INVITATION TO BID

FOR

Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot
#19-181-FBR-001

FOR INFORMATION, CONTACT:
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Anacortes, WA 982
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NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.
PART 1

BID DOCUMENTS
INVITATION TO BID

Sealed bids will be received by the City of Anacortes ("City") until 1:30 pm on Tuesday, December 17, 2019 at the office of the Clerk-Treasurer, Municipal Building, P.O. Box 547, 904 6th Street, Anacortes, WA 98221, for the purchase of Municipal Broadband Installation – CBD, Old Town Pilot, N Avenue Pilot, project #19-181-FBR-001. Bids are to be submitted only on the PROPOSAL FORM provided. Bids must be submitted in a sealed envelope with the outside clearly marked with the bid opening date and time, the project name and number as it appears in this advertisement, plus the name and address of the bidder. Bids shall be addressed to the City Clerk, City of Anacortes, and 904 6th Street, PO Box 547, Anacortes, WA 98221. Proposals will be publicly opened at Anacortes City Hall and read aloud following bid closing.

Bid Deposit: Bidders must submit a bid deposit equal to 5 percent of the bid amount. The deposit may be in cash, certified check, cashier’s check, or surety bond.


All bidding and performance shall be performed in compliance with the Call for Bids and any addenda issued thereto. Bids shall constitute offers to the City of Anacortes which shall be binding for sixty (60) days from the date of bid opening. The City of Anacortes reserves the right to reject any bid, any portion of any bid and/or to reject all bids. The City of Anacortes further reserves the right, but without obligation, to waive informalities and irregularities.

Title VI – Language on Civil Rights Act of 1964:
“The City of Anacortes in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 USC 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 26 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.”

Dated the 3rd of December, 2019

CITY OF ANACORTES, WASHINGTON

By ____________________________
Steven D. Hoglund, City Clerk-Treasurer

Published: Skagit Valley Herald: 12/3/19

NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.
INSTRUCTION TO BIDDERS

The City is seeking bids from qualified contractors to install fiber optic drops to the premises of all subscribing customers. The City is currently deploying the network in three pilot areas. This bid includes the outdoor fiber drop installation from multi-port service terminal (hereinafter “MST”) to customer site AND inside equipment installation to each subscribing customer. The complete scope of work and contract requirements are described and detailed below and in the referenced material, the “Contract Documents”.

1. SUBMITTAL CRITERIA
All bids must be delivered in the manor specified herein. Bids submitted by Bid closing date and time must include:

- 5% bid deposit (as required by RCW 35.23.352)
- Statement of Bidder’s Qualifications – Attachment A
- Bid Proposal signed by an authorized representative – Attachment B
- Certification of Compliance with Wage Payment Statues – Attachment C
- Copy of Company’s employee background check program
- Copy of Company’s drug free company program
- Copy of any other employee trade license or certification programs in place

Sealed Bid proposals must be delivered to:

City Clerk
904 6th Street
PO Box 547
Anacortes, WA, 98221-0547

Proposals must be in a sealed, properly addressed envelope with the name of the Bidder and project/bid number and description of the project plainly written on the outside of the envelope, prior to the scheduled time and date stated in the Invitation to Bid. City offices are not open for special mail or other delivery on weekends and City holidays. The City shall assume no responsibility for delay in U.S. mail service or for bids delivered to City offices other than the specified City Office. Bids received after the time stated in the bid will not be accepted and will be returned, unopened, to the Bidder. There will be no exceptions or waivers of this requirement.

2. PRE-SUBMITTAL MEETING
The City is hosting a pre-submittal teleconference meeting, open to all to participate in. The teleconference meeting will allow all interested parties an opportunity to ask City staff questions and hear responses about the project in an open forum. All questions and answers will be available to all applicants. Submitting your questions in advance will facilitate a more comprehensive discussion.

The meeting will occur on Tuesday, December 10th at 11:00am PST. Please join the meeting from your computer, tablet or smartphone: https://global.gotomeeting.com/join/229866517 or dial in using phone only United States: +1 (872) 240-3412, Access Code: 229-866-517.

New to GoToMeeting? Get the app now and be ready when your first meeting starts: https://global.gotomeeting.com/install/644354717

3. PREVAILING WAGE: The State of Washington prevailing wage rates applicable for this public works project, which is located in Skagit County, may be found at the following website address of the Department of Labor and Industries: https://fortress.wa.gov/lni/wagelookup/prvwagelookup.aspx. Based on the bid submittal deadline for this project, the applicable effective date for prevailing wages for
this project is December 17, 2019. A copy of the applicable prevailing wage rates are also available for viewing at the office of the Owner, located at 904 6th Street, Anacortes, WA. Upon request, the Owner will mail a hard copy of the applicable prevailing wages for this project.

4. CONTACT INFORMATION: Questions and requests for clarification of these Specifications must be submitted in writing by 12:00pm, Pacific Time, December 11, 2019, via email to matsont@cityofanacortes.org or to Tiffany Matson, PO Box 547, Anacortes, WA 98221. Questions received after this date and time may not be answered. Any oral communications will be considered unofficial and non-binding on the City. Vendors should rely only on written statements issued by the City’s representative. Responses to verbal requests for information or clarification will be considered unofficial until received in writing. Questions may be held until the deadline and answered collectively. Questions marked confidential will not be answered. The City reserves the discretion to group similar questions to provide a single answer.

5. COOPERATIVE PURCHASING: The Washington State Interlocal Cooperative Act RCW 39.34 provides that other governmental agencies may purchase goods and services on this solicitation or contract in accordance with the terms and prices indicated therein if all parties are willing.

6. WITHDRAWAL OF BID
A. Prior to Bid Opening
Any Bidder may withdraw his/her Bid prior to the scheduled bid opening time by delivering a written notice to the City Clerk. The notice may be submitted in person or by mail; however, it must be received by the City Clerks Office prior to the time for bid opening.

B. After Bid Opening
No bidder will be permitted to withdraw his/her Bid/Proposal after the time of bid opening, as set forth in the Invitation to Bid, and before the actual award of the Contract, unless the award of Contract is delayed more than sixty (60) calendar days after the date set for bid opening. If a delay of more than 60 calendar days does occur, then the Bidder must submit written notice withdrawing his/her Bid to the City Clerk.

7. OPENING OF BIDS
At the time and place set for the opening of bids, all Proposals, unless previously withdrawn, will be publicly opened and read aloud, irrespective of any irregularities or informalities in such Proposal.

8. BIDDER RESPONSIBILITY
A. EVALUATION AND SELECTION PROCESS OF RESPONSIBLE BIDDER
It is the intent of Owner to award a contract to the low responsible bidder. The bidder may be required by the City to submit documentation demonstrating compliance with the criteria. As required by Washington State RCW 39.04.350, before award of a public works contract, a bidder must meet the following responsibility criteria to be considered a responsible bidder and qualified to be awarded a public works project. The bidder must:

i. Have a certificate of registration in compliance with chapter 18.27 RCW (Contractor License), which must have been in effect at the time of bid submittal;
ii. Have a current state unified business identifier (UBI) number;
iii. If applicable, have industrial insurance coverage for the bidder’s employees working in Washington as required in Title 51 RCW; an employment security department number as required in Title 50 RCW and a state excise tax registration number as required in Title 82 RCW;
iv. Have received training on the requirements related to public works and prevailing wage under chapter 39.04 RCW and chapter 39.12 RCW, or received exemption from this requirement by completing three or more public works projects and have had a valid business license in Washington for three or more years;
v. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or 39.12.065(3) and,

vi. Not have any apprenticeship violations, if applicable.

In addition the Contractor must provide copy of (i) evidence of having been trained as an organization on installing the InvisiLight® solution and (ii) that all personnel installing the InvisiLight® solution have been trained on installing the InvisiLight® solution before contract award.

Within 24 hours after bid opening Low Bidder must submit the following documentation as required by the City to award a contract to the low responsive, responsible bidder.

- Certification of Compliance with Wage Payment Statutes
- Bidder Responsibility Statement
- A cost breakdown of lump sum items if requested
- Documentation That May Be Requested to Demonstrate Compliance with Mandatory Criteria (RCW 39.04.350(1) and RCW 39.06.020 as it applies to Subcontractors)

If the bidder does not submit the documentation within the time period specified above the City may find the bidder not responsible, or may find the bidder responsible based upon any available information that demonstrates that the bidder meets Bidder Responsibility. Determination of Bidder Responsibility must be made prior to award of the contract. In the interest of meeting the project’s schedule, the City may request other bidders to submit documentation which will be evaluated in the same manner as the low bidder. If the low bidder does not meet bidder responsibility, the City will evaluate the second low bidder. The City reserves the right to reject any and all bids. The City can reject any bid not conforming to the intent and purpose of bidding documents, or when the City determines that the bidder is not a responsible bidder.

If the City determines that a bidder does not meet the Bidder Responsibility Criteria, the determination will be provided in writing. The bidder has 2 business days to appeal and can submit additional documentation with their appeal. If the City still determines that the Bidder is not a responsible bidder, the City will issue the bidder its final determination in writing. The City shall not award a contract to another bidder until 2 business days after the bidder receives the City’s final determination that the bidder is not a responsible bidder.

B. Insertions of Material Conflicting with Specifications
Only material inserted by the Bidder to meet requirements of the Specifications will be considered. Any other material inserted by the Bidder will be disregarded as being non-responsive and may be grounds for rejection of the Bidder’s Bid/Proposal.

C. Correction of Ambiguities and Obvious Errors
The City reserves the right to correct obvious ambiguities and errors in the Bidder’s proposal and to waive non-material irregularities and/or omissions. In this regard, if the unit price does not compute to the extended total price, the unit price shall govern. Written prices will govern over numeric prices.

9. IRREGULAR PROPOSALS
A. A proposal will be considered irregular and will be rejected if:
   i. The Bidder is not prequalified when so required;
   ii. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
   iii. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
   iv. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
   v. A price per unit cannot be determined from the Bid Proposal;
vi. The Bidder fails to submit or properly complete a Subcontractor list, if applicable.

vii. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or

viii. More than one proposal is submitted for the same project from a Bidder under the same or different names.

B. A Proposal may be considered irregular and may be rejected if:

i. The Proposal does not include a unit price for every Bid item;

ii. Any of the unit prices are excessively unbalanced (either above or below the amount of a reasonable Bid) to the potential detriment of the Contracting Agency;

iii. Receipt of Addenda is not acknowledged;

iv. A member of a joint venture or partnership and the joint venture or partnership submit Proposals for the same project (in such an instance, both Bids may be rejected); or

v. If Proposal form entries are not typed or made in ink.

vi. The Proposal form is not properly executed.

10. AWARD
The successful bidder must execute and submit the following documents within 10 working days of the Notice of Award date:

- Agreement
- Contract Performance Bond and Contract Payment Bond
  The Contractor and the Surety must execute the Contract Bonds provided in the bid documents for 100% of the contract price.
- Certificate of Liability Insurance
  The Certificate of Liability Insurance with additional insured endorsements may be furnished on forms supplied by insurance carrier. Insurance requirements are established herein: Sample Contract.

11. CITY OF ANACORTES BUSINESS LICENSE
A City of Anacortes business license is required for any business working inside the city limits whose annual value of products, gross proceeds of sales, or gross income of the business in the city is more than $2,000. Applications for business license can be obtained at City Hall or from the Washington Department of Revenue at bls.dor.wa.gov.
PROJECT OVERVIEW

The City is developing a municipal broadband network and is currently deploying the network in three pilot areas. This bid includes the outdoor fiber drop installation from MST to customer site AND inside equipment installation to each subscribing customer.

