

Oncor Joint Use Pole Attachments

2019 SouthWest Electric Distribution Exchange Conference

Karen Flewharty
Oncor Electric Delivery
Joint Use Manager

May 2, 2019

WE DELIVER.

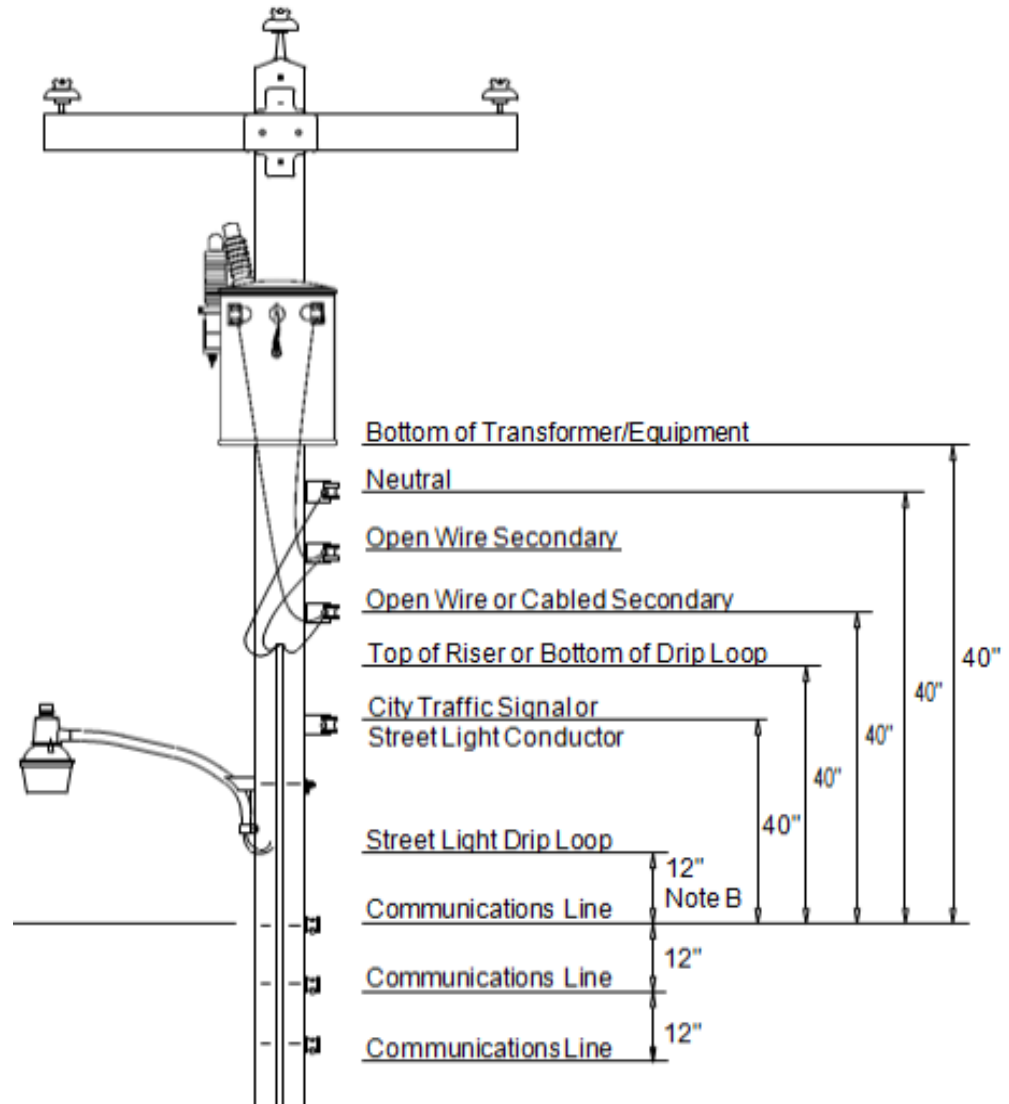


Oncor Electric Delivery – Joint Use Management

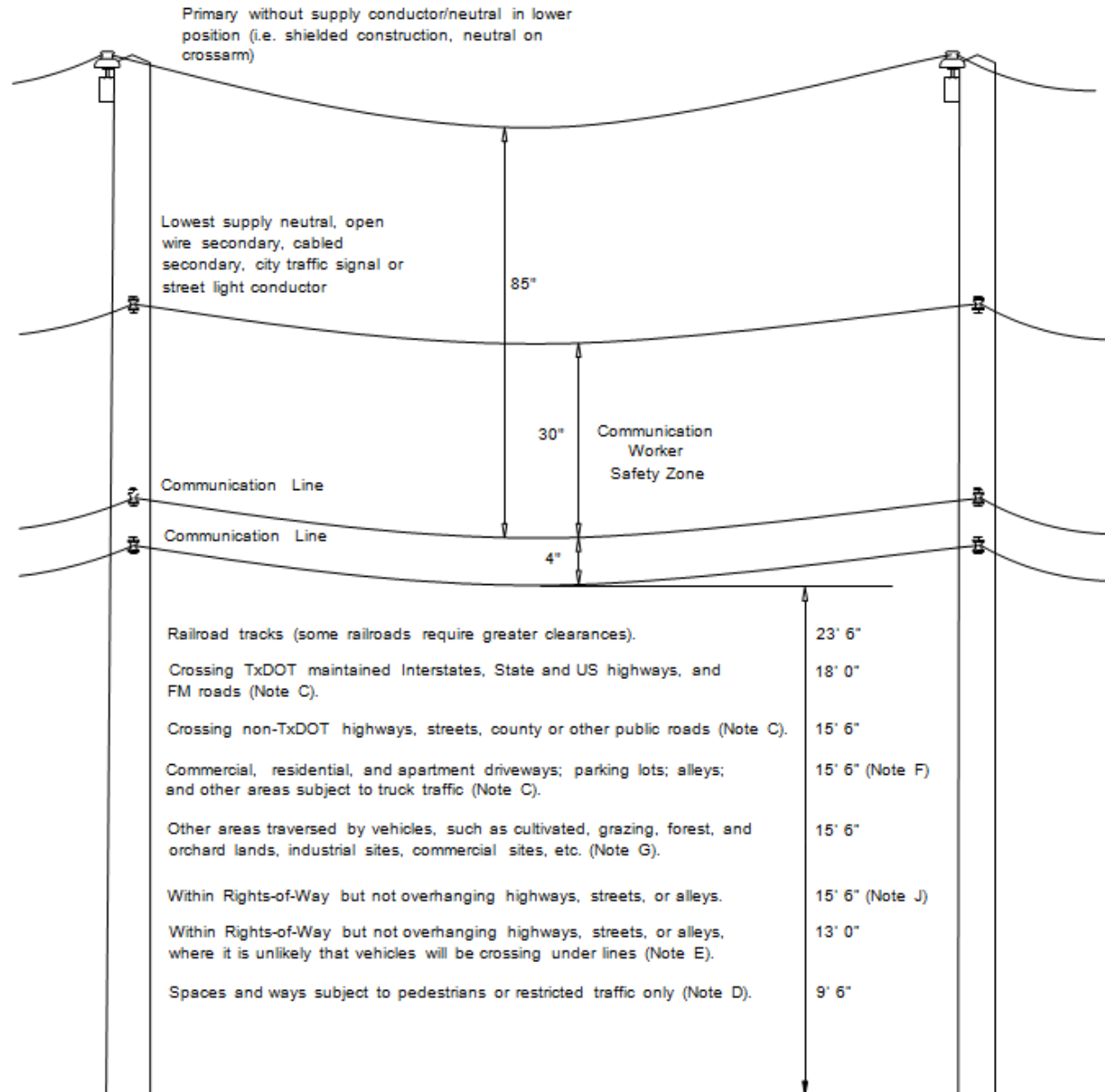
- Largest T&D in Texas (about 1/3 of the state)
- Distribution - 2.3M Poles, 110K Miles Lines
- Contract Management, Permit Application, Rental Billing
- Staff - Oncor 4, Contractor 45
- Contracts - 230 Licensee - 217, ILEC - 13
- Attachments - Wireline 1.401M and 184K overhead feet
 - Wireless & Cameras - 1,203
 - DAS/Small Cell Nodes - 129
 - Network Underground - 195K feet
- Joint Use Website

<http://www.oncor.com/EN/Pages/Joint-Use-Management.aspx>

Oncor Electric Delivery – Joint Use Management



Oncor Electric Delivery – Joint Use Management



Surveillance Camera Attachments on Distribution Poles

- Ensure Executives and Corporate Safety approve installation of cameras.
- Only allow overt camera installation by a Law Enforcement Agency. Covert equipment installation...we know nothing!
- The Agency will make its attachments only on Poles approved by a permit application.



