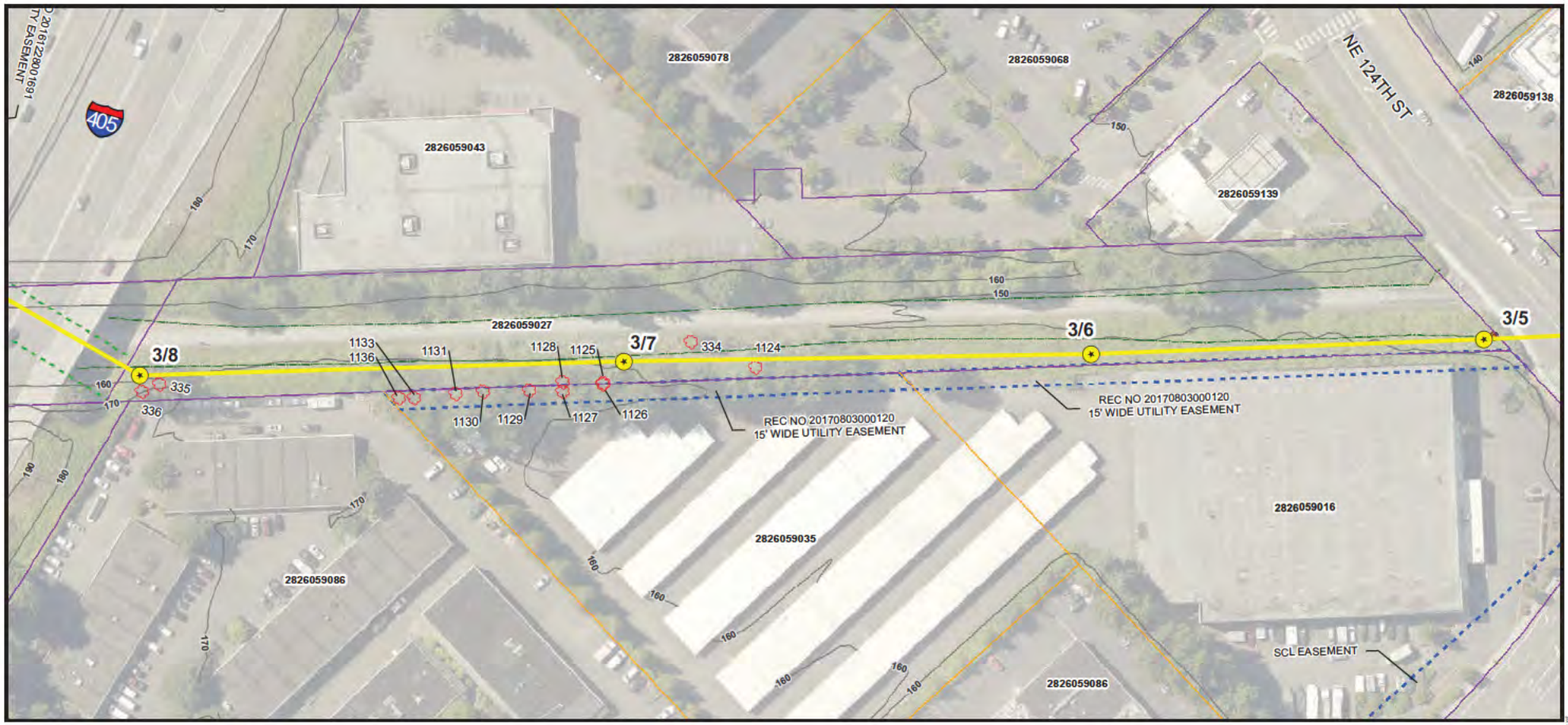

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0 80 160
Feet
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Background ESRI World Imagery, World Street Map
Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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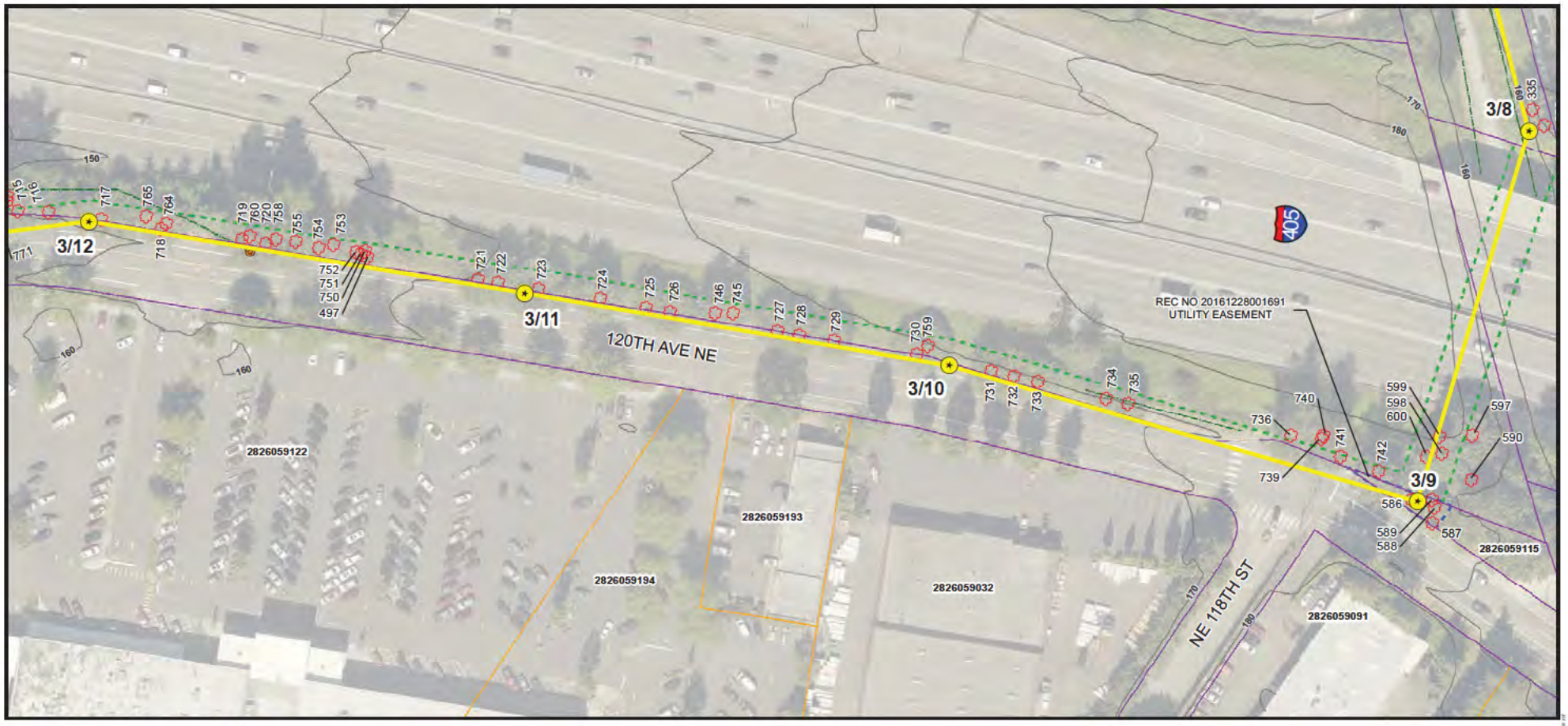

- New 115kV Pole
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Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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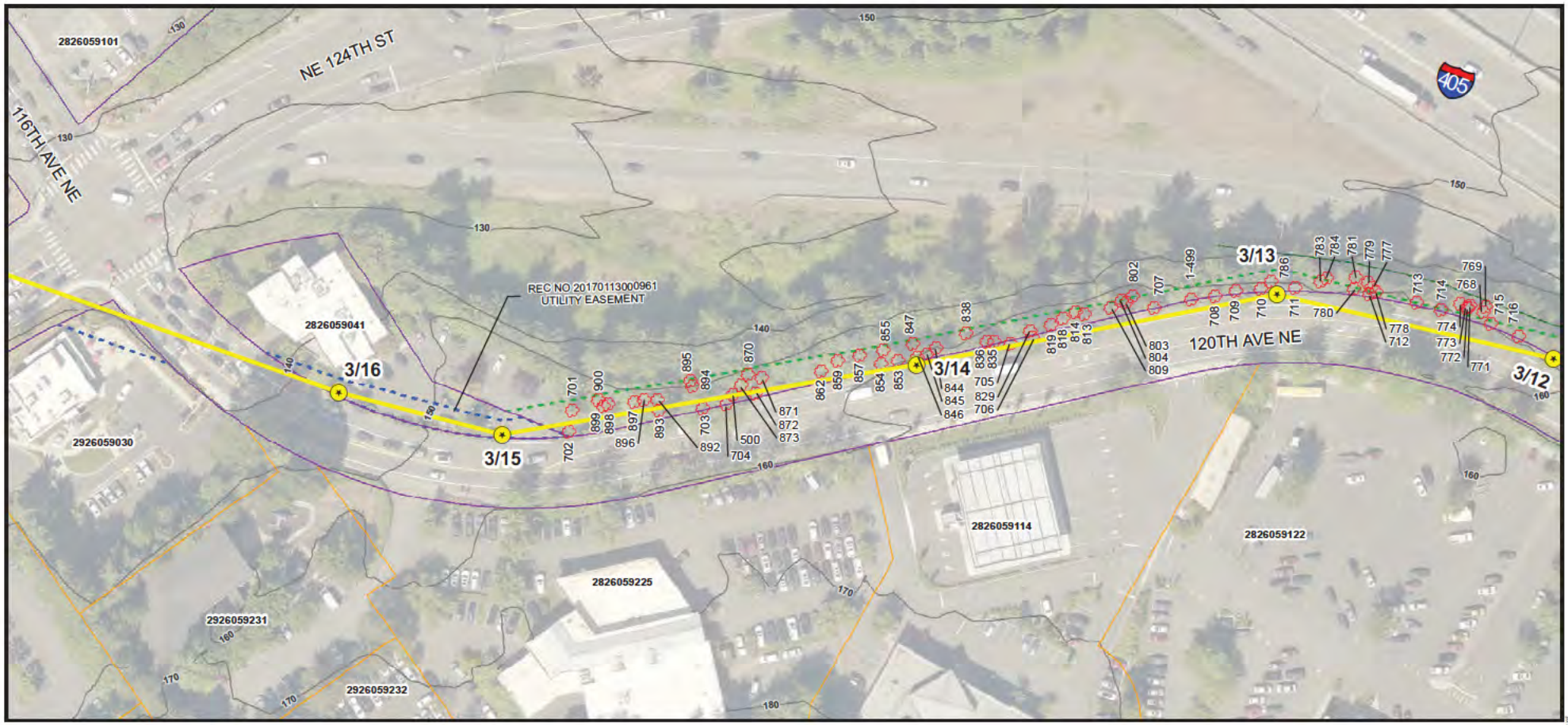

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Background ESRI World Imagery, World Street Map
Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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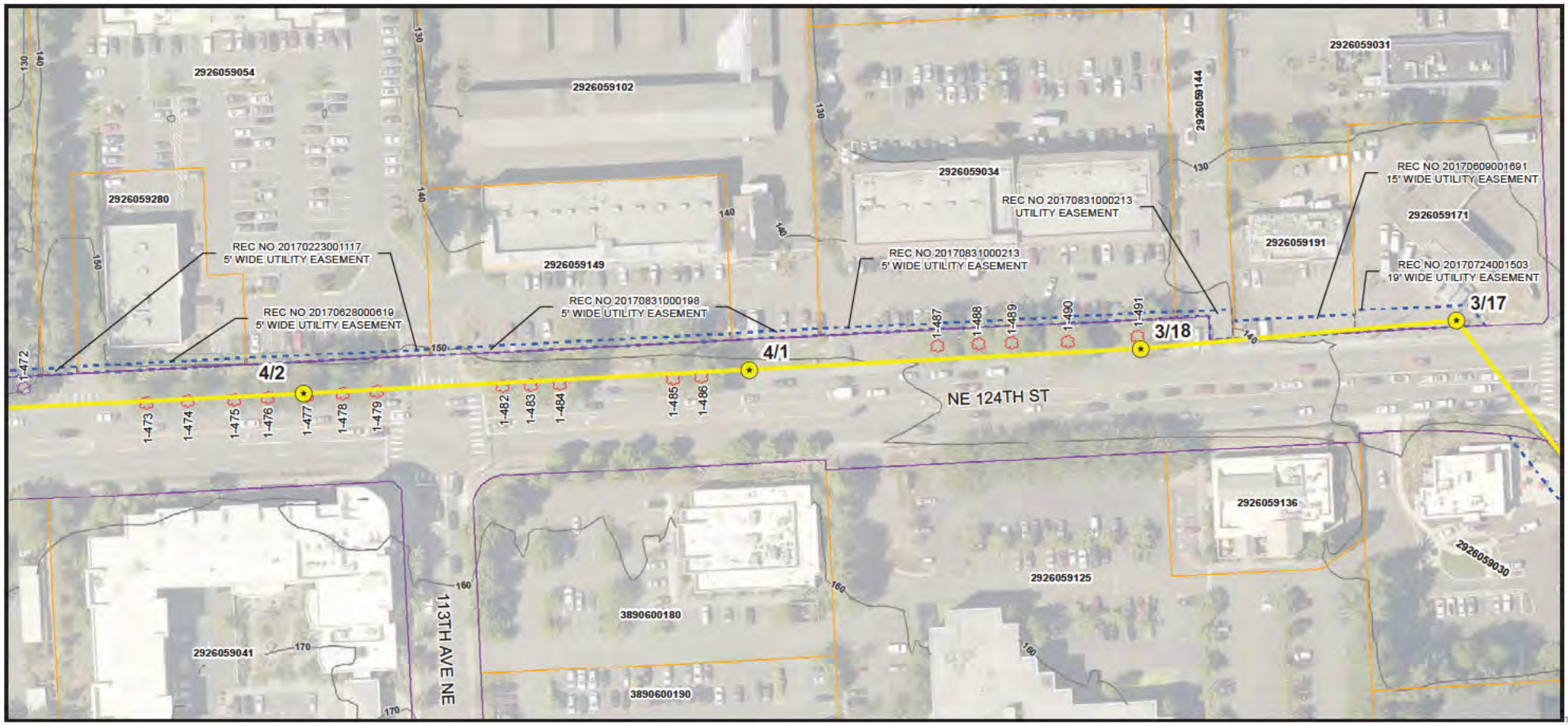

- New 115kV Pole
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Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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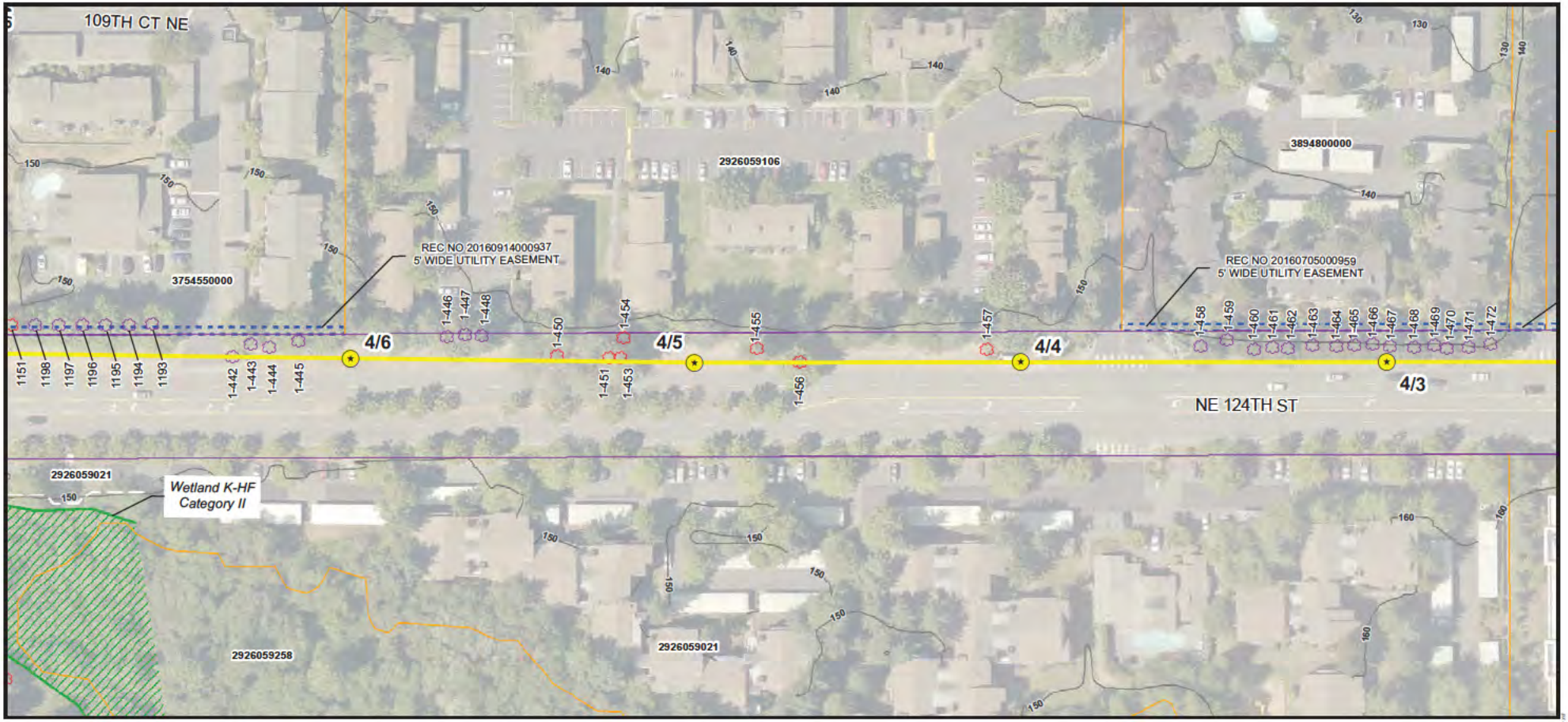

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0 80 160
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Background ESRI World Imagery, World Street Map
Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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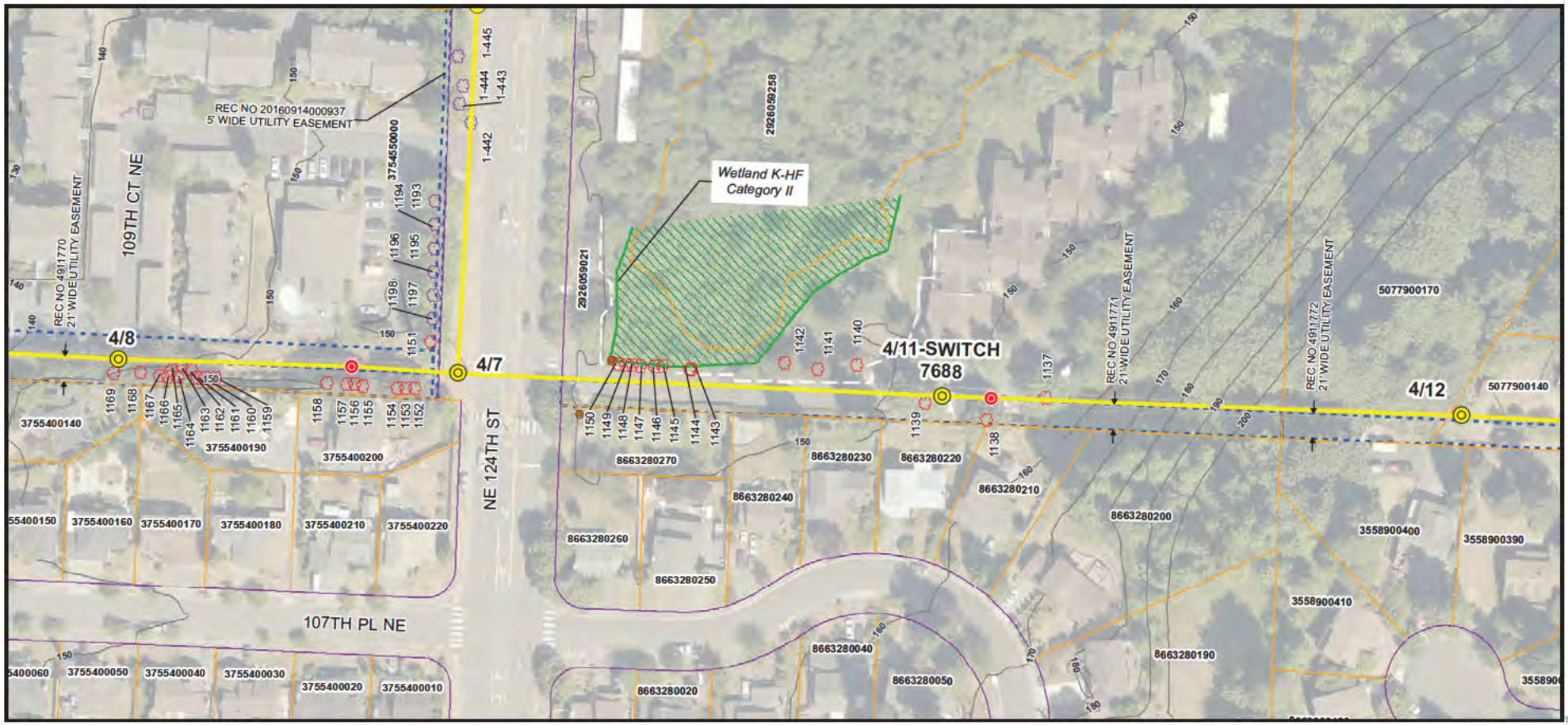

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Data Sources City of Kirkland, City of Redmond, DEA, King County
Wetland buffers AECOM

Sammamish-Juanita
115kV Transmission Line

City of Kirkland

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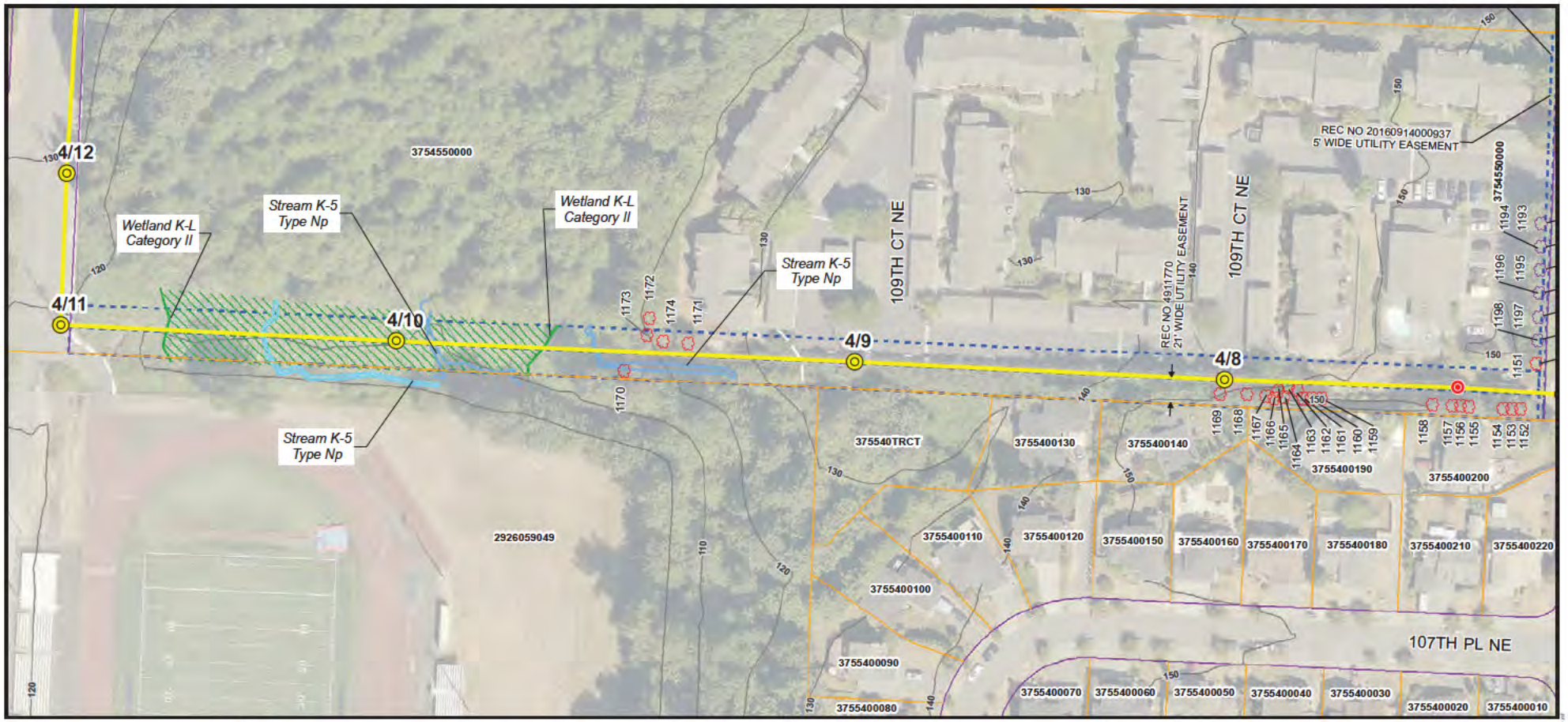

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Wetland buffers AECOM

Sammamish-Juanita 115kV Transmission Line

City of Kirkland

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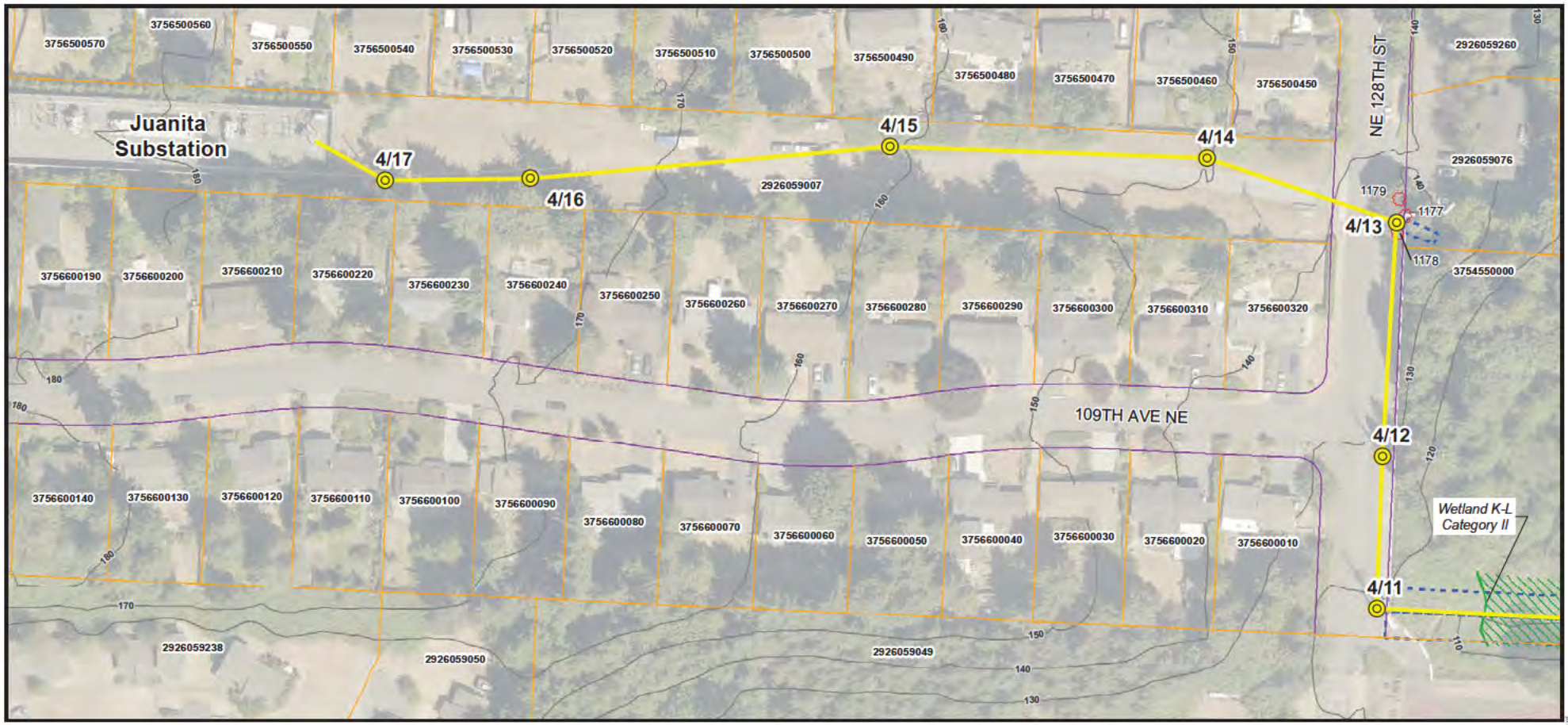

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Sammamish-Juanita 115kV Transmission Line

City of Kirkland

Map 24 of 24

February 2020

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PUGET SOUND ENERGY
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PUGET SOUND ENERGY

CITY OF KIRKLAND ARBORIST ASSESSMENT

Subject: PSE Sammamish – Juanita Tree Inventory and Health Assessment

Prepared By: Brett Conrad, ISA Certified Arborist #PN-2002A

Date: January 29, 2020

Tree Inventory Methods

In order to inventory the existing trees along the project route PSE contracted with a qualified consultant to tag and identify the species and size of each tree within the proposed corridor. Each tree was tagged and located through survey to be included on the project site plans. A PSE certified arborist assessed tree health through a Level 1 limited visual risk assessment per ANSI A300, Part 9, 2017. A numerical value was assigned to each tree to represent tree health based on the following scale:

a. Level 4 – Healthy, no obvious signs of major defect, generally sound trunk and branch structure
b. Level 3 – Healthy, but somewhat compromised trunk or branch structure due to defect (e.g. co-dominant stems) or previous pruning
c. Level 2 – Tree is still alive but either in decline or has significant structural defect
d. Level 1 – Tree is either dead or close to it

Tree Assessment and Mitigation

A total of 292 trees have been identified for removal along the project route in the City of Kirkland. Eighty – two (82) of those trees are located within the Cross Kirkland Corridor (CKC) trail corridor that PSE will share for the transmission line, 47 are in the street right-of-way or public property other than the CKC, one tree is located on property owned by King County, 11 trees are located on property owned by PSE, 41 trees are located on private property, and 109 are located within the I-405 right-of-way managed by WSDOT. Tree identification, health, location, and mitigation proposed is outlined in the table below. PSE will be mitigating for tree removal through different means depending upon location:

1 = Replace onsite on private property: Transmission compatible tree replacement to be determined through discussions with property owner (compliant with KZC).

2- = Replace onsite in street right-of-way, on PSE owned property, or City of Kirkland owned property other than the CKC: See proposed replacement in Tree Restoration Plan: NE 124th Street.

3 = CKC Fee In Lieu: For tree removal located within the CKC, PSE will pay an agreed upon fee to the City of Kirkland and the City of Kirkland will replant the trees in the corridor upon implementation of the CKC Trail Master Plan.

4 = Mitigation Bank: For trees on private property located within wetlands or buffers, PSE will mitigation for tree removal through purchasing credits at an approved mitigation bank in compliance with the KZC as outlined in the Critical Areas Impact Assessment.