The three pilot areas are:

● The Central Business District area (CBD), where the network will pass approximately 250 customer sites, is bounded approximately as follows:
  ▪ On the north by 2nd Street
  ▪ On the south by 19th Street
  ▪ On the east by Q Avenue
  ▪ On the west by O Avenue

● The Old Town area, where the network will pass approximately 530 customer sites, is bounded approximately as follows:
  ▪ On the north by 2nd Street
  ▪ On the south by 11th Street
  ▪ On the east by O Avenue
  ▪ On the west by D Avenue

● The M Avenue area, where the network will pass approximately 160 customer sites, is bounded approximately as follows:
  ▪ On the north by 22nd Street
  ▪ On the south by 32nd Street
  ▪ On the east by M Avenue
  ▪ On the west by K Avenue

The Work will be installation of all network infrastructure from the MST to within the customer site for the three pilot areas.

The Work for the three pilot areas will continue unabated from start to finish except for short periods during which weather conditions preclude work. The Work in the first pilot area, the CBD, will begin no later than January 13, 2020. The Work for the second and third pilot areas, the Old Town and M Avenue areas, will likely begin in March/April 2020 and extend into June 2020.

As the City receives customer orders in each pilot area, it will group those orders into batches and release them to the Contractor. The City anticipates that it will release a consistent flow of such batches to the Contractor. The Contractor will periodically draw materials from City’s inventory based on batches so released to Contractor.
GENERAL DESCRIPTION OF THE WORK

For the initial signup the City will be soliciting subscribers. The City will issue Service Work Orders to the Contractor with specific information such as:

a. Subscriber Name
b. Subscriber Contact details
c. Subscriber Address
d. Installation Information

The Contractor shall furnish all labor, services, materials, network equipment not supplied by the City including machinery, apparatus, appliances, tools, supplies and other things necessary to do all work required for the completion of each item of the Work and the Project as herein specified.

The Work is generally broken into three broad components: (1) installing the drop cable from the MST to the customer site, (2) penetrating the building exterior at the customer site and (3) extending fiber into the building interior and placing & powering up the customer premises equipment (an optical network terminal, or ONT).

The wall box for storing excess cable length for most business customer sites will be attached to a backboard attached to an interior wall and the ONT similarly attached to the backboard.

The wall box for storing excess cable length for most residential customer sites will be attached to an exterior wall where the cable will transition to an inside cable running to a central location in the residence where a free-standing ONT will be located. In some cases, a WiFi extender will also be deployed at the customer site.

The inside run from the exterior wall penetration to a central area of a residential installation will be accomplished using OFS’ InvisiLight® solution. Per section 16 c) v above, the selected Contractor will be required to provide proof (i) of having been trained as an organization on installing the InvisiLight® solution and (ii) that all personnel installing the InvisiLight® solution have been trained on installing the InvisiLight® solution.

The following outlines the approximate process of installing the drop cable from the MST to the customer site. Some tasks may not be necessary for a given customer drop.

- Take before & after digital photographs of cable path from MST to customer site building penetration
- Clean adapter on MST port
- Clean connector on MST-facing end of pre-connectorized drop cable
- Connect pre-connectorized drop cable to port in aerial MST
- Secure aerial drop cable to existing strand
- Secure Fiber Drop Wire Clamp to existing strand or utility pole
- Secure Fiber Drop Wire Clamp to side of customer building
- Install & secure drop cable into each Fiber Drop Wire Clamp
- Run drop cable horizontally and/or vertically from Fiber Drop Wire Clamp to building penetration point, securing drop cable to building
- Secure wall box to exterior of customer building
- Cut drop cable to appropriate length
- Strip outer jacket from drop cable
- Fusion splice connectorized pigtail onto end of drop cable
- Clean connector on connectorized pigtail
- Coil and secure excess cable or fiber length in wall box
The following outlines the approximate process of penetrating the customer site building exterior. Some tasks may not be necessary for a given customer drop.

- Take before & after digital photographs of exterior & interior customer site building penetration
- Accomplish penetration through variety of exterior wall constructions
- Extend drop cable or inside cable through penetration
- Seal penetration
- Cut to size and place a 2-foot x 2-foot (or smaller) plywood backboard on an interior wall
- Secure wall box to backboard in interior of customer building
- Cut drop cable to appropriate length
- Strip outer jacket from drop cable
- Fusion splice connectorized pigtail onto end of drop cable
- Clean connector on connectorized pigtail
- Coil and secure excess cable length in wall box

The following outlines the approximate process of extending fiber into the interior of the customer building and placing & powering up the customer premises equipment. Some tasks may not be necessary for a given customer drop.

- Take before & after digital photographs of cable path from building penetration to ONT placement site
- Secure the ONT to the backboard
- Install inside cable (OFS’ InvisiLight® solution) from building penetration to ONT location
- Measure received optical power at 1490 nm and record result.
- Clean adapter on ONT
- Clean connector on end of InvisiLight®
- Confirm that ONT powers up into a normal operating state
- Place the WiFi extender in an appropriate location and confirm that it powers up into a normal operating state
- Confirm connectivity between the ONT and WiFi extender
- Call network operations center and advise that customer premise equipment is powered up and connected
- Complete the one-page Installation Confirmation Form and obtain customer sign-off
- Complete the Installation Report Form
- Return Installation Confirmation Form and Installation Report Form to City
- Deliver all before & after digital photographs to City
ADDITIONAL REQUIREMENTS

a) ALL contractors’ employees or subcontractors working for the City on this project must have a Washington State Patrol criminal background check done by employer. Contractor must submit background check paperwork to broadband@cityofanacortes.org for City approval no later than 48hrs before employee or subcontractor is to begin work/installations or entering a subscriber/customer location.

b) ALL contractors’ employees working for the City on this project must have a drug free company program in place. Electronic copy of program paperwork must be sent to broadband@cityofanacortes.org for City approval no later than 48hrs before employee or subcontractor is to begin work/installations or entering a subscriber/customer location.

c) ALL contractors’ employees or subcontractors working for the City on this project must have an employee record of driver’s licenses, trade license and certification programs in place. Electronic copy of program paperwork must be sent to broadband@cityofanacortes.org for City approval no later than 48hrs before employee or subcontractor is to begin work/installations or entering a subscriber/customer location.

d) All installation shall be neat, tidy, secure and robustly serviceable, with professional workmanship and comply with generally observed “best practices”.

e) Contractor shall comply with all applicable National Electrical Code (NEC) and National Electrical Safety Code (NESC) mandatory requirements.

f) Contractor shall comply with all applicable State of Washington Department of Labor & Industries safety standards.

g) Contractor shall comply with all applicable City of Anacortes Development Regulations, Safety Standards and building code requirements.

h) Contractor shall comply with all applicable City of Anacortes Public Works Engineering Standards, November 7, 2018 Edition.

i) Contractor shall schedule all work to be performed between the hours of 8:00 a.m. and 5:00 p.m. Work begun on a customer installation before 5:00 p.m. but which is unexpectedly not complete by 5:00 p.m. may be continued beyond 5:00 p.m. if the end-customer explicitly agrees for contractor personnel to do so.

j) Drop cable placement and pole attachment arrangements must comply with Puget Sound Energy standards which are provided in Appendix B to this Invitation To Bid.

k) Drop cable placement shall not interfere with climbing space on the pole.

l) If drop cable placement uses span clamps mounted to the existing strand, no span clamp shall be placed closer than eighteen (18) inches from any pole.

m) No hardware shall be attached to any pole other than as specified in writing by City.

n) No drop cable shall at any point enter the power space.

o) Drop cable shall maintain at least thirty (30) inches mid-span vertical separation from neutral and secondary power lines.

p) Three (3) feet of drop cable (”Service Coil”) shall be neatly coiled, placed and supported from existing strand approximately eighteen (18) inches from the MST.

q) Service Coil shall not enter climbing space on pole.

r) Drop cable shall maintain at least forty (40) inches of separation in all directions from existing power line(s) and/or weather head(s) at the customer site.

s) Drop cable shall maintain minimum vertical clearances at all street, driveway and pedestrian crossings as specified by NESC.

t) Approximately three (3) feet of drop cable shall be used to make a drip loop no less than nine (9) inches in diameter which shall be placed near the point at which the drop cable first attaches to the customer exterior wall.

u) Wall boxes installed on customer exterior shall be placed approximately thirty-six (36) inches above grade.

v) Customer exterior wall penetrations shall be approximately thirty-six (36) inches above grade and shall be one-quarter (1/4) inch to three-eighths (3/8) inch diameter.

w) Customer exterior wall penetrations shall be sealed with a water-based cement.
MATERIALS INFORMATION

1. MATERIAL TO BE PROVIDED BY CITY
   a) All drop cables
   b) All hardware for securing drop cable to existing strand
   c) All fiber drop wire clamps
   d) All hardware for securing drop cable to building exterior
   e) All wall boxes
   f) All material to seal building penetrations
   g) All material for backboards
   h) All pre-connectorized pigtails
   i) All InvisiLight® materials

2. MATERIAL TO BE PROVIDED BY CONTRACTOR
   a) All materials and equipment not supplied by the City including machinery, apparatus, appliances, tools, supplies and other things necessary to do all work required for the completion of each item of the Work and the Project as herein specified.
   b) All specialized tools for installing InvisiLight® solution.

3. ONT INFORMATION
   The basic ONT for most residences and businesses is Nokia model G-010G-A. Its physical dimensions are 3.23”w x 4.13”d x 1.44”h. It is depicted below:

   ![ONT1](image1)

   The WiFi-enabled ONT is Nokia model G-240W-C. Its physical dimensions are 3.54”w x 3.54”d x 7.87”h. The WiFi Extender is Nokia model HA-030W-A and is slightly shorter than the G-240W-C. Both are depicted below:

   ![ONT2](image2)

   Dimensions for two other Nokia ONT models that may be deployed are noted below:

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-080P-P</td>
<td>15.75”</td>
<td>9.45”</td>
<td>1.72”</td>
</tr>
<tr>
<td>U-00160CP-P</td>
<td>17.32”</td>
<td>13.77”</td>
<td>1.73”</td>
</tr>
</tbody>
</table>

NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.
ATTACHMENT A - STATEMENT OF BIDDER’S QUALIFICATIONS

The City of Anacortes has a policy of awarding contracts to the lowest responsible bidder. For these purposes a Responsible Bidder is defined as follows:

RESPONSIBLE BIDDER:
A bidder who has proven by experience or furnished information that current financial resources, production or service facilities, service reputation and experience that they can insure to make satisfactory delivery of (bid) quality supplies, equipment, or contractual services, and that they have not violated or attempted to violate any provisions of this policy.

AWARD OF BID:
The City must award the bid to the “lowest responsible bidder,” or reject all bids. It may not negotiate with any of the bidders. The following guidelines, in addition to price, may be taken into account by the City in determining the lowest responsible bidder:

Each Contractor bidding on work included in these Contract Documents shall prepare and submit the following data along with their bid.

