

APPENDIX B—COMMUNICATIONS FACILITIES POLE ATTACHMENT PERMIT APPLICATION PROCESS

The following procedure is to be followed by each Applicant seeking to make new Attachments on District Poles. Note that no entity may make any Attachments to District Poles without having first entered into a binding Pole Attachment License Agreement.

1. Applicant shall submit a written request to perform a pre-construction inspection. The request must include a preliminary route description. Applicant shall have a professional engineer, or District approved employee or contractor, participate in a pre-construction inspection, which will include a review of the proposed Attachment(s) to determine the feasibility of the request and identify any potential make-ready work. Appendix E to the Pole Attachment License Agreement contains the minimum design review information that an Applicant must provide and a worksheet for determining the minimum specifications that the proposed Attachment must meet.
2. Following the pre-construction inspection, Applicant shall submit a completed Application for Permit (Appendix C) that includes: route map, information required in Appendix F, installation plans and recommendations on make-ready work. Applicant shall prepare the Application for Permit in adherence with the applicable standards (Section 1.2 of Pole Attachment License Agreement) and specifications (Appendix D).
3. The District will review the recommendations from the inspection and discuss any issues with the Applicant.
4. Upon receipt of written authorization, District will proceed with make-ready work according to the specific agreed-upon installation plans and the terms of the Pole Attachment License Agreement, including payment for the make-ready work charges as set out by District and agreed to by the Applicant.
5. Upon completion of the make-ready work, the District will sign and return the Application for Permit authorizing the Applicant to make its Attachment(s) in accordance with agreed-upon installation plans.
6. The Applicant's professional engineer, District approved employee or contractor shall submit written certification that he/she has completed the post-construction inspection and that the installation was done in accordance with the provisions of the permit. The post-construction inspection shall be submitted within ninety (90) calendar days after installation is complete.

7. If the District waives the professional-engineer requirement, the District will perform the post-construction inspection and charge the Applicant per Articles 3 and 13 of the Agreement.

APPENDIX C—APPLICATION FOR PERMIT

(For District Use)

Permit # _____ Superseded Permit # _____

Application Date: ____ / ____ / ____

Licensee: _____

Desire to: attach to District pole(s) or remove Attachment(s) or Enclosure(s) from District pole(s)

(Please select only one. Separate Applications for Permit must be submitted for multiple requests.)

Number of Attachments or Enclosures requested with this permit _____

Sheet 1 of _____

Licensee Name: _____

Address: _____

Licensee Contact Person: _____

Title: _____

District Contact Person: _____

Title: _____

Narrative description of proposed activity: _____

In accordance with the terms and conditions of the Pole Attachment License Agreement dated _____, Application is hereby made for a permit to attach to and/or vacate pole(s) in the locations detailed on the attached route map(s). Also, attached is documentation as required by Appendix F of the Pole Attachment License Agreement. Permission is hereby granted to Licensee to attach and/or vacate poles listed on the

attached field data summary sheets, subject to payment of the necessary make-ready work charges as set out by District and agreed to by the Licensee.

SUBMITTED:

APPROVED:

Licensee: _____

District: PUD #1 of Kittitas County

By _____

By _____

Title _____

Title _____

Date _____

Date _____

APPENDIX D—SPECIFICATIONS FOR LICENSEE’S ATTACHMENTS TO DISTRICT POLES

Licensee, when making Attachments to District Poles, will adhere to the following engineering and construction practices.

- A. All Attachments shall be made in accordance with the applicable standards as defined in Article 1.2 of the Pole Attachment License Agreement.

B. Clearances

1. **Attachment and Cable Clearances:** Licensee’s Attachments on District Poles, including metal attachment clamps and bolts, metal cross-arm supports, bolts and other equipment, must be attached so as to maintain the minimum separations specified in the National Electrical Safety Code (“NESC”) and in drawings and specifications District may from time to time furnish Licensee. (*See Drawings A-01 to A-99.*)
2. **Service Drop Clearance:** The parallel minimum separation between District’s Service Drops and Communications Facilities Service Drops shall be twelve (12) inches, and the crossover separation between the Drops shall be twenty-four (24) inches. (*See Drawings A-06 and A-07.*)
3. **Sag and Mid-Span Clearances:** Licensee will be particularly careful to leave proper sag in its lines and cables and shall observe the established sag of power line conductors and other cables so that minimum clearances are (a) achieved at poles located on both ends of the span; and (b) retained throughout the span. At mid-span, a minimum of twelve (12) inches of separation must be maintained between any other cables. At the pole support, a twelve (12) inch separation must be maintained between Licensee and any other communications connection/attachment. (*See Drawing A-07.*)
4. **Vertical Risers:** All Risers, including those providing 120/240 volt power for Licensee’s equipment Enclosure, shall be placed on the quarter faces of the Pole and must be installed in conduit with weatherhead attached to the pole with stand-off brackets. A two (2) inch clearance in any direction from cable, bolts, clamps, metal supports and other equipment shall be maintained. (*See Drawings A-02 and A-05.*)

