



US Army Corps  
of Engineers  
Seattle District



WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y

# Joint Public Notice

## Application for a Department of the Army Permit and a Washington Department of Ecology Water Quality Certification and/or Coastal Zone Management Consistency Concurrence

**US Army Corps of Engineers**  
Regulatory Branch  
Post Office Box 3755  
Seattle, WA 98124-3755  
Telephone: (206) 316-3822  
ATTN: Andrew Shuckhart,  
Project Manager

**WA Department of Ecology**  
SEA Program  
Post Office Box 47600  
Olympia, WA 98504-7600  
Telephone: (360) 407-6076  
ATTN: SEA Program,  
Federal Permit Coordinator

**Public Notice Date: July 8, 2019**  
**Expiration Date: August 6, 2019**

**Reference No: NWS-2018-1129-WRD**  
**Name: Snohomish County Public**  
**Works (North Creek Regional Trail)**

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Interested parties are hereby notified that the U.S. Army Corps of Engineers (Corps) and the Washington Department of Ecology (Ecology) have received an application to perform work in waters of the U.S. as described below and shown on the enclosed drawings dated November 2018.

The Corps will review the work in accordance with Section 404 of the Clean Water Act (CWA). Ecology will review the work pursuant to Section 401 of the CWA, with applicable provisions of State water pollution control laws and the Coastal Zone Management Act.

**APPLICANT:** Snohomish County Public Works  
Attention: Stephanie Cotton  
3000 Rockefeller Avenue MS 607  
Everett, Washington 98201

Telephone: (425) 262-2480

**LOCATION:** In North Creek and adjacent wetlands near Mill Creek, Snohomish County, Washington.

**WORK:** Snohomish County Public Works proposes to construct a 2.8 mile trail between North Creek Park and Centennial Park to connect the Sammamish River/Burke-Gilman Trail in King County with the Snohomish County Regional Interurban Trail in Everett. The project includes both permanent and temporary impacts to aquatic resources. Permanent impacts include 2.2 acres of wetlands and 1.82 acres of buffer. Temporary impacts include 0.2 acres of wetlands, 1,557 linear feet of fish-bearing stream, 65 linear feet of non-fish bearing stream, and 0.87 acres of buffer.

The proposed trail is intended to safely accommodate bicyclists, pedestrians, runners, wheelchair users, in line skaters, and other non-motorized users. The trail would provide access to recreation, employment, and retail centers; improve local connections between communities and neighborhoods; provide an alternative to driving; encourage physical activity; and connect to other existing trails and pedestrian facilities. The trail would include side paths, separated trails, and elevated structures.

## **NWS-2018-1129-WRD, Snohomish County Public Works (North Creek Regional Trail)**

**PROJECT CONSTRUCTION DETAILS:** Construction activities would include installation of temporary erosion and sedimentation control measures, and construction of temporary access roads; clearing and grubbing; removal of structures and obstructions; roadway excavation and embankment; installation of cement concrete sidewalk, and curb and gutter; installation of hot mix asphalt trail and roadway; construction of bridge and boardwalk structures, and retaining walls; installation of storm drainage, and utility relocations/adjustments; and landscaping and restoration.

### **DRAINAGE IMPROVEMENTS:**

- Approximately 22,000 square feet of permeable pavement would be used for parking areas and sidewalk connections adjacent to the trail.
- One rain garden would be installed at the proposed parking lot on Winesap Road, along with three other smaller rain gardens along the length of the trail.
- Approximately 17,000 square feet of modified infiltration trenches or infiltration chambers would be installed under the trail that would provide similar functions as rain gardens and permeable pavement.
- Two detention/flow control tanks and two cement concrete detention/flow control vaults would be installed along the proposed side path trail, adjacent to existing roadways.
- Approximately 1,500 linear feet of french drains would also be installed along with conveyance storm drain piping and new catch basin structures.

**PURPOSE:** The purpose of this project is transportation and recreational development.

**ADDITIONAL INFORMATION:** The wetland boundaries and/or location of the ordinary high water mark/ line of mean high water/ mean higher high water shown on the project drawings have not yet been verified by the U.S. Army Corps of Engineers (Corps). If the Corps determines the boundaries of the wetland/waters are substantially inaccurate a new public notice may be published.

**MITIGATION:** The overall goal of the on-site, in-kind permittee-responsible mitigation is to replace the habitats and functions lost by construction of the North Creek Regional Trail facility. The proposed mitigation would accomplish this by creating, enhancing and preserving wetlands and buffers, and enhancing in and off-channel stream habitat. Mitigation is intended to provide the following functions: Storage of floodwaters; Retention of sediments and nutrients; Organic matter production for export to downstream sites; Stream habitat; and Wildlife habitat.

Goals for the mitigation include the following:

- (1) Improve fish access, stream channel complexity and connectivity with the floodplain and adjacent stream reaches: create back-water habitats; install root wads and large woody debris; remove rip-rap along stream channel; prevent development of the site by protecting it as Critical Area Protection Areas (CAPA); and remove existing fill adjacent to stream channel.
- (2) Increase Large Woody Debris by installing root wads and large woody debris in stream channel to create channel complexity and add large woody debris to floodplain areas.
- (3) Improve riparian conditions: remove existing impervious surface from the site including single family residence; Plant native shrubs and trees to replace lawn and landscape plants; and prevent development of the site by protecting it as CAPA.

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- (4) Reduce stream water temperatures by planting native vegetation along the stream channel to provide shade.
- (5) Increase dissolved oxygen in North Creek and improve habitat for long-lived and “clinger” invertebrate species by creating areas of pools and riffles to increase oxygen levels in the stream.

The below table summarizes the proposed mitigation:

Proposed Mitigation
Enhance 3.00 acres of Category II forested/shrub wetland (Wetland K) Enhance 4.6 acres of Category I emergent wetland (North and Nickel Creek)
Preserve 6.36 acres of Category II forested/shrub wetland
Create 0.26 acres of forested stream and wetland buffer Enhance 0.22 acres of stream and wetland buffer
Create 1.5 acres of forested/shrub wetland (Wetland K) Create 0.35 acres of off-channel stream habitat
Enhance 742 linear feet of North Creek Enhance approximately 350 linear feet of Nickel Creek

**ENDANGERED SPECIES:** The Endangered Species Act (ESA) requires federal agencies to consult with the National Marine Fisheries Service (NMFS) and/or U.S. Fish and Wildlife Service (USFWS) pursuant to Section 7 of the ESA on all actions that may affect a species listed (or proposed for listing) under the ESA as threatened or endangered or any designated critical habitat. After receipt of comments from this public notice, the U.S. Army Corps of Engineers will evaluate the potential impacts to proposed and/or listed species and their designated critical habitat.

**ESSENTIAL FISH HABITAT:** The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996, requires all Federal agencies to consult with the NMFS on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). The proposed action would impact EFH in the project area. If the U.S. Army Corps of Engineers (Corps) determines that the proposed action may adversely affect EFH for federally managed fisheries in Washington waters, the Corps will initiate EFH consultation with the NMFS. The Corps’ final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NMFS.

**CULTURAL RESOURCES:** The Corps has reviewed the latest published version of the National Register of Historic Places, Washington Information System for Architectural and Archaeological Records Data and other sources of information. A historic properties investigation has been conducted within the permit area. No historic properties determined eligible for or listed on the National Register of Historic Places were found to exist within the permit area. The Corps invites responses to this public notice from Native American Tribes or Tribal governments; Federal, State, and local agencies; historical and archeological societies; and other parties likely to

## **NWS-2018-1129-WRD, Snohomish County Public Works (North Creek Regional Trail)**

have knowledge of or concerns regarding historic properties and sites of religious and cultural significance at or near the project area. After receipt of comments from this public notice, the Corps will evaluate potential impacts and consult with the State Historic Preservation Officer and Native American Tribes in accordance with Section 106 of the National Historic Preservation Act, as appropriate.

**PUBLIC HEARING:** Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, with particularity, the reasons for holding a public hearing.

**EVALUATION – CORPS:** The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefits, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

The Corps is soliciting comments from the public; Native American Nations or tribal governments; Federal, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition or deny a permit for the work. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the activity.

The described discharge will be evaluated for compliance with guidelines promulgated by the Environmental Protection Agency under authority of Section 404(b)(1) of the CWA. These guidelines require an alternatives analysis for any proposed discharge of dredged or fill material into waters of the United States.

**SOURCE OF FILL MATERIAL:** The applicant has not yet identified the source of the fill material. Should a permit be issued, the Corps will evaluate the fill material source prior to the start of construction.

**EVALUATION – ECOLOGY:** Ecology is soliciting comments from the public; Federal, Native American Nations or tribal governments, State, and local agencies and officials; and other interested parties in order to consider and evaluate the impacts of this activity. Ecology will be considering all comments to determine whether to certify or deny certification for the proposed project.

**COMMENT AND REVIEW PERIOD:** Conventional mail or e-mail comments on this public notice will be accepted and made part of the record and will be considered in determining whether authorizing the work would not be contrary to the public interest. In order to be accepted, e-mail comments must originate from the author's e-mail account and must include on the subject line of the e-mail message the permit applicant's name and reference number as shown below. Either conventional mail or e-mail comments must include the permit applicant's name and reference number, as shown below, and the commenter's name, address, and phone number. All comments whether conventional mail or e-mail must reach this office, no later than the expiration date of this public notice to ensure consideration.

**NWS-2018-1129-WRD, Snohomish County Public Works (North Creek Regional Trail)**

CORPS COMMENTS: All e-mail comments should be sent to [andrew.j.shuckhart@usace.army.mil](mailto:andrew.j.shuckhart@usace.army.mil)

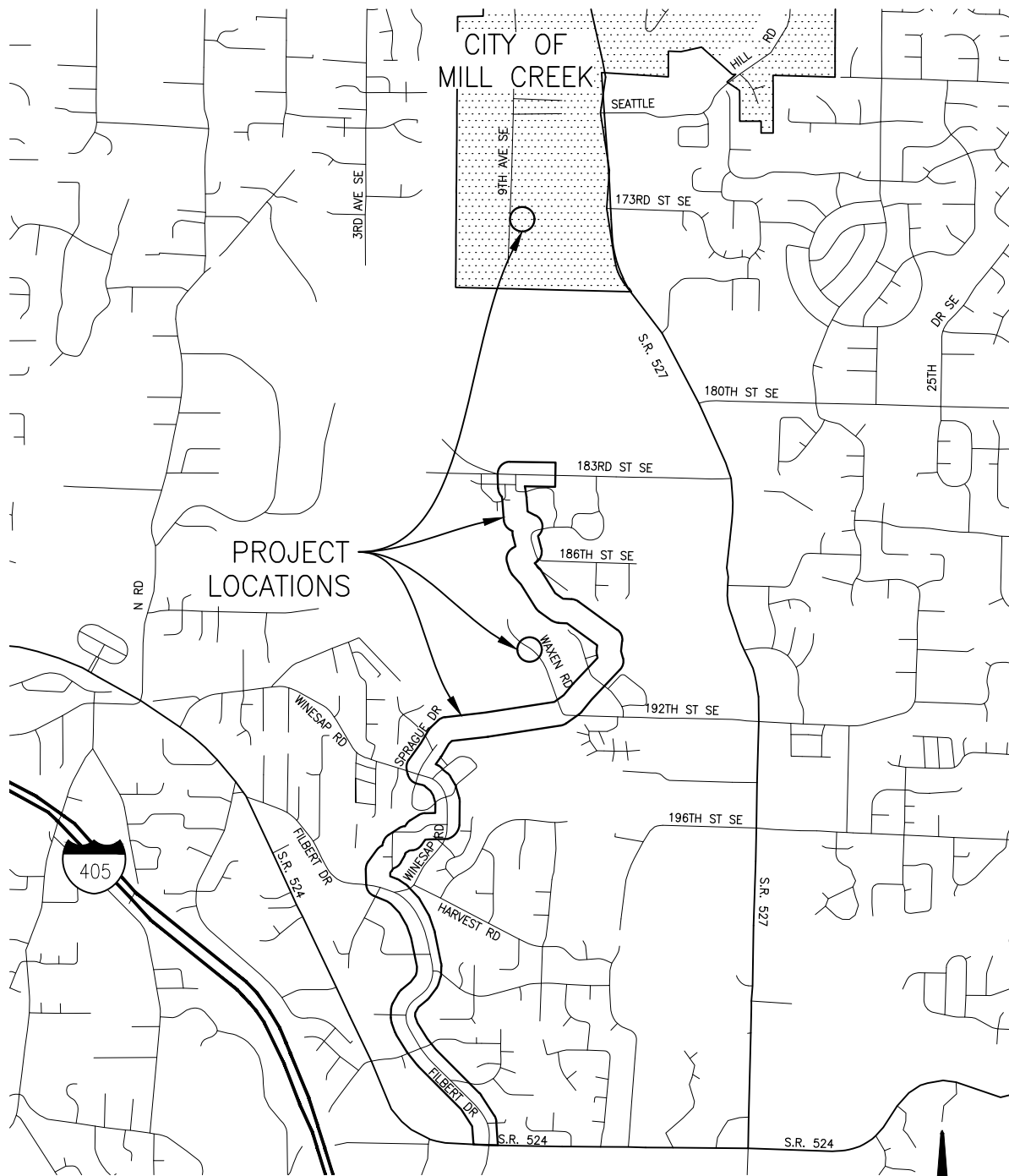
Conventional mail comments should be sent to: U.S. Army Corps of Engineers, Regulatory Branch, Attention: Andrew Shuckhart, P.O. Box 3755, Seattle, Washington 98124-3755. All comments received will become part of the administrative record and are subject to public release under the Freedom of Information Act including any personally identifiable information such as names, phone numbers, and addresses.

ECOLOGY COMMENTS: Any person desiring to present views on the project pertaining to a request for water quality certification under Section 401 of the CWA and/or Coastal Zone Management consistency concurrence, may do so by submitting written comments to the following address: Washington State Department of Ecology, Attention: Federal Permit Coordinator, Post Office Box 47600, Olympia, Washington 98504-7600, or e-mail to [ecyrefedpermits@ecy.wa.gov](mailto:ecyrefedpermits@ecy.wa.gov)

To ensure proper consideration of all comments, responders must include the following name and reference number in the text of their comments: Snohomish County Public Works (North Creek Regional Trail) NWS-2018-1129-WRD

Encl: Figures (34)

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NOT TO SCALE

PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W  
 ADJACENT PROPERTY OWNERS: SEE FIG. 4

VICINITY MAP  
 NORTH CREEK TRAIL  
 WAXEN RD  
 ROAD PROJECT NO. RC1546

PROPOSED: CONSTRUCT BICYCLE/PEDESTRIAN TRAIL  
 NEAR: CITY OF BOTHELL  
 AT: 18904 & 18924 WAXEN RD,  
 SECTS. 18, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 1 OF 34 DATE: NOVEMBER, 2018

## SHEET INDEX

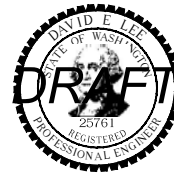
## LEGEND

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WETLAND G	26		
WETLAND F	27		
WETLAND O & STREAM D			

### CONTACTS:

DAVID LEE, P.E., PROJECT MANAGER  
 SNOHOMISH COUNTY PUBLIC WORKS  
 3000 ROCKEFELLER AVE. M/S 607  
 EVERETT, WA. 98201  
 425-388-6694

STEPHANIE COTTON, SENIOR PLANNER  
 SNOHOMISH COUNTY PUBLIC WORKS  
 3000 ROCKEFELLER AVE. M/S 607  
 EVERETT, WA. 98201  
 425-262-2481



	SECTION LINE
	QUARTER SECTION LINE
	EXISTING RIGHT-OF-WAY LINE
	RIGHT-OF-WAY CENTERLINE
	PROPERTY LINE
	EXISTING EASEMENT LINE
	EDGE OF ASPHALT
	BUILDING
	EDGE OF CONCRETE
	DITCH
	FENCE
	EDGE OF GRAVEL
	PLANTER
	VEGETATION LINE
	AERIAL POWER CULVERT
	CREEK
	CREEK BUFFER
	WETLANDS
	WETLAND BUFFER
	THALWEG
	ORDINARY HIGH WATER MARK
	CASED MONUMENT
	REBAR
	UTILITY/POWER POLE
	UTILITY POLE ANCHOR
	GUY POLE
	WETLAND FLAG
	DECIDUOUS TREE
	EVERGREEN TREE
	SHRUB
	STUMP

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### SHEET INDEX, NOTES & LEGEND

NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

PROPOSED: CONSTRUCT BICYCLE/PEDESTRIAN TRAIL  
 NEAR: CITY OF BOTHELL  
 AT: 18904 & 18924 WAXEN RD,  
 SECTS. 18, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 2 OF 34 DATE: NOVEMBER, 2018

**ADJACENT PROPERTY OWNERS**

(X)	PARCEL	OWNER	PROPERTY ADDRESS
1	27051900300200	SNOHOMISH CO PROP MGMT	UNKNOWN
2	00373002000300	NEW LIFE FELLOWSHIP UNITED PENTECOSTAL	20618 FILBERT DR, BOTHELL, WA 98012
3	00373002000101	K & TS LIMITED PARTNERSHIP	20512 FILBERT DR, BOTHELL, WA 98012
4	01106900000100	EDDIES M VAHABNIJAD & NAHID SALIMI	506 NELLIS RD, UNIT A, BOTHELL, WA 98012
5	00702200009800	SUNDQUIST CONSTRUCTION INC	UNKNOWN
6	27051900200100	SNOHOMISH COUNTY PUBLIC WORKS	UNKNOWN
7	00373002101502	KIM MYONG HO & IN-AENG	403 203RD ST SE, BOTHELL, WA 98012
8	00373002101401	JOHN FRAWLEY	20132 FILBERT DR, BOTHELL, WA 98012
9	00373002101404	DANIEL R & BETTY J SCHULTZ	20128 FILBERT DR, BOTHELL, WA 98012
10	00646700000100	STEVEN P & MOLLY M KUNZE	432 201ST ST SE, BOTHELL, WA 98012
11	00373002101200	REORGANIZED CHURCH OF LDS-BOTHELL	20012 FILBERT DR, BOTHELL, WA 98012
12	00373002101106	JARED S & KAITLYN E MCKINNEY	19918 FILBERT DR, BOTHELL, WA 98012
13	27051800300101	SNOHOMISH COUNTY PROPERTY MGMT	UNKNOWN
14	01066200099700	SUMMIT RIDGE HOA	UNKNOWN
15	00373000800803	GEOFF & KATHLYNN E KINSEY & HARDEEP S LOTAY	19218 SPRAGUE DR , BOTHELL, WA 98012
16	00373000800804	CHRISTOPHER J WOOD	19222 SPRAGUE DR , BOTHELL, WA 98012
17	00373000901202	ANDREW J & DANA A SONES	19112 WAXEN RD , BOTHELL, WA 98012
18	00373001100700	BURTON FARMS LTD PTRNSHIP	UNKNOWN
19	00373001100900	SYS LLC	19208 WAXEN RD, BOTHELL, WA 98012
20	00373000901300	STEVEN & POLLY GUSTAFSON	19128 WAXEN RD SE , BOTHELL, WA 98012
21	01043800199300	FOXGLOVE MEADOW HOMEOWNERS ASSOCIATION	UNKNOWN
22	01043800104400	KUMAR PALADUGU ANIL & SOWJANYA RAVURI	19022 13TH AVE SE, BOTHELL, WA 98012
23	01043800200600	FRANCISCO P BERNABE	1318 190TH ST SE, BOTHELL, WA 98012
24	01043800299200	FOXGLOVE MEADOW HOMEOWNERS ASSOCIATION	UNKNOWN
25	27051800404600	MCCLURE PROPERTIES LLC	UNKNOWN
26	27051800404300	MCCLURE PROPERTIES LLC	1608 188TH PL SE, BOTHELL, WA 98012
27	01006900099400	COPPER CREEK HOA	UNKNOWN
28	01043800201600	CLARK MAHALATH	18831 13TH AVE SE, BOTHELL, WA 98012
29	00373001000102	PUBLIC UTILITY DIST 1 SNO CO	UNKNOWN
30	01144900000800	ROGER J WITTE JR	18811 10TH DR SE, BOTHELL, WA 98012
31	27051800203500	SNOHOMISH CO PROP MGMT	UNKNOWN
32	01008000000100	VERONICA M & EMMANUEL D CALAYAN	18602 10TH AVE SE, BOTHELL, WA 98012
33	01006600002900	MICHAEL & RENEE HERMES	18323 8TH DR SE, BOTHELL, WA 98012
34	00373000901500	SYLVAN H DYKSTRA	19020 WAXEN RD, BOTHELL, WA 98012
35	00373000901100	SYLVAN H DYKSTRA	UNKNOWN
36	00373000900901	SNOHOMISH COUNTY PUBLIC WORKS	UNKNOWN
37	00373000900700	SNOHOMISH COUNTY PUBLIC WORKS	UNKNOWN
38	00373000901900	SUSAN T BROWN RESIDENCE TRUST & KENNETH R BROWN	18816 WAXEN RD, BOTHELL, WA 98012
39	00602000001103	DAVID & SHARON HULTEN LIVING TRUST	UNKNOWN
40	00602000001102	GREGORY G ALLEN, ELIZABETH ALLEN, CHRISTOPHER L ALLEN, SUSAN M HAFFIE, SALLY L GRAY, JAMES T MARTIN & JOHN R MARTIN III	UNKNOWN