5 = WSDOT Mitigation: Tree replacement in WSDOT ROW is part of the Tree Restoration Plan: 120th Ave NE that will be reviewed by WSDOT under the state Utility Permit.

Table 1 summarizes the significant trees inventoried in the City of Kirkland, including their size, location, health, and proposed mitigation where applicable.

Table 1: City of Kirkland Tree Inventory

Tree ID	Scientific Name	Common Name	DBH	Remove or Trim	Health	Location	Mitigation
Map 11							
1120	Acer macrophyllum	Big-leaf Maple	18”	remove	4	Private property	1
1119	Acer macrophyllum	Big-leaf Maple	18”	remove	3	Private property	1
1118	Populus trichocarpa	Black Cottonwood	13”	remove	4	Street ROW	2
1117	Populus trichocarpa	Black Cottonwood	16”	remove	4	Street ROW	2
1116	Populus trichocarpa	Black Cottonwood	9”	remove	4	Street ROW	2
1115	Populus trichocarpa	Black Cottonwood	9”, 9”	remove	4	Street ROW	2
1114	Populus trichocarpa	Black Cottonwood	12”	remove	4	Street ROW	2
1113	Populus trichocarpa	Black Cottonwood	17”	remove	4	Street ROW	2
1112	Acer macrophyllum	Big-leaf Maple	6”, 6”	remove	4	Street ROW	2
1111	Acer macrophyllum	Big-leaf Maple	9”	remove	4	Street ROW	2
1110	Populus trichocarpa	Black Cottonwood	10”	remove	4	Street ROW	2
1109	Populus trichocarpa	Black Cottonwood	15”	remove	4	Street ROW	2
1108	Populus trichocarpa	Black Cottonwood	11”	remove	4	Street ROW	2
1107	Populus trichocarpa	Black Cottonwood	15”	remove	4	Street ROW	2
1106	Populus trichocarpa	Black Cottonwood	32”	remove	4	Street ROW	2

1105	Acer macrophyllum	Big-leaf Maple	20”	remove	4	Street ROW	2
1104	Alnus rubra	Red Alder	10”, 11”, 12”	remove	4	Street ROW	2
Map 12							
1186	Pseudotsuga menziesii	Douglas Fir	14”	remove	4	buffer/Street ROW	4
1185	Thuja plicata	Western Redcedar	14”	remove	4	Street ROW	2
1187	Alnus rubra	Red alder	11”	remove	3	Street ROW	2
Map 13							
426	Pinus contorta	Lodgepole Pine	11”	remove	1	PSE sub property	2
425	Pinus contorta	Lodgepole Pine	12”	remove	1	PSE sub property	2
424	Pinus contorta	Lodgepole Pine	15”	remove	2	PSE sub property	2
423	Pinus contorta	Lodgepole Pine	15”	remove	3	PSE sub property	2
422	Pinus contorta	Lodgepole Pine	18”	remove	3	PSE sub property	2
421	Pinus contorta	Lodgepole Pine	12”	remove	3	PSE sub property	2
420	Pinus contorta	Lodgepole Pine	15”	remove	4	PSE sub property	2
419	Pinus contorta	Lodgepole Pine	10”	remove	3	PSE sub property	2
418	Pinus contorta	Lodgepole Pine	8”	remove	4	PSE sub property	2
417	Pinus contorta	Lodgepole Pine	8”	remove	4	PSE sub property	2
416	Pinus contorta	Lodgepole Pine	9”	remove	4	PSE sub property	2
Map 14							

1199	Alnus rubra	Red Alder	12”	remove	3	ERC/wetland	4
Map 15							
274	Populus trichocarpa	Black Cottonwood	10”	remove	4	CKC/wetland	3
275	Populus trichocarpa	Black Cottonwood	28”	remove	4	CKC/buffer	3
276	Thuja plicata	Western Red-cedar	8”	remove	4	CKC/wetland	3
277	Populus trichocarpa	Black Cottonwood	30’, 6”	remove	4	CKC/buffer	3
278	Populus trichocarpa	Black Cottonwood	26”	remove	4	CKC/buffer	3
279	Populus trichocarpa	Black Cottonwood	6”	remove	4	CKC/buffer	3
280	Populus trichocarpa	Black Cottonwood	22”	remove	4	CKC/buffer	3
281	Populus trichocarpa	Black Cottonwood	25”	remove	4	CKC/buffer	3
282	Alnus rubra	Red Alder	13”	remove	2	CKC/buffer	3
283	Alnus rubra	Red Alder	16”	remove	2	CKC/buffer	3
284	Alnus rubra	Red Alder	4”	remove	2	CK/ buffer	3
285	Alnus rubra	Red Alder	8”	remove	2	CKC/buffer	3
286	Alnus rubra	Red Alder	6”, 5”	remove	2	CKC/buffer	3
287	Alnus rubra	Red Alder	7”	remove	2	CKC//buffer	3
288	Alnus rubra	Red Alder	10”	remove	2	CKC/buffer	3
289	Alnus rubra	Red Alder	8”, 8”	remove	2	CKC/buffer	3
290	Alnus rubra	Red Alder	8”, 8”, 4”	remove	2	CKC/buffer	3

291	Alnus rubra	Red Alder	7”	remove	2	CKC/buffer	3
292	Alnus rubra	Red Alder	12”	remove	2	CKC/buffer	3
293	Alnus rubra	Red Alder	14”	remove	2	CKC/buffer	3
294	Populus trichocarpa	Black Cottonwood	8”	remove	4	CKC/wetland	3
295	Populus trichocarpa	Black Cottonwood	6”	remove	4	CKC/wetland	3
296	Populus trichocarpa	Black Cottonwood	6”	remove	4	CKC/wetland	3
297	Populus trichocarpa	Black Cottonwood	10”	remove	4	CKC/buffer	3
298	Populus trichocarpa	Black Cottonwood	19”	remove	4	CKC/buffer	3
299	Populus trichocarpa	Black Cottonwood	30”	remove	4	CKC/buffer	3
300	Populus trichocarpa	Black Cottonwood	32”	remove	4	CKC/buffer	3
301	Alnus rubra	Red Alder	9”	remove	4	CKC/buffer	3
1-438	Salix scouleriana	Scouler's Willow	8”	remove	3	CKC/buffer	3
303	Alnus rubra	Red Alder	16” (snag)	remove	3	CKC/buffer	3
304	Alnus rubra	Red Alder	10” (snag)	remove	1	CKC/buffer	3
317	Salix lasiandra	Pacific Willow	10”	remove	3	CKC/wetland	3
318	Salix lasiandra	Pacific Willow	7”	remove	3	CKC/wetland	3
319	Salix scouleriana	Scouler’s Willow	6”	remove	1	CKC/wetland	3
305	Crataegus monogyna	English Hawthorn	9”	remove	3	CKC/wetland	3
306	Alnus rubra	Red Alder	12”	trim	3	CKC/wetland	n/a
308	Salix lasiandra	Pacific Willow	8”	trim	3	CKC/wetland	n/a

309	Alnus rubra	Red Alder	11”, 11”, 10”	trim	3	CKC/wetland	n/a
310	Alnus rubra	Red Alder	8”, 8”	trim	4	CKC/wetland	n/a
316	Populus trichocarpa	Black Cottonwood	11”	remove	4	CKC/wetland	3
Map 16							
311	Alnus rubra	Red Alder	7”	remove	3	CKC/wetland	3
312	Alnus rubra	Red Alder	7”	remove	3	CKC/wetland	3
313	Alnus rubra	Red Alder	11”	remove	3	CKC/wetland	3
314	Alnus rubra	Red Alder	10”	remove	3	CKC/buffer	3
1121	Populus trichocarpa	Black Cottonwood	10”	remove	4	CKC/wetland	3
1122	Alnus rubra	Red Alder	13”	remove	4	CKC/wetland	3
1123	Alnus rubra	Red Alder	16”	remove	4	CKC/wetland	3
1200	Populus trichocarpa	Black Cottonwood	11”	remove	4	CKC/buffer	3
321	Populus trichocarpa	Black Cottonwood	18”	remove	1	CKC/buffer	3
322	Alnus rubra	Red Alder	13”	remove	1	CKC/buffer	3
323	Alnus rubra	Red Alder	14”	remove	4	CKC/buffer	3
324	Populus trichocarpa	Black Cottonwood	14”	remove	4	CKC/buffer	3
429	Populus trichocarpa	Black Cottonwood	10”	remove	4	CKC/buffer	3
430	Populus trichocarpa	Black Cottonwood	8”	remove	4	CKC/buffer	3
432	Populus trichocarpa	Black Cottonwood	8”	remove	4	CKC/buffer	3

433	Populus trichocarpa	Black Cottonwood	16”	remove	4	CKC/buffer	3
434	Populus trichocarpa	Black Cottonwood	16”	remove	4	CKC/buffer	3
235	Populus trichocarpa	Black Cottonwood	14”	remove	4	CKC/buffer	3
435	Populus trichocarpa	Black Cottonwood	44”	remove	4	CKC/buffer	3
1-436	Populus trichocarpa	Black Cottonwood	7”	remove	4	CKC/buffer	3
325	Salix lasiandra	Pacific Willow	12”	remove	4	CKC/buffer	3
326	Salix lasiandra	Pacific Willow	6”	remove	4	CKC/buffer	3
327	Salix lasiandra	Pacific Willow	6”	remove	4	CKC/buffer	3
328	Salix lasiandra	Pacific Willow	8”	remove	4	CKC/buffer	3
329	Populus trichocarpa	Black Cottonwood	18”	remove	4	CKC/buffer	3
330	Populus trichocarpa	Black Cottonwood	20”	remove	4	CKC/buffer	3
331	Salix lasiandra	Pacific Willow	6”, 4”, 6”, 8”, 7”, 8”, 6”	remove	4	CKC/buffer	3
332	Populus trichocarpa	Black Cottonwood	7”	remove	4	CKC/buffer	3
333	Populus trichocarpa	Black Cottonwood	14”	remove	4	CKC/buffer	3
Map 17							
334	Populus trichocarpa	Black Cottonwood	7”	remove	4	CKC	3
1124	Arbutus menziesii	Madrona	10”	remove	4	CKC	3
1125	Acer macrophyllum	Big-leaf Maple	6”, 6”, 5”	remove	4	CKC	3
1126	Pseudotsuga menziesii	Douglas Fir	12”	remove	3	CKC	3

1127	Populus trichocarpa	Black Cottonwood	19”	remove	4	CKC	3
1128	Populus trichocarpa	Black Cottonwood	15”	remove	4	CKC	3
1129	Populus trichocarpa	Black Cottonwood	15”	remove	2	CKC	3
1130	Populus trichocarpa	Black Cottonwood	12”, 16”, 18”	remove	4	CKC	3
1131	Populus trichocarpa	Black Cottonwood	19”	remove	4	CKC	3
1133	Populus trichocarpa	Black Cottonwood	19”	remove	4	CKC	3
1136	Populus trichocarpa	Black Cottonwood	17”	remove	4	CKC	3
335	Pseudotsuga menziesii	Douglas-Fir	18”	remove	4	CKC	3
336	Pseudotsuga menziesii	Douglas-Fir	16”	remove	4	CKC	3
Map 18							
597	Acer macrophyllum	Big-leaf Maple	13”,14”,16”	remove	4	WSDOT ROW	5
598	Acer macrophyllum	Big-leaf Maple	9”,9”,9”	remove	4	WSDOT ROW	5
599	Pseudotsuga menziesii	Douglas Fir	17”	remove	4	WSDOT ROW	5
600	Pseudotsuga menziesii	Douglas Fir	14”	remove	4	WSDOT ROW	5
590	Acer macrophyllum	Big-leaf Maple	9”,8”,7”	remove	4	WSDOT ROW	5
586	Acer macrophyllum	Big-leaf Maple	7”,7”, 9”	remove	4	COK parcel	2
587	Thuja plicata	Western Red cedar	5”,13”, 11”	remove	4	COK parcel	2

588	Thuja plicata	Western Red cedar	5”,14”,12”	remove	4	COK parcel	2
589	Acer macrophyllum	Big-leaf Maple	6”,6”	remove	4	COK parcel	2
742	Pseudotsuga menziesii	Douglas Fir	25”	remove	4	WSDOT ROW	5
741	Robinia pseudoacacia	Black Locust	16”,9”,9”	remove	4	WSDOT ROW	5
740	Populus trichocarpa	Black Cottonwood	14”	remove	4	WSOT ROW	5
739	Populus trichocarpa	Black Cottonwood	14”,12”,9”, 19”	remove	4	WSDOT ROW	5
736	Populus trichocarpa	Black Cottonwood	25”,24”	remove	4	WSDOT ROW	5
735	Acer sp.	Maple	15”	remove	4	WSDOT ROW	5
734	Acer sp.	Maple	15”	remove	4	WSDOT ROW	5
733	Acer sp.	Maple	7”,7”,9”,8”, 13”	remove	4	WSDOT ROW	5
732	Acer sp.	Maple	5”,9”,7”,7”, 9”	remove	4	WSDOT ROW	5
731	Acer sp.	Maple	17”	remove	4	WSDOT ROW	5
759	Populus trichocarpa	Black Cottonwood	18”	remove	4	WSDOT ROW	5
730	Acer sp.	Maple	5”,6”,6”,4”, 9”,7”	remove	4	WSDOT ROW	5
729	Acer sp.	Maple	8”,9”,11”,8”,9”,5”	remove	4	WSDOT ROW	5
728	Acer sp.	Maple	6”,8”,9”,8”	remove	4	WSDOT ROW	5

727	Acer sp.	Maple	11”,10”,6”	remove	4	WSDOT ROW	5
745	Pseudotsuga menziesii	Douglas Fir	21”	remove	4	WSDOT ROW	5
746	Pseudotsuga menziesii	Douglas Fir	19”	remove	4	WSDOT ROW	5
726	Acer sp.	Maple	9”,9”,11”,5”,9”,10”,5”	remove	4	WSDOT ROW	5
725	Acer sp.	Maple	5”,5”,6”,9”,9”,5”	remove	4	WSDOT ROW	5
724	Acer sp.	Maple	30”	remove	4	WSDOT ROW	5
723	Acer sp.	Maple	11”,6”,12”,11”,17”	remove	4	WSDOT ROW	5
722	Acer sp.	Maple	9”,6”,5”,11”,8”,7”	remove	4	WSDOT ROW	5
721	Acer sp.	Maple	10”,7”,9”,5”,12”,6”	remove	4	WSDOT ROW	5
497	Populus trichocarpa	Black Cottonwood	8”	remove	4	WSDOT ROW	5
750	Populus trichocarpa	Black Cottonwood	28”	remove	4	WSDOT ROW	5
751	Populus trichocarpa	Black Cottonwood	9”	remove	4	WSDOT ROW	5
752	Populus trichocarpa	Black Cottonwood	10”	remove	4	WSDOT ROW	5
753	Pseudotsuga menziesii	Douglas Fir	13”	remove	4	WSDOT ROW	5
754	Populus trichocarpa	Black Cottonwood	24”	remove	4	WSDOT ROW	5
755	Populus trichocarpa	Black Cottonwood	28”	remove	4	WSDOT ROW	5
758	Tsuga heterophylla	Western Hemlock	19”	remove	4	WSDOT ROW	5

720	Acer sp.	Maple	6”	remove	4	WSDOT ROW	5
760	Populus trichocarpa	Black Cottonwood	30”	remove	4	WSDOT ROW	5
719	Acer sp.	Maple	6”,6”,6”	remove	4	WSDOT ROW	5
718	Acer sp.	Maple	5”,6”,6”,5”, 6”,5”	remove	4	WSDOT ROW	5
764	Arbutus menziesii	Madrone	20”	remove	4	WSDOT ROW	5
765	Pseudotsuga menziesii	Douglas Fir	15”	remove	3	WSDOT ROW	5
717	Acer sp.	Maple	17”,13”	remove	4	WSDOT ROW	5
Map 19							
716	Acer sp.	Maple	10”,8”,9”, 11”,9”	remove	4	WSDOT ROW	5
715	Acer macrophyllum	Big-leaf Maple	10”	remove	4	WSDOT ROW	5
768	Populus trichocarpa	Black cottonwood	8”	remove	4	WSDOT ROW	5
769	Populus trichocarpa	Black cottonwood	20”, 20”	remove	4	WSDOT ROW	5
771	Populus trichocarpa	Black Cottonwood	8”	remove	4	WSDOT ROW	5
772	Populus trichocarpa	Black Cottonwood	21”	remove	4	WSDOT ROW	5
773	Populus trichocarpa	Black Cottonwood	8”	remove	4	WSDOT ROW	5
774	Populus trichocarpa	Black Cottonwood	8”	remove	4	WSDOT ROW	5
714	Acer sp.	Maple	9”,5”	remove	4	WSDOT ROW	5
713	Acer sp.	Maple	12”	remove	4	WSDOT ROW	5
712	Acer sp.	Maple	10”	remove	4	WSDOT ROW	5

777	Pseudotsuga menziesii	Douglas Fir	16”	remove	3	WSDOT ROW	5
778	Acer sp.	Maple	5”,6”	remove	4	WSDOT ROW	5
779	Populus trichocarpa	Black Cottonwood	25”	remove	4	WSDOT ROW	5
781	Pseudotsuga menziesii	Douglas Fir	16”	remove	4	WSDOT ROW	5
784	Pseudotsuga menziesii	Douglas Fir	19”	remove	4	WSDOT ROW	5
783	Pseudotsuga menziesii	Douglas Fir	9”	remove	4	WSDOT ROW	5
786	Pseudotsuga menziesii	Douglas Fir	18”	remove	4	WSDOT ROW	5
711	Acer sp.	Maple	6”	remove	4	WSDOT ROW	5
710	Acer sp.	Maple	7”	remove	4	WSDOT ROW	5
709	Acer sp.	Maple	11”,11”	remove	4	WSDOT ROW	5
708	Acer sp.	Maple	4”,4”,8”	remove	4	WSDOT ROW	5
1-499	Acer sp.	Maple	6”	remove		WSDOT ROW	5
707	Acer sp.	Maple	6”	remove	4	WSDOT ROW	5
802	Pseudotsuga menziesii	Douglas Fir	6”	remove	2	WSDOT ROW	5
803	Salix scouleriana	Scouler's Willow	8”,7”,7”,5”	remove	4	WSDOT ROW	5
804	Pseudotsuga menziesii	Douglas Fir	7”	remove	4	WSDOT ROW	5
809	Populus trichocarpa	Black Cottonwood	20”	remove	4	WSDOT ROW	5
813	Populus trichocarpa	Black Cottonwood	16”	remove	4	WSDOT ROW	5
814	Alnus rubra	Red Alder	6”	remove	4	WSDOT ROW	5
818	Pseudotsuga menziesii	Douglas Fir	6”	remove	4	WSDOT ROW	5

819	Salix scouleriana	Scouler's Willow	6”,7”,6”	remove	2	WSDOT ROW	5
706	Acer sp.	Maple	6”	remove	4	WSDOT ROW	5
829	Populus trichocarpa	Black Cottonwood	24”	remove	4	WSDOT ROW	5
705	Acer sp.	Maple	6”	remove	4	WSDOT ROW	5
835	Thuja plicata	Western Redcedar	12”	remove	3	WSDOT ROW	5
836	Populus trichocarpa	Black Cottonwood	19”	remove	4	WSDOT ROW	5
838	Fraxinus latifolia	Oregon Ash	6”	remove	4	WSDOT ROW	5
844	Populus trichocarpa	Black Cottonwood	8”	remove	4	WSDOT ROW	5
845	Populus trichocarpa	Black Cottonwood	6”	remove	4	WSDOT ROW	5
846	Populus trichocarpa	Black Cottonwood	5”,5”,7”	remove	4	WSDOT ROW	5
847	Acer sp.	maple	8”	remove	4	WSDOT ROW	5
853	Populus trichocarpa	Black Cottonwood	20”	remove	4	WSDOT ROW	5
854	Populus trichocarpa	Black Cottonwood	13”, 9”	remove	4	WSDOT ROW	5
855	Acer Macrophyllum	Big-leaf Maple	7”	remove	4	WSDOT ROW	5
857	Acer macrophyllum	Big-leaf Maple	8”,6”	remove	4	WSDOT ROW	5
859	Acer macrophyllum	Big-leaf Maple	11”	remove	4	WSDOT ROW	5
862	Acer macrophyllum	Big-leaf Maple	6”	remove	4	WSDOT ROW	5
870	Alnus rubra	Red Alder	6”	remove	4	WSDOT ROW	5
871	Rhamnus purshiana	Cascara	7”, 5”	remove	3	WSDOT ROW	5
872	Alnus rubra	Red Alder	7”	remove	3	WSDOT ROW	5

873	Alnus rubra	Red Alder	6”	remove	3	WSDOT ROW	5
500	Alnus rubra	Red Alder	8”	remove	1	WSDOT ROW	5
704	Acer sp.	Maple	18”	remove	4	WSDOT ROW	5
895	Alnus rubra	Red Alder	9”	remove	4	WSDOT ROW	5
894	Alnus rubra	Red Alder	7”	remove	4	WSDOT ROW	5
703	Acer sp.	Maple	17”	remove	4	WSDOT ROW	5
892	Alnus rubra	Red Alder	6”	remove	4	WSDOT ROW	5
893	Acer macrophyllum	Big-leaf Maple	19”	remove	4	WSDOT ROW	5
896	Acer macrophyllum	Big-leaf Maple	14”	remove	4	WSDOT ROW	5
897	Alnus rubra	Red Alder	4”,6”	remove	4	WSDOT ROW	5
898	Alnus rubra	Red Alder	7”	remove	4	WSDOT ROW	5
899	Alnus rubra	Red Alder	7”	remove	4	WSDOT ROW	5
900	Rhamnus purshiana	Cascara	6”	remove	3	WSDOT ROW	5
701	Thuja plicata	Western Redcedar	17”	remove	4	WSDOT ROW	5
702	Acer sp.	Maple	11”	remove	4	WSDOT ROW	5
Map 20							
1-491	A. platanus	London Planetree	22”	remove	4	Street ROW	2
1-490	A. platanus	London Planetree	18”	remove	4	Street ROW	2
1-489	A. platanus	London Planetree	16”	remove	4	Street ROW	2
1-488	A. platanus	London Planetree	13”	remove	4	Street ROW	2

1-487	A. platanus	London Planetree	18”	remove	4	Street ROW	2
1-486	A. platanus	London Planetree	15”	remove	4	Street ROW	2
1-485	A. platanus	London Planetree	15”	remove	4	Street ROW	2
1-484	A. platanus	London Planetree	17”	remove	4	Street ROW	2
1-483	A. platanus	London Planetree	13”	remove	4	Street ROW	2
1-482	A. platanus	London Planetree	17”	remove	4	Street ROW	2
1-479	Acer sp.	Maple	16”	remove	4	Street ROW	2
1-478	Acer sp.	Maple	10”	remove	4	Street ROW	2
1-477	Acer sp.	Maple	14”	remove	4	Street ROW	2
1-476	Acer sp.	Maple	13”	remove	4	Street ROW	2
1-475	Acer sp.	Maple	12”	remove	4	Street ROW	2
1-474	Acer sp.	Maple	13”	remove	4	Street ROW	2
1-473	Acer sp.	Maple	13”	remove	4	Street ROW	2
Map 21							
1-472	Pinus contorta	Lodgepole Pine	22”	trim	4	Street ROW	n/a
1-471	Pinus contorta	Lodgepole Pine	20”	trim	4	Street ROW	n/a
1-470	Pinus contorta	Lodgepole Pine	19”	trim	4	Street ROW	n/a
1-469	Pinus contorta	Lodgepole Pine	16”	trim	4	Street ROW	n/a
1-468	Pinus contorta	Lodgepole Pine	22”	trim	4	Street ROW	n/a
1-467	Pinus contorta	Lodgepole Pine	20”	trim	4	Street ROW	n/a

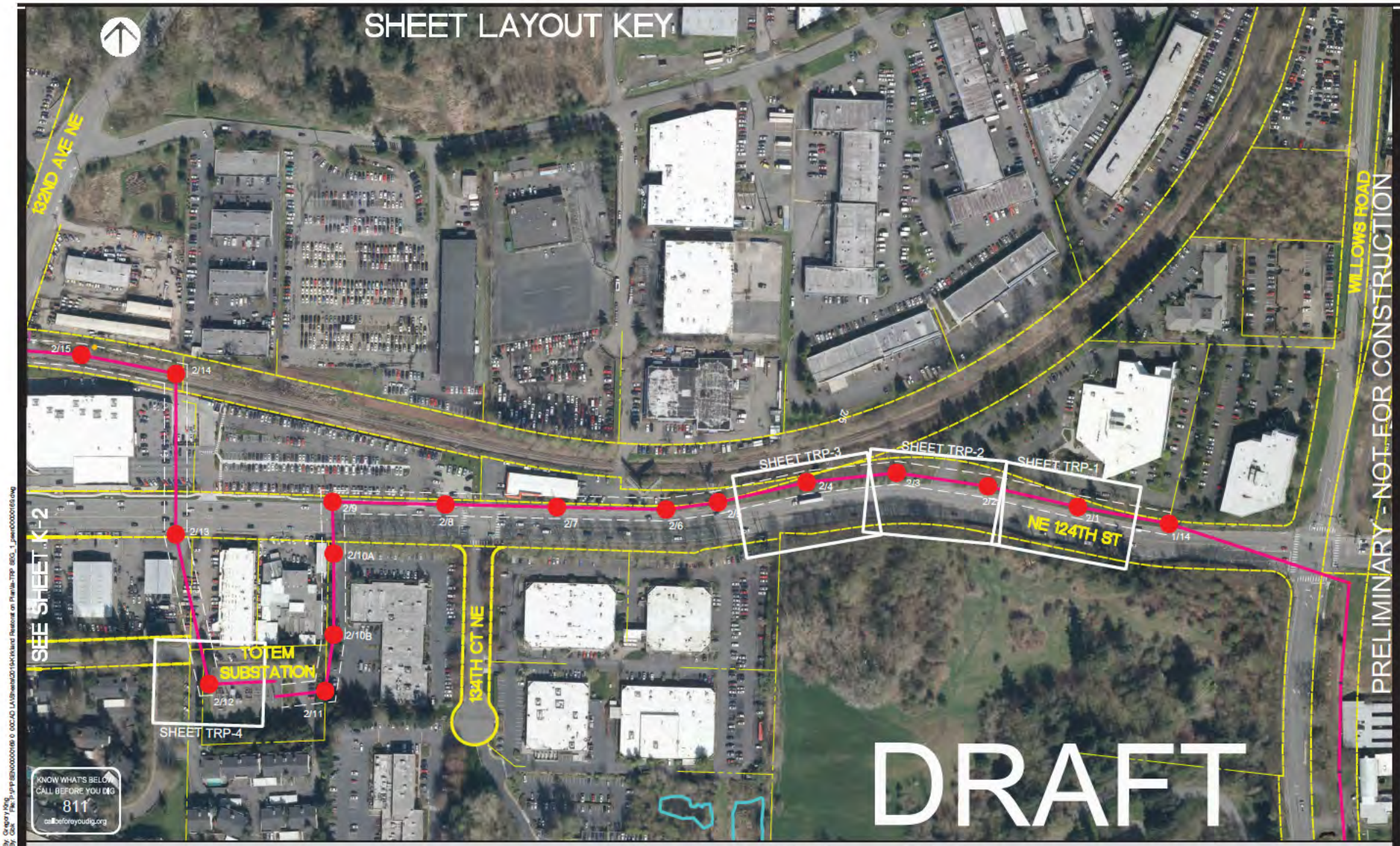
1-466	Pinus contorta	Lodgepole Pine	16”	trim	4	Street ROW	n/a
1-465	Pinus contorta	Lodgepole Pine	18”	trim	4	Street ROW	n/a
1-464	Pinus contorta	Lodgepole Pine	16”	trim	4	Street ROW	n/a
1-463	Pinus contorta	Lodgepole Pine	18”	trim	4	Street ROW	n/a
1-462	Pinus contorta	Lodgepole Pine	18”	trim	4	Street ROW	n/a
1-461	Pinus contorta	Lodgepole Pine	17”	trim	4	Street ROW	n/a
1-460	Pinus contorta	Lodgepole Pine	15”	trim	4	Street ROW	n/a
1-459	Pinus contorta	Lodgepole Pine	21”	trim	4	Street ROW	n/a
1-458	Pinus contorta	Lodgepole Pine	25”	trim	4	Street ROW	n/a
1-457	Acer sp.	Maple	7”	remove	4	Street ROW	2
1-456	Fraxinus sp.	Ash	21”	remove	4	Street ROW	2
1-455	Thuja plicata	Western Red-cedar	33”	remove	4	Street ROW	2
1-454	Fraxinus sp.	Ash	7”	remove	4	Street ROW	2
1-453	Thuja plicata	Western Red-cedar	50”	remove	4	Street ROW	2
1-451	Robinia pseudoacacia	Black Locust	15”	remove	4	Street ROW	2
1-450	Robinia pseudoacacia	Black Locust	19”	remove	4	Street ROW	2
1-448	Pseudotsuga menziesii	Douglas Fir	18”	trim	4	Street ROW	n/a
1-447	Acer sp.	Maple	17”	trim	4	Street ROW	n/a

1-446	Thuja plicata	Western Red-cedar	21”	trim	4	Street ROW	n/a
1-445	Acer sp.	Maple	6”	trim	4	Street ROW	n/a
1-444	Acer sp.	Maple	6”	trim	4	Street ROW	n/a
1-443	Acer sp.	Maple	6”	trim	4	Street ROW	n/a
1-442	Acer sp.	Maple	9”	trim	4	Street ROW	n/a
1193	Quercus sp.	Oak	20”	trim	4	Street ROW	n/a
1194	Quercus sp.	Oak	15”	trim	4	Street ROW	n/a
1195	Quercus sp.	Oak	19”	trim	4	Street ROW	n/a
1196	Quercus sp.	Oak	16”	trim	4	Street ROW	n/a
1197	Quercus sp.	Oak	16”	trim	4	Street ROW	n/a
Map 22							
1198	Quercus sp.	Oak	15”	trim	4	Street ROW	n/a
1137	Platanus occidentalis	Sycamore	20”	remove	3	Private property	1
1138	Acer macrophyllum	Big-leaf Maple	20”	remove	4	Private property	1
1139	Platanus occidentalis	Sycamore	18”	remove	3	Private property	1
1140	Pseudotsuga menziesii	Douglas Fir	14”	remove	4	buffer/private property	4
1141	Pinus sp.	Pine	21”	remove	4	buffer/private property	4