5. **Climbing Space**: A clear climbing space must be maintained at all times on the face of the Pole. All Attachments must be placed so as to allow and maintain a clear and proper climbing space on the face of the District Pole. Licensee's cable/wire Attachments shall be placed on the same side of the Pole as those of other attaching entities. In general, all other Attachments and Risers should be placed on Pole quarter faces. (See Drawing A-08.)
6. **Pedestals and Enclosures**: Every effort should be made to install pedestals, vaults and/or enclosures a minimum of four (4) feet from Poles or other District facilities.

C. Down Guys and Anchors

1. Licensee shall be responsible for procuring and installing all anchors and guy wires to support the additional stress placed on District Poles by Licensee's Attachments. Anchors must be guyed adequately.
2. Anchors and guy wires must be installed on each District Pole where an angle or a dead-end occurs. Licensee shall make guy attachments to poles at or below its cable attachment. No proposed anchor can be within four (4) feet of an existing anchor without written consent of District.
3. Licensee may not attach guy wires to the anchors of District or third-party user without the anchor owner's specific prior written consent.
4. No Attachment may be installed on a District pole until all required guys and anchors are installed. No Attachment may be modified, added to or relocated in such a way as will materially increase the stress or loading on District Poles until all required guys and anchors are installed.
5. Licensee's down guys, if needed, shall be bonded to ground wires of District's Pole. The connections to the system neutral are to be made by the District as an item of make-ready work. District will determine if guys should be grounded or insulated.

D. Certification of Licensee's Design

1. Licensee's Attachment Permit Application must be signed and sealed by a professional engineer, registered in the Washington certifying that Licensee's aerial cable design fully complies with the NESC and District's construction standards and any other applicable federal, state or local codes and/or requirements.

2. This certification shall include the confirmation that the design is in accordance with pole strength requirements of the NESC, taking into account the effects of District's facilities and other attaching entities' facilities that exist on the Poles without regard to the condition of the existing facilities.

E. Miscellaneous Requirements

1. **Cable Bonding:** Licensee's messenger cable shall be bonded to District's pole ground wire at each Pole that has a ground wire. If no ground exists on a Pole, Licensee shall install a pole ground in accordance with the attached detail drawing. (See Drawings A-03 to A-05.)
2. **Customer Premises:** Licensee's Service Drop into customer premises shall be protected as required by the most current edition of the NEC.
3. **Communication Cables:** All communications cables/wires not owned by District shall be attached within the communications space that is located 40 inches below the lowest District conductors. (See Drawings A-01 through A-99.)
4. **Riser Installations:** All Licensee's Riser installations shall be in District-approved conduit materials and placed on stand-off brackets. Ground wires may be attached directly to Pole. (See Drawings A-02 to A-05.)
5. **Tagging:** All Licensee's cables shall be identified with a band-type communications cable tag or other identification acceptable to District at each attachment within twelve (12) inches of the pole. The communications tag shall be consistent with communication industry standards and shall include at least the following: Licensee name, emergency contact number and cable type. At the discretion of District, tags shall be color coded to permit identification of attaching entity by observation from the ground.

F. District Construction Drawings and Specifications

1. Refer to the attached District construction drawings, and obtain additional construction specifications from District in accordance with its requirements.
2. Apply the District's construction drawings and specifications in accordance with the NESC, NEC and any other federal, state or local code requirements.

APPENDIX E—DISTRIBUTION LINE MINIMUM DESIGN REVIEW INFORMATION AND SUGGESTED WORKSHEET

The following guidelines are provided, and corresponding information must be submitted with each Pole Attachment Permit Application for Attachments on District's system. District may direct that certain Attachments do not require the submittal of design review information. These Attachments are noted at the end of this section.

Each Pole Attachment Permit Application must include a report from a professional engineer registered to practice in the State of Washington, and experienced in electric District system design, or a District-approved employee or contractor of Licensee. This report must clearly identify the proposed construction and must verify that the Attachments proposed will maintain District's compliance with NESC Class B construction for the loading district as outlined in the NESC Section 25.

District may or may not require that all of the following information be submitted at the time of the Pole Attachment Permit Application. The applicant shall have performed all required calculations and be ready to provide the detailed information below within fifteen (15) calendar days of notice. Applicant shall keep copies of the engineering data available for a period of twenty (20) years.