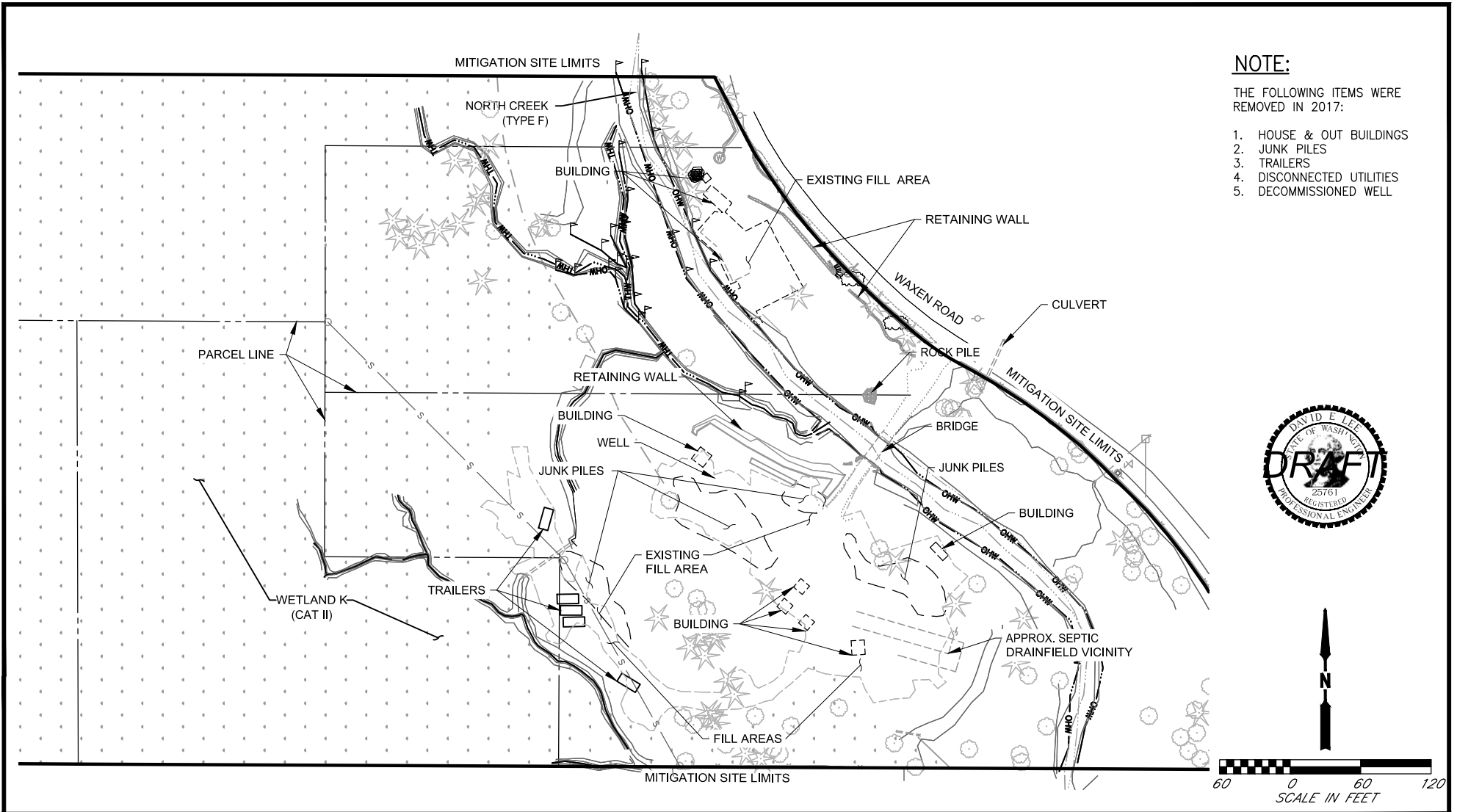
PURPOSE: CONSTRUCT TRAIL & ADVANCED MITIGATION SITE  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

**ADJACENT PROPERTY OWNERS**

NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
 AT: SECTS. 18 & 19, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 3 OF 34 DATE: NOVEMBER, 2018





**NOTE:**

THE FOLLOWING ITEMS WERE REMOVED IN 2017:

1. HOUSE & OUT BUILDINGS
2. JUNK PILES
3. TRAILERS
4. DISCONNECTED UTILITIES
5. DECOMMISSIONED WELL



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

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LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WAXEN ROAD MITIGATION SITE  
CONDITION AT PURCHASE**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

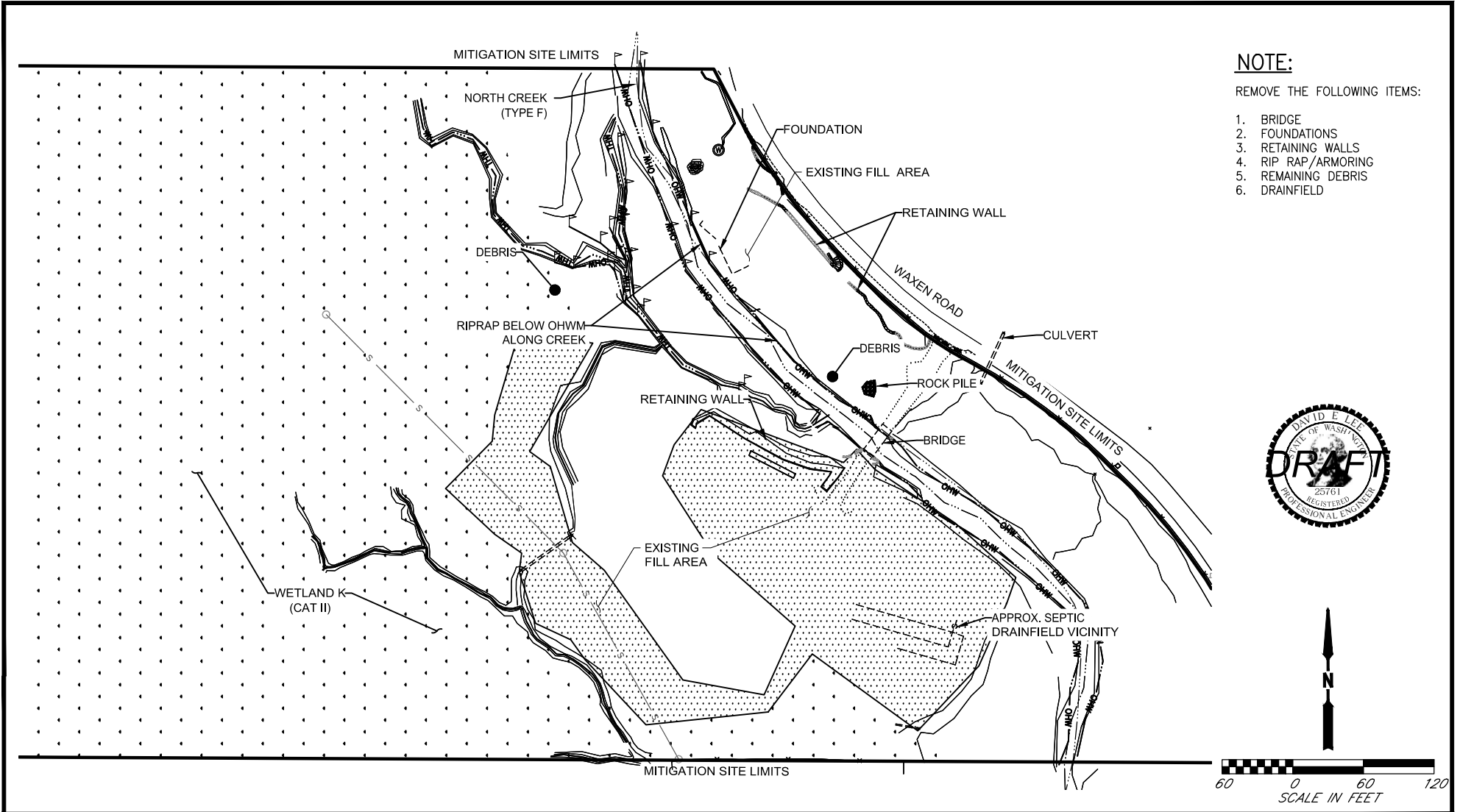
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NEAR: CITY OF BOTHELL  
AT: 18904 & 18924 WAXEN RD,  
SECTS. 18, T.27 N., R.5 E., W.M.

COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 4 OF 34

DATE: NOVEMBER, 2018



**NOTE:**

REMOVE THE FOLLOWING ITEMS:

1. BRIDGE
2. FOUNDATIONS
3. RETAINING WALLS
4. RIP RAP/ARMORING
5. REMAINING DEBRIS
6. DRAINFIELD



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WAXEN ROAD MITIGATION PLAN  
CURRENT EXISTING CONDITION**






**NORTH CREEK TRAIL**

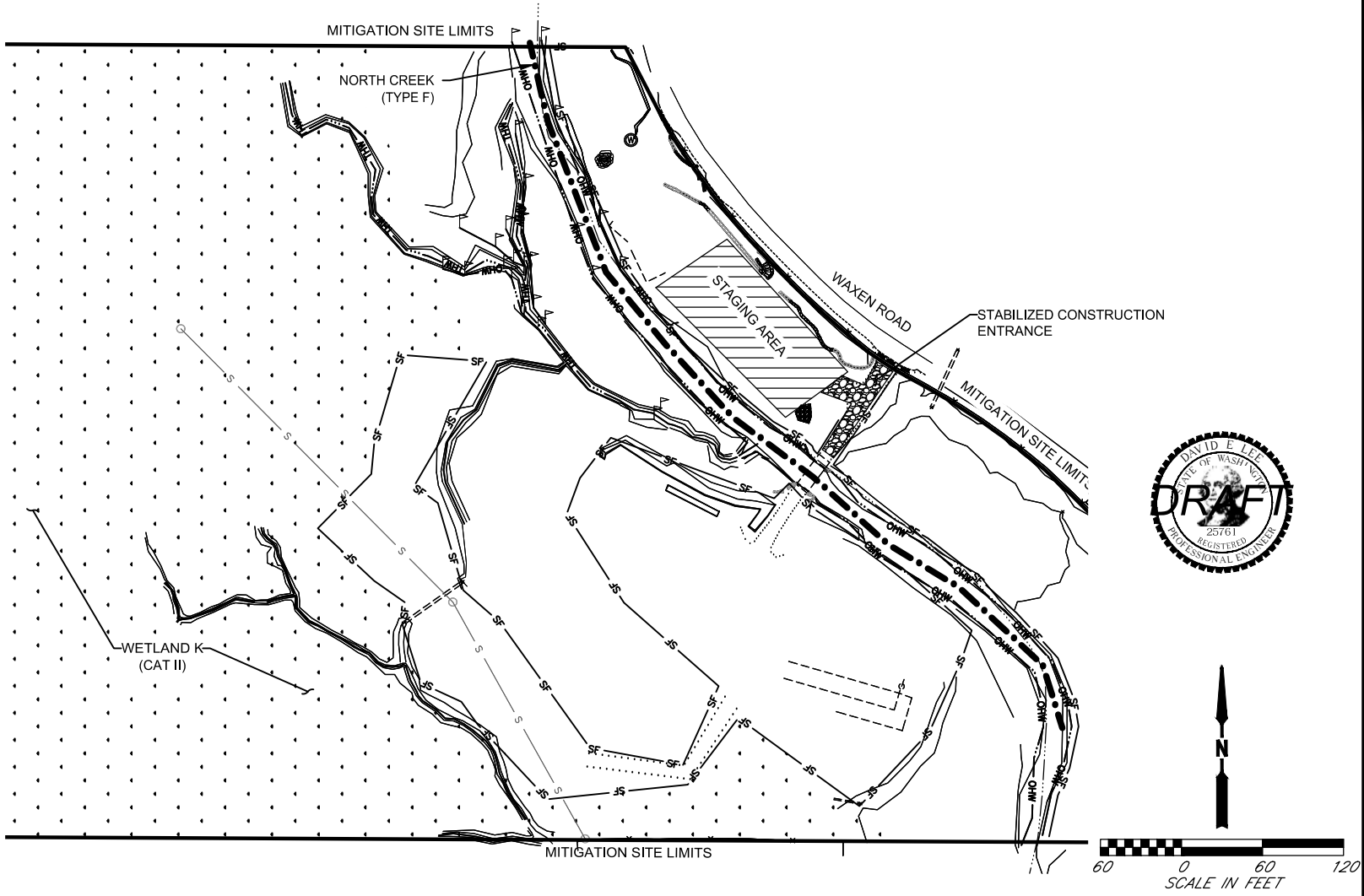
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FIGURE 5 OF 34 DATE: NOVEMBER, 2018

**LEGEND:**

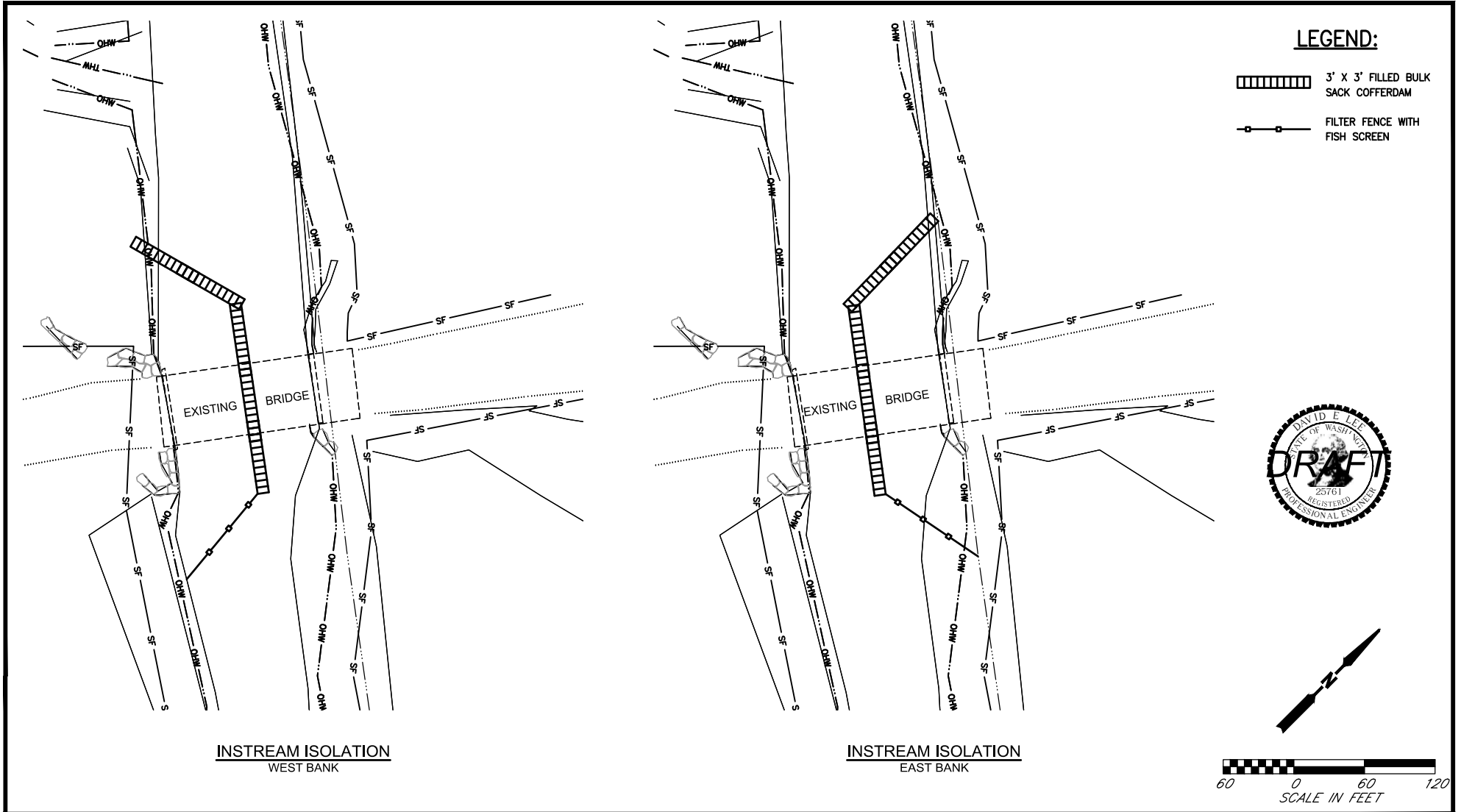
-  STABILIZED CONSTRUCTION ENTRANCE
-  STAGING AREA
-  HIGH VISIBILITY SILT FENCE
-  TEMPORARY ROAD
-  INSTREAM ISOLATION



