CITY OF SHORELINE

Planning & Community Development
17500 Midvale Avenue North
Shoreline, WA 98133-4905
(206) 801-2500 ♦ Fax (206) 801-2788

ADMINISTRATIVE ORDER#17-0119-102417

SITE – SPECIFIC DETERMINATION

SITE: Shoreline & WSDOT ROW on NE 200th St. from 6th – 12th Ave. NE
CODE SECTION: 20.20.046

I. ISSUE

This request is to consider whether an existing watercourse meets the definition of a "stream" as defined under SMC 20.20.046. The proponent has provided a report supporting a position that the City not regulate the ditched/piped portion of this watercourse as a stream.

II. FINDINGS

ADDRESS: Shoreline & WSDOT ROW on NE 200th Street from 6th through 12th Ave. NE

ZONE: N/A (ROW)

LOT SIZE: N/A (ROW)

PROPOSED USE: Sound Transit light rail.

NEIGHBORHOOD: An unopened ROW that is intersected by I-5. The surrounding neighborhood consists mainly of single-family dwellings within the R-6 zone.

- SMC 20.20.046 defines "Streams" as: Those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by fish or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall.
- The subject watercourse is identified as "SSH2."
- The applicant's supporting report prepared by HNTB Jacobs is attached as Exhibit A.
- A peer review, on behalf of the City, has been performed by The Watershed Company. It is attached as Exhibit B.

III. CONCLUSION:

Analysis performed by The Watershed Company includes the following:

- The supporting report prepared by HNTB Jacobs reviewed several on-line inventories, including historic aerial photographs, the 2004 Shoreline and Wetland Inventory, and the 2015 McAleer Basin Plan. Based on a review of these materials, the Jacobs report concludes that the feature, identified as Stream SSH2, is a man-made drainage ditch that does not support fish.
- In addition to the on-line inventories researched by Jacobs, The Watershed Company reviewed the BLM Land Status and Cadastral Survey Records from 1859. This initial survey of the territory shows McAleer Creek and several tributaries but does not show this stream.
- Existing downstream blockages preclude fish access, and the characteristics of the stream channel do not meet the requirements for fish habitat; the highly ephemeral stream is less than two feet wide.
- Based on both Jacob's assessment and previous assessments conducted by staff from The Watershed Company, Stream SSH2 only flows during and immediately following substantial rain events.
- There is no apparent natural source of flow for the stream, and the current configuration, bank, and bed all appear artificially constructed.
- It is the opinion of The Watershed Company that SSH2 is an artificially created drainage feature that does not provide fish habitat.
- Based on these characteristics, The Watershed Company agrees that the feature does not satisfy the definition of a regulated stream under SMC 20.20.046.

IV. DECISION:

All supporting maps and reports prepared by qualified professionals, as required by SMC 20.80, has been satisfactorily submitted for review. Third party review of these documents by qualified professionals under contract with the City has been completed. It is the belief of the City that a valid scientific process has been applied in reviewing this request and that the opinion provided by the peer review is sound. Stream SSH2 does not meet the definition of a "stream" as defined under SMC 20.20.046.

Director's Signature, Planning & Community Development

11/29/17
Date

Director's Signature, Public Works

12/5/17
Date

Prepared by: Brian Lee, Senior Planner

MEMORANDUM

Lynnwood Link Extension | Northgate Station to Lynnwood Transit Center

Lynnwood Link Extension Code Interpretation Request: Definition of 'Stream SSH2' under SMC 20.20.046

Date: October 10, 2017

To: Karin Ertl, AICP, Senior Environmental Planner, Sound Transit

From: Becki Kniveton, PWS, Senior Biologist, Jacobs

CC: Jessica Brown, Sound Transit

Re: Lynnwood Link Extension (LLE) Code Interpretation Request: Definition of 'Stream SSH2' Under SMC 20.20.046

The purpose of this memorandum is to provide the City with the documentation needed for a code interpretation regarding the ditch and pipe that conveys water known as 'Stream SSH2' (SSH2).

Request

Sound Transit requests a code interpretation from the Director at the City of Shoreline under Chapter 20.20 (Definitions) of the Shoreline Municipal Code (SMC). As stated in SMC 20.20.046, a *stream* is defined as:

> *Those areas where surface waters produce a defined channel or bed, not including irrigation ditches, canals, storm or surface water runoff devices or other entirely artificial watercourses, unless they are used by fish or are used to convey streams naturally occurring prior to construction. A channel or bed need not contain water year-round; provided, that there is evidence of at least intermittent flow during years of normal rainfall. (Ord. 724 § 1 (Exh. A), 2015; Ord. 398 § 1, 2006).*

The information contained herein supports HNTB|Jacobs' position that SSH2 does not meet the definition of a stream as defined under Shoreline Municipal Code 20.20.046. This watercourse is also referred to as Reach MC2 in the City of Shoreline Stream and Wetland Inventory and Assessment prepared by Tetra Tech in 2004.

For the purpose of this request, SSH2 is limited to the ditch/pipe portions of the watercourse between 6th Avenue NE and 12th Avenue NE (referred to herein as the area of concern). Based on a remark by Hugh Mortensen of The Watershed Company during the Critical Area Requirements Pre-application Meeting on June 19, 2017, we understand that there may be a short, natural stream channel further east where the watercourse discharges to McAleer Creek; however, no work is proposed in this location.

We recommend that the City not regulate the ditched/piped portion of the watercourse within the area of concern as a stream for the following reasons:

EXHIBIT A

RECEIVED
OCT 24 2017
PCD
TLN 170119

- It is a manmade storm/surface water runoff device (i.e., ditch),
- It is not used by fish, and
- Sound Transit could find no record or evidence that it conveys a former naturally occurring stream.

Supporting Information

The LLE guideway is elevated over the watercourse SSH2 and will not directly impact the ditch or pipe associated with SSH2. However, it was recently determined that relocation of utility poles, as part of the early work for the LLE project, may result in an impact to a piped portion of the watercourse. A site plan of the utility work proposed in the vicinity of feature SSH2 is attached (Attachment A). As such, HNTB|Jacobs conducted a site review and reviewed additional information in order to determine whether or not SSH2 should be classified as a regulated stream. The following sources were reviewed:

1. USGS topo map (1953, photo revised 1981) (Attachment B): shows a low spot in the area of SSH2 but no stream or wetlands
2. 1936 aerial photo (Attachment C): no stream or wetlands shown in the area of SSH2
3. 1952 soil survey (Attachment D): no stream channels mapped in the area of SSH2. Most of soils are mapped as upland soils (Alderwood or Everett), but a finger of Carbondale muck (wetland soil) extends along 200th east of I-5.
4. WSDOT as-built drawings for I-5 (Attachment E): shows stormwater pipes under I-5 but does not mention streams.
5. DNR Forest Practices Application Tool (Attachment F): no stream is mapped.
6. WDFW Salmonscape (Attachment G): basemap shows a stream across Interstate 5 (I-5), but does not map a stream in the hydrography layer; fish and fish barriers are therefore not mapped. http://apps.wdfw.wa.gov/salmonscape/
7. WSDOT fish passage barriers map (Attachment H): basemap shows a stream across I-5, but does not map a stream in the hydrography layer; no fish or fish barriers are mapped.. https://www.wsdot.wa.gov/Projects/FishPassage/
8. City of Shoreline online GIS (Attachment I; http://maps.shorelinewa.gov/maps/) and City technical documents identify the water course as a stream (identified as West Tributary of McAleer Creek in the 2015 McAleer Creek Basin Plan and as Reach MC2 in the 2004 Wetland and Stream Inventory).
   a. Per 2015 McAleer Creek Basin Plan: "The west tributary of McAleer Creek is piped entirely from NE 200th Street to its confluence with the main stem of McAleer Creek. Upstream of Interstate 5 it is contained in a series of ditches or half-pipes and there is no natural stream flow in any part of the system." "Un-piped sections upstream of Interstate 5 are presumptively classified as Type IV stream segments based on a lack of salmonid fish use (seasonal flow upstream of migration barriers), and a channel width less than 2 feet. However, portions of this segment are subject to possible re-classification on a case by case basis. During field reconnaissance in this segment, channels appeared to be primarily non-

170119

stream, roadside stormwater drainage ditches with connecting piped sections. No remnant natural stream channels were noted during the fieldwork. This is due to development either totally altering the entire system or the possibility that there were no historic stream channels in this reach and all contemporary drainage is generated entirely from post-development stormwater runoff. http://www.shorelinewa.gov/home/showdocument?id=22531

b. Per 2004 Wetland and Stream Inventory: McAleer Creek Reach 2 (MC2) follows along the west side of 6th Avenue NE and turns east along NE 200th Street before passing under Interstate 5. This channelized open water course portion is alternately piped and ditched along roadways. The piped portion runs beneath Interstate 5 and continues east to discharge into MC1 through a 42-inch concrete culvert with wing walls near a wastewater pumping station. This reach did not contain water and had no LW or pools. The open channel is concrete for most of the length with quarry spalls comprising a portion of the channel. http://www.shorelinewa.gov/home/showdocument?id=5466

In its current condition, aboveground portions of the watercourse appear to be a manmade, maintained ditch. Historic and current topography show that 200th Street is in a low spot between hills to the north and south. The area is a low lying depression that forms a bowl. There does not appear to be any natural source (water of the U.S./state) feeding into the drainage at any point along the channel.

Based on our review of historic information, the drainage feature appears to have been constructed to manage stormwater. The watercourse is not visible or otherwise documented in the historic mapping, historic aerial imagery, or WSDOT as-builts. The earliest record reviewed is an aerial photograph from 1936. At this time, the roadway was built, with no visible stream channel apparent. An intermittent stream was mapped in the 1952 soil survey on the other side of the ridge between 1st and Meridian that is also currently mapped by the city; this stream flows north into Ballinger Lake and not towards the area of interest. No stream feature is mapped where SSH2 occurs.

Even with the highly developed urban area surrounding SSH2, the watercourse only receives surface water during and immediately after storm events. Therefore, it is unlikely that there was a stream channel in this location prior to the existing urban development and associated impervious surfaces, which likely have increased the amount of stormwater runoff in the area. SSH2 is likely an artificial channel, either constructed or resulting from stormwater runoff when the original roadway was built prior to 1936.

Due to the SSH2's intermittent nature, extensive culvert, and lack of suitable habitat features, it is unlikely that SSH2 contains fish. It is not a part of the hydrography layer within WDFW SalmonScape, nor on the WSDOT Fish Passage Barriers GIS web application. For a fish to reach the open ditch west of I-5, it would need to swim through a 1,500-foot pipe during peak stormwater events, as these are the only times when surface water actively flows through SSH2. SSH2 also does not meet the physical guidelines established in WAC 222-16-031, the state regulations that provides measureable guidelines for stream typing based on fish presence. Per WAC 222-16-031(3)(b)(i), stream segments having a defined channel of 2 feet or greater within bankfull width and having a gradient of 16 percent or less would be considered to have fish use. While the open ditch portions of SSH2 are on a gradient of less than 5

percent slope, the artificial open channel is typically less than 2 feet wide. As such, it does not meet the physical guidelines established in WAC 222-16-031 for waters presumed to have fish use. SSH2 also does not have large woody debris, undercut banks, backwater areas, or other habitat features key to providing suitable fish habitat.

