



UTAH BROADBAND CENTER CONNECTING UTAH

OGDEN CITY LOCAL BROADBAND PLAN





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EXECUTIVE SUMMARY

VISION	Ogden City believes that access to affordable, high-speed internet promotes social and economic growth and provides opportunities to participate in the current digital economy.
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KEY BARRIERS	Limited provider and plan options	Affordability and availability of internet access	Market forces and reliance on private ISPs for infrastructure expansion
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COVERED POPULATIONS	Veterans	Individuals who are members of racial or ethnic minority group	Individuals who live in low-income households	Individuals with disabilities	Aging adults	Incarcerated Individuals
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GOALS	Accessibility	Scalable Infrastructure	Adoption
	Partner and collaborate with public and private partners to expand high-speed internet infrastructure and ensure that broadband services are accessible and affordable for all local residences and businesses.	Prioritize scalable and future-proof broadband infrastructure that can support developing technologies and rising bandwidth demands to prevent obsolescence and the need for periodic updates.	Maximize the benefits and value of digital access through engagement and coordination with City partners.

KEY STRATEGIES	Collaborate and engage with public and private partners	Connect city-owned infrastructure	Prioritize future-proof and scalable technologies
	Evaluate and update City policies and codes	Monitor and support funding opportunities	Promote digital access and expand digital literacy and device access



1 OVERVIEW OF THE LOCAL BROADBAND PLAN

1.1 VISION

Through the Utah Governor’s Office of Economic Opportunity, the Utah Broadband Center (UBC) with its Connecting Utah initiative is working to expand access to high-speed, affordable, and reliable internet through broadband connectivity in Utah communities. To support statewide broadband planning efforts, Ogden City must better understand current broadband infrastructure, identify infrastructure needs, and implement actionable strategies to help the communities most impacted by the digital divide.

The vision of this plan is to promote social and economic growth throughout Ogden City by investing in broadband infrastructure that is accessible, modern, and scalable, and provides communities with equitable opportunities to participate in the digital economy. In order to accomplish this vision, a collaborative effort among Ogden City, internet service providers (ISPs), and other private and public stakeholders will be imperative.

The goals, objectives and strategies reflected in this Plan will be as much as is feasible carried out through the Ogden Digital Solutions Partnership, a collaboration between Weber State University, Ogden City, and the Ogden School District, as funding is available.

Notwithstanding anything reflected in this Plan, Ogden City Administration is the final decision maker regarding the implementation of broadband fiber within Ogden City boundaries, including but not limited to the form of agreements, permitting, location, engineering standards, and timelines.

1.2 GOALS AND OBJECTIVES

As part of the Ogden City Local Broadband Plan, some of the stipulated goals are:

- **Accessibility:** Partner and collaborate with public and private partners to expand high-speed internet infrastructure and ensure that broadband services are accessible and affordable for all local residences and businesses.
- **Adoption:** Maximize the benefits and value of digital access through engagement and coordination with City partners.
- **Scalable Infrastructure:** Prioritize scalable and future-proof broadband infrastructure that can support developing technologies and rising bandwidth demands to prevent obsolescence and the need for periodic updates.



To better identify the current broadband infrastructure and service needs and strategize the implementation of such goals, the goals for the Local Broadband Plan include the following objectives:

- Work with departments within Ogden City and neighboring municipalities to maximize impact.
- Partner with ISPs to implement an ISP-led deployment of broadband infrastructure across the City.
- Assess potential application for infrastructure grants to support ISP-led broadband expansion.
- Implement policy and codify broadband best practices.
- Ease access to City-owned rights-of-way (ROW), poles, and other assets.
- Ensure building and development codes include broadband.
- Increase participation in the ACP.
- Support the expansion of programs that expand digital literacy.



2 BACKGROUND

On November 15, 2021, the Infrastructure Investment and Jobs Act (IIJA) was signed into law. This Act included a \$65 billion investment in high-speed broadband internet infrastructure and efforts to close the digital divide to ensure that all Americans have access to reliable and affordable high-speed internet.

Included in the IIJA was the Broadband Equity, Access, and Deployment (BEAD) Program. The BEAD Program provides \$42.45 billion to expand high-speed internet access by funding planning, infrastructure deployment, and adoption programs throughout the United States.

Through this funding, the UBC launched a grant program that allowed Ogden City planning funds to create a Local Broadband Plan. Once awarded the BEAD funds, the UBC will host another statewide grant process for implementation funds to be dispersed. The State of Utah was awarded \$5 million to support both the creation of the Utah Digital Connectivity Plan and provide funding for local communities to create local broadband plans.

The UBC awarded Ogden City \$30,000 to create a plan for broadband infrastructure deployment in the region. Ogden City's broadband plan will be used to inform the Utah Digital Connectivity Plan that will determine Utah's broadband priorities over the coming years.

The local planning grant from the UBC was awarded on April 3, 2023, and the project kick-off meeting with the consultant team, Horrocks, was held on April 11, 2023. The initial draft of this plan will be submitted on June 1, 2023, to the UBC, and the final plan to be incorporated in the statewide planning efforts will be submitted on August 1, 2023.

2.1 SCOPE OF BROADBAND PLAN

The metropolis of Ogden City is located in Utah's northern region. The City, which has a population of about 88,000, is located at the base of the Wasatch Mountains and provides access to major access points such as Interstate 15 (I-15), a major north-south highway, and the Union Pacific Railroad.

Ogden City has a lengthy and diverse history, having played a significant role in the transcontinental railroad era's transportation network. The industries of health care, education, and outdoor recreation currently account for most of the city's economic activity. Several significant employers, including Weber State University, are also based in Ogden City.

Despite recent expansion and development in the City, there is still a sizable digital divide in the area. Affordably priced, dependable broadband service is a necessary tool for growing the economy, improving public education, and increasing the general quality of life for many citizens and enterprises.

Ogden City is creating a Local Broadband Plan as a solution to this problem and as a road map for enhancing and expanding broadband connectivity in the region. Accessibility and



dependability will be prioritized in this strategy as Ogden City seeks to collaborate with local stakeholders, including citizens, businesses, and community organizations.

Figure 1 shows the boundary of Ogden City.

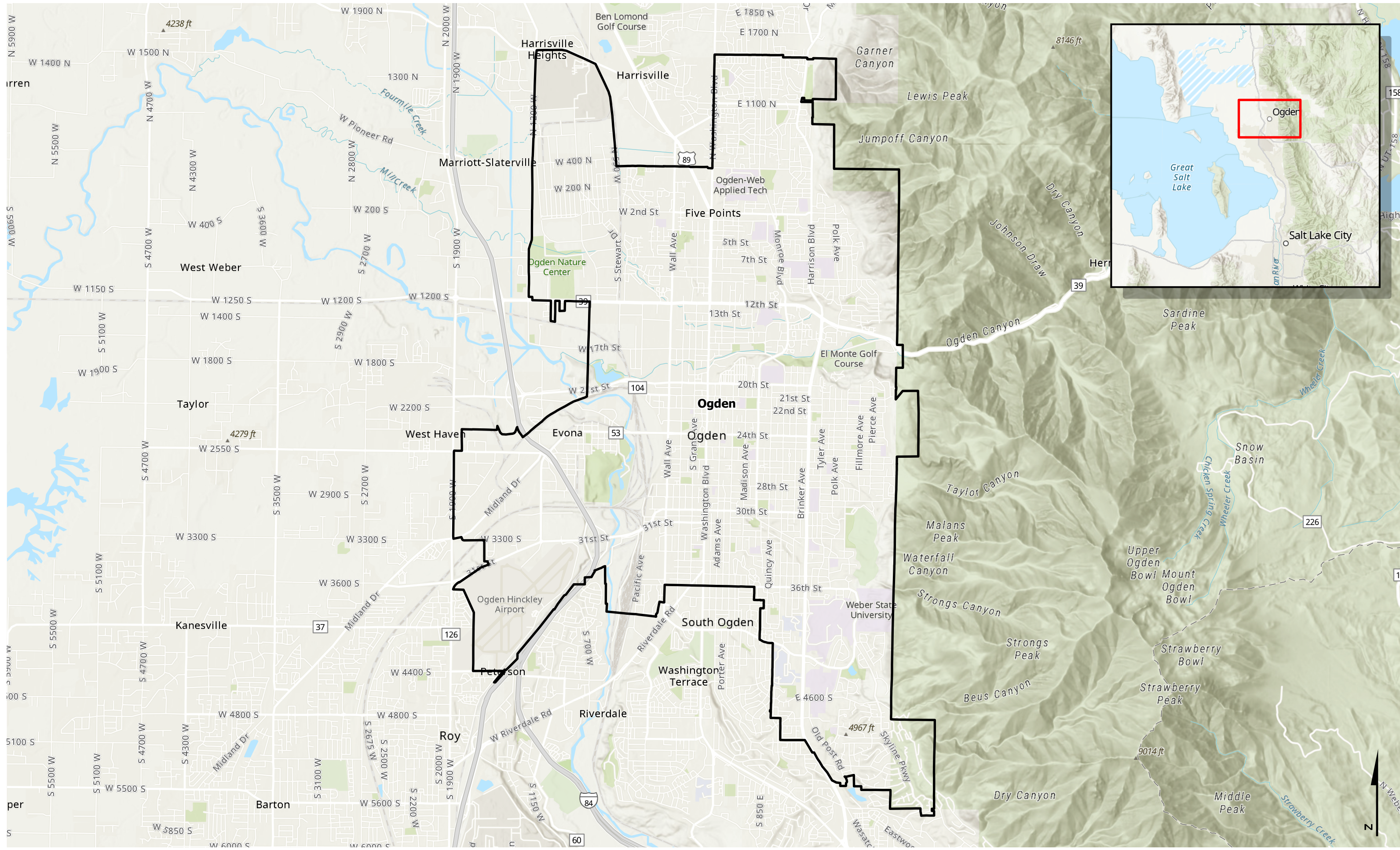


Figure 1: Boundaries of Ogden City



A summary of the demographics of the area is outlined on the Table 1 below. These statistics reflect the most recent data from the United States Census 2020 for the State of Utah.