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE  
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**MITIGATION SITE**  
**TESC & DIVERSION PLAN**  
**NORTH CREEK TRAIL**  
 208TH ST SE - 183RD ST SE  
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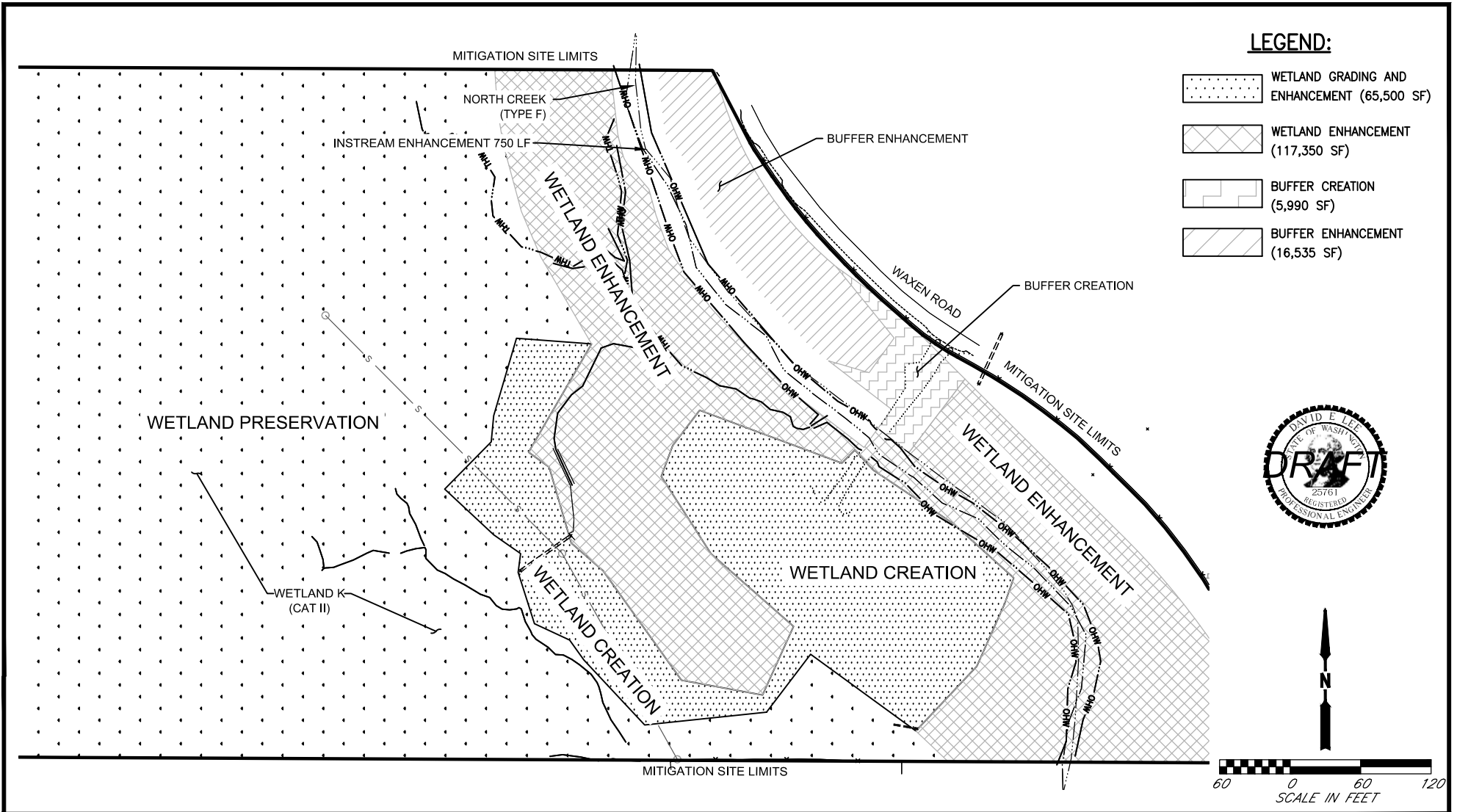
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**MITIGATION SITE  
 TESC & DIVERSION PLAN**  
 NORTH CREEK TRAIL  
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NEAR: CITY OF BOTHELL  
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 FIGURE 7 OF 34 DATE: NOVEMBER, 2018




PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE  
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**MITIGATION PLAN  
 ENHANCEMENT AREAS**  
 NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

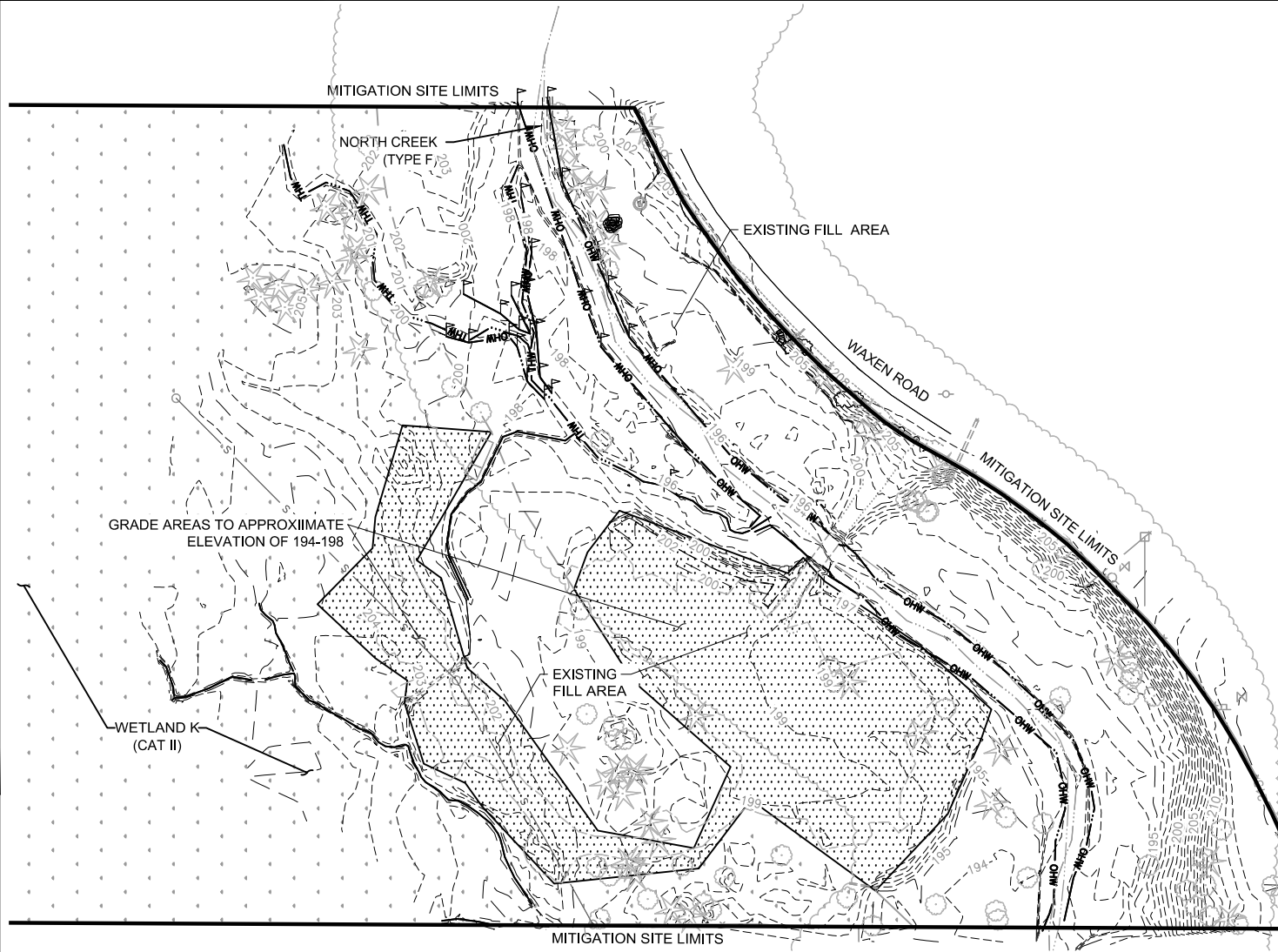
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 FIGURE 8 OF 34 DATE: NOVEMBER, 2018

**LEGEND:**

 WETLAND GRADING AND ENHANCEMENT

**GRADING NOTES:**

1. GRADING SHALL NOT BEGIN UNTIL ALL TESC MEASURES ARE FUNCTIONING IN PLACE AND HAVE BEEN INSPECTED BY THE ENGINEER.
2. REMOVE RAILROAD TIE PLANTER BOXES AND RETAINING WALLS, NON-NATIVE AND/OR INVASIVE VEGETATION, REMNANT UTILITIES, STRUCTURES AND DEBRIS.
3. REMOVE FILL, DECOMPACT SOIL AND REGRADE TO MATCH ELEVATION AND GRADIENT OF EXISTING WETLAND AREAS. GRADED AREAS ALONG THE STREAM SHOULD STRIVE TO MATCH THE BANKFULL ELEVATION.
4. INSTALL HABITAT FEATURES.



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

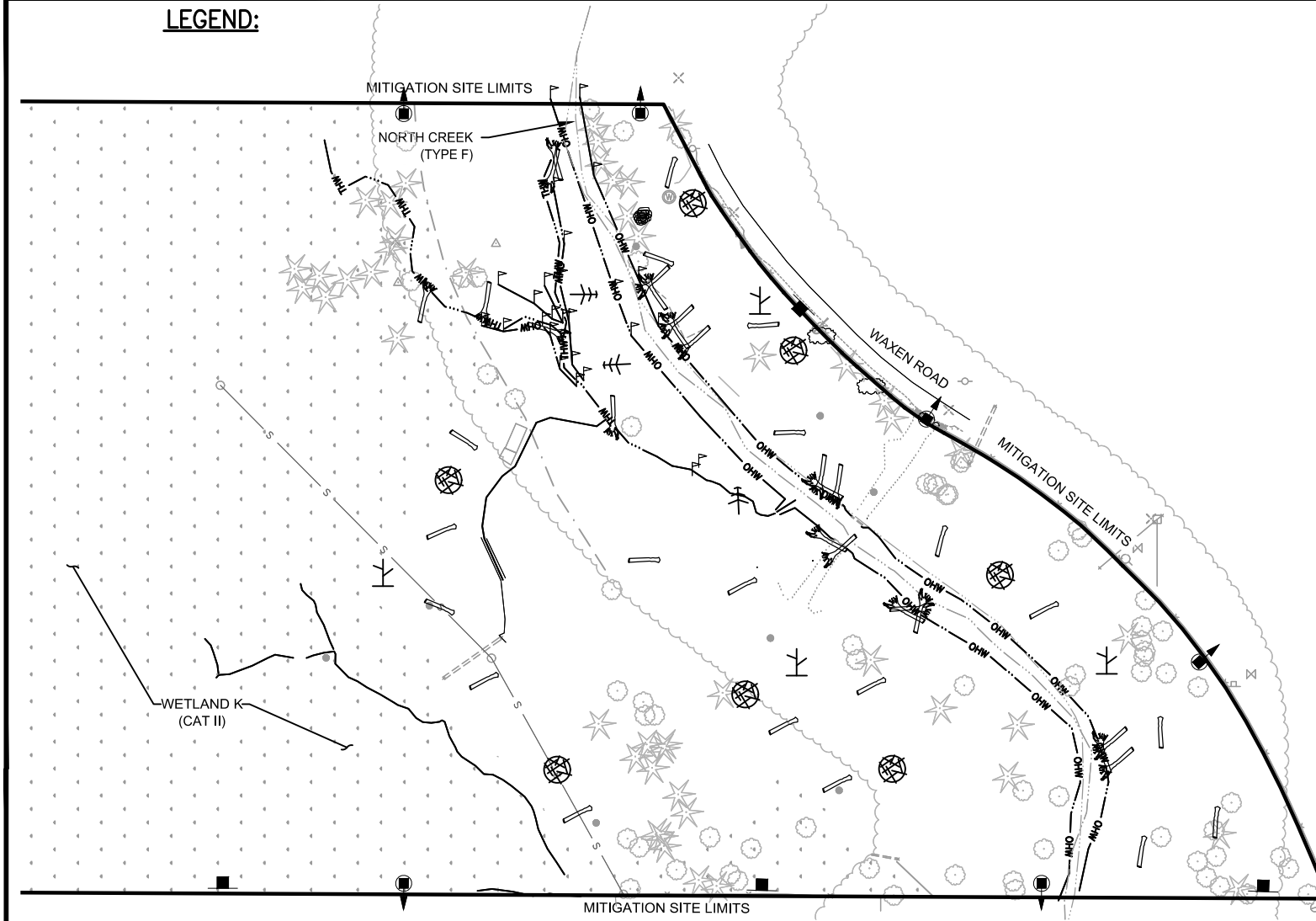
**MITIGATION SITE  
GRADING PLAN**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 18904 & 18924 WAXEN RD,  
SECTS. 18, T.27 N., R.5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 9 OF 34 DATE: NOVEMBER, 2018

**LEGEND:**



**NGPA NOTES:**

1. NGPA (NATIVE GROWTH PROTECTION AREA) FLEXIBLE GUIDEPOSTS TYPE 2 SIGN, WITH ANCHORS PER THE SPECIAL PROVISIONS, LETTERING SHALL FACE AS SHOWN BY ARROWS. GUIDEPOSTS SHALL BE PLACED AS SHOWN ON THE PLAN & DIRECTED BY THE ENGINEER.
2. NGPA TYPE 1 SIGN LOCATIONS. SIGNS SHALL BE PLACED AS SHOWN ON THE PLAN & DIRECTED BY THE ENGINEER.

- COURSE WOODY MATERIAL
- STANDING TREE SNAG
- ROOT WAD
- BRUSH PILE
- TREE TOP
- APPROXIMATE STREAM LOCATION
- TYPE 1 NGPA SIGN
- TYPE 2 NGPA SIGN

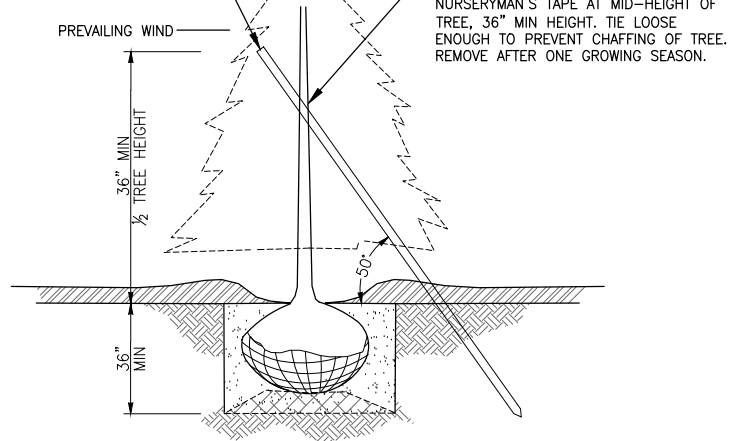


PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

**MITIGATION SITE  
 HABITAT RESTORATION PLAN**  
 NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

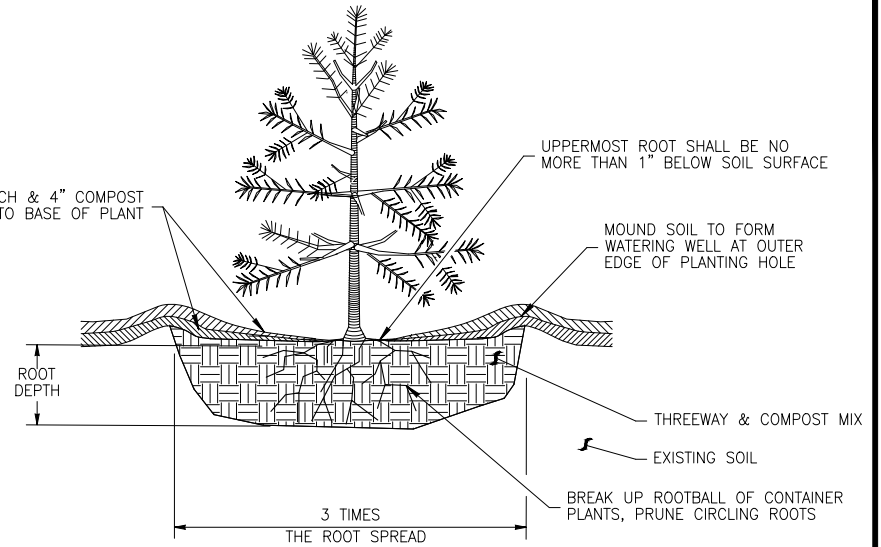
NEAR: CITY OF BOTHELL  
 AT: 18904 & 18924 WAXEN RD,  
 SECTS. 18, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 10 OF 34 DATE: NOVEMBER, 2018

TREE ANCHOR (1) 2"x2" OR 2" DIA. ROUND WOOD STAKE INSTALLED OPPOSITE SIDE FACING PREVAILING WIND. DRIVE STAKE 36" MIN DEPTH FIRMLY INTO SUBGRADE. REMOVE AFTER ONE GROWING SEASON.

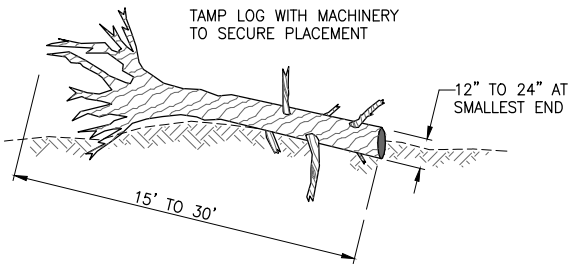


**TREE STAKING DETAIL**  
N.T.S.

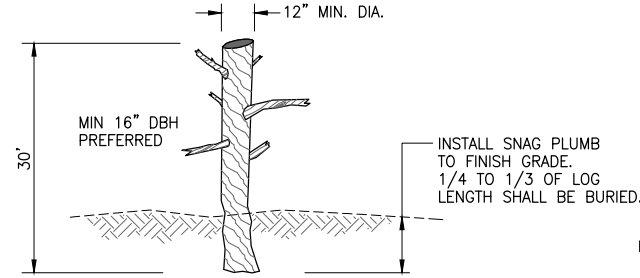
2" WOODCHIP MULCH & 4" COMPOST FEATHER TO BASE OF PLANT



**SHRUB AND TREE PLANTING DETAIL**  
N.T.S.



**COARSE WOODY MATERIAL DETAIL**  
N.T.S.

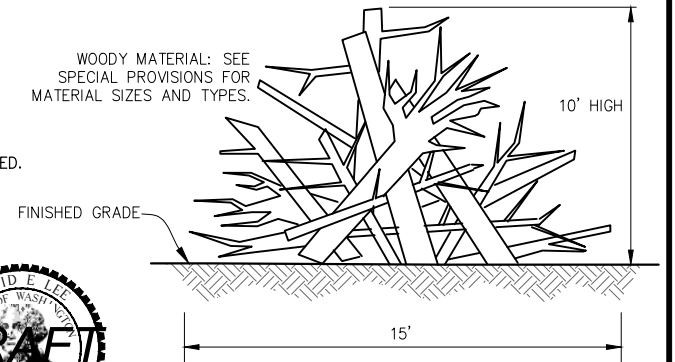


SNAGS FOR HABITAT SHALL BE A MIX OF NATIVE CONIFEROUS AND DECIDUOUS SPECIES.

- \*INSTALL 3 SNAGS GREATER THAN OR EQUAL TO 5" DBH.
- \*INSTALL 6 SNAGS GREATER THAN OR EQUAL TO 9" DBH.
- \*INSTALL 5 SNAGS GREATER THEN OR EQUAL TO 19" DBH.

**STANDING TREE SNAG DETAIL**  
N.T.S.

WOODY MATERIAL: SEE SPECIAL PROVISIONS FOR MATERIAL SIZES AND TYPES.



