



**Detailed Exterior Service Drop and Installation Policy (Approved by Select Board March 26, 2019)**

The Plainfield Light and Telecommunications Department, a Municipal Light Plant and a department of the Town of Plainfield, is constructing a fiber optic network in order to provide Internet and telephone service under the name Plainfield Broadband, with service provided in partnership with Westfield Gas and Electric’s service Whip City Fiber (WCF). In order to maximize the opportunity for townspeople to take service, Plainfield Broadband will fund most residential installation costs, including connecting to the exterior of the home and installing wiring and equipment inside the home. Residential service includes home businesses. Plainfield Broadband will work directly with commercial customers (including nonprofit organizations) to develop customized solutions, but will not pay installation costs for commercial customers.

The Town of Plainfield has secured the necessary financial resources to construct the fiber optic distribution network AND to cover substantially all of the costs to connect households to the network. This policy provides the details for what items are covered by the town and what work would be at homeowner expense.

**Definitions**

See definitions at end of document.

**Deadlines**

Deadline Description	Deadline Date
Network extension request deadline (applicable to 41 premises)	4/15/2019
Exterior Service drop <b>without</b> Internet Subscription request deadline	6/30/2019
Exterior Service drop and Interior Installation with Internet Subscription deadline	6/30/2019

**Policy Details**

1. **Subsidies as outlined in this policy are guaranteed only for requests received prior to the above deadlines.** This includes subsidies for network extensions, service drops, and interior installations. Subsidies are available only for existing occupied structures such as houses or studios/offices. Requests after the deadline may result in substantial delay in installation and may require the homeowner to cover all or a portion of the network extension, service drop, or interior installation costs (see below).

2. **Requesting an Exterior Service Drop without Internet Service.** To request a residential service drop without Internet service (also called a “cold drop”), a Plainfield homeowner must grant Plainfield Broadband or its representatives permission to come onto the homeowner’s property to survey existing conditions and to install the service drop. This permission may be granted through the Plainfield Broadband/WCF website or by submitting a signed Property Access Form. Cold drops may only be requested for existing occupied structures such as houses or studios/offices. While it is not necessary to sign-up for an Internet subscription, cold drops will have a lower priority for completion than than requests from customers subscribing to Internet service.
3. **Requesting Exterior Service Drop, Interior Installation, and Internet Service.** To request residential exterior and interior installation, a Plainfield resident must sign up for Internet service through the Plainfield Broadband/WCF website and agree to all terms and conditions. Installations may be made only in existing occupied structures such as houses or studios/offices.
4. **Plainfield Broadband will pay for utility pole make-ready.** This includes amounts charged by utility companies to make poles ready on private property, where such poles have been deemed by Plainfield Broadband during the network design process to provide the most cost-effective path to the premise.
5. **Plainfield Broadband will pay for Network Extensions.** Plainfield Broadband has identified 41 premises that require extensions of the fiber distribution network onto private property and has contacted these property owners by first class mail and by certified mail. For homeowners served by such network extensions who submit a Property Access Form **by the network extension request deadline**, Plainfield Broadband will include the network extension in its network build plans and pay the costs of constructing the network extensions. Customers requiring network extensions who do not meet this deadline ***will not be included*** in the 2019 Plainfield Broadband network build out. ***This is a firm deadline.*** If any such homeowners decide at a later date to request service, they may be responsible for all or some of the construction costs of bringing fiber from the public way to their premise, subject to available town broadband capital project funding. Such work will have to be approved and scheduled by Plainfield Broadband as part of a future distribution network *expansion* project, and this may require the homeowner to wait one year or more. **Homeowners not meeting the 4/15/2019 network extension property access form deadline could be responsible for \$700 to \$4000 or more for network extension costs.**
6. **Plainfield Broadband will pay for designed Exterior Service Drop Costs (aka “drop costs”).** Drop costs include the cost of installing fiber optic drop cable along a path designed by Plainfield Broadband from the nearest multiport service terminal (MST) to a network interface device (NID) attached on the exterior of each premise. Exterior service drops do not require the homeowner to sign up for Internet service, since they merely provide the fiber from the street to the outside of the premise, and without Internet service are considered “cold drops.” Plainfield Broadband’s designed paths use the access methods of existing utilities at each

premise (i.e., aerial or underground). Homeowners will be responsible for any incremental costs incurred if they request a path other than that recommended by Plainfield Broadband (e.g., underground path where other utilities are aerial and an aerial installation would be less expensive). **Homeowners not meeting the above deadlines could be responsible for \$200 to \$3500 or more for exterior service drop costs if they request a drop after the deadline.**

7. **Plainfield Broadband will pay for basic Interior Installation Costs.** This includes the costs for:
  - a. Installation of optical jumper from NID to ONT in basement, up to 50 feet in length.
  - b. Installation of CAT6 wire from ONT to first floor, up to 50 feet in length.
  - c. Installation of CAT6 wall-plate.
  - d. Installation of router and WiFi setup (provided by WCF).
  - e. Customer to provide 110VAC electrical outlets at ONT and Router locations.
  - f. Customer to provide any desired battery backup (UPS) at ONT and Router locations.
  - g. Customer responsible for any additional wiring and for interface with other devices.