Table 1. Ogden City Demographics

OGDEN CITY OVERVIEW	
Total Population	87,321
Median Household Income	\$56,501
Bachelor's Degree or Higher	27.6%
Employment Rate	64.0%
Poverty	15.5%
Median Age	33.2
Land Area in Square Miles	27.55
RACE AND ETHNICITY	
White	58,704
Hispanic/Latino	26,898
American Indian and Alaska Native	1,488
All Others	231

2.2 WHAT IS BROADBAND?

Broadband is a dedicated connection to high-speed internet. The threshold for what speed is defined as high-speed internet changes according to the standards presented by the Federal Communication Commission (FCC). Currently, broadband is defined as any speeds above 25 megabits per second (Mbps) download speed and 3 Mbps upload speed (25/3 Mbps)¹.

The Broadband Equity, Access, and Deployment (BEAD) Program defines households with less than 25/3 Mbps as unserved locations and those with less than 100/20 Mbps as underserved locations². Community anchor institutions with less than 1/1 gigabits per second (Gbps) speeds

¹ Federal Communications Commission. 2015 Broadband Progress Report. <https://www.fcc.gov/reports-research/reports/broadband-progress-reports/2015-broadband-progress-report>

² NTIA. Notice of Funding Opportunity. Broadband Equity, Access, and Deployment Program. <https://broadbandusa.ntia.doc.gov/sites/default/files/2022-05/BEAD%20NOFO.pdf>



are also considered underserved, as defined by Section 60102 of the IIJA, which also sets forth the BEAD program³.

2.2.1 Broadband Network Distribution

The infrastructure that data travels along is called a network. Similar to other public utilities such as roads or water pipes, the network infrastructure is carefully planned and then built according to how many people need to be served in both the present and the future. Within the network, data is carried across fiber, wires, or radio signals in the air (wireless). These various means of carrying data have different capacities and speeds. The part of the network used to transport data between or across cities is known as Middle Mile infrastructure. The Middle Mile network connects to hubs built throughout a city. The part of the network that connects from a hub to the end user is called Final Mile or Last Mile infrastructure. End users can be businesses, residential homes, or individuals connecting to cell service. In Figure 2, the blue lines connecting the city to the hubs represent Middle Mile infrastructure, and the orange lines connecting the hubs to the residential houses represent Final Mile (or Last Mile) infrastructure.

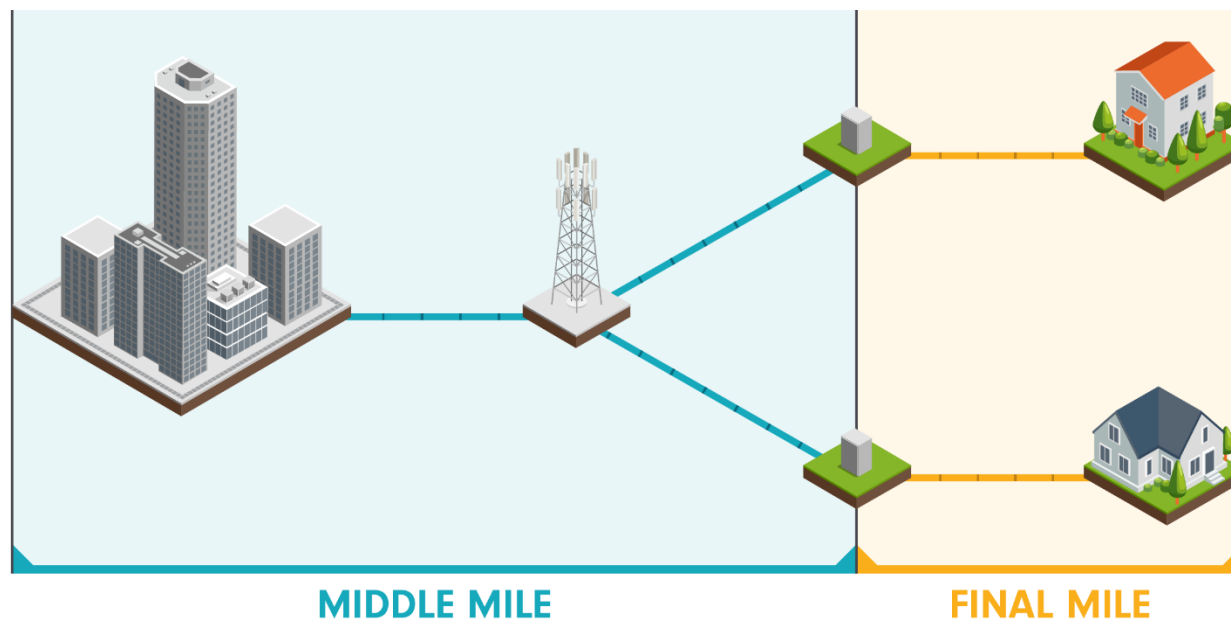


Figure 2. Middle Mile and Final Mile Infrastructure

2.2.2 Types of Broadband

There are various technologies that high-speed broadband internet can be served through, such as fiber optic, digital subscriber line (DSL), cable modem (Coax), and wireless technologies. Each form of technology has pros and cons.

³ United States Congress. 2021. H.R. 3684- Infrastructure Investment and Jobs Act. <https://www.congress.gov/bill/117th-congress/house-bill/3684/text>



2.2.2.1 Fiber Optic

Fiber optic technology sends data-carrying digital signals as light through cables made of glass fibers. It provides the fastest, most reliable networks. Because fiber is a newer technology, many areas do not have fiber networks developed, and this type of network can require building new infrastructure. Fiber optic cables can be placed on existing power poles or they can be placed inside conduit buried in the ground. If the network is designed and installed correctly, symmetrical speeds can be up to 400 Gbps; however, 400 Gbps speeds are typically only designed for and installed in the backbone/distribution cables of the network. **Fiber optic is the gold standard for high-speed broadband internet as it provides the fastest speeds and can support emerging digital technologies into the future.**

2.2.2.2 DSL

DSL uses existing copper telephone cables to transmit data. Speeds vary widely based on local providers, the condition of cables, the distance between homes, and the equipment at the primary connection point. Because of this, DSL speeds can be less than 1 Mbps or up to 100 Mbps. With maximum DSL speeds at 100 Mbps, DSL does not meet the ever-growing needs of future technologies, so it is not a preferred option when building modern broadband infrastructure.

2.2.2.3 Cable Modem (Coax)

Cable modem delivers increased speeds over DSL and transmits broadband data over the same coaxial cables that are used for cable televisions. Like DSL, it is not a preferred option when building new broadband infrastructure, but it can be used where existing infrastructure is in place. Cable modems use a protocol called Data Over Cable Service Interface Specification (DOCSIS). There are six versions of DOCSIS (1.0, 1.1, 2.0, 3.0, 3.1, and 4.0). The speeds range between 40 Mbps download and 10 Mbps for upload for version 1.0 to 10 Gbps download and 6 Gbps upload for version 4.0.

2.2.2.4 Wireless

Wireless broadband includes several technologies, including satellite broadband, Wireless Local Area Networks (WLANs), Wi-Fi, and cellular 4G, 5G, and LTE. These technologies use radio spectrum to transmit broadband data. Please note that BEAD funding can only be used to build wireless broadband technology when it is connected to a terrestrial Middle Mile network and cannot be used on satellite broadband technologies.

Satellite Broadband – Satellite internet involves satellites that orbit the earth while transmitting long-range signals to individual subscriber locations anywhere on earth with a clear view of the sky. It is primarily a middle mile wireless solution, but many people use satellite internet directly to their homes as well. Satellite connection speeds vary based on location, and weather and tree foliage can affect the signal. Typical connection speeds are 12-100 Mbps. However, satellite internet has a higher latency (a delay of transmission also known as lag), making video calls extremely “glitchy” on this type of internet. An acceptable range of latency is between 50-



100 ms. Satellite connection latency typically falls within 594-624 ms.⁴ For the BEAD program, the NTIA currently does not recognize satellite broadband technologies as a reliable wireless technology.

WLANs – WLANs are the Last Mile networks used at homes or businesses to distribute internet to phones, computers, and other devices through radio signals. Wi-Fi and hotspots are both examples of a WLAN. Connection speeds are dependent on the service provided at the access point.

Cellular 4G, 5G, and LTE – Cellular 4G, 5G, and LTE involve antennas mounted on cell towers transmitting radio signals, which are then received through the modems in cell phones, mobile routers, cellular antennas, or various signal boosters. Mobile carriers now offer residential fixed wireless broadband plans supported by their mobile towers. A middle mile fiber network connected to a tower will increase the network capabilities and provide a better final connection to the cellular user. The download speeds can often reach 600 Mbps if specialized equipment is used to boost the signal. This is usually the fastest high-speed broadband internet available for users who do not have access to fiber optic technology. This technology supports broadband speeds for mobile devices as well as fixed wireless broadband service to residences.

2.2.3 Benefits of Broadband

High-speed broadband internet has become an integral part of society. It is critical for work, education, telehealth, and the completion of everyday tasks.

High-speed broadband internet has transformed the way the world does business. There are few businesses that can operate today without the internet, and while some can get by with a low-speed connection, high-speed internet is becoming more and more necessary. A Pew Research Center survey conducted in April 2021 found that 90% of adults surveyed considered internet “essential or important for them personally during the [COVID-19] pandemic.”⁵ High-speed broadband internet has allowed for remote work possibilities, which opens the door to of highly skilled workers relocating to smaller communities and benefiting the economies of those communities. Readily available access to the internet has allowed businesses to widen their customer base to a global market. The primary business industries within Ogden City includes healthcare, education, outdoor recreation, and aerospace among others. Having reliable and high-speed broadband internet has become an important need not only for the family households, but also for also for the main business sectors in the City. In today’s world, broadband can grow the Ogden City’s economic outlook.

While high-speed broadband internet is benefitting many regions across the globe, it is important to ensure that Ogden does not get left behind. There is a growing digital divide where

⁴ SatelliteInternet.com. 2023. Is Satellite Internet a Good Option? Pros and Cons of Satellite Internet Service.

<https://www.satelliteinternet.com/resources/satellite-internet-pros-and-cons>

⁵ Pew Research Center. 2021. The Internet and the Pandemic.

<https://www.pewresearch.org/internet/2021/09/01/the-internet-and-the-pandemic/>



those that do not have access to internet do not learn the digital skills necessary for high paying jobs, pushing them further into poverty. Conversely, increasing high-speed broadband internet access increases economic opportunities for low-income families.