**BRUSH PILE DETAIL**  
N.T.S.



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

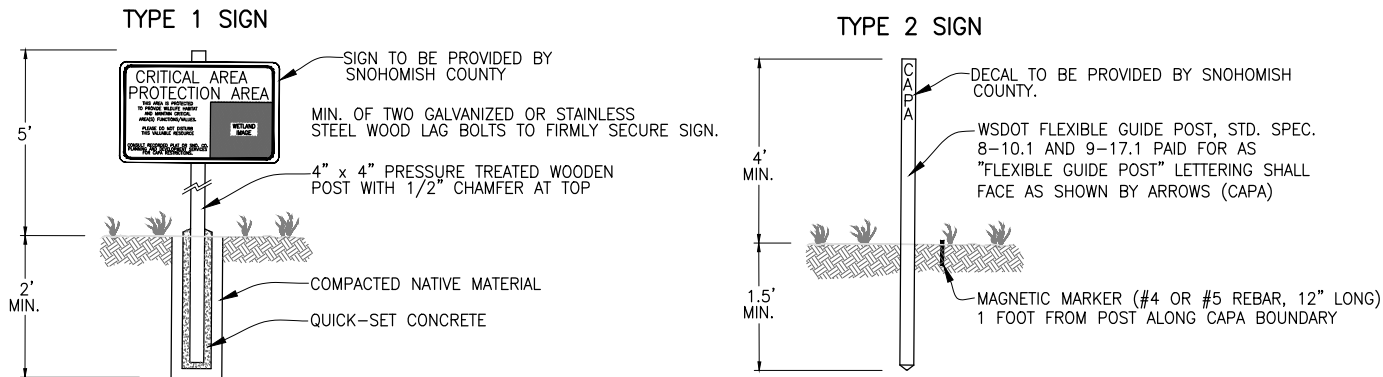
MITIGATION SITE  
HABITAT DETAILS

NORTH CREEK TRAIL

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 18904 & 18924 WAXEN RD.  
SECTS. 18, T.27 N., R.5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 11 OF 34 DATE: NOVEMBER, 2018





**CRITICAL AREA PROTECTION AREA**  
**TYPICAL SIGNS**

N.T.S.

PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

DATUM: NAVD 88

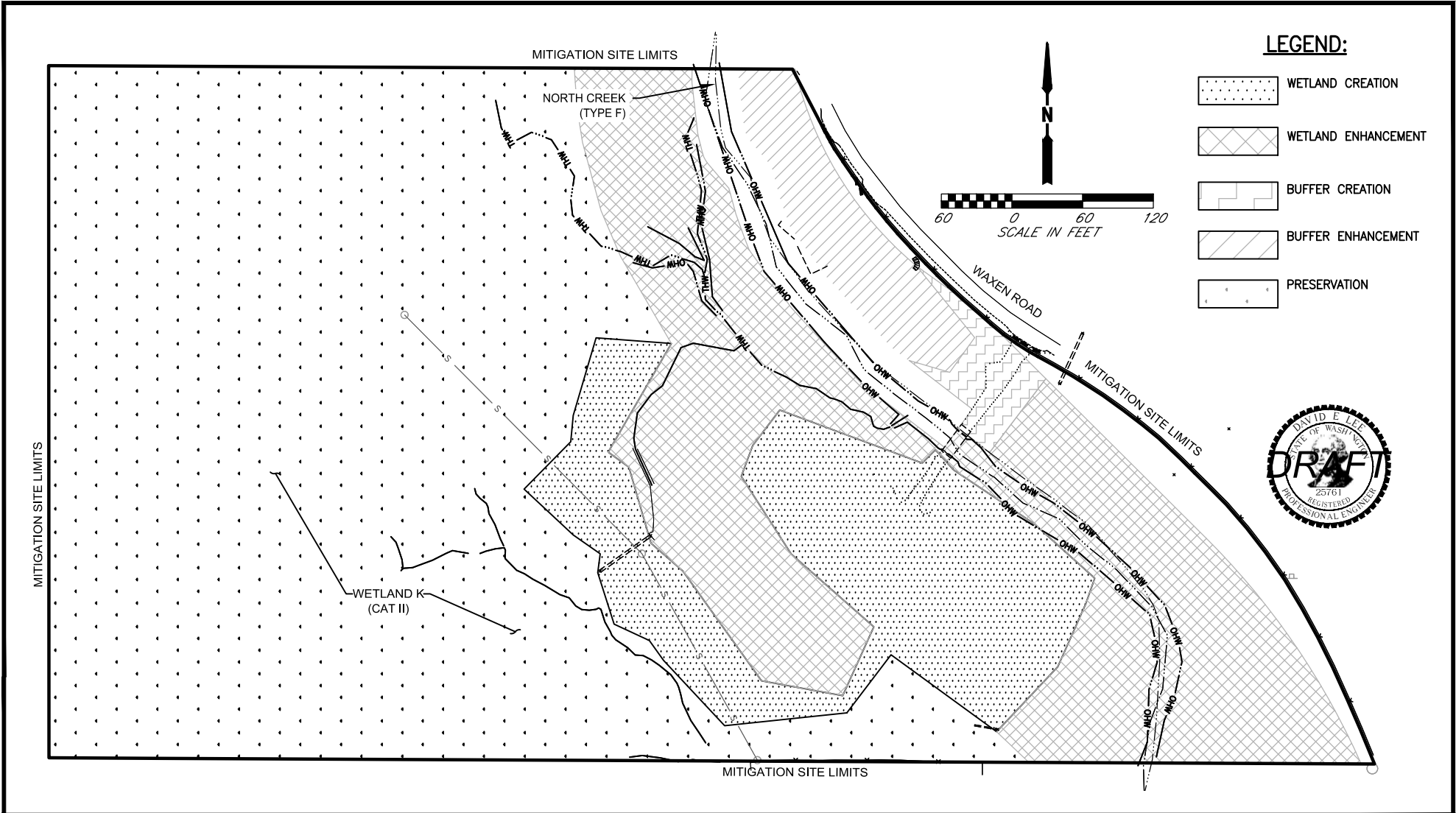
LAT: 47° 49' 35" N LON: 122° 13' 12" W

**MITIGATION SITE  
HABITAT DETAILS**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 18904 & 18924 WAXEN RD.  
SECTS. 18, T.27 N., R.5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 12 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WAXEN ROAD MITIGATION SITE  
 PLANTING PLAN**  
 NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

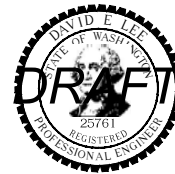
NEAR: CITY OF BOTHELL  
 AT: 18904 & 18924 WAXEN RD,  
 SECTS. 18, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 13 OF 34 DATE: NOVEMBER, 2018

### WAXEN ROAD MITIGATION SITE PLANT SPECIES TOTALS

SCIENTIFIC NAME	COMMON NAME	CONTAINER SIZE	NUMBER
<b>TREES</b>			
TSUGA HETEROPHYLLA	WESTERN HEMLOCK	2 GAL	80
PSEUGOTSUGA MENZIESII	DOUGLAS FIR	2 GAL	80
THUJA PLICATA	WESTERN RED CEDAR	2 GAL	385
PICEA SITCHENSIS	SITKA SPRUCE	2 GAL	385
POPULUS TRICHOCARPA	BLACK COTTONWOOD	2 GAL	295
RHAMNUS PURSHIANA	CASCARA	2 GAL	265
BETULA PAPYRIFERA	PAPER BIRCH	2 GAL	270
<b>TOTAL:</b>			<b>1,760</b>
<b>SHRUBS</b>			
OEMLERIA CERASIFORMIS	INDIAN PLUM	1 GAL	55
RIBES SANGUINUM	RED-FLOWERING CURRENT	1 GAL	40
ACER CIRCINATUM	VINE MAPLE	1 GAL	75
AMERLANCHIER ALNIFOLIA	SERVICEBERRY	1 GAL	50
ROSA NUTKANA	NOOTKA ROSE	1 GAL	45
SYMPHORICARPOS ALBUS	SNOWBERRY	1 GAL	45
LONICERA INVOLUCRATA	BLACK TWINBERRY	1 GAL	25
CRATAEGUS DOUGLASII	BLACK HAWTHORN	1 GAL	400
PHYSOCARPUS CAPITIATUS	PACIFIC NINEBARK	1 GAL	500
RUBUS SPECTABILIS	SALMONBERRY	1 GAL	580
ROSA PISOCARPA	CLUSTERED ROSE	1 GAL	375
MALUS FUSCA	WESTERN CRABAPPLE	1 GAL	400
RUBUS PARVIFLORUS	RED-OSIER DOGWOOD	1 GAL	340
<b>TOTAL:</b>			<b>2,930</b>
<b>WILLOWS</b>			
SALIX LASIANDRA	PACIFIC WILLOW	1 GAL	270
SALIX SITCHENSIS	SITKA WILLOW	1 GAL	40
SALIX SCOULERIANA	SCOULER'S WILLOW	1 GAL	40
SALIX LASIANDRA	PACIFIC WILLOW	¾ TO 1 IN. DIAM. POLES	465
SALIX SITCHENSIS	SITKA WILLOW	¾ TO 1 IN. DIAM. POLES	465
SALIX SCOULERIANA	SCOULER'S WILLOW	¾ TO 1 IN. DIAM. POLES	465
<b>TOTAL:</b>			<b>1,745</b>

### PLANTING NOTES:

1. PRIOR TO SITE DISTURBANCE, THE PROJECT ENGINEER WILL CONTACT THE MITIGATION SPECIALIST TO ARRANGE AN ON-SITE PRE-CONSTRUCTION MEETING.
2. WEED SPECIES SPECIFIED AS CLASS A & B BY THE COUNTY NOXIOUS WEED BOARD, AND OTHER UNDESIRABLE WEED SPECIES SUCH AS NON-NATIVE BLACKBERRY, THISTLE, AND SCOTS BROOM, SHALL BE REMOVED.
3. PLANT MATERIAL SHALL BE INSTALLED ON 5-FOOT CENTERS IN A NATURALLY RANDOM PATTERN. TREES SHALL BE INSTALLED NO CLOSER THAN 10 FEET FROM ANOTHER TREE.
4. LIVE STAKES SHALL BE INSTALLED AT A 45 DEGREE ANGLE FROM THE GROUND.
5. PLACE A MINIMUM OF 4 INCHES OF BARK OR WOOD STRAND MULCH ON PLANTING AREA. MULCH SHALL BE COMPROMISED OF BARK OR WOOD CHIP MULCH THAT MEETS THE REQUIREMENTS OF 9-14.4(3) OR WOOD STRAND MULCH THAT MEETS THE REQUIREMENTS OF 9-14.4(4) OF THE WSDOT STANDARD SPECIFICATIONS.
6. ALL PLANTS OVER 48 INCHES IN HEIGHT SHALL BE STAKED WITH ONE 2 X 2 INCH POST AND ATTACHED WITH NURSERYMAN'S TAPE TO THE TRUNK.
7. LOCATION OF HABITAT FEATURES ON PLANS ARE SCHEMATIC. PLACEMENT SHALL BE APPROVED BY THE MITIGATION SPECIALIST PRIOR TO INSTALLATION. THE CONTRACTOR SHALL NOTIFY THE MITIGATION SPECIALIST 2 WEEKS IN ADVANCE OF HABITAT FEATURE INSTALLATION. LOGS SHALL BE HANDLED TO MINIMIZE DAMAGE TO ROOT WADS AND LIMBS DURING HAULING, STOCKPILING AND PLACEMENT.
8. CONSTRUCTION TECHNIQUES SHALL MINIMIZE IMPACTS TO EXISTING STREAMS AND WETLANDS WITHIN THE PROJECT AREA. IMPACTS TO THESE AREAS FROM PROJECT CONSTRUCTION SHALL BE RESTORED TO PRE-EXISTING CONDITIONS AS APPROVED BY THE MITIGATION SPECIALIST.
9. SOIL TO BE USED FOR BACKFILL AROUND STANDING TREE SNAGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO BACKFILLING.
10. DOWNED LOGS SHALL BE PLACED ON FINISHED GRADE AND TAMPED AND/OR PRESSED AGAINST SOIL SO THAT IT IS IN SOLID CONTACT WITH THE GROUND AND RESTING IN A SECURED POSITION.



PURPOSE: CONSTRUCT ADVANCED MITIGATION SITE

DATUM: NAVD 88

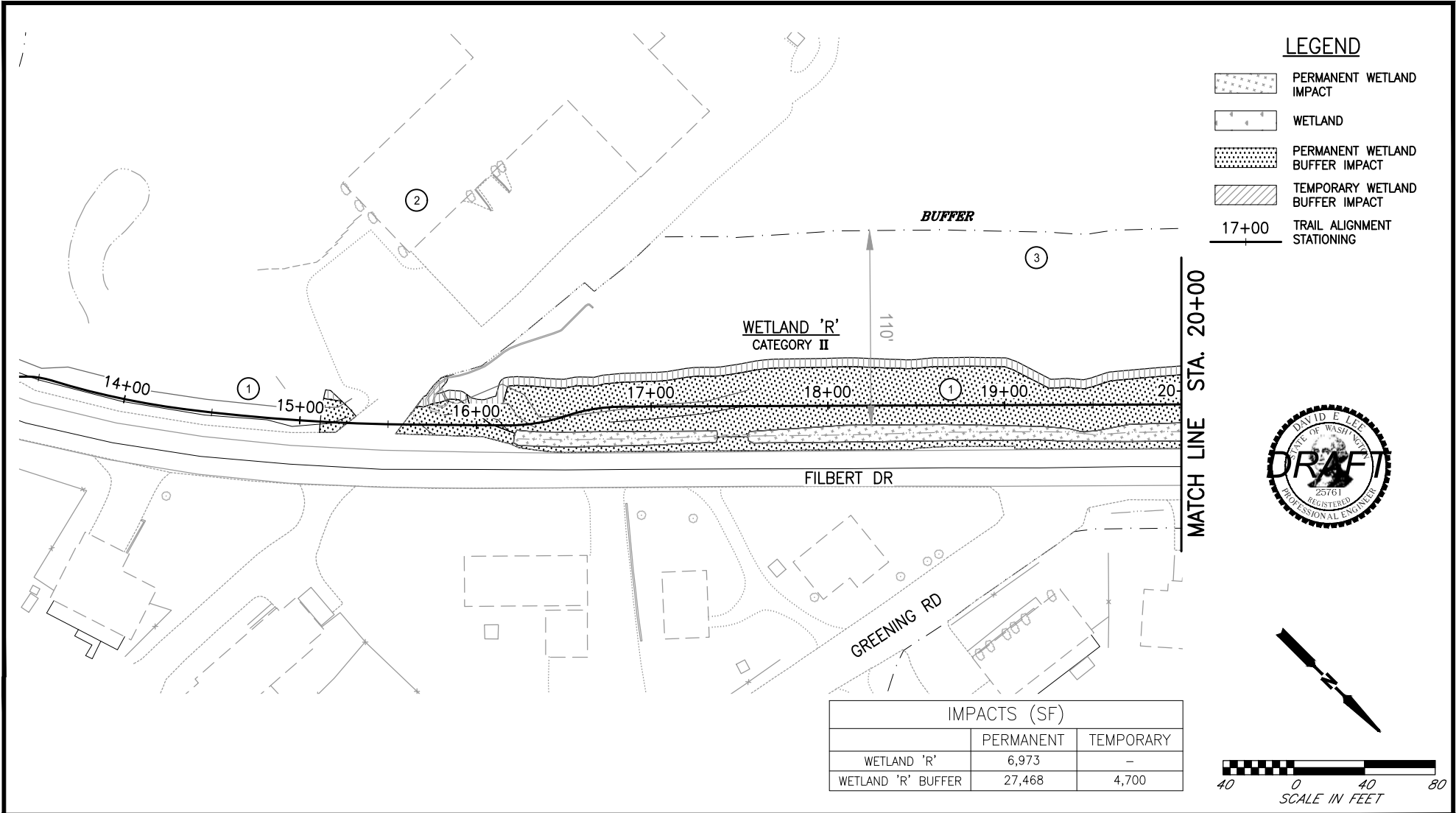
LAT: 47° 49' 35" N LON: 122° 13' 12" W

### WAXEN ROAD MITIGATION SITE PLANTING SCHEDULE

NORTH CREEK TRAIL

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
 AT: 18904 & 18924 WAXEN RD.  
 SECTS. 18, T.27 N., R.5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 14 OF 34      DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND R**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: FILBERT DR.

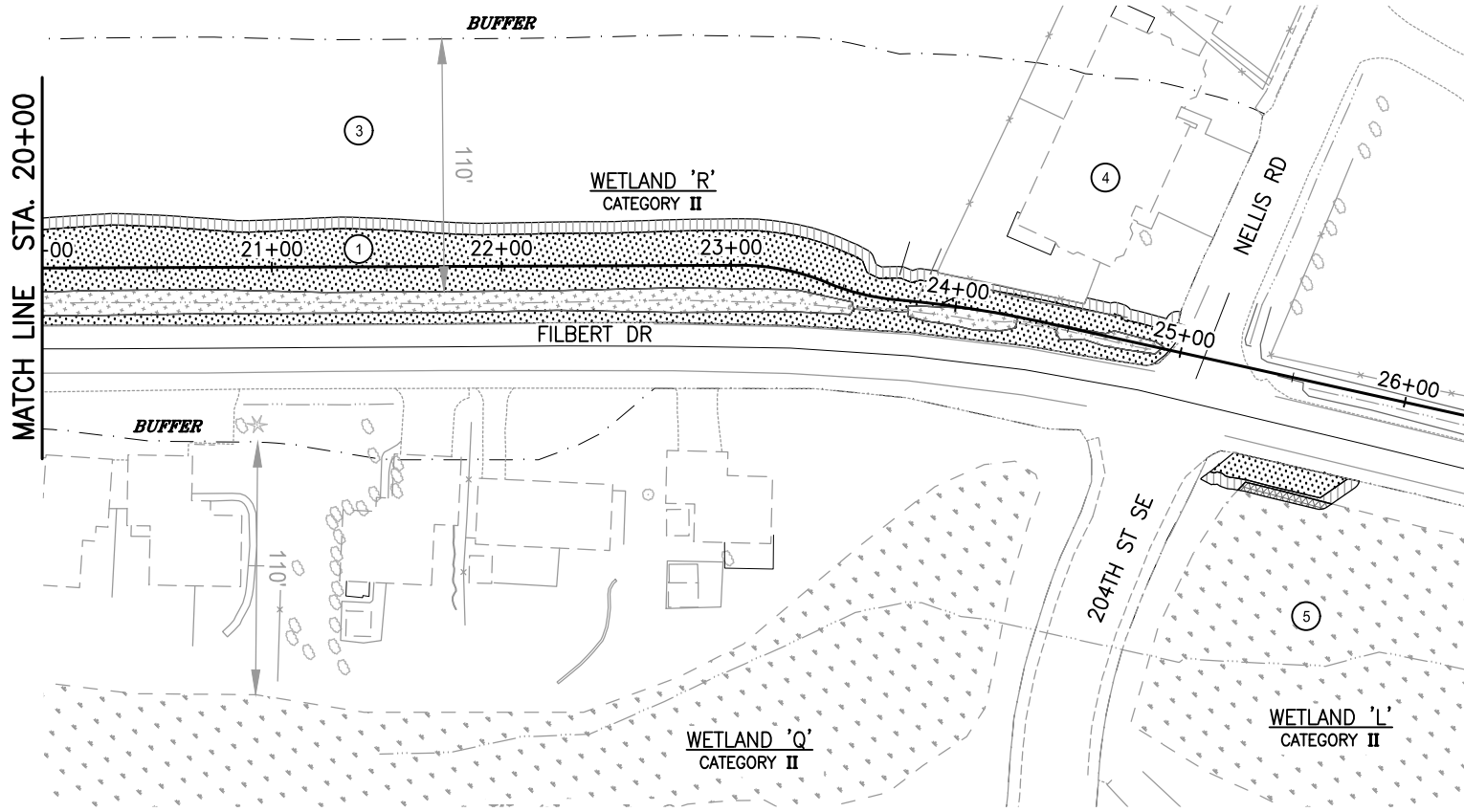
SECTS. 19, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 15 OF 34 DATE: NOVEMBER, 2018

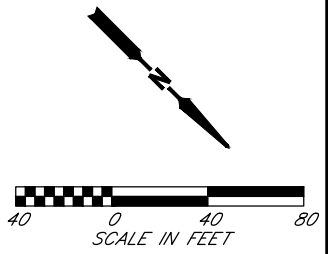


**LEGEND**

	TEMPORARY WETLAND IMPACT
	WETLAND
	PERMANENT WETLAND BUFFER IMPACT
	TEMPORARY WETLAND BUFFER IMPACT
	TRAIL ALIGNMENT STATIONING



IMPACTS (SF)		
	PERMANENT	TEMPORARY
WETLAND 'L'	-	151
WETLAND 'L' BUFFER	531	200



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND R & L**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: FILBERT DR.