1142	Pinus sp.	Pine	21”	remove	4	buffer/private property	4
1143	Alnus rubra	Red Alder	16”	remove	4	buffer/private property	4
1144	Alnus rubra	Red Alder	13”	remove	3	buffer/private property	4
1145	Alnus rubra	Red Alder	7”	remove	3	buffer/private property	4
1146	Alnus rubra	Red Alder	9”	remove	3	buffer/private property	4
1147	Alnus rubra	Red Alder	9”	remove	3	buffer/private property	4
1148	Alnus rubra	Red Alder	6”	remove	3	buffer/private property	4
1149	Alnus rubra	Red Alder	15”	remove	3	buffer/private property	4
1150	Alnus rubra	Red Alder	17”	remove	3	buffer/private property	4
1151	Quercus	Oak	15”	remove	4	private property	1
1152	Tsuga heterophylla	Western Hemlock	7”	remove	3	private property	1
1153	Pseudotsuga menziesii	Douglas Fir	12”	remove	3	private property	1
1154	Pseudotsuga menziesii	Douglas Fir	13”	remove	3	private property	1
1155	Pseudotsuga menziesii	Douglas Fir	12”	remove	3	private property	1

1156	Pseudotsuga menziesii	Douglas Fir	12”	remove	3	private property	1
1157	Pseudotsuga menziesii	Douglas Fir	15”	remove	3	private property	1
1158	Pseudotsuga menziesii	Douglas Fir	14”	remove	3	private property	1
1159	Pseudotsuga menziesii	Douglas Fir	12”	remove	3	private property	1
1160	Pseudotsuga menziesii	Douglas Fir	11”	remove	3	private property	1
1161	Pseudotsuga menziesii	Douglas Fir	10”	remove	3	private property	1
1162	Liquidambar styraciflua	Sweetgum	10”	remove	2	private property	1
1163	Liquidambar styraciflua	Sweetgum	8”	remove	2	private property	1
1164	Tsuga heterophylla	Western Hemlock	9”	remove	3	private property	1
1165	Liquidambar styraciflua	Sweetgum	8”	remove	3	private property	1
1166	Tsuga heterophylla	Western Hemlock	12”	remove	3	private property	1
1167	Tsuga heterophylla	Western Hemlock	15”	remove	3	private property	1
1168	Tsuga heterophylla	Western Hemlock	19”	remove	3	private property	1
1169	Tsuga heterophylla	Western Hemlock	17”	remove	3	private property	1
Map 23							
1170	Thuja plicata	Western Redcedar	12”	remove	2	Buffer/private property	4
1171	Pseudotsuga menziesii	Douglas Fir	12”	remove	2	Buffer/private property	4

1172	Alnus rubra	Red Alder	8”	remove	4	Buffer/private property	4
1173	Thuja plicata	Western Redcedar	10”	remove	2	Buffer/private property	4
1174	Thuja plicata	Western Redcedar	10”	remove	2	Buffer/private property	4
Map 24							
1177	Pinus sp.	Pine	9”	remove	2	Buffer/private property	4
1178	Acer macrophyllum	Big-leaf Maple	17”	remove	3	Street ROW	2
1179	Acer macrophyllum	Big-leaf Maple	19”	remove	3	Street ROW	2



LEGEND

- PROPERTY LINE
- EXISTING RIGHT OF WAY
- CHAIN LINK FENCE
- ℄ PROPOSED TRANSMISSION ALIGNMENT
- 50' WIRE ZONE
- 2/14 PROPOSED TRANSMISSION POLE

SHEET INDEX

0 100 200 400

PUGET SOUND ENERGY
The Energy To Do Great Things

TREE RESTORATION PLAN
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES inc.
14432 SE Eastgate Way, Suite 400
Bellevue Washington 98007
Phone: 425.519.6500

REVISIONS:	APPD.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1" = 200'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen00000169.dwg

SHEET NO. K-1 OF 23

TREE RESTORATION PLAN
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

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DESIGN: JCDA
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CHECKED: JCDA
REVISION NUMBER:

SCALE: 1" = 200'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen0000169.dwg

SHEET NO. K-2 OF 23

TREE RESTORATION PLAN
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
14432 SE Eastgate Way, Suite 400
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Phone: 425.519.6500

REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1" = 200'

PROJECT NUMBER:
PSEN0000-0169

DRAWING FILE:
lsEM16psen0000169.dwg

SHEET NO.
K-3
OF 23

TREE RESTORATION PLAN
NE 124TH STREET
FOR
PUGET SOUND ENERGY
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Phone: 425.519.6500

REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1" = 200'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen00000169.dwg

SHEET NO. K-4 OF 23

LEGEND

- PROPERTY LINE
- EXISTING RIGHT OF WAY
- CHAIN LINK FENCE
- ℄ PROPOSED TRANSMISSION ALIGNMENT
- 50' WIRE ZONE
- 2/14 PROPOSED TRANSMISSION POLE

0 100 200 400

PUGET SOUND ENERGY
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NE 124TH STREET
FOR
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Phone: 425.519.6500

REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1" = 200'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen00000169.dwg

SHEET NO. K-5 OF 23

GENERAL NOTES

1. SEE TREE REPLACEMENT TABLE (SHEET TRT–1 ~TRT–2) FOR EXISTING TREE SPECIES TO BE REMOVED AND REPLACEMENT TREE SPECIES.
2. TREES REPLACED SHALL BE REPLACED "IN–PLACE" PER TREE REPLACEMENT DETAIL, SHEET NDT–4.
3. SEE SHEETS NDT–1~NDT–3 FOR TREE SCHEDULE AND NOTES.
4. TREES WITHIN THE 50' WIRE ZONE SHALL NOT EXCEED 25' MAXIMUM MATURE TREE HEIGHT.

LEGEND

- PROPERTY LINE
- EXISTING RIGHT OF WAY
- CHAIN LINK FENCE
- ℄ PROPOSED TRANSMISSION ALIGNMENT
- 50' WIRE ZONE
- PROPOSED TRANSMISSION POLE 2/14
- DECIDUOUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)
- CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

0 10 20 40

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NE 124TH STREET
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REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1"=20'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen0000169.dwg

SHEET NO. TRP-1 OF 23

GENERAL NOTES

1. SEE TREE REPLACEMENT TABLE (SHEET TRT–1 ~TRT–2) FOR EXISTING TREE SPECIES TO BE REMOVED AND REPLACEMENT TREE SPECIES.
2. TREES REPLACED SHALL BE REPLACED "IN–PLACE" PER TREE REPLACEMENT DETAIL, SHEET NDT–4.
3. SEE SHEETS NDT–1~NDT–3 FOR TREE SCHEDULE AND NOTES.
4. TREES WITHIN THE 50' WIRE ZONE SHALL NOT EXCEED 25' MAXIMUM MATURE TREE HEIGHT.

LEGEND

PROPERTY LINE
EXISTING RIGHT OF WAY
CHAIN LINK FENCE
℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
PROPOSED TRANSMISSION POLE 2/14

DECIDUOUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

0 10 20 40

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Phone: 425.519.6500

REVISIONS: APP'D.

DATE: FEBRUARY, 2020
DESIGN: JCDA
DRAWN: GBK
CHECKED: JCDA
REVISION NUMBER:

SCALE: 1"=20'

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen00000169.dwg

SHEET NO. TRP-2 OF 23

GENERAL NOTES

1. SEE TREE REPLACEMENT TABLE (SHEET TRT–1 ~TRT–2) FOR EXISTING TREE SPECIES TO BE REMOVED AND REPLACEMENT TREE SPECIES.
2. TREES REPLACED SHALL BE REPLACED "IN–PLACE" PER TREE REPLACEMENT DETAIL, SHEET NDT–4.
3. SEE SHEETS NDT–1~NDT–3 FOR TREE SCHEDULE AND NOTES.
4. TREES WITHIN THE 50' WIRE ZONE SHALL NOT EXCEED 25' MAXIMUM MATURE TREE HEIGHT.

LEGEND

PROPERTY LINE
EXISTING RIGHT OF WAY
CHAIN LINK FENCE
℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
PROPOSED TRANSMISSION POLE 2/14

DECIDUOUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

0 10 20 40

PUGET SOUND ENERGY
The Energy To Do Great Things

TREE RESTORATION PLAN
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES inc.
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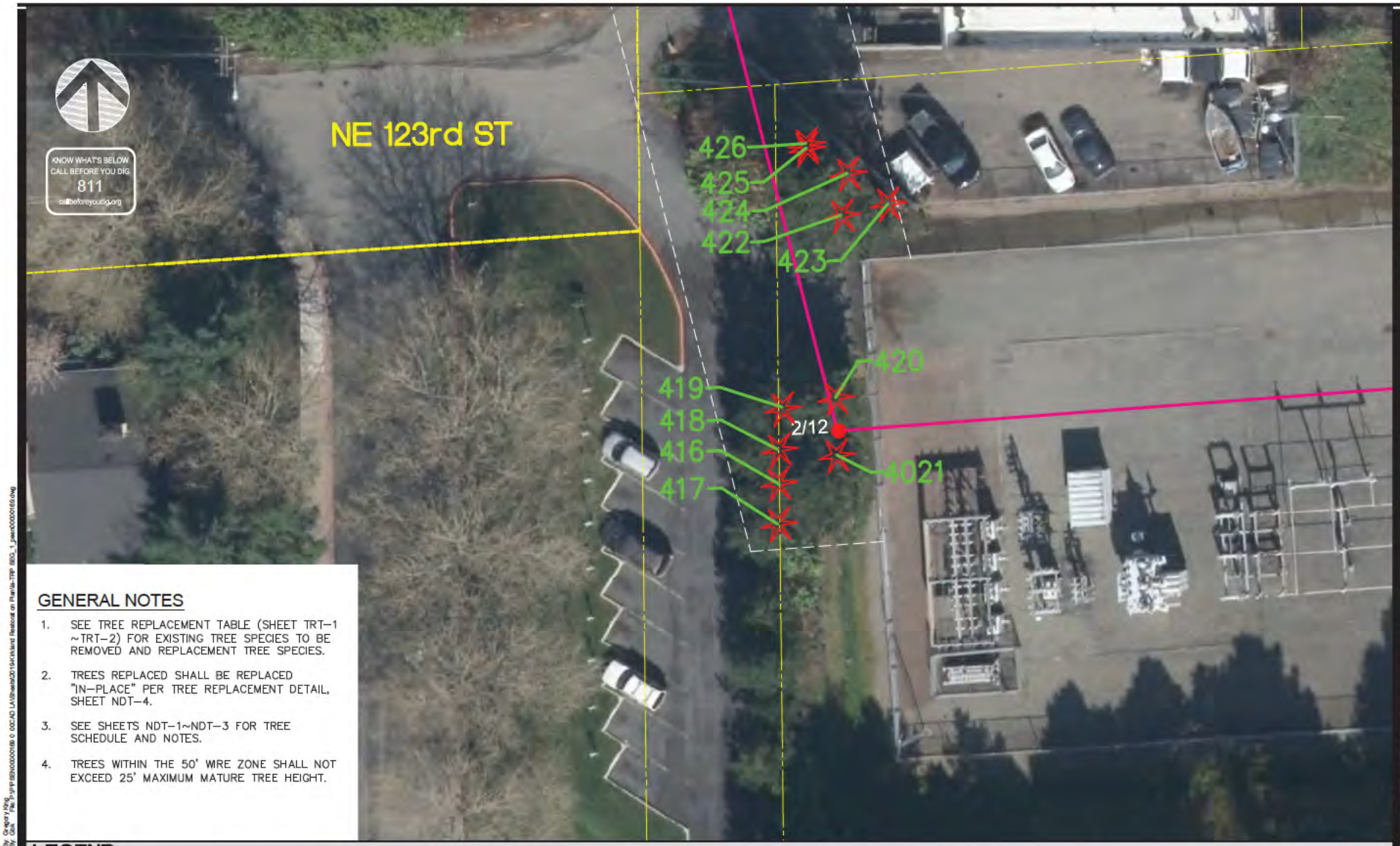
SHEET NO. TRP-3 OF 23



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LEGEND

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EXISTING RIGHT OF WAY
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℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
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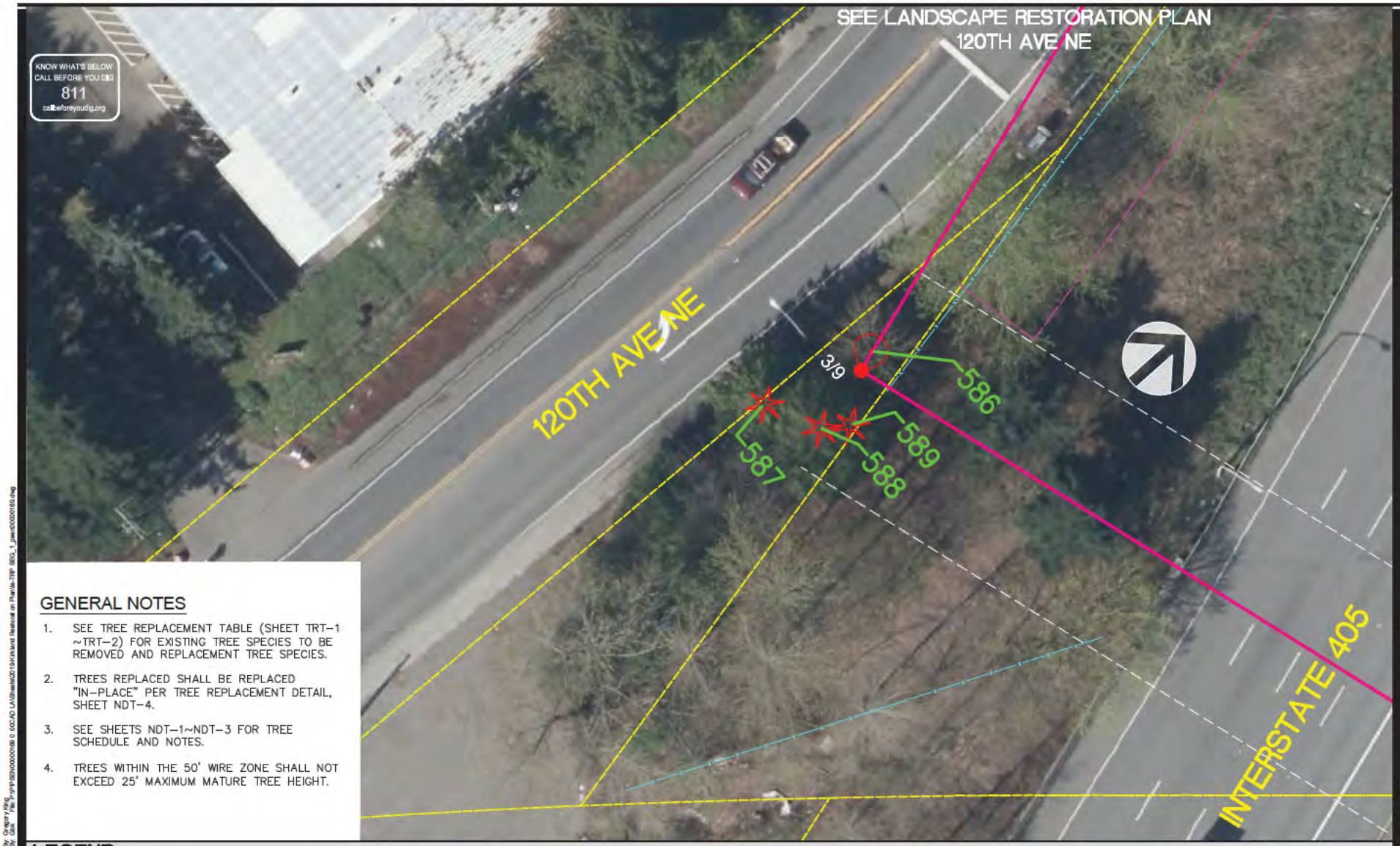
PROJECT NUMBER: PSEN0000-0169

DRAWING FILE: lsEM16psen0000169.dwg

SHEET NO. TRP-4 OF 23



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LEGEND

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EXISTING RIGHT OF WAY
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50' WIRE ZONE
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CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

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PROJECT NUMBER: PSEN0000-0169

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SHEET NO. TRP-5 OF 23

GENERAL NOTES

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LEGEND

PROPERTY LINE
EXISTING RIGHT OF WAY
CHAIN LINK FENCE
℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
PROPOSED TRANSMISSION POLE 2/14

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CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

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PROJECT NUMBER: PSEN0000-0169

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SHEET NO. TRP-6 OF 23

GENERAL NOTES

1. SEE TREE REPLACEMENT TABLE (SHEET TRT-1 ~TRT-2) FOR EXISTING TREE SPECIES TO BE REMOVED AND REPLACEMENT TREE SPECIES.
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LEGEND

PROPERTY LINE
EXISTING RIGHT OF WAY
CHAIN LINK FENCE
℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
PROPOSED TRANSMISSION POLE 2/14

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CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

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PROJECT NUMBER: PSEN0000-0169

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SHEET NO. TRP-7 OF 23

GENERAL NOTES

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LEGEND

PROPERTY LINE
EXISTING RIGHT OF WAY
CHAIN LINK FENCE
℄ PROPOSED TRANSMISSION ALIGNMENT
50' WIRE ZONE
PROPOSED TRANSMISSION POLE 2/14

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CONIFEROUS TREE TO BE REMOVED AND REPLACED (SEE GENERAL NOTES 1,2)

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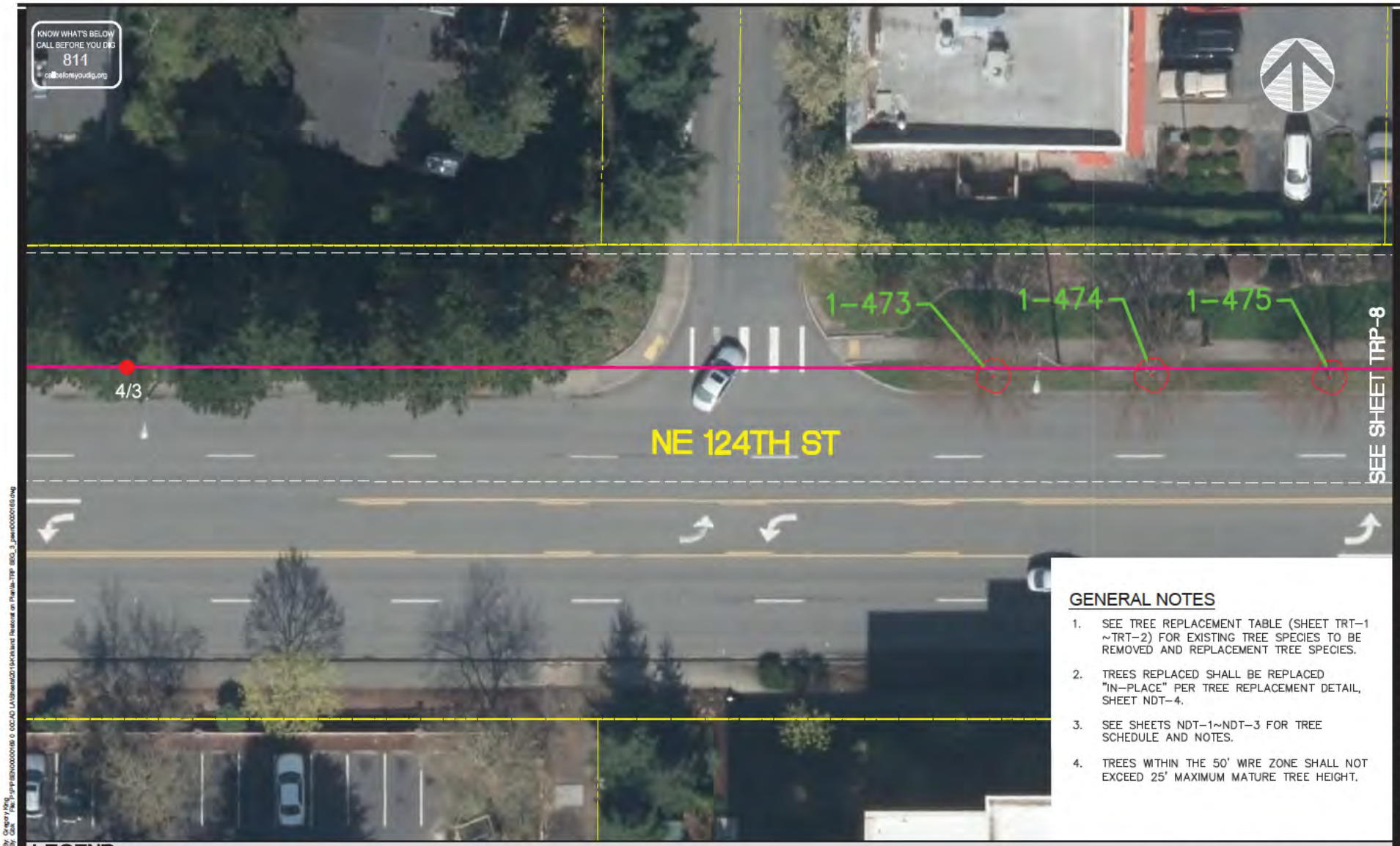
SHEET NO. TRP-8 OF 23



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LEGEND

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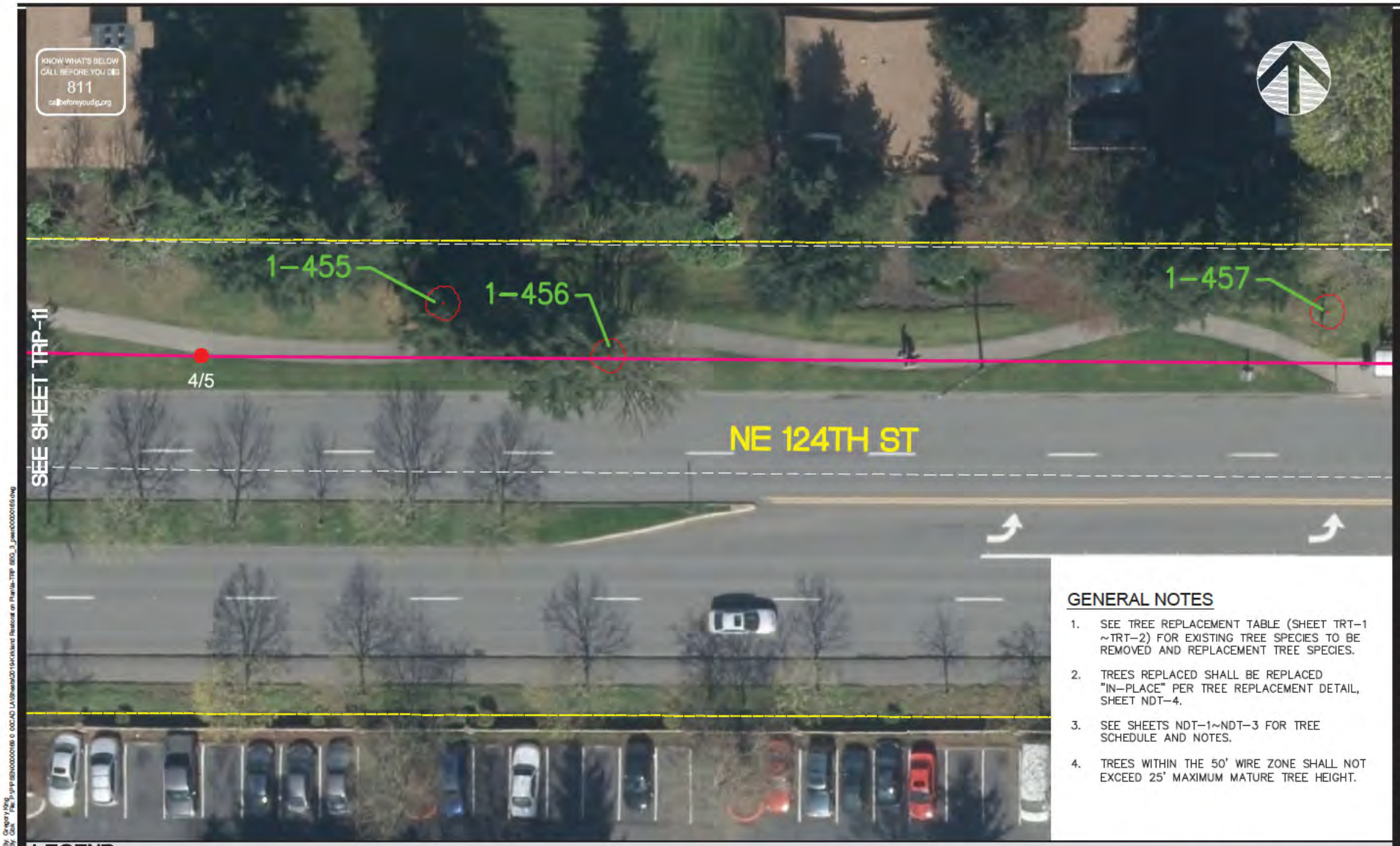
SHEET NO. TRP-9 OF 23



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SHEET NO. TRP-10 OF 23

GENERAL NOTES

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LEGEND

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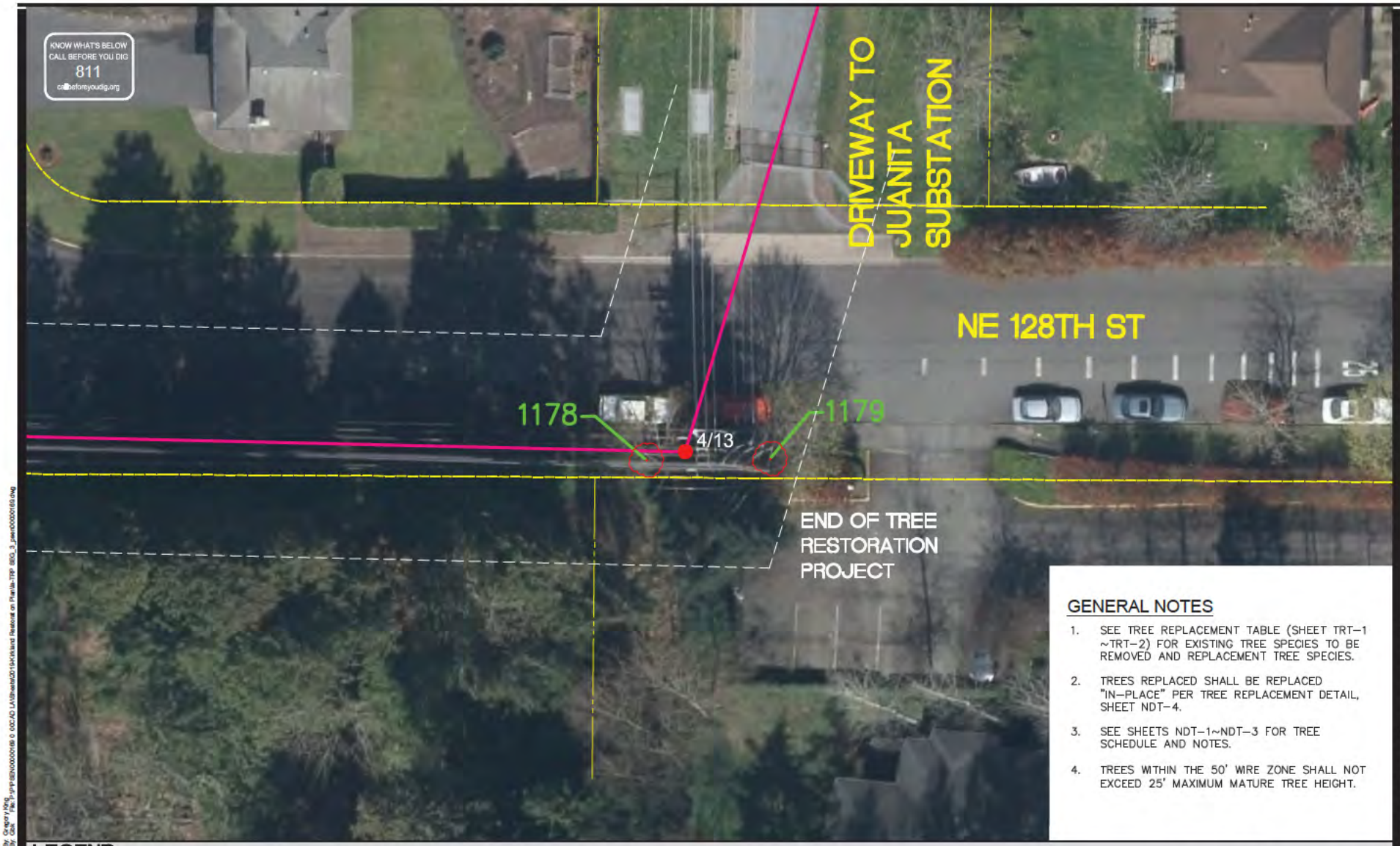
SHEET NO. TRP-11 OF 23



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SHEET NO. TRP-12
OF 23

TREE SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	COND.	PLANT AREA QUANTITIES TRP-1	TRP-2	TRP-3	TRP-4	TRP-5				TOTAL	REMARKS
DECIDUOUS TREES (UP TO 25' HT)													
ACER GINNALA	FLAME AMUR MAPLE	2" CAL.	B&B	0	0	0	0	0				0	
CRATAEGUS x LAVALLEI	LAVALLE HAWTHORN	2" CAL.	B&B	0	0	0	0	0				0	
CARPINUS JAPONICUS	JAPANESE HORNBEAM	2" CAL.	B&B	0	0	0	0	0				0	
FRAXINUS EXCELSIOR 'AUREAFOLIA'	GOLDEN DESERT ASH	2" CAL.	B&B	0	0	0	0	0				0	
PRUNUS VIRGINIANA	CHOKECHERRY	2" CAL.	B&B	0	1	1	0	0				2	SEE NOTES 1, 2, 3, 4, 5
PRUNUS EMARGINATA	BITTERCHERRY	2" CAL.	B&B	3	0	0	0	2				5	SEE NOTES 1, 2, 3, 4, 5
CRATAEGUS DOUGLASII	BLACK HAWTHORN	2" CAL.	B&B	11	0	0	0	0				11	SEE NOTES 1, 2, 3, 4, 5
EVERGREEN TREES (UP TO 20' HT)													
PICEA PUNGENS 'SESTER DWARF'	SESTER BLUE DWARF COLORADO SPRUCE	6' HT. MIN.	B&B	0	0	0	0	2				2	SEE NOTES 1, 2, 3, 4, 5
PICEA ABIES 'CUPRESSINA'	COLUMNAR NORWAY SPRUCE	6' HT. MIN.	B&B	0	0	0	11	0				11	SEE NOTES 1, 2, 3, 4, 5
JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	6' HT. MIN.	B&B	0	0	1	0	0				1	SEE NOTES 1, 2, 3, 4, 5
			TOTAL	14	1	2	11	4				32	

BOTANICAL NAME	COMMON NAME	SIZE	COND.	TRP-6	TRP-7	TRP-8	TRP-9	TRP-10	TRP-11	TRP-12		TOTAL	REMARKS
DECIDUOUS TREES (UP TO 20' HT)													
ACER GINNALA	FLAME AMUR MAPLE	2" CAL.	B&B	0	0	4	3	1	0	0		8	SEE NOTES 1, 2, 3, 4, 5
CRATAEGUS x LAVALLEI	LAVALLE HAWTHORN	2" CAL.	B&B	0	0	0	0	0	2	0		2	SEE NOTES 1, 2, 3, 4, 5
CARPINUS JAPONICUS	JAPANESE HORNBEAM	2" CAL.	B&B	4	3	3	0	0	0	0		10	SEE NOTES 1, 2, 3, 4, 5
FRAXINUS EXCELSIOR 'AUREAFOLIA'	GOLDEN DESERT ASH	2" CAL.	B&B	0	0	0	0	1	1	0		2	SEE NOTES 1, 2, 3, 4, 5
PRUNUS VIRGINIANA	CHOKECHERRY	2" CAL.	B&B	0	0	0	0	0	0	0		0	
PRUNUS EMARGINATA	BITTERCHERRY	2" CAL.	B&B	0	0	0	0	0	0	2		2	SEE NOTES 1, 2, 3, 4, 5
CRATAEGUS DOUGLASII	BLACK HAWTHORN	2" CAL.	B&B	0	0	0	0	0	0	0		0	
EVERGREEN TREES (UP TO 20' HT)													
PICEA PUNGENS 'SESTER DWARF'	SESTER BLUE DWARF COLORADO SPRUCE	6' HT. MIN.	B&B	0	0	0	0	1	1	0		2	SEE NOTES 1, 2, 3, 4, 5
PICEA ABIES 'CUPRESSINA'	COLUMNAR NORWAY SPRUCE	6' HT. MIN.	B&B	0	0	0	0	0	0	0		0	
JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	6' HT. MIN.	B&B	0	0	0	0	0	0	0		0	
			TOTAL	4	3	7	3	3	4	2		26	
			GRAND TOTAL									58	

TREE SCHEDULE NOTES:

1. FULL AND WELL BRANCHED, SINGLE TRUNK

2. INSTALL REPLACEMENT TREES APPROXIMATELY 4 FEET FROM CENTER OF REMOVED TREE STUMP. FIELD ADJUST IF NECESSARY TO AVOID UTILITIES, SIDEWALKS, CURBS AND POLES. SEE PLANTING DETAILS, SHEET NDT4.