Qualifications

This memo was prepared by Becki Kniveton, a senior biologist at Jacobs with a bachelor of sciences in Environmental Sciences and more than ten years of experience with stream delineations, ratings, and assessments. Becki meet the requirements for a qualified professional as stated in SMC 20.20.042. Becki's resume with her credentials are attached (Attachment J).

List of Attachments:

Attachment A: Site Plan

Attachment B: USGS 1053 Topography

Attachment C: 1936 Aerial Photography

Attachment D: 1952 King County Soil Survey

Attachment E: WSDOT I-5 As-built

Attachment F: DNR Water Typing

Attachment G: WDFW Salmonscape

Attachment H: WSDOT Fish Passage Map

Attachment I: City of Shoreline Stream Map

Attachment J: Becki Kniveton Resume

170119

ATTACHMENT A: SITE PLAN

170119

Xrefs:
xL200-GB-TB22x34
xL200-L85-CAP100
xL200-L85-KAP100
xL200-L85-SEP100
xL200-L85-UCP100
xL200-L85-RPP100
xLLE-SHLN-VBP
xLLE-SHLN-VCN
xL200-L85-CRP100
xCMS-UCP-100
xL200-L85-KWP100
xL200-L85-SWP100
xL200-L85-CDP100
xL200-GBS-GZX020
xL200-L85-CLP100
xL200-L85-TSP100
GB-SEAL-WA31003
xL200-L85-UCP300
xLLE-SHLN-VRX
xL200-L85-JCP100
xL200-L85-XOP100

GENERAL NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS L85-UZN100 THRU L85-UZN300. FOR ABBREVIATIONS AND SYMBOLS, SEE DRAWINGS L85-GZN001 THRU L85-GZN007.

KEY NOTES:

351. SCL TO CONST OH ELEC, NIC.

N

20 10 0 20 40
SCALE IN FEET

09/07/17 | 3:30 PM | JEFFREYF
Z:\1600001-1600999\1600216 (LYNNWOOD LINK)\CADD\DESIGN\PW DOWNLOADS\L200\L200-L85-UCP384.DWG

90% SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. FELLOWS
DRAWN BY: J. CURTIS
CHECKED BY: S. KIRBY
APPROVED BY:

MONICA J. MORALES — STATE OF WASHINGTON — 21003 — REGISTERED PROFESSIONAL ENGINEER

kpff

HNTB Jacobs — Trusted

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT

SUBMITTED BY:	DATE:	REVIEWED BY:	DATE:
K. COLLINS	02/21/2017	J. THEODORE	02/21/2017

SCALE: 1" = 20'
FILENAME: L200-L85-UCP384
CONTRACT No.: RTA / CN 0079-15
DATE: 02/21/2017

LYNNWOOD LINK EXTENSION
CONTRACT L200
NORTHGATE STATION TO NE 200TH STREET

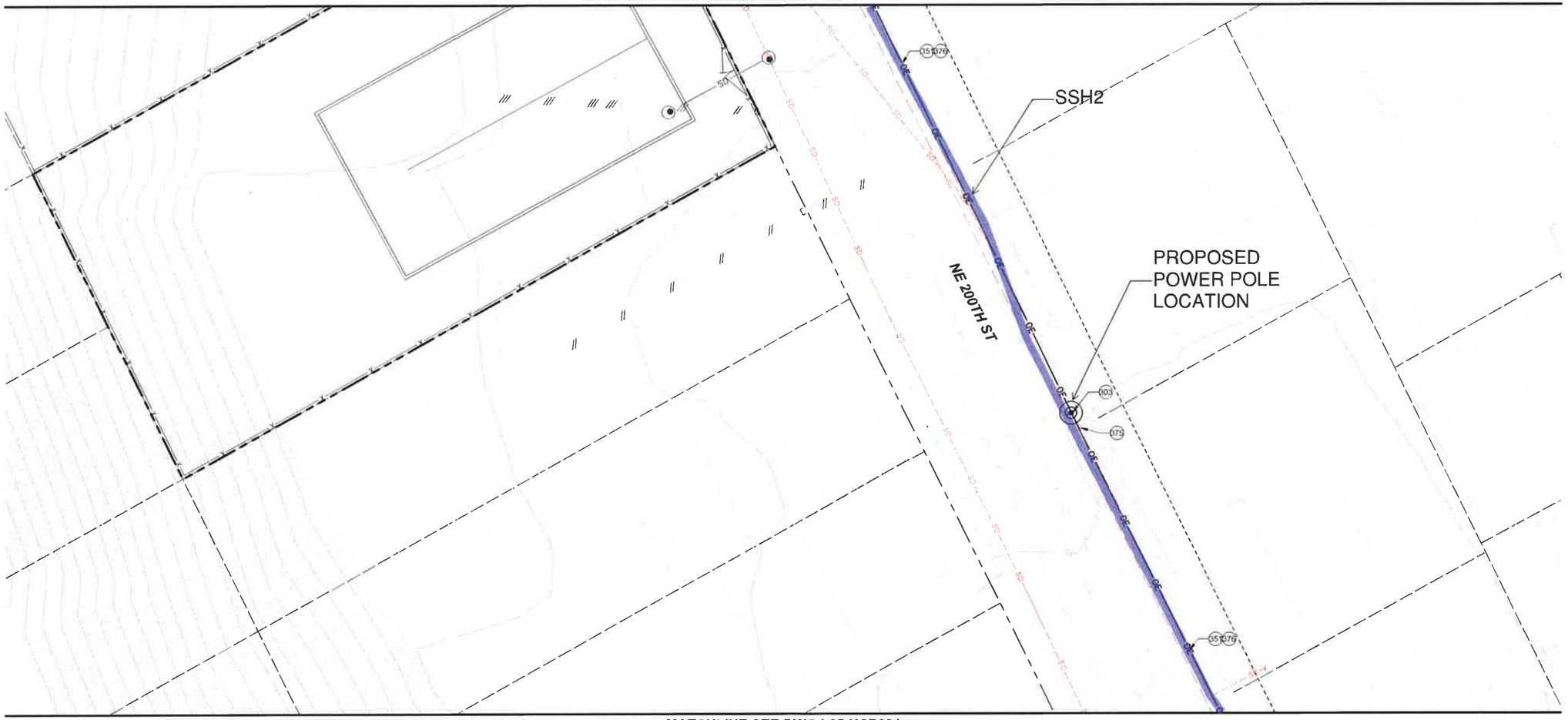
COMPOSITE UTILITY PLAN
DRY UTILITY DESIGN

DRAWING No.: L85-UCP384
LOCATION ID:
SHEET No.: 939
REV: 0

170119

Xrefs:
xL200-GB-TB22+34
xL200-L85-CAP100
xL200-L85-KAP100
xL200-L85-SEP100
xL200-L85-UCP100
xL200-L85-WPP100
xLLE-SHLN-VBP
xLLE-SHLN-VCN
xL200-L85-CRP100
xCHS-UCP-100
xL200-L85-KWP100
xL200-L85-SWP100
xL200-L85-CDP100
xL200-GBS-GZX020
xL200-L85-CLP100
xL200-L85-TSP100
GB-SEAL-MJM31003
xL200-L85-UCP300
xLLE-SHLN-VRX
xL200-L85-JEP100
xL200-L85-JOP100

MATCHLINE SEE DWG L85-UCP386



MATCHLINE SEE DWG L85-UCP384

GENERAL NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS L85-UZN100 THRU L85-UZN300. FOR ABBREVIATIONS AND SYMBOLS, SEE DRAWINGS L85-GZN001 THRU L85-GZN007.

KEY NOTES:

303. CONST STEEL UTIL POLE.

351. SCL TO CONST OH ELEC, NIC.

375. SCL TO RMV PP, NIC.

376. SCL TO RMV OH ELEC, NIC. ST TO COORDINATE WITH SCL FOR SVC DISCONNECT AND REMOVALS.

N

20 10 0 20 40
SCALE IN FEET

09/01/17 | 9:55 AM | JONC
Z:\1600001-1600999\1600216 (LYNNWOOD LINK)\CADD\FIGURES\L200\SSH2 ASSESSMENT\L200-L85-UCP385.DWG

90% SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. FELLOWS
DRAWN BY: J. CURTIS
CHECKED BY: S. KIRBY
APPROVED BY:

kpff
SUBMITTED BY: K. COLLINS
DATE: 10/24/2017

HNTB Jacobs trusted design partners
REVIEWED BY: J. THEODORE
DATE: 10/24/2017

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
SCALE: 1" = 20'
FILENAME: L200-L85-UCP385
CONTRACT No.: RTA / CN 0079-15
DATE: 10/24/2017

LYNNWOOD LINK EXTENSION
CONTRACT L200
NORTHGATE STATION TO NE 200TH STREET

COMPOSITE UTILITY PLAN
DRY UTILITY DESIGN
NE 200TH ST

DRAWING No.: L85-UCP385
LOCATION ID: N18
SHEET No.: 976
REV: 0

Xref GB-SEAL-MJM31003.dwg

170119

Xrefs:
xL200-GB-TB22+34
xL200-L85-CAP100
xL200-L85-KAP100
xL200-L85-SEP100
xL200-L85-UCP100
xL200-L85-RPP100
xLLE-SHLN-VBP
xLLE-SHLN-VCN
xL200-L85-CRP100
xCHS-UCP-100
xL200-L85-KWP100
xL200-L85-SWP100
xL200-L85-CDP100
xL200-GBS-GZK020
xL200-L85-CLP100
xL200-L85-TSP100
GB-SEAL-MJM31003
xL200-L85-UCP300
xLLE-SHLN-VRX
xL200-L85-JEP100
xL200-L85-JOP100

MATCHLINE SEE DWG L85-UCP387

R01 300+49

I-5 NB

I-5 NB OFF-RAMP

MATCHLINE SEE DWG L85-UCP347

NE 200TH ST

SSH2

PROPOSED
POWER POLE
LOCATION

MATCHLINE SEE DWG L85-UCP385

GENERAL NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS L85-UZN100 THRU L85-UZN300. FOR ABBREVIATIONS AND SYMBOLS, SEE DRAWINGS L85-GZN001 THRU L85-GZN007.