SECTS. 19, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH









STATE: WASHINGTON

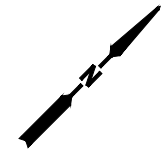
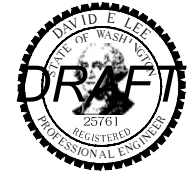
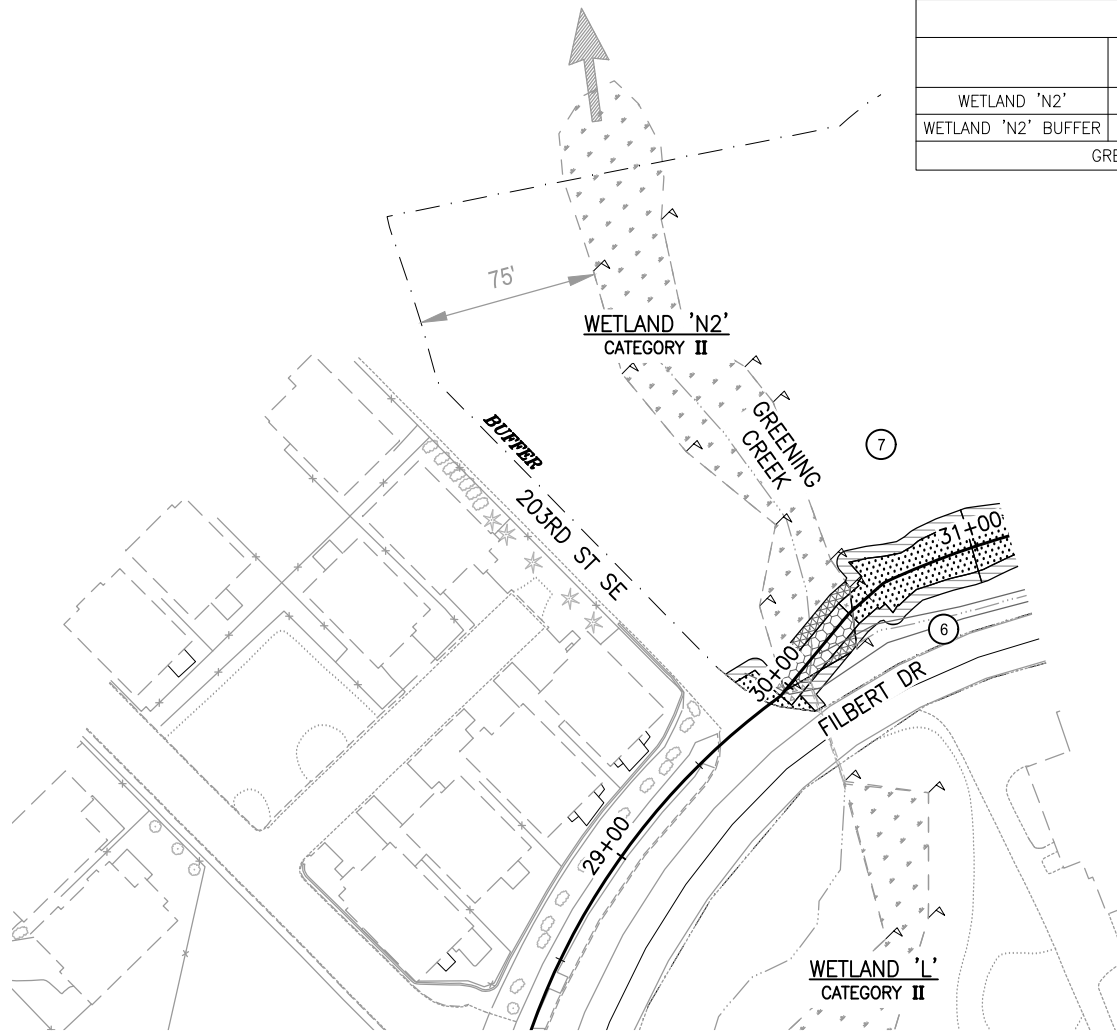
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 16 OF 34 DATE: NOVEMBER, 2018

IMPACTS (SF)			
	PERMANENT	TEMPORARY	TEMPORARY SHADING
WETLAND 'N2'	27	289	438
WETLAND 'N2' BUFFER	1,245	902	97
GREENING CREEK IMPACTS: 38 LF			

**LEGEND**

-  PERMANENT WETLAND IMPACT
-  TEMPORARY WETLAND IMPACT
-  TEMPORARY WETLAND SHADING
-  TEMPORARY BUFFER SHADING
-  WETLAND
-  PERMANENT WETLAND BUFFER IMPACT
-  TEMPORARY WETLAND BUFFER IMPACT
-  17+00 TRAIL ALIGNMENT STATIONING



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND N2 & GREENING CREEK**









**NORTH CREEK TRAIL**

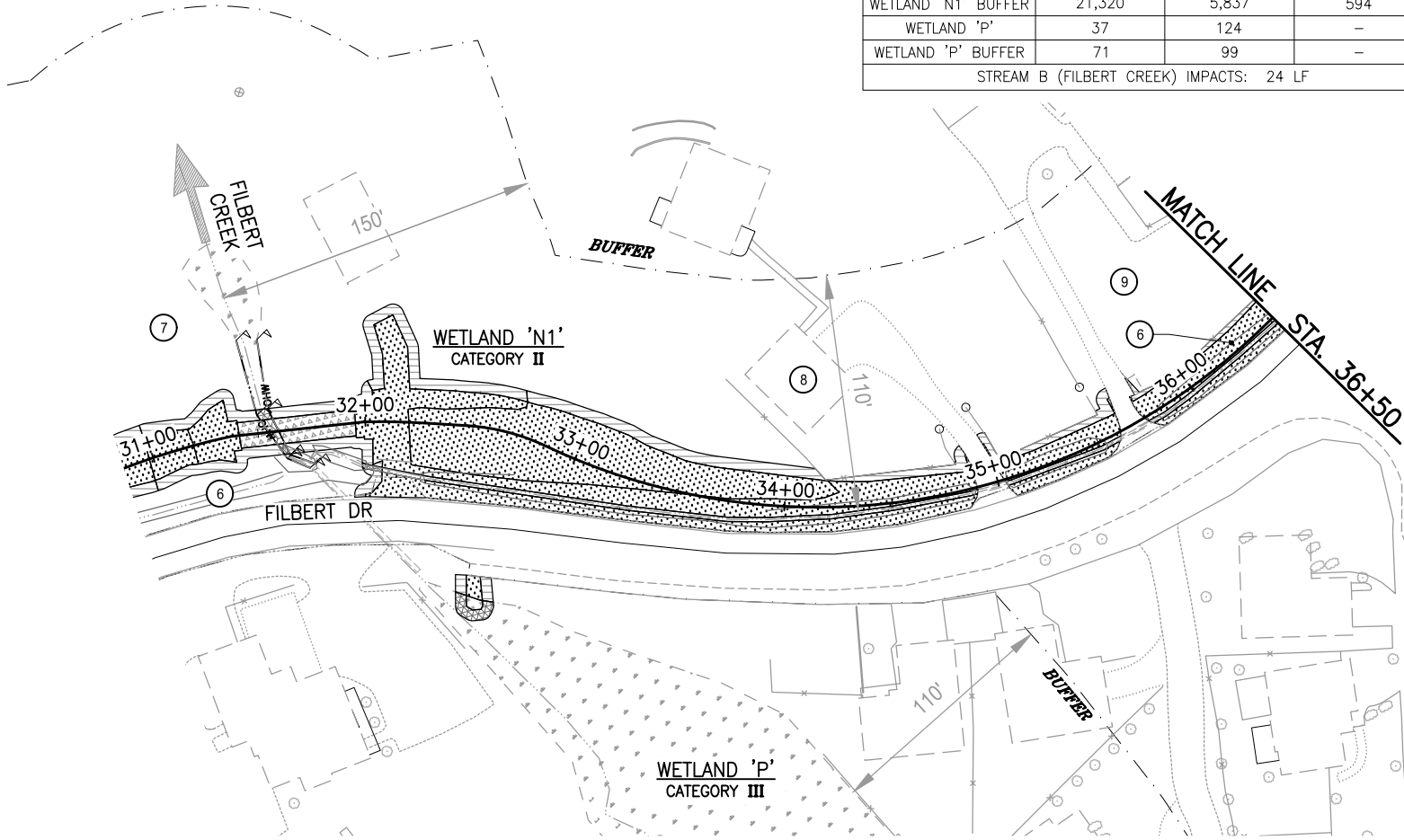
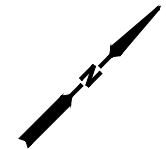
208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: FILBERT DR,  
SECTS. 19, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 17 OF 34 DATE: NOVEMBER, 2018

IMPACTS (SF)			
	PERMANENT	TEMPORARY	TEMPORARY SHADING
WETLAND 'N1'	1,738	63	54
WETLAND 'N1' BUFFER	21,320	5,837	594
WETLAND 'P'	37	124	-
WETLAND 'P' BUFFER	71	99	-
STREAM B (FILBERT CREEK) IMPACTS: 24 LF			

**LEGEND**

-  PERMANENT WETLAND IMPACT
-  TEMPORARY WETLAND IMPACT
-  TEMPORARY WETLAND SHADING
-  TEMPORARY BUFFER SHADING
-  WETLAND
-  PERMANENT WETLAND BUFFER IMPACT
-  TEMPORARY WETLAND BUFFER IMPACT
-  17+00 TRAIL ALIGNMENT STATIONING



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

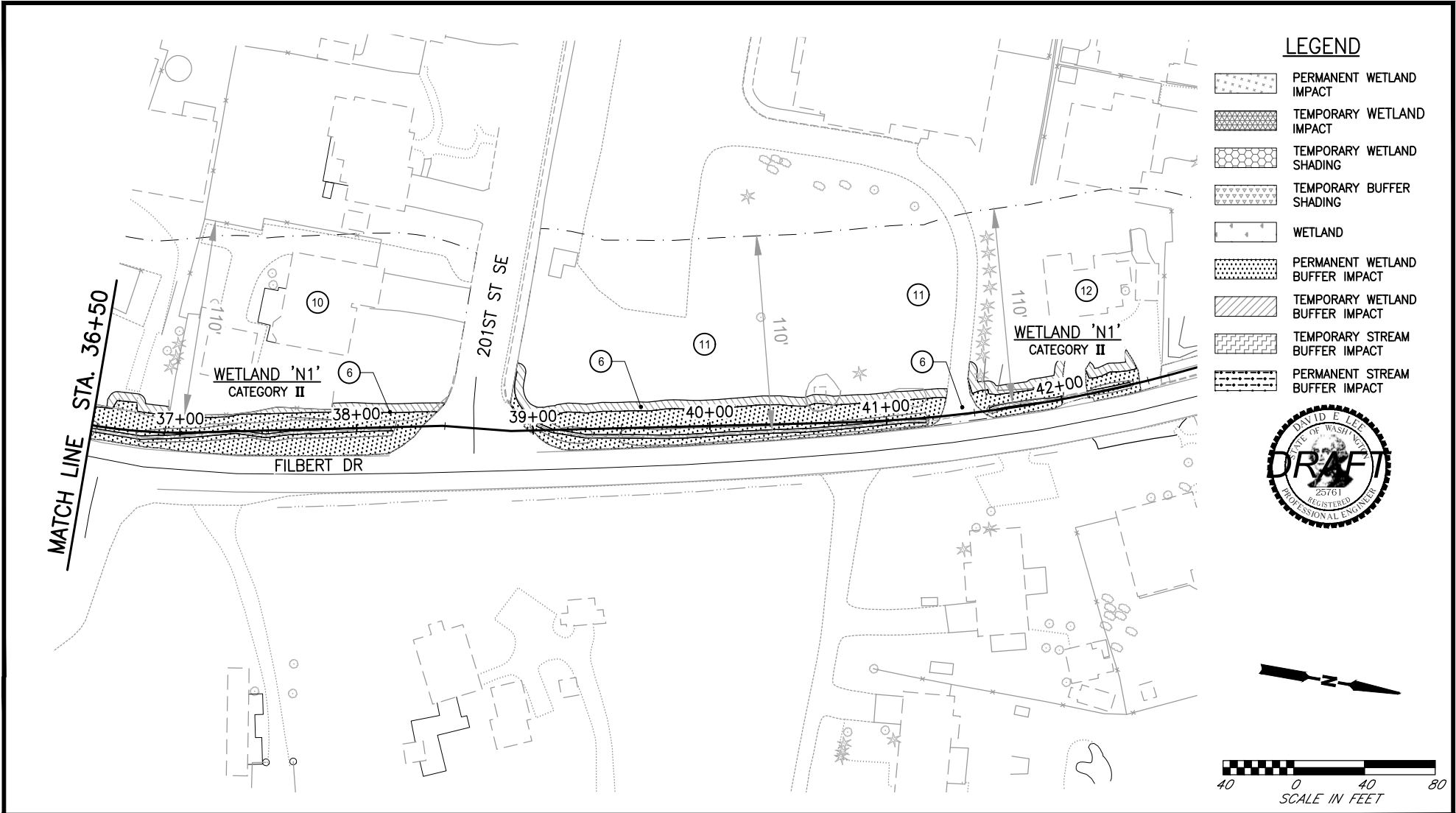
LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND N1 & P  
& FILBERT CREEK**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: FILBERT DR,  
SECTS. 19, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 18 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND N1**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: FILBERT DR,  
SECTS. 19, T. 27 N., R. 5 E., W.M.

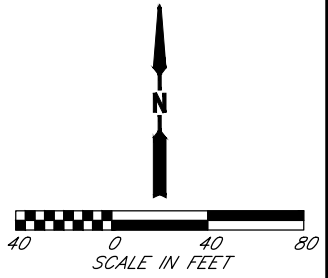
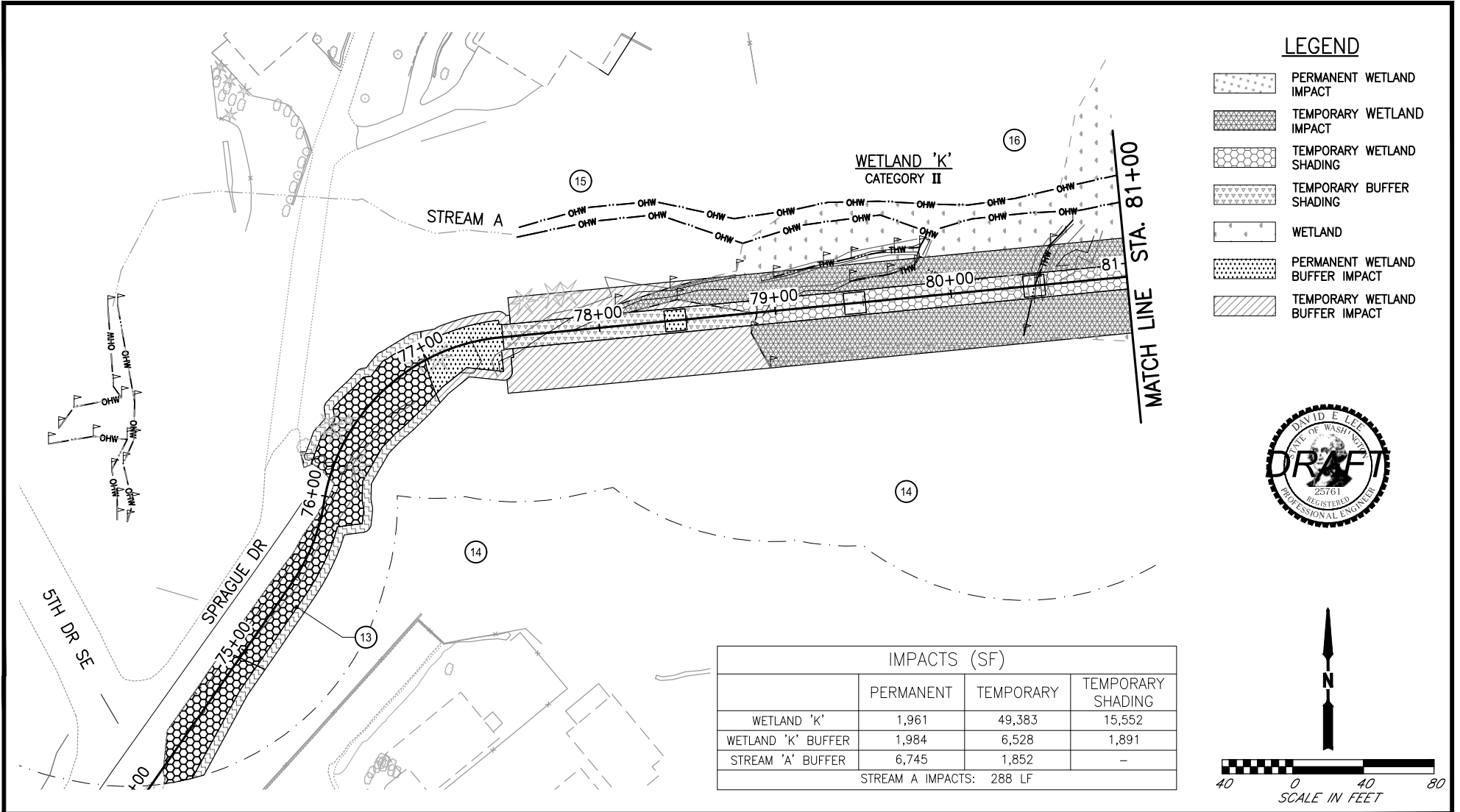
COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 19 OF 34 DATE: NOVEMBER, 2018





PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND K & STREAM A**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: SPRAGUE DR,