In determining compliance, the following minimum conditions shall be used in the calculations for pole strength:

1. All single phase lines shall be assumed to have been reconducted to #4 ACSR conductor for both phase and neutral. If a larger conductor size exists, the larger size shall be used in the calculations.
2. All three phase lines shall be assumed to have been to #1/0 ACSR conductor for three (3) phases and neutral. If existing conductors are larger than #1/0 ACSR, the larger size shall be used in the calculations.
3. All pole lines shall assume a secondary/service conductor, installed from pole to pole, of #4/0 triplex cable, with an ACSR messenger.
4. For pole strength calculations, all poles shall be as they actually exist, or be considered Class 4 for calculations.
5. All line angles or dead ends shall be guyed and anchored. Transverse pole strength shall not be assigned to attaching pole users for line angles, *i.e.*, pole should be

viewed as being void of other cables, conductors, wires or guys and considering only the applicant's wires/cables for guying calculations.

6. Points of attachment shall be as they actually exist on the poles.
7. For a District-approved joint use of anchors, the Licensee shall utilize guy insulators in its guys.

Licensee shall comply with any NESC and/or District safety factors, whichever is more conservative, in their designs. The engineer for the permit applicant shall provide for each application the following confirmations:

ζ **Required permits that have been obtained** (insert n/a if not applicable):

- _____ (y/n) U.S. Corp of Engineers.
- _____ (y/n) Highway—state, county, city.
- _____ (y/n) Railroad.
- _____ (y/n) Local zoning boards, town boards, etc.
- _____ (y/n) Joint use permits, if required.
- _____ (y/n) Notified other pole users of contacts or crossings.

ζ **Confirm that you have:**

- _____ (y/n) Obtained appropriate franchise(s).
- _____ (y/n) Obtained pole/anchor easements from land owners.
- _____ (y/n) Obtained crossing and overhang permits.
- _____ (y/n) Obtained permit to survey R/W.
- _____ (y/n) Completed State of Washington Department of Transportation requirements.
- _____ (y/n) Placed permit number on plans.
- _____ (y/n) Complied with Kittitas underground facility location requirements. (contact District)
- _____ (y/n) Included sag/tension data on proposed cable.

Calculations are based upon the latest edition of the NESC and the latest editions of the requirements of the State of Washington.

It is Licensee's responsibility to obtain all necessary permits and provide the District with a copy of each.

The engineer for the permit applicant shall provide for each Pole(s) the following information:

- ζ Project ID _____
- ζ Pole number _____ [if pole tag missing, contact District]
- ζ Pole class _____ [existing—*i.e.*, 4, 3, 2...]
- ζ Pole size _____ [existing—*i.e.*, 35, 40...]
- ζ Pole type _____ [Southern Yellow Pine, Douglas Fir...]
- ζ Pole fore span _____ [feet]
- ζ Pole back span _____ [feet]
- ζ Calculated bending moment at ground level _____ [ft-lbs]

Existing:

- ζ Power phase condition _____ quantity of _____ AWG/MCM
_____ CU/AA/ACSR @ _____ feet above ground line
- ζ Power neutral condition _____ quantity of _____ AWG/MCM
_____ CU/AA/ACSR @ _____ feet above ground line
- ζ Power sec condition _____ quantity of _____ AWG/MCM
_____ CU/AA/ACSR @ _____ feet above ground line
- ζ Telco #1 cables _____ qty of _____ dia @ _____ ft above ground line
- ζ CATV #2 cables _____ qty of _____ dia @ _____ ft above ground line
- ζ User #3 cables _____ qty of _____ dia @ _____ ft above ground line
- ζ User #4 cables _____ qty of _____ dia @ _____ ft above ground line
- ζ User #5 cables _____ qty of _____ dia @ _____ ft above ground line
- ζ User #6 cables _____ qty of _____ dia @ _____ ft above ground line

Proposed:

- ζ Proposed cables _____ qty of _____ dia @ _____ ft above ground line

ζ Proposed cables _____ qty of _____ dia @ _____ ft above ground line

AGL = Above Ground Level

The minimum vertical clearance under all loading conditions measured from the proposed cable to ground level on each conductor span shall be stated above. Variations in topography resulting in ground elevation changes shall be considered when stating the minimum vertical clearance within a given span.