3. INSTALLED TREES SHALL NOT EXCEED 25' MATURE HT. IN WIRE ZONE.

4. PROVIDE TREE STAKE WITH FLEXIBLE ARBOR TIE (OR APPROVED EQUAL)

5. SEE TREE REPLACEMENT TABLE, SHEETS TRT-1 AND TRT-2 FOR EXISTING TREE IDENTIFICATION FOR REMOVAL AND REPLACEMENT

TREE REPLACEMENT CRITERIA: (FOR ALL TREES OUTSIDE CRITICAL AREAS)

CITY OF KIRKLAND: PROVIDE 1:1 REPLACEMENT RATIO FOR ALL TREES

CITY OF KIRKLAND TOTAL STREET TREES REMOVED (THIS SEGMENT): 58

CITY OF KIRKLAND STREET TREES PROVIDED (THIS SEGMENT): 58

STREET TREES SELECTED FROM CITY OF KIRKLAND STREET TREE SELECTION LIST, DEPARTMENT OF PUBLIC WORKS, 04/2016.

NATIVE TREES SELECTED FROM CITY OF KIRKLAND PLANT LIST.

KNOW WHAT'S BELOW CALL BEFORE YOU DIG 811 callbeforeyoudig.org

TREE SCHEDULE
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCGA
DRAWN: GBK
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REVISION NUMBER:

SCALE: N/A

PROJECT NUMBER: PSEN0000-0169

DRAWING FILE:

SHEET NO. NDT-1
OF 23

PUGET SOUND ENERGY
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Plot Date: 2/10/2020 12:3 PM By: Gregory King
Save Date: 2/10/2020 11: AM By: GBK
File: P:\PSEN\0000\169 0 00\CAD_LA\Sheets\2019-Kirkland Restorat on Plan\la-TRP SEG 1_NDT_psen0000169.dwg

FLAME AMUR MAPLE *(ACER GINNALA 'FLAME')*

HEIGHT: 25'
SPREAD: 15'-20'
SHAPE: DENSE, ROUND,
FOLIAGE: MEDIUM GREEN,
FALL COLOR: BRILLIANT FIERY RED
FLOWER: FRAGRANT, GREENISH YELLOW
NOTES: DROUGHT TOLERANT

LAVALLE HAWTHORN *(CRATAEGUS x LAVALLEI)*

HEIGHT: 10'
SPREAD: 8'
SHAPE: UPRIGHT PYRAMIDAL
FOLIAGE: DARK GREEN
FALL COLOR: YELLOW
FLOWER: WHITE
NOTES: DROUGHT-TOLERANT, DISEASE RESISTANT

JAPANESE HORNBEAM *(CARPINUS JAPONICUS)*

HEIGHT: 20'
SPREAD: 25'
SHAPE: VASE SHAPE, BRANCHED WIDE SPREADING
FOLIAGE: DARK GREEN, GLOSSY
FALL COLOR: BRONZE
FLOWER : WHITE, YELLOW
NOTES: DROUGHT-TOLERANT

GOLDEN DESERT ASH *(FRAXINUS EXCEELSIOR 'AUREAFOLIA')*
HEIGHT: 20'
SPREAD: 18'
SHAPE: ROUNDED, COMPACT
FOLIAGE: GREENISH-YELLOW
FALL COLOR: GOLDEN-YELLOW
FLOWER: NONE
NOTES: STREET TREE, REMARKABLE GOLD FOLIAGE

BITTERCHERRY *(PRUNUS EMARGINATA)*
HEIGHT: 25
SPREAD: 13'
SHAPE: UPRIGHT BRANCHES
FOLIAGE: GREEN
FALL COLOR: YELLOW
FLOWER: FRAGRANT, WHITE
NOTES: DROUGHT-TOLERANT, REMARKABLE FLOWERING TREE

CHOKECHERRY *(PRUNUS VIRGINIANA)*
HEIGHT: 25
SPREAD: 13'
SHAPE: UPRIGHT BRANCHES
FOLIAGE: GREEN
FALL COLOR: YELLOW
FLOWER: FRAGRANT, WHITE
NOTES: DROUGHT-TOLERANT, REMARKABLE FLOWERING TREE

BLACK HAWTHORN *(CRATAEGUS DOUGLASII)*
HEIGHT: 25
SPREAD: 15'
SHAPE: ROUNDED CROWN OF BRANCHES
FOLIAGE: DENSE,GREEN LEAVES, SHARP THORNS
FALL COLOR: YELLOW
FLOWER: WHITE
NOTES: DROUGHT TOLERANT, SHOWY RED EDIBLE FRUITS, ATTRACTS POLLENATORS

SESTER BLUE DWARF COLORADO SPRUCE (PICEA PUNGENS 'SESTER DWARF')

HEIGHT: 10'
SPREAD: 6'
SHAPE: UPRIGHT DENSE PYRAMIDAL
FOLIAGE: BLUE GREEN
NOTES:

COLUMNAR NORWAY SPRUCE *(PICEA ABIES 'CUPRESSINA')*

HEIGHT: FAST GROWER TO 20'
SPREAD: 5'- 6'
SHAPE: COLUMNAR
FOLIAGE: DARK GREEN
NOTES: ELEGANT COLUMNAR UNIFORM HABITAT, PERIMETER OR ACCENT TREE

BLUE POINT JUNIPER *(JUNIPERUS CHINENSIS 'BLUE POINT')*

HEIGHT: 12'
SPREAD: 8'
SHAPE: BROAD PYRAMIDAL
FOLIAGE: GLOWING BLUE-GREEN
NOTES: DROUGHT TOLERANT

TREE DIRECTORY
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FOR
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CITY OF KIRKLAND, KING COUNTY, WASHINGTON

REVISIONS: APP'D.

DATE: FEBRUARY, 2020
DESIGN: JCGA
DRAWN: GBK
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SCALE: N/A

PROJECT NUMBER:
PSEN0000-0169

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PLANTING NOTES

GENERAL

1 THE LANDSCAPING SHALL BE PRESERVED AND MAINTAINED IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED SITE PLAN AND LANDSCAPE PLAN. PLANTINGS WHICH DIE SHALL BE REPLANTED WITHIN THIRTY DAYS, OR IF DURING THE WINTER, IN CONFORMANCE WITH THE WARRANTY REQUIREMENTS.

SITE PREPARATION

1. A PRECONSTRUCTION MEETING BETWEEN THE PSE REPRESENTATIVE, AND CONTRACTOR SHALL OCCUR PRIOR TO INSTALLATION.

2. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROLS IN CONFORMANCE WITH THE PROJECT'S STORMWATER POLLUTION PREVENTION PLAN.

3. ALL EXISTING TREES TO BE REMOVED SHALL BE CUT AND REMOVED IN A MANNER THAT MINIMIZES DISTURBANCE TO EXISTING PLANTINGS AND LAWN TO THE GREATEST EXTENT PRACTICABLE. CONTRACTOR SHALL SUBMIT METHOD TO PSE REPRESENTATIVE FOR APPROVAL.

PLANTING GENERAL

1. ALL WORK SHALL BE PERFORMED BY PERSONS EXPERIENCED WITH THIS KIND OF WORK AND UNDER SUPERVISION OF QUALIFIED FOREMAN.

2. ALL PLANT MATERIALS SHALL CONFORM TO THE AMERICAN NURSERY LANDSCAPE ASSOCIATION (ANLA) STANDARDS FOR NURSERY STOCK (ANSI Z 60.1-2004) FOR GRADE AND SIZE UNLESS NOTED OTHERWISE ON PLAN.

3. SUBSTITUTIONS SHALL BE AUTHORIZED BY THE PSE REPRESENTATIVE. IF PLANTINGS ARE NOT AVAILABLE, CONTACT THE PSE REPRESENTATIVE FOR APPROVED SOURCES OR SUBSTITUTIONS.

4. PLANT MATERIALS SHALL BE INSPECTED AT THE NURSERY, OR PROJECT SITE, BY THE PSE REPRESENTATIVE PRIOR TO INSTALLATION. INSPECTION INCLUDES, BUT IS NOT LIMITED TO, BRANCHING, CROWN, HEALTH, VIGOR, AND ROOT STRUCTURE OF THE PLANT MATERIAL.

PLANTING INSTALLATION

1. ALL TREES SHALL BE INSTALLED AS SHOWN IN THE PLANS AND DETAILS.

2. PSE REPRESENTATIVE SHALL APPROVE THE METHOD AND LAYOUT OF TREES PRIOR TO INSTALLATION. FIELD-ADJUST TREES AS NECESSARY AROUND GRINDED STUMPS, LARGE ROCKS, EXISTING SHRUBS, CURBS, SIDEWALKS, DRIVEWAYS, POWER AND LIGHT POLES, UNDERGROUND UTILITIES.

3. BACKFILL TREE PITS WITH 2-WAY TOPSOIL MIXTURE CONSISTING OF 50% COMPOST AND 50% SAND BY VOLUME (CEDAR GROVE 2-WAY MIX OR APPROVED EQUAL) AND TOP DRESS WITH COMPOST MULCH. COMPOST MULCH SHALL MEET WASHINGTON STATE DEPARTMENT OF TRANSPORTATION SPECIFICATION 9-14.4(8) FOR COARSE COMPOST MULCH.

4. IN THE EVENT OF VARIATION BETWEEN THE PLANT SCHEDULE AND THE NUMBER OF PLANTS SHOWN ON THE PLANS, THE PLANS SHALL CONTROL.

5. THE CONTRACTOR SHALL VERIFY THAT PLANT INSTALLATION CONDITIONS ARE SUITABLE WITHIN PLANTING AREAS. THE CONTRACTOR SHALL NOTIFY PSE OF ANY UNSATISFACTORY CONDITIONS AND ADDRESS THEM PRIOR TO START OF PLANTING. BEGINNING OF WORK CONSTITUTES VERIFICATION THAT CONDITIONS ARE SATISFACTORY.

PLANTING INSTALLATION cont.

6. THE CONTRACTOR SHALL VERIFY THAT PLANT INSTALLATION CONDITIONS ARE SUITABLE WITHIN PLANTING AREAS. THE CONTRACTOR SHALL NOTIFY PSE OF ANY UNSATISFACTORY CONDITIONS AND ADDRESS THEM PRIOR TO START OF PLANTING. BEGINNING OF WORK CONSTITUTES VERIFICATION THAT CONDITIONS ARE SATISFACTORY.

7. HYDROSEED ALL DISTURBED LAWN AREAS WITH SPECIFIED SEED MIX (SEE BELOW). GRASSES SHALL CONFORM TO THE STANDARDS FOR "CERTIFIED " GRADE SEED OR BETTER AS OUTLINED IN THE WA STATE DEPARTMENT OF AGRICULTURE "RULES FOR SEED CERTIFICATION", LAST EDITION. ALL SEED INSTALLERS AND VENDORS MUST HAVE A BUSINESS LICENSE ISSUED BY WA STATE DEPARTMENT OF LICENSING WITH A "SEED DEALER" ENDORSEMENT. SEEDING SHALL OCCUR BETWEEN SEPTEMBER 1 AND OCTOBER 1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE A HEALTHY STAND OF GRASS, OTHERWISE THE CONTRACTOR REAPPLY THE HYDROSEED AT NO ADDITIONAL COST. APPLY PER RATES SPECIFIED BELOW.

TURF LAWN HYDROSEED MIX

KIND/VARIETY	% BY WEIGHT	MIN. % GERM
PERENNIAL RYEGRASS	60%	90%
HARD FESCUE	20%	90%
KENTUCKY BLUEGRASS	20%	90%

APPLICATION RATE:	5-6 LBS/ 1,000 S.F.
CANFOR WOOD CELLULOSE ECO FIBER MULCH:	1,000 LBS/ACRE
NUTRICULTURE SEED STARTER FERTILIZER (16-45-7):	200 LBS/ACRE
CANFOR ECO-TAC GUAR TACKIFIER:	60 LBS/ACRE

WARRANTY

1. THE CONTRACTOR SHALL WARRANT ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF TWO YEARS FROM FINAL ACCEPTANCE. THE CONTRACTOR IS RESPONSIBLE FOR ALL PLANTINGS AND MATERIALS DURING INSTALLATION AND THE WARRANTY PERIOD.

2. CONTRACTOR SHALL WARRANT ALL PLANT MATERIALS TO REMAIN ALIVE AND HEALTHY DURING THIS PERIOD. THE CONTRACTOR SHALL REPLACE ALL DEAD OR UNHEALTHY PLANTINGS, PER PLANS AND AS IDENTIFIED BY THE PSE REPRESENTATIVE AT THE TWO YEAR WARRANTY INSPECTION.

MAINTENANCE

1. THE CONTRACTOR IS RESPONSIBLE FOR LANDSCAPE MAINTENANCE FROM FINAL ACCEPTANCE THROUGH THE TWO YEAR WARRANTY PERIOD.

2. MAINTENANCE SHALL INCLUDE: WATERING, RE-SETTLING, AND STAKING OF UNSTABLE PLANTINGS INCLUDING PLANTINGS THAT HAVE BEEN BLOWN OVER, TO ASSURE HEALTHY PLANT GROWTH THROUGHOUT THE WARRANTY PERIOD.

3. ALL PLANTINGS THAT ARE NOT INSTALLED IN AREAS WITH EXISTING IRRIGATION SHALL BE MANUALLY IRRIGATED BY THE CONTRACTOR (E.G., WITH A WATER TRUCK OR IRRIGATION BAGS) DURING INSTALLATION AND THE TWO YEAR WARRANTY PERIOD. IRRIGATION SHALL OCCUR AT A MINIMUM RATE OF ONE INCH OF WATER PER WEEK DURING THE FIRST AND SECOND GROWING SEASON (MAY 15 TO OCTOBER 15).

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PLANTING NOTES
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
415 - 118th Avenue SE
Bellevue Washington 98005-3518
Phone: 425.519.6500

REVISIONS: APPD.

DATE: FEBRUARY, 2020
DESIGN: JCGA
DRAWN: GBK
CHECKED: JCGA
REVISION NUMBER:

SCALE: N/A

PROJECT NUMBER: PSEN0000-0169

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Plot Date: 2/10/2020 11:23 AM By: Gregory King
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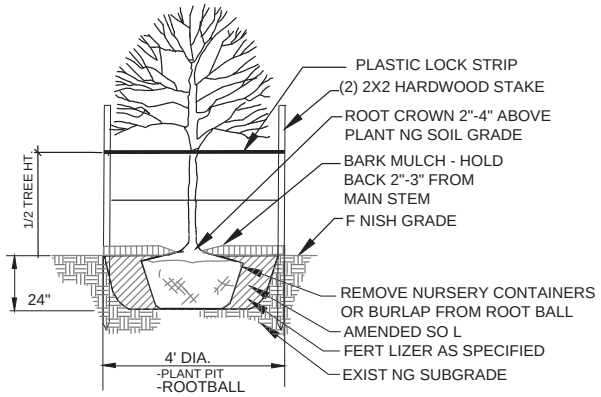
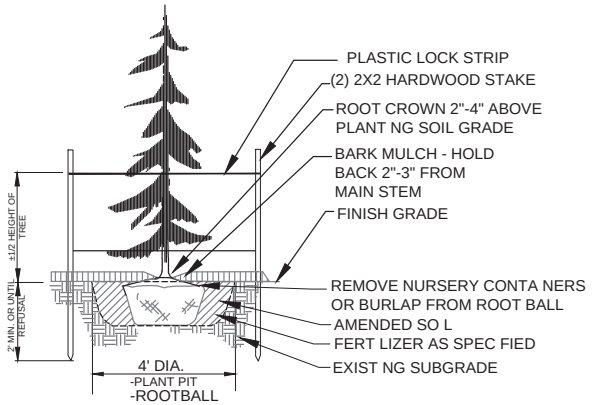


DECIDUOUS TREE PLANTING

NOT TO SCALE



CONIFEROUS TREE PLANTING

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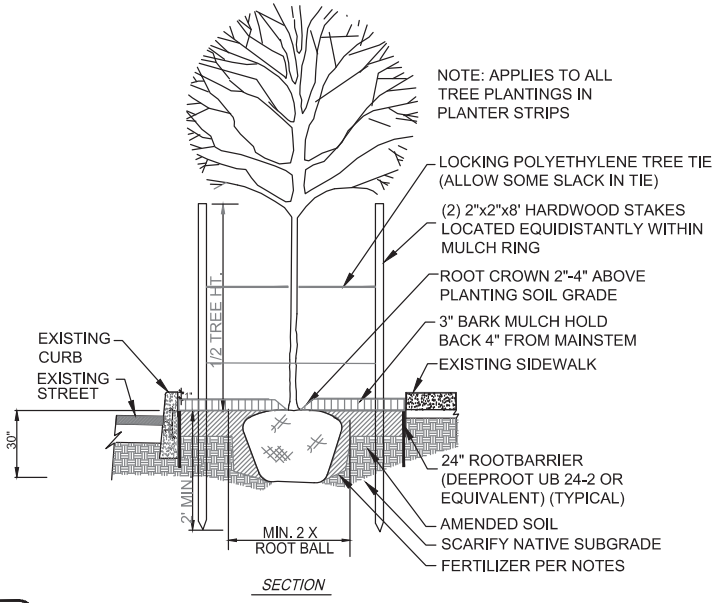
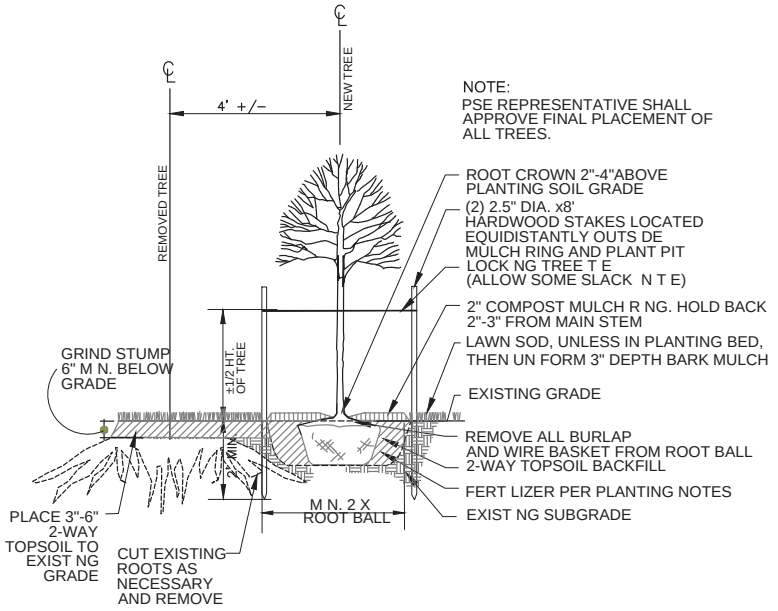


SECTION

PLANTER STRIP TREE PLANTING PREPARATION

NOT TO SCALE



TREE REPLACEMENT DETAIL

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PLANTING DETAILS
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
415 - 118th Avenue SE
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Phone: 425.519.6500

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File: P:\PSEN\00000169 0 00\CAD_LA\Sheets\2019-Kirkland Restorat on Plan\la-TRP SEG_1_NDT_psen00000169.dwg

TREE REPLACEMENT TABLE

TAG NUMBER	SCIENTIFIC NAME	COMMON NAME	TREE DIA.	TREE HEALTH	MAPBOOK PAGE	REPLACEMENT TREE
416	PINUS CONTORTA	LODGEPOLE PINE	9	LEVEL 4	13	COLUMNAR NORWAY SPRUCE
417	PINUS CONTORTA	LODGEPOLE PINE	8	LEVEL 4	13	COLUMNAR NORWAY SPRUCE
418	PINUS CONTORTA	LODGEPOLE PINE	8	LEVEL 4	13	COLUMNAR NORWAY SPRUCE
419	PINUS CONTORTA	LODGEPOLE PINE	10	LEVEL 3	13	COLUMNAR NORWAY SPRUCE
420	PINUS CONTORTA	LODGEPOLE PINE	15	LEVEL 4	13	COLUMNAR NORWAY SPRUCE
421	PINUS CONTORTA	LODGEPOLE PINE	12	LEVEL 3	13	COLUMNAR NORWAY SPRUCE
422	PINUS CONTORTA	LODGEPOLE PINE	18	LEVEL 3	13	COLUMNAR NORWAY SPRUCE
423	PINUS CONTORTA	LODGEPOLE PINE	15	LEVEL 3	13	COLUMNAR NORWAY SPRUCE
424	PINUS CONTORTA	LODGEPOLE PINE	15	LEVEL 2	13	COLUMNAR NORWAY SPRUCE
425	PINUS CONTORTA	LODGEPOLE PINE	12	LEVEL 1	13	COLUMNAR NORWAY SPRUCE
426	PINUS CONTORTA	LODGEPOLE PINE	11	LEVEL 1	13	COLUMNAR NORWAY SPRUCE
586	ACER MACROPHYLLUM	BIG-LEAF MAPLE	7+7+9	LEVEL 4	18	BITTERCHERRY
587	THUJA PLICATA	WESTERN RED CEDAR	5+13+11	LEVEL 4	18	SESTER BLUE DWARF COLORADO SPRUCE
588	THUJA PLICATA	WESTERN RED CEDAR	5+14+12	LEVEL 4	18	SESTER BLUE DWARF COLORADO SPRUCE
589	ACER MACROPHYLLUM	BIG-LEAF MAPLE	6+6	LEVEL 4	18	BITTERCHERRY
1104	ALNUS RUBRA	RED ALDER	10+11+12	LEVEL 4	11	CHOKECHERRY
1105	ACER MACROPHYLLUM	BIG-LEAF MAPLE	20	LEVEL 4	11	BITTERCHERRY
1106	POPULUS TRICOCARPA	BLACK COTTONWOOD	20	LEVEL 4	11	BLACK HAWTHORN
1107	POPULUS TRICOCARPA	BLACK COTTONWOOD	32	LEVEL 4	11	BLACK HAWTHORN
1108	POPULUS TRICOCARPA	BLACK COTTONWOOD	15	LEVEL 4	11	BLACK HAWTHORN
1109	POPULUS TRICOCARPA	BLACK COTTONWOOD	11	LEVEL 4	11	BLACK HAWTHORN
1110	POPULUS TRICOCARPA	BLACK COTTONWOOD	15	LEVEL 4	11	BLACK HAWTHORN
1111	ACER MACROPHYLLUM	BIG-LEAF MAPLE	10	LEVEL 4	11	BITTERCHERRY
1112	ACER MACROPHYLLUM	BIG-LEAF MAPLE	9	LEVEL 4	11	BITTERCHERRY
1113	POPULUS TRICOCARPA	BLACK COTTONWOOD	6+6	LEVEL 4	11	BLACK HAWTHORN
1114	POPULUS TRICOCARPA	BLACK COTTONWOOD	17	LEVEL 4	11	BLACK HAWTHORN
1115	POPULUS TRICOCARPA	BLACK COTTONWOOD	12	LEVEL 4	11	BLACK HAWTHORN
1116	POPULUS TRICOCARPA	BLACK COTTONWOOD	9+9	LEVEL 4	11	BLACK HAWTHORN
1117	POPULUS TRICOCARPA	BLACK COTTONWOOD	9	LEVEL 4	11	BLACK HAWTHORN
1118	POPULUS TRICOCARPA	BLACK COTTONWOOD	16	LEVEL 4	11	BLACK HAWTHORN
1185	THUJA PLICATA	WESTERN RED CEDAR	14	LEVEL 4	12	BLUE POINT JUNIPER
1187	ALNUS RUBRA	RED ALDER	11	LEVEL 3	12	CHOKECHERRY

TREE HEALTH KEY

LEVEL 4 - HEALTHY, NO OBVIOUS SIGNS OF MAJOR DEFECT, GENERALLY SOUND TRUNK AND BRANCH STRUCTURE

LEVEL 3 - HEALTHY, BUT SOMEWHAT COMPROMISED TRUNK OR BRANCH STRUCTURE DUE TO DEFECT (e.g. CODOMINANT STEMS) OR PREVIOUS PRUNING

LEVEL 2 - TREE IS STILL ALIVE BUT EITHER IN DECLINE OR HAS SIGNIFICANT STRUCTURAL DEFECT

LEVEL 1 - TREE IS EITHER DEAD OR CLOSE TO IT

NOTE:
1. TREE DIAMETER (DIA.) IS IN INCHES

PUGET SOUND ENERGY
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TREE REPLACEMENT TABLE
NE 124TH STREET
FOR
PUGET SOUND ENERGY
CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES, inc.
14432535 E 148th Ave NE Suite 400
Bellevue, WA 98007-3935
Phone: 425.519.6500

REVISIONS: APP'D.

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SCALE: N/A

PROJECT NUMBER: PSEN0000-0169

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SHEET NO. TRT-1 OF 23

TREE REPLACEMENT TABLE

TAG NUMBER	SC ENTIFIC NAME	COMMON NAME	TREE DIA.	TREE HEALTH	MAPBOOK PAGE	REPLACEMENT TREE
1178	ACER MACROPHYLLUM	BIG-LEAF MAPLE	17	LEVEL 3	24	BITTER CHERRY
1179	ACER MACROPHYLLUM	BIG-LEAF MAPLE	19	LEVEL 3	24	BITTER CHERRY
1-450	ROBINA PSEUDOACACIA	BLACK LOCUST	19	LEVEL 4	21	LAVALLE HAWTHORN
1-451	ROBINA PSEUDOACACIA	BLACK LOCUST	8	LEVEL 4	21	LAVALLE HAWTHORN
1-453	THUJA PLICATA	WESTERN RED CEDAR	50	LEVEL 4	21	SESTER BLUE DWARF COLORADO SPRUCE
1-454	FRAXINUS SP.	ASH	7	LEVEL 4	21	GOLDEN DESERT ASH
1-455	THUJA PLICATA	WESTERN RED CEDAR	33	LEVEL 4	21	SESTER BLUE DWARF COLORADO SPRUCE
1-456	FRAXINUS SP.	ASH	21	LEVEL 4	21	GOLDEN DESERT ASH
1-457	ACER SP.	MAPLE	7	LEVEL 4	21	FLAME AMUR MAPLE
1-473	ACER SP.	MAPLE	13	LEVEL 4	20	FLAME AMUR MAPLE
1-474	ACER SP.	MAPLE	13	LEVEL 4	20	FLAME AMUR MAPLE
1-475	ACER SP.	MAPLE	12	LEVEL 4	20	FLAME AMUR MAPLE
1-476	ACER SP.	MAPLE	13	LEVEL 4	20	FLAME AMUR MAPLE
1-477	ACER SP.	MAPLE	14	LEVEL 4	20	FLAME AMUR MAPLE
1-478	ACER SP.	MAPLE	10	LEVEL 4	20	FLAME AMUR MAPLE
1-479	ACER SP.	MAPLE	16	LEVEL 4	20	FLAME AMUR MAPLE
1-482	A. PLATANUS	LONDON PLANE	17	LEVEL 4	20	JAPANESE HORNBEAM
1-483	A. PLATANUS	LONDON PLANE	13	LEVEL 4	20	JAPANESE HORNBEAM
1-484	A. PLATANUS	LONDON PLANE	17	LEVEL 4	20	JAPANESE HORNBEAM
1-485	A. PLATANUS	LONDON PLANE	15	LEVEL 4	20	JAPANESE HORNBEAM
1-486	A. PLATANUS	LONDON PLANE	15	LEVEL 4	20	JAPANESE HORNBEAM
1-487	A. PLATANUS	LONDON PLANE	18	LEVEL 4	20	JAPANESE HORNBEAM
1-488	A. PLATANUS	LONDON PLANE	13	LEVEL 4	20	JAPANESE HORNBEAM
1-489	A. PLATANUS	LONDON PLANE	16	LEVEL 4	20	JAPANESE HORNBEAM
1-490	A. PLATANUS	LONDON PLANE	18	LEVEL 4	20	JAPANESE HORNBEAM
1-491	A. PLATANUS	LONDON PLANE	22	LEVEL 4	20	JAPANESE HORNBEAM

TREE HEALTH KEY

LEVEL 4 - HEALTHY, NO OBVIOUS SIGNS OF MAJOR DEFECT, GENERALLY SOUND TRUNK AND BRANCH STRUCTURE

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TREE REPLACEMENT TABLE
NE 124TH STREET
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CITY OF KIRKLAND, KING COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.

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SHEET NO. TRT-2 of 23

CULTURAL RESOURCES REPORT COVER SHEET

DAHP Project Number: 2017-04-02764 (Please contact the lead agency for the project number. If associated to SEPA, please contact SEPA@dahp.wa.gov to obtain the project number before creating a new project.)

Author: Jordan Pickrell, Libby Provost, Chrisanne Beckner, Jenny Dellert, and Natalie Perrin

Title of Report: Cultural Resources Inventory for the Sammamish to Juanita 115 kV Transmission Line Project, King County, Washington

Date of Report: February 2020

County(ies): King Section: 3 Township: 25 N Range: 5 E
Section: 27, 28, 29 Township: 26 N Range: 5 E

Quad: Kirkland Acres: 1,154

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☒ Yes ☐ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☒ Yes ☐ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:
45KI451
45KI1274
_____
_____
_____
_____
_____

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.

Revised 9-26-2018

Cultural Resources Inventory for the Sammamish to Juanita 115kV Transmission Line Project, King County, Washington

Submitted to:
Puget Sound Energy
Bellevue, Washington

PSE PUGET SOUND ENERGY

Submitted by:
Historical Research Associates, Inc.
Jordan Pickrell, PhD
Libby Provost, MA
Chrisanne Beckner, MSHP
Jenny Dellert, MA
Natalie Perrin, MS

Seattle, Washington
February 2020

HISTORICAL RESEARCH ASSOCIATES, INC.