1.) Name of Bidder: ___________________________________________________________

2.) Business Address: __________________________________________________________

3.) Business Phone: ___________________________________________________________

4.) How many years have you been engaged in the contracting business under the present firm name?
   ____Yrs _____Months

5.) Character of work performed by your company as it directly relates to this project:
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

6.) Check each specific work element that your company has previously performed:
   □ YES □ NO Deployment of aerial cable infrastructure, fiber optic or copper cables
   □ YES □ NO Deployment of aerial service drops, fiber optic or copper cables
   □ YES □ NO Building penetrations for service drops
   □ YES □ NO Installation of customer premise inside wiring, fiber optic or copper cables
   □ YES □ NO Installation of OFS InvisiLight® material
   □ YES □ NO Fiber optic splicing
   □ YES □ NO Fiber optic loss testing using an optical time domain reflectometer

7.) List of contracts for work of this type completed within last three years by your company, include approximate cost and contact person with phone number:
   __________________________________________________________________________
   __________________________________________________________________________
   __________________________________________________________________________

NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.
8.) The Project Field Supervisor will be ____________________________
This person will be on the job full time and directly supervising the work. Any change will require written approval by the Owner.

Project Field Supervisor experience:

a) Years of experience in this type of construction: _____ Yrs _____Months
b) Years of supervisory experience: _____ Yrs _____Months
c) Years employed with current firm: _____ Yrs _____Months
d) Years employed with previous firm: _____ Yrs _____Months

9.) List References (include name, title, city or district, phone number):
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

10.) Bank references with contact name and telephone number: __________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

11.) State of Washington Registration No. _____________________________________________

12.) Federal IRS Identification No. ____________________________________________________

13.) Washington State UBI No.: ______________________________________________________

14.) List your other projects currently in progress along with other bids or contracts awarded but not yet started:
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________

15.) Will contracts currently in progress, or hereafter obtained interfere with the timely performance of the City of Anacortes project?  □ YES  □ NO

16.) Has your company been trained as an organization on installing the InvisiLight® solution?  □ YES  □ NO

17.) Have all your personnel who would be installing the InvisiLight® solution been trained on installing the InvisiLight® solution?  □ YES  □ NO
The following Bid Proposal lists Work items and quantities that will be used for calculating a total Bid amount to determine the low Bidder. The Bidder must write its loaded unit prices, extension calculations, and the total Bid price. All costs to perform the Work as specified must be reflected in the Bid Proposal. After the Bid opening, the Owner will verify the mathematical accuracy with respect to the extensions of unit Bid prices and the total Bid price. The Contract will be awarded to the lowest responsible and responsive Bidder.

The stated unit Bid quantities will specifically not be a part of the resultant Contract documents. The Owner does not represent or warrant to the Bidder that the actual Work provided under this Contract will be consistent with unit quantities that may be assigned by the Owner for purposes of determining the low Bidder. The actual Work provided under this Contract may vary substantially from the Owner-assigned unit quantities used to determine the basis of award, and the winning Bidder is not entitled to any adjustment in its unit prices as a result of any variation, no matter how significant, between the actual Work completed and unit quantities used for purposes of determining the basis of award.

1. BIDDER INFORMATION

Company Name: ____________________________________________

Email: ____________________________________________________

Date: _____________________________________________________

Address of Bidder: _________________________________________

Telephone No.: ____________________________________________

WA Labor and Industries Account No.: __________________________

Contractor’s License No.: ____________________________________

UBI No.: __________________________________________________
2. BID PROPOSAL FORM

Having examined the Place of the Work and all matters referred to in the Contract Documents, including the Instruction to Bidders, General Conditions, and Unit Descriptions, for the above mentioned project, we, the undersigned, hereby offer to enter into a Contract to perform the Work for the per unit amounts calculated as follows:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Item Title</th>
<th>Description</th>
<th>Estimated Qty</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Extended Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Service drop, 0 to 100 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>30</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Service drop, 101 to 250 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>30</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Service drop, 251 to 500 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>85</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Service drop, 501 to 750 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>80</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Service drop, 751’ to 1000’</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>30</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Service drop, 1001 to 1250 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>30</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Service drop, 1251 to 1500 feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>5</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Service drop, 1500+ feet</td>
<td>All labor, tools and equipment to install drop cable from aerial MST port to building penetration at customer site.</td>
<td>5</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Exterior-mounted wall box</td>
<td>All labor, tools and equipment to install wall box on customer site exterior wall.</td>
<td>70</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Interior-mounted wall box</td>
<td>All labor, tools and equipment to install wall box on customer site interior wall.</td>
<td>225</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Building penetration, wood</td>
<td>All labor and equipment to core drill and penetrate customer building exterior wall per site design, pass cable through wall penetration and seal penetration per local and/or state code. Customer exterior wall construction is wood, sheetrock and/or similar material.</td>
<td>100</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Building penetration, concrete</td>
<td>All labor and equipment to core drill and penetrate customer building exterior wall per site design, pass cable through wall penetration and seal penetration per local and/or state code. Customer exterior wall construction is brick, mortar, concrete and/or similar material.</td>
<td>195</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Customer premise installation, ONT only</td>
<td>All labor and equipment to install InvisiLight™ solution from exterior wall penetration to ONT location and confirm ONT successfully connects to network.</td>
<td>265</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Item # | Item Title                              | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Estimated Qty | Unit | Unit Price | Extended Price |
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Ad hoc labor, crew member</td>
<td>Average hourly rate for each non-supervisor member of crew performing work requested by Customer but not otherwise identified in Bid Unit Schedule.</td>
<td>1</td>
<td>Hr</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Ad hoc labor, crew supervisor</td>
<td>Average hourly rate for each crew supervisor overseeing tasks requested by Customer but not otherwise identified in Bid Unit Schedule.</td>
<td>1</td>
<td>Hr</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subtotal:  

8.7% Sales Tax:  

Total Bid:  

3. **ADDENDA:** Bidder acknowledges review of all Addenda through No. ____________  

**NOTE:** Failure to acknowledge any issued Addenda may render proposal non-responsive and therefore void. It is the sole responsibility of the Bidder to learn of Addendum. Addendums, if any, will be issued no later than 5:00pm on December 11, 2019. Such information may be obtained from the City of Anacortes website: www.anacorteswa.gov/Bids.aspx.  

4. **COMPLIANCE WITH SPECIFICATIONS**  
The proposed equipment must fully comply with the Scope of Work to qualify as a responsive bid. Bidder must attach additional information or pages listing all deviations and substitutions or proposed “as equal” component to the specifications which are included with this Bid. A completed list of proposed deviations and substitutions will be required to enable the Owner to evaluate whether the proposed items comply with the requirements of the specifications, to be determined by the Owner in the Owner’s sole discretion.  

5. **LIMITATION OF DAMAGES**  
The Bidder:  

a) agrees not to bring any Claim against the City or any of its employees, advisers, or representatives for damages in excess of an amount equivalent to the reasonable costs incurred by the Bidder in preparing its Bid for any matter in respect of this ITB, including:  

I. if the City accepts a non-compliant Bid or otherwise breaches (including breach of material terms) the terms of this ITB; or  
II. if the Project is modified, suspended, or cancelled for any reason (including modification of the scope of the Project or modification of this ITB or both) or the City exercises any rights under this ITB; and  

b) waives any and all Claims against the City or any of its employees, advisers, or representatives for loss of anticipated profits or loss of opportunity if no agreement is made between the City and the Bidder for any reason, including:  

I. if the City accepts a non-compliant Bid or otherwise breaches (including breach of material terms) the terms of this ITB; or  
II. If the Project is modified, suspended, or cancelled for any reason (including modification of the scope of the Project or modification of this ITB or both) or the City exercises any rights under this ITB.
6. NON-COLLUSION DECLARATION

By signing the signature page of this proposal, I declare, under penalty of perjury under the laws of the United States, that the following statement is true and correct:

1. That my firm, association or corporation has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the project for which this proposal is submitted.

2. That by signing the signature page of this proposal, I am deemed to have signed and to have agreed to the provisions of this declaration.

7. AUTHORIZATION

I, ________________ (sign and print name) authorize the above bid and I have the authority to enter into contracts on behalf of the business or other entity I represent.
ATTACHMENT C

Certification of Compliance with Wage Payment Statutes

The bidder hereby certifies that, within the three-year period immediately preceding the bid solicitation date (December 3, 2019), the bidder is not a “willful” violator, as defined in RCW 49.48.082, of any provision of chapters 49.46, 49.48, or 49.52 RCW, as determined by a final and binding citation and notice of assessment issued by the Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

____________________________________________________________________________________
Bidder’s Business Name
____________________________________________________________________________________
Signature of Authorized Official*
____________________________________________________________________________________
Printed Name
____________________________________________________________________________________
Title

Date ______________ City __________________ State or country __________________

Check One:
Sole Proprietorship ☐ Partnership ☐ Joint Venture ☐ Corporation ☐

State of Incorporation, or if not a corporation, State where business entity was formed:
____________________________________________________________________________________

If a co-partnership, give firm name under which business is transacted:
____________________________________________________________________________________

* If a corporation, proposal must be executed in the corporate name by the president or vice-

president (or any other corporate officer accompanied by evidence of authority to sign). If a co-

partnership, proposal must be executed by a partner.
PART 2

AGREEMENT AND BONDS
KNOW ALL MEN BY THESE PRESENTS:

That I/we, ________________________________________________________, of __________________________________________________________, as Principal and __________________________________________________________, as Surety authorized to do business in the State of Washington, are held firmly bound unto the CITY OF ANACORTES (Owner), as Obligee, in the penal sum of five (5) percent of the total amount of the bid proposal of said principal for the work hereinafter described, for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by these presents.

The condition of this obligation is such that if the Obligee shall make any award to the Principal for the "Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot, project #19-181-FBR-001", according to the terms of the proposal or bid made by the Principal therefore and the Principal shall duly make and enter into a contract with the Obligee in accordance with the terms of said proposal or bid and award and shall give bond for the faithful performance thereof, with Surety or Sureties approved by the Obligee; or if the Principal shall, in case of failure to do so, pay and forfeit to the Obligee the penal sum amount of the deposit specified in the call for bids, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect the Surety shall forthwith pay and forfeit to the Obligee, as penalty and liquidated damages, the amount of this bond.

SIGNED, SEALED AND DATED THIS ______ day of ___________________, 2019.

________________________________________
(Principal)

________________________________________
(Title)

________________________________________
(Surety)

________________________________________
(Attorney-in-fact)
NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.

SAMPLE CONTRACT

CONTRACT 19-181-FBR-001
AGREEMENT WITH CONTRACTOR

This Contract is between the City of Anacortes, Washington, a Municipal Corporation (herein after referred to as “City”) and CONTRACTOR, a private contractor at ADDRESS (herein after referred to as “Contractor”).

PROJECT
Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot

1. **Scope of Work:** Contractor shall furnish all materials, equipment and labor to perform the subject project in accordance with and as described in the City of Anacortes Invitation to Bid entitled “Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot, #19-181-FBR-001” issued December 3, 2019, which is hereby incorporated by reference and made a part hereof.

2. **Work Orders:** The City will issue a work order for each customer installation request, which will include specific installation instructions. The City will combine individual work orders into batches to send to the Contractor. The Contractor is expected to perform installations on the dates and times identified in the work order. The Contractor must clarify any questions or ambiguities in any work order prior to performance. The City is not required to pay for any work performed without the prior authorization or approval of the City.