Developing digital skills at a young age has become increasingly important, as high-speed broadband internet is an integral tool in modern education and preparation for the future workforce. Access to online classes, homework submissions, and research opportunities can be lost if a reliable high-speed broadband internet connection is not secured. School districts within Ogden are utilizing online learning on snow days and other times when it isn't possible for students to gather at the school. Online classes can be made available for specialized subjects like foreign language or technological courses that do not have a local teacher available. Children without access to a broadband internet connection may be left out in these scenarios.

Other online resources are also becoming more important for communities. For example, telehealth is a tool that allows users to connect to doctors and medical providers online. Some of the benefits of telehealth include decreased healthcare costs, access to specialists not available locally, travel time reductions, and reducing the risk of exposing others to viral infections. High-speed broadband internet is necessary when completing a video call with a health professional.

High-speed broadband internet has become increasingly essential for daily tasks. High-speed internet is used when paying bills, accessing banks and retirement accounts, and applying and interviewing for jobs. High-speed broadband internet is also vital when enjoying modern-day entertainment, such as video streaming, watching live sports, or playing live video games. It is used when communicating with family and friends, especially when making a video call. Even using a smartphone with 4G or 5G service involves broadband technology.



3 CURRENT STATE OF BROADBAND AND DIGITAL ACCESS

3.1 METHODS TO DETERMINE THE CURRENT STATE OF BROADBAND

Several steps were taken to determine the current state of high-speed broadband internet in Ogden City. This team included the following organizations and individuals:

- Ogden City
 - Mara Brown
 - Brian Martinson
 - Jess McClelland
 - Justin Anderson
 - Cathy Fuentes
 - Linda Lartigue
 - Mike McBride
- Weber State
 - Bill Cook
 - Luke Jenkins
 - Jonathan Karras
- Horrocks
 - Eleise Lowe – Project Manager
 - Jason Libert – Technical Analysis
 - Jerson Fernandez – Technical Analysis
 - Georgia Tsoutsounis – Technical Analysis
 - Katie Williams – Public Involvement
 - Staci Arthur – Public Involvement
 - Makenna Riding – Public Involvement

The activities performed included:


- **Public Outreach:** In order to determine the current state of broadband, Ogden City conducted targeted public outreach to gather feedback from residents starting in April 2023 through May 2023. The purpose of this outreach was to learn and understand regional broadband needs and to identify gaps in broadband availability, accessibility, and affordability for residents. Public outreach was conducted for both the Utah Internet Speed Test and Ogden High-Speed Internet Survey through two shareable outreach packages that included the following:



- Overview flyer
- Internet Speed Test utility insert
- Social media graphics
- Social media content
- Newsletter content

The outreach content package was distributed to the following contacts:

- Aspen Village Homeowners Association
- Ben Lomond High School
- Boys & Girls Club of Weber-Davis
- Coalition of Resources (COR)
- Community Advocates
- Cottages of Hope
- Davinci Academy
- Family Promise
- Interfaith Council
- Intermountain Healthcare McKay Dee Hospital
- Lantern House
- Latinos United Promoting Education and Civic Engagement
- Midtown Community Health Center
- National Association for the Advancement of Colored People (NAACP) – Ogden Branch
- Ogden CED Citizen Advisory Committee
- Ogden City Arts Advisory Committee
- Ogden City Mayor's Office
- Ogden Community Action Network (Ogden CAN)
- Ogden Diversity Commission
- Ogden Housing Authority
- Ogden Regional Medical Center
- Ogden School District
- Ogden Weber Community Action Partnership (OWCAP)
- Ogden Weber Technical College
- Ogden/Weber Tech College
- St. Joseph High School
- Suazo Business Center - Ogden
- United Way of Northern Utah
- Utah Hispanic Chamber of Commerce
- Utah School for Deaf and Blind
- Weber County Center of Excellence

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- Weber County Health Department
 - Weber County League of Women Voters
 - Weber Housing Authority
 - Weber Human Services
 - Weber State University
 - Women in Business
 - Youth Impact

- **Public Surveys:** The outreach team created the Ogden City Broadband Survey to gather more quantitative data from the general public about their experience with internet connectivity. A shorter, abridged version of the survey was created for use during community canvassing and tabling outreach efforts to encourage quick stakeholder participation. Ogden City utilized the public survey and questions provided from the statewide UBC data collection effort. The statewide survey and the questions contained within were reviewed by the Institutional Review Board (IRB) and exempted from IRB oversight. Questions in this survey covered topics such as residents' current internet connections, device accessibility, affordability options, connectivity for businesses, community internet needs, and voluntary disclosure of demographics. A toll-free hotline number was provided for residents taking the survey who did not have access to the internet.

There were 333 surveys utilized for the data presented in this plan. There were 290 Ogden High-Speed Internet Surveys, 39 Ogden High-Speed Internet Canvassing Surveys, and four statewide surveys completed from Ogden City individuals in conjunction with the statewide UBC surveys.

Specific survey findings and analysis can be found in Sections 3.4 and 3.5.

- **Community Partner Survey and Workshop:** A virtual Ogden City Community Partner Workshop was facilitated on Thursday, May 18, 2023. The purpose of this workshop was to bring Ogden City and the organizations that support community broadband expansion together in an effort to help document existing broadband assets and plan for a future where every resident in the Ogden City area has the tools necessary to successfully access affordable high-speed internet. There were nine participants in total representing the following organizations: Visit Ogden, Weber State University, Ogden-Weber Technical College, Community Leader's Network, The Lantern House in Ogden City, and the Utah Hispanic Chamber of Commerce.

Following the workshop, a community partner survey was provided to participants and identified partners. The purpose of the survey was to take stock of partnering entities' current broadband planning, access, deployment, and digital access activities. The survey also captured data on challenges to local broadband expansion. The Ogden City



Community Partner Survey was completed by five entities. Specific findings from the Ogden Community Partner Survey are detailed in Section 3.4 Asset Inventory.

- **Internet Speed Tests:** Stakeholder participation in the Utah Internet Speed Test, sponsored by the UBC, helped gather real-time internet upload and download speeds in the Ogden City area. The Utah Internet Speed Test was advertised through an informational insert included with utility bills to notify the public of Ogden City’s planning effort.

As of July 5, 2023, there were 780 speed tests completed in Ogden City. See **Section 3.5.1** for more detailed Internet Speed Test results and information.

- **Stakeholder Meetings and Workshops:** The UBC, as part of the statewide planning effort, conducted stakeholder workshops in each of the 29 counties in Utah. Participants of these workshops included community advocates, educators, public and elected officials, and industry leaders. During these meetings, participants engaged in in-depth discussion relating to broadband. Topics included education, economic impact, affordability, availability, barriers, and opportunities to expand access to high-speed internet.

The Weber County workshop was held on Tuesday, January 24, 2023, and consisted of 20 participants over two sessions. The first session was geared toward public entities and included representatives from Weber County, Farr West, Pleasant View, Washington Terrace, South Weber and Weber and Ogden School Districts. The second workshop included private and public sector representatives from Utah Military Academy, Ogden Weber Community Action Partners, Ogden Preparatory Academy, Cottages of Hope and Weber State University.

During the workshop, participants provided insight surrounding the following topics:

- Current state of connectivity throughout the county
- Digital access
- Affordability
- Educational needs
- Permitting
- Digital equity
- Unsheltered populations

Members of the public sector session shared challenges surrounding geography, as the county is located closer to the mountains, where it’s harder to get connectivity and infrastructure. Connectivity for students was noted as a priority for both the public and private sector groups, and the private sector entities outlined connectivity options currently provided by schools, libraries and community resource centers.



- **Canvassing:** The team spent three days canvassing various underserved areas of Ogden City in an effort to get more survey responses from residents. The canvassing segments were broken up into the following dates and times.

The first canvassing effort took place on April 29, 2023, at residential homes between 36th and 31st Street and Washington Boulevard and Wall Avenue over six hours. Approximately 150 houses were canvassed, and 20 Ogden City High-Speed Internet Canvassing Surveys were completed.


The second canvassing effort took place on May 1, 2023, at residential homes between 31st and 27th Street and Washington Boulevard and Wall Avenue for three hours. Approximately 75 homes were canvassed, and nine Ogden City High-Speed Internet Canvassing Surveys were completed. A Spanish interpreter accompanied the team as well. The interpreter was able to get several Spanish speaking residents to take the survey.

The third canvassing effort took place on May 23, 2023, at residential homes between I-15 and A Avenue and between 18th and 9th Streets and also Washington Boulevard and Wall Avenue for three hours. Approximately 75 homes were canvassed, and 10 surveys were completed. A Spanish interpreter was there for this effort as well. The interpreter was able to get several Spanish speaking residents to take the Ogden City High-Speed Internet Canvassing Survey.

The total number of surveys received from the canvassing efforts was 39. See Appendix F for maps of the canvassed areas.

There were several takeaways from these canvassing efforts from residents: many residents showed excitement that Ogden City is doing these canvassing efforts to gather feedback, residents wanted to show the City that they didn't have high speed internet, and they were eager to take the Utah Internet Speed Test and Ogden City High-Speed Internet Canvassing Survey.

- **Tabling Events:** Two tabling events were conducted. The first tabling event was held inside the Main Library in Ogden City (2464 Jefferson Avenue, Ogden, Utah 84401). This location was chosen because it is a common location where residents go to access devices outside of home, and to get more participation from residents who might not have access to the internet at home. The tabling event took place on Friday, May 5, 2023, from 2-6 p.m.
 - Staffing
 - Makenna Riding (Horrocks Public Involvement)
 - Alyssa Apaza (Horrocks Public Involvement)
 - Cathy Fuentes (Ogden City)
 - Materials Distributed
 - Approximately 50-70 English and Spanish flyers were distributed to stakeholders.

- 
- Other flyers were available for stakeholders to take as well that covered topics such as the Utah Internet Speed Test and Affordable Connectivity Program (ACP) information.

Residents showed excitement that Ogden City is working to improve internet services. Some wanted to show Ogden City that they did not have high-speed internet, and many were very eager to take the speed test and internet survey. The residents were also appreciative of the giveaways sponsored by Ogden City.

The second tabling event was held outside of the local Ogden City grocery store, Rancho Market (905 26th Street, Ogden, UT 84401). This location was chosen to reach members of the Spanish-speaking community. The tabling event took place on Saturday, May 6, 2023, from 10 a.m. – 2 p.m.