KEY NOTES:

303. CONST STEEL UTIL POLE.

351. SCL TO CONST OH ELEC, NIC.

376. SCL TO RMV OH ELEC, NIC. ST TO COORDINATE WITH SCL FOR SVC DISCONNECT AND REMOVALS.

N

20 10 0 20 40
SCALE IN FEET

90% SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. FELLOWS
DRAWN BY: J. CURTIS
CHECKED BY: S. KIRBY
APPROVED BY:

kpff
SUBMITTED BY: K. COLLINS
DATE: 10/24/2017

HNTB Jacobs trusted
REVIEWED BY: J. THEODORE
DATE: 10/24/2017

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 10/24/2017

SCALE: 1" = 20'
FILENAME: L200-L85-UCP386
CONTRACT No.: RTA / CN 0079-15

LYNNWOOD LINK EXTENSION
CONTRACT L200
NORTHGATE STATION TO NE 200TH STREET

COMPOSITE UTILITY PLAN
DRY UTILITY DESIGN
I-5 NB OFF-RAMP AND NE 200TH ST

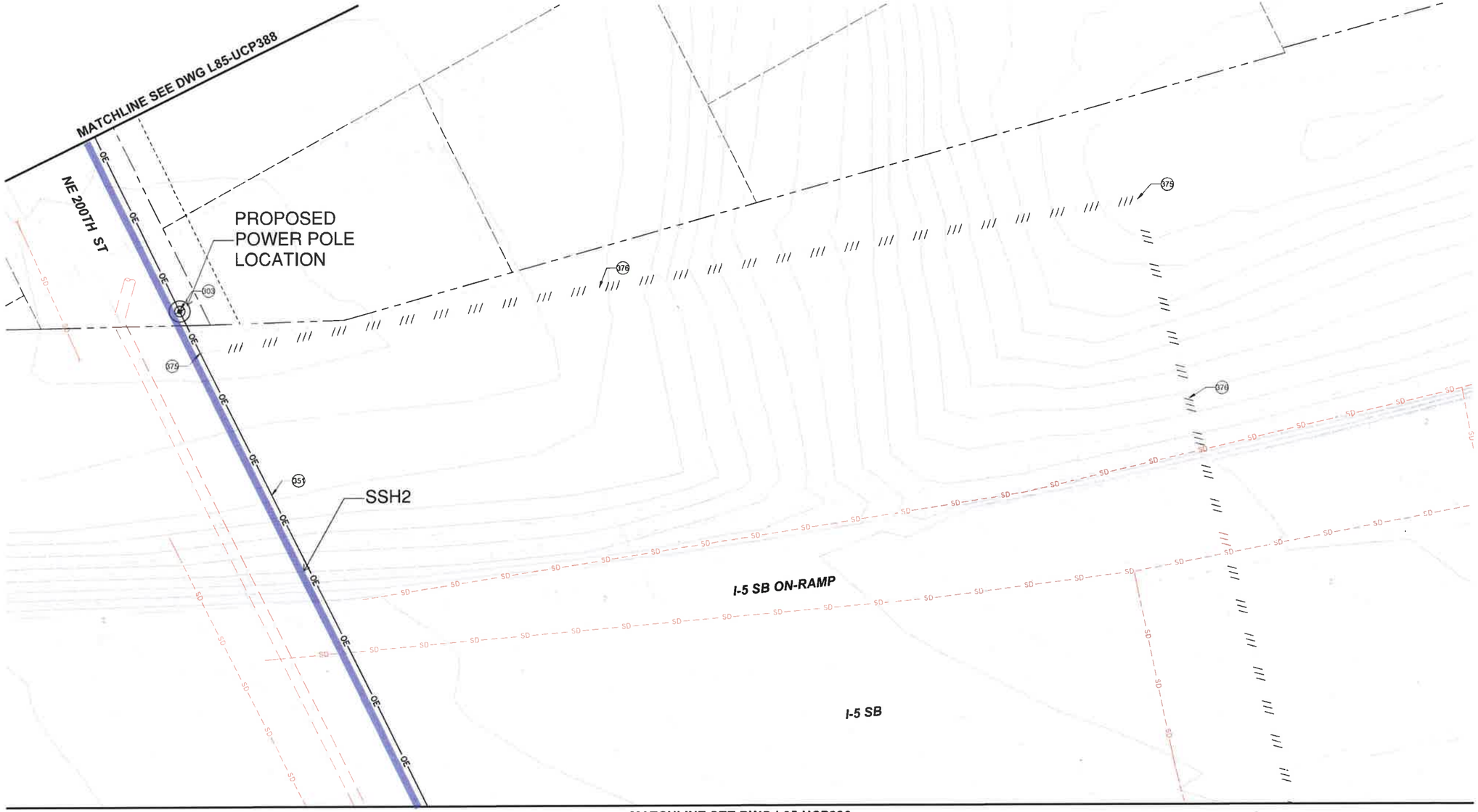
DRAWING No.: L85-UCP386
LOCATION ID: N18
SHEET No.: 977
REV: 0

09/01/17 | 9:55 AM | JONC
Z:\1600001-1600999\1600216 (LYNNWOOD LINK)\CADD\FIGURES\L200\SSH2 ASSESSMENT\L200-L85-UCP386.DWG

Xref GB-SEAL-MJM31003.dwg

170119

Xrefs:
xL200-GB-TB22x34
xL200-L85-CAP100
xL200-L85-KAP100
xL200-L85-SEP100
xL200-L85-UCP100
xL200-L85-WWP100
xLLE-SHLN-VBP
xLLE-SHLN-VCN
xL200-L85-CRP100
xCHS-UCP-100
xL200-L85-KWP100
xL200-L85-SWP100
xL200-L85-CDP100
xL200-GBS-GZK020
xL200-L85-CLP100
xL200-L85-TSP100
GB-SEAL-MJM31003
xL200-L85-UCP300
xLLE-SHLN-VRx
xL200-L85-JEP100
xL200-L85-JOP100



GENERAL NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS L85-UZN100 THRU L85-UZN300. FOR ABBREVIATIONS AND SYMBOLS, SEE DRAWINGS L85-GZN001 THRU L85-GZN007.

KEY NOTES:

303. CONST STEEL UTIL POLE.

351. SCL TO CONST OH ELEC, NIC.

375. SCL TO RMV PP, NIC.

376. SCL TO RMV OH ELEC, NIC. ST TO COORDINATE WITH SCL FOR SVC DISCONNECT AND REMOVALS.

N

20 10 0 20 40
SCALE IN FEET

90% SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. FELLOWS
DRAWN BY: J. CURTIS
CHECKED BY: S. KIRBY
APPROVED BY:

kpff — SUBMITTED BY: K. COLLINS — DATE: 10/24/2017

HNTB Jacobs trusted design partners — REVIEWED BY: J. THEODORE — DATE: 10/24/2017

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT — DATE: 10/24/2017

SCALE: 1" = 20'
FILENAME: L200-L85-UCP387
CONTRACT No.: RTA / CN 0079-15

LYNNWOOD LINK EXTENSION
CONTRACT L200
NORTHGATE STATION TO NE 200TH STREET

COMPOSITE UTILITY PLAN
DRY UTILITY DESIGN
NE 200TH ST

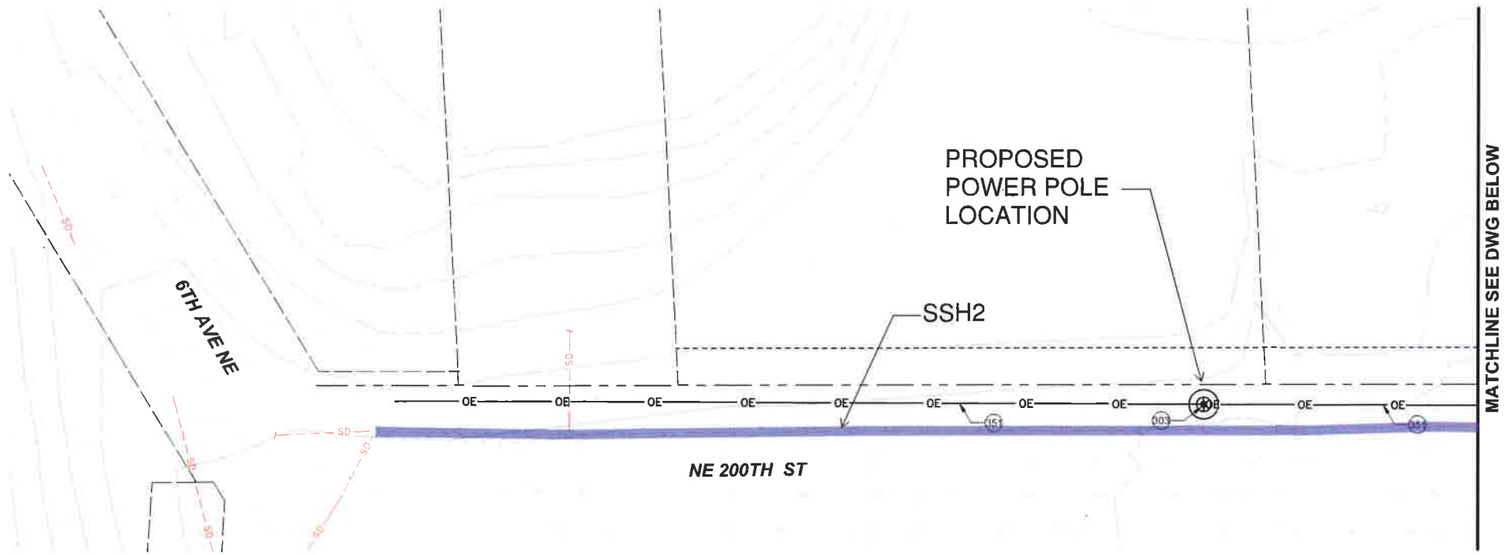
DRAWING No.: L85-UCP387
LOCATION ID: N18
SHEET No.: 978
REV: 0

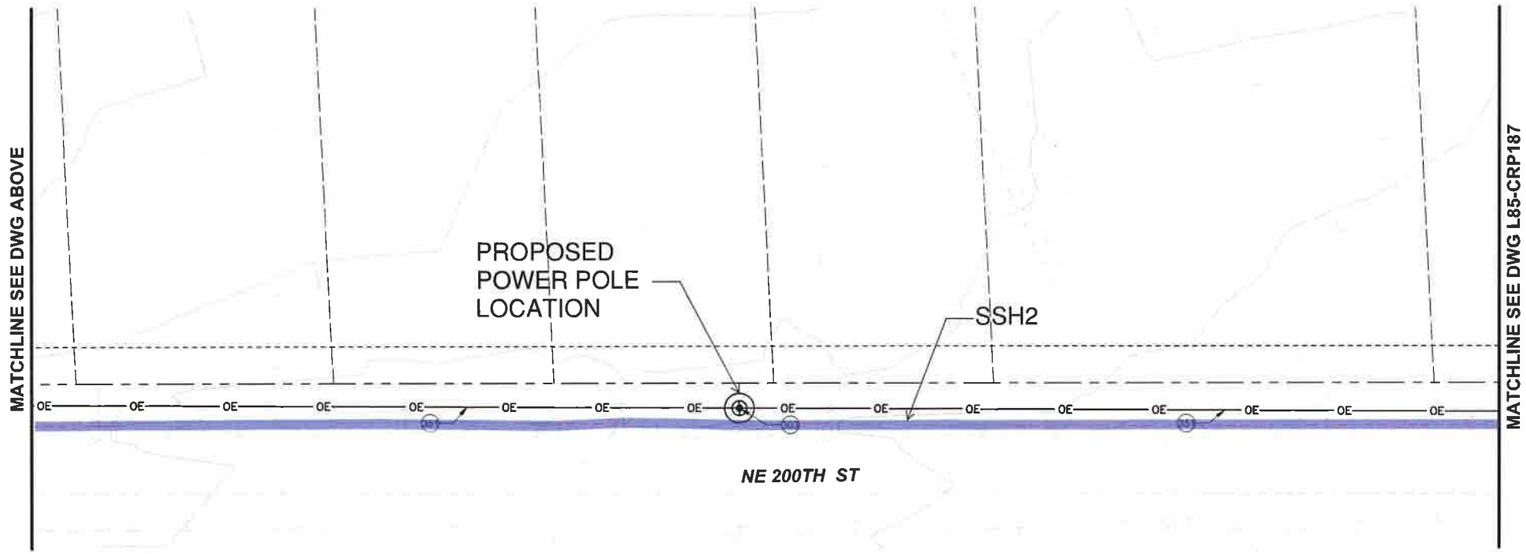
09/01/17 | 9:57 AM | JONC
Z:\160090-160099\160090\160216 (LYNNWOOD LINK)\CAD\FIGURES\L200\SSH2 ASSESSMENT\L200-L85-UCP387.DWG