3. **Compensation:** The total value of all Work Orders issued by the City shall not exceed Five Hundred Eighty Thousand Dollars ($580,000.00), which includes all labor, materials, 8.7% tax, and standard freight for the project. Compensation shall be by Unit Price for each of the categories of work in the Contractor’s bid proposal, which is incorporated by reference and attached hereto as Exhibit A. Before any payment is made by the City of Anacortes of sums under this contract, the contractor must provide a copy of the statement of Intent to Pay Prevailing Wage approved by the Department of Labor and Industries. Pursuant to RCW Chapter 60.28, a sum of five percent (5%) of the monies earned by the contractor will be retained.

4. **Bonds:** Pursuant to RCW 39.08.010, the Contractor shall provide the City a performance bond and payment bond for the full contract amount to be in effect as detailed in the incorporated General Provisions. The City may at its option release the bonds once all the conditions of RCW 39.08.010-1a have been discharged.

5. **Term of Contract:** The Contractor shall begin work no later than January 13, 2020. The term of this contract shall be from contract execution through December 31, 2020.

6. **Job Safety:** Contractor shall comply with all Washington Department of Labor & Industries safety standards.

7. **Contract Requirements:** Contractor must have a contractor license number, insurance, and City of Anacortes business license. **Prevailing Wage Law Applies.** Forms Needed: 1) Proof of Insurance with Additional Insured Endorsement; 2) Intent to Pay Prevailing Wage; 3) Affidavit of Wages Paid; 4) Performance Bond; 5) Payment Bond; 6) Certification of Compliance with Wage Payment Statutes.

8. **Contract Documents:** The attached General Provisions, referenced Invitation to Bid, and Exhibit A are included in this Contract Agreement.
The parties acknowledge that there has been an opportunity to negotiate the terms and conditions of this Agreement and agree to each bind itself, its partners, successors, assigns, and legal representatives to the other party hereto, in respect of all covenants, agreements, and obligations contained in the Contract Documents. Each of the persons signing below on behalf of any party hereby represents and warrants that s/he or it is signing with full and complete authority to bind the party on whose behalf of whom s/he or it is signing, to each and every term of this Agreement.

**Owner:**
City of Anacortes

_________________________
Mayor

_________________________
Date

**Contractor:**
CONTRACTOR

_________________________

_________________________
Date
1. Washington State Prevailing Wages

a) Before any payment can be made by the City, Contractor and any subcontractors must file a “Statement of Intent to Pay Prevailing Wages” with L&I and provide a copy of the L&I approved Intent to the City Contract Specialist. Contractor will pay promptly, when due, all wages accruing to its employees. Intents will be filed annually by the Contractor at the start date of each new contract year.

b) Before full or partial payment of the final invoice for the Contract year expiring can be made to the Contractor, an “Affidavit of Wages Paid” must be filed with L&I by the Contractor and any subcontractors within fifteen (15) days of all work performed during the Contract year just completed. A copy of the L&I approved Affidavit must be provided to the City Contract Specialist. Affidavits will be filed annually by the Contractor to cover wages paid for the contract year just expired.

c) For the first year of the Contract, Contractor shall pay its workers the applicable prevailing wage rates in effect upon the date of execution of the contract. At the end of the first contract year, and each successive year thereafter, Contractor shall adjust the prevailing wages paid to its employees to recognize and follow the most recent increases promulgated by L&I, if any. L&I updates prevailing wage rates every March and September. Any adjusted rates shall be reflected on the Intent filed for the new contract year.

d) Subsequent to any prevailing wage adjustments, the Unit Prices shall be adjusted on each anniversary date to reflect any changes in labor cost based on the most recent prevailing wage rates. For any adjustment in the established Unit Prices due to Contractor wage revisions, Contractor must submit the cost of wage increases to City for adjustment of the rates that will be paid to the Contractor for work in the new contract year. Prior to City issuing a Modification to adjust unit pricing, Contractor must submit sufficient cost details to City documenting the number of hours, or expected hours, to be worked by employees receiving the new prevailing wage rate, if any, and a formula for determining the resulting increase in the overall unit prices.

City is not liable for rate increases proposed by the Contractor that are not consistent with the original Contractor estimates.

e) In compliance with WAC 296-127, Contractor is required to pay L&I the appropriate filing fee with each Intent and Affidavit submitted to that department for certification. These fees are incidental to the Contract.

f) For contracts in excess of $10,000, the contractor must post in a conspicuous place at the job site, a copy of the statement of Intent to Pay Prevailing Wages approved by the Department of Labor and Industries and the address and phone number of the Industrial Statistician where complaints or inquiries may be made. The City will refer any dispute regarding the prevailing rate of wage to the Department of Labor and Industries for arbitration.

g) The State of Washington prevailing wage rates applicable for this public works project, which is located in Skagit County, may be found at the following website address of the Department of Labor and Industries: https://fortress.wa.gov/ln/wagelookup/prwagelookup.aspx. A copy of the applicable prevailing wage rates are also available for viewing at the office of the City, located at 904 6th Street, Anacortes, WA. Upon request, the City will mail a hard copy of the applicable prevailing wages for this project.

2. Delivery. Advance coordination of the work shall be made with the Project Manager Joe Edwards (360) 588-8363.

3. Subcontracts. The Contractor shall give notice reasonably in advance of placing any subcontract; preferably the Contractor shall identify subcontracts before subcontracted work begins. “Subcontract” means any contract entered into by a subcontractor to furnish supplies or services for performance of the prime Contractor or a subcontractor. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders. The following information shall be included (i) a description of the supplies or services to be subcontracted, (ii) identification of the type of subcontract to be used (iii) identification of the proposed subcontractor, (iv) proposed subcontract price. Unless consent or approval specifically provides otherwise, consent by the City shall not constitute a determination:

   a) of the acceptability of any subcontract terms or conditions;
   b) of the allowability of any cost under this contract, or
   c) to relieve the Contractor of any responsibility for performing this Contract.

As required by RCW 39.06.020, the Contractor must verify responsibility criteria for each first tier subcontractor, and a subcontractor of any tier that hires other subcontractors must verify responsibility criteria for each of its subcontractors. Verification is to include that, at the time of subcontract execution, each subcontractor meets the responsibility criteria listed in RCW 39.04.350(1) and additionally - if applicable - possesses an electrical contractor license or an elevator contractor license. This verification requirement, as well as the responsibility criteria, must be included in every public works contract and subcontract of every tier. The Contractor shall give immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the City.

4. Taxes. The City will pay sales and use taxes imposed on goods or services acquired hereunder as required by law. The Contractor must pay all other taxes including, but not limited to: Business and Occupation Tax, taxes based on the Contractor’s gross or net income, or personal property to which the City does not hold title. The
shall be replaced without cost to the City.

accordance with the Specifications of the Contract. All material or work approved and later found to be defective
Contractor of the responsibility of performing the work correctly, utilizing the best labor and materials in strict
Contract shall provide proper facilities for such access and inspection. Such inspection shall not relieve the
All materials furnished and work done shall be subject to inspection. The City Project Manager administering the
of these Specifications, but in case of dispute the Contractor may appeal to the City Attorney whose decision
notice in writing to the Contractor of the nature of the default or failure to perform, and in no case more than 8
days after it determines to withhold amounts otherwise due. A determination of the Public Works Director set
forth in such notice to the Contractor of the action required and/or the amount required to cure any alleged failure
to perform shall be deemed conclusive, except to the extent that the Contractor acts within the times and in strict
accord with the provisions of the Disputes clause of this Contract. The City may act in accordance with any
determination of the Public Works Director which has become conclusive under this clause, without prejudice to
any other remedy under the Contract, to take all or any of the following actions: (1) cure any failure or default, (2)
to pay any amount so required to be paid and to charge the same to the account of the Contractor, (3) to set off
any amount so paid or incurred from amounts due to become due the Contractor. In the event the Contractor
obtains relief upon a claim under the Disputes clause, no penalty or damages shall accrue to Contractor by
reason of good faith withholding by the City under this clause.

7. Final Payment: Waiver Of Claim The contractor's acceptance of final payment (excluding withheld retainage)
shall constitute a waiver of claims, except those previously and properly made and identified by the contractor
as unsettled at the time request for final payment is made.

8. Inspection.
A. Of the Work
All materials furnished and work done shall be subject to inspection. The City Project Manager administering the
Contract shall at all times have access to the work wherever it is in progress or being performed, and the
Contractor shall provide proper facilities for such access and inspection. Such inspection shall not relieve the
Contractor of the responsibility of performing the work correctly, utilizing the best labor and materials in strict
accordance with the Specifications of the Contract. All material or work approved and later found to be defective
shall be replaced without cost to the City.

B. Project Manager's Authority
The Project Manager shall have power to reject materials or workmanship which do not fulfill the requirements
of these Specifications, but in case of dispute the Contractor may appeal to the City Attorney whose decision
shall be final. The Contract shall be carried out under the general control of the representative of the City
administering the Contract, who may exercise such control over the conduct of the work as may be necessary,
in his or her opinion, to safeguard the interest of the City. The Contractor shall comply with any and all orders
and instructions given by the representative of the particular Department administering the Contract in
accordance with the terms of the Contract. Nothing herein contained, however, shall be taken to relieve the
Contractor of his/her obligations or responsibilities under the Contract.

9. New and Unused All units, equipment, parts and material shall be new, unused, manufacturer's current model
year and in current production. All materials shall have physical and chemical properties to withstand the intended
purpose. Equipment design shall have sufficient excess capacity for durability and safety.

10. Warranty The Contractor shall return to the project and repair or replace all defects in workmanship and
material discovered within one year after completion date of each Work Order, including any necessary labor
and materials. The Contractor shall start work to remedy any such defects within 7 calendar days of receiving
City’s written notice of a defect, and shall complete such work within the time stated in the City’s notice. In case
of an emergency, where damage may result from delay or where loss of services may result, such corrections
may be made by the City’s own forces or another contractor, in which case the cost of corrections shall be paid
by the Contractor. In the event the Contractor does not accomplish corrections within the time specified, the work
11. **Defense and Indemnity Agreement.** The Contractor shall defend, indemnify and hold the City, its appointed and elective officers, officials, employees and volunteers harmless from any and all claims, injuries, including death at any time resulting there from, damages, losses or suits including attorney fees, to the extent caused by negligent acts, errors or omissions of the Contractor in performance of this Agreement, except for injuries and damages caused by the sole negligence of the City.

Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Contractor and the City, its officers, officials, employees, and volunteers, the Contractor’s liability hereunder shall be only to the extent of the Contractor’s negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Contractor’s waiver of immunity under Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties.

The provisions of this Clause shall survive the expiration or termination of this Agreement.

12. **Insurance.**

A. **Insurance Term:** The Contractor shall procure and maintain insurance, as required in this Section, without interruption from commencement of the Contractor’s work through the term of the contract and for thirty (30) days after the Physical Completion date, unless otherwise indicated herein.

B. **No Limitation:** The Contractor’s maintenance of insurance, its scope of coverage and limits as required herein shall not be construed to limit the liability of the Contractor to the coverage provided by such insurance, or otherwise limit the City’s recourse to any remedy available at law or in equity.

C. **Minimum Scope of Insurance:** The Contractor’s required insurance shall be of the types and coverage as stated below:

1. **Automobile Liability** insurance covering all owned, non-owned, hired and leased vehicles. Coverage shall be at least as broad as Insurance Services Office (ISO) form CA 00 01.