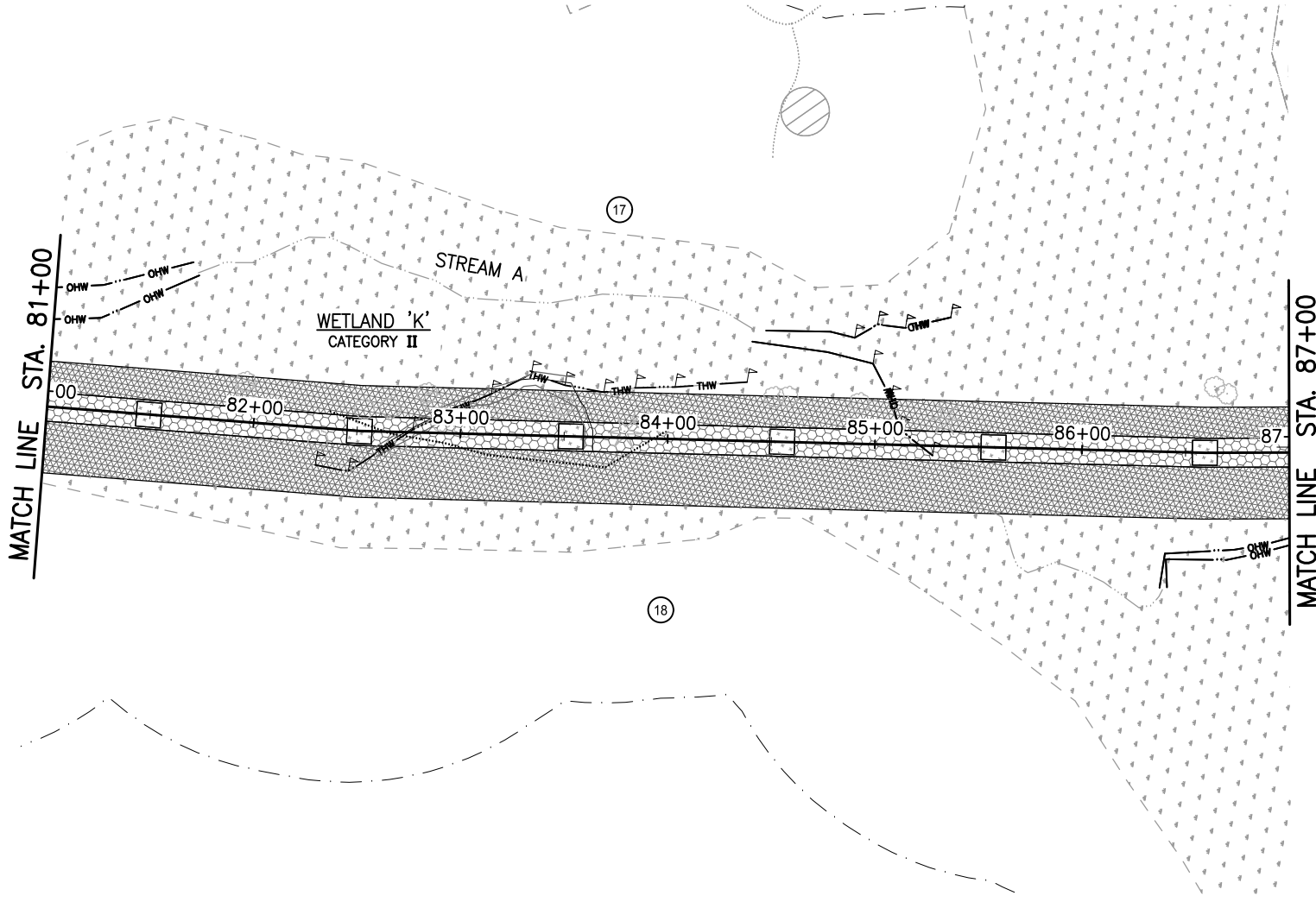
SECTS. 18, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH

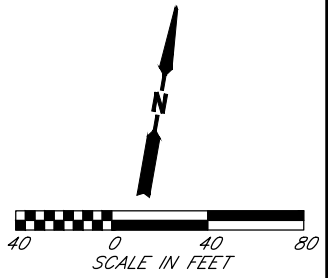
STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 20 OF 34 DATE: NOVEMBER, 2018



- LEGEND**
- PERMANENT WETLAND IMPACT
  - TEMPORARY WETLAND IMPACT
  - TEMPORARY WETLAND SHADING
  - TEMPORARY BUFFER SHADING
  - WETLAND
  - PERMANENT WETLAND BUFFER IMPACT
  - TEMPORARY WETLAND BUFFER IMPACT
  - TEMPORARY STREAM BUFFER IMPACT
  - PERMANENT STREAM BUFFER IMPACT



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND K & STREAM A**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: SPRAGUE DR.

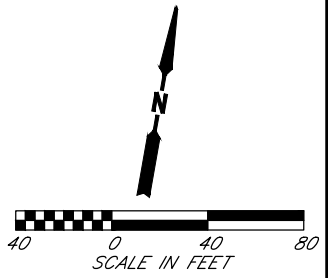
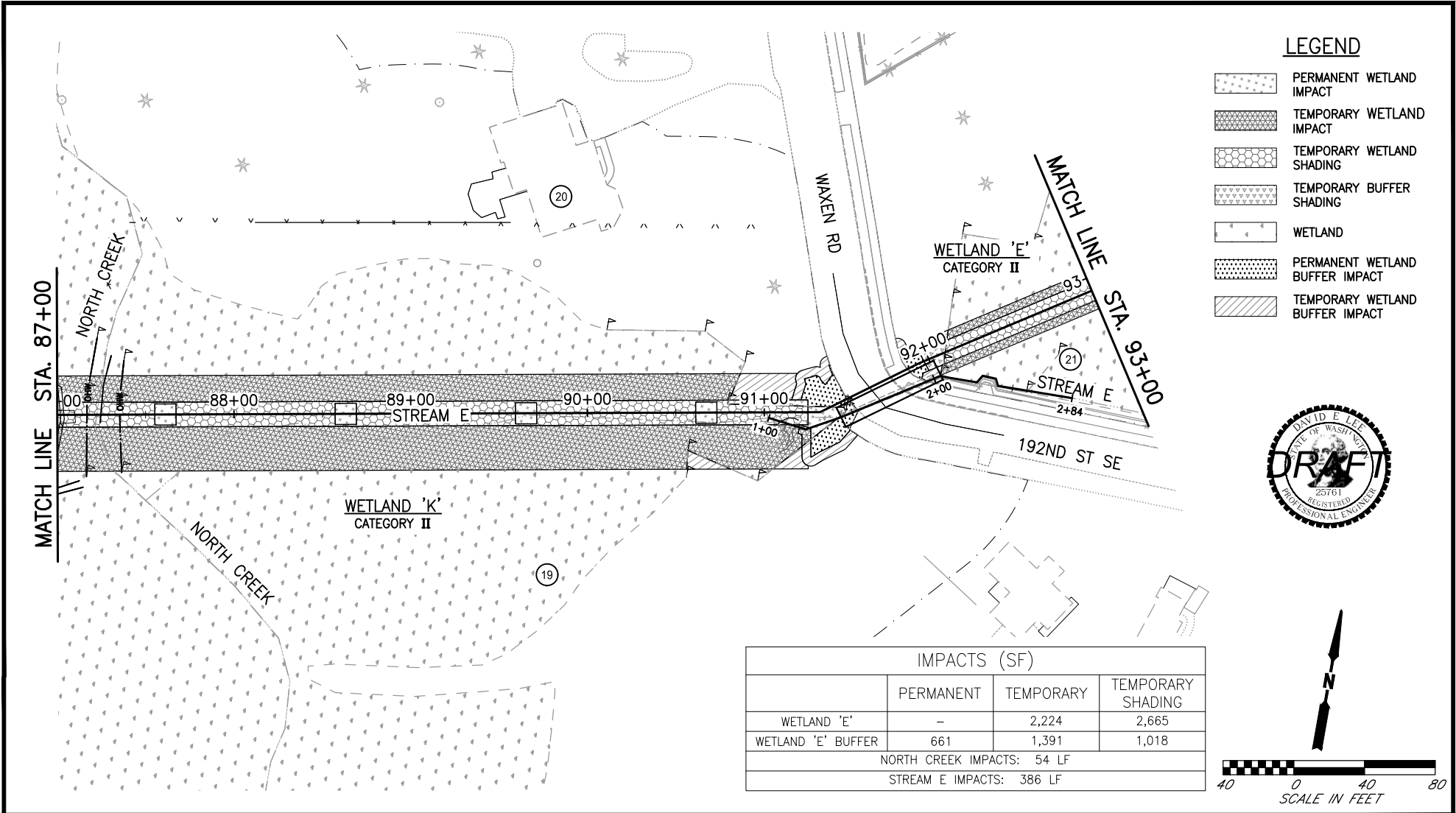
SECTS. 18, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 21 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND K & E, NORTH CREEK & STREAM E**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

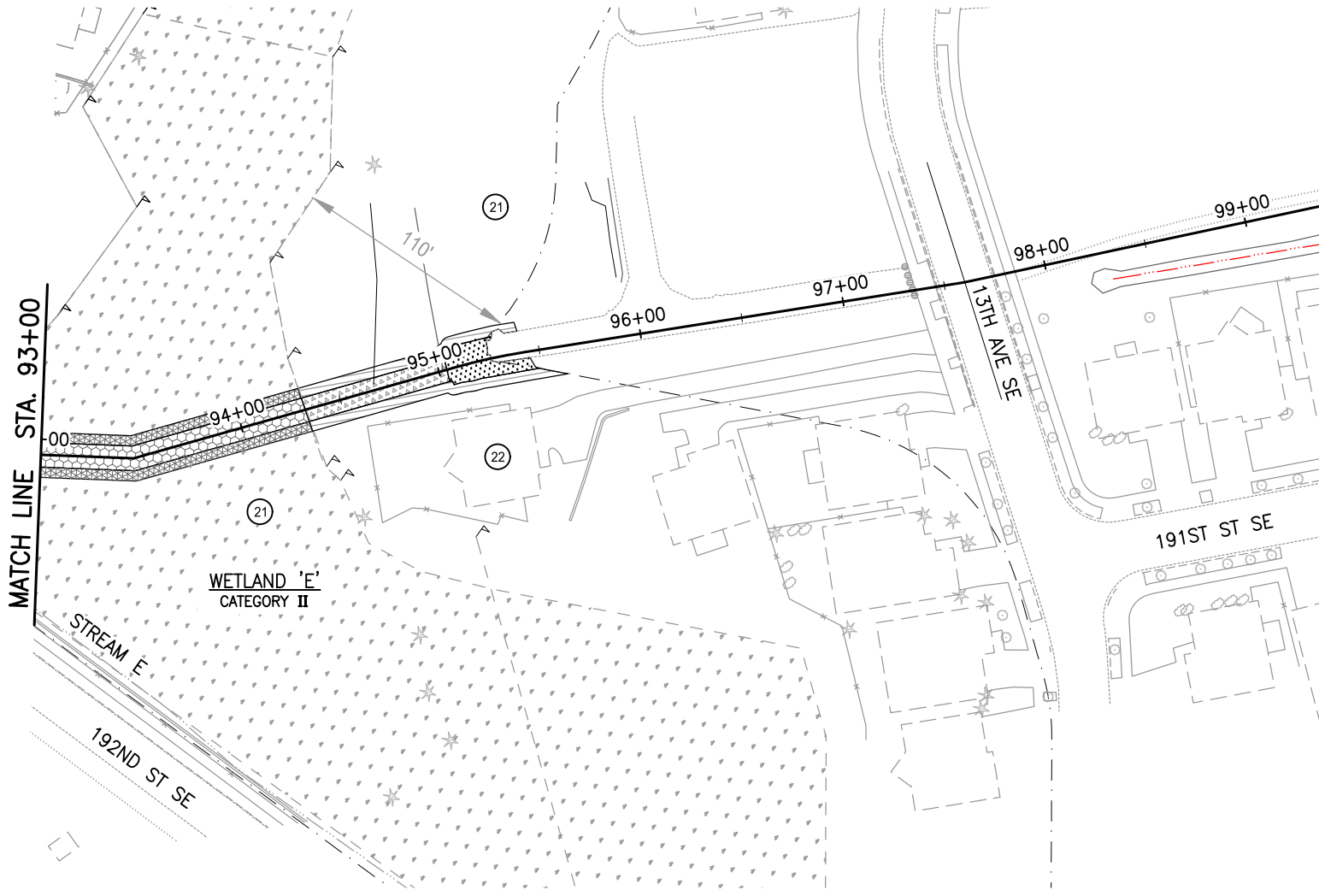
AT: 192ND ST SE & WAXEN RD,  
SECTS. 18, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH







STATE: WASHINGTON

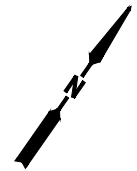
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 22 OF 34 DATE: NOVEMBER, 2018



**LEGEND**

-  TEMPORARY WETLAND IMPACT
-  TEMPORARY WETLAND SHADING
-  TEMPORARY BUFFER SHADING
-  WETLAND
-  PERMANENT WETLAND BUFFER IMPACT
-  TEMPORARY WETLAND BUFFER IMPACT



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

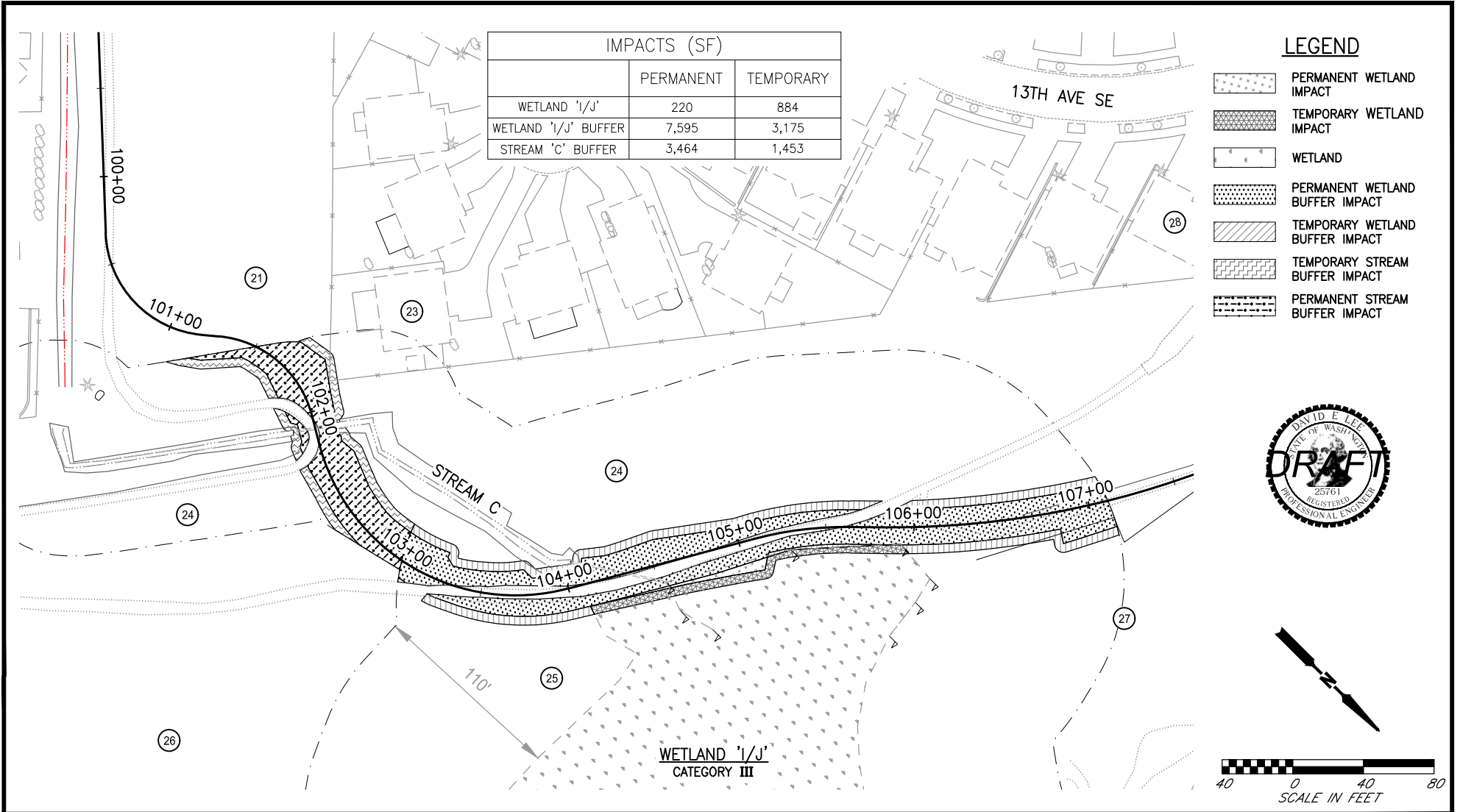
LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND E**








**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 192ND ST SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 23 OF 34 DATE: NOVEMBER, 2018



**LEGEND**

-  PERMANENT WETLAND IMPACT
-  TEMPORARY WETLAND IMPACT
-  WETLAND
-  PERMANENT WETLAND BUFFER IMPACT
-  TEMPORARY WETLAND BUFFER IMPACT
-  TEMPORARY STREAM BUFFER IMPACT
-  PERMANENT STREAM BUFFER IMPACT



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND I/J & STREAM C**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: 13TH AVE SE,

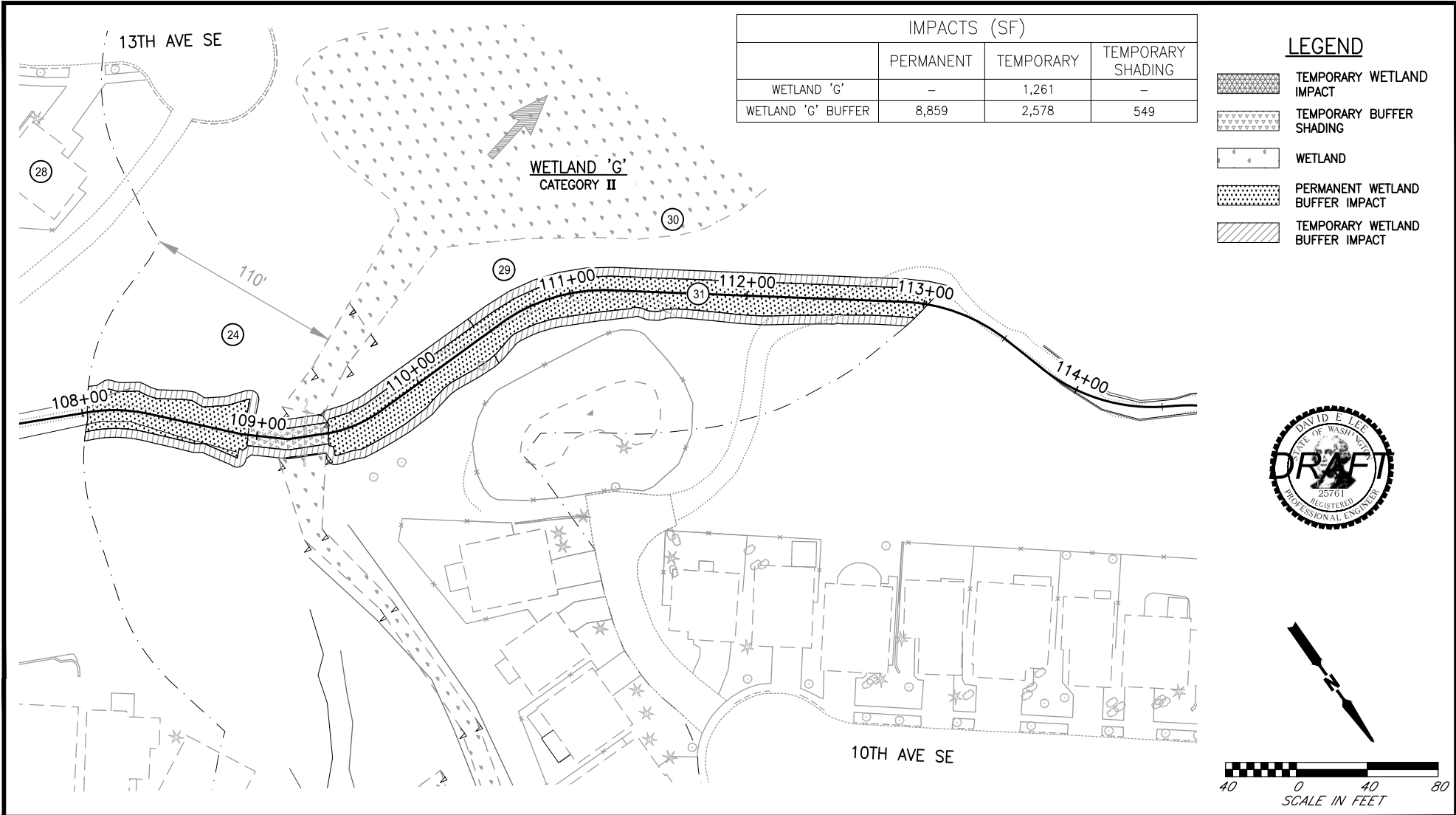
SECTS. 18, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 24 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