Xref GB-SEAL-MJM31003.dwg

170119

Xrefs:
xL200-GB-TB22+34
xL200-L85-CAP100
xL200-L85-KAP100
xL200-L85-SEP100
xL200-L85-UCP100
xL200-L85-RPP100
xLLE-SHLN-VBP
xLLE-SHLN-VCH
xL200-L85-CRP100
xL200_L85_KWP100
xL200-L85-SWP100
xL200-L85-CDP100
xL200-G85-GZK020
xL200-L85-CLP100
xL200-L85-TSP100
GB-SEAL-MJM31003
xL200-L85-UCP300
xLLE-SHLN-VRx
xL200-L85-JEP100
xL200-L85-JOP100





GENERAL NOTES:

1. FOR GENERAL NOTES, SEE DRAWINGS L85-UZN100 THRU L85-UZN300. FOR ABBREVIATIONS AND SYMBOLS, SEE DRAWINGS L85-GZN001 THRU L85-GZN007.

KEY NOTES:

303. CONST STEEL UTIL POLE.

351. SCL TO CONST OH ELEC, NIC.

375. SCL TO RMV PP, NIC.

376. SCL TO RMV OH ELEC, NIC. ST TO COORDINATE WITH SCL FOR SVC DISCONNECT AND REMOVALS.

N

20 10 0 20 40
SCALE IN FEET

09/01/17 | 9:57 AM | JONC
Z:\1600001-1600999\1600216\LYNNWOOD LINK\\CADD\FIGURES\L200\SSH2 ASSESSMENT\L200-L85-UCP388.DWG

90% SUBMITTAL

No.	DATE	DSN	CHK	APP	REVISION

DESIGNED BY: J. FELLOWS
DRAWN BY: J. CURTIS
CHECKED BY: S. KIRBY
APPROVED BY:

kpff
SUBMITTED BY: K. COLLINS
DATE: 2/21/2017

HNTB Jacobs trusted through partnership
REVIEWED BY: J. THEODORE
DATE: 2/21/2017

LINE IS 1" AT FULL SCALE

SOUNDTRANSIT
DATE: 2/21/2017

SCALE: 1" = 20'
FILENAME: L200-L85-UCP388
CONTRACT No.: RTA / CN 0079-15

LYNNWOOD LINK EXTENSION
CONTRACT L200
NORTHGATE STATION TO NE 200TH STREET

COMPOSITE UTILITY PLAN
DRY UTILITY DESIGN

DRAWING No.: L85-UCP388
LOCATION ID:
SHEET No.: 860
REV: 0

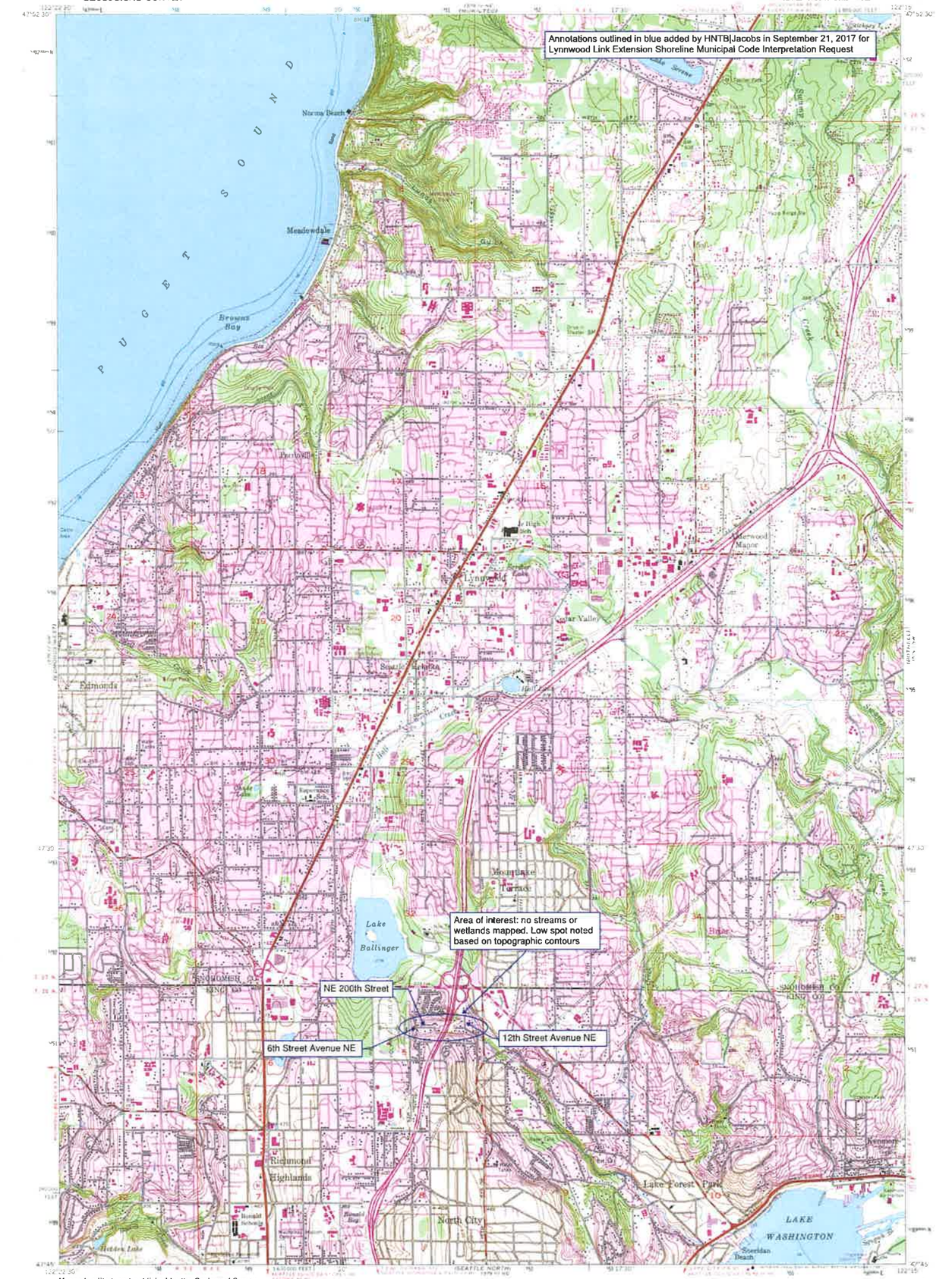
Xref GB-SEAL-MJM31003.dwg

170119

ATTACHMENT B: USGS 1953 TOPOGRAPHY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EDMONDS EAST QUADRANGLE
WASHINGTON
7.5 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and NOS/NOAA

Topography by photogrammetric methods from aerial photographs taken 1952. Field checked 1953

Selected hydrographic data compiled from NOS chart 6450
This information is not intended for navigational purposes

Polyconic projection. 10,000-foot grid ticks based on Washington coordinate system, north zone. 1000-meter Universal Transverse Mercator grid ticks, zone 10, shown in blue. 1927 North American Datum. To place on the predicted North American Datum 1983 move the projection lines 23 meters north and 93 meters east as shown by dashed corner ticks

Red tint indicates areas in which only landmark buildings are shown

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 8 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U S GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ROAD CLASSIFICATION
Heavy Duty — Light Duty
Medium Duty — Unimproved Dirt
U.S. Route — State Route