2. **Commercial General Liability** insurance shall be as least as broad as ISO occurrence form CG 00 01 and shall cover liability arising from premises, operations, independent contractors, products-completed operations, stop gap liability, personal injury and advertising injury, and liability assumed under an insured contract. The Commercial General Liability insurance shall be endorsed to provide a per project general aggregate limit using ISO form CG 25 03 05 09 or an equivalent endorsement. There shall be no exclusion for liability arising from explosion, collapse or underground property damage. The City of Anacortes and its officers, elected officials, employees, agents, and volunteers shall be named as an additional insured under the Contractor’s Commercial General Liability insurance policy with respect to the work performed for the City using ISO Additional Insured endorsement CG 20 10 10 01 and Additional Insured-Completed Operations endorsement CG 20 37 10 01 or substitute endorsements providing at least as broad coverage.

3. **Worker’s Compensation** coverage as required by the Industrial Insurance laws of the State of Washington.

D. **Minimum Amounts of Insurance:** The Contractor shall maintain the following insurance limits:

1. **Automobile Liability** insurance with a minimum combined single limit for bodily injury and property damage of $1,000,000 per accident.

2. **Commercial General Liability** insurance shall be written with limits no less than $1,000,000 each occurrence, $2,000,000 general aggregate and $2,000,000 products-completed operations aggregate limit.

E. **Extended Coverage for Completed Operations:** The Contractor shall maintain Commercial General Liability completed operations coverage for a period of three years following substantial completion of the work for the benefit of the City of Anacortes by naming the City of Anacortes an additional insured using Additional Insured-Completed Operations endorsement CG 20 37 10 01 or an endorsements providing at least as broad coverage.

F. **Public Entity Full Availability of Contractor Limits:** If the Contractor maintains higher insurance limits than the minimums shown above, the Public Entity shall be insured for the full available limits of Commercial General and Excess or Umbrella liability maintained by the Contractor, irrespective of whether such limits maintained by the Contractor are greater than those required by this contract or whether any certificate of insurance furnished to the Public Entity evidences limits of liability lower than those maintained by the Contractor.

**NOTICE TO BIDDERS:** Bidders are directed to [www.anacorteswa.gov/Bids.aspx](http://www.anacorteswa.gov/Bids.aspx) to ensure receipt of entire solicitation.
G. Other Insurance Provision: The Contractor’s Automobile Liability and Commercial General Liability insurance policies are to contain, or be endorsed to contain that they shall be primary insurance as respect the City. Any insurance, self-insurance, or self-insured pool coverage maintained by the City shall be excess of the Contractor’s insurance and shall not contribute with it.

H. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best rating of not less than A:VII.

I. Verification of Coverage: The Contractor shall furnish the City with original certificates and a copy of the amendatory endorsements, including but not necessarily limited to the additional insured endorsements, evidencing the insurance requirements of the Contractor before commencement of the work. Upon request by the City, the Contractor shall furnish certified copies of all required insurance policies, including endorsements, required in this contract and evidence of all subcontractors’ coverage.

J. Subcontractors’ Insurance: The Contractor shall cause each and every Subcontractor to provide insurance coverage that complies with all applicable requirements of the Contractor-provided insurance as set forth herein, except the Contractor shall have sole responsibility for determining the limits of coverage required to be obtained by Subcontractors. The Contractor shall ensure that the City is an additional insured on each and every Subcontractor’s Commercial General liability insurance policy using an endorsement at least as broad as ISO CG 20 10 10 01 for ongoing operations and CG 20 37 10 01 for completed operations.

K. Notice of Cancellation: The Contractor shall provide the City and all Additional Insureds for this work with written notice of any policy cancellation within two (2) business days of their receipt of such notice.

L. Failure to Maintain Insurance: Failure on the part of the Contractor to maintain the insurance as required shall constitute a material breach of contract, upon which the City may, after giving five business days notice to the Contractor to correct the breach, immediately terminate the contract or, at its discretion, procure or renew such insurance and pay any and all premiums in connection therewith, with any sums so expended to be repaid to the City on demand, or at the sole discretion of the City, offset against funds due the Contractor from the City.

13. Acceptance, Contractor acknowledges and agrees that these General Provisions are incorporated in, and are a part of, each purchase order or other agreement relating to the provision of goods and/or related services by Contractor. These General Provisions supersede all conflicting or additional terms pre-printed on any purchase order, quote, invoice, or otherwise set forth on any release, acknowledgement, confirmation, requisition, work order, shipping instruction, specification and similar document or communication.

14. Registered or Licensed Contractor. The City is prohibited by RCW 39.06.010 from executing an Agreement with a Contractor who is not registered or licensed as required by the laws of the state. In addition, a City of Anacortes business license is required for any business working inside the city limits whose annual value of products, gross proceeds of sales, or gross income of the business in the city is more than $2,000. Business licenses can be obtained through the State of Washington Department of Revenue (DOR) Business Licensing Service (BLS) at bis.dor.wa.gov.

15. Discrimination Prohibited. During the performance of this Agreement, the Contractor and subcontractors shall not discriminate in violation of any applicable federal, state and/or local law or regulation on the basis of age, sex, race, creed, religion, color, national origin, marital status, disability, honorably discharged veteran or military status, pregnancy, sexual orientation, gender identity, or any other classification protected under federal, state, or local law. This provision shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, selection for training, and the provision of services under this Agreement. Contractor agrees to comply with the applicable provisions of State and Federal Equal Employment Opportunity and Nondiscrimination statutes and regulations.

16. Contractor is an Independent Contractor. The parties intend that an independent Contractor relationship will be created by this Agreement. No agent, employee or representative of the Contractor shall be deemed to be an agent, employee or representative of the City for any purpose. Contractor shall be solely responsible for all acts of its agents, employees, representatives and Sub-Contractors during the performance of this Agreement.

17. No Third Party Beneficiary Rights. This Agreement is not intended to and shall not be construed to give any Third Party any interest or rights (including, without limitation, any Third Party beneficiary rights) with respect to or in connection with any agreement or provision contained herein or contemplated hereby, except as otherwise expressly provided for in this Agreement.
18. The City’s Right to Terminate Agreement.
A. Termination for Default: If the Contractor defaults by failing to perform any of the obligations of the Agreement or becomes insolvent or is declared bankrupt or commits any act of bankruptcy or insolvency or makes an assignment for the benefit of creditors, the City may, by depositing written notice to the Contractor in the U.S. mail, postage prepaid, terminate the Agreement, and at the City’s option, obtain performance of the work elsewhere. If the Agreement is terminated for default, the Contractor shall not be entitled to receive any further payments under the Agreement until the Scope of Services under this Agreement has been fully performed. Any extra cost or damage to the City resulting from such default(s) shall be deducted from any money due or coming due to the Contractor. The Contractor shall bear any extra expenses incurred by the City in completing the work, including all increased costs for completing the work, and all damage sustained, or which may be sustained by the City by reason of such default. If a notice of termination for default has been issued and it is later determined for any reason that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the notice of termination had been issued pursuant to the Termination for Public Convenience paragraph hereof.

B. Termination for Public Convenience: The City may terminate the Agreement in whole or in part whenever the City determines, in its sole discretion that such termination is in the best interests of the City. Whenever the Agreement is terminated in accordance with this paragraph, the Contractor shall be entitled to payment for actual work performed at unit Agreement prices for completed items of work through the date of termination. An equitable adjustment in the Agreement price for partially completed items of work will be made, but such adjustment shall not include provision for loss of anticipated profit on deleted or uncompleted work. Termination of this Agreement by the City at any time during the term, whether for default or convenience, shall not constitute a breach of Agreement by the City.

19. Changes/Additional Work. The City may engage Contractor to perform services in addition to those listed in this Agreement, and Contractor will be entitled to additional compensation for authorized additional services or materials. The City shall not be liable for additional compensation until and unless any and all additional work and compensation is approved in advance in writing and signed by both parties to this Agreement. If conditions are encountered which are not anticipated in the Scope of Services, the City understands that a revision to the Scope of Services and fees may be required. Provided, however, that nothing in this paragraph shall be interpreted to obligate the Contractor to render or the City to pay for services rendered in excess of the Scope of Services unless or until a modification to this Agreement is approved in writing by both parties. Contract Modification pricing will be established by either

a. Unit-priced change orders when there are recent and relevant unit prices in place for the desired work; OR

b. If no recent or relevant unit prices are in place, the Contractor shall submit a detailed change order proposal. Details for labor, equipment and material will include: rates, quantities, and markups.

20. Non-waiver. Waiver by the City of any provision of this Agreement or any time limitation provided for in this Agreement shall not constitute a waiver of any other provision.

21. Covenant Against Contingent Fees. The Contractor warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for the Contractor, to solicit or secure this Agreement, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the Contractor, any fee, commission, percentage, brokerage fee, gifts, or any other consideration contingent upon or resulting from the award of making of this Agreement. For breach or violation of this warranty, the City shall have the right to annul this Agreement without liability or, in its discretion to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

22. Disputes
A. General: Differences between the Contractor and the City, arising under and by virtue of this Agreement shall be brought to the attention of the City at the earliest possible time in order that such matters may be settled or other appropriate action promptly taken. The provisions of this Clause shall survive the expiration or termination of this Agreement.

B. Notice of Potential Claims: The Contractor shall not be entitled to additional compensation which otherwise may be payable, or to extension of time for (1) any act or failure to act by the City, or (2) the happening of any event or occurrence, unless the Contractor has given the City a written Notice of Potential Claim within 10 days of the commencement of the act, failure, or event giving rise to the claim, and before final payment by the City. The written Notice of Potential Claim shall set forth the reasons for which the Contractor believes additional compensation or extension of time is due, the nature of the cost involved, and insofar as possible, the amount of the potential claim. Contractor shall keep full and complete daily records of the Work performed, labor and all costs and additional time claimed to be additional.

NOTICE TO BIDDERS: Bidders are directed to www.anacorteswa.gov/Bids.aspx to ensure receipt of entire solicitation.
C. **Detailed Claim:** The Contractor shall not be entitled to claim any such additional compensation, or extension of time, unless within 30 days of the accomplishment of the portion of the work from which the claim arose, and before final payment by the City, the Contractor has given the City a detailed written statement of each element of cost or other compensation requested and of all elements of additional time required, and copies of any supporting documents evidencing the amount or the extension of time claimed to be due.

D. **Dispute Resolution:** In the event of a dispute between the City and the Contractor arising out of this Agreement, or any obligation hereunder the dispute shall first be referred to the representatives designated by the City and the Contractor to have oversight over the administration of this Agreement. Said representatives shall meet within thirty (30) calendar days of receipt of detailed claim, and the parties shall make a good faith effort to achieve a resolution of the dispute. In the event the parties are unable to resolve the dispute under the procedure set forth above, then the parties hereby agree that the matter shall be referred to mediation. The parties shall mutually agree upon a mediator to assist them in resolving their differences. Any expenses incidental to mediation shall be borne equally by the parties. If either party is dissatisfied with the outcome of the mediation, that party may then pursue any available judicial remedies.