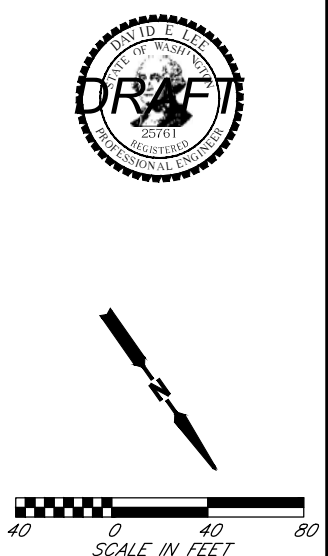
LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND G**

**NORTH CREEK TRAIL**

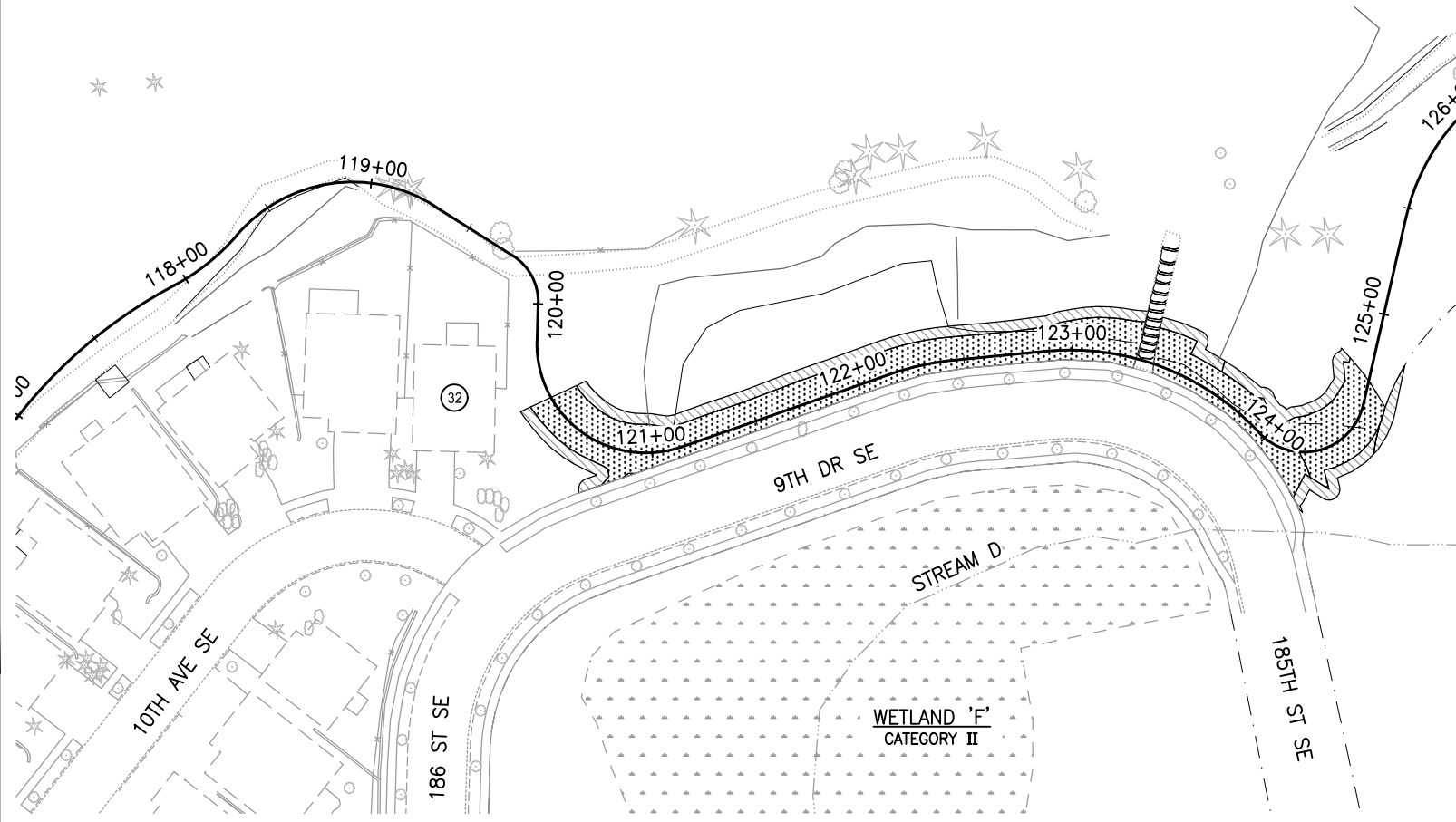
208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 10TH AVE SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 25 OF 34 DATE: NOVEMBER, 2018



IMPACTS (SF)		
	PERMANENT	TEMPORARY
WETLAND 'F' BUFFER	7,630	2,590

LEGEND	
	WETLAND
	PERMANENT WETLAND BUFFER IMPACT
	TEMPORARY WETLAND BUFFER IMPACT



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

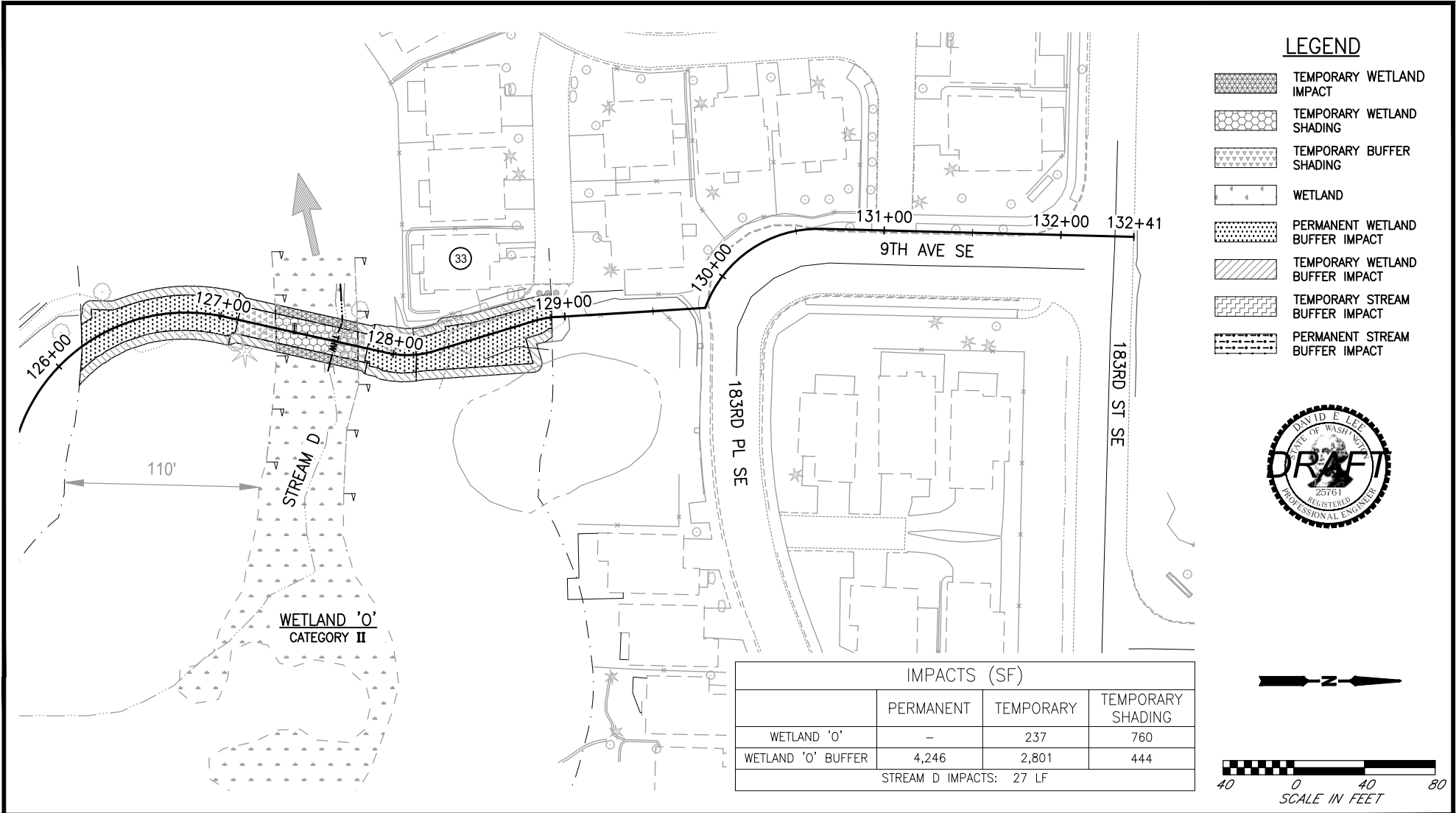
**WETLAND F**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 9TH DR SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 26 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND O & STREAM D**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

AT: 183RD PL SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.

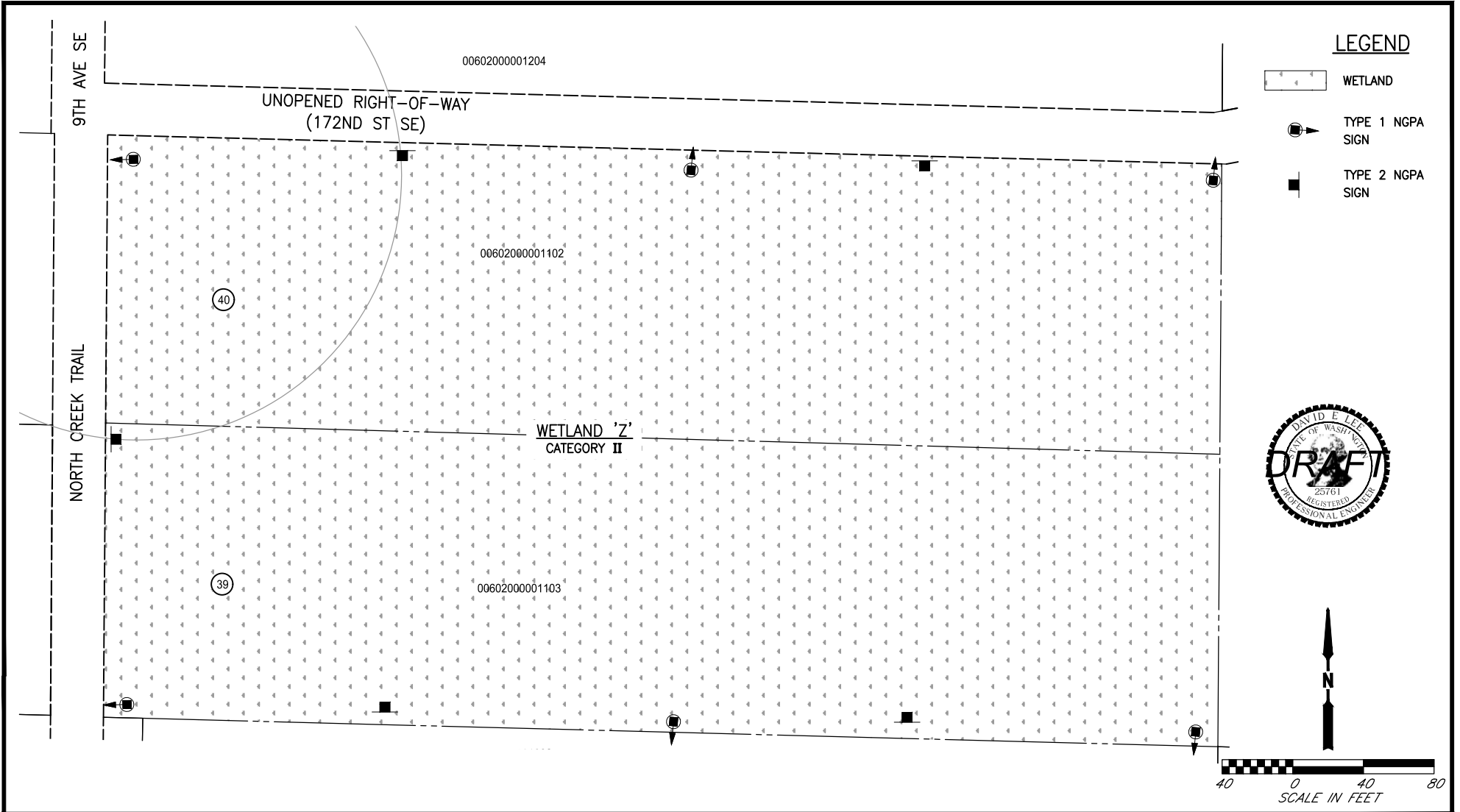
COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 27 OF 34 DATE: NOVEMBER, 2018





PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**WETLAND Z**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: 183RD PL SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 28 OF 34 DATE: NOVEMBER, 2018

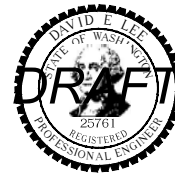
**PLANTING NOTES:**

1. PRIOR TO SITE DISTURBANCE, THE PROJECT ENGINEER WILL CONTACT THE MITIGATION SPECIALIST TO ARRANGE AN ON-SITE PRE-CONSTRUCTION MEETING.
2. WEED SPECIES SPECIFIED AS CLASS A & B BY THE COUNTY NOXIOUS WEED BOARD, AND OTHER UNDESIRABLE WEED SPECIES SUCH AS NON-NATIVE BLACKBERRY, THISTLE, AND SCOTS BROOM, SHALL BE REMOVED.
3. PLANT MATERIAL SHALL BE INSTALLED ON 5-FOOT CENTERS IN A NATURALLY RANDOM PATTERN. TREES SHALL BE INSTALLED NO CLOSER THAN 10 FEET FROM ANOTHER TREE.
4. LIVE STAKES SHALL BE INSTALLED AT A 45 DEGREE ANGLE FROM THE GROUND.
5. PLACE A MINIMUM OF 4 INCHES OF BARK OR WOOD STRAND MULCH ON PLANTING AREA. MULCH SHALL BE COMPROMISED OF BARK OR WOOD CHIP MULCH THAT MEETS THE REQUIREMENTS OF 9-14.4(3) OR WOOD STRAND MULCH THAT MEETS THE REQUIREMENTS OF 9-14.4(4) OF THE WSDOT STANDARD SPECIFICATIONS.
6. ALL PLANTS OVER 48 INCHES IN HEIGHT SHALL BE STAKED WITH ONE 2 X 2 INCH POST AND ATTACHED WITH NURSERYMAN'S TAPE TO THE TRUNK.
7. LOCATION OF HABITAT FEATURES ON PLANS ARE SCHEMATIC. PLACEMENT SHALL BE APPROVED BY THE MITIGATION SPECIALIST PRIOR TO INSTALLATION. THE CONTRACTOR SHALL NOTIFY THE MITIGATION SPECIALIST 2 WEEKS IN ADVANCE OF HABITAT FEATURE INSTALLATION. LOGS SHALL BE HANDLED TO MINIMIZE DAMAGE TO ROOT WADS AND LIMBS DURING HAULING, STOCKPILING AND PLACEMENT.
8. CONSTRUCTION TECHNIQUES SHALL MINIMIZE IMPACTS TO EXISTING STREAMS AND WETLANDS WITHIN THE PROJECT AREA. IMPACTS TO THESE AREAS FROM PROJECT CONSTRUCTION SHALL BE RESTORED TO PRE-EXISTING CONDITIONS AS APPROVED BY THE MITIGATION SPECIALIST.
9. SOIL TO BE USED FOR BACKFILL AROUND STANDING TREE SNAGS SHALL BE APPROVED BY THE ENGINEER PRIOR TO BACKFILLING.
10. DOWNED LOGS SHALL BE PLACED ON FINISHED GRADE AND TAMPED AND/OR PRESSED AGAINST SOIL SO THAT IT IS IN SOLID CONTACT WITH THE GROUND AND RESTING IN A SECURED POSITION.

NORTH CREEK MITIGATION SITE PLANT SPECIES TOTALS			
SCIENTIFIC NAME	COMMON NAME	CONTAINER SIZE	NUMBER
<b>TREES</b>			
POPULUS TRICHOCARPA	BLACK COTTONWOOD	¾ TO 1 IN. DIAM. POLES	1850
THUJA PLICATA	WESTERN RED CEDAR	2 GAL	100
PICEA SITCHENSIS	SITKA SPRUCE	2 GAL	100
<u>TOTAL:</u>			<u>2,050</u>
<b>SHRUBS</b>			
CRATAEGUS DOUGLASII	BLACK HAWTHORN	1 GAL	80
PHYSOCARPUS CAPITATUS	PACIFIC NINEBARK	1 GAL	80
RUBUS SPECTABILIS	SALMONBERRY	1 GAL	80
ROSA PISOCARPA	CLUSTERED ROSE	1 GAL	80
MALUS FUSCA	WESTERN CRABAPPLE	1 GAL	80
<u>TOTAL:</u>			<u>400</u>
<b>WILLOWS</b>			
SALIX LASIANDRA	PACIFIC WILLOW	¾ TO 1 IN. DIAM. POLES	1850
SALIX SITCHENSIS	SITKA WILLOW	¾ TO 1 IN. DIAM. POLES	1850
SALIX SCOULERIANA	SCOULER'S WILLOW	¾ TO 1 IN. DIAM. POLES	1850
<u>TOTAL:</u>			<u>5,550</u>

**NOTE:**

SEE HABITAT DETAILS ON SHEETS 10 & 11.