QUADRANGLE LOCATION

EDMONDS EAST, WASH.
SE/4 EDMONDS 15' QUADRANGLE
N4745—W12215/7.5

1953

DMA 1378 IV SE-SERIES V881

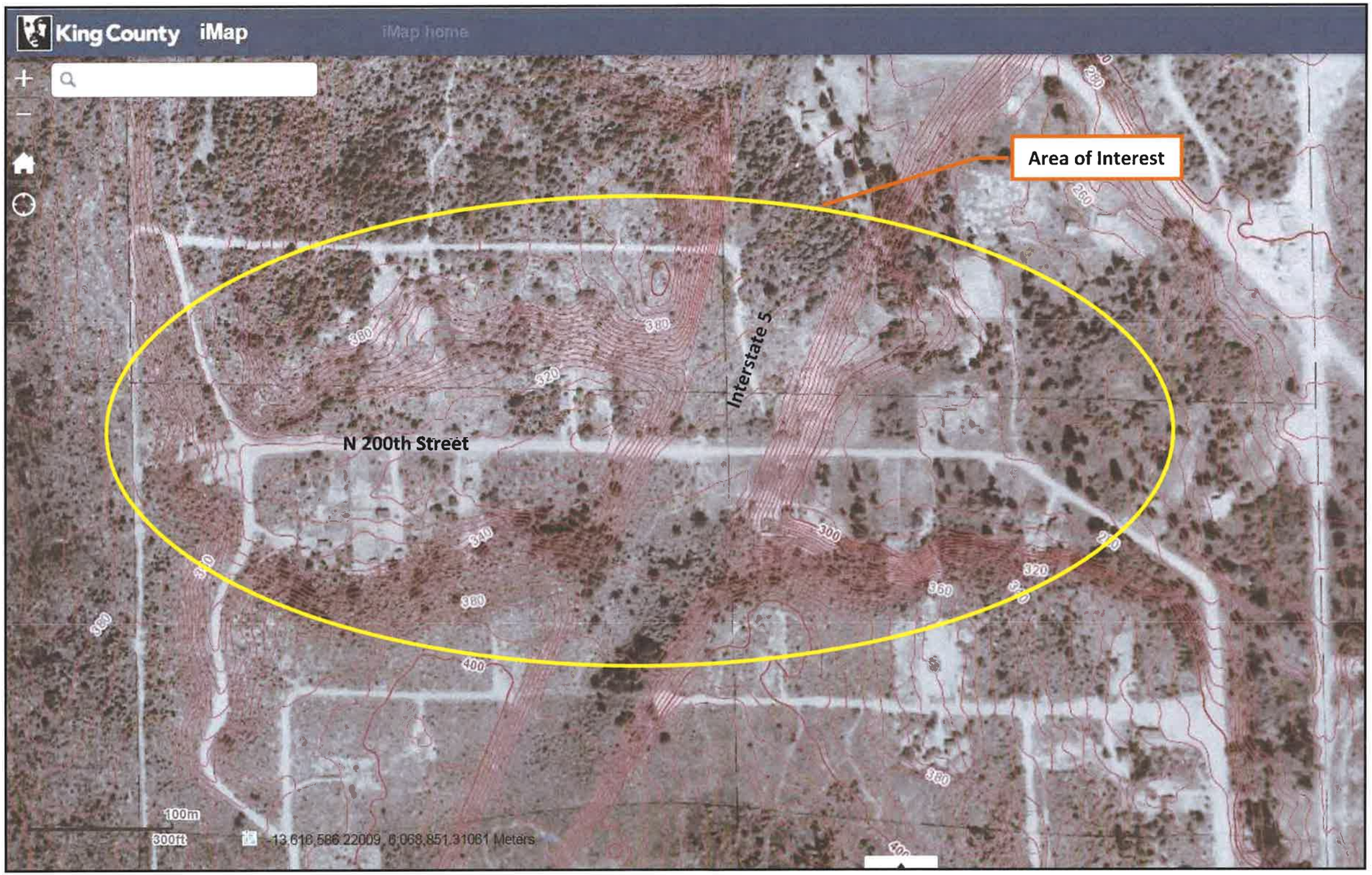
RETURN TO:
USGS MAP ARCHIVES

NOV 12 1981,

170119

ATTACHMENT C: 1936 AERIAL PHOTOGRAPHY

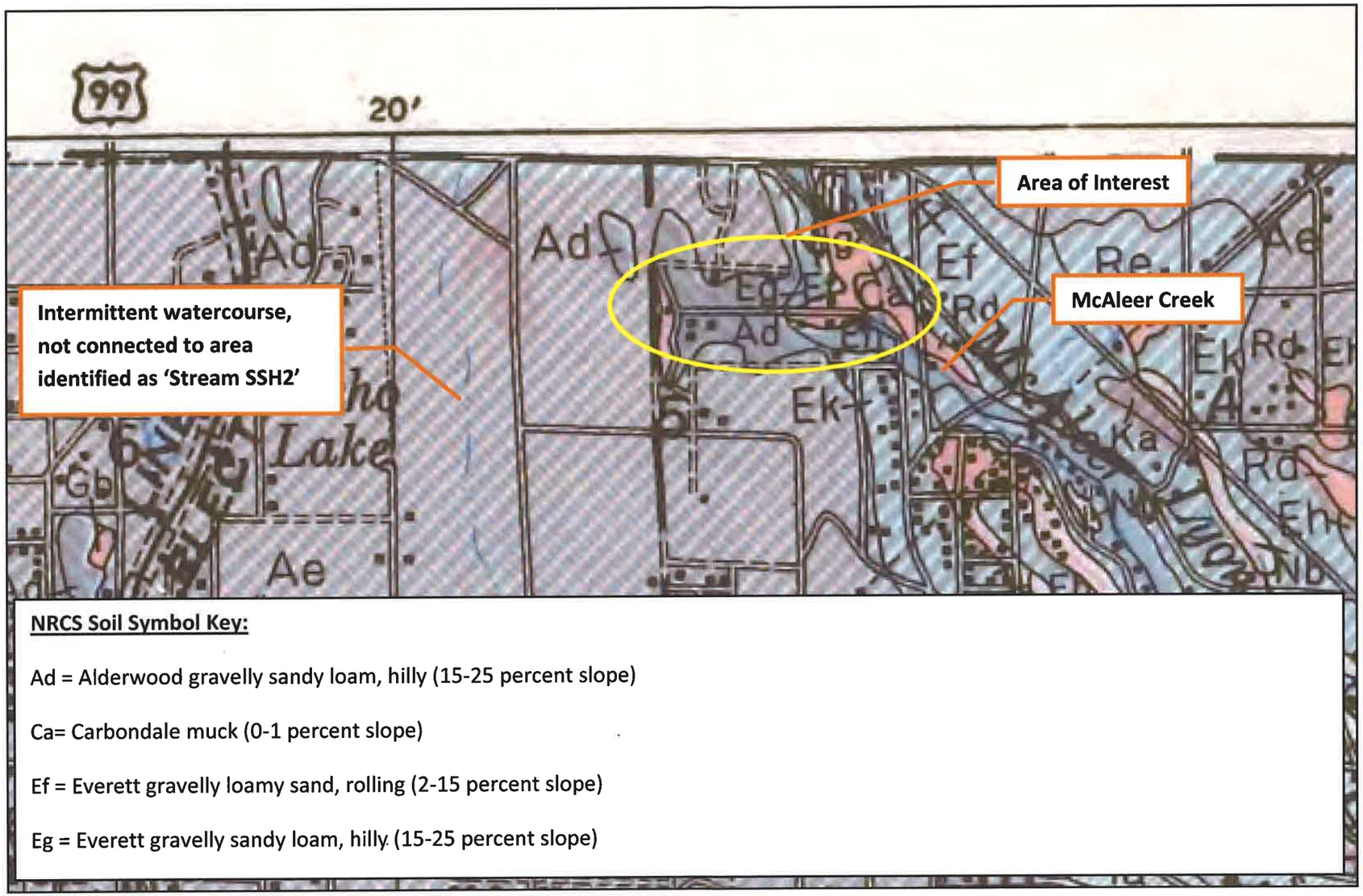
170119


King County iMap
iMap home
Area of Interest
Interstate 5
N 200th Street
100m
300ft
-13,618,586.22009, 6,068,851.31061 Meters

170119

ATTACHMENT D: 1952 KING COUNTY SOIL SURVEY

170119



NRCS Soil Symbol Key:

Ad = Alderwood gravelly sandy loam, hilly (15-25 percent slope)

Ca= Carbondale muck (0-1 percent slope)

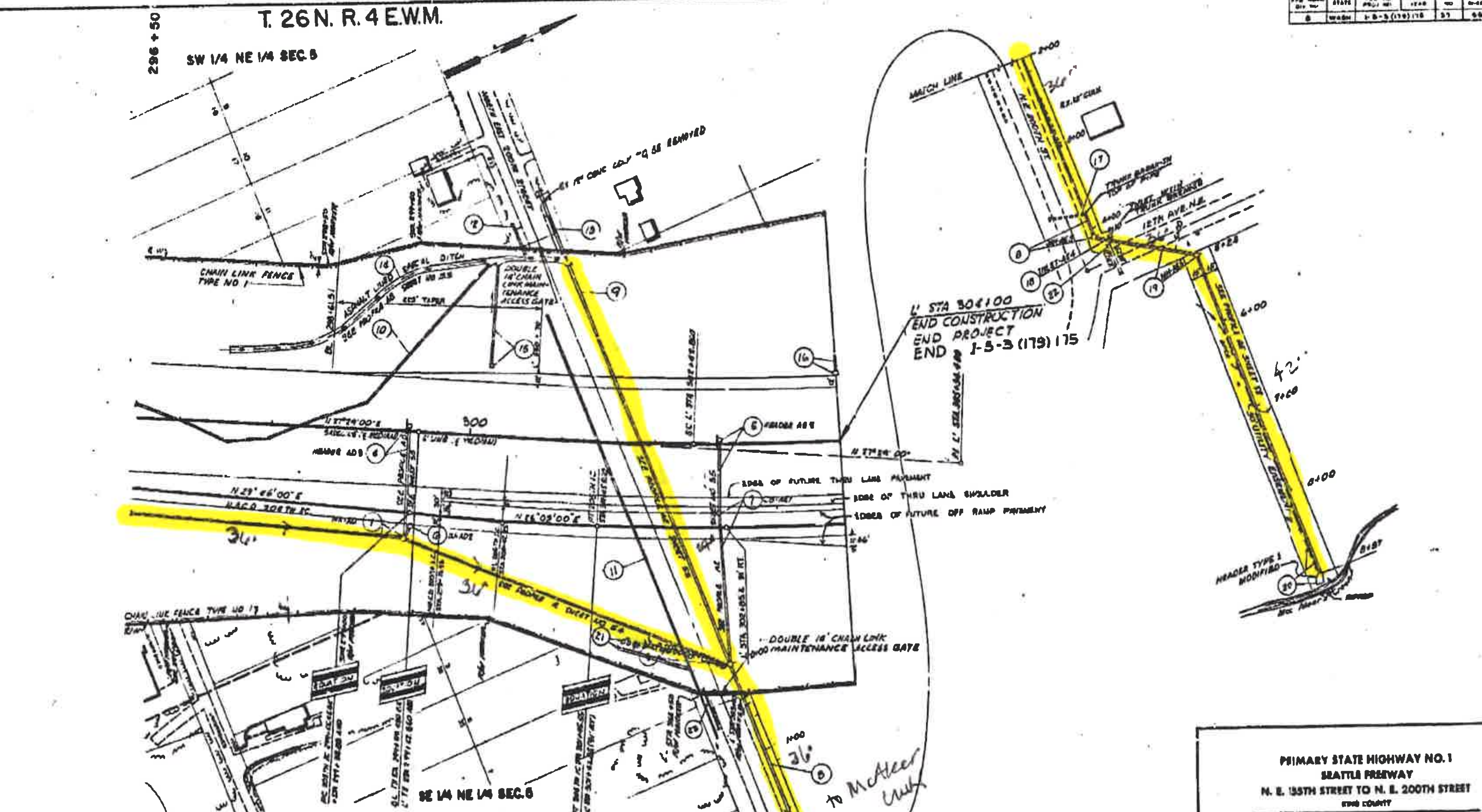
Ef = Everett gravelly loamy sand, rolling (2-15 percent slope)

Eg = Everett gravelly sandy loam, hilly (15-25 percent slope)

170119

ATTACHMENT E: WSDOT I-5 AS-BUILT

170119



NOTE:
FOR GENERAL NOTES & LEGEND SEE SHEET NO. 21
FOR STREET END DETAILS SEE SHEET NO. 40
FOR R/W & CURVE DATA SEE SHEET NO. 26

CURVE DATA: BASELINE												SPIRAL DATA		
	P.I.	T.S.	S.C.	C.S.	S.T.	Δ	CΔ	D	R	L	T	S	θ	DE	Lc
℄ MEDIAN	305+34.400	299+69.450 Bk / 299+67.850 Ahd	302+42.350	308+18.093	311+18.590 Bk / 311+19.00 Ahd	17°41'00" L	4°51'00"	2.00000	2864.789	576.84	691.55	405	7/8	3°00'00"	3.00000