- Staffing
 - Makenna Riding (Horrocks Public Involvement)
 - Alyssa Apaza (Horrocks Public Involvement)
 - Cathy Fuentes (Ogden City)
- Materials Distributed
 - Approximately 200+ English/Spanish flyers were distributed to stakeholders.
 - Other flyers were available for stakeholders to take as well that covered topics like the Utah Internet Speed Test and ACP information.

Rancho Market was a fast-paced environment. Many residents showed excitement that Ogden City is planning for improved internet service and were eager to participate in the Internet Speed Test and survey. During this tabling event there was a poster board displayed with Ogden-City specific statistics to catch residents' attention. On the display table there were connectivity flyers with English on one side and Spanish on the other for easy distribution to both English- and Spanish- speaking residents, detailing how to take the Ogden High-Speed Internet Survey, the Utah Internet Speed Test, and sign up for the ACP. Many Spanish speakers initially didn't show interest in this tabling event until the project team showed them efforts were being made to gather data in their preferred language. They then showed excitement to complete the internet survey in-person and take the internet speed test at home. The Spanish speaking community especially showed gratitude that this effort was taking place.

- **Meeting With ISPs:** Meetings were scheduled and conducted with ISPs in order to discuss their expansion plans and assess their readiness to participate in the Local Broadband Plan. Focus areas included broadband service requirements and ISPs' capacity to deliver reliable broadband connectivity. The approach involved comprehensive measures such as analyzing data from the FCC and the Utah Broadband Maps, as well as conducting surveys and meetings with local officials. ISPs' active involvement in the ACP was confirmed, verifying their commitment to expanding broadband access in unserved and underserved regions. The unique geography and characteristics of Ogden City were considered when evaluating infrastructure needs and



associated costs to establish realistic project timelines and budgets. In addition to providing valuable insights into ISP capabilities and commitment to expanding broadband access, meeting with the respective ISPs provided crucial information that will help formulate effective plans to deliver internet connectivity to unserved and underserved communities. Meeting notes are contained within the appendix.

- **Existing Assets Assessment:** Using data collected from state GIS mapping efforts, the FCC, the Utah Residential Broadband Map⁶, surveys, meetings with stakeholders, and internet speed tests, the technical team created an asset inventory of all existing broadband assets within Ogden City. The integration of GIS data into the assessment provided valuable insights into the existing broadband landscape, aiding in the development of targeted strategies for enhancing connectivity.
- **Disparity Analysis:** Analysis was conducted to identify and map areas within Ogden that are unserved and underserved. To further understand potential disparities in broadband access, socioeconomic and demographic variables were considered that could contribute to inequalities in broadband access between members of one group versus another. Examples of groups considered include Age 60+, Disabled Individuals, Veterans, Incarcerated Individuals, Non-White, and Rural Areas. This data was gathered from both public outreach efforts and the U.S. Census and analyzed. GIS mapping technology allows visualization of those areas that may require targeted intervention for digital inclusion efforts.
- **Research:** The team collected research from various sources and agencies regarding broadband infrastructure and deployment best practices, federal funding opportunity qualifications, all resources produced by the NTIA, and broadband outreach best practices.

Additional research was conducted by utilizing the latest U.S. Census data to provide insights into an area's population and household data, geographic distribution, demographic information, socioeconomic information, internet adoption and usage, and commuting patterns. These factors contribute to the formation of a comprehensive plan that is based upon data.

- **GIS Mapping:** To visualize and analyze broadband coverage, gaps, and infrastructure locations in Ogden City, GIS mapping technology was utilized. This mapping approach provided valuable insights into the current state of broadband connectivity, identifying areas of need and assisting in the planning of future expansion.

3.2 EXISTING RESOURCES

Existing programs include all the programs and activities that Ogden City currently performs. Ogden City collaborated with the project team to produce this Local Broadband Plan and a

⁶ UGRC. Utah Residential Broadband Map. <https://broadband.ugrc.utah.gov/>



separate Ogden City Digital Access Plan, which will work together to inform the Utah Digital Connectivity Plan. This plan will be submitted to the NTIA before federal funds are released to Utah. Once federal funds are awarded, the state will allocate those funds based on a competitive grant process prioritizing areas with the most need.

Funding for the two Ogden City broadband plans were provided by the UBC, powered by the Governor’s Office of Economic Opportunity, through two separate planning grants: The Local Digital Access Planning Grant and the Local Broadband Planning Grant. [A total of \\$942,738 grant funds were awarded to 28 organizations](#)⁷ across the state to build comprehensive plans relating to local broadband and digital access needs. Ogden City was awarded \$30,000 for broadband infrastructure planning and \$30,000 for digital access planning. Table 2 through Table 4 includes details about broadband-related resources, contractor support, and funding.

Table 2. Current Broadband-Related Resources

ACTIVITY NAME	DESCRIPTION	INTENDED OUTCOME(S)
Ogden City Local Broadband Plan	This plan includes best practices, references and suggestions that will inform the state’s Five-Year connectivity plan and Ogden City’s broadband expansion efforts.	Promote social and economic growth throughout Ogden City by investing in broadband infrastructure that is accessible, modern, and scalable and provides communities with equitable opportunities to participate in the current digital economy.
Ogden City Digital Access Plan	This plan includes best practices, references, and suggestions that will inform the state’s digital access plan and meet the digital access needs of every Ogden resident.	Give every resident in Ogden City equal opportunities to the resources, tools, and education in order to succeed in the digital world.

Table 3. Current and Planned Contractor Support

CURRENT/ PLANNED	COMPANY	POSITION	DESCRIPTION OF ROLE
Current	Horrocks	Technical Analysis Team	Write Ogden City Local Broadband Plan
Current	Horrocks	Public Involvement Team	Coordinate public outreach & write Ogden City Digital Access Plan

⁷ Governor’s Office of Economic Opportunity. 2023. Utah Broadband Center Announces 2023 Planning Grant Recipients. <https://business.utah.gov/broadband/utah-broadband-center-announces-2023-planning-grant-recipients>



Table 4. Broadband Funding

SOURCE	PURPOSE	TOTAL	EXPENDED	AVAILABLE
Utah Broadband Center	Broadband infrastructure planning for Ogden City	\$30,000	\$7,095.00	\$22,905.00
Utah Broadband Center	Digital access planning for Ogden City	\$30,000	\$6,957.50	\$23,242.50

3.3 PARTNERSHIPS

This section identifies existing and potential partners and community anchor institutions that the Digital Solutions Partnership may engage for the development and implementation of the Ogden Local Broadband Plan. Such partners include organizations that are already engaged in issues related to broadband deployment and digital inclusion, such as local governments, college and university systems, school systems, faith-based organizations, foundations, chambers of commerce, and local internet service providers.

Table 5. Local Community Partners Role in Broadband Expansion

COMMUNITY PARTNER/ ANCHOR INSTITUTION	DESCRIPTION OF CURRENT OR PLANNED ROLE IN BROADBAND DEPLOYMENT AND ADOPTION
Business Centers	By leveraging resources, expertise, and influence, business centers can actively support Ogden City’s broadband planning efforts.
Educational Institutions	By implementing networks and compiling resources that allow all students access to quality, affordable broadband.
Government Organizations	By creating city/county broadband policies, providing and coordinating funding opportunities for broadband expansion efforts, and coordinating efforts for all broadband-expansion involved organizations.
Libraries	By providing broadband resources and being digital navigators for the community.
Non-Profits	By advocating, spreading awareness, and facilitating resources for broadband expansion and affordability to the communities they serve.

- Government Organizations
 - Ogden Golden Hours Senior Center
 - Ogden Veteran Affairs
 - Wasatch Front Regional Council
 - Weber County
- Educational Institutions
 - Ogden School District
 - Ogden-Weber Technical College
 - USU Weber Extension



- Weber School Foundation
 - Weber State University
- Business Centers
 - Family Business Center
 - Ogden Business Information Center
 - Ogden Downtown Alliance
 - Suazo Business Center - Ogden
 - Weber State University Small Business Development Center
- Libraries
 - Main Branch – Weber County Libraries
 - North Branch – Weber County Libraries
 - Stewart Library – Weber State University
- Non-Profits
 - American Red Cross of Northern Utah
 - Boys & Girls Club of Weber Davis
 - Catholic Community Services
 - Christmas Box House
 - Community Options
 - Cottages of Hope
 - Enable Utah
 - Family Promise of Ogden
 - GOAL Foundation
 - Habitat for Humanity
 - Interfaith Council
 - Lantern House
 - Latinos United Promoting Education and Civic Engagement
 - My Hometown Ogden
 - NAACP Ogden Branch
 - Ogden CED Citizen Advisory Committee
 - Ogden Community Action Network (Ogden CAN)
 - Ogden Diversity Commission
 - Ogden-Weber Chamber of Commerce
 - Ogden-Weber Community Action
 - Roads to Independence
 - Rotary Club of Ogden
 - The Junior League of Ogden
 - The Major Brent Taylor Foundation
 - The Salvation Army
 - United Way of Northern Utah
 - Utah Hispanic Chamber of Commerce



- Utah Schools for the Deaf and Blind
- Utah Support Advocates for Recovery
- Visit Ogden
- Weber Human Services
- Weber/Morgan Children’s Justice Center
- YMCA Northern Utah
- Your Community Connection Family Crisis Center
- Youth Impact

Table 6. Statewide Partners

NAME	CONTACT INFORMATION	ROLE IN BROADBAND DEPLOYMENT AND ADOPTION
Rebecca Dilg	rdilg@utah.gov (801) 538-8681	Utah Broadband Center Director <i>Governor’s Office of Economic Opportunity</i>
Claire Warnick	cwarnick@utah.gov (801) 450-6682	Utah Broadband Center Program Manager <i>Governor’s Office of Economic Opportunity</i>
Teri Mumm	tmumm@utah.gov	Utah Broadband Center Digital Access Program Manager <i>Governor’s Office of Economic Opportunity</i>
Lynne Yocom	yocom@utah.gov (801) 514-4565	Fiber Optics Manager <i>Utah Department of Transportation</i>
Vikram Ravi	vravi@ntia.gov	Federal Program Officer for Utah <i>National Telecommunications and Information Administration</i>

3.4 ASSET INVENTORY

Broadband assets include hard assets (e.g., towers, buildings, and utility poles) and soft assets (e.g., programs, activities, strategies, skills, and people) that can be leveraged to close the digital divide. Hard assets in Ogden City are described in section 3.4.1. Ogden City’s soft assets are described in sections 3.4.2 and 3.4.3.