This project was implemented by HRA Principal Investigators Jordan Pickrell, PhD, and Chrisanne Beckner, MSHP, who meet the Secretary of the Interior's professional qualifications standards for archaeology and architectural history, respectively. This report is intended for the exclusive use of the Client and its representatives. It contains professional conclusions and recommendations concerning the potential for project-related impacts to cultural resources based on the results of HRA's investigation. It should not be considered to constitute project clearance with regard to the treatment of cultural resources or permission to proceed with the project described in lieu of review by the appropriate reviewing or permitting agency. This report should be submitted to the appropriate state and local review agencies for their comments prior to the commencement of the project.

Executive Summary

Puget Sound Energy (PSE) intends to construct a new transmission line, the Sammamish–Juanita 115 kilovolt (kV) line, between the Sammamish Substation in the city Redmond and the Juanita Substation in the city of Kirkland, King County, Washington (Project). The new line will increase electric system capacity and improve reliability for customers in Redmond and Kirkland. The Project is located in Township 25 North (N), Range 5 East (E), Section 3, and Township 26 N, Range 5 E, Sections 27, 28, 29, and 34, Willamette Meridian (Figure 1-1).

A Section 404 permit from the United States Army Corps of Engineers (USACE) will be required for the Project. Therefore, the Project represents a federal undertaking and is subject to compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), with the United States USACE serving as the lead agency. Portions of the project over which the USACE does not take jurisdiction will be conducted in compliance with the Washington State Environmental Policy Act (SEPA). The City of Kirkland will act as the lead for SEPA compliance. The City of Redmond is also involved, as one of the permitting agencies for the Project.

PSE contracted Historical Research Associates, Inc. (HRA), to conduct a cultural resources inventory for the Project in 2017. HRA staff initiated background research, as well as archaeological and architectural fieldwork, in that year. By 2019, PSE's plans for the Project involved adjustments to the originally proposed transmission line route and construction of an access road along approximately 1.5 mi of the alignment. HRA staff updated the archival research and conducted additional fieldwork to address potential effects associated with the revised project elements in September 2019.

HRA documented two historic-period archaeological sites (segments of the Seattle, Lake Shore, & Eastern [SLS&E] railroad grade [45KI451] and the NPRR Lake Washington Beltline [45KI1274]) during the archaeological inventory. The Washington Department of Archaeology and Historic Preservation (DAHP) previously determined portions of 45KI451, outside of the proposed area of potential effects (APE), not eligible for listing in the National Register of Historic Places (NRHP) (Sterner 2010). Though the SLS&E railroad grade meets Criterion A for listing in the NRHP, HRA recommends the newly recorded segment of the site not eligible for listing in the NRHP, the Washington Heritage Register (WHR), or the King County Register of Historic Properties (KCRHP) due to irretrievable loss of integrity.

The NPRR Lake Washington Beltline (45KI1274) was first documented on a history property inventory form (HPI) in 2007, when the line was still in use. DAHP determined the resource eligible for listing in the NRHP at that time. The alignment within the proposed APE fell out of use by 2013. The western portion of the alignment has been converted into the Cross Kirkland Corridor, a gravel trail. DAHP assessed that portion of the resource not eligible for listing in the NRHP in 2018 (Sterner 2018). During the current inventory, HRA documented the approximately 1.5-mile segment of the NPRR Lake Washington Beltline within the proposed APE as a new segment of archaeological site 45KI1274. HRA recommends that although the NPRR Lake Washington Beltline alignment meets Criterion A for listing in the NRHP, this segment of the site is not eligible for listing in the NRHP, the WHR, or the KCRHP due to irretrievable loss of integrity.

Planned project elements include construction of an access road along the alignment of the abandoned railroad grade at the western edge of the Sammamish Valley; installation of new transmission line poles in three geographic areas: in the vicinity of Willows Creek, along the western edge of the Sammamish Valley, and in urban corridors in the upland area west of the Sammamish Valley; and replacement of transmission line poles in the upland area in the vicinity of Totem Lake and Juanita. HRA recommends:

- Archaeological monitoring during excavation of transmission line poles 0/4 through 1/13.
- No additional archaeological work is necessary in advance of construction of the access road.
- No archaeological monitoring is necessary during installation of poles in the vicinity of Willows Creek (south of the Sammamish Substation) and within the boundaries of the Sammamish Substation.
- No archaeological monitoring is necessary during pole installation and replacement in the upland portion of the transmission line alignment, due to the extent of historic-period and modern disturbance in the upland portion of the transmission line alignment, the Juanita Tap Line, the Sammamish–Vitulli 115 kV Line, the Sammamish–Vitulli Tap, and the SCL Bothell–Sammamish 115 kV Line.
- The construction crew undergo an archaeological awareness training and have a monitoring and inadvertent discovery plan (MIDP) in place in advance of construction.

HRA surveyed 66 architectural resources in the proposed APE. Of these, three resources (13225 NE 126th Pl., Kirkland; 12545 135th Ave. NE, Kirkland; and 10525 Willows Rd. NE, Redmond) could not be viewed from the public right-of-way and remain unevaluated. Of the remaining 63 resources, HRA recommends:

- the Physio-Control Corporation Headquarters building at 11811 Willows Rd. NE in Redmond individually eligible for listing in the NRHP and WHR under Criterion C, as well as in the KCRHP under Criterion A, Nos. 3 and 5, as an example of the Contemporary style of architecture and for its association with Kirk, Wallace, McKinley AIA and Associates, with a period of significance of 1974.
- the Sammamish Substation at 9221 Willows Rd. NE eligible as a contributing resource to a potential Eastside Transmission System historic district under one or more NRHP, WHR, or KCRHP criteria, with a period of significance spanning the construction of the transmission lines between roughly 1961 and 1967.
- the NyPlan office block at 12515 Willows Rd. NE eligible for listing in the KCRHP once it reaches 40 years of age (in 2024).
- the Kistler-Morse campus at 10201 and 10301 Willows Rd. NE eligible for listing in the KCRHP once it reaches 40 years of age (in 2024).
- the Primex Aerospace Co. campus, a manufacturing company devoted to the aerospace industry located at 11550–11650 139th Pl. NE, may convey significance under NRHP/WHR/KCRHP Criterion A as a district locally significant to the aerospace industry, though a complete campus inventory and evaluation of this potential context was outside the

scope of this survey. Of the three resources surveyed, 11595 139th Pl. NE was constructed in ca. 1964 and retains poor integrity from its period of construction; 11550 139th Pl. NE was constructed ca. 1968; and 11650 139th Pl. NE was constructed in 1981.

The proposed Project will not directly affect the Physio-Control Corporation Headquarters building, the NyPlan building, the Kistler-Morse campus, or the Primex Aerospace campus, as the transmission lines will be located on the opposite side of Willows Rd. NE from these resources. Construction may alter views from specific buildings, which could be considered an indirect effect that may diminish the integrity of a resource's setting. However, all resources are set substantially back from (to the west of) Willows Rd. NE, with mature trees between the buildings and the roadway, and there is an existing transmission line on the border between the Physio-Control Corporation Headquarters building's parcel and the roadway, so the view change would be limited. Therefore, the indirect effect will not diminish the resources' overall integrity enough to render them ineligible for listing in the NRHP, WHR, or KCRHP, and is considered not adverse.

Additionally, the Sammamish–Lakeside–Talbot Hill Transmission Lines No. 1 and 2 are located within the APE and are assumed eligible as contributing resources to the potential Eastside Transmission System historic district under one or more NRHP, WHR, or KCRHP criteria, with a period of significance spanning the construction of the transmission lines between roughly 1961 and 1967. Although the Project will take place within the same parcel as a small portion of Sammamish–Lakeside–Talbot Hill Transmission Lines Nos. 1 and 2 and their associated corridor, the Project will have no direct effect on the transmission lines or corridor. As the transmission lines and corridor will retain their industrial location and setting, will retain their original features, and will suffer no additional loss of integrity from the Project, HRA recommends that the Project, as proposed, has no potential to adversely affect either of the Sammamish–Lakeside–Talbot Hill transmission lines.

The proposed Project may minimally impact the Sammamish Substation by tying an additional 115-kV line into the existing system. The Project may add additional poles to the setting and/or add additional upgrades to the substation's yard. The addition of a new transmission line at the substation is not expected to impact the integrity of the substation's location, setting, design, materials, workmanship, feeling, or association enough to render it ineligible as a contributing resource to a potential historic district eligible for listing in the NRHP, WHR, or KCRHP.

HRA recommends a finding of *no adverse effect* to architectural resources.

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1. Introduction

Puget Sound Energy (PSE) intends to construct a new transmission line, the Sammamish–Juanita 115 kilovolt (kV) line, between the Sammamish Substation in the city of Redmond and the Janita Substation in the city of Kirkland, King County, Washington (Project). The new line will increase electric system capacity and improve reliability for customers in Redmond and Kirkland. The Project is located in Township 25 North (N), Range 5 East (E), Section 3, and Township 26 N, Range 5 E, Sections 27, 28, 29, and 34, Willamette Meridian (Figure 1-1).

PSE contracted Historical Research Associates, Inc. (HRA), to conduct a cultural resources inventory for the Project in 2017. HRA staff initiated background research, as well as archaeological and architectural fieldwork, that year. By 2019, PSE's plans for the Project involved adjustments to the originally proposed transmission line route and construction of an access road along approximately 1.5 miles (mi) of the alignment. HRA staff updated the archival research and conducted additional fieldwork to address potential effects associated with the revised project elements in September 2019. This report details the complete results of the cultural resources inventory for the project.

1.1 Project Description

Customer energy usage is straining the capacity of the existing electric system in the areas of Kirkland and Redmond, reducing the ability to provide dependable power to area residents and businesses. PSE is proposing to construct a new 115kV transmission line between Sammamish Substation in Redmond (9221 Willows Rd. NE, parcel #0325059002) and Juanita Substation in Kirkland (10910 NE 132nd St., parcel #2926059007) to increase system capacity and reliability. The transmission line will be approximately 5 mi in length. The project crosses through three jurisdictions, including the City of Redmond, unincorporated King County, and the City of Kirkland. Within the city of Kirkland, the transmission line will loop through the Totem Substation (13211 NE 123rd St., parcel #2726059084) south of NE 124th St. In addition to work on the new line, one pole on the Sammamish–Vitulli 115 kV transmission line and one pole on the SCL Bothell–Sammamish 115 kV transmission line, immediately south of NE 124th St., will be replaced with taller poles, to provide clearance over the new line. Within the city of Redmond and unincorporated King County, PSE will install a 1.5-mi construction and maintenance gravel access road. PSE will replace the existing culverts under the existing rail ballast as part of the ballast widening for the access road construction. Ground-disturbing activities include:

- installation of 74 new poles;
- replacement of 30 poles; and
- modifications to 1.5 mi of an abandoned railroad grade paralleling Willows Rd. NE to build an access road for construction of the new line, consisting of:
  - grading and filling to expand the 10-foot (ft)-wide top of the railroad grade to a 17 ft wide roadway; and
  - replacing seven existing culverts within the railroad grade with four fish-passable culverts and three stormwater culverts.

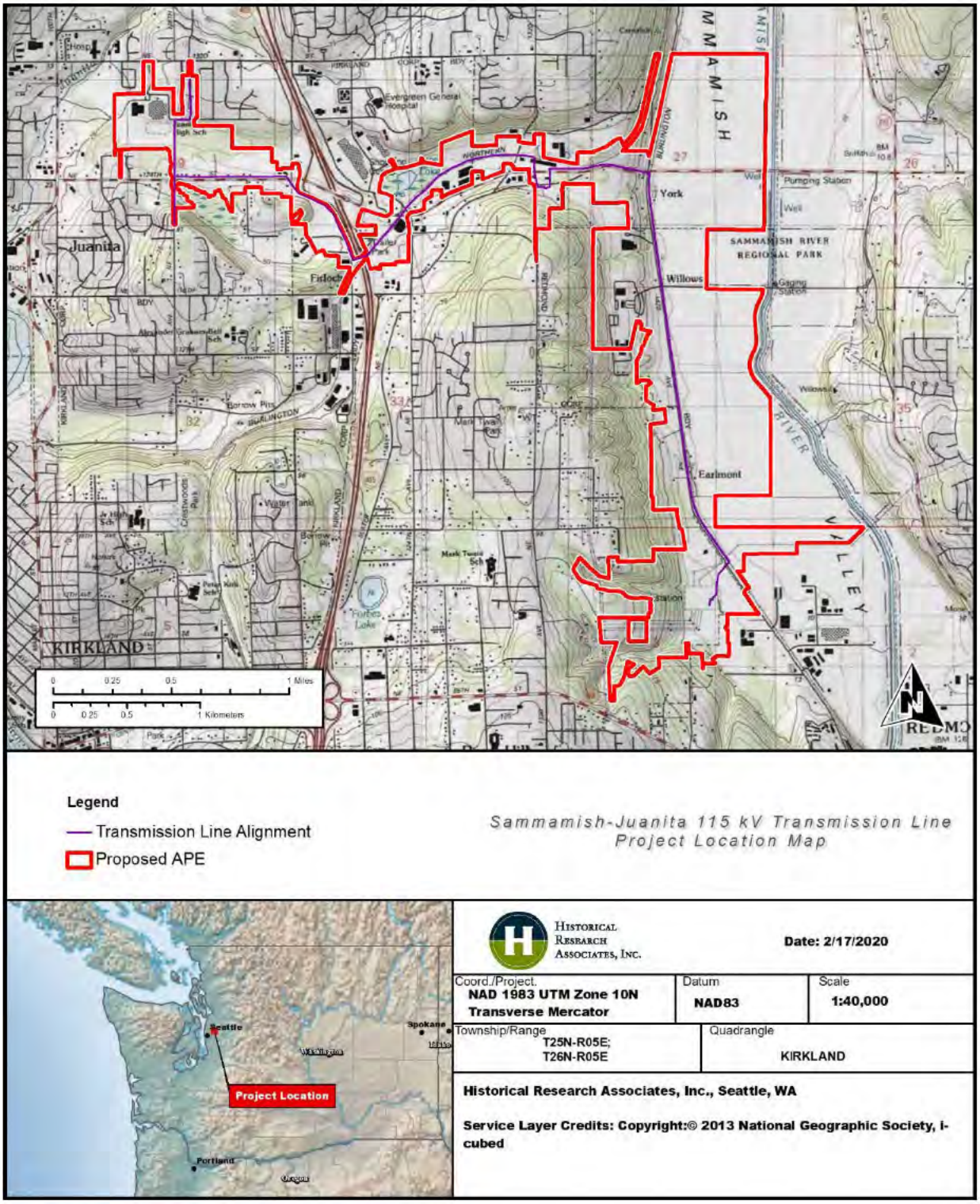

Figure 1-1. Project location.

1.2 Regulatory Context

A Section 404 permit from the United States Army Corps of Engineers (USACE) will be required for the Project. Therefore, the Project represents a federal undertaking and is subject to compliance with Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended (36 CFR Part 800). The USACE is serving as the lead agency. Portions of the project over which the USACE does not take jurisdiction will be conducted in compliance with the Washington State Environmental Policy Act (SEPA). The City of Kirkland will act as the lead agency for SEPA compliance. The City of Redmond is also involved, as one of the permitting agencies for the Project.

1.3 Proposed Area of Potential Effects

HRA conducted this inventory in advance of PSE's Joint Aquatic Resource Permit Application (JARPA) submission to the USACE. Upon reviewing the JARPA, the USACE will take jurisdiction over the Project and formally define the Project's area of potential effects (APE). For the purposes of this report (and in the absence of a formal APE determination) HRA proposes that the APE generally encompasses the alignment of the proposed Sammamish–Juanita 115kV transmission line route, including the Totem Loop, plus one tax parcel out from the alignment to account for potential visual effects to historic properties (Figures 1-2–1-7). The archaeological survey corridor width for the Sammamish–Juanita 115kV line is 50 ft, centered on the proposed transmission line alignment. The new access road falls within that corridor. Pole replacements along the Juanita Tap alignment and loop into the Totem Substation will be in-kind replacements. No visual effects are anticipated for this routine maintenance activity; therefore, the proposed APE for this section of the Project was limited to the 50 ft wide Juanita Tap easement. Proposed pole depth will extend approximately 10.5 ft below ground surface (bgs).

1.4 Agency and Tribal Communication

On March 15, 2017, PSE prepared and submitted project fieldwork notification letters to agencies, potentially interested parties, and Native American Tribes, including: the City of Redmond, the King County Historic Preservation Program, the Duwamish Tribe, the Muckleshoot Indian Tribe, the Snoqualmie Indian Tribe, the Stillaguamish Tribe of Indians, and the Suquamish Tribe (Appendix A).

These potentially interested parties and Tribes were identified as having an interest in the APE, and PSE sought their input regarding concerns about potential effects to places of traditional cultural use or other resources. PSE's letters described the proposed project and provided topographic map and aerial photograph figures of the APE. PSE and HRA received a response from Kimberly Dietz at the City of Redmond. Ms. Dietz confirmed that the APE was outside the areas covered by previous architectural surveys conducted for the City of Redmond (Kimberly Dietz, email communication to Jordan Pickrell, March 2017).

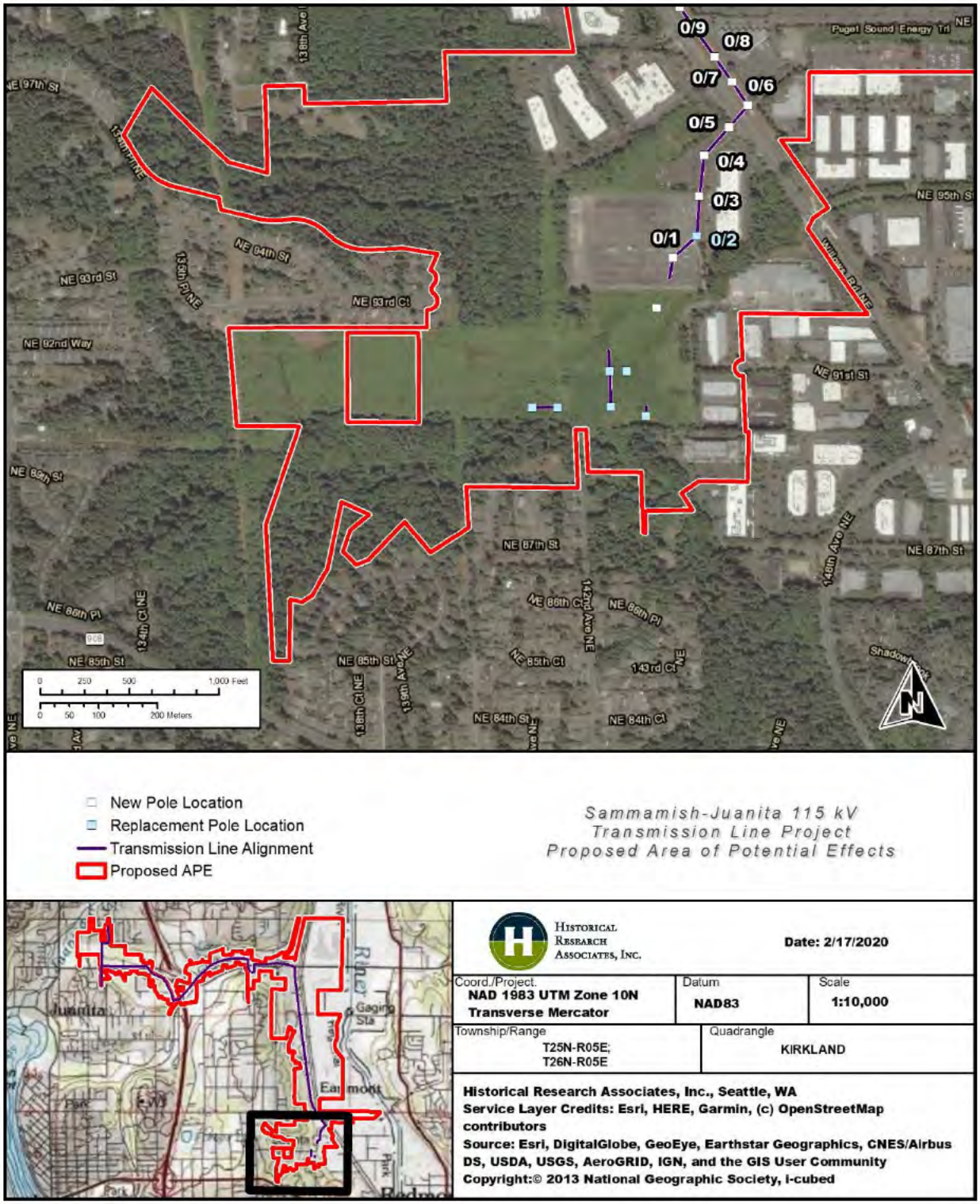

Figure 1-2. Proposed area of potential effects (from Sammamish Substation to pole 0/9).

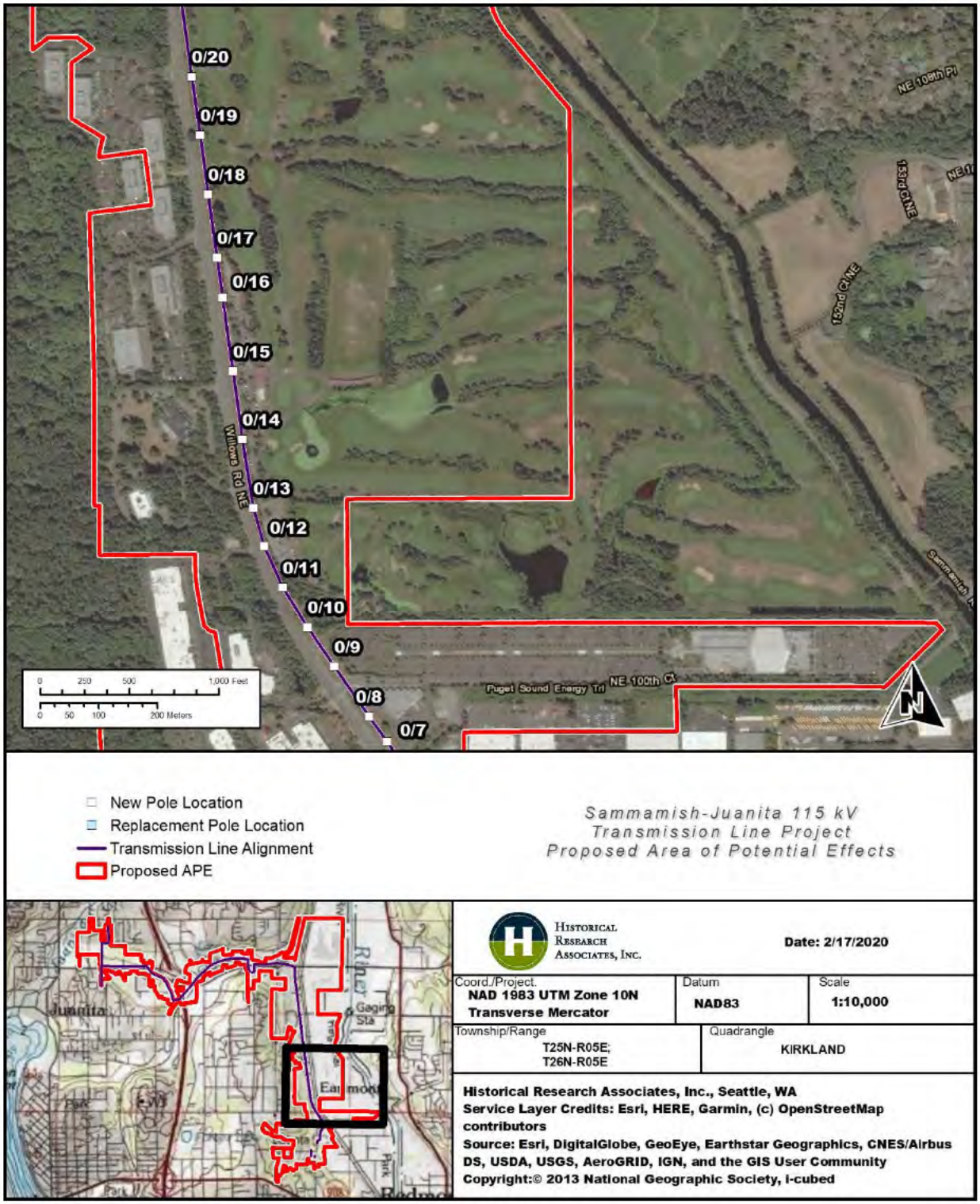

Figure 1-3. Proposed area of potential effects (from pole 0/9 to pole 0/20).

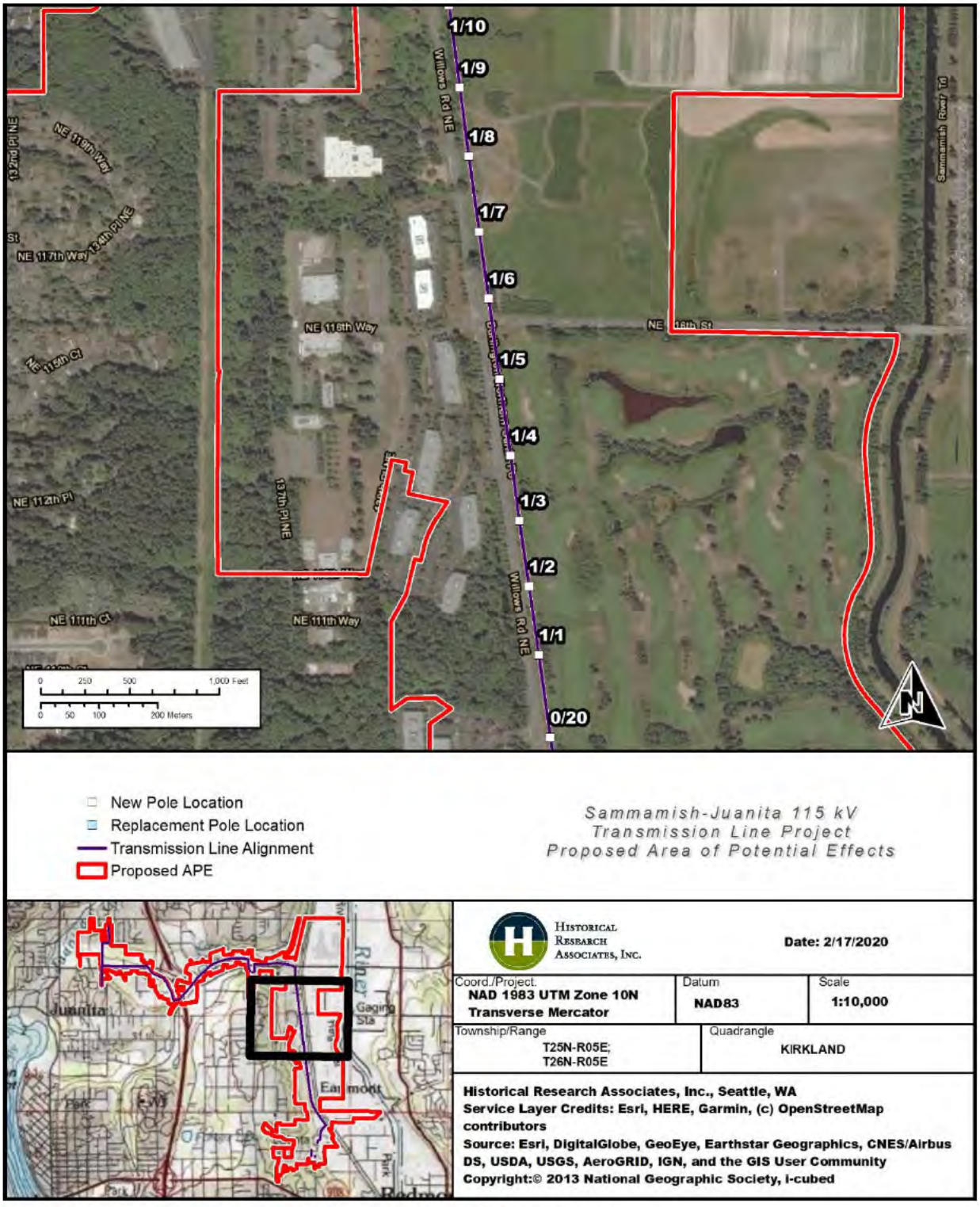

Figure 1-4. Proposed area of potential effects (from pole 0/20 to pole 1/10).

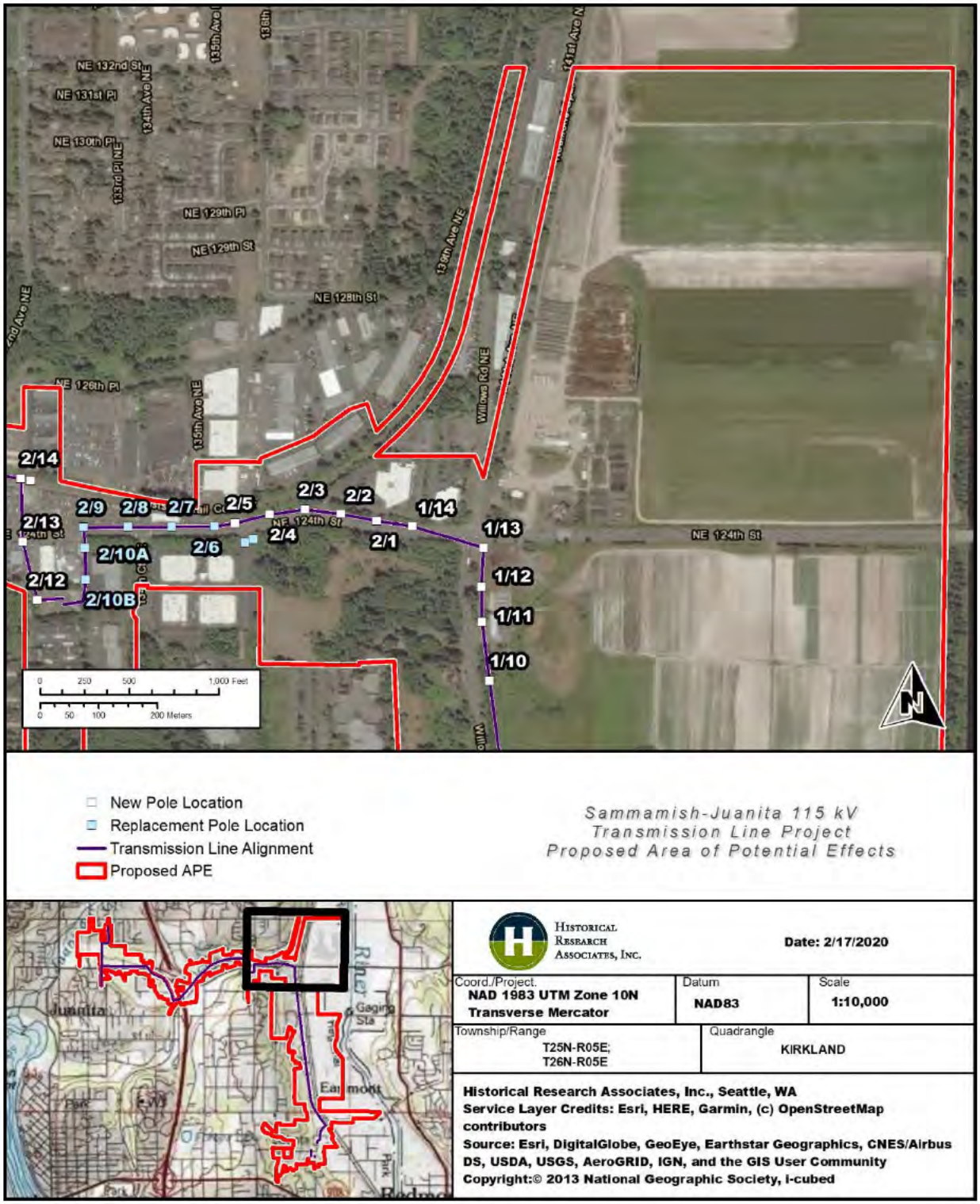

Figure 1-5. Proposed area of potential effects (from pole 1/10 to pole 2/14).