PURPOSE: CONSTRUCT TRAIL

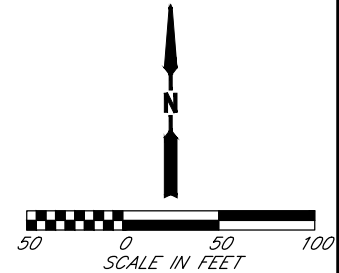
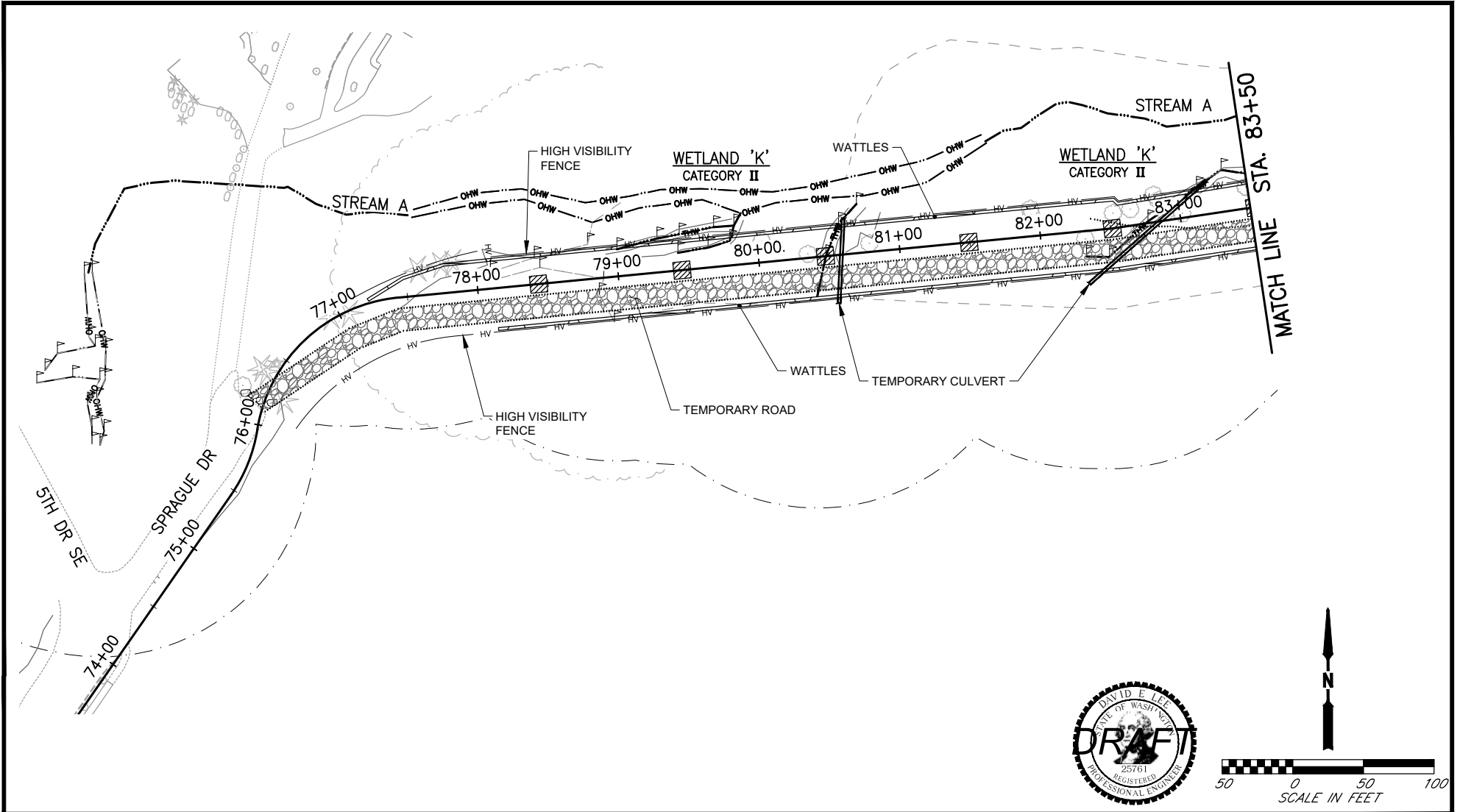
DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**NORTH CREEK MITIGATION SITE  
PLANTING SCHEDULE  
WETLAND Z  
NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

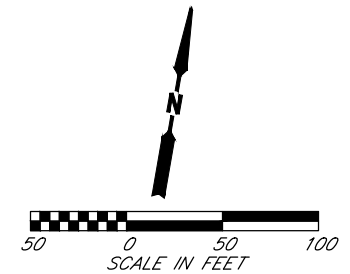
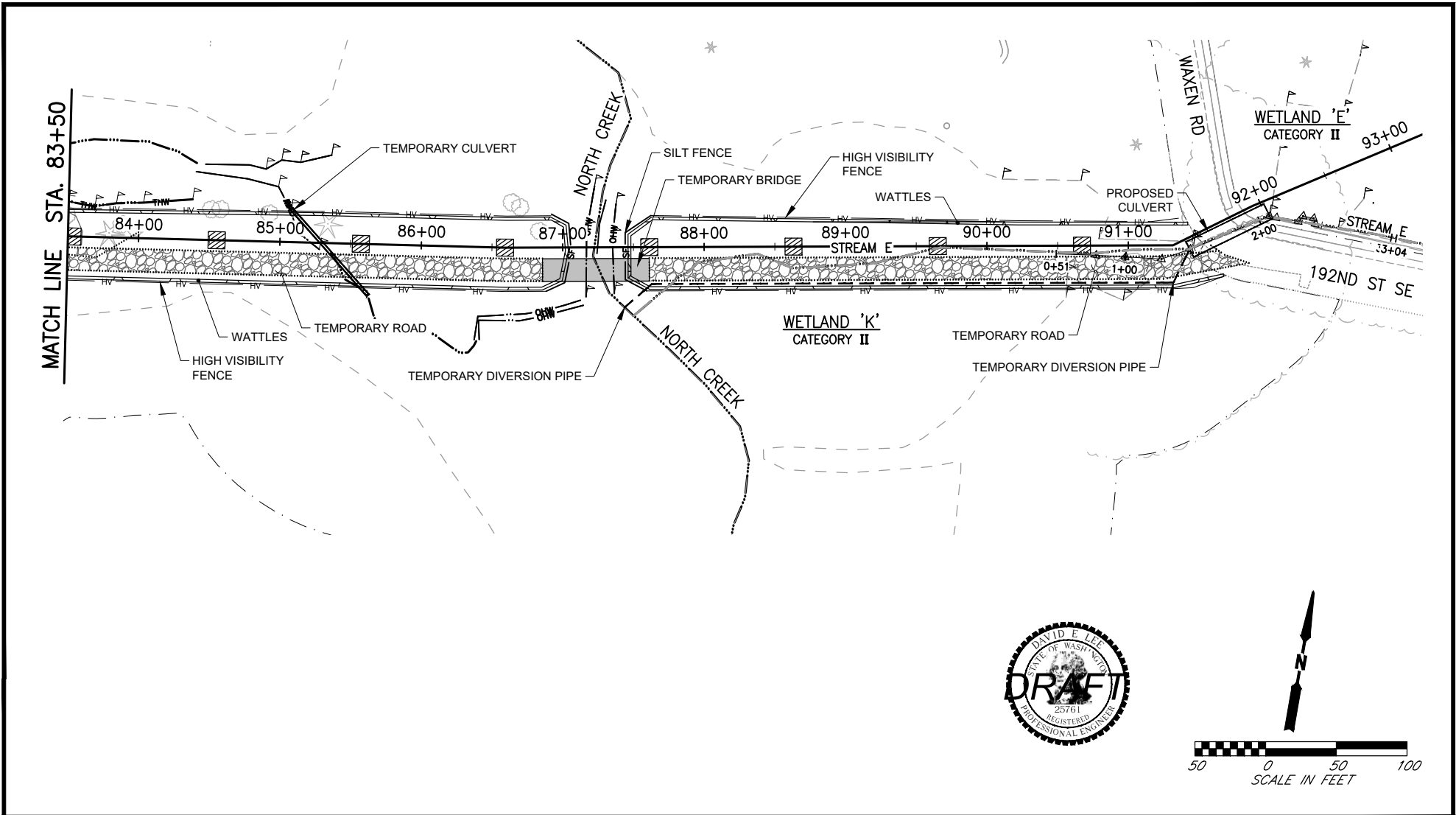
NEAR: CITY OF BOTHELL  
AT: 183RD PL SE,  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 29 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

TESC FOR SPRAGUE & WAXEN  
 NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

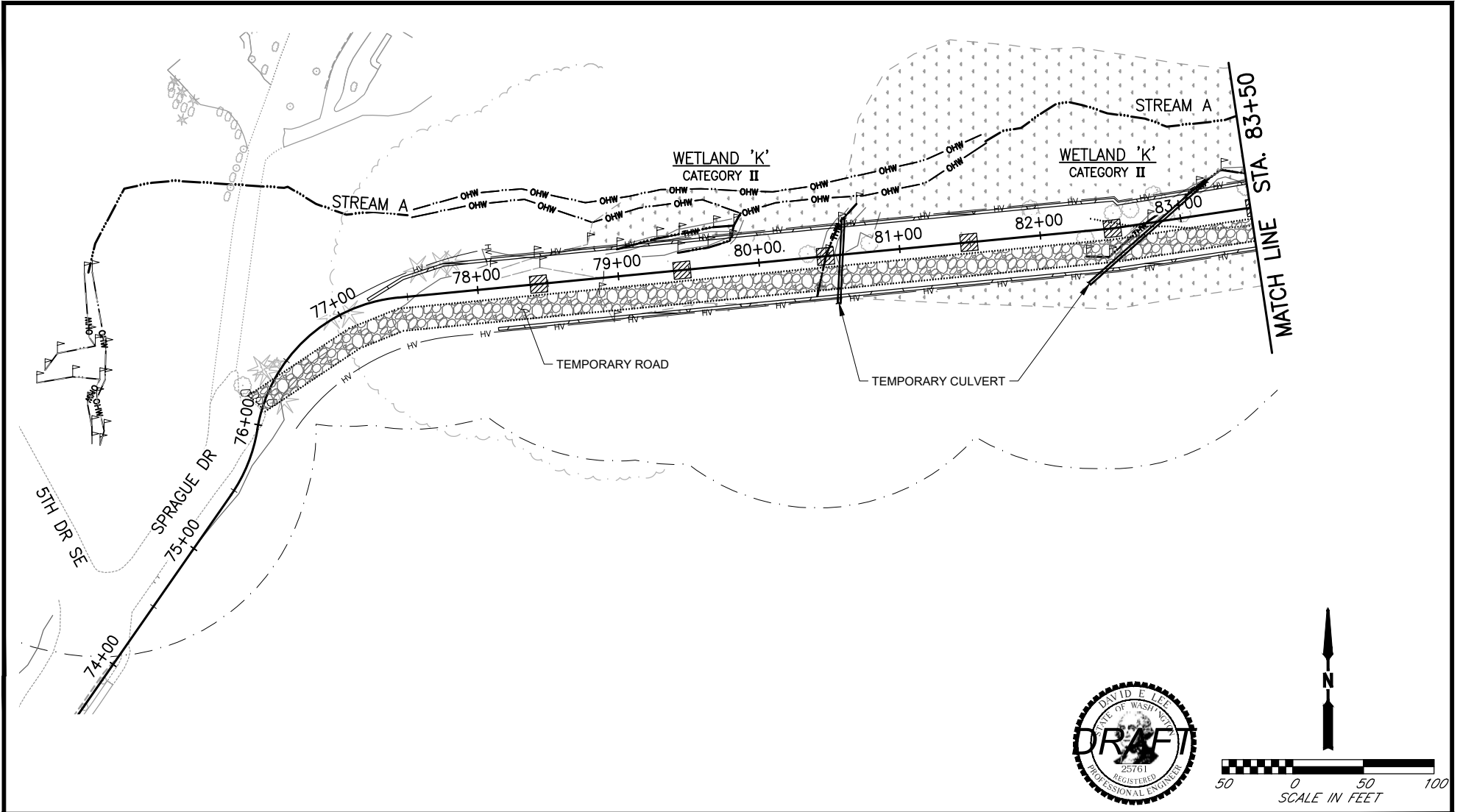
NEAR: CITY OF BOTHELL  
 AT: SPRAGUE DR,  
 SECTS. 18, T. 27 N., R. 5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 30 OF 34 DATE: NOVEMBER, 2018



PURPOSE: CONSTRUCT TRAIL  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

TESC FOR SPRAGUE & WAXEN  
  
 NORTH CREEK TRAIL  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
 AT: SPRAGUE DR.  
 SECTS. 18, T. 27 N., R. 5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 31 OF 34 DATE: NOVEMBER 2018



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**STREAM RELOCATION SPRAGUE & WAXEN**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE

ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL

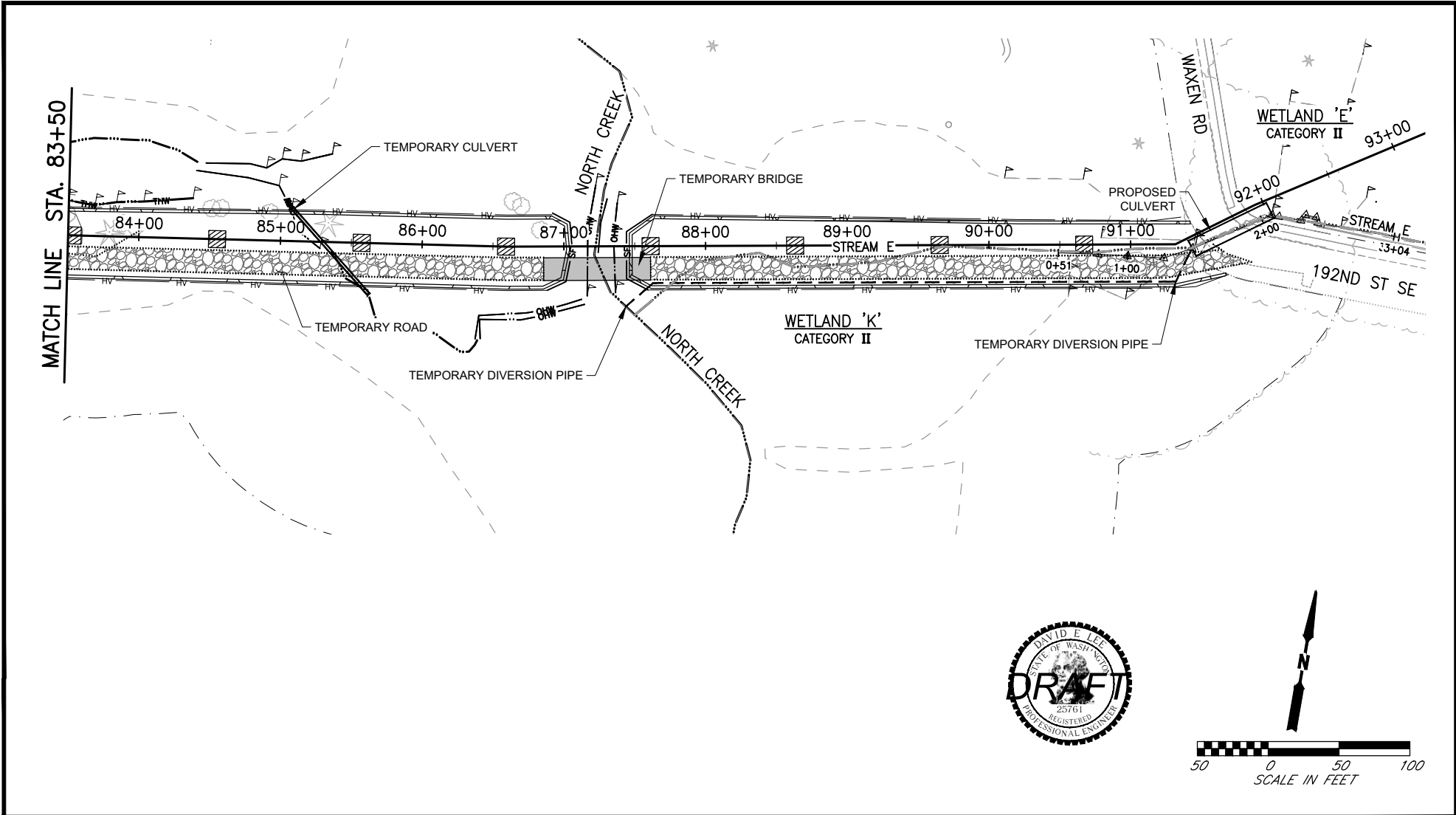
AT: SPRAGUE DR,  
SECTS. 18, T. 27 N., R. 5 E., W.M.

COUNTY OF: SNOHOMISH

STATE: WASHINGTON

APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS

FIGURE 32 OF 34 DATE: NOVEMBER, 2018

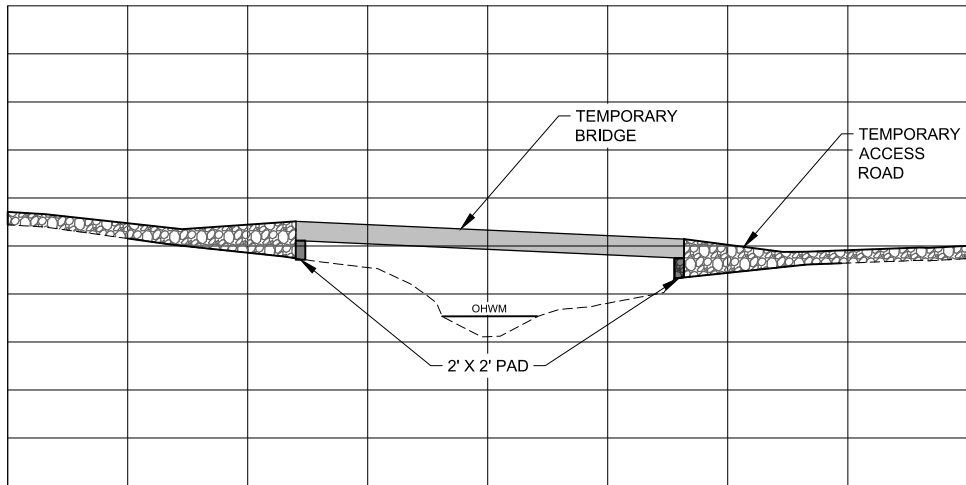


PURPOSE: CONSTRUCT TRAIL  
 DATUM: NAVD 88  
 LAT: 47° 49' 35" N LON: 122° 13' 12" W

**STREAM RELOCATION SPRAGUE & WAXEN**

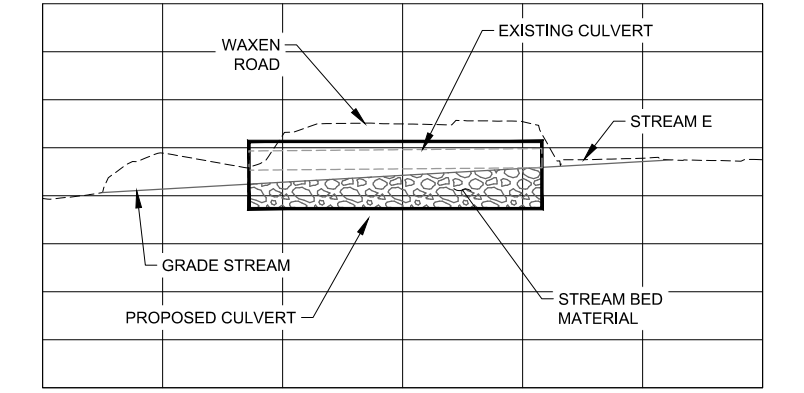
**NORTH CREEK TRAIL**  
 208TH ST SE - 183RD ST SE  
 ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
 AT: SPRAGUE DR.  
 SECTS. 18, T. 27 N., R. 5 E., W.M.  
 COUNTY OF: SNOHOMISH  
 STATE: WASHINGTON  
 APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
 FIGURE 33 OF 34 DATE: NOVEMBER, 2018

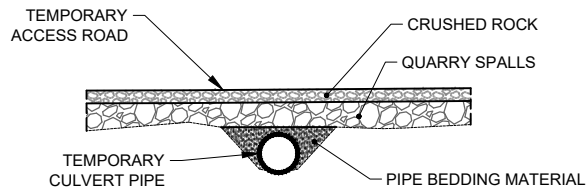


86+25 86+50 87+00 87+50 88+00 88+25

**NORTH CREEK TEMPORARY BRIDGE DETAIL**  
NOT TO SCALE



**PROPOSED WAXEN ROAD CULVERT DETAIL**  
NOT TO SCALE



**TEMPORARY CULVERT DETAIL**  
NOT TO SCALE



PURPOSE: CONSTRUCT TRAIL

DATUM: NAVD 88

LAT: 47° 49' 35" N LON: 122° 13' 12" W

**TEMPORARY BRIDGE & CULVERT DETAILS**

**NORTH CREEK TRAIL**

208TH ST SE - 183RD ST SE  
ROAD PROJECT NO. RC1546

NEAR: CITY OF BOTHELL  
AT: SPRAGUE DR.  
SECTS. 18, T. 27 N., R. 5 E., W.M.  
COUNTY OF: SNOHOMISH  
STATE: WASHINGTON  
APPLICATION BY: SNOHOMISH COUNTY PUBLIC WORKS  
FIGURE 34 OF 34 DATE: NOVEMBER, 2018