Oncor Electric Delivery – Joint Use Management

Wireless Equipment Requirements

- Communication equipment includes, but is not limited to, radios, cameras, antennas, equipment boxes, power Supply boxes, meters, and lockable disconnect switches.
- All equipment on a pole shall be mounted on a single bracket that provides one point of attachment to the pole.
- The equipment, including the mounting bracket, shall not exceed 300 pounds, shall be no larger than 15 cubic feet and resulting moment applied at the pole shall not exceed 300 ft-lbs.
- Equipment shall be installed on poles classified as ANSI class 3 or larger.
- Antennas shall not be installed within 200 feet of an Oncor AMS router, collector, or Distribution Automation transceiver.
- Attachment of meters and lockable disconnect switches on Oncor poles is prohibited. Meters and lockable disconnect switches must be installed off-pole on a non-Oncor owned pole, pad, or pedestal.

Oncor Electric Delivery – Joint Use Management

Wireless Equipment Requirements

- Antennas can be mounted on top of a pole when pole top is not being used by Oncor or would not be in use if the pole were replaced in accordance with Oncor's current Standards.
- Equipment shall only be installed on primary tangent poles, secondary poles, service poles, wood streetlight poles, and appropriate span guy poles which do not have Supply equipment installed.
 - For example - multiple transformers, capacitors, primary risers, secondary/service risers, switches, sectionalizers, regulators, AMS routers and collectors, distribution automation transceivers, etc.
- Equipment will be de-energized by Oncor before work is performed within the area defined by the RF warning signs.

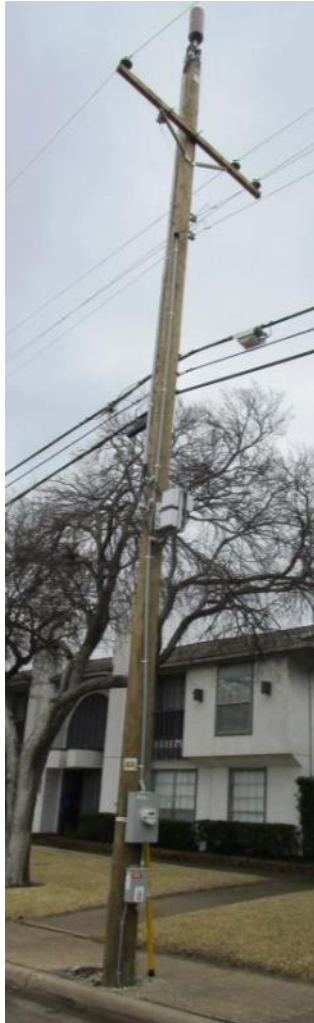
Oncor Electric Delivery – Joint Use Management