Figure 1-6. Proposed area of potential effects (from pole 2/14 to pole 3/14).

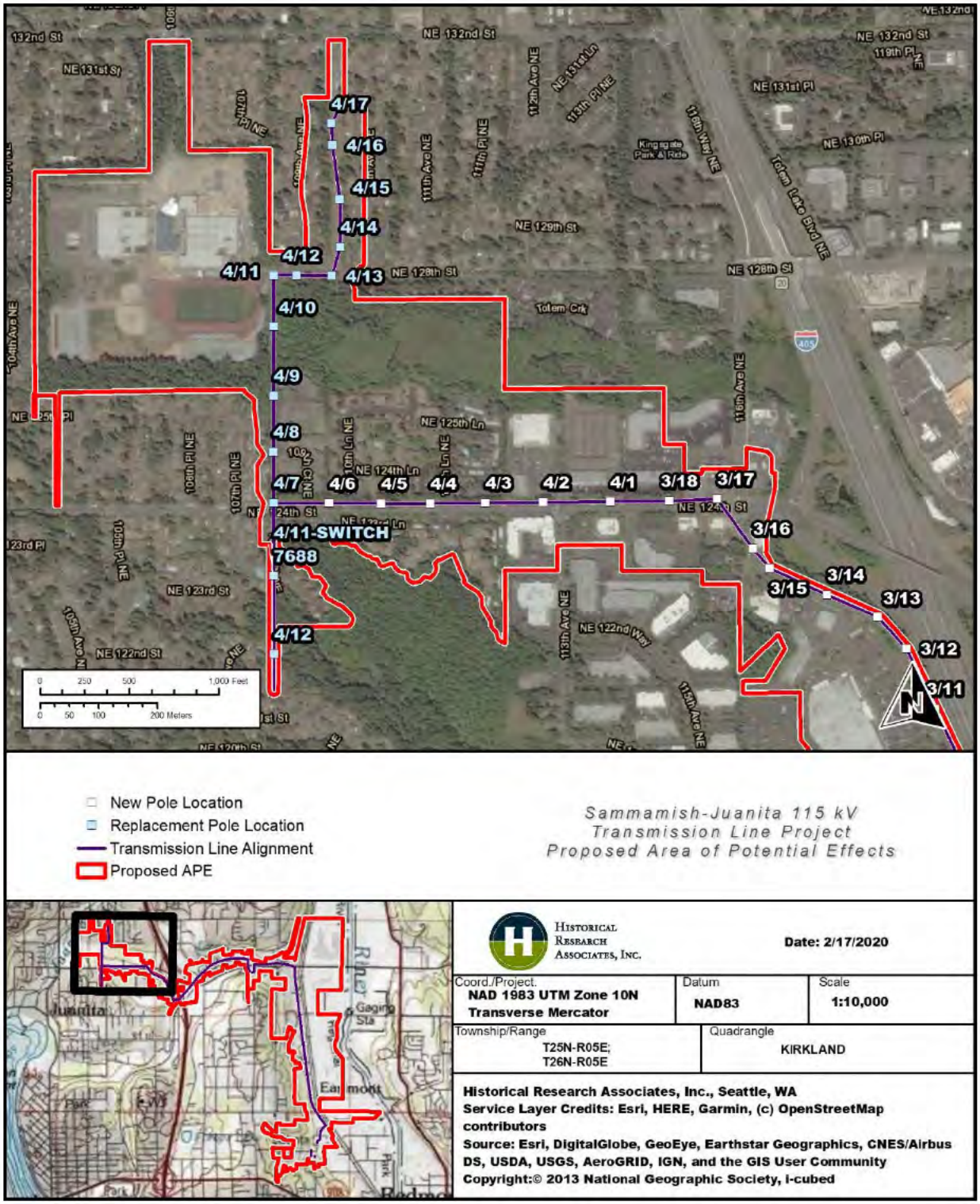

Figure 1-7. Proposed area of potential effects (from pole 3/14 to pole 4/17).

2. Archival Research

HRA archaeologist Jenny Dellert, MA, conducted an archival search for records pertaining to locations within ½ mi of the Sammamish–Juanita 115kV transmission line alignment. Dellert searched the Washington State Department of Archaeology and Historic Preservation's (DAHP) online database (WISAARD) for cultural resources surveys, archaeological site records and sites listed in or eligible for listing in the National Register of Historic Places (NRHP) or Washington Heritage Register (WHR), and cemetery records. HRA's in-house library and online information were searched for information on the environmental, archaeological, and historical contexts of the Project's vicinity.

Historic-period plats from the U.S. Surveyor General's (USSG) General Land Office (GLO) and historic-period maps and atlases were reviewed for the presence of structures, sites, and features that might be extant within the APE. HRA architectural historian Libby Provost, MA, conducted archival research on architectural resources. She used the King County Department of Assessments' online Parcel Search databases to obtain information on each parcel's development history. The King County Landmarks List (King County HPP 2019) was also searched. In 2019, HRA archaeologist Jordan Pickrell, PhD, and HRA architectural historian Chrisanne Beckner, MSHP, reviewed the sources listed above in order to include archaeological and architectural resources and studies documented since the initial research was completed.

2.1 Previous Cultural Resources Studies

Twenty-eight previous cultural resources studies have been conducted within ½ mi of the transmission line alignment since 1995 (Table 2-1). Examples of work conducted in the vicinity include: an inventory of historic properties in the city of Redmond (Emerson and Gundy 1998); four studies associated with transportation projects (Bundy 2009; Cooper and Jenks 2019; Hartmann 2003; Iversen et al. 2003; Kopperl and Goodwin 2019; Robbins and Dugas 2000); one investigation for a water treatment facility project (Roedel et al. 2003); three projects conducted in advance of proposed residential or commercial developments, such as establishment of a tree farm (Berger 2018; Hushour 2017; Mathews 2018; Mathews and Middleton 2018; Schumacher 2008); one investigation for a bridge replacement (Liddle and Hudson 2001); and one survey for a recreational complex east of the proposed APE (Berger et al. 2008). No archaeological resources were identified in these studies.

An archaeological assessment conducted in advance of replacement of two culverts under Willows Rd. and repaving of the road surface between NE 90th and NE 124th Streets, occurred adjacent to the Sammamish–Juanita 115kV transmission line corridor along the edge of the Sammamish Valley. No cultural materials were identified during archaeological monitoring of a geotechnical investigation at the site, but further monitoring was recommended during the mass excavations for the culvert trenches (Kramer et al. 2018).

During a study conducted for a reclaimed water pipeline project in 2008, archaeologists identified precontact site 45KI818 approximately ½ mi from the transmission line alignment (Hoyt et al. 2008). Subsequent investigations to delineate the boundaries of Site 45KI818 and archaeological monitoring were conducted, during which additional midden, fire-modified rock (FMR), and lithic material were recorded (Hoyt and Johnson 2009a; Johnson 2009).

In 2018, archaeologists surveyed property for the Proctor Willows Project, which is located within the proposed APE, outside of the transmission line corridor. They identified the remains of a mid-twentieth century historic homestead (Site 45KI1310) and recommended the site not eligible for listing in historic registers (Kassa 2018).

The Cities of Kirkland and Redmond and King County are in the process of converting various sections of abandoned railroad alignments into multiuse trails for pedestrians and bicyclists. Two such "rails to trails" projects are the Cross Kirkland Corridor (CKC) Project and the Eastside Rail Corridor Project. A number of cultural resources studies have been conducted on two railroad corridors that extend through portions of the proposed APE for the Project (Baldwin 2014; Berger 2014a; ESA 2015; Trautman and Flenniken 2018). The CKC Project utilizes a 5.75-mi segment of the former Northern Pacific Railway (NPRR) Lake Washington Beltline. The proposed Sammamish–Juanita transmission line follows the former railroad corridor for approximately 1.4 mi. In 2018, on behalf of the City of Kirkland for the Totem Lake Connector Project, the segment of the NPRR Lake Washington Beltline alignment collocated with the current project alignment was recorded on a historic property inventory form (HPI) and recommended not eligible for listing in the NRHP (Trautman and Flenniken 2018). A segment of the Seattle, Lake Shore, & Eastern (SLS&E) Railroad line (Site 45KI451) was recorded for the Eastside Rail Corridor Project. The segment of railroad alignment currently documented for the Eastside Rail Corridor Project extends approximately 800 ft into the proposed transmission line corridor. The segment did not retain integrity and was recommended as not eligible for listing in the NRHP (Berger 2014a).

During the architectural inventory for another PSE transmission line project, HRA recorded and evaluated two historic resources within the proposed APE for the Sammamish–Juanita Project (the Sammamish Substation and the Sammamish-Lakeside-Talbot Hill Transmission Lines #1 and #2) (Beckner et al. 2018). During the archaeological inventory for that project, no archaeological resources were identified within the proposed APE for the Sammamish–Juanita Project (Pickrell in progress, Pickrell et al. 2018).

PSE also plans to construct the Willows Creek Relocation Project adjacent to PSE's Sammamish Substation. The purpose of the stream relocation project is to improve PSE transmission line corridor site drainage and provide enhanced riparian habitat, including reestablishing a channel for Willows Creek. This site will also partially be used as mitigation for the Sammamish–Juanita transmission line impacts within the City of Redmond. HRA documented and evaluated one new architectural resource within the proposed APE, a culvert installed over 50 years ago and set to be replaced. HRA recommended the culvert not eligible for listing in the NRHP. Transmission line poles for the Sammamish–Juanita Project are located south of the Sammamish Substation, where the creek relocation work will occur. HRA accessed the wetland area south of the substation in October 2018, conducting pedestrian survey and subsurface testing at proposed Sammamish–Juanita pole locations, access routes, and stringing area in the wetland concurrent with the fieldwork for the Willows Creek project. No archaeological resources were identified during the archaeological inventory of the Willows Creek Project elements, or the Sammamish–Juanita Project elements (Pickrell et al. 2019).

Table 2-1. Previous Cultural Resources Surveys within ½ mi of the Alignment.

Reference	NADB#	Title	Distance and Direction from Alignment	Cultural Resources Identified Within the Proposed APE
Emerson and Gundy 1998	1340492	*A 1998 Inventory of 165 Historic Properties within the City of Redmond, King County, Washington*	Encompasses	None
Robbins and Dugas 2000	1339845	*Proposed Sound Transit Regional Express Totem Lake Project Cultural Resource Assessment*	Intersects	None
Liddle and Hudson 2001	1344060	*York Bridge (225C) Replacement Heritage Resource Investigations Report*	0.5 mi east	None
Hartmann 2003	1342182	*Cultural Resources Investigations for NE 124th Street Phase IIb, Willows Road to SR 202, King County*	Intersects	None
Iversen et al. 2003	1342409	*Final 124th Avenue Northeast Roadway Improvement Project, Archaeological Resources and Traditional Cultural Places Assessment, King County, Washington*	0.5 mi north	None
Roedel et al. 2003	1341869	*Final Sammamish Valley Reclaimed Water Production Facility Archaeological Resources and Traditional Cultural Places Assessment, King County, Washington*	0.5 mi east	None
Berger et al. 2008	1351803	*Cultural Resources Survey for the LWYSA 60 Acres South Soccer Complex, King County, WA*	0.5 mi east	None
Hoyt et al. 2008	1351996	*Cultural Resources Survey for the Brightwater Reclaimed Water Pipeline Section 2, King County, Washington*	0.5 mi east	None
Schumacher 2008	1685490	*Cultural Resources Survey for Buttonwood Farms, King County, Washington*	0.5 mi east	None
Bundy 2009	1353740	*Interstate 405 Corridor Survey: Phase III I-405, SR 520 to I-5 Improvement Project*	Intersects	None
Hoyt and Johnson 2009a	1352492	*Delineation of Archaeological Site 45-KI-818, King County, Washington*	0.5 mi east	None
Johnson 2009	1353286	*Archaeological Monitoring of Remaining Segment of the Brightwater Reclaimed Water Pipeline Section 2, Adjacent to 45-KI-818*	0.5 mi east	None

Table 2-1. Previous Cultural Resources Surveys within ½ mi of the Alignment.

Reference	**NADB#**	**Title**	**Distance and Direction from Alignment**	**Cultural Resources Identified Within the Proposed APE**
Baldwin 2014	1685038	*Cultural Resources Review of the Cross Kirkland Corridor Trail, King County, Washington*	Intersects	None
Berger 2014a	1688931	*Cultural Resources Assessment for the Redmond Central Connector Project-Phase 2, Redmond, King County, WA*	Intersects	Segment of historic railroad line (Site 45KI451)
ESA 2015	No NADB #	*Historic and Cultural Resources Inventory, Eastside Rail Corridor Regional Trail Master Plan Project*	Intersects	Grade crossings, signs, and hardware associated with historic railroad lines (Site 45KI451)
Hushour 2017	1691565	*Re: Cultural Resources Review of the Willow Ridge Project, Redmond, King County, Washington*	Adjacent to south	None
Kassa 2018	1691901	*Cultural Resources Assessment for the Proctor Willows Project, Redmond, King County, Washington*	Adjacent	Historic debris scatter and remains of a historic homestead (Site 45KI1310)
Mathews and Middleton 2018	1690504	*Cultural Resources Assessment for the Larkin Subdivision Project, Redmond, King County, Washington*	0.5 mi east	None
Trautman and Flenniken 2018	1690723	*Cultural Resource Survey of the City of Kirkland – Totem Lake Connector Project, BROS-0907(003), DAHP No. 2017-04-02697, Kirkland, King County, Washington*	Intersects	Segment of historic railroad line (NPRR Lake Washington Beltline alignment) documented on DAHP HPI form
Kramer et al. 2018	1692094	*Archaeological Assessment for the Willows Road Overlay and Culvert Replacement Project, NE 90th Street to NE 124th Street, Redmond, Washington*	Adjacent to southwest	None
Berger et al. 2018	1692439	*Cultural Resources Assessment for the RC 124th LLC Project, Kirkland, King County, Washington*	0.1 mi north	None
Mathews 2018	1691235	*Cultural Resources Assessment for the Hale Subdivision Project, Redmond, King County, Washington*	0.5 mi east	None
Kopperl and Goodwin 2019	1692489	*Cultural Resources Assessment for the 124th Ave NE Roadway Improvements Project, City of Kirkland, Washington*	Adjacent to south	None

Table 2-1. Previous Cultural Resources Surveys within ½ mi of the Alignment.

Reference	NADB#	Title	Distance and Direction from Alignment	Cultural Resources Identified Within the Proposed APE
Cooper and Jenks 2019	1692750	*Cultural Resources Survey for the Interstate 405/Northeast 132nd Street Interchange Project, King County, Washington*	0.4 mi north	None
Pickrell et al. 2019	None	*Cultural Resources Inventory for Puget Sound Energy's Willows Creek Stream Relocation Project, Redmond, King County, Washington*	Overlaps southern portion of the proposed APE	Sammamish Substation; historic-period culvert
Pickrell et al. 2018	None	*Archaeological Inventory for Puget Sound Energy's Energize Eastside Project, King County, Washington*	Overlaps southern portion of the proposed APE	None
Beckner et al. 2018	None	*Architectural Inventory for Puget Sound Energy's Energize Eastside Project, King County, Washington*	Overlaps southern portion of the proposed APE	Sammamish–Lakeside–Talbot Hill Transmission Line Nos. 1 and 2; Sammamish Substation
Pickrell in progress	None	*Draft – Archaeological Inventory for Puget Sound Energy's Energize Eastside Project Northern Access Routes and Stringing Areas, King County, Washington*	Overlaps southern portion of the proposed APE	None

2.2 Previously Recorded Archaeological Sites

Three previously recorded archaeological resources are located within ½ mi of the proposed transmission line alignment (Table 2-2). Site 45KI451 consists of discontinuous segments of the former SLS&E Railroad alignment, which later came under the ownership of Northern Pacific Railroad (NPRR). Various segments of the SLS&E Railroad grade have been recorded in King County: as archaeological site 45KI451 (Berger 2014b; Chambers 2012a, 2012b; Gilpin and Gillespie 2010; Hamilton and Johnson 2004; Hoyt and Johnson 2011; Hudson and Nelson 1997; LeTourneau 2005; LeTourneau and Sundberg 2009; Luttrell 2007; Murphy and Iversen 2000; Nelson 2001a; Norman 2001a; Sparks 2006; Wilt 2012) and archaeological site 45KI536 (Hungar 1996; Nelson 1997; Norman 1996). Segments of the grade in Skagit County have been recorded as 45SK244 (Norman 2001b) and in Spokane County as 45SP643 (Emerson 2009a, 2009b). DAHP assessed archaeological site 45KI451 not eligible for listing in the NRHP in 2010 (Sterner 2010). Segments of the SLS&E Railroad grade have also been documented on HPIs (Allen and O'Brien 2007a; O'Brien 2008). During HRA's current inventory, archaeologists documented a previously unrecorded segment of Site 45KI451 (see Section 7.1.4).

Site 45KI818 is a precontact site consisting of an FMR feature, lithic tools, debitage, organic midden, and charcoal (Hoyt and Harrison 2008; Hoyt and Johnson 2009b; Johnson and Hoyt 2008; Schalk and Schultze 2009). The USACE determined the site eligible for listing in the NRHP in 2009. It is located approximately ½ mi east of the transmission line alignment.

The Proctor Willows Homestead Site (45KI1310) consists of an early to mid-twentieth century residential and agricultural complex (Kassa 2016). Site 45KI1310 is located less than 0.1 mi from the transmission line alignment. It is not within the transmission line corridor. The site's eligibility for listing in the NRHP has not been evaluated, to date, though it was recommended not eligible in 2018 (Kassa 2018).

Table 2-2. Previously Recorded Archaeological Sites within ½ mi of the Alignment.

Site Name and Number	Resource Type	Distance from APE	NRHP Status	Reference
Railway Grade of the Seattle, Lake Shore, & Eastern Railroad (45KI451)	Historic railroad property	New segment documented by HRA falls within the APE; other, discontinuous segments are within King, Skagit, and Spokane Counties	Determined not eligible (Sterner 2010)	Berger 2014b; Chambers 2012a, 2012b; Gilpin and Gillespie 2010; Hamilton and Johnson 2004; Hoyt and Johnson 2011; Hudson and Nelson 1997; LeTourneau 2005; LeTourneau and Sundberg 2009; Luttrell 2007; Murphy and Iversen 2000; Norman 2001; Nelson 2001; Sparks 2006; Wilt 2012
45KI818	Precontact feature	0.5 mi east	Determined Eligible	Hoyt and Harrison 2008; Hoyt and Johnson 2009b; Johnson and Hoyt 2008; Schalk and Schultze 2009
Proctor Willows Homestead Site (45KI1310)	Historic homestead, historic agriculture, historic debris scatter/concentration, historic residential structures, and historic road	Within 1/8 mi south	Not Evaluated	Kassa 2016

2.3 Ethnographic-Period Native American Place-Names and Potential Ethnographic-Period Sites

The project vicinity was heavily utilized in the past. Six ethnographic place names have been documented in the vicinity of the proposed APE. The Sammamish River is called Sts^{3}ap (Waterman orthography) or *Tsap* (Lushootseed orthography) and is approximately 0.7 mi east of the proposed APE. The people who lived along the Sammamish River were referred to as *Ts^{3}a'p-abc*, which translates to "meander dwellers" and was anglicized to Sammamish. The area of the modern town of Redmond is known as *TL^{3}oq^{3}* (Waterman orthography) or ƛ̓uq̓^{w} (Lushootseed orthography), which translates to "crowded in, poked in" and is approximately 1.5 mi southeast of the proposed APE. A creek south of Redmond entering the Sammamish River from the east is known as *CEqos-a'lt^{u}* (Waterman orthography) or šəqusalʔtx^{w} (Lushootseed orthography), which translates to "a high

place with a house on it" and is approximately 1.7 mi southeast of the proposed APE. Finally, another creek south of Redmond that flows into the Sammamish River is known as *Tuba'hal* (Waterman orthography) or tubaʔal (Lushootseed orthography), which translates to "broad" (Hilbert et al. 2001) and is approximately 2.5 mi southeast of the proposed APE. The creek at Juanita was called *təb(ɬ)tubixʷ* (Lushootseed orthography), meaning "red marked land/people" or "loamy place" (Hilbert et al. 2001:82–89). The creek has been modified through modern residential development. It intersects the proposed APE near the Juanita Substation. Nelson Point, approximately 1 mi southwest of the proposed APE, was called *Leqa'bt* (Waterman orthography), meaning "something gathered or scooped up with the fingers." This referred to the rust colored soil (probably ochre) that was collected at the cliff and baked beneath a fire. The reddest portions were used as face paint (Hilbert et al. 2001:82–89).

2.4 Cemeteries

No cemeteries have been identified within ½ mi of the alignment. The nearest cemetery is approximately 1.2 mi northeast and is a burial recorded as 45KI11 (DAHP Cemetery Record ID 2845) (DAHP 2017a). No other detailed information about the remains was provided on the DAHP Cemetery Report.

2.5 Historic-Period Maps

Nineteenth-century plats compiled by the USSG GLO were reviewed for evidence of historic-period activities, including property ownership, cultural features (i.e., roads, trails), structures, and buildings (USSG 1871a, 1871b). Additionally, historic twentieth-century atlases and maps for King County (Anderson 1907; Kroll 1912, 1926; Metsker 1936; USGS 1895, 1950) were also reviewed for features in the general vicinity of the APE.

The Hubbard Homestead was documented at the northern tip of Lake Washington, approximately ½ mi southwest of the northwestern portion of the APE (USSG 1871a). Near the southern end of the APE were short sections of trail, flanking either bank of the Sammamish River, approximately ¾ mi to the southeast of the Sammamish Substation (USSG 1871b).

The 1895 topographic map from the U.S. Geological Survey (USGS) shows the SLS&E line (called "Snoqualmie Branch") that extends northwest from Seattle around Lake Washington. From there, the line continues east to Bothell and Woodinville and turns south along the Sammamish River Valley until it curves southeast to Redmond and beyond. The now abandoned NPRR line is within the APE. Additionally, the communities of Juanita, York, and Kirkland Junction are shown on the map (USGS 1895).

Early twentieth-century county maps document the population growth in the APE vicinity, and subsequent industrial, commercial, and municipal development. Just after the turn of the century, large parcels of land were owned by private citizens, with few roads and railroad lines in the area. Commercial operations such as the Seattle Shanghai Inv. Co. and the Kirkland Land & I. Co. owned land near the APE (Anderson 1907). A few years later, additional commercial properties were noted, such as land owned by the Nebraska Inv. Co. and Wash. Trust & Savings Bank. The Town of York and residential subdivisions including the Kirkland Acre Tracts and Kirkland Juanita Acre Tracts, were also platted (Kroll 1912). In the mid-1920s, there was an increase in residential tract

communities, private parcels were subdivided into smaller pieces of land, and new roadways were built (Kroll 1926). By the mid-1930s, several communities were documented, including Firlock and Juanita. The King County Poor Farm (known as "The Willows") was adjacent to the east side of the NPRR line and transmission line alignment (Metsker 1936).

The NPRR Lake Washington Beltline and spur are still shown on the 1950 topographic map (USGS 1950). By the mid-twentieth century, several more communities were established. The increase in residential sub-developments prompted more roadways, schools, golf courses, and even greenhouses in the APE vicinity. The Fairfax Sanitarium is noted near the north terminus of the AI, close to the location of the current Juanita High School and Edith Moulton Park (USGS 1950).

2.6 Previously Recorded Historically Significant Properties

HRA's research for the area within a ½-mi radius of the APE located no architectural resources listed in the NRHP, WHR, King County Register of Historic Places (KCRHP), or Redmond Heritage Resource Register (RHRR).

HRA identified 19 historic-period buildings, structures, or objects within the APE that were previously submitted to DAHP on HPIs. However, because the extant forms record only cursory information (building date and use), HRA included these resources in the current reconnaissance-level survey.

2.7 DAHP Predictive Model

DAHP has generated a predictive model for the likelihood of encountering archaeological sites based on statewide information and large-scale factors. Information on geology, soils, site types, landforms, and features depicted on GLO maps were used to establish or predict probabilities for archaeological resources throughout the state. The DAHP model uses five categories of prediction: Low Risk, Moderately Low Risk, Moderate Risk, High Risk, and Very High Risk. The DAHP predictive model map indicated that the APE includes areas predicted to be of Moderate to Very High Risk for the discovery of archaeological sites.

3. Environmental Context

Environmental variables such as geology, climate, topography, fauna, and flora affect the way humans use the landscape. The information below presents the resources that would have been available to precontact- and ethnographic-period groups inhabiting, seasonally frequenting, and traversing the APE and surrounding vicinity.

3.1 Topography and Geology

The proposed APE is situated within the Puget Sound Basin, a subset of the Puget Trough Physiographic Region (Franklin and Dyrness 1973:6). The Puget Trough extends from the Canadian border on the north to the Willamette Valley in Oregon to the south (Franklin and Dyrness 1973:6; Pojar and Mackinnon 2004).

The Cordilleran ice cap advanced and retreated several times over the Puget Trough and Strait of Juan de Fuca during the Pleistocene epoch, carving out the landscape (Barnosky et al. 1987:289; Easterbrook 1992:57; Pielou 1991; Porter and Swanson 1998; Thorson 1989:1163; Whitlock 1992:9). The ice cap split into two separate sections, the Puget Lobe in the Puget Sound area and the Juan de Fuca Lobe, which reached the western boundary of the continental shelf off the Strait of Juan de Fuca (Barnosky 1983:624; Brubaker 1991:19; Thorson 1989:1163).

Approximately 18,750 calibrated years ago (cal yr B.P.), glacial ice covered the northern portion of Puget Sound (Porter and Swanson 1998:207, 212). During the Vashon Stade of the Fraser Glaciation (last advance of the Cordilleran ice cap), the Puget Lobe measured approximately 60 mi wide with an elevation of approximately 4,000 ft (Franklin and Dyrness 1973:16–17; Thorson 1989:1165).

Topography of the Puget Sound Basin was carved by glacial ice, which also changed stream flows by blocking them during advances. A shift in drainage patterns to the south and west was the result of the blockage. The glacial ice dammed mountain valleys, causing lakes to form (Barnosky 1983:625). As the ice retreated, meltwater flooded areas and deposited till and outwash sediments over deeply eroded bedrock (Easterbrook 1992:57; Thorson 1989:1166).

North–south trending ridges and drainages were formed by glacial carving and the catastrophic meltwater floods (Porter and Swanson 1998). As the ice retreated, isostatic rebound occurred. The land that had been depressed by the weight of the ice extended upward, or rebounded, to achieve the preglacial elevation and equilibrium. Subsequently, the uplift caused north–south tilt of the shorelines in Puget Sound (Easterbrook 1992:57; Thorson 1989:1166). Moderately rolling hills interspersed with inlets, lakes, and rivers make up the landscape at present.

The proposed APE is characterized by a variety of soil types, referred to as Map Units by the Natural Resources Conservation Service (2017) (Table 3-1). Native sediments in the archaeological corridor along the edge of the Sammamish Valley are loamy, fine grained sands. Native sediments in the upland area are generally characterized as silt loam with varying gravel content.

Table 3-1. Specific Map Units in the Proposed APE.

Map Unit Symbol	Map Unit Name	Characteristics	Landform(s)	Parent Material
AgC	Alderwood gravelly sandy loam, 8–15 percent slopes	Gravelly sandy loam, very gravelly sandy loam; moderately well drained	Ridges, hills, kames, eskers, moraines, terraces, depressions, drainageways	Glacial drift and/or glacial outwash over dense glaciomarine deposits
AgD	Alderwood gravelly sandy loam, 15–30 percent slopes	Gravelly sandy loam, very gravelly sandy loam; moderately well drained	Ridges, hills, eskers, kames, terraces, moraines, depressions, drainageways	Glacial drift and/or glacial outwash over dense glaciomarine deposits
Ea	Earlmont silt loam	Silt loam, stratified muck to very fine sand; somewhat poorly drained	Flood plains, depressions	Diatomaceous earth
EvC	Everett very gravelly sandy loam, 8–15 percent slopes	Very gravelly sandy loam, extremely cobbly coarse sand; somewhat excessively drained	Kames, eskers, moraines, ridges, hills, terraces	Sandy and gravelly glacial outwash
InA	Indianola loamy sand, 0–5 percent slopes	Loamy sand, sand; somewhat excessively drained	Eskers, kames, terraces	Sandy glacial outwash
InC	Indianola loamy sand, 5–15 percent slopes	Loamy sand, sand; somewhat excessively drained	Eskers, kames, terraces	Sandy glacial outwash
KpB	Kitsap silt loam, 2–8 percent slopes	Silt loam, stratified silt to silty clay loam; moderately well drained	Terraces, depressions	Lacustrine deposits with a minor amount of volcanic ash
RdC	Ragnar-Indianola association, sloping	Ashy fine sandy loam, loamy fine sand, and sand; well drained	Eskers, kames, terraces	Glacial outwash and glacial drift
Sk	Seattle muck	Stratified mucky peat to muck; very poorly drained	Depressions	Grassy organic material
Tu	Tukwila muck	Muck, stratified diatomaceous earth to muck; very poorly drained	Flood plains, depressions	Herbaceous organic material

3.2 Climate and Vegetation

Over the past 20,000 years, variations in the climate have affected the landscape and vegetation on both a continental and regional scale. The Laurentide ice sheet covered most of North America, which cooled the climate and bifurcated the jet stream (Broccoli and Manabe 1987:294; Easterbrook 1992:52). The split in the jet stream diverted most of the moisture from the Pacific Northwest during the high point of the glaciations, which in turn displaced winter storms trends. The cold, arid conditions in the Northwest were amplified by the circulation patterns at the southern boundary of the ice, which created strong easterly winds (Broccoli and Manabe 1987:291, 294; Whitlock 1992:10). Later the land masses warmed, sea levels rose, and moisture was redistributed as the continental glaciers melted and retreated (Ruddiman and Wright 1987, in Whitlock 1992:5). The vegetation patterns were affected by the climatic conditions and shifts according to paleoecological samples (Whitlock 1992).

