



Exterior Service Drop and Interior Installation Policy (Initially approved by Select Board March 26, 2019; amended April 28, 2020; amended February 9, 2021, amended August 9, 2022)

Summary

The Plainfield Light and Telecommunications Department, a Municipal Light Plant and a department of the Town of Plainfield, has constructed a fiber optic network to provide Internet and telephone service under the name Plainfield Broadband. Services are provided in partnership with Whip City Fiber (WCF), a subsidiary of Westfield Gas and Electric, via an intergovernmental agreement. Our town-owned network is focused on providing value and service to our subscribers (the rate payers) while ensuring the long term viability of this major infrastructure.

In order to maximize the opportunity for townspeople to take service during the network construction period, Plainfield Broadband funded most residential installation costs, including connecting to the exterior of the home and installing wiring and equipment inside the home, through our capital construction budget. As of August 9, 2022, 87% of the existing 397 premises in Plainfield are now connected to the network. 13% are not yet connected, despite several years of project planning and more than 18 months of direct outreach and marketing. Some portion of the currently unconnected premises may wish to become connected in the future and new homes will be built in our town.

This policy seeks to support the goal of adding new subscribers, while reducing the barriers to homeowners to take internet service (and optional phone service) on the town-owned network, and staying within the limited means of a tiny broadband network still in early stages of operation.

As of August 10 Plainfield Broadband may use operating revenue to subsidize some or all of the cost for certain residential installations (including home businesses) as summarized in Table 1 and more fully described below. Residential service includes home businesses (see definition below). Plainfield Broadband will work directly with commercial customers (including nonprofit and institutional organizations) to develop customized solutions, but will not pay installation costs for commercial customers.

Customer Type	Maximum amount of subsidy
Residential Service	Standard Installation up to \$1000 (must sign up for internet service, phone service optional). Note: Homes that existed as of 5/1/2018 were included in the network design. Homes constructed after that date will require additional design and administrative work which may increase the homeowner’s costs.
Homes with a cold cold drop completed by 8/9/2022	Standard Installation up to \$500 (must sign up for internet service, phone service optional)

New Homes constructed after 8/9/2022	Standard Installation up to \$1000 (must sign up for internet service, phone service optional). Note: Homes that existed as of 5/1/2018 were included in the network design. Homes constructed after that date will require additional design and administrative work which may increase the homeowner’s costs.
Phone-only	\$0. Customer responsible for all costs (must sign up for phone only service)
Cold Drop only	\$0. Customer responsible for all costs
Non-residential Service	\$0. Customer responsible for all costs. See MLP Manager for a pricing proposal

Table 1. Summary installation types, subject to restrictions listed in Policy Details below.

Policy Details (see definitions at end of document)

1. **Subsidies as outlined in this policy are offered by Plainfield Light and Telecommunications Department as part of the department’s annual operating costs, and are therefore limited. Policies are subject to change at the sole discretion of Plainfield Broadband’s Manager in consultation with the Plainfield Selectboard.**
2. **Service commitment.** While Plainfield Broadband does not require a formal service commitment or contract period, we hope that customers will be completely satisfied by their Internet service, and we expect that they will keep it for at least a year.
3. **Requesting Exterior Service Drop, Interior Installation, and Internet Service.** To request residential exterior and interior installation (aka a “drop), a Plainfield resident must apply for Internet service through our Internet Service Provider, Whip City Fiber (WCF), at <http://www.whipcityfiber.com/plainfield> and agree to all terms and conditions. Applicants who are not the owners of the premise must receive prior approval for the drop related construction from the property owner.
4. **Existing homes, standard full service installation.** Residents requesting Internet service for a home that existed on May 1, 2018 (and therefore included in the network design), but not yet connected to the town-owned network as of the date of this policy, will be responsible for any exterior connection and interior installation costs in excess of \$1,000 and any costs above those for a “standard installation” (see below). WCF will provide an estimate of the costs, which must be paid in full prior to scheduling installation. Post-construction adjustments for actual costs will

be refunded or charged to customer through WCF's monthly service invoice and will be due 25 days from the date of invoice.

