

## Leviton Takes Fiber Connectivity to the Last Mile in Issaquah Highlands, a Seattle-area Residential Community

**Issaquah Highlands and its planned 3,250 homes epitomize the technology-enabled residential wired community.**

The vision of developer Port Blakely Communities, Issaquah Highlands is an amalgam of advanced design elements – architecture, materials and technologies – to enhance homeowners' lifestyles and protect their prized Puget Sound environment. From the very beginning, the developer embraced the concept of a total fiber optic community whose citizens could enjoy the benefits of advanced broadband connectivity, e.g., communications, entertainment, information, home automation, etc., today... and in the future. The end result: a centralized fiber optic infrastructure designed with star topography that runs fiber to every division, street and residence.

As one of the early contributors to the project, Joseph Mouhanna of Cascade Digital, points out: "Since the developer was convinced that (fiber optics) broadband connectivity was the way to go, they agreed to build a fully-equipped Data Center CO." Gary Haddan, Customer Service Representative for Highlands Fiber Network, explains how that came to be: "From its inception, the vision for Issaquah Highlands, as outlined by Port Blakely Communities and original planner Mike Bookey, was a typical neighborhood with one very atypical feature: the 'information superhighway' would run right underneath it. That meant a very comprehensive data center along with a broadband 'off ramp' at every home. We now use quite a bit of Leviton product in our data center. Because this community was a connected town from its beginning, we've had a lot of time to try out different types of products from different companies. We've decided to work with Leviton at the data center end of the network, they do a great job for us."

Throughout Issaquah Highlands, "Leviton is providing a true end-to-end Fiber-to-the-Home (FTTH) solution," according to Chris Lane, President of Lane Communications of Kent, Washington, whose firm oversees the entire Issaquah fiber management effort for the developer. "Leviton products and systems take fiber connectivity all the way from our sophisticated data center to the last mile of the Issaquah communications network, namely, the jack inside the house itself." Lane points out that this is what sets Leviton apart from traditional hardware and connectivity suppliers who bring fiber optic cable and services to the demarcation point outside of the home. Leviton goes one step further and brings voice and data connectivity inside the home where Leviton's Structured Media Center (SMC) organizes and



distributes services throughout the home." Lane Communications is currently participating in the neighborhood built by Rainier Homes – two-story 2,900 – 3,700 square foot homes with views of Seattle and Bellevue.

According to Lane Project Manager Sean Wood, a Leviton Network Installer, all the builders who have been invited to participate in the Issaquah Highlands community are highly recognized quality builders – both in the Northwest and most on a national level. "They know fully well that the quality of workmanship during installation is critical and can make or break the performance of high-speed structured cabling systems in their homes. Our relationship with Leviton," Wood points out, "strengthens our position with builders like Rainier Homes because we can assure them that any system installed in one of their houses by one of our Leviton Certified Installers will operate reliably and trouble-free. When we install approved Leviton components, these parts and performance are guaranteed to support all current and future applications."

The Leviton cabling products and systems installed at Issaquah Highlands range from fiber optic enclosures for cable management in the data center to pre-configured media panels in the Structured Media enclosures in individual homes. Lane points out that what makes these enclosures so appealing is that they save space, are easy to install and – most importantly – are extremely flexible so they can be customized and upgraded for future applications. The Leviton Opt-R 500 (3RU) Fiber Optic Enclosures rack-mounted in the data center at Issaquah Highlands contain 144 fiber splices using single fusion. The fiber management runs can be removed to make space for splice trays or stacked on top of existing rings for additional cable storage or management. The one-piece removable covers conceal and protect patch cords and allow easy access. Multiple bend radius and cable management features include two cable tie-downs in front and four in back to protect and organize cables. “When you are touting the benefits of future connectivity breakthroughs to knowledgeable homeowners,” Wood explained, “it’s essential that you have products and systems that can accommodate everything from Category 6 to wholehouse distributed audio to interactive digital entertainment systems.

These installations are ideal for satisfying the requirements of Lane’s customer profile because they are highly customizable and can always be enhanced with expansion boards or stand-alone modules. The larger of the two enclosures being installed by Lane Communications in the Rainier Homes is Leviton’s 42” enclosure. It is being configured with a 24-port Structured Media Panel, a 1 x 8 Passive Video Splitter, and a Surge-Protected AC Power Module featuring two 15 Amp duplex hospital grade receptacles. The telephone and voice panel can patch data or telephone service to 24 remote locations, and deliver 19 multi-line telephone connections in various combinations of 2 or 4 lines. The AC Power/Surge Module provides protection for line voltage units in extremely excessive surge conditions. This advanced connectivity, typified by Leviton’s products, can be found in all of the homes built by the 14 plus builders who have subscribed to the standards established by Issaquah Highland’s developer, Port Blakely. It contributes to the community’s stated goal of “making advanced technology a part of the Urban Village concept.”

Inside the Data Center at Issaquah Highlands. Leviton Structured Media Enclosure



We prefer to provide additional built-in capacity now – we run ‘smurf’ tubes in the attic crawl space and outside in the garage. That way, we are ready for whatever technology the homeowner wants to add in the future. That’s the beauty of structured cabling!” In the Rainier Homes neighborhood, two sizes of Leviton residential enclosures are being installed – 28” and 42.” Both enclosures feature Leviton pre-configured structured cabling panels that route telephone, data and video services throughout the homes. The pre-configured snapin panels combine some of Leviton’s most popular voice, data and RF modules to create a cost-effective media distribution point.

The new OR and Cardiac Catheterization Suites are supported by Leviton copper and fiber systems, ensuring efficient transfer of critical patient data.