Retreat of the glacial ice on a regional scale allowed for marine waters in the Strait of Juan de Fuca to enter Puget Sound during backwasting events. Glaciomarine drift sediments were subsequently deposited, causing a domino effect for regional climate and vegetation patterns (Easterbrook 1992:65; Whitlock 1992:5). The climate was colder between 20,000 and 16,000 years ago than what we experience today. Tundra and subalpine species migrated to lower elevations (Whitlock 1992:12). Grass, sedge, artemisia, and tundra herbs were dominant species in the Puget Trough area during this time (Barnosky 1981, 1985).

The climate shifted again between 12,000 and 7,000 years ago, becoming warmer and drier. Approximately 6,000 to 5,000 years ago, cooler, moister conditions occurred during another fluctuation. A closed-canopy forest emerged from the previous mosaic-forest parkland vegetation scenario. Today, the typical Northwest climate consists of cool summers and mild, wet winters with westerly prevailing winds that carry moisture from the Pacific Ocean (Suttles 1990:17). Glacial soils in the region are currently covered with conifer forest, dominated by the *Tsuga heterophylla* (western hemlock) vegetation zone with a wet, mild maritime climate (Franklin and Dyrness 1973:17). Variations occur within the microclimates depending on elevation, latitude, and relative location to mountain ranges (Franklin and Dyrness 1973:70–71). Douglas fir (*Pseudotsuga menziesii*), western hemlock (*Tsuga heterophylla*), and western redcedar (*Thuja plicata*) are the dominant species in this zone (Pojar and Mackinnon 2004:30–42). Grand fir (*Abies grandis*), Sitka spruce (*Picea sitchensis*), and western white pine (*Pinus monticola*) are less common but present (Barnosky et al. 1987; Brubaker 1991; Franklin and Dyrness 1973:72; Whitlock 1992). Red alder (*Alnus rubra*) and big-leaf maple (*Acer macrophyllum*) are secondary species (Franklin and Dyrness 1973).

The majority of the vegetation within the APE is demonstrative of the suburban residential and commercial development that has occurred in the region. Manicured lawns and ornamental shrubs and trees occupy the yards, golf course, and parking strips within street rights-of-way (ROWs). Red alder, birch, and blackberries were observed along a segment of the abandoned SLS&E railroad corridor. Wetland reeds and grasses occupy the transmission line corridor south of the Sammamish Substation, the CKC near Totem Lake, and are prevalent where the proposed alignment crosses Juanita Creek.

3.3 Fauna

During precontact and ethnographic times, fauna was abundant in the APE. Deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), black bear (*Ursus americanus*), mountain lion (i.e., cougar, *Felis concolor*), and coyote (*Canis latrans*) would have been available for hunting in upland areas. Smaller mammals included red fox (*Vulpes vulpes*), snowshoe hare (*Lepus americanus*), porcupine (*Erethizon dorsatum*), raccoon (*Procyon lotor*), and weasel (*Mustela frenata*) (Kruckeberg 1991; Larrison 1976). In addition to terrestrial mammals, all five species of salmon, freshwater fish (such as trout [*Oncorhynchus* sp.], whitefish [*Coregonus* sp.], eels [*Anguillidae* sp.]), otter (*Lutra candensis*), muskrat (*Ondatra zibethica*), beaver (*Castor canadensis*), and waterfowl (*Aix* and *Anas* sp.) would have been part of the subsistence pattern (Kruckeberg 1991; Larrison 1976; Suttles and Lane 1990).

4. Cultural Context

This section provides an overview of human occupation over the past 14,500 years in North America and, more specifically, in the Pacific Northwest. Understanding how humans interacted with the landscape helps archaeologists determine the probability of cultural deposits and provides a framework for expectation of archaeological materials.

4.1 Precontact Background

Various chronologies have been proposed over the years to organize the data regarding Pacific Northwest precontact lifeways (e.g., Ames and Maschner 1999; Kidd 1964; King 1949; Kopperl et al. 2016). The following description of precontact lifeways follows Ames and Maschner's (1999) chronology, which divides the precontact period into three basic developmental periods: Paleoindian, Archaic, and Pacific. Archaeological evidence from these periods suggests a gradual shift from small nomadic groups relying on generalized hunting and gathering to larger sedentary groups with increased social complexity and specialized reliance on marine and riverine resources (Ames and Maschner 1999). The predominate view among archaeologists is that the material record documents a shift from foraging to collecting strategies (*sensu* Binford 1980) over the course of many thousands of years. These long-term developments culminated in the cultural, social, and economic patterns observed among Native American inhabitants of the Pacific Northwest during the ethnographic period.

The oldest recorded archaeological sites in the Pacific Northwest postdate the retreat of the final Vashon Stade of the Fraser Glaciation. Evidence for late Pleistocene occupation of western North America comes from a small number of archaeological sites, including Paisley 5-Mile Point Cave in Oregon (Gilbert et al. 2008) and sites on California's Channel Islands (Erlandson et al. 2011). Pacific Northwest sites dated to the transitional period between the late Pleistocene and Holocene include the Manis Mastodon Site (45CA218) near Sequim, the Orcas Island *Bison antiquus* Site (Kenady et al. 2010), and the Bear Creek Site (45KI839) in Redmond, King County (Kopperl et al. 2010, 2015). The Manis Site dates from roughly 13,800 years before present (B.P.) and consists of the remains of a mammoth found in a peat bog with a human-made bone point lodged in a rib fragment (Waters et al. 2011). Butchered bone on the well-preserved remains of an extinct species of bison have been dated to 11,990 radiocarbon years B.P. (Kenady et al. 2010). Excavations at the Bear Creek Site obtained a radiocarbon date of 10,780 ± 60 radiocarbon years B.P. associated with occupational strata (Kopperl et al. 2015:117). This site contained a diverse stone tool kit including unfluted concave base points. The site has been interpreted as a short-term occupation site and has yielded evidence of mammal, fish, and plant exploitation (Kopperl et al. 2010). The Manis and Bear Creek Sites demonstrate the implementation of diverse tool kits and subsistence strategies, indicating their occupants' working knowledge of the landscapes and available resources.

Sites dating from the Archaic period, especially prior to 5000 B.P., are rare in the Puget Lowland, at least in part because sea-level rise and other natural factors have likely obscured sites. The current scholarly view of this period is generally one of stasis, but this is at least partially due to the relatively small number of sites dating from this period that have been identified. Lifeways during the Archaic period are thought to have been essentially similar to the Paleoindian period with the exception of the absence of the Pleistocene megafauna, which had gone extinct. The economy continued to be

one of gathering and hunting. Scholars believe that people in that time lived in small, highly mobile, egalitarian, foraging groups (Binford 1980). Microblades and leaf-shaped projectile points (variously referred to as Cascade, Olcott, and Old Cordilleran points) have been used to identify Archaic-period occupation across the Pacific Northwest (Chatters et al. 2011; Greengo and Houston 1965; Kidd 1964). Site 45KI834, located east of Redmond and several miles east of the proposed APE, has been tentatively identified as an Olcott-period site based on certain characteristics of the lithic assemblage and its provenience. The single temporally diagnostic artifact recovered from the site, unfortunately, is characteristic of a large date range (9950 to 500 B.P.) (Ferris et al. 2010; Kiers 2007).

Based on the archaeological record, the Pacific period (ca. 4400 to 250 B.P.) represents a period of increasing social complexity and demographic density (Chatters 1987; Larson and Lewarch 1995; Lewarch 2006). Over time, changing technologies and site locations suggest increased sedentism and specialization in the use of particular environments and resources (Ames and Maschner 1999). During this period, evidence of exploitation of the littoral environment increases, and shell middens dominate site types from this period found across Puget Sound. Emphasis on the use of plants, including berries and root-vegetables, also apparently increased (e.g., Elder and Sparks 2010). The West Point Sites (45KI428 and 45KI429), located at Discovery Park in Seattle, have been interpreted as long-term camping and food-processing activity areas characteristic of this period (Larson and Lewarch 1995). Though inland archaeological sites are rare in comparison to coastal settlements, work conducted in the foothills of the Cascade Mountains increasingly shows that inland regions were selectively and seasonally utilized by populations drawn to resources less readily available along the coast (i.e., deer, elk, and huckleberry) (Burtchard 1998; Mierendorf 1986). Social stratification and inequality may have been less pronounced in the Puget Sound region than in other parts of the Pacific Northwest; however, objects like labrets, indicative of social stratification, appear early in the Pacific period at sites like West Point (45KI248) (Larson and Lewarch 1995). Approximately 2 mi southeast of the proposed APE, archaeologists recorded a cluster of archaeological sites at the confluence of Bear Creek, the Sammamish River, and Lake Sammamish—these sites, including 45KI9, 45KI492, and 45KI493, have yielded radiocarbon dates as old as 3,000 years, dating them to the Pacific period (Greengo 1966; Greengo and Houston 1971; Kopperl et al. 2010; Nelson 2000a, 2000b).

4.2 Ethnographic Background

The proposed APE is in the traditional territory of the Snoqualmie Tribe, a subgroup of the Southern Coast Salish (Spier 1936:42; Suttles and Lane 1990). The Southern Coast Salish comprised two language groups, Twana and Lushootseed (further subdivided into Northern and Southern groups). The Snoqualmie were part of the Southern Lushootseed dialect group and followed the general Southern Coast Salish subsistence and settlement pattern (Suttles and Lane 1990).

Seasonal dwellings were situated near resource locations, such as areas for hunting game and gathering berries. These structures housed from two to 10 families and were portable shelters with pole frames covered in mats or brush (Haeberlin and Gunther 1930; Lane 1975:24; Suttles 1990; Suttles and Lane 1990:491, 493–494). Winter villages featured multiple family dwellings consisting of cedar planks attached to heavy wooden frames.

The Snoqualmie collected subsistence and material resources based on seasonal availability. Small task groups traveled to seasonal camps to hunt, fish, and gather plants. Staples of the Southern

Coast Salish diet included terrestrial game such as deer, elk, and bear. Salmon and other fish, waterfowl, and shellfish were also important provisions (Belcher 1985; Suttles and Lane 1990:489). Traps, weirs, dip and trawl nets, gaff hooks, harpoons, and leister were used to catch fish in rivers. In saltwater, seines, gill nets, and trolling were used. Meat and fish were dried, boiled in water-tight baskets, or roasted in a large pit or on a spit over a fire. Shellfish were roasted on long sticks slanted over a fire on the beach or smoked and strung on buckskin for winter storage (Haeberlin and Gunther 1930:23–24).

Roots, bulbs, nuts, and sprouts were frequently used plants. A large variety of berries, including blackberry, elderberry, salmonberry, thimbleberry, blackcap, salal berry, huckleberry, and blueberry, were also utilized (Gunther 1945). Plant foods were eaten fresh or dried—by the sun or spread on cedar bark over a fire—for winter storage. Blackberries, salal, and huckleberries were mashed, mixed with blackcaps, molded into two-inch round forms, called tuckams, and dried (Haeberlin and Gunther 1930:22). Hazelnuts were stored in caches near the winter villages (Haeberlin and Gunther 1930:22–23). Camas was cooked, dried, and stored in maple leaf-lined baskets in trees. Additionally, wild carrots, camas or wapato, and occasionally acorns were used by native peoples in the area (Haeberlin and Gunther 1930:21). Plant materials were used not only for nutrition but also for mats, baskets, clothing, and dwellings.

The Euroamerican influence was felt long before most Native groups met incoming settlers to the Pacific Northwest. Many populations in the Puget Sound area were decimated by at least one smallpox epidemic, only one of several European diseases that traveled long distances without the aid of direct Euroamerican contact (Newcombe 1923; Suttles and Lane 1990). In 1855, under the Treaty of Point Elliott, the Native Americans living in the vicinity of the proposed APE were assigned to the Tulalip or Port Madison Reservations (Lane 1975:3–4). However, relatively few people relocated to these distant locations, choosing to stay in their traditional lands (Ruby and Brown 1992). Some Native Americans who remained in the area continued to follow their traditional way of life, while others worked with and for the incoming settlers, clearing land and practicing agriculture (Way 1989:4, 5).

4.3 Historic-Period Background

The proposed APE is in an area east of Seattle and Lake Washington. The proposed transmission line runs from the North Juanita neighborhood in the city of Kirkland at the northwest, stretching east through Totem Lake and then following the edge of the Sammamish Valley southeasterly to the Sammamish Substation in the city of Redmond.

Euroamerican settlement of this region first began after passage of the 1850 Donation Land Act. Following the 1855 Treaty of Point Elliott, which called for Native American removal to reservation lands, Euroamerican settlement increased. By the 1880s, the new settlers had claimed much of the land. People were attracted by an abundance of natural resources, which had long supported Native American tribes (McCauley 2010:44).

The SLS&E Railroad Company was established in 1885 by Thomas Burke, Daniel Gilman, and ten other investors, who were concerned with keeping Seattle's status as a leading port on the Puget Sound as transcontinental railroad routes approached the region. Construction of the 63 mi long, single-track SLS&E between 1887 and 1888 fostered early industrial development within the proposed APE. The track extended from Seattle, north of Lake Washington, to Woodinville, then

southeast through Redmond and Fall City (Allen and O'Brien 2007a; Bagley 1929; MacIntosh 1999a, 1999b). The SLS&E provided reliable transportation for goods (primarily coal and timber) and people, helping fortify the success of settlements east of Seattle, including Kirkland and Redmond. By 1889, freight and passenger services reached Redmond. The 1890s were a turbulent decade for the Puget Sound and the nation. Economic trends during that decade impacted railroad companies and resulted in a series of ownership shifts for the network of rail lines in place and under construction at the end of the nineteenth century. By 1901, the former SLS&E Railroad Company holdings had been obtained by the NPRR (Armbruster 1999; Cheever 1949). The lines are shown on historic-period railroad maps and title plats from the early to mid-twentieth century (McGill-Warner Co. 1928, 1952; Rand McNally 1908; Sullivan 2015a, 2015b).

Two railroad track alignments located within the proposed APE were originally constructed by the SLS&E. The first, referred to as the SLS&E railway grade, was constructed circa 1887 by the SLS&E (Renz 1980). NPRR operated the line until 1970, when it merged with other railroad companies to become Burlington Northern. A railroad depot operated along the line in Redmond from 1889−1970. The depot was demolished in 1972 (MacIntosh 1999a). Construction of the Lake Washington Beltline began in 1890, connecting Black River Junction to Woodinville via Kirkland (Cheever 1949; Renz 1980). The 1893 Depression impacted the region heavily and progress stopped on the Lake Washington Beltline until 1903, by which point it was owned by NPRR (McDonald 2000). The SLS&E railway grade and Lake Washington Beltline intersect in the city of Woodinville, approximately 2.8 mi north of the proposed APE. Additional history of the railroad is presented in previous site forms and HPIs for Site 45KI451 (Allen and O'Brien 2007a; Berger 2014b; Chambers 2012a, 2012b; Gilpin and Gillespie 2010; Hamilton and Johnson 2004; Hoyt and Johnson 2011; Hudson and Nelson 1997; LeTourneau 2005; LeTourneau and Sundberg 2009; Luttrell 2007; Murphy and Iversen 2000; Nelson 2001; Norman 2001; O'Brien 2008; Sparks 2006; Wilt 2012) and Site 45KI1274 (Allen and O'Brien 2007b; Emerson 2014; Gilpin 2011; Thomas 2016; Valentino and Parvey 2010).

Many early settlers to the region were involved in the logging industry, fed by timber stands in the western portion of the proposed APE and farther south near Redmond. Harvesting, processing, and transportation operations all existed in the area (Iversen et al. 2003). Early settlers also engaged in agricultural pursuits such as ranching and farming. Early twentieth-century maps (e.g., Kroll 1912) indicate that agricultural development in the eastern portion of the APE was aided as early as 1910 by reclamation of arable land through dredging and channeling the formerly meandering Sammamish River (Liddle and Hudson 2001:6). In 1916, the Ballard Locks opened, dropping the elevation of the Sammamish River by 9 ft. This exposed additional farm land, though seasonal flooding remained a concern. Efforts to contain the river in a north–south drainage canal continued until the USACE completed work on the channel in 1965 (Liddle and Hudson 2001:7). The Sammamish River canal runs from NE 145th St. (north of the proposed APE) and continues south of NE 124th St. (adjacent to the east of the proposed APE) to its southern terminus at approximately NE 116th St. As part of the project, the USACE filled the former river channel with the dredged material.

Residential and commercial development of the northern Juanita area was slow compared to the dense, early development of nearby Seattle. Subdivisions of large lots (former small farms, homesites, and undeveloped forests) for single and multifamily residences occurred in the 1960s, such as those in the proposed APE along 109th Ave. NE and 110th Ave. NE (Iverson et al 2003:14). Growth expanded as accessibility improved. Early transportation relied on ferries, trains, and

unimproved roadways. All roads within the proposed APE, including NE 124th St. and Willows Rd. NE, remained unpaved as recently as 1936 (Metsker 1936). Regional transportation increased with the improvement of roadways and construction of the floating bridges, which spanned Lake Washington and connected Kirkland with Seattle, in 1940 and 1963 (Dougherty 2015; Lange 1999).

Redmond also grew slowly throughout the mid-twentieth century (Stein 1998). North of the central city, settlers used reclaimed land in the APE east of the railroad for agriculture. Not many buildings or structures remain from this period. A large parcel that once housed The Willows, a King County poor farm, is now part of the sprawling Willows Run Golf Complex. One notable building is the large circa 1954 barn formerly associated with the Muller Dairy Farm that sits just southeast of the intersection of NE 124th St. and Willows Rd. NE on a large parcel. The Sammamish River canal borders the parcel to the east; the river formerly inundated the eastern portion of the parcel (east of the house and barn) prior to channeling. Much of the land on the hillside overlooking the Sammamish River from the west was heavily timbered, with scattered houses close to the railroad and what became Willows Rd. NE, including the single dwelling (ca. 1922) at 12195 Willows Rd. NE. Most of the parcels in this area now house office parks, built in the late 1970s–1990s, a period when Redmond grew significantly, attracting companies such as Physio-Control (11811 Willows Rd. NE) and Microsoft (Stein 1998).

The railroad lines are now abandoned. The alignments are still visible in the proposed APE, the NPRR Lake Washington Beltline curving east–west adjacent to NE 124th St. east of I-405, and the SLS&E railroad grade extending north–south along Willows Rd. south of NE 125th St. Both railroad corridors (the SLS&E railroad grade and the NPRR Lake Washington Beltline) are also part of the Eastside Rail Corridor (ERC), a 42-mi regional trail system within a ROW that connects several communities in King County, from Woodinville to Renton. The objective of the ERC is to repurpose abandoned rail lines as part of future trail, transit, and utility routes; with the primary focus on a non-motorized trail corridor. The NPRR Lake Washington Beltline is referred to as the "main line" in the ERC Master Plan, and the SLS&E railroad grade is referred to as the "spur" (ESA 2015).

5. Expectations for Archaeological Resources

Environmental factors (e.g., proximity to water and available food and material resources), the DAHP predictive model, and ethnographic and historic records suggest a moderate to very high probability of intact archaeological resources within the proposed APE. The area was likely used as a travel corridor and for camp sites during precontact and ethnographic times, with groups traversing to waterbodies, such as the Sammamish River. Additionally, the Lower Bear Creek Site (45KI839), one of the oldest sites in Washington, is within 1.5 mi of the proposed APE. Site 45KI839 included a buried surface beneath peat and wetland deposits, with a concentration of FMR, lithic material and tools, representative of the Clovis culture during the Paleo-Indian phase.

During the late nineteenth century, the vicinity was used for homesteading and railroad lines were established. Archaeological site 45KI451 is a railroad alignment extending into the proposed APE. By the early twentieth century and into recent times, the area was developed for residential, commercial, and municipal use. The area has been previously modified from construction of railroad grades, roadways, and utilities. As such, intact deposits could be buried beneath disturbed or fill materials.

Many types of archaeological materials may be encountered during construction activities. These may include, but are not limited to:

- Precontact or ethnohistoric-period archaeological materials and features (ethnohistoric-period materials would include artifacts or features the same as those for precontact timeframes with the inclusion of some historic-period items).
  - Stone tools and flaking debris.
  - Organic-rich, midden sediments (may contain shell).
  - Antler or non-sawed bone fragments.
  - Charcoal concentrations and darkened earth.
  - FMR.
  - Food and technological materials from plants and animals.
  - Human remains.
- Ethnohistoric-period or historic-period archaeological materials.
  - Low-fired and bisque ceramics with subdued colors, or blue/pink willow-like design; thick-bodied pieces indicating crockery.
  - Non-tempered glass; violet-colored glass; stopper-topped glass jars or bottles; press-capped (cork gasket liner) heavy-walled soda or liquor bottles (not twist-top, thin-walled); zinc and vitreous glass-lidded glass canning jars with colored body.
  - Miscellaneous fragments of metal (or plated) clothing closures (hooks and eyes, and suspender fittings, but not zippers), shell buttons, fragments of Bakelite houseware, celluloid.
  - Sawed animal bone and fruit pits.

- Enameled ironware.
- Punch-opened and solder-sealed beverage cans; solder-sealed food tins (not thin-walled aluminum and welded-steel cans).
- Older automotive parts.
- Knob-and-tube electrical insulators.
- Construction materials such as concrete, milled lumber, brick, metal, hardware, and implements.
- Materials related to the railroad industry such as grades, tracks, ties, spikes.

6. Methodology

6.1 Archaeological Inventory

6.1.1 Utility Locates

The State of Washington requires that consultants/contractors call for utility locates prior to conducting fieldwork. HRA prepared and submitted utility locate requests for the project location on March 21 and 22, and April 26, 2017. HRA provided the locate service with adequate documentation in the form of maps and text descriptions to complete the locate survey. HRA archaeologists Jordan Pickrell, PhD, and Jenny Dellert, MA, also communicated with the utility locate companies over the phone and in the field regarding subsurface excavation methodology and placement.

In advance of the September 2019 inventory, PSE contracted David Evans Associates (DEA) to stake and flag the newly proposed pole locations and access road centerline. HRA submitted public utility locate requests for the new subsurface survey areas on September 4, 5, and 19, 2019. HRA subcontracted C-N-I Locates, Ltd., to conduct ground-penetrating radar (GPR) subsurface utility scanning on the private parcels where pole installation or replacement is planned.

6.1.2 Pedestrian Survey

Using maps of the Project and proposed pole and alignment locations provided by PSE, HRA conducted a pedestrian survey of the archaeological corridor in 2017. The archaeological corridor is 50 ft (15.25 meters [m]) wide, centered on the proposed transmission line alignment. Archaeologists walked transects spaced approximately 10 m apart, one on each side of the centerline of the alignment. PSE's transmission line corridor south of the Sammamish Substation was inaccessible during the 2017 survey, due to seasonal flooding. HRA archaeologists completed the pedestrian survey in that area in October 2018 (Pickrell et al. 2019). In September 2019, HRA returned to survey the footprint of the proposed access road east of Willows Rd. NE, the realigned section of the transmission line corridor along NE 124th St., and the segment of the Juanita Tap Line, where existing poles will be replaced. During each phase of the survey, archaeologists sought out and examined ground exposures (e.g., roadside ditches, rodent burrows) and examined the ground surface for cultural materials. Representative photographs were taken during the course of the survey in order to document the landscape.

6.1.3 Subsurface Survey

HRA archaeologists excavated shovel probes (SP) within the transmission line corridor in order to assess the probability for and identify buried cultural materials. SPs were placed within 10 ft of each pole location, when feasible. SPs were also excavated within the footprint of the proposed access road, in locations where the proposed road will extend beyond the railroad ballast. SP placement was determined by the field supervisors, based on the Project's design plan, topographic circumstances, buried utilities, and other field observations.

SPs measured 35–40 centimeters (cm) in diameter. Some of the SPs on the edge of the Sammamish Valley were extended deeper than the standard 100 cm depth using handheld 4-inch augers in attempts to reach up to 4 ft below surface. Excavation was halted when impediments were encountered or when sediment sifted out of the auger bucket before reaching the surface after multiple attempts. Excavated sediment was screened through ¼-inch mesh. Archaeologists documented sediment observed within the probes on standard HRA shovel probe forms and in field notebooks. Observations included, but were not limited to, sediment grain size, presence of gravels, evidence of disturbance, and presence of cultural materials.

Examples of the cultural materials found in shovel probes were photographed using a digital camera. When potentially diagnostic materials were identified within a SP, radial probes were excavated 5 to 10 m from the original probe to identify whether the artifact or feature was an isolated find or part of an archaeological site. Each SP was filled upon completion of documentation and its location was noted using a Global Position System (GPS) unit.

6.2 Architectural Inventory

On April 4−6, 2017, HRA architectural historian Libby Provost conducted a compliance-level survey. The compliance-level survey followed DAHP field guidelines for reconnaissance-level surveys but evaluated each resource under all criteria for listing in the NRHP, as well as applicable eligibility guidelines set forth by Washington State and King County (for the WHR and KCRHP, respectively). Provost documented 48 buildings and structures (and some associated outbuildings) over 35 years of age within the survey area (see maps in Appendix B) and prepared HPIs for each (Appendix C).

On September 10–11, 2019, HRA architectural historian Chrisanne Beckner conducted a second phase of compliance-level survey of 19 buildings, structures, and sites over 35 years of age. These "Phase II" resources had either reached the age of 35 years between 2017 and 2019 or were added due to revisions to the proposed APE (Appendix B).

6.2.1 Architectural Resources Excluded from Inventory

To enable construction of the Sammamish–Juanita 115 kV transmission line, PSE will selectively replace individual poles on other lines within the project APE. This includes:

1. Juanita Tap: PSE will replace 15 poles along the Juanita Tap alignment near the Juanita Substation, at the north end of the Project. Though the Juanita Tap was initially built in the 1960s, the line was rerouted in 2012–2013, when the Juanita Substation was constructed. The majority of the poles were replaced during that realignment of the Juanita Tap.
2. Sammamish–Vitulli Tap: PSE will replace six poles on a tap line off the Sammamish–Vitulli 115 kV line, originally constructed along NE 124th St. in Kirkland in the 1980s.
3. SCL Bothell–Sammamish 230 kV line: PSE will replace one individual pole associated with the SCL Bothell–Sammamish 230 kV transmission line, originally constructed ca. 1930 with the subject pole replaced in 1946.

4. Sammamish–Vitulli 115 kV line: PSE will replace one individual pole associated with the Sammamish–Vitulli 115 kV transmission line, originally constructed ca. 1930 with the subject pole replaced in 1946.
5. Sammamish–North Bellevue 115 kV line: PSE will replace one individual pole associated with the Sammamish–North Bellevue 115 kV line in the transmission line corridor immediately south of the Sammamish Substation. The line was originally constructed ca. 1970.
6. Sammamish–Lochleven 115 kV line: PSE will replace three poles on the Sammamish–Lochleven 115 kV line in the transmission line corridor immediately south of the Sammamish Substation. The line was originally constructed ca. 1968.
7. Sammamish–Moorlands No. 1 115kV line: PSE will replace two poles on the Sammamish–Moorlands No. 1 115 kV line in the transmission line corridor immediately south of the Sammamish Substation. The line was originally constructed ca. 1978.

In 2018, DAHP confirmed that individual pole replacement is a common activity for transmission lines. Therefore, moving or replacing a single monopole in a transmission line corridor does not have the potential to adversely affect the line, regardless of its eligibility, even if, for example, a wood pole is replaced with a steel pole. Though the seven lines listed above have not been previously evaluated for listing in the NRHP, DAHP concurred that survey and inventory of the whole line is not required (Kim Gant, personal communication October 16, 2018; see Appendix D). Therefore, HRA did not complete inventory or evaluation of these seven lines, and they are not further discussed in this report.

Additionally, in 2018, during the architectural inventory for another PSE transmission line project, HRA documented the Sammamish–Lakeside–Talbot Hill Transmission Lines Nos. 1 and 2 and recommended them eligible as contributing resources to a potential historic district (Beckner et al. 2018). That report is under PSE review and, for the purposes of this report, HRA assumes that those two transmission lines are eligible for listing in the NRHP under Criterion A.

6.3 Evaluation of Historic Properties

HRA used the following guidelines to evaluate the potential eligibility of the archaeological and architectural resources within the proposed APE under criteria for inclusion in the NRHP, the WHR, and the KCRHP.

6.3.1 National Register of Historic Places Criteria

To qualify for listing in the NRHP, a property must be significant within a historic context. To evaluate significance, the following five things must be determined:

1. The facet of prehistory or history of the local area, state, or nation that the property represents;
2. Whether the facet of history is significant;

3. Whether it is a type of property that has relevance and importance in illustrating the historic context;

4. How the property illustrates that history; and

5. Whether the property possesses the physical features necessary to convey the aspect of history with which it is associated (NPS 1997:44).

The significance (items 1–3 above) of a resource must be established before assessing integrity (items 4 and 5). The significance of a resource within its historic context must relate to one or more of the following:

A. Under Criterion A, properties can be determined eligible for listing in the NRHP if they are associated with events that have made a significant contribution to the broad patterns of our history.

B. Under Criterion B, properties can be determined eligible for listing in the NRHP if they are associated with the lives of persons significant in our past (i.e., persons whose activities are demonstrably important within a local, state, or national context).

C. Under Criterion C, properties can be determined eligible for listing in the NRHP if they embody the distinctive characteristics of a type, period, or method of construction, or represent the works of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction (i.e., are part of a district). Discrete features, a particular building for example, may best be documented under this Criterion, though collections of resources may also have significance under Criterion C for architecture or engineering association.

D. Under Criterion D, properties may be eligible for listing in the NRHP if they have yielded, or may be likely to yield, information important in history. To be eligible under Criterion D, the property must have, or have had, information to contribute to our understanding of human history and that information must be considered "important." Most commonly applied to archaeological sites, buildings, structures, and objects may be eligible under Criterion D if they are the principal source of information (NPS 1997:21).

Integrity is the ability of a property to convey its significance. To be eligible for the NRHP, a property must not only be shown to be significant under NRHP criteria (A–D above), but it must also have integrity. The evaluation of integrity is grounded in an understanding of a property's physical features and how they relate to its significance. Historic properties either retain integrity (that is, convey their significance) or they do not. To retain integrity, a property will always possess several, and usually most, of the seven aspects of integrity, which are:

- Location: the place where the property was constructed or the place where the historic event occurred.

- Design: the combination of elements that create the form, plan, space, structure, and style of a property.
- Setting: the physical environment of a historic property.
- Materials: the physical elements that were combined or deposited during a particular period of time, and in a particular pattern or configuration, to form a historic property.
- Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling: a property's expression of the aesthetic or historic sense of a particular period of time.
- Association: the direct link between an important historic event or person and a historic property (NPS 1997:44−45).

6.3.2 Washington Heritage Register

Qualifications for listing in the WHR are virtually the same as the requirements necessary for listing in the NRHP. They are:

A. The resource (building/site/structure/object) must be at least 50 years old, or have documented exceptional significance;
B. The resource should have a high to medium level of integrity.
C. The resource should have documented historical significance at the local, state, or federal level; and
D. Review and listing of the resources requires consent of the owner (DAHP 2017b).