23. **Force Majeure.** Definition: Except for payment of sums due, neither party shall be liable to the other or deemed in default under this Agreement if and to the extent that such party’s performance of this Agreement is prevented by reason of force majeure. The term “force majeure” means an occurrence that is beyond the control of the party affected and could not have been avoided by exercising reasonable diligence. Force majeure shall include acts of God, war, riots, strikes, fire, floods, epidemics, or other similar occurrences. Notification: If either party is delayed by force majeure, said party shall provide written notification within forty-eight (48) hours. The notification shall provide evidence of the force majeure to the satisfaction of the other party. Such delay shall cease as soon as practicable and written notification of same shall be provided. The time of completion shall be extended by Agreement modification for a period of time equal to the time that the results or effects of such delay prevented the delayed party from performing in accordance with this Agreement. Rights Reserved: The City reserves the right to cancel the Agreement and/or purchase materials, equipment or services from the best available source during the time of force majeure, and Contractor shall have no recourse against the City.

24. **Governing Law.** This Agreement shall be governed by and construed under the laws of the State of Washington. Any action brought under the Agreement or relating to the Project shall be brought in the Superior Court of the State of Washington in Skagit County Washington.

25. **Compliance with Laws.** The Contractor in the performance of this Agreement shall comply with all applicable Federal, State or local laws and ordinances, including regulations for licensing, certification and operation of facilities, programs and accreditation, and licensing of individuals, and any other standards or criteria as described in the Agreement to assure quality of services. Contractor will follow all applicable laws and requirements for excavation and disposal of material.

26. **Notices.** Receipt of any notice shall be deemed effective three days after deposit of written notice in the U.S. mail, with proper postage and properly addressed. Notices shall be sent to the following addresses:

**CITY:**
City of Anacortes
Tiffany Matson
904 6th Street
PO Box 547
Anacortes, WA 98221

**CONTRACTOR:**

27. **Severability.** If any term or condition of this Agreement or the application thereof to any person(s) or circumstances is held invalid, such invalidity shall not affect other terms, conditions or applications which can be given effect without the invalid term, condition or application. To this end, the terms and conditions of this Agreement are declared severable.

28. **Survival of Contract Termination.** The provisions of the following paragraphs, the provisions of the non collusion affidavit, and the liability of the Contractor for default during the term of the Contract shall survive, notwithstanding the termination or invalidity of this Contract for any reason: Taxes; Warranty; The City’s Right to Terminate Contract; Governing Law; Defense & Indemnity Agreement; Disputes.

29. **Performance and Payment Bonds.** The City is required by RCW 39.08.010, with limited exceptions, to obtain both a Performance and a Payment bond for each public works project. The City requires separate Performance and Payment bonds for 100% of the contract amount furnished on bond forms standardized by the City Attorney’s office. The bonds must meet the following provisions:
• Be for the full amount of the project, including tax.
• Name City of Anacortes as the obligee.
• List the correct Project Name and Project Number.
• Be signed by both the surety (the Attorney in Fact) and the Contractor.
• Be issued by a surety authorized to do business in the State of Washington (listed on the Insurance Commissioners website) and which meets the AM Best Rating required in the Contract Documents. If no requirement exists, a minimum of AM Best Rating A-7 or better will be required.

Release of Bonds
Bonds will not be released until the project has been completed and finally accepted.

Performance Bonds – Performance Bonds will be released at the end of the warranty period or six months after the date of final acceptance, whichever is later. The City may at its option release the bond once all the conditions of RCW 39.08.010-1a have been discharged.

Payment Bonds – Payment Bonds will be released either 45 days after final acceptance of the project or upon receipt of releases from the Department of Revenue, Department of Employment Security and the Department of Labor and Industries, whichever is later. Release is contingent on the fact that no claims against the bond have been filed prior to the 45 day mark. If claims have been filed against the bond, it will not be released until the claims have been resolved.

30. Retainage. Pursuant to RCW Chapter 60.28, a sum of five percent (5%) of the monies earned by the Contractor will be retained. The Contractor may elect to execute a Retainage Bond. The bond must be furnished on a bond form standardized by the City Attorney's office and issued by a surety currently authorized by the State Insurance Commissioner to do business in Washington State. Retainage will be released 45 days after final acceptance, provided that the following has occurred:

a) All liens placed against the project have been released. For projects over $35,000, releases from the Department of Labor and Industries, Department of Employment Security and the Department of Revenue will also be required.

b) Affidavits of Wages paid for the final correct contract amount are approved and on file for the Contractor and any subcontractors.

c) Worker’s Compensation Premiums for the Contractor and any subcontractors are current.
LABOR AND MATERIAL PAYMENT BOND

Bond No. ____________

Page 1 of 2

We __________________________ as Principal, and __________________________ as Surety, jointly and severally bind ourselves, our heirs, successors and assigns as set forth herein to CITY OF ANACORTES (hereinafter called the Owner) for payment of the penal sum of __________________________ ($______________), lawful money of the United States in connection with the Owner’s award to the Contractor of a contract for construction (“Contract”) of the following project:

Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot, #19-181-FBR-001

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Contractor shall in all respects faithfully perform all obligations and provisions in the said Contract, and pay all laborers, mechanics, subcontractors, materialmen, taxing authorities and all persons who supply such person or persons or subcontractors with material, equipment and supplies for the carrying on of such work, this obligation shall become null and void; otherwise, it shall remain in full force and effect, and Surety shall defend and indemnify Owner against any loss or damage due to the failure of the Principal to strictly perform all obligations of the Contract.

This bond shall be in force until completion of the project and acceptance by the Owner, and also for such period thereafter during which the law allows claims to be filed and sued upon.

This bond is provided pursuant to and in compliance with R.C.W. Chapter 39.08, the terms and requirements of which statute are incorporated herein as though fully set forth.

Surety agrees that no change, extension of time, modifications, or addition to the terms of the Contract, or the work to be performed thereunder, or to the specifications shall in any way affect its obligation on this bond, and it hereby waives notice thereof.

The Contractor and Surety agree that if the Owner is required to engage the services of an attorney in connection with the enforcement of this bond, each shall be jointly and severally liable to pay the Owner reasonable attorneys’ fees, costs and expenses incurred, with or without suit, in addition to the penal sum.

Surety certifies that it is an authorized surety bond issuer, properly authorized to transact surety business in Washington. Surety agrees to be bound by the laws of the State of Washington and subject itself to the jurisdiction of the courts of the State of Washington.
Executed in one original counterpart on _________________, 2019.

__________________________________________
CONTRACTOR

By________________________________________

__________________________________________ (Title)

(Attach acknowledgment of authorized representative of Contractor).

Any claims under this bond made in accordance with R.C.W. 39.08 may be addressed to:

__________________________________________ (Name and address of Surety)

__________________________________________

__________________________________________ (Name and address of Surety's agent for service of process in Washington if different from above)

__________________________________________

__________________________________________ (Telephone No. of Surety's Washington agent)

(Attach acknowledgment) ________________________________

Surety

By______________________________

Its Attorney-in-Fact

NOTICE:

Sureties must be authorized to conduct surety business in Washington and have an agent for service of process in Washington. Certified copy of Power of Attorney must be attached.
PERFORMANCE BOND

Bond No. ____________

We __________________________ as Principal, and __________________________ as Surety, jointly and severally bind ourselves, our heirs, successors and assigns as set forth herein to CITY OF ANACORTES (hereinafter called the Owner) for payment of the penal sum of __________________________________________ ($______________), lawful money of the United States in connection with the Owner’s award to the Contractor of a contract for construction (“Contract”) of the following project:

Municipal Broadband Installation – CBD, Old Town Pilot, M Avenue Pilot, #19-181-FBR-001

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Contractor shall in all respects faithfully perform all obligations and provisions in the said Contract, this obligation shall become null and void; otherwise, it shall remain in full force and effect, and Surety shall defend and indemnify Owner against any loss or damage due to the failure of the Principal to strictly perform all obligations of the Contract.

This bond shall remain in force until the end of the warranty period or six months after the date of Final Acceptance, whichever is later, and shall otherwise secure all other obligations of the Contractor throughout any other periods of limitation or repose.

This bond is provided pursuant to and in compliance with R.C.W. Chapter 39.08, the terms and requirements of which statute are incorporated herein as though fully set forth.

Surety agrees that no change, extension of time, modification, or addition to the terms of the Contract, or the work to be performed thereunder, or to the specifications shall in any way affect its obligation on this bond, and it hereby waives notice thereof.

The Contractor and Surety agree that if the Owner is required to engage the services of an attorney in connection with the enforcement of this bond, each shall be jointly and severally liable to pay the Owner reasonable attorneys’ fees, costs and expenses incurred, with or without suit, in addition to the penal sum.

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__________________________________________________________
CONTRACTOR

By_______________________________________________________

__________________________________________________________

(Title)

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(Telephone No. of Surety's Washington agent)

(Attach acknowledgment)

__________________________________________________________
Surety

By_______________________________________________________

Its Attorney-in-Fact

NOTICE:

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PART 3

APPENDICES
<table>
<thead>
<tr>
<th>ITEM TITLE</th>
<th>UNIT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Service drop, 0 to 100 feet | each | This unit includes all labor, tools and equipment to accomplish the following tasks along a service drop that is up to 100 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration.  
Prior to start of service drop installation take one or more digital photos of the drop cable path from the MST to the customer building penetration depicting conditions of the path prior to start of work.  
Using fiber optic connector / adapter cleaning tools and supplies, clean MST port to which the drop cable will be connected.  
Using fiber optic connector / adapter cleaning tools and supplies, clean connector on preconnectorized drop cable.  
Connect preconnectorized drop cable to port in MST.  
Coil approximately three feet of drop cable into a “Service Coil” no less than nine inches in diameter. Secure Service Coil to existing City strand approximately eighteen inches from MST.  
Secure drop cable to existing City strand using City-provided hardware.  
Coil and secure approximately three feet of drop cable into a “Drip Loop” no less than nine inches in diameter at point where drop cable reaches exterior of customer building.  
Secure drop cable horizontally and/or vertically to customer building between point at which drop cable reaches customer building and building penetration point per City design.  
Collect and remove all debris from service drop installation.  
At completion of service drop installation take one or more digital photos of the drop cable path from the MST to the customer building penetration depicting conditions of the path at completion of work.  
Deliver digital photos to City. |
| Service drop, 101 to 250 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 101 feet and not more than 250 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration. |
| Service drop, 251 to 500 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 251 feet and not more than 500 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration. |
| Service drop, 501 to 750 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 501 feet and not more than 750 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration. |
| Service drop, 751 to 1000 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 751 feet and not more than 1000 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration. |
| Service drop, 1001 to 1250 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 1001 feet and not more than 1250 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration. |
### ITEM TITLE | UNIT | DESCRIPTION
--- | --- | ---
Service drop, 1251 to 1500 feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is at least 1251 feet and not more than 1500 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration.

Service drop, 1500+ feet | each | This unit includes all labor, tools and equipment to accomplish the tasks noted in “Service drop, 0 to 100 feet” along a service drop that is more than 1500 feet in length. The length of the service drop is a linear measurement along the path of the drop cable from the MST to the building penetration.

Building penetration, wood | each | This unit includes all labor, tools and equipment to create a penetration through the exterior of the customer building where the exterior wall construction is wood, sheetrock and/or similar material.
- Prior to start of building penetration work take one or more digital photos of the exterior and interior of the customer building at the place where the wall will be penetrated depicting conditions prior to start of work.
- Inspect the penetration point to confirm that the selected point has no obvious signs of existing wires, pipes or other infrastructure.
- Core drill a hole one-quarter inch to three-eighths inch in diameter through the exterior wall.
- After drop cable or InvisiLight has been passed through customer exterior wall (see “Exterior-mounted wall box” or “Interior-mounted wall box” unit description below), seal penetration per local and/or state code.
- Collect and remove all core drilling debris from building exterior and interior.
- At completion of building penetration work take one or more digital photos of the drop cable path from the MST to the customer building penetration depicting conditions of the path at completion of work.
- Deliver digital photos to City.