3.4.1 Broadband Availability

Broadband availability relates to whether the physical broadband infrastructure is available in a region to support specific speeds. To deliver broadband speeds of at least 100/20 Mbps broadband speeds to the end-user, a robust network must be in place.



General Service Areas

Figure 3 and Figure 4 depict the wireline and fixed wireless broadband currently available in Ogden City, UT. ISPs are required to submit their corresponding service areas twice a year through FCC Form 477. ISPs are now required to submit service areas through the FCC webpage⁸. The accuracy of the service locations can be influenced by the optimism and interests of ISPs. These maps, part of the Utah Residential Broadband Map⁹, provide specific upload and download speed information as well as fixed and mobile wireless data. Figure 3 shows services areas considered “served” which have at least 100/20 Mbps speeds. Figure 4 shows service areas considered “underserved” which have at least 25/3 Mbps but less than 100/20 Mbps service. “Underserved” (areas with speeds below 100/20 Mbps) and “unserved” (areas with speeds below 25/3 Mbps) will be further discussed in the needs and gaps analysis in Section 3.5.

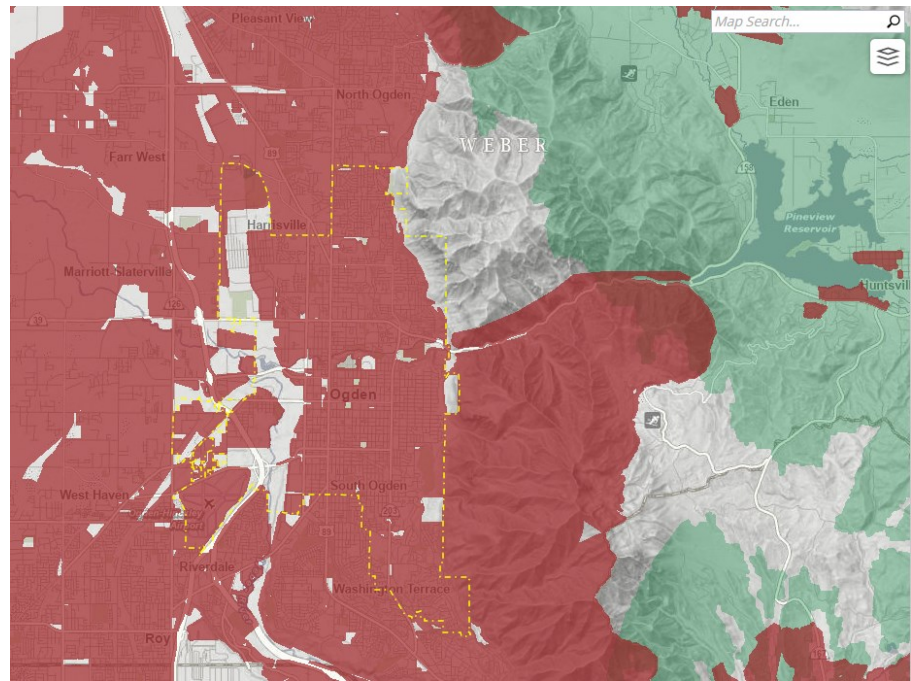


Figure 3. Broadband Coverage Area in Ogden City with 100/20 Mbps Minimum Speeds (Red Areas are Wired Service, Green Areas are Fixed Wireless Service)

⁸ Federal Communications Commission. December 2022. Information for Filers. <https://www.fcc.gov/BroadbandData/filers>

⁹ UGRC. Utah Residential Broadband Map. <https://broadband.ugrc.utah.gov/>

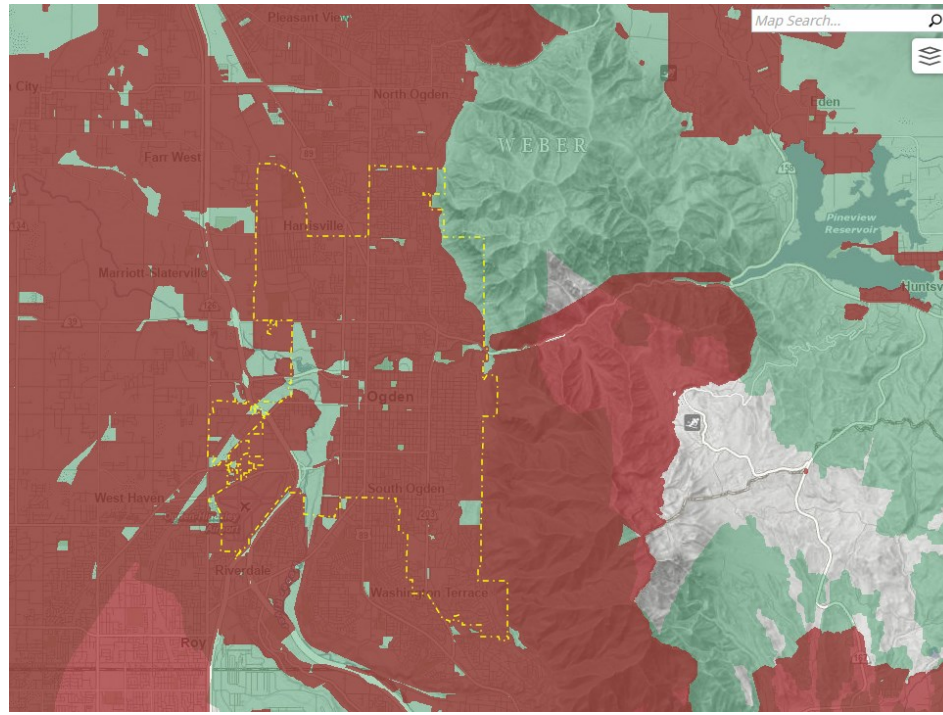


Figure 4. Broadband Coverage Area in Ogden City with 25/3 Mbps Minimum Speeds (Red Areas are Wired Service, Green Areas are Fixed Wireless Service)



Table 7 summarizes the availability of different internet technologies for the population of Ogden City, including fiber, cable/DSL, licensed wireless, and unlicensed wireless for all available speeds. These numbers were obtained from GIS data as reported from FCC Form 477¹⁰.

Table 7. Technology Available to Region’s Population

CITY	PERCENT OF HOUSEHOLDS			
	FIBER OPTIC	CABLE/DSL	UNLICENSED WIRELESS	LICENSED WIRELESS
Ogden	38.9%	99.4%	100.0%	0%

Internet Service Providers (ISPs)

Private ISP companies provide internet service to residents and businesses and typically own the networks that distribute the broadband to their customers. Twice a year, ISPs report their service areas through FCC Form 477. In Utah, these coverage areas are mapped onto Utah Residential Broadband Map¹¹, a state GIS map from the Governor’s Office of Economic Opportunity. In Ogden City, a range of ISPs cater to the diverse needs of residents and businesses.

ISPs currently serving Ogden City are:

- Century Link
- Comcast
- Connex

Figure 5, Figure 6, and Figure 7 show the current coverage areas of each of the available ISPs in Ogden City. Areas in red are wired service while areas in green are fixed wireless service. These coverage areas show any coverage available by the ISP, regardless of whether it is a high or low speed.

¹⁰ Federal Communications Commission. Fixed Broadband Deployment Data from FCC Form 477. <https://www.fcc.gov/general/broadband-deployment-data-fcc-form-477>

¹¹ UGRC. Utah Residential Broadband Map. <https://broadband.ugrc.utah.gov/>

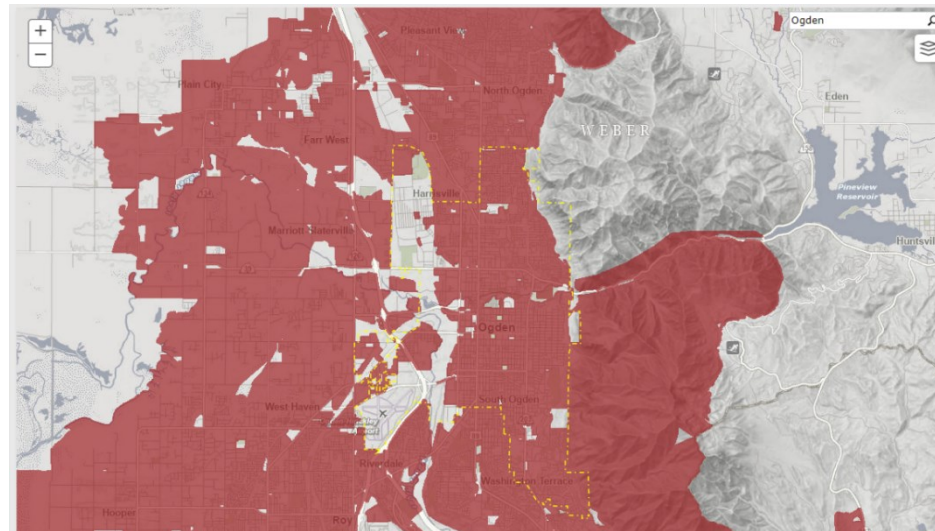


Figure 5. Century Link Coverage Area in Ogden City with Any Speed (Red Areas are Wired Service, Green Areas are Fixed Wireless Service)