6.3.3 King County Register of Historic Places

The KCRHP serves as the official list of those properties that have made a significant contribution to the history of King County. Designation criteria include:

A. An historic resource may be designated as a King County landmark if it is more than 40 years old (or, in the case of landmark districts, must contain resources that are more than 40 years old); and possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
    1. Is associated with events that have made a significant contribution to the broad patterns of national, state, or local history; or
    2. Is associated with the lives of persons significant in national, state, or local history; or
    3. Embodies the distinctive characteristics of a type, period, style, or method of design or construction, or that represents a significant and distinguishable entity whose components may lack individual distinction; or

4. Has yielded or may be likely to yield information important in prehistory or history; or
5. Is an outstanding work of a designer or builder who has made a substantial contribution to the art.

B. An historic resource may be designated as a King County landmark because it is an easily identifiable visual feature of a neighborhood or the county and contribute to the distinctive quality or identity of such neighborhood or county or because of its association with significant historical events or themes, association with important people in the community or county, or recognition by local citizens for substantial contribution to the neighborhood or community; and

C. Cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties commemorative in nature, and properties that have achieved significance within the past forty years are not considered eligible unless they are:

- An integral part of districts that meet the criteria set out in A above; or
- A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- A building or structure removed from its original location, but which is significant primarily for its architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- A birthplace, grave, or dwelling of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his or her productive life; or
- A cemetery that drives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner or as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- A property commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historical significance; or
- A property achieving significance within the past 40 years if it is of exceptional importance (King County 1992).

7. Archaeological and Architectural Inventory Results

HRA staff conducted the initial cultural resources inventory fieldwork between March 27 and May 1, 2017. The field crew included HRA archaeologists Jenny Dellert, Adam Fruge, Gary Geiger, Mary Leinart, Mike Shong, Alex Stevenson, and Chris Yamamoto, and HRA architectural historian Libby Provost. In 2019, HRA staff returned to the field to conduct additional archaeological survey addressing revisions to the transmission line alignment and the addition of a proposed access road. The archaeological crew included Justin Butler, Brian Durkin, Jordan Pickrell, and Matthew Warren. HRA architectural historian Chrisanne Beckner also conducted fieldwork in 2019, to inventory historic properties within the proposed APE that reached 35 years of age between 2017 and 2019. In total, the crew spent 13 days in the field.

7.1 Archaeological Inventory

7.1.1 Utility Locates

In advance of each phase of fieldwork, PSE contracted DEA to stake the locations of proposed project elements, including pole installations and replacements and the centerline of the access road. HRA then submitted public utility locate requests for the locations, as appropriate. In 2017, HRA submitted 13 utility locate request tickets, each covering up to a 700 linear ft segment of the transmission line alignment and indicating the number of pole locations within that segment. In 2019, HRA submitted separate utility locate request tickets for each pole location or approximate 700 ft segment of the access road alignment. HRA submitted 41 public utility locate request tickets for the 2019 archaeological fieldwork. In advance of the pedestrian survey, HRA received feedback from the automated utility locate system and individual utility companies indicating that buried utilities were present in the vicinity of pole locations along NE 124th St. in Kirkland.

Proposed pole replacements along the Juanita Tap Line and the loop connecting the Sammamish–Juanita 115kV Line to the Totem Lake Substation will occur within PSE easements on private property. HRA crew met the utility locator from C-N-I Locates, Inc., in the field on September 25, 2019, and worked with him to determine the degree of previous ground disturbance in the vicinity of each proposed pole replacement/shovel probe location on the private parcels.

7.1.2 Pedestrian Survey

HRA archaeologists walked parallel transects at approximate 10-m intervals within the 50-ft wide transmission line corridor. No transects were surveyed on paved surfaces for roads such as NE 124th St. and 120th Ave. NE. PSE did not have rights of entry on King County tax parcels 2726059008, 2726059074, 2726059101, and 2926059171 in 2017, so not transects were surveyed on those properties.

The transmission line corridor crosses a landscape demonstrative of the extent of historic-period and modern development that has occurred in the region (Figures 7-1 and 7-2; Appendix E). The corridor is capped by PSE substations at either end and loops in a third substation south of NE

124th St. Between the substations, the corridor crosses in front of residential (apartment and condominium complexes) and commercial (strip malls and automobile dealerships) properties along NE 124th St. and runs adjacent to I-405 along 120th Ave. NE. Segments of the corridor in Kirkland and at the edge of the Sammamish Valley are located within abandoned railroad corridors, where railroad grades are in the process of being converted to pedestrian and bike trails.

Markings for buried utilities were prevalent, particularly along the segments of the corridor within street ROWs. For example, proposed pole locations along 120th Ave. NE are situated between buried gas and sewer/stormwater lines (see Figure 7-2). Communications lines and sewer/stormwater lines were also marked in the immediate vicinity of proposed pole installation and replacement locations along the north side of NE 124th St.

Figure 7-1. Overview of corridor south of Juanita Substation near Pole 4/17, view north.

Figure 7-2. Staked location of Pole 3/15, along 120th Ave. NE, view west. Note utility locate markings indicating an existing gas line (*yellow*) and sewer line (*green*) adjacent on either side of the proposed pole location. Buried communication (*orange*) and power (*red*) lines are also indicated at the edge of the roadway, south of the proposed pole location.

Vegetation within the corridor consisted of landscaped grass and ornamental trees and shrubs in parking strips along the major roads; wetland plants (reeds, horsetails, cattails) near Juanita Creek, at the north end of the Juanita Tap Line, adjacent to the CKC, and south of the Sammamish Substation (Figure 7-3); and blackberries, alder, and birch trees on portions of the abandoned railroad corridors. Standing and flowing water was noted in wetland portions of the corridor in both 2017 and 2019.

HRA documented two linear archaeological resources during the pedestrian survey. The resources are segments of two abandoned railroad grades. Portions of each railroad alignment outside of the proposed APE have been recorded previously as archaeological sites 45KI451 (SLS&E railroad grade) and 45KI1274 (the NPRR Lake Washington Beltline). Observations of each resource within the proposed APE are detailed below and archaeological site form updates for the resources are in Appendix F.

In addition to the railroad grades and associated hardware, archaeologists observed modern trash—paper wrappers, aluminum cans, cigarette butts, and plastic fragments—on the ground surface during the pedestrian survey. The modern debris was noted, but not recorded.

Figure 7-3. Chris Yamamoto surveying area south of Sammamish Substation, view south. Note standing and flowing water.

Figure 7-4. Survey along the abandoned, intact railroad line on rerouted segment of the alignment north of pole 2/4, view west.

7.1.3 Shovel Probes

In 2017, SPs were excavated within the immediate vicinity of each proposed pole location installation or replacement location, when feasible. In 2019, the crew used the same approach to placing SPs in the vicinity of the rerouted proposed pole locations. Some pole locations were inaccessible due to impervious surfaces (Figure 7-5), standing water, and buried utility lines that were known to have disturbed the integrity of native soils and presented safety concerns (see Figure 7-2). For example, several buried utilities (electric, gas, sewer, water, communication) run in the immediate vicinity of the alignment along NE 120th Ave. and NE 124th St. in Kirkland. As a result, no shovel probes were excavated along that some areas in that section of the alignment.

In 2019, the crew also excavated shovel probes within the footprint of the proposed access road, where it extends beyond the railroad ballast berm for the abandoned SLS&E railroad grade. SPs associated with the access road were placed at approximate 20-m intervals. The probes were concentrated in the southern 0.6 mi of the road footprint, where the above-grade railroad berm is narrower than the proposed road width. No shovel probes were excavated along portions of the road alignment where the base of the railroad ballast berm is wider than the road footprint. In all, 107 SPs were excavated in the vicinity of proposed project elements (Figures 7-6–7-8) (Appendix G). The SP locations were documented with the GPS.

Figure 7-5. Gary Geiger at Pole 4/11, view northeast. Not excavated due to pavement.

Figure 7-6. Mary Leinart screening soil at SP 5 (*Pole 4/13*), view east.

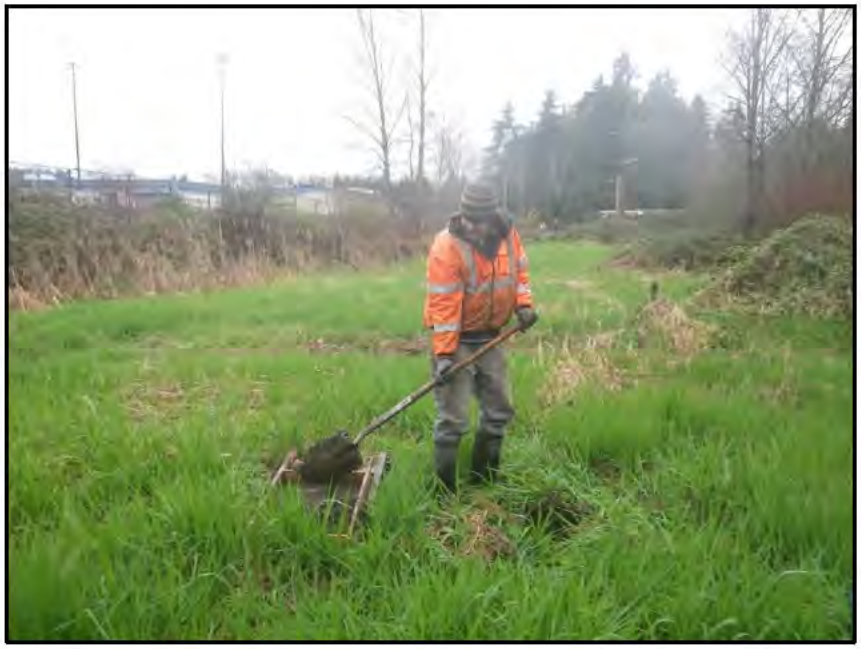

Figure 7-7. Adam Fruge excavating SP 6 (*Pole 4/10*), view northwest.

Sediments

The proposed 5-mi alignment of the Sammamish–Juanita 115kV transmission line begins in a wetland area south of the Sammamish Substation. From there, it follows the edge of the Sammamish Valley for approximately 1.5 mi before turning west and continuing across an upland area in the City of Kirkland. Sediments observed during the subsurface survey are organized by these three areas.

Sediments observed in SPs south of the Sammamish Substation consisted of sandy silt overlaying medium- to coarse-grained sands. This pattern is consistent with the current wetland conditions in the area overlaying a former stream channel. Stream channel deposits were encountered much closer to the surface than suggested by the geoarchaeological analysis of this wetland area (see Pickrell et al. 2019 for more details).

Along the edge of the Sammamish Valley, archaeologists generally encountered between 40 and 80 cm of fill—moderately to heavily compacted sandy loam with common gravels and cobbles—overlaying alluvial sediments characterized as fine-grained silty sands (Figure 7-8). In some probes, disturbance associated with the adjacent railroad line was evident up to 100 cmbs.

In the upland area, extensive disturbance from previous construction and modern development was evident. In many locations where shovel probe excavation was possible, modern or historic-period fill, generally characterized by sands with high gravel content, extended to the base of the shovel probes. In a few instances, the archaeologists reached glacial sediments directly below the fill.

Figure 7-8. Detail of SP 70 (*Pole 1/7*) location, view northeast.

Cultural Materials

Modern trash and temporally nondiagnostic debris, including plastic, glass, metal, railroad ballast, and concrete fragments were recovered from SPs, particularly those adjacent to the railroad grades.

SPs with the highest density of cultural materials are those excavated along the southern end of the proposed access road footprint, adjacent to the SLS&E railroad grade alignment. HRA excavated radial probes in the vicinity of the proposed location for pole 0/6 to better assess the stratigraphic context of these materials. Disturbed and fill sediments extended over 80 cmbs in this area, as indicated by recovery of a railroad spikes and chunks of asphalt recovered in several SPs down to this depth. Other materials recovered from fill included fragments of whiteware ceramics, glass (colorless, amber, aqua, cobalt, black), and miscellaneous metal objects and fragments. Although manufacture of aqua and black glass bottles dates to the historic period (Lindsey 2019), HRA did not record the items as an archaeological site because they were either found in disturbed context or scattered in fill beside the railroad berm.

7.1.4 Abandoned Railroad Grades

Guidelines from DAHP recommend differing documentation of historic railroad properties based on the level of integrity retained by the resource. Segments of railroad alignment that have been partially dismantled or are otherwise missing one or more components are recorded on archaeological site forms. Segments characterized by intact/complete tracks, cars, tunnels, bridges, and standing shelters and stations are to be recorded on HPIs (DAHP 2019). A portion of the SLS&E railroad grade extending into the proposed APE was documented as a segment of archaeological site 45KI451 prior to this inventory. DAHP determined the site not eligible for listing in the NRHP in 2010 (Berger 2014b; Sterner 2010). A segment of the SLS&E railroad grade north of NE 124th St. was documented on an HPI form. DAHP assessed that resource eligible for listing in the NRHP in 2017 (Valentino and Lothrop 2014). Per guidance from DAHP in 2017 (Kim Gant, email communication to Libby Provost, 2017), HRA documented the unrecorded portion of the SLS&E railway grade between NE 100th Ct. and NE 124th St. on an archaeological site form update for Site 45KI451.

The NPRR Lake Washington Beltline was first recorded on an HPI form in 2007. At the time, the resource was being used by the Spirit of Washington Dinner Train, Boeing, and other companies (City of Kirkland 2016). DAHP assessed the resource as eligible for listing in the NRHP (Allen and O'Brien 2007b). The City of Kirkland purchased a 5.75-mile section of the railroad corridor in 2012. They removed the rails and ties from that portion of the alignment in 2013, in advance of paving the alignment for a mixed-use pedestrian and bicycle trail, the CKC (City of Kirkland 2016). The gravel portion of the CKC within the proposed APE was recorded on an HPI form in 2017 and assessed as not eligible for listing in the NRHP by DAHP in 2018 (Trautman 2017). Segments of the grade and associated bridges outside of the proposed APE have been previously documented on an archaeological site form (45KI1274) and HPI forms (Emerson 2014; Gilpin 2011; Thomas 2016; Valentino and Parvey 2010). A portion of the NPRR Lake Washington Beltline includes the Wilburton Trestle, which is listed in the WHR (Thomas 2016). Two additional segments in Bellevue were inventoried in 2010–2011 and determined not eligible by Sound Transit and the Federal Transit Administration (FTA) (Gilpin 2011). Other previously recorded segments were recommended not eligible for listing in the NRHP (Emerson 2014; Valentino and Parvey 2010). Per guidance from DAHP in 2017 (Kim Gant, email communication to Libby Provost, 2017), HRA documented the abandoned segment of the NPRR Lake Washington Beltline within the proposed APE on an archaeological site form update for Site 45KI1274.

Archaeological Site 45KI451 (Railroad Grade of the SLS&E Railroad) Update

HRA recorded a new segment of the SLS&E railroad grade (45KI451) adjacent to Willows Rd. NE in the city of Redmond and unincorporated King County. The recorded segment is limited to the archaeological survey corridor for the Project. It extends approximately 1.6 mi from just north of the intersection with NE 124th St. to NE 100th Ct. (Overlake Christian Church), where it continues as a previously recorded segment of the alignment.

The newly recorded segment contains three distinct, continuous sections. Section 1 consists of intact railroad grade with rails, ties, and hardware on a raised railroad ballast berm (Figures 7-9 and 7-10), extending from just north of NE 124th St. approximately 1,362 ft to the southeast, parallel to Willows Rd. NE. The surface of the berm is 15 ft wide, raised between 0 and 5 ft above the surrounding landscape. At its widest, the base of the berm measures approximately 18 ft wide. One associated asphalt street crossing with post-mounted flashing light signal was identified at the intersection of the Willows Rd. NE and NE 124th St.

Section 2 is a remnant railroad grade consisting of raised berm that has been converted into a modern gravel access road for approximately 1,173 linear ft, from the end of Section 1 to the intersection with NE 116th St. (Figure 7-11). The rails, ties, and hardware have been removed and/or possibly buried beneath modern gravel used to widen the corridor in this area. Road construction machinery was staged in a parking area along the corridor north of NE 116th St. in 2019.

Section 3, approximately 5,850 ft long and 12 ft wide at the surface, is remnant railroad grade without rails, ties, or hardware that has been modified with the surrounding landscaping. The height of the berm varies from 0–7 ft above grade. Near the Willows Run Golf Course parking area, the grade has been flattened and the corridor is used as overflow parking for golfers (Figure 7-12). In front of Overlake Christian Church, at NE 100th Ct., the berm is raised above the adjacent ditch and landscaped manicured lawn, to approximately 5 ft high (Figure 7-13).

HRA noted five concrete pipe culverts installed through the railroad berm to allow for cross drainage at the base of the berm. Each single pipe culvert is circular in shape with a 3 ft diameter (Figure 7-14). Cement pipe culverts were manufactured beginning in the mid- to late nineteenth century. This technology is still being manufactured and installed for irrigation and drainage purposes in the present (Hill and Griffith Company 2016). Due to the height of water in the ditches and the slope of the grade, two smaller stormwater culverts installed through the railroad berm were not observed during the survey.

Figure 7-9. Overview of north end of proposed transmission line corridor along former SLS&E line (*archaeological site 45KI451*) (*Section 1*) near Pole 2/1, view north.

Figure 7-10. Closeup of intact rails and ties in new segment of Site 45KI451 (*near Pole 1/11*), view north

Figure 7-11. Overview of former SLS&E line (*archaeological site 45KI451*) (*Section 2*) adjacent to Sammamish Valley Park near Pole 1/8, view south.

Figure 7-12. Overview of former SLS&E line (*archaeological site 45KI451*) (*Section 3*) adjacent to Willows Run Golf Course, view south.

Figure 7-13. Abandoned railroad grade with rails and ties removed, in new segment of Site 45KI451 (*near Pole 0/9*), view north.

Figure 7-14. Cylindrical concrete pipe culvert at base of railroad berm in new segment of Site 45KI451, view southwest.

Archaeological Site 45KI1274 (NPRR Lake Washington Beltline) Update

This abandoned railroad corridor is the former NPRR Lake Washington Beltline that once operated between Renton, Bellevue, and Woodinville. This segment of the line is in the city of Kirkland and the former grade is now part of the CKC. The segment extends 7,519 ft, from approximately I-405 heading northeast, to just south of 139th Ave. NE. Sections within this segment of Site 45KI1274 exhibited different material characteristics. The eastern end, between 132nd Ave. NE and Willows Rd. NE had intact rails, ties, and hardware (Figures 7-4, 7-15, and 7-16). In the western section, between NE 116th St. and 132nd Ave. NE, the rails, ties, and hardware were removed, and the grade was converted to the CKC (Figures 7-17 and 7-18). A small portion of the site is covered with grass sod in a traffic median at the intersection of NE 124th St. and Totem Lake Blvd. NE. Areas along the CKC that approached or crossed streets, sidewalks, and driveways are paved. One asphalt street crossing with post-mounted signal and a stop sign was identified where 135th Ave. NE intersects the alignment (see Figure 7-16). One asphalt street crossing with cantilever flashing signal was identified at the intersection with 132nd Ave. NE.

Figure 7-15. Segment of Site 45KI1274 with intact rails and ties, view west. Note asphalt street crossing in foreground.

Figure 7-16. Overview of intact rails and ties with post-mounted crossing sign near Pole 2/9, view southwest.

Figure 7-17. Alignment of Site 45KI1274, repurposed as the CKC, near Pole 2/15, view east.

Figure 7-18. Segment of Site 45KI1274 with rails and ties removed, converted to the CKC, view southwest.

The intact portion of the grade was trapezoidal in cross-section. Vertical depth of grade varied from a flat surface in the graveled portion (western end) to approximately 10 ft high in the far eastern end (Figures 7-17 through 7-19). The grade's width varied from 18–25 ft. The rails were approximately 2.5 inches wide and held together intermittently with fishplates (joints) and bolts. Iron spikes fastened the rails in place to the ties. The wooden ties were treated with creosote and measured approximately 8 ft 8 inches by 8.5 inches by 7.25 inches, with gaps of 10–24 inches between ties.

Figure 7-19. Segment of Site 45KI1274 with Mary Leinart on grade, view south.

7.2 Architectural Inventory

7.2.1 10601 NE 132nd St., Kirkland

Built in 1971, the Juanita High School at 10601 NE 132nd St. is a complex of 12 one-story buildings: the main school building, a gymnasium, an aquatics center, and nine accessory buildings. Of these, only six are visible from the ROW: the main school building, the gymnasium, a modular classroom, and three buildings associated with the school track (Figures 7-20–7-24). The school building and gymnasium are Modern in style with International, Gothic Revival, and Stick elements. The primary entrance of the main building fronts north toward NE 132nd St. It is irregular in plan, with classrooms and halls built around multiple courtyards. The sprawling building sits on a poured-concrete foundation and is clad in stucco and stick work forming geometric cubes. The main school building is topped by a mansard roof, clad in horizontal boards where the overhang overlaps with the building face, and rolled asphalt on the flat top. The facade features a recessed primary entry beneath a deep colonnade that extends to the large fieldhouse on the west end of campus. Fenestration includes banks of metal-framed windows in the interior courtyard, arranged in such a way as to echo the geometric shapes of the stick work on the building's faces. Key architectural ornamentation includes poured-concrete, crenelated column heads above pilasters spaced evenly throughout all faces of the building. The gymnasium is rectangular in plan and features the same ornamentation as the school building. The modular building is on the northeast corner of the campus. It is one story and has a flat roof. The remaining three buildings are part of a track-and-field complex and are minimally visible. They are arranged side by side on the west end and appear to be Utilitarian in style. The building to the north has a front-facing gable roof and a large opening on the east face that likely opens for the building to sell concessions. The middle building features a hip roof, a doorway on the north end, and a roll-up door on the south. The building on the south is a small building with a shed roof. No additional architectural details were visible.

Figure 7-20. 10601 NE 132nd St., view southwest

Figure 7-21. The north face of the main school building at 10601 NE 132nd St., view southwest.

Figure 7-22. Courtyard of the main school building at 10601 NE 132nd St., view southwest.

Figure 7-23. The gymnasium at 10601 NE 132nd St., view southeast.

Figure 7-24. Trach-and-field complex at 10601 NE 132nd St., view northwest.

7.2.2 13028 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 13028 109th Ave. NE is a one-story Modern Ranch house (Figures 7-25 and 7-26). The rectangular building is 940 square (sq) ft, sits on a poured-concrete foundation, is clad in cedar-shake siding, and is topped by a gable-on-hip roof. The facade features a central doorway accessed via a cement two-step slab. South of the entry is a two-bay attached garage with original doors. Fenestration includes a vinyl three-light window south of the door and a smaller vinyl slider to the north. The house has moderate overhanging eaves. Unadorned secondary elevations are visible on the north and south. No associated structures are visible on the parcel from the ROW.

Figure 7-25. 13028 109th Ave. NE, view east.

Figure 7-26. 13028 109th Ave. NE, view southeast.

7.2.3 13020 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 13020 109th Ave. NE is a one-story Modern Ranch house (Figures 7-27 and 7-28). The L-shaped building is 980 sq ft with a projecting two-bay garage with vinyl roll-up doors on the north end. The building sits on a poured-concrete foundation, is clad in vertical board siding, and is topped by a cross-gabled roof with asphalt-composition cladding. The facade features a central door with a screen door beneath an overhang. Fenestration includes vinyl sliders south of the door and a three-light vinyl window between the door and the projecting garage. The house has minimal eaves on all but the west portion over the doorway and windows. Partially visible behind a fence is an unadorned secondary elevation that appears to include fenestration and a doorway. No associated structures are visible on the parcel from the ROW.

Figure 7-27. 13020 109th Ave. NE, view southeast.

Figure 7-28. 13020 109th Ave. NE, view southeast.

7.2.4 13012 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 13012 109th Ave. NE is a one-story Modern Ranch house (Figures 7-29 and 7-30). The L-shaped building is 1,140 sq ft with a projecting two-bay garage with original doors on the south end. The building sits on a poured-concrete foundation, is clad in lap siding, and is topped by a cross-gabled roof with standing-seam metal cladding. The facade features a central door accessed by a two-step cement stair beneath an overhang from the roof supported by four simple wood posts. Fenestration includes two vinyl sliders with shutters north of the door and a three-light vinyl window between the door and the projecting garage. The house has moderate eaves with exposed rafters over the garage. A secondary elevation is partially visible on the north, behind a fence, and appears to include fenestration and a doorway. No associated structures are visible on the parcel from the ROW.

Figure 7-29. 13012 109th Ave. NE, view southeast.

Figure 7-30. 13012 109th Ave. NE, view northeast.

7.2.5 13004 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 13004 109th Ave. NE is a one-story Modern Ranch house (Figures 7-31 and 7-32). The L-shaped building is 1,140 sq ft with a double garage (with replacement doors) projecting west on the north side of the facade. The building sits on a poured-concrete foundation, is clad in cedar shake with drop siding in the gable over the garage, and is topped by a cross-gabled roof with asphalt-composition cladding. The facade features a central doorway accessed by wood decking. An extension from the garage gable partially covers the entry. Fenestration includes a large vinyl slider window between the door and garage extension, and two vinyl sliders with shutters on the south end. The house has moderately overhanging eaves on the primary massing and minimal eaves on the front gable. An unadorned secondary elevation is visible on the south side. No associated structures are visible on the parcel from the ROW.

Figure 7-31. 13004 109th Ave. NE, view east.

Figure 7-32. 13004 109th Ave. NE, view southeast.

7.2.6 12860 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12860 109th Ave. NE is a one-story Modern Ranch house (Figures 7-33 and 7-34). Irregular in plan, the building is 1,720 sq ft with a double garage projecting west on the south side of the primary facade and a large addition off the northeast corner of the house. The building sits on a poured-concrete foundation, is clad in vertical board with drop siding in the gable over the garage, and is topped by a cross-gabled roof with asphalt-composition cladding. The facade features a covered walkway formed by an extension from the garage gable. Fenestration includes a three-light vinyl window immediately north of the door, and two vinyl sliders with shutters beyond. The house has moderately overhanging eaves on the primary massing and minimal eaves on the front gable. A secondary elevation is visible on the south side and includes a doorway and two vinyl sliders. No associated structures are visible on the parcel from the ROW.

Figure 7-33. 12860 109th Ave. NE, view east.

Figure 7-34. 12860 109th Ave. NE, view southeast.

7.2.7 12852 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12852 109th Ave. NE is a two-story, Modern Tri-Level Split Ranch house (Figures 7-35 and 7-36). The rectangular building is 1,900 sq ft, sits on a poured-concrete foundation, is clad in cedar shake, and is topped by a gable-on-hip roof with a forward-facing gable canopy addition on the south end of the primary facade. The facade features a doorway accessed by concrete stairs. Fenestration includes aluminum sliders on either side of the door, with additional windows of the same type above the carport and one additional window on ground level, adjacent to a single garage door. The house has moderate eaves with exposed beams in the carport. Secondary elevations are minimally visible behind fencing and mature trees. No associated structures are visible on the parcel from the ROW.

Figure 7-35. 12852 109th Ave. NE, view southeast.

Figure 7-36. 12852 109th Ave. NE, view northeast.

7.2.8 12844 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12844 109th Ave. NE is a one-story Modern Ranch house (Figures 7-37 and 7-38). The L-shaped building is 1,140 sq ft with a two-bay garage with vinyl doors projecting west on the south side of the primary facade. The building sits on a poured-concrete foundation, is clad in cedar shake with drop siding in the gable over the garage, and is topped by a cross-gabled roof with asphalt-composition cladding. The facade features a central doorway, two metal-frame windows with shutters north of the door, and a three-light metal-framed window between the doorway and the projecting garage. The house has moderately overhanging eaves on the primary massing and minimal eaves on the front gable. A secondary elevation is visible on the south side and includes a doorway and single slider window that appears to be metal-framed. No associated structures are visible on the parcel from the ROW.

Figure 7-37. 12844 109th Ave. NE, view east.

Figure 7-38. 12844 109th Ave. NE, view northeast.

7.2.9 12836 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12836 109th Ave. NE is a one-story Modern Ranch house (Figures 7-39 and 7-40). The L-shaped building has a projecting gable on the north end, sits on a poured-concrete foundation, is clad in lap siding, and is topped by a cross-gable-on-hip roof with asphalt-composition cladding. The facade features a central, simple doorway with a two-bay garage on the north end that appears to retain its original doors, two aluminum sliders south of the doorway, and a large, fixed-pane aluminum-framed window to the north between the door and the garage. The house has moderate eaves and a chimney on the north end of the east elevation. An unadorned secondary elevation is visible on the south. No associated structures are visible on the parcel from the ROW.

Figure 7-39. 12836 109th Ave. NE, view east.

Figure 7-40. 12836 109th Ave. NE, view southeast.

7.2.10 12830 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12830 109th Ave. NE is a one-story Modern Ranch house (Figures 7-41 and 7-42). The rectangular building is 940 sq ft, sits on a poured-concrete foundation, is clad in cedar shake, and is topped by a side-gabled roof with asphalt-composition cladding. The facade features a central doorway beneath a slight shed-roof extension, accessed via a wood stairway. A two-bay garage with original roll-up doors is on the south end of the facade. Fenestration includes two metal-frame sliders with shutters north of the door and a three-light metal-frame window to the south. The house has moderate overhanging eaves and a central chimney. Unadorned secondary elevations are visible on the north and south. No associated structures are visible on the parcel from the ROW.

Figure 7-41. 12830 109th Ave. NE, view northeast.

Figure 7-42. 12830 109th Ave. NE, view southeast.

7.2.11 12822 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling fronting west at 12822 109th Ave. NE is a one-story Modern Ranch house (Figures 7-43 and 7-44). Irregular in plan, the building is 1,750 sq ft with a large addition off the northeast corner of the house, sits on a poured-concrete foundation, is clad in lap siding, and is topped by a cross-gabled roof with asphalt-composition cladding. The facade features a central doorway beneath a front-gabled roof extension. A two-bay garage with what appear to be original roll-up doors is north of the entry. Fenestration includes side-by-side sash windows north of the door and two sash windows with shutters to the south. The house has deep overhanging eaves, exposed beams and knee braces, and a central chimney. An unadorned secondary elevation is visible on the north. No associated structures are visible on the parcel from the ROW.

Figure 7-43. 12822 109th Ave. NE, view east.

Figure 7-44. 12822 109th Ave. NE, view southeast.

7.2.12 12814 109th Ave. NE, Kirkland

Built in 1963, the single-family dwelling located fronting west at 12814 109th Ave. NE is a two-story, Modern Tri-Level Split Ranch house (Figures 7-45 and 7-46). The rectangular building is 1,900 sq ft, sits on a poured-concrete foundation, is clad in cedar shake, and is topped by a cross-gabled roof with a flat-roof canopy on the south end of the primary facade. Concrete stairs access a doorway in the facade, and fenestration includes aluminum sliders on either side of the door, with additional windows of the same type above the carport and one additional window on ground level, adjacent to a single garage door. The house has moderate eaves (except on the front-gabled portion on the south with has minimal eaves) with exposed beams in the carport. Secondary elevations are visible on north, which is unadorned, and the south, which features a chimney. No associated structures are visible on the parcel from the ROW.

Figure 7-45. 12814 109th Ave. NE, view northeast.

Figure 7-46. 12814 109th Ave. NE, view southeast.