Customers must sign up for Internet service to schedule an Interior Installation. Customers who are not the owners of the premise must receive prior approval from the property owner. Customers will be responsible for any incremental costs for installations other than the above-defined basic installation. Customers requesting Premier telephone service through WCF will pay additional installation costs of \$150 to \$200. **Customers not meeting the above deadlines could be responsible for \$375 or more for basic interior installation costs if they request installation after the deadline.**

8. **Customers are responsible for all costs for New Home Construction:** Customers requesting service to new premises constructed after the above dates will be responsible for all applicable costs, including the portion of any pole make-ready and network extensions on private property and the full amount of any drops and interior installations. Customers will also be responsible for paying any administrative costs for overseeing pole applications with utility pole owners and/or cost estimates for the exterior or interior work. Plainfield Broadband advises homebuilders to include costs to connect to Plainfield's broadband network in their home building plans. Contact us for more information.
9. All fiber and equipment exterior to the premise, including the NID, remain the property and responsibility of Plainfield Broadband.
10. All Interior equipment provided by Plainfield Broadband or the ISP (the ONT and Router, respectively) remain the property and responsibility of Plainfield Broadband or the ISP.
11. Interior customer premise wiring (CAT6 wire and CAT6 wall-plate) installed at customer's premise becomes the property and responsibility of the customer.

**Examples:**

1. Single-family home is the only premise on a tax parcel, and is close to the road. Home has a basement, and customer wants router on first floor. Customer requests a drop and Internet service by the service drop and interior installation request deadlines. All drop and installation costs will be covered by Plainfield Broadband, and customer will not have to pay any connection costs.
2. Home with three living units (main home and two apartments) is within 170' of road. Home has a basement, and customer wants router on first floor. Homeowner provides property access form for all three units, but commits to service only on the main home. The cost for each drop is estimated at \$223. These costs are consistent with Plainfield Broadband's designed paths and budget. All drop costs would be covered by Plainfield Broadband, and the interior installation cost for the main home would be covered as a basic install. If customer later requests service for the apartments for which they did not sign up to receive service by the deadlines above, the customer will be responsible for paying the interior installation costs for those units.
3. Home with very long driveway requiring a network extension to a pole close to the home. One pole on driveway requires extensive make-ready. Current utilities are aerial from the last pole to the home, but customer requests that fiber be run underground. Customer submits a property access form by the network extension request deadline. Plainfield Broadband pays cost of pole make-ready and network extension. Because customer requests underground service from final pole to house instead of an aerial drop cable, customer pays the approximately \$640 difference between underground cost and aerial cost. Basic interior installation is covered by Plainfield Broadband, provided the customer signs up for service by the interior installation request deadline.

**Important definitions:**

CAT6 = Category 6 ethernet wiring connecting ONT to Router. CAT6 supports network connections up to 10 Gbps within a premise, providing the ability for future network speed enhancements beyond 1 Gbps.

Cold Drop = An Exterior Service Drop that is installed without or prior to interior installation and Internet service.

Customer Connect = connection from the distribution network at the "curb" through the inside installation of the premise. This Includes exterior service drops and interior installation.

Demarcation Point = The point where the town-owned and maintained network meets the customer's wiring and devices. For a Cold Drop, this is the Network Interface Device (NID). Once interior installation has been completed, the demarcation point is the Optical Network Terminal (ONT).

Distribution Network = fiber from the hub past every premise in town.

Exterior Service Drop = fiber optic cable from the distribution network at the “curb” to the outside of the premise. In most cases, a service drop will consist of a single fiber cable connected at one end to a Multiport Service Terminal (MST) located along the aerial distribution fiber and connected at the other end to a Network Interface Device (NID), normally attached to the outside wall of the premise.

Gbps = gigabits per second. A measure of the amount of data that can be transferred through a network connection in one second. 1 Gbps is approximately 40 times faster than the fastest satellite Internet available in Plainfield, 100 times faster than 4G wireless, 300-500 times faster than the Verizon DSL connections some Plainfield residents have, and 20,000 times faster than a typical dial-up connection.

Hub = central telecommunications shelter at 44 North Central Street, which brings together all of the town’s fiber optic cables and houses electronics to connect them back to the Internet.

Interior Installation = fiber from the outside to the inside of the premise, interior wiring, installation and configuration equipment inside customer’s premise. This includes an optical jumper cable that connects the NID to an Optical Network Terminal (ONT) device, normally located in the basement of the premise. The ONT will typically be connected to a router located on the first floor of the premise. The router will be supplied either by the Internet Service Provider (ISP)—Westfield Gas and Electric’s Whip City Fiber (WCF) service—or the customer. Plainfield Broadband recommends use of the router provided by the ISP, since this will enable the ISP to remotely troubleshoot the service and to resolve most service issues without a costly visit to the home.

MST = Multiport Service Terminal. Device at the “curb” that allows drop fibers to be plugged into the distribution network.

Network Extension = an extension of the distribution network onto private property. This is required if poles on private property are more than 170 feet apart. It involves spanning the poles with a stranded steel support cable and brackets, attaching network distribution fiber cables to the support cable, and terminating it with a Multiport Service Terminal (MST) on a pole near the premise(s).

NID = Network Interface Device. Device on exterior of premise that connects exterior drop fiber to an optical jumper.

Optical Jumper = fiber connecting the NID to the ONT.

ONT = Optical Network Terminal. Optical/electronic device inside premise that translates between the optical (light) connection on the fiber network and the electronic network connection needed by computers.

Plainfield Broadband = Internet access provided by the Plainfield Light and Telecommunications Department, in conjunction with Westfield Gas and Electric's Whip City Fiber service.

Plainfield Broadband Network = fiber optic network and hub connecting premises to the Internet.

Router = electronic device inside premise that allows multiple wired ("Ethernet") and wireless ("WiFi") computers and devices to be connected to the network.

Standard Drop = drop cable from an MST on the distribution network to a NID on a premise along the recommended path designed by Plainfield Broadband.