Calculated pole bending moment at ground level: _____ [ft–lbs]

Pole breaking bending moment at ground level: _____ [ft–lbs]

Calculated transverse safety factor: _____ [ratio should be greater than 1.00]

Proposed loading data [provide similar data for each cable proposed]:

A. Weight data (cable and messenger)—

1. Vertical weight, bare = _____ [# / ft]

B. Tension data (final tensions on messenger)—

1. NESC maximum load for area of construction: _____ [lbs]

2. 60° F, NO wind: _____ [lbs]

Permit applicant's engineer shall provide for each transverse guy, or dead end to which guys and/or anchors are attached, the following information:

ζ Pole number _____

ζ Calculated cable messenger tension under
NESC maximum loading conditions _____ [lbs]

If connection is:

ζ A dead end, is it a single or double? _____ [S, D]

ζ A change in tension, what is change? _____ [lbs]

ζ A line angle, what is angle change? _____ [degrees]

ζ What is tension change at angle? _____ [lbs]

For each dead end:

ζ Point of attachment for guy hook _____ [feet AGL]

- ζ Anchor distance from pole _____ [feet]
- ζ Calculated guy tension _____ [lbs]
- ζ Rated guy working strength _____ [lbs]

For each change in tension:

- ζ Point of attachment for guy hook _____ [feet AGL]
- ζ Anchor distance from pole _____ [feet]
- ζ Calculated guy tension _____ [lbs]
- ζ Rated guy working strength _____ [lbs]

For each line angle:

- ζ Point of attachment for guy hook _____ [feet AGL]
- ζ Anchor distance from pole _____ [feet]
- ζ Calculated guy tension _____ [lbs]
- ζ Rated guy working strength _____ [lbs]

For each anchor:

- ζ Anchor distance to nearest anchor _____ [feet]
- ζ Calculated anchor tension _____ [lbs]
- ζ Rated anchor strength _____ [lbs]
- ζ Soil composition _____ [sandy, loam, clay, rock]

APPENDIX F—FIELD DATA SUMMARY SHEET INSTRUCTIONS

<u>Column</u>	<u>Instructions</u>
District Pole Number	If a pole stencil is not in place, it may be left for District if the accompanying sketch is adequate to determine the location.
Communication Company's Plan Sheet Pole Number	This must correspond with the plan sheet or pole sketch pole identification number.
Pole Height and Class	List the present pole height and class and list the proposed pole height and class if it is necessary for District to replace the pole for clearance, etc.
Guy Attachments	All unbalanced loading on poles must be guyed. Attachments to District's anchors will not be allowed.
Attachment Height	Communications company attachment height above ground level. List guy lead in feet.
Inches Below District	The number of inches communications company is to be attached below District while maintaining clearance as required in Item #4.
Span Length	List the back span length for each attachment.
Inches Sag	List the messenger sag for the design listed on the cover sheet at 60 degrees Fahrenheit.
Ground Clearance	List the ground clearance at the low point of the back span. Must not be less than the National Electrical Safety Code (latest edition).

APPENDIX G-ANNUAL REPORTING FORM

The following information shall be reported on an annual basis.

INVOICE CONTACT INFORMATION:

Per Article 3.3 of Pole Attachment License Agreement

Address: _____

Phone: _____
Email: _____

WRITTEN NOTICE CONTACT INFORMATION:

Per Article 25.1 of Pole Attachment License Agreement

Address: _____

STAFFED 24-HOUR EMERGENCY CONTACT INFORMATION:

Per Article 25.2 of Pole Attachment License Agreement

Phone: _____

PLEASE ATTACH CURRENT ATTACHMENT LOCATIONS AND UPDATES SINCE PREVIOUS REPORT:

Per Article 13.4 and Article 15 of Pole Attachment License Agreement

- An up-to-date map depicting the locations of Attachments. If a map is not available, provide a list of Attachment locations
- New Riser or Service Drop installations where no Permit was required since previous report.

- Attachments that have become nonfunctional since previous report – report shall identify the Pole on which the nonfunctional Attachment is located, describe the nonfunctional equipment, and indicate the approximate date the Attachment became nonfunctional.
- Equipment removed from Poles since previous report – report shall identify the Pole from which the equipment was removed, describe the removed equipment, and indicate the approximate date of removal.

PLEASE ATTACH REQUIRED CERTIFICATES OF INSURANCE:

Per Article 18 of Pole Attachment License Agreement

- Workers' Compensation and Employers' Liability Insurance
- Commercial General Liability Insurance
- Automobile Liability Insurance
- Umbrella Liability Insurance
- Property Insurance

PLEASE ATTACH REQUIRED PERFORMANCE BOND:

Per Article 30 of Pole Attachment License Agreement

Performance bond must be in an amount equal to \$20 per Licensee Pole Attachment, and \$20 per linear feet of Conduit System occupied, which amounts shall be adjusted accordingly on an annual basis to account for additions or reductions in the total number of Licensee's Pole Attachments and use of Conduit System.