Building penetration, concrete | each | This unit includes all labor, tools and equipment to create a penetration through the exterior of the customer building where the exterior wall construction is brick, mortar, concrete and/or similar material.
- Prior to start of building penetration work take one or more digital photos of the exterior and interior of the customer building at the place where the wall will be penetrated depicting conditions prior to start of work.
- Inspect the penetration point to confirm that the selected point has no obvious signs of existing wires, pipes or other infrastructure.
- Core drill a hole one-quarter inch to three-eighths inch in diameter through the exterior wall.
- After drop cable or InvisiLight has been passed through customer exterior wall (see “Exterior-mounted wall box” or “Interior-mounted wall box” unit description below), seal penetration per local and/or state code.
- Collect and remove all core drilling debris from building exterior and interior.
- At completion of building penetration work take one or more digital photos of the drop cable path from the MST to the customer building penetration depicting conditions of the path at completion of work.
- Deliver digital photos to City.
## Exterior-mounted wall box

<table>
<thead>
<tr>
<th>ITEM TITLE</th>
<th>UNIT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>each</td>
<td>This unit includes all labor, tools and equipment to mount a City-provided wall box to an exterior wall of the customer building.</td>
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<tr>
<td></td>
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<td>Prior to start of wall box mounting work take one or more digital photos of the exterior of the customer building at the place where the wall box will be mounted depicting conditions prior to start of work.</td>
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<tr>
<td></td>
<td></td>
<td>Pass InvisiLight through exterior wall penetration.</td>
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<tr>
<td></td>
<td></td>
<td>Seal exterior wall penetration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insert InvisiLight into wall box.</td>
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<tr>
<td></td>
<td></td>
<td>Using hardware in City-provided wall box kit, attach wall box to exterior of customer building approximately thirty-six inches above grade per City-provided design.</td>
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<tr>
<td></td>
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<td>Cut drop cable to appropriate length.</td>
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<tr>
<td></td>
<td></td>
<td>Insert drop cable into wall box.</td>
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<tr>
<td></td>
<td></td>
<td>Strip outer jacket from drop cable.</td>
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<tr>
<td></td>
<td></td>
<td>Fusion splice City-provided, preconnectorized fiber pigtail to drop cable fiber.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Store excess lengths of drop cable and InvisiLight in wall box.</td>
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<tr>
<td></td>
<td></td>
<td>Connect connectorized ends of drop cable and InvisiLight into wall box adapters.</td>
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<tr>
<td></td>
<td></td>
<td>Collect and remove all debris from wall box mounting work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At completion of wall box mounting work take one or more digital photos of the drop cable path from the MST to the customer building penetration depicting conditions of the path at completion of work.</td>
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<tr>
<td></td>
<td></td>
<td>Deliver digital photos to City.</td>
</tr>
</tbody>
</table>

## Interior-mounted wall box

<table>
<thead>
<tr>
<th>ITEM TITLE</th>
<th>UNIT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>each</td>
<td>This unit includes all labor, tools and equipment to mount a City-provided wall box to an interior wall of customer building.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior to start of wall box mounting work take one or more digital photos of the interior of the customer building at the place where the wall box will be mounted depicting conditions prior to start of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pass drop cable through exterior wall penetration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attach City-provided backboard to interior wall.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attached wall box to backboard.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cut drop cable to appropriate length.</td>
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<tr>
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<td></td>
<td>Insert drop cable into wall box.</td>
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<td></td>
<td></td>
<td>Strip outer jacket from drop cable.</td>
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<td></td>
<td></td>
<td>Fusion splice City-provided, preconnectorized fiber pigtail to drop cable fiber.</td>
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<tr>
<td></td>
<td></td>
<td>Insert InvisiLight into wall box.</td>
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<tr>
<td></td>
<td></td>
<td>Store excess lengths of drop cable and InvisiLight in wall box.</td>
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<td>Connect connectorized ends of drop cable and InvisiLight into wall box adapters.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collect and remove all debris from wall box mounting work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At completion of wall box mounting work take one or more digital photos of the interior of the customer building at the place where the wall box has been mounted depicting conditions at completion of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver digital photos to City.</td>
</tr>
<tr>
<td>ITEM TITLE</td>
<td>UNIT</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------------------------------------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Customer premise installation, ONT only</td>
<td>each</td>
<td>This unit includes all labor, tools and equipment to install InvisiLight solution and confirm ONT successfully connects to network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior to start of customer premise installation work take one or more digital photos of the InvisiLight path from the penetration site to the ONT placement site depicting conditions prior to start of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attach InvisiLight spool box to customer wall at ONT location using hardware in spool box kit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lightly dust path where InvisiLight will be installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install bend limiters at corners.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install InvisiLight from penetration to ONT location.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connect InvisiLight and City-provided fiber patch cable to adapters in InvisiLight spool box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perform received optical power test on fiber at 1490 nm and record result on Installation Report form. If result is outside acceptable parameters, do not connect ONT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connect fiber patch cable to ONT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plug ONT into electric outlet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observe ONT status indicators and confirm that ONT successfully powers up and connects to GPON network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call NoaNet Network Operations Center and confirm with NOC staff that network management system indicates ONT as having connected to network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collect and remove all debris from customer premise installation work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain customer sign-off on Customer Order form.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At completion of customer premise installation work take one or more digital photos of the InvisiLight path from the penetration site to the ONT placement site depicting condition of the path at completing of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver digital photos to City.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver Installation Report form to City.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver signed-off Customer Order form to City.</td>
</tr>
<tr>
<td>ITEM TITLE</td>
<td>UNIT</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Customer premise installation, ONT and WiFi extender</td>
<td>each</td>
<td>This unit includes all labor, tools and equipment to install InvisiLight solution and confirm ONT successfully connects to network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prior to start of customer premise installation work take one or more digital photos of the InvisiLight path from the penetration site to the ONT placement site depicting conditions prior to start of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Attach InvisiLight spool box to customer wall at ONT location using hardware in spool box kit.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lightly dust path where InvisiLight will be installed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install bend limiters at corners.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Install InvisiLight from penetration to ONT location.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connect InvisiLight and City-provided fiber patch cable to adapters in InvisiLight spool box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Perform received optical power test on fiber at 1490 nm and record result on Installation Report form. If result is outside acceptable parameters, do not connect ONT or deploy WiFi extender.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connect fiber patch cable to ONT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plug ONT into electric outlet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observe ONT status indicators and confirm that ONT successfully powers up and connects to GPON network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Place WiFi extender per City design.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plug WiFi extender into electric outlet.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Observe WiFi extender status indicators and confirm that WiFi extender successfully powers up and establishes WiFi connection to ONT.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Call NoaNet Network Operations Center and confirm with NOC staff that network management system indicates ONT as having connected to network.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collect and remove all debris from customer premise installation work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Obtain customer sign-off on Customer Order form.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>At completion of customer premise installation work take one or more digital photos of the InvisiLight path from the penetration site to the ONT placement site depicting condition of path at completion of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver digital photos to City.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver Installation Report form to City.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deliver signed-off Customer Order form to City.</td>
</tr>
<tr>
<td>Ad hoc labor, crew member</td>
<td>hour</td>
<td>This unit is the average hourly rate each non-supervisor member of crew performing work requested by City but not otherwise identified in Bid Unit Schedule.</td>
</tr>
<tr>
<td>Ad hoc labor, crew supervisor</td>
<td>hour</td>
<td>This unit is the average hourly rate for each crew supervisor overseeing tasks requested by City but not otherwise identified in Bid Unit Schedule.</td>
</tr>
</tbody>
</table>
Scope

This standard establishes the attachment, grounding, structural, and clearance requirements for communications cables and equipment attached to Puget Sound Energy-owned poles.

This standard does not address RF antenna equipment (see Standard 0700.8500).

In This Standard

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</tr>
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<td>Cables</td>
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<td>4</td>
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<td>15</td>
</tr>
</tbody>
</table>

Definitions

These are definitions of terms used in this standard. Figure 1 illustrates these terms.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications space</td>
<td>The space on a pole below the Communication Worker Safety Zone where communications lines are installed. The lower bound of the Communications Space is the lowest point on the pole where communications lines may be installed and maintain adequate pole-to-pole ground clearance.</td>
</tr>
<tr>
<td>Covered streetlight wire</td>
<td>Insulated streetlight conductor covered with protective molding.</td>
</tr>
<tr>
<td>Field face quadrant</td>
<td>The quarter section of a pole on the field side of the pole gain.</td>
</tr>
<tr>
<td>Joint utility</td>
<td>For the purposes of this standard, any entity (utility, public agency, communications company, or other) other than Puget Sound Energy that attaches to any Puget Sound Energy-owned facility.</td>
</tr>
<tr>
<td>Pole face</td>
<td>The side or half of the pole that contains the pole gain.</td>
</tr>
</tbody>
</table>
### Definitions, continued

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pole gain</td>
<td>The notch in the pole that contains the pole manufacturing information. The pole gain is located 12 feet from the butt of the pole.</td>
</tr>
<tr>
<td>Road face quadrant</td>
<td>The quarter section of a pole on the road side of the pole gain.</td>
</tr>
</tbody>
</table>
| Safety space       | The vertical space on a pole below the supply space and above the communications space. This space is intended to provide a safe working clearance for workers in the communications space. It is defined in the NESC, Section 235C4.  
  **NOTE:** The term “safety space” is used in this standard for purposes of clarity. |
| Supply space       | The space above the Communication Worker Safety Zone. Except for some streetlights, this is where electric supply equipment and electric supply lines (power lines) are installed.  
  The Supply Space extends to the lower of:  
  - 120 inches down from a 115 or 230 kV transmission line conductor.  
  - 96 inches down from a 19.9/34.5 kV primary line conductor.  
  - 84 inches down from a 2.4/4.0 kV and 7.2/12.47 kV primary line conductor.  
  - The lowest attachment point of a secondary or neutral conductor. |
Attachment and Clearance Requirements for Overhead Joint Utility Construction

Figure 1

Space Allocation on a Pole

Joint utilities must receive written approval from Puget Sound Energy before attaching to Puget Sound Energy-owned poles. This includes overlashing cable to existing bundles on a strand. Joint utilities must also have a signed Joint Use Agreement with PSE. Joint Users must also refer to their Joint Use Agreement for any additional specific requirements.

All equipment and hardware shall be mounted on the pole in a way that provides adequate climbing and working space. In all cases, clearances and separations as required in the NESC shall be met, both at the pole and midspan.

All poles where attachments are made shall have sufficient structural capacity to support the loadings for all facilities attached. Poles should be reviewed for NESC strength compliance where new or modified facilities are proposed that would increase loading on the pole.

Transmission Pole Loading

PSE will structurally review all proposed attachments to PSE transmission poles. Attachment to transmission poles without distribution underbuild may not be approved.
Cables

Joint utilities’ cables shall:

- Attach to the same side of the pole as the power neutral conductor.
- Be installed on the road side of the pole if the power neutral conductor is on a primary crossarm.
- Be tensioned or guyed so the angle of existing structures is not altered and the sag characteristics of the power conductors do not change. All unbalanced tensions must be guyed.
- Meet all applicable NESC clearances at the time of installation or alteration.