PRIMARY STATE HIGHWAY NO. 1
SEATTLE FREEWAY
N. E. 135TH STREET TO N. E. 200TH STREET
KING COUNTY

ROADWAY GRADING PLAN

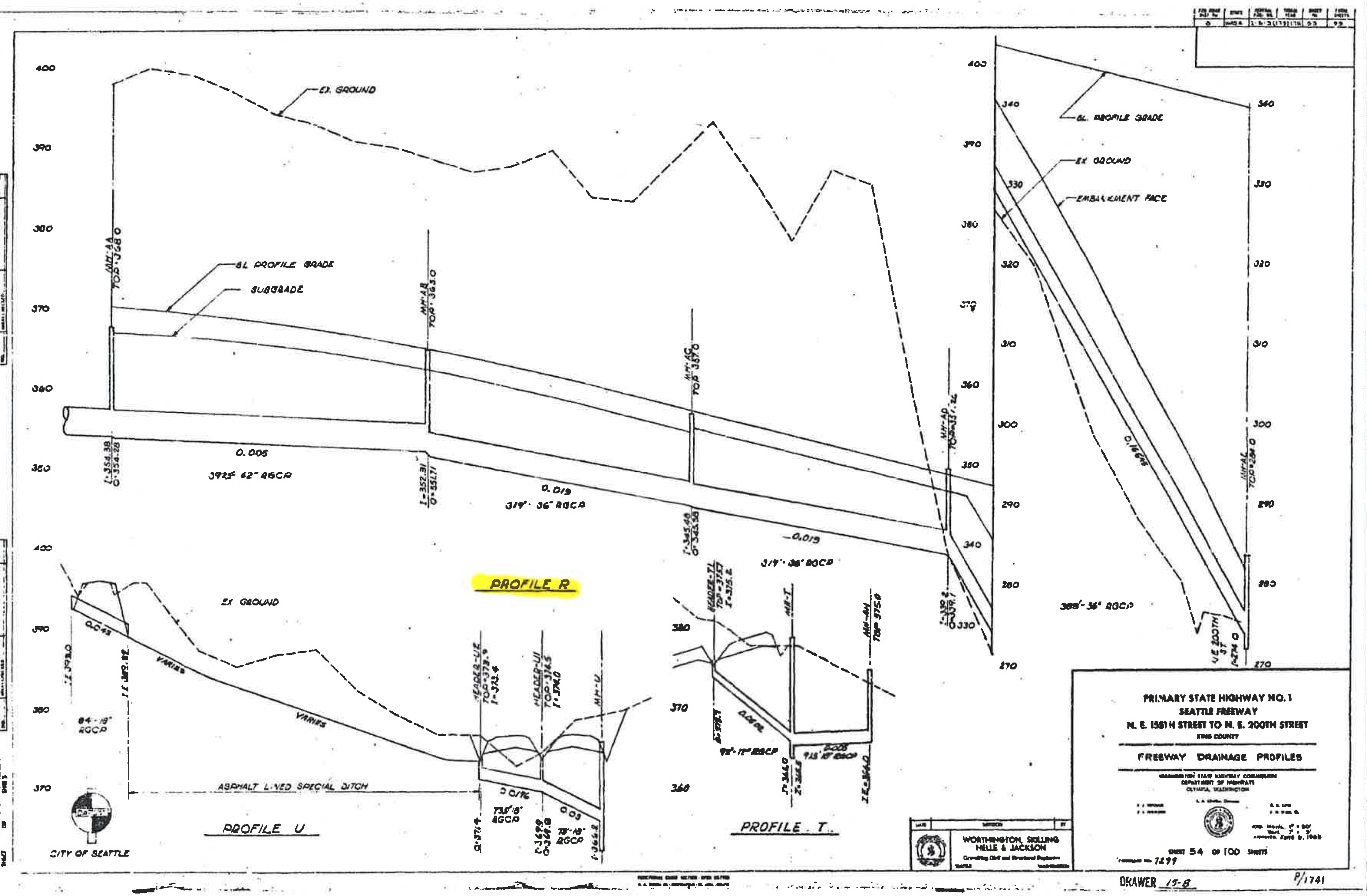
WASHINGTON STATE HIGHWAY COMMISSION
DEPARTMENT OF HIGHWAYS
OLYMPIA, WASHINGTON

WORTHINGTON, SKILLING HELLE & JACKSON

SCALE 1" = 50'
APPROVED AUG. 6, 1963
SHEET 31 OF 100 SHEETS
7299

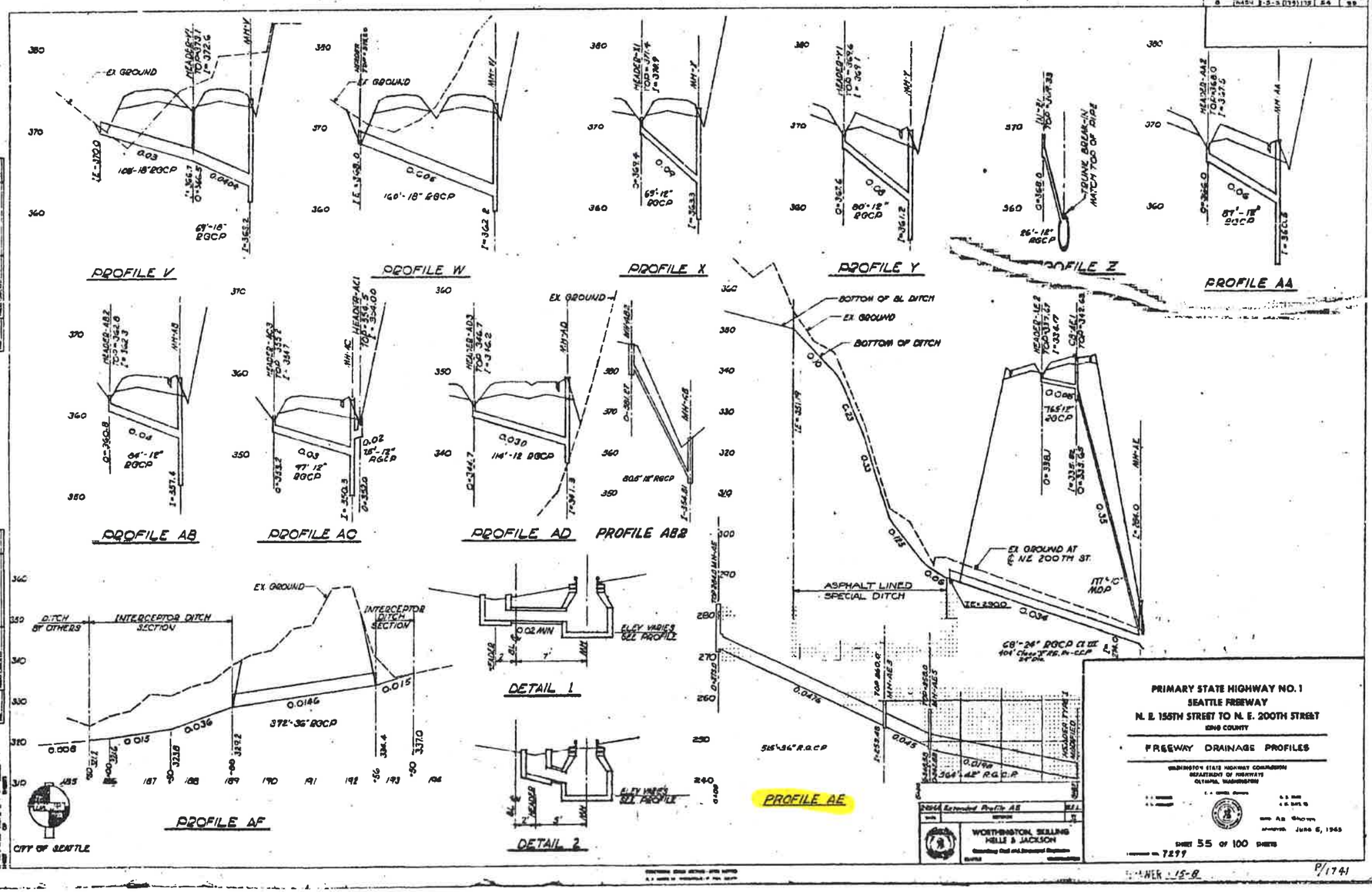
DRAWER P/1741

170119



EX. GROUND
BL PROFILE GRADE
SUBGRADE
MH-AA TOP 368.0
MH-AB TOP 363.0
MH-AC TOP 357.0
MH-AD
I-354.38
O-354.28
0.005
3925' 42" RGCP
I-352.31
O-351.71
0.019
319' 36" RGCP
-0.019
PROFILE R
EX GROUND
0.043
VARIES
84'-18" RGCP
ASPHALT LINED SPECIAL DITCH
HEADER-U2
HEADER-U1
MH-U
0.0196
0.03
73'-18" RGCP
PROFILE U
CITY OF SEATTLE
HEADER-T1
MH-T
MH-AH TOP 375.0
0.0196
92'-12" RGCP
PROFILE T
BL PROFILE GRADE
EX GROUND
EMBANKMENT FACE
388'-36" RGCP
MH-AL
NE 200TH ST
PRIMARY STATE HIGHWAY NO. 1
SEATTLE FREEWAY
N. E. 155TH STREET TO N. E. 200TH STREET
KING COUNTY
FREEWAY DRAINAGE PROFILES
WASHINGTON STATE HIGHWAY COMMISSION
DEPARTMENT OF HIGHWAYS
OLYMPIA, WASHINGTON
WORTHINGTON, SKILLING
HELLE & JACKSON
SHEET 54 OF 100 SHEETS
7299
DRAWER 15-8
P/1741

170119


PROFILE V
PROFILE W
PROFILE X
PROFILE Y
PROFILE Z
PROFILE AA
PROFILE AB
PROFILE AC
PROFILE AD
PROFILE AB2
PROFILE AE
PROFILE AF
DETAIL 1
DETAIL 2
EX. GROUND
BOTTOM OF SL DITCH
BOTTOM OF DITCH
ASPHALT LINED SPECIAL DITCH
EX. GROUND AT ℄ NE 200TH ST.
INTERCEPTOR DITCH SECTION
DITCH BY OTHERS
CITY OF SEATTLE
PRIMARY STATE HIGHWAY NO. 1
SEATTLE FREEWAY
N. E. 155TH STREET TO N. E. 200TH STREET
KING COUNTY
FREEWAY DRAINAGE PROFILES
WORTHINGTON, SKILLING HELLE & JACKSON
SHEET 55 OF 100 SHEETS
7279
P/1741

170119

ATTACHMENT F: DNR WATER TYPING

170119

Forest Practices Application Mapping Tool

DNR Home | FPARS Home | Forest Practices | FP Rules | FP Manual

Data | Active (16) | Legend

Water Bodies
Water Bodies
- Flats/Gravel Bars
- Ice
- Man Made Features
- Open Water
- Wet Area