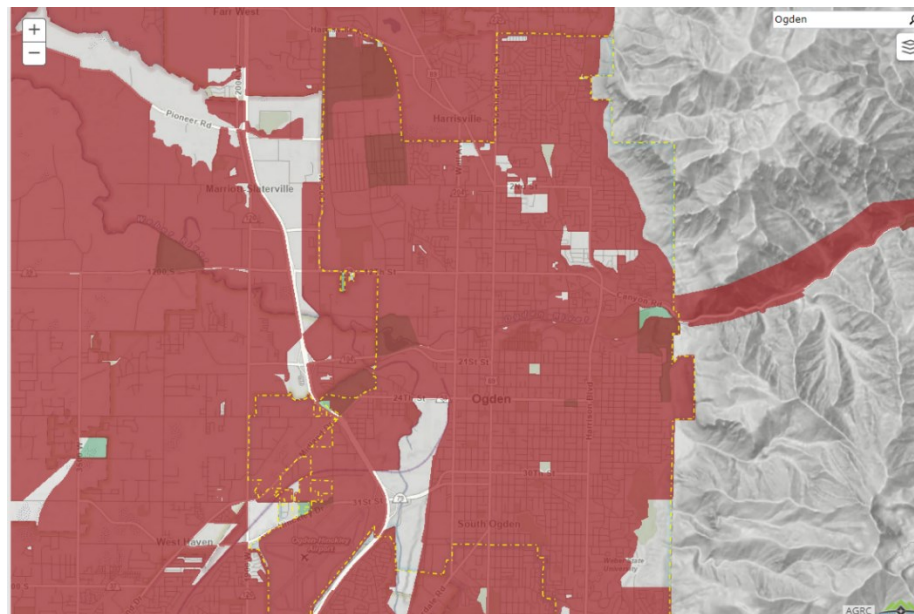


Figure 6. Comcast Coverage Area in Ogden City with Any Speed (Red Areas are Wired Service, Green Areas are Fixed Wireless Service)

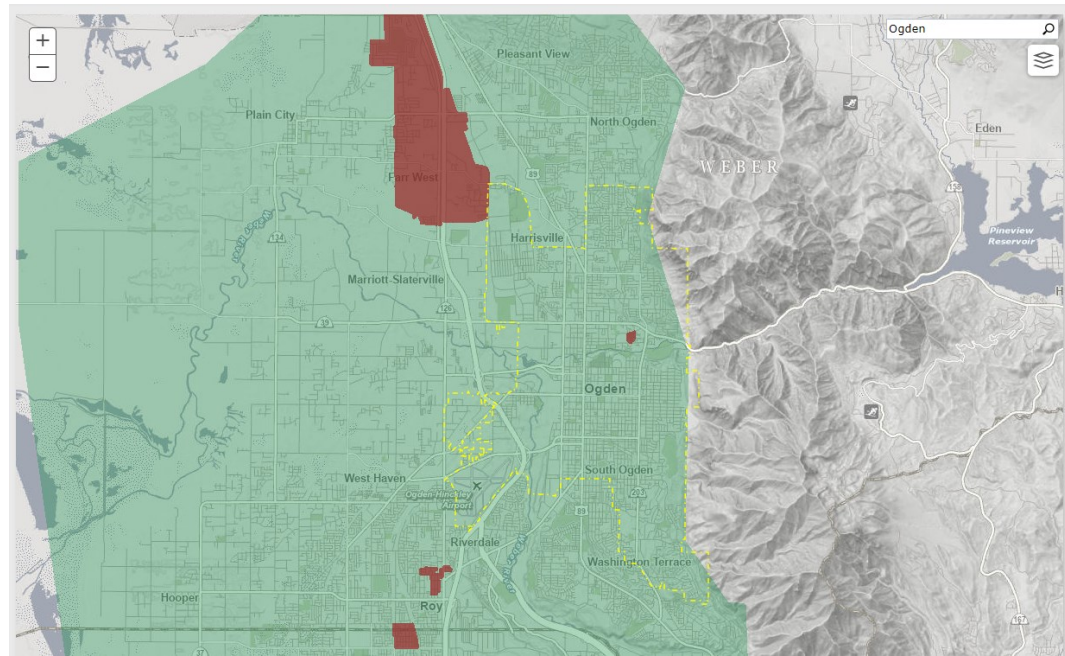


Figure 7. Connex Coverage Area in Ogden City with Any Speed (Red Areas are Wired Service, Green Areas are Fixed Wireless Service)

Wireless Towers

Point-to-point wireless towers, also known as microwave towers or wireless backhaul towers, are structures used in telecommunications to establish wireless communication links between two specific points. These towers facilitate the transmission of data, voice, or other forms of communication over long distances without the need for physical cables or fiber optic lines.

The primary purpose of point-to-point wireless towers is to establish a direct and dedicated connection between two locations. These towers are typically equipped with directional antennas, which transmit and receive signals in a focused beam, allowing for high-speed and reliable data transmission. Figure 8 shows wireless tower locations within Ogden City.

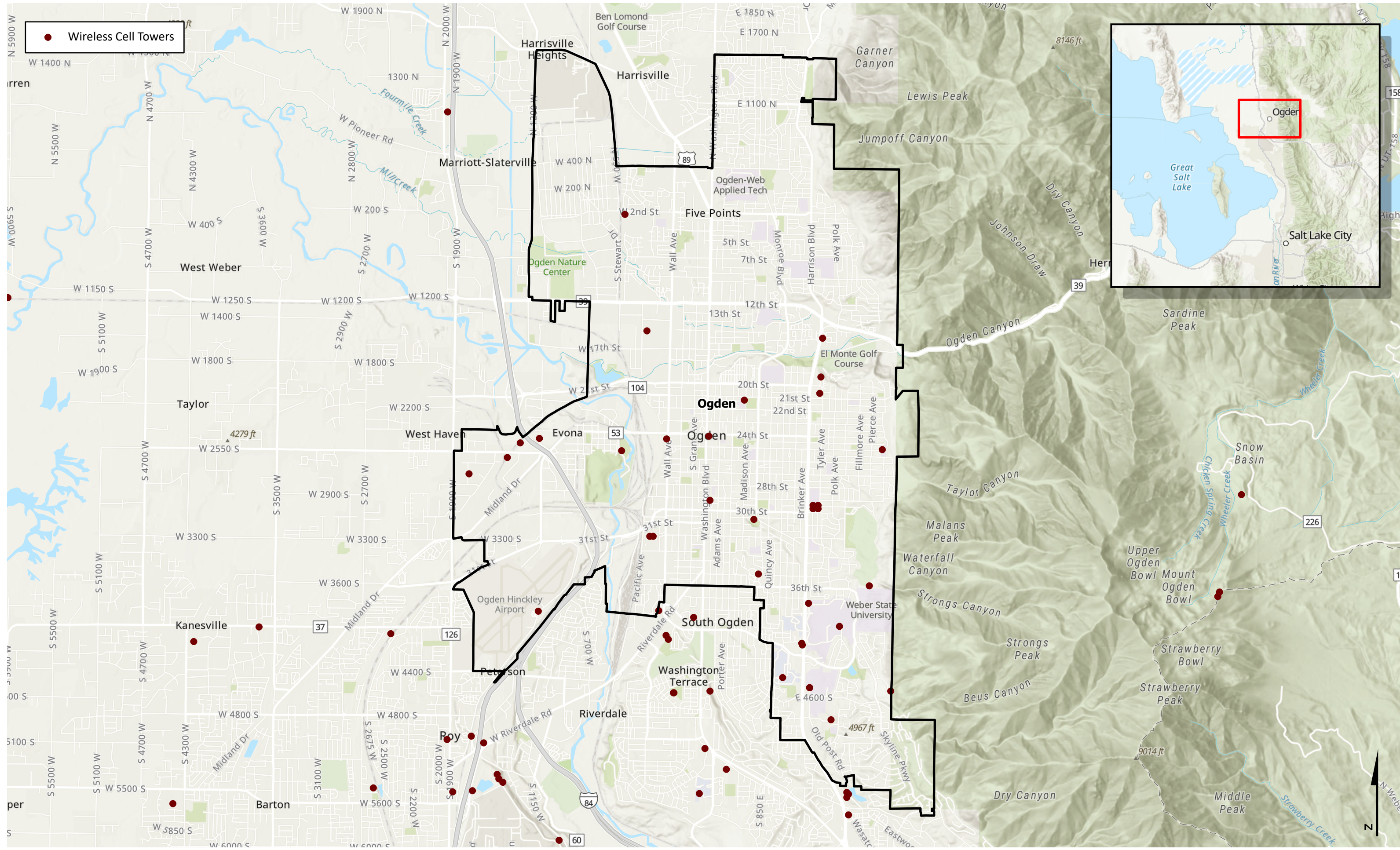


Figure 8: Wireless Cell Towers in Ogden City



Utah Department of Transportation (UDOT)

UDOT has been actively deploying fiber optic infrastructure along the state highway system for many years. This infrastructure includes conduit, fiber optic cabling, access points, distribution hubs, and communications equipment. This infrastructure is a publicly owned asset that UDOT uses to monitor traffic and other transportation-related activities and facilitate broadband deployment across state highways. When UDOT builds or expands a roadway, their practice is to install fiber optic conduits as an incremental cost to the project. UDOT exchanges sections of their empty conduit to private ISPs to allow them to install their own cabling. In exchange, private ISPs provide their own empty conduit for UDOT to use in different locations. Often, an ISP that provides shared communications infrastructure, such as Crown Castle or Syringa, will own and manage the fiber in the conduit leased from UDOT. This network creates the primary Middle Mile fiber network throughout the region. The ISPs that provide Final Mile internet service to the end user can often start their build out from the nearest state road.

One of the advantages of using the UDOT fiber network for broadband is that it can reduce the cost and complexity of deploying new infrastructure. Rather than building new fiber optic cables, ISPs can lease or use existing UDOT fiber to provide broadband services to customers. This can make it more feasible for ISPs to offer high-speed internet service in rural areas where the population density may be lower and the cost of deploying new infrastructure is higher.

Figure 9 shows UDOT fiber network infrastructure in the region of Ogden City, along with FCC unserved and underserved locations. The significance of these unserved locations will be discussed in section 3.4.1 Broadband Availability.