When present, PSE-owned fiber shall take the uppermost position on the pole.

Guys and Anchors

The following requirements apply to joint utilities’ guys and anchors:

- Each company is responsible for installing the appropriate guying to balance the maximum horizontal tension of its cables/messengers. This includes at deadends, angles, taps, and other such locations. Service drops do not require guying unless deemed prudent by the attaching company.
- Guys shall be installed with anchors provided and installed by the communications company. Existing PSE anchors may be used only with permission from PSE on a per location basis. Such requests may only be granted if:
  - The communication guy attachment is insulated or grounded.
  - The anchor has sufficient strength. PSE anchors have either 2 or 3 integral “eye” positions depending on the anchor type and this number of attachments shall not be exceeded. Installing auxiliary eyes is also not permitted (see Figure 2).
- New anchors must be a minimum of 5 feet from existing PSE anchors and the pole (see Figure 3).
- Crossing down guys or fastening two span guys together for ground clearance is not permitted.
- Pole-to-pole span guying may not utilize a pole as an anchoring device unless a down guy meeting the requirements of this section is installed.
- Guy markers shall be installed on all communication down guys.
- Guys must be grounded or insulated.
This type of installation is not permitted! PSE anchors have either 2 or 3 integral “eye” positions depending on the anchor type and this number of attachments may not be exceeded.
Pole Drilling

Existing holes shall be used for equipment mounting whenever possible.

When new holes must be drilled in wood poles, they shall be treated with PSE’s current approved wood preservative. Treatment shall be applied using a pressure-type oil can or a bottle brush. All communication attachments on PSE steel poles must be banded to the pole unless factory predrilled holes are available. Field drilling is not allowed on steel poles unless approved by PSE on a per case basis.

Refer to PSE Standard 6450.7500 for field treatment requirements for wood poles.

Unused Facilities

Unused communication facilities that are not required for normal service, redundancy, or emergency use shall be removed.

Equipment Mounting

Joint utility-owned communications enclosures mounted more than 8 feet abovegrade on PSE-owned poles shall be no larger than 24 inches wide x 24 inches high x 18 inches deep (24” W x 24” H x 18” D). The joint utility shall provide and install all materials necessary to support a communications enclosure a minimum of 5 inches from the face of the pole. If the enclosure is to be energized, then the joint utility shall also provide enough supply wire coiled at the weatherhead to reach the transformer secondary connections.

Communications enclosures shall be mounted directly above the pole gain. If this is not possible, they shall be mounted on the road face quadrant of the pole.

NOTE: A city or state electrical inspection is required before PSE connects communications power supply wires to power conductors.

Figure 4 illustrates the attachment requirements for risers and enclosures.
Risers

Communications risers shall be mounted:

- Where they will not interfere with climbing space or the operation of pole-mounted equipment. The best position is on the field face side of the pole (see Figure 4); the exact location will depend on the position of obstructions and the direction of the cable or conduit run.

- On standoff brackets and provide a minimum 5-inch clearance from the pole. Existing standoff brackets shall be used when available. If new brackets are needed, the communications company shall provide and install them.

- High enough on the pole to ensure the 40-inch safety space requirement is maintained between the bottom of the drip loop and the top of the communications space (see Figure 5). The bottom of the drip loop shall be no lower than the lowest piece of pole hardware in the supply space.
Risers, Continued

Figure 5
Attachment Requirements for Communications Risers
Underground Service Drops

Communications drops less than 1/2-inch in diameter may be attached directly to a pole under the following circumstances:

- They shall be securely attached, in accordance with NESC 239D, from the ground to the communications level, using staples or other means to ensure that the cables cannot be pulled away from the pole and become a tripping or snagging hazard to the public or anyone climbing the pole.
- To minimize climbing hazards, they shall only run vertically; they shall not wrap around the pole.
- All vertical runs shall be installed on the same quadrant of the pole. If there are existing conduit risers on the pole, the vertical runs shall be placed within the same quadrant as the existing riser(s).
- Any coils of spare cable will be attached to the pole no less than 8 feet abovegrade.
- Connection blocks will be mounted on the pole in the same quadrant as the drop and shall be no larger than 20 square inches.

Grounding Requirements

**Metallic Messenger Bonding**

Communications metallic or conductive messengers may be bonded to the pole ground conductor, in accordance with NESC 97G, by the attaching company.

*NOTE:* Nonmetallic/nonconductive self-supporting messengers (i.e., Kevlar-type) do not require bonding.

*Figure 6* illustrates how to construct the grounding.

**Figure 6**

Grounding Communications Messengers at Supports
Clearance Requirements

PSE does not allow attachments to transmission poles above 100 kV unless the pole has distribution underbuild. For applications to transmission poles with existing distribution underbuild, PSE personnel will determine whether the attachment will be allowed and, if so, provide clearance requirements.

Distribution Clearances (up to and including 34.5 kV)

It is the responsibility of the joint utility to determine which clearance listed below applies, based upon the type of supply equipment or construction on the pole.

**NOTE:** All clearances are measured vertically.

Clearance at Supports

The minimum clearance at supports between power company equipment and the top of the communications space depends upon the type of construction and equipment on the pole.

<table>
<thead>
<tr>
<th>If . . .</th>
<th>And . . .</th>
<th>Then . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>All primary conductors are mounted on a crossarm at the same level (either single or double arm construction),</td>
<td>There is no additional power equipment mounted below the primary arm,</td>
<td>124-inch (10′-4″) minimum clearance is required (<strong>Figure 7</strong> illustrates this clearance).</td>
</tr>
</tbody>
</table>

**NOTE:** This clearance is measured from the tie wire or conductor clamp on the insulator to the top of the communications space. This distance encompasses the supply and safety space and provides room for future installation of supply equipment and/or service conductor.

**Figure 7**

Clearance Between Power Conductors and Communications Space
If any of the following supply equipment is mounted on the pole, a minimum clearance of 40 or 30 inches is required, depending upon whether the supply equipment is ungrounded or grounded.

This clearance is measured from the bottom of the lowest piece of supply equipment to the top of the communications space.

### Ungrounded Equipment

Ungrounded equipment has a 40-inch clearance.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>See Illustration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rigid clevis</td>
<td>Figure 8</td>
</tr>
<tr>
<td>Secondary rack</td>
<td>Figure 8</td>
</tr>
<tr>
<td>Exposed supply wire</td>
<td>Figure 9 and Figure 10</td>
</tr>
<tr>
<td>This does not apply to streetlight supply wire drip loops.</td>
<td></td>
</tr>
<tr>
<td>Secondary crossarm brace</td>
<td>None</td>
</tr>
</tbody>
</table>

**Figure 8**

Clearance Between Ungrounded Supply Equipment and Communications Space

**NOTE:** Communications shall be installed as low as possible on the pole while maintaining clearances.
Clearance Requirements, continued

**Figure 9**  Clearance Between Supply Conductor Drip Loop and Communications Space

![Diagram of clearance between supply conductor and communications space]

**NOTE:** Communications shall be installed as low as possible on the pole while maintaining clearances.

**Figure 10**  Clearance Between Top of Power Riser and Communications Space

![Diagram of clearance between top of power riser and communications space]

**NOTE:** All new supply risers shall be installed according to PSE Standard 6042.1000.
Grounded equipment has a 30-inch clearance. *Figure 11* illustrates a typical (in this case a capacitor bank) equipment installations.

**Figure 11**

Clearance Between Grounded Supply Equipment and Communications Space
Clearance Requirements, continued

Midspan Clearance

The minimum vertical clearance at any point in the span between power conductors and communications cables is **63, 40, or 30 inches**, depending upon the power line voltage. There are no horizontal clearance dimensions that can alleviate vertical clearance requirements between power conductors and communications cables jointly attached to PSE poles.

These midspan clearances must be met with the upper conductor (PSE) and the lower conductor (communications) at their final unloaded sag in the same ambient conditions and with the power conductor at its maximum design operating temperature (75°C for phase, 50°C for neutral, and 75°C for secondary).

**NOTE:** Meeting the midspan clearance requirements may require increasing the clearance distance at the supports (poles) beyond the minimum values.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Voltage</th>
<th>Clearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary supply conductors</td>
<td>750 V to 34.5 kV</td>
<td>A 63-inch clearance is required.</td>
</tr>
<tr>
<td>Figure 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power neutral or triplex</td>
<td>0-750 V</td>
<td>A 30-inch clearance is required</td>
</tr>
<tr>
<td>Figure 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open wire secondary</td>
<td>0–750 V</td>
<td>A 40-inch clearance is required</td>
</tr>
</tbody>
</table>

Figure 12

Midspan Clearance Between Primary Supply Conductors and Communications Cables

![Midspan Clearance Diagram](image-url)
Midspan Clearance Between Secondary or Neutral Conductors and Communications Cables

Figure 13

Streetlight Clearances

Special clearances exist between streetlights and communications cables because:
- They may be installed anywhere on the pole, assuming all clearance requirements are met.
- Vertical runs of streetlight supply wire may or may not be covered with protective molding.

All clearances apply 360° around the entire pole.

Cables Installed Below Streetlights

When communication cables are installed below a streetlight on a pole, all of the following minimum clearance requirements shall be met:

<table>
<thead>
<tr>
<th>Between the bottom of . . .</th>
<th>This clearance is required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip loop of the streetlight supply wire and the top of the communications space.</td>
<td>12 inches *</td>
</tr>
<tr>
<td>Supply space and the top of the communications space.</td>
<td>40 inches</td>
</tr>
</tbody>
</table>

* This may be reduced to 3 inches if the loop is covered by a suitable nonmetallic covering that extends at least 2 inches beyond the loop.

Figure 14 illustrates these clearance requirements.
Streetlight Clearances, Continued

Proper streetlight mounting heights may require that the bracket be installed beneath the communication conductors.

When this is the case, all of the following minimum clearance requirements shall be met:

<table>
<thead>
<tr>
<th>Between . . .</th>
<th>This clearance is required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top of the streetlight bracket and the bottom of the communications space.</td>
<td>20 inches</td>
</tr>
<tr>
<td>Bottom of the streetlight supply wire molding (where wire is exposed at drip loop) and the bottom of the communications space.</td>
<td>40 inches</td>
</tr>
<tr>
<td>Top of the streetlight supply wire molding (where wire is exposed) and the top of the communications space.</td>
<td>40 inches</td>
</tr>
</tbody>
</table>

Figure 15 illustrates these clearance requirements.

⚠️ CAUTION! ⚠️

Communications cables shall not be installed above streetlights if the vertical run of streetlight supply wire is not covered with protective molding.
Figure 15

Clearances for Communications Cables Installed Above Streetlights

References

The following Puget Sound Energy documents relate to this standard:

- 0700.8500 RF Antenna Equipment on Power Poles
- 6042.1000 Conduit Riser
- 6450.3900 Wood Pole Information
- 6450.7500 Field Drilling, Roofing, and Treating Wood Poles and Crossarms

Sources

ANSI

- O5.1 Wood Poles: Specifications and Dimensions

IEEE C2-2012

- Rule 97G Bonding of communication systems to electric supply systems
- Rule 235 Clearance for wires, conductors, or cables carried on the same supporting structure
- Rule 235C4 Communication worker safety zone
- Rule 238 Vertical clearance between certain communications and supply facilities located on the same structure
- Rule 239D Guarding and protection near ground