- 5. Existing homes with cold drops, upgrade to full service.** Residents requesting interior installation and service for a location that already had a "cold drop" (connection to the outside of the home with no service installation) as of the date of this policy will be responsible for any interior installation costs in excess of \$500 and any interior installation costs above those for a standard installation. Whip City Fiber will provide an estimate of the costs, which must be paid in full prior to scheduling installation. Post-construction adjustments for actual costs will be refunded or charged to customer through WCF's monthly service invoice and will be due 25 days from the date of invoice.
- 6. New homes, standard installation.** Residents requesting service for new homes constructed after after May 1, 2018 will be responsible for any exterior connection and interior installation costs in excess of \$1,000 and any costs above those for a "standard installation" (see below) will be responsible for the full amount of exterior connection and interior installation 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. Whip City Fiber will provide an estimate of the costs, which must be paid in full prior to scheduling installation. Post-construction adjustments for actual costs will be refunded or charged to customers through WCF's monthly service invoice and will be due 25 days from the date of invoice.
- 7. Phone-only service (existing or new homes).** Residents requesting phone-only installation and service will be responsible for the full cost of installation. Whip City Fiber will provide an estimate of the costs, which must be paid in full prior to scheduling installation. Post-construction adjustments for actual costs will be refunded or charged to customers through WCF's monthly service invoice and will be due 25 days from the date of invoice. Note that phone-only service provides necessary equipment and minimum sufficient bandwidth to power a VOIP phone, and does not provide a router or bandwidth to power any other devices. Customers who sign up for phone only service and subsequently apply for full internet service will be responsible for the costs to install the necessary equipment in the home.
- 8. Cold drop only (existing or new homes).** Residents requesting a "cold drop" (connection to the outside of the home with no service installation or interior work) will be responsible for the full costs of the exterior connection, including the portion of any pole make-ready and network extensions on private property. 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. Whip City Fiber will provide an estimate of the costs which must be paid in advance.

- 9. Standard Installation Costs, subject to the limits described above.** This includes the costs for:
- a. Installation of fiber optic cable along the least-expensive route from the nearest MST or splice point to the exterior of the home. Aerial installations are usually the least expensive, and customer will be responsible for any additional costs incurred for underground installations.
 - b. Installation of optical jumper from NID to ONT in basement, up to 50 feet in length.
 - c. Installation of CAT6 wire from ONT to first floor, up to 50 feet in length.
 - d. Installation of CAT6 wall-plate.
 - e. Installation of router and WiFi setup (provided by WCF).
 - f. Customer to provide 110VAC electrical outlets at ONT and Router locations.
 - g. Customer to provide any desired battery backup (UPS) at ONT and Router locations.
 - h. Customer responsible for any additional wiring and for interface with other devices.
 - i. Customer responsible for any additional costs for Ooma or other VOIP telephone equipment, configuration, and consultation.

Customer will be responsible for any incremental costs for installations other than the above-defined basic installation.

10. Equipment ownership. All fiber and equipment exterior to the premise, including the NID, remain the property and responsibility of Plainfield Broadband. All Interior equipment provided by Plainfield Broadband or WCF (the ONT and Router, respectively) remain the property and responsibility of Plainfield Broadband or WCF.

11. Interior customer premise wiring (CAT6 wire and CAT6 wall-plate) installed in the customer's premises becomes the property and responsibility of the customer.

12. 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.

Home Business = Businesses operated out of a residence meeting the definition in the most recent version of the Plainfield Zoning Bylaw. Definition as of the date of this policy: “4.1.26 Home Business. A professional or business activity conducted for financial gain within a dwelling and/or from an accessory building by the residents thereof which is incidental and subordinate to the residential use of the property, does not occupy more than 750 square feet or exceed 40 % of assigned first floor gross area and which does not change the residential character of the neighborhood. No more than three (3) persons at any given time, other than the residents therein, shall be employed on the premises.”

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)—Whip City Fiber (WCF)—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.

ISP = Internet Service Provider. The entity contracted by Plainfield Broadband to provide Internet service, customer service, and technical support to customers.

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.

NO = Network Operator. The entity contracted by Plainfield Broadband to operate, manage, and maintain the fiber optic network.

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.

Ooma = An available Voice Over Internet Protocol (VOIP) service that requires additional equipment and configuration.

Optical Jumper = fiber connecting the NID to the ONT.

Plainfield Broadband = Internet access provided by the Plainfield Light and Telecommunications Department, in conjunction with its network operator and internet service provider, currently Westfield Gas and Electric's subsidiary, Whip City Fiber.

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.

VOIP = Voice Over Internet Protocol. A system for providing telephone service over an Internet connection.

Westfield Gas and Electric (WG+E) = A municipal light plant in the City of Westfield that Plainfield Broadband has contracted to be our network operator and Internet Service Provider.

Whip City Fiber (WCF) = WG+E's subsidiary providing fiber network services to the City of Westfield, Plainfield, and other towns in the region.