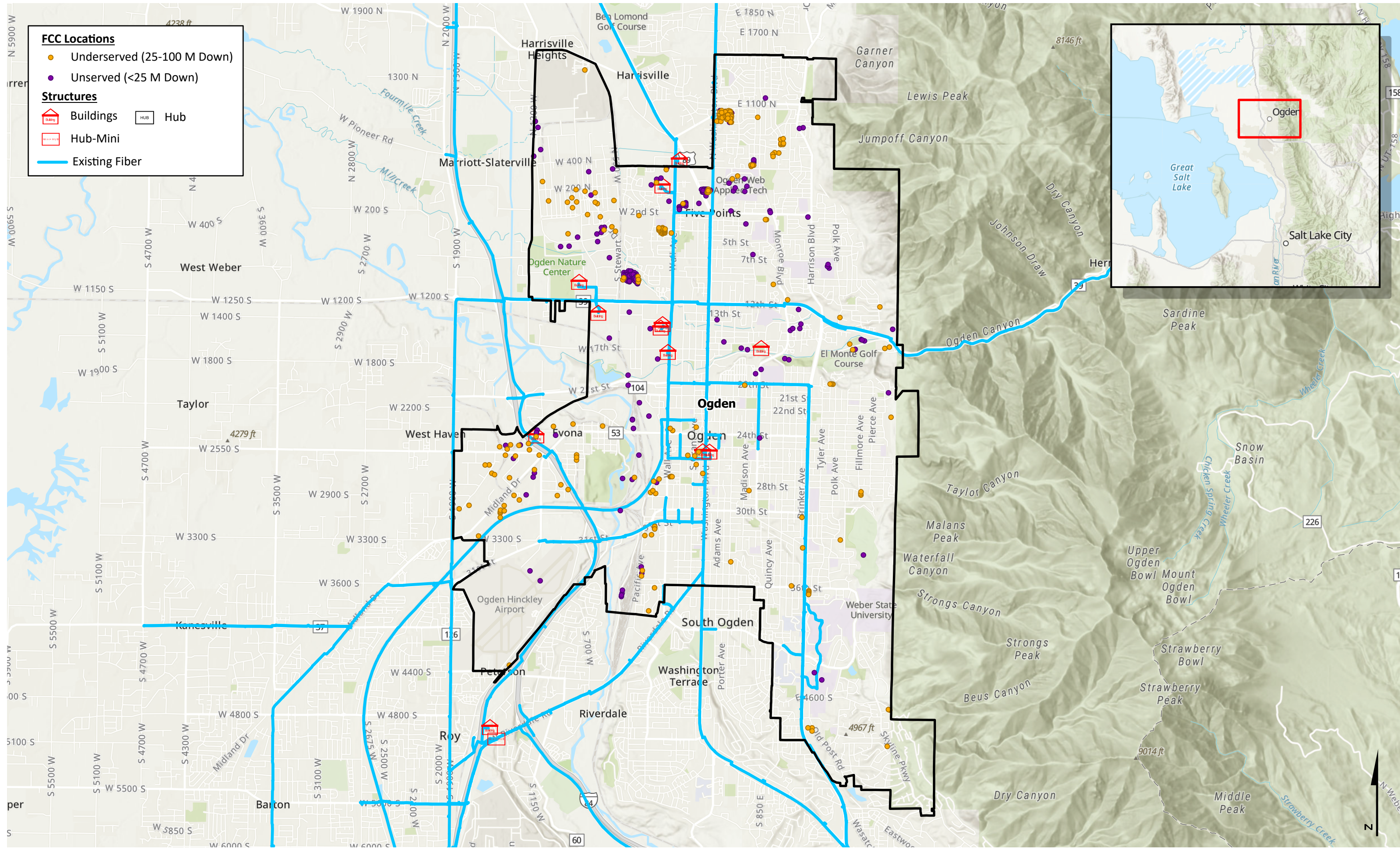


Figure 9: UDOT Fiber Network in Ogden City



Municipal Fiber Network

Ogden City is connected on a fiber network to connect city buildings and support Smart City Initiatives. Connex connects to some city infrastructure. It is important for water wells to have internet accessibility so they can report the Supervisory Control and Data Acquisition (SCADA) information to Ogden City. Connex, Allwest, Syringa, Comcast, and Lumen currently have franchise agreements allowing them to build new infrastructure in Ogden City. This network forms the foundation for high-speed internet connectivity throughout the City, connecting various key locations and facilities. The Municipal Fiber Network of Ogden ensures efficient communication, enhances service delivery, and supports the community's digital needs.

Community resources in Ogden City include city hall, county office, various courthouses, foodbanks, human services, social security, vehicles, workforce services, community centers, places of worship, schools, state library, and healthcare facilities. These are displayed in Figure 10.

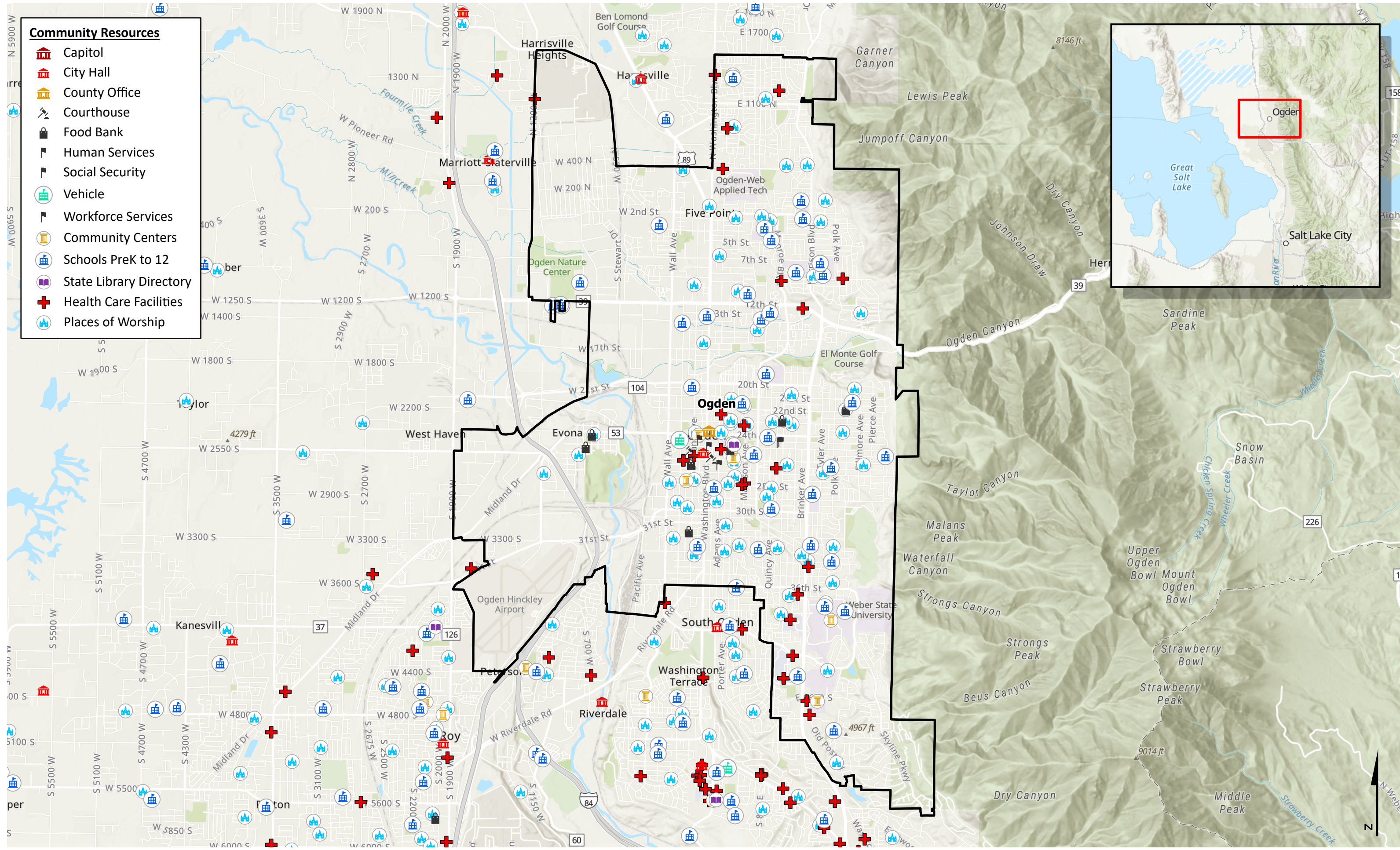


Figure 10: Community Resources in Ogden City



3.4.2 Digital Access

Digital access refers to the ability of individuals to use and benefit from digital technologies, including high-speed internet. In addition to the availability of broadband infrastructure, digital access also depends on factors such as knowledge, skills, and personal hardware. As digital technologies continue to play an increasingly important role in our daily lives, the need for access to high-speed internet becomes more pressing. Digital access is an important aspect of this issue, as it relates to distribution of digital resources and opportunities, particularly for covered populations (unserved, underserved, and underrepresented communities). For Ogden City, ensuring digital access for all residents is a critical part of building a thriving and inclusive community. For more information on Ogden City’s digital access plans please refer to the Ogden City Digital Access Plan.

Community Programs

Refer to Table 6 above in Section 3.3 for information on local community partners and community anchor institutions and programs. For more information on the Ogden City Community Partner Workshop refer to section 3.1.

Public Wi-Fi Networks

Utah Communities Connect (UCC) developed an interactive map detailing public Wi-Fi locations in Utah as a response to the access needs brought on by the COVID-19 pandemic. This map documents Wi-Fi access points throughout Utah. For Ogden City, this map identifies two libraries that currently serve as public Wi-Fi hotspots locations (see Figure 11).¹² Additional Wi-Fi networks are available at a variety of businesses for their patrons.