Distributed Antenna Systems (DAS) Node Poles



Oncor Electric Delivery – Joint Use Management

Small Cell Node Poles

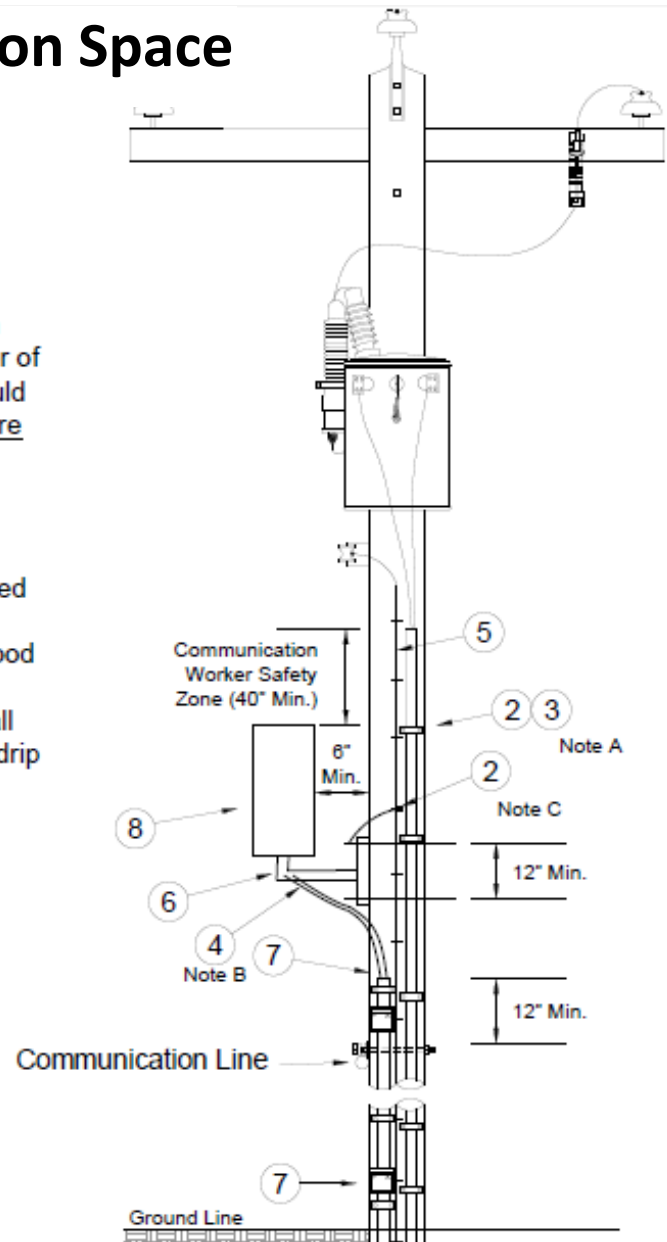


Oncor Electric Delivery – Joint Use Management

Wireless Equipment - Communication Space

Notes:

- A. Power and antenna cable shall be installed in schedule 80 PVC conduit (maximum diameter of two (2) inch). Conduit attachment straps should be installed every five (5) feet. These risers are the only risers allowed on this pole.
- B. Power cable shall be jacketed multiple conductor. Jacket must enclose entire cable assembly.
- C. Antenna and mounting bracket shall be bonded to neutral or pole ground.
- D. Maintain minimum of 2" clearance of air or wood between all hardware and ground wires.
- E. The clearance to the Communication line shall be measured from the lowest of the antenna drip loop, the top of antenna conduit, the antenna mounting bracket, or the antenna.
- F. Antenna shown in non-inline position for illustration purposes.

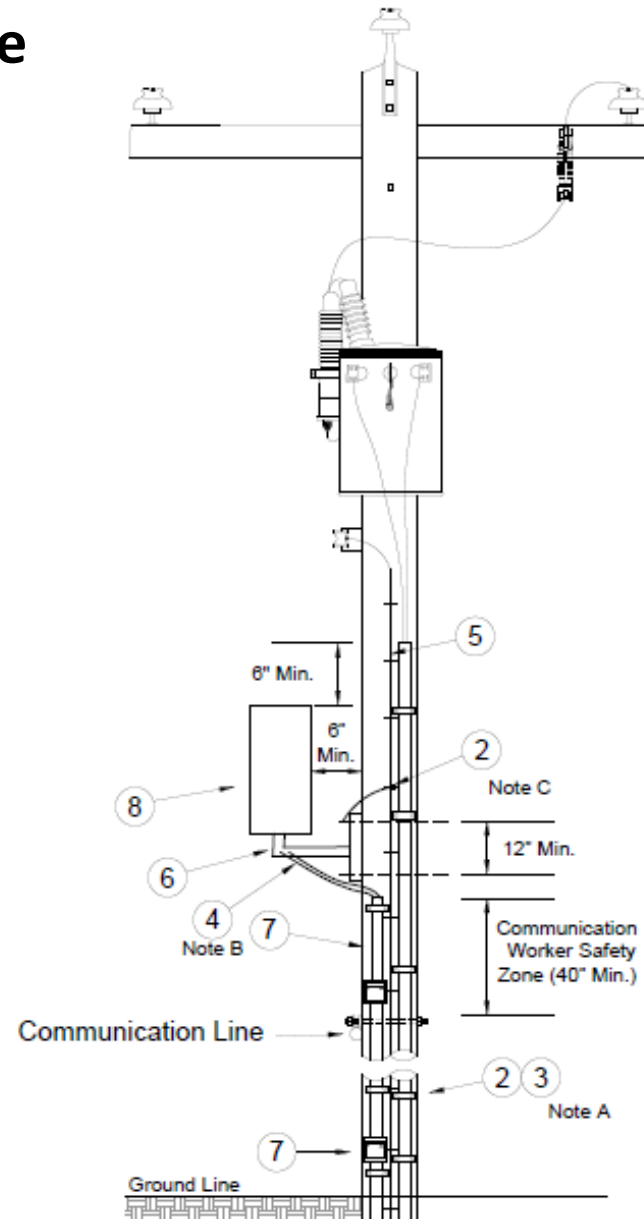


Oncor Electric Delivery – Joint Use Management

Wireless Equipment - Power Space

Notes:

- A. Power and antenna cable shall be installed in schedule 80 PVC conduit (maximum diameter of two (2) inch). Conduit attachment straps should be installed every five (5) feet. These risers are the only risers allowed on this pole.
- B. Power cable shall be jacketed multiple conductor. Jacket must enclose entire cable assembly.
- C. Antenna and mounting bracket shall be bonded to neutral or pole ground on each pole.
- D. Maintain minimum of 2" clearance of air or wood between all hardware and ground wires.
- E. The Communication worker safety zone shall be measured from the lowest of the antenna drip loop, the top of antenna conduit, the antenna mounting bracket, or the antenna to the communication line.
- F. Antenna shown in non-inline position for illustration purposes.