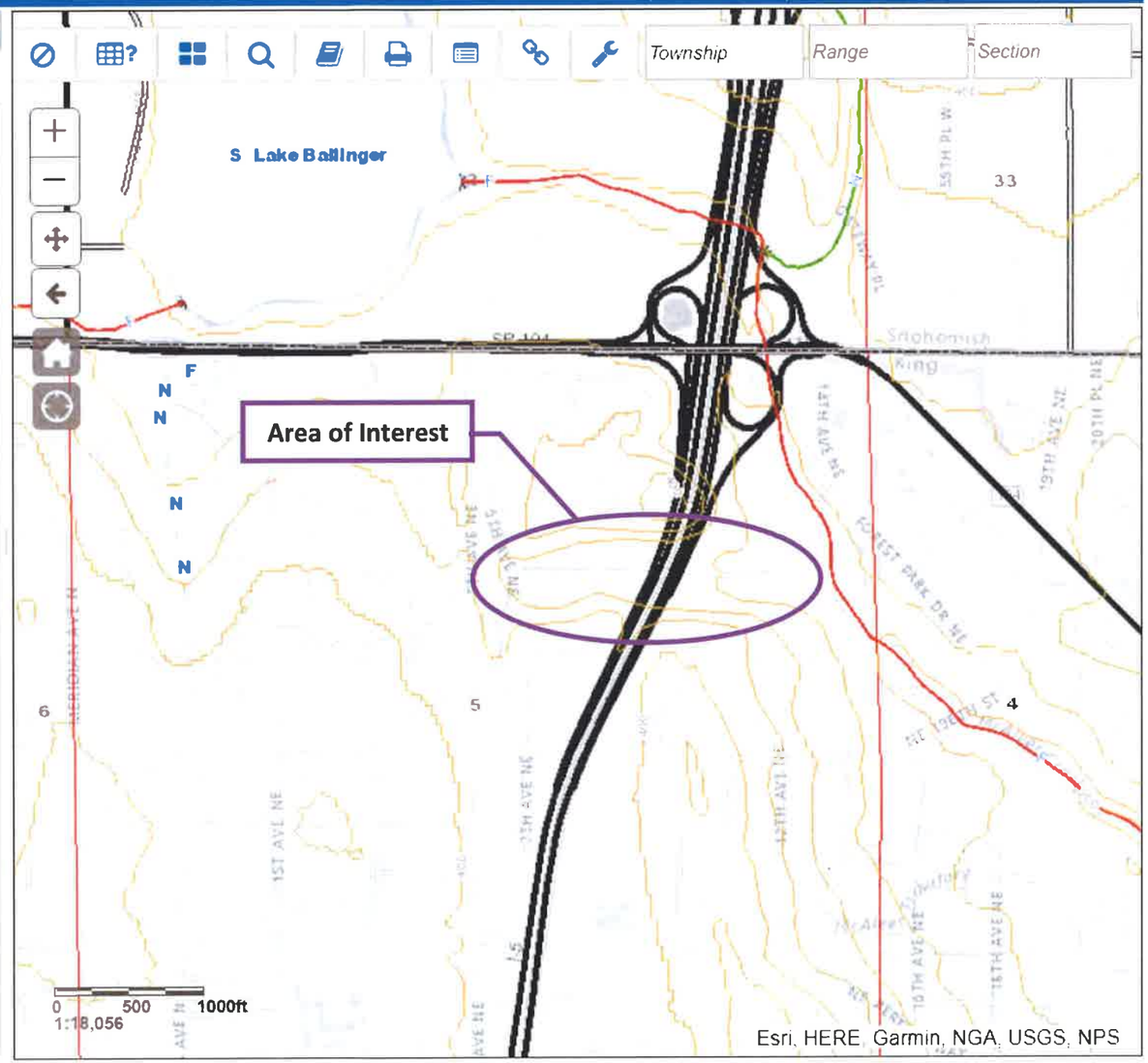
Streams
Streams
- Type S
- Type F
- Type N, Np, Ns
- U, unknown
- X, non-typed per WAC 222-16

WRIA
WRIA

WAU
WAU

Watershed Analysis
Watershed Analysis

Trails and Railroads



170119

ATTACHMENT G: WDFW SALMONSCAPE MAP

170119

WASHINGTON DEPARTMENT OF FISH & WILDLIFE

Salmonscape | HELP | FAQ | WDFW Home

SalmonScape

Map Controls

Layers | Legend | Active (4)

Fish Passage
- [x] Fish Passage
  - [x] Culverts
  - [x] Dams
  - [x] Other Barriers

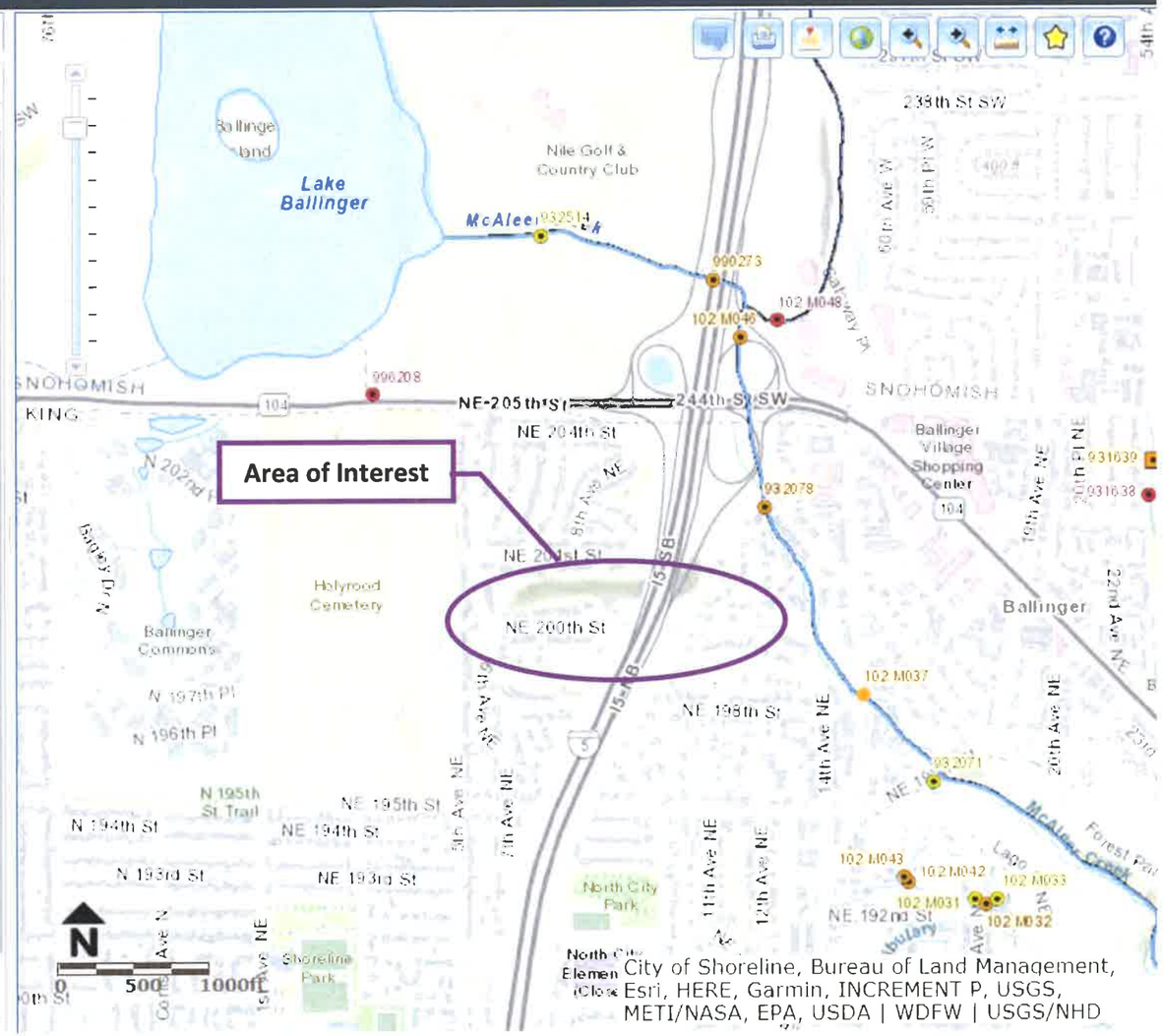
Facilities
- [ ] Facilities

Fish Distribution
- [x] Fish Distribution
  - ( ) Spring Chinook Streams
  - ( ) Summer Chinook Streams
  - ( ) Fall Chinook Streams
  - ( ) Coho Streams
  - ( ) Summer Chum Streams
  - ( ) Fall Chum Streams
  - ( ) Winter Chum Streams
  - ( ) Winter Steelhead Streams
  - ( ) Summer Steelhead
  - ( ) Sockeye Streams
  - ( ) Pink Salmon (Even Year) Streams
  - ( ) Pink Salmon (Odd Year) Streams
  - ( ) Bull Trout
  - ( ) Kokanee
  - (•) All SalmonScape Species

ESA Listing Units
- [ ] ESA Listing Units

Hydrography
- [x] Hydrography

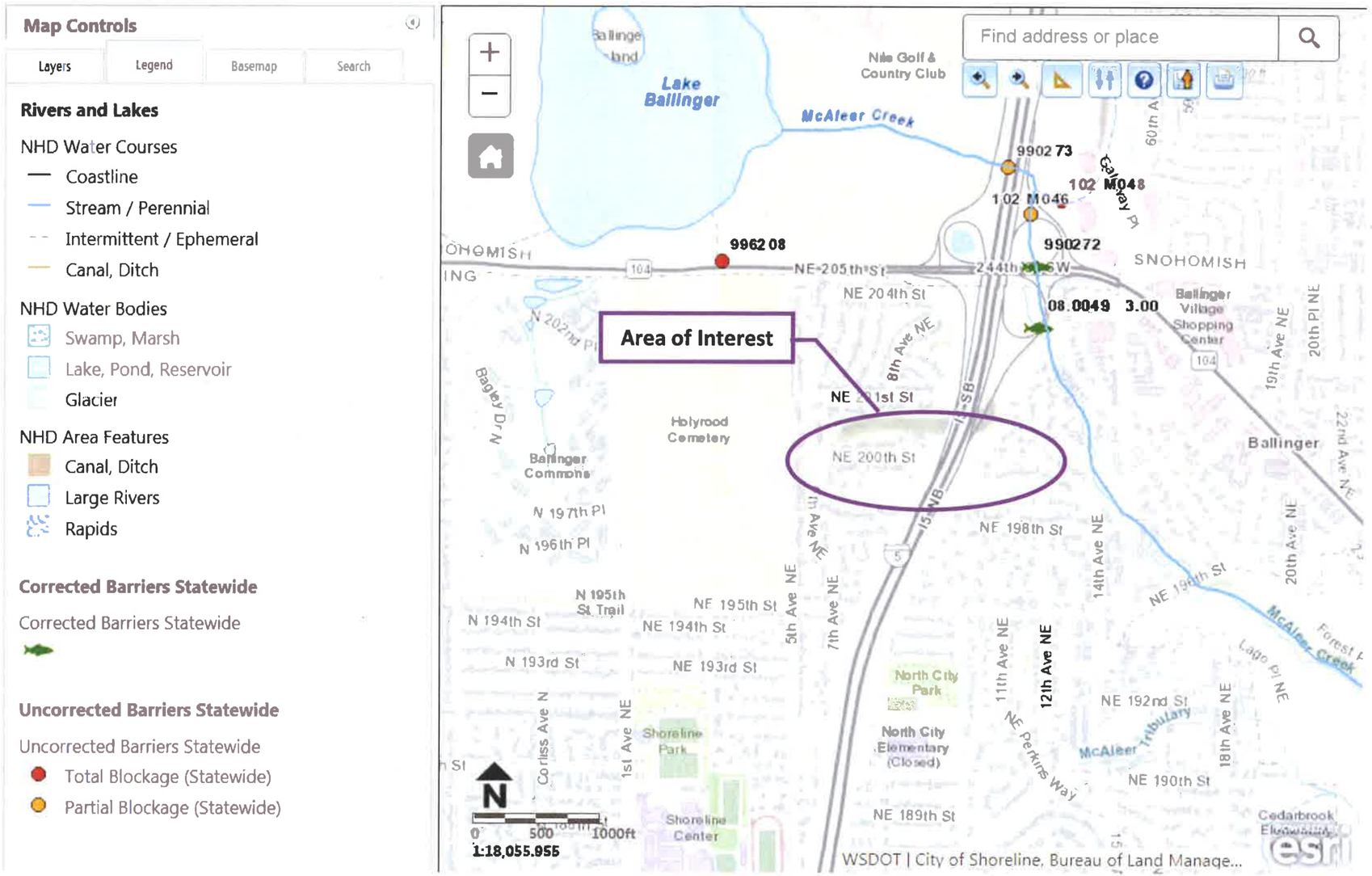
Boundaries
- [ ] Township & Range
- [ ] WRIAs
- [ ] Counties



170119

ATTACHMENT H: WSDOT FISH PASSAGE MAP

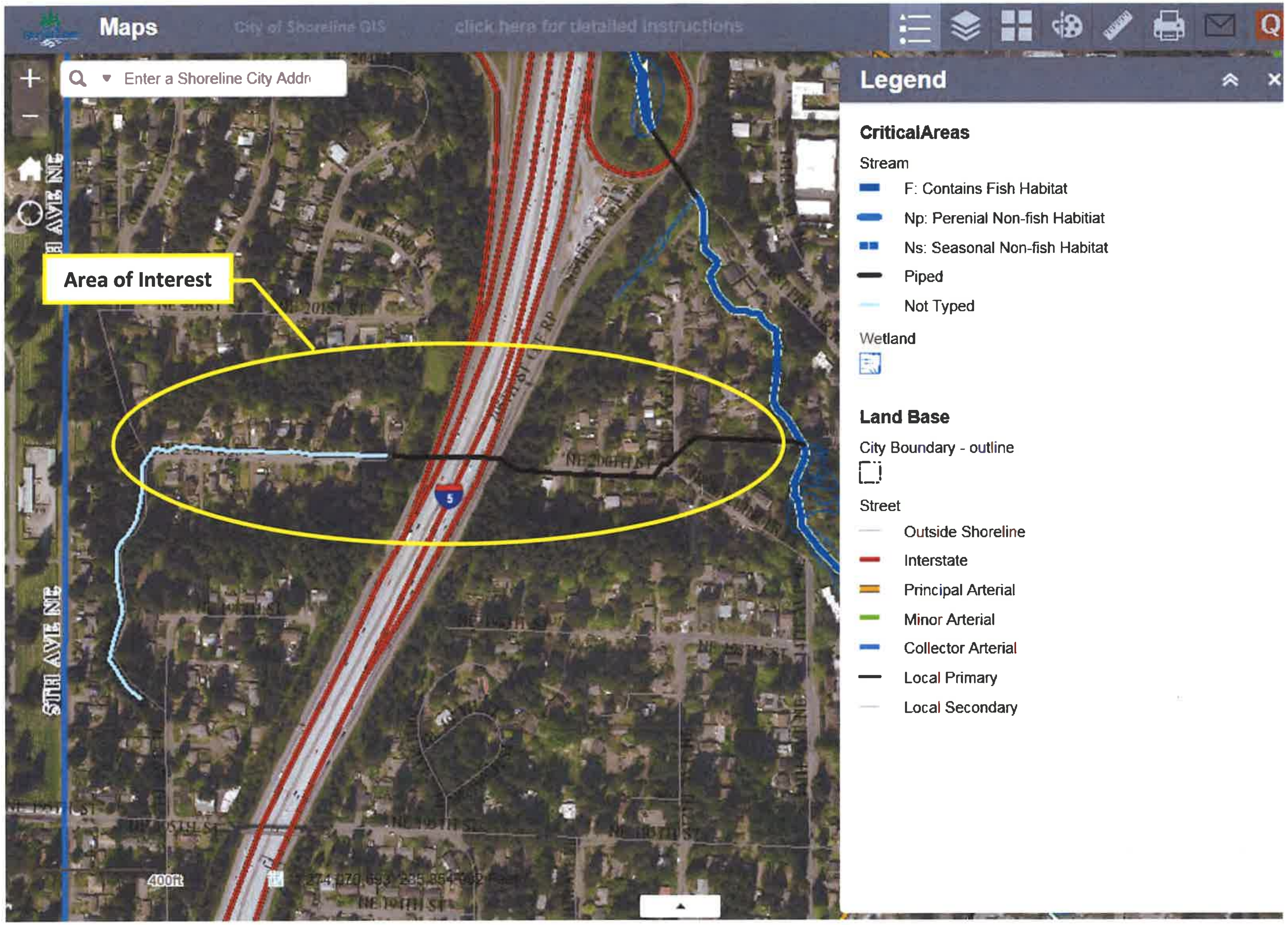
WSDOT Fish Passage Inventory



170119

ATTACHMENT I: CITY OF SHORELINE STREAM MAP

170119


Maps
Enter a Shoreline City Addr
Area of Interest
Legend
CriticalAreas
Stream
F: Contains Fish Habitat
Np: Perenial Non-fish Habitiat
Ns: Seasonal Non-fish Habitat
Piped
Not Typed
Wetland
Land Base
City Boundary - outline
Street
Outside Shoreline
Interstate
Principal Arterial
Minor Arterial
Collector Arterial
Local Primary
Local Secondary
400ft

ATTACHMENT J: BECKI KNIVETON RESUME

JACOBS

BECKI KNIVETON, PWS

WETLAND MITIGATION/PERMITTING

Becki is a biologist and permitting specialist with over 17 years of experience on transportation, utility, and rail corridor projects. She has extensive experience performing wetland and stream delineations, completing mitigation and restoration plans, and writing biological assessments. Becki has proven experience in the permitting requirements and timelines for federal, state, and local permits. She has extensive experience completing State Environmental Policy Act (SEPA) documents to comply with local agency requirements and Joint Aquatic Resources Permit Applications (JARPAs) for U.S. Army Corps of Engineers, Washington State Department of Ecology, and Washington Department of Fish and Wildlife permits. In addition, her technical expertise in mitigation design and applied ecological concepts has helped clients plan for expected permit requirements, implement permittable project designs, and meet project schedules. Becki also is an expert environmental scientist and has conducted Environmental Site Assessments for Sound Transit along the Tacoma to DuPont commuter rail corridor, for the Tukwila and Seattle Beacon Hill Stations, and for several park-and-ride facilities.

EDUCATION/QUALIFICATIONS

BS/Environmental Science, Emphasis in Botany, Minor in Chemistry, Huxley College of Environmental Studies, Western Washington University

REGISTRATIONS/ CERTIFICATIONS

Professional Wetland Scientist; WSDOT

Junior Biological Assessment Writer

OTHER

- Years of Experience: 19
- Years with Jacobs: 2

Relevant Project Experience

SR 530 Emergency Roadway Reconstruction Design-Build Project, Oso Washington (2015)
Senior Biologist. Responsible for preparing the biological assessments for the roadway reconstruction and associated mitigation. Currently monitoring the construction of the mitigation site, which includes wetland creation of 0.5 acres, construction of over 500 linear feet of new stream channel, and restoration of almost an acre of wetland and stream buffer.

244th Avenue NE Improvements, Sammamish, Washington (2010–2015)
Primary Project Biologist. Completed the wetland boundary and categorization review for this project, which included widening existing portions of 244th Avenue NE and connecting the 244th Avenue NE corridor with a bridge that spans one of the city's Category I wetlands. Responsible for designing the wetland mitigation plan; preparing the JARPA; obtaining all of the project's local, state, and federal permits; and monitoring the mitigation area to verify performance standards were met.

Deming Levee Setback, Whatcom County, Washington (2013–2015)
Project Biologist. Conducted a wetland and stream delineation to document baseline conditions. Also coordinated with the project team to design a new levee that minimized wetland and stream impacts. Based on the project hydrologic monitoring, prepared a mitigation plan to create additional wetlands and stream channel habitat on-site to compensate for project impacts. Evaluated the project's impacts to federally listed threatened and endangered species.

Horse Creek Improvements Project, Bothell, Washington (2001–2015)
Environmental Scientist and Wetland Biologist. Coordinated the geotechnical, hazardous materials, natural resources, and permitting components of the Horse Creek project, which included creating approximately 2,000 linear feet of new aboveground stream channel and associated riparian wetlands. Authored the project biological assessment and hazardous materials technical study and coordinated all state and federal permits. This project is currently under construction.

Seattle Environmentally Critical Areas Regulations and Best Available Science Review, Seattle, Washington (2014)
Lead Biologist. Provided an expert third party review and recommendations for the environmentally critical areas code for the Seattle Department of Planning and Development. Reviewed best available science, including the 2014 Washington State Department of Ecology guidance for wetland buffer widths and the 2014 revised Wetland Rating System for Western Washington.

170119

TECHNICAL MEMORANDUM

THE WATERSHED COMPANY

Date:	November 13, 2017
To:	Brian Lee, City of Shoreline Planning and Community Development
From:	Ryan Kahlo, PWS, Senior Ecologist
Project Number:	160127.1
Project Name:	Shoreline Sound Transit Peer Review

Subject: NE 200th Street Stream Determination

Peer Review

The Watershed Company recently review a memorandum provided to the City that concludes a mapped stream channel along NE 200th Street does not satisfy the definition of a regulated stream under Shoreline Municipal Code (SMC) 20.20.046 (*Lynnwood Link Extension Code Interpretation Request: Definition of 'Stream SSH2' under SMC 20.20.046"* (HNTB Jacobs. October 10, 2017) (Jacobs Memo). The Jacobs Memo summarizes reviews of several on-line inventories, historic aerial photographs, the 2004 Shoreline Wetland and Stream Inventory, and the 2015 McAleer Basin Plan. Based on a review of these materials and a site review, the Jacobs Memo concludes that the feature, identified as Stream SSH2, is a man-made, maintained drainage ditch that does not support fish. Based on these characteristics, the Jacobs Memo concludes that the feature does not satisfy the criteria needed to be considered a jurisdictional stream under SMC 20.20.046.

In addition to the on-line inventories researched by Jacobs, we reviewed the BLM Land Status and Cadastral Survey Records from 1859. This initial survey of the territory shows McAleer Creek and several tributaries but does not show this stream.

We agree that the feature appears to have been man-made for the purposes of storm water conveyance. Based on both Jacob's assessment and previous assessments conducted by staff from The Watershed Company, Stream SSH2 only flows during and immediately following substantial rain events. There is no apparent natural source of flow for the stream, and the current configuration, bank, and bed all appear artificially constructed.

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

EXHIBIT B

Existing downstream blockages preclude fish access, and the characteristics of the stream channel do not meet the requirements for fish habitat; the highly ephemeral stream is less than two feet wide.

In our opinion, SSH2 is an artificially created drainage feature that does not provide fish habitat. Based on these characteristics, we agree that the feature does not satisfy the definition of a regulated stream under SMC 20.20.046.