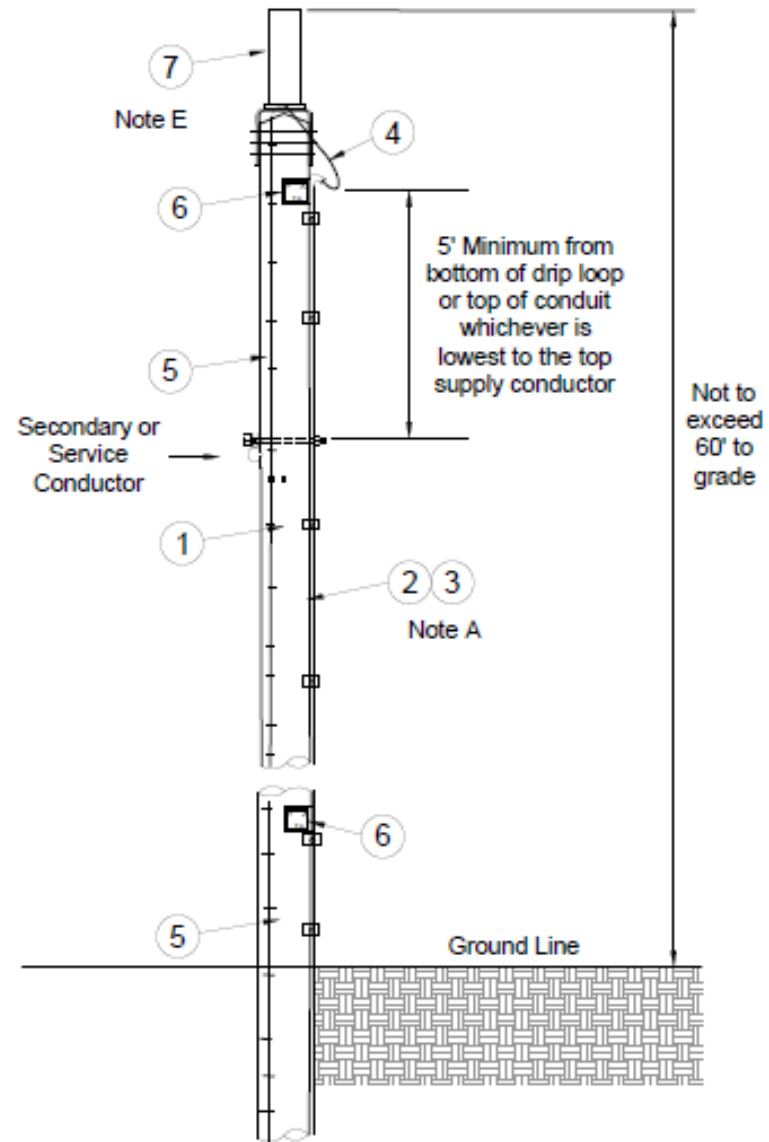
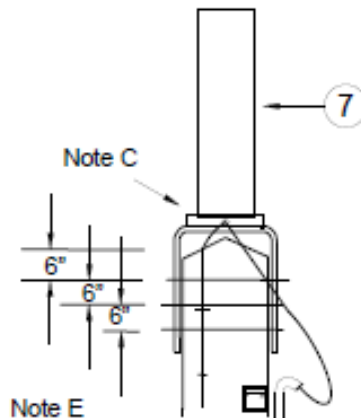


Oncor Electric Delivery – Joint Use Management

Wireless Equipment – Pole Top

Notes:

- A. Power and antenna cable shall be installed in schedule 80 PVC conduit (maximum diameter of two (2) inch). Conduit attachment straps should be installed every five (5) feet. These risers are the only risers allowed on this pole.
- B. Power cable shall be jacketed multiple conductor. Jacket must enclose entire cable assembly.
- C. Antenna mounting bracket shall be bonded to the neutral or pole ground on each pole.
- D. Maintain minimum of 2" clearance of air or wood between all hardware and ground wires.
- E. Pole top antennas shall be secured to the pole with a minimum of two (2) straps. The straps shall be fastened with three (3) bolts on 6" centers. The top bolt shall be 6" from the pole top.



Thank You

Questions & Discussion