¹² Utah Communities Connect. May 2023. Public Wi-Fi Access Points.
<https://utah.maps.arcgis.com/apps/webappviewer/index.html?id=e463ba10af034b6e90a8d01b5c13ec55>

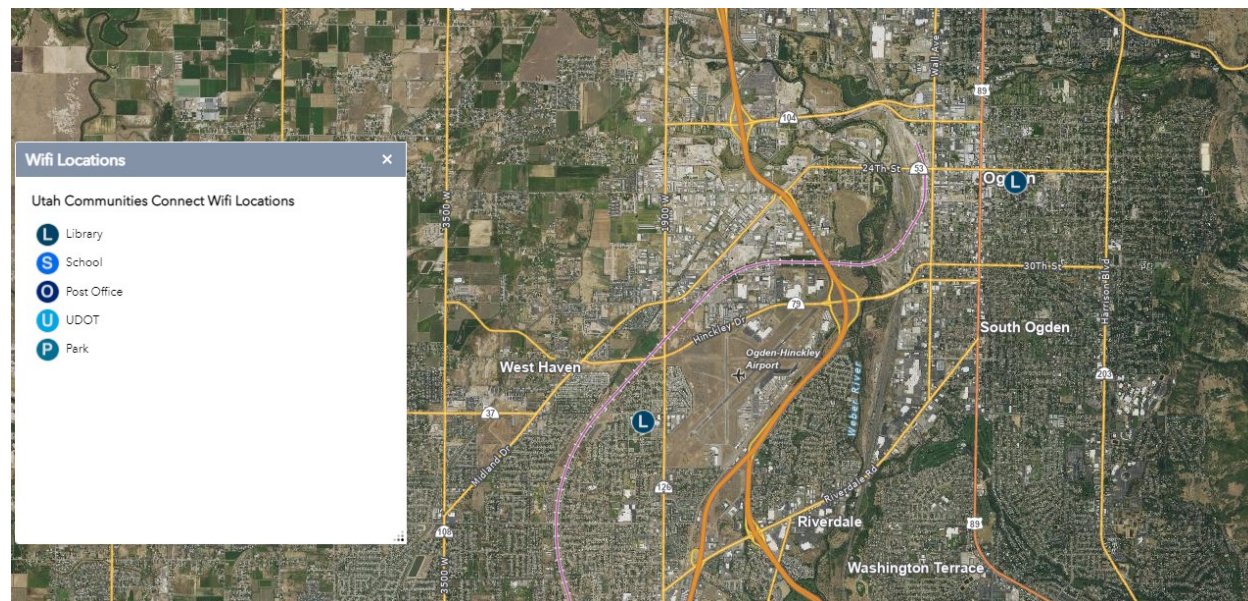


Figure 11. City of Ogden Communities Connect Wi-Fi Locations

Additionally, most state-owned buildings have a free, open public Wi-Fi network. This network is provided by Utah Division of Technology Services (DTS) and is an encrypted network that can be accessed by the general public. These buildings include any state administrative or department offices where State of Utah employees are working.

Wi-Fi Hotspot Loan Programs

The State Library Division has a program that provides free wireless hotspot devices to the public. Residents can check out a hotspot device to be able to connect online remotely at zero cost. Weber County libraries have 15 hotspot devices available for checkout¹³.

Library Wi-Fi

The Utah State Library Division oversees and works with all public libraries within the state to ensure Wi-Fi is available to the public. All State, County, and City libraries offer public Wi-Fi connectivity. The speed of each Wi-Fi network depends on the location, but most libraries are connected with fiber optics, meaning the Wi-Fi supports robust connection speeds.

Transit Wi-Fi

The Utah Transit Authority (UTA) is a public transit agency that provides public Wi-Fi connectivity through its buses and trains. This system is open to the public and supports moderate broadband speeds. Some hotspots are located at bus stations and transit centers as

¹³ Weber County Library Board of Trustees Minutes. April 2022.
https://www.weberpl.lib.ut.us/sites/default/files/library_board_minutes_04_05_2022.pdf



well. Many Utahns utilize the Wi-Fi on the transit systems to be more productive during their weekday commute times.

In addition to the UTA, the UEN, state DTS, and local school districts have teamed up to provide Wi-Fi public hotspots on K-12 student school buses. The UBC learned during the workshop discussions that some K-12 students utilize the public Wi-Fi available on the buses to do their homework, instead of doing it at home because their home lacked broadband availability, or their family could not afford the service.

Mobile Wireless Access

Mobile wireless carriers provide strong coverage areas across Ogden City. According to the data provided by the major mobile wireless carriers, there are only a few pockets where mobile wireless service is not available.¹⁴ The areas that are not covered include locations that are extremely remote, or where the terrain is such that the wireless signal is impeded. For those locations that are covered by mobile wireless, the majority of the service that is offered supports the “served” threshold of 100/20 Mbps broadband speeds. See Figure 12 for a mobile wireless coverage map of at least 100/20 Mbps speeds (data provided by the Utah Geospatial Resource Center).

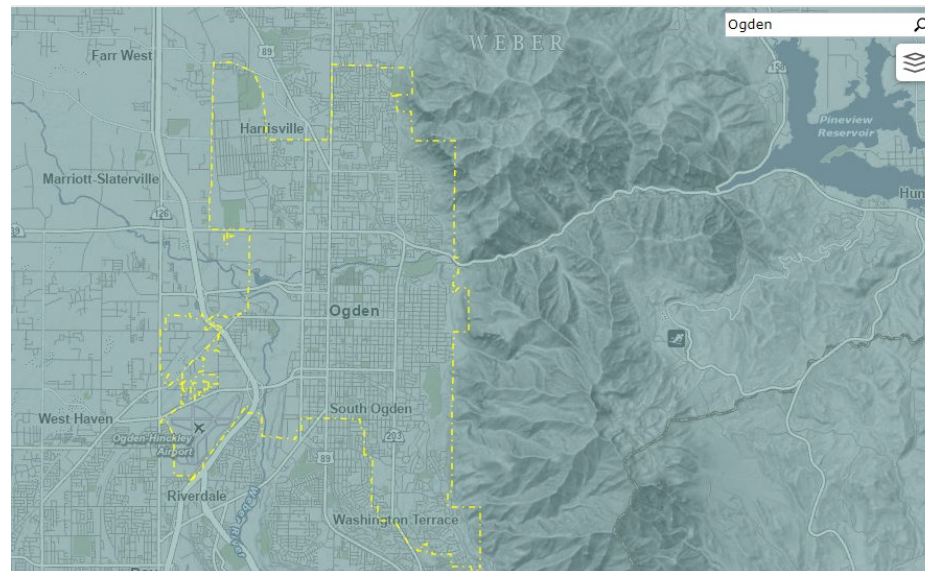


Figure 12. Mobile Wireless Coverage Area in City of Ogden 100/20 Mbps Minimum Speeds

3.4.3 Broadband Affordability

Broadband affordability is critical, as the cost of high-speed internet can be a significant barrier for many households. In Ogden City, the economic affordability of broadband varies depending on a variety of factors, including the availability of affordable plans offered by ISPs and discounted or subsidized broadband programs. While some ISPs offer competitive pricing and

¹⁴ UGRC. Utah Residential Broadband Map. <https://broadband.ugrc.utah.gov/>



bundles that can make high-speed internet more accessible, others may charge higher prices for their services. Understanding the overall affordability of broadband in Ogden City is essential for ensuring that all residents have access to the digital resources and opportunities they need to thrive.

Table 8 outlines the providers available in the area, as well as their respective costs, available speeds, and participation in the ACP. Participation in the ACP program is a requirement for ISPs to be awarded federal BEAD implementation funding.

Table 8. Providers and Prices

PROVIDER	PRICE	DESCRIPTION OF SERVICE TIER, ADVERTISED SPEEDS, AND AFFORDABILITY	PARTICIPATES IN THE AFFORDABLE CONNECTIVITY PROGRAM?
*All West Communications	\$70/mo \$150/mo	1000Mbps/1000Mbps 8000Mbps/8000Mbps	Yes
Century Link	\$25-\$175/mo	10Mbps- 1Gbps	Yes
**Comcast	\$34-\$289/mo	10Mbps- 1Gbps	Yes
Connex	\$35/mo \$50/mo \$65/mo	100Mbps 250Mbps 1Gbps	Yes

**Build-out Estimate: 2024*

***Participates in an "Internet Essentials Program"*

There are various federal and state programs that aim to make broadband more affordable for low-income households, including the ACP, FCC’s Lifeline program, the E-Rate program, and the Utah Universal Service Fund.

Affordable Connectivity Program (ACP)

The most impactful affordability asset currently available to residents of Ogden City is the ACP. This federal benefit provides a service discount of up to \$30 per month on a home internet plan, and households on Tribal lands are eligible for up to \$75 per month to mitigate the higher cost of service in rural and remote areas. Unfortunately, the ACP is underutilized in Utah. Other assets include efforts to increase the awareness and use of ACP, such as grant-funded projects and the state-led Act Now campaign. The Digital Solutions Partnership will work with community partners to improve ACP utilization rates in Ogden City. For more information on Ogden City’s efforts to promote the ACP, refer to the Ogden City Digital Access Plan.

Lifeline

Lifeline is an FCC program that helps make communications services more affordable for low-income consumers. Lifeline provides a discount on qualifying monthly telephone service, broadband internet service, or bundled voice-broadband packages. The Lifeline program offers \$9.25 per month to certain qualifying households and plans, and the State of Utah provides an



additional \$3.25 per month. As of January 2023, The Universal Service Administrative Company provides the following participation metrics for Utah (see Table 9).¹⁵

Table 9. Lifeline Subscriber Data for Weber County and the State of Utah County

LIFELINE SUBSCRIBERS	NUMBER
Subscriber Count in Weber County (January 2023)	2,826
Eligible Households for the State of Utah	219,359
Estimated 2023 Lifeline Participation Rate for the State of Utah	11%

E-Rate

The Schools and Libraries Universal Service Support Program, commonly known as the E-rate program, helps schools and libraries to obtain affordable broadband. The E-rate program is administered by the Universal Service Administrative Company (USAC) under the direction of the FCC. USAC is responsible for processing applications for support, confirming eligibility, and reimbursing service providers and eligible schools and libraries for the discounted services. USAC also ensures that the applicants and service providers comply with the E-rate rules and procedures established by the FCC. Four service categories are eligible for E-rate funding: telecommunications, internet access, internal connections, and basic maintenance of internal connections.¹⁶

The Utah Education Network (UEN) is the E-rate consortium lead in applying for and implementing E-rate funds received in Utah. UEN helps schools and libraries apply for discounts on broadband services through the E-rate program. This program utilizes Utah Universal Service Funds (UUSF), which are collected through fees on consumers’ phone bills.

3.5 NEEDS AND GAPS ASSESSMENT

To ensure that all residents of Ogden City have access to high-quality broadband internet, a needs and gaps assessment is essential. This assessment will identify gaps between the current state of broadband deployment and the needs of residents, businesses, and institutions. Through needs identification, data collection, and analysis, policymakers and community leaders can develop and implement strategies that address these gaps, ensuring that all residents have access to the digital resources necessary for success in today's economy.

To gather more qualitative data from the public about their experience with internet connectivity, an Ogden High-Speed Internet survey was created and distributed to the public. Questions in this survey covered topics such as residents’ current internet connections, device accessibility, affordability options, connectivity for businesses, community internet needs, and voluntary

¹⁵ Universal Service Administrative Co. January 2023. Lifeline Program Data.

<https://www.usac.org/lifeline/resources/program-data/#>

¹⁶ Universal Service Administrative Co. Eligible Services List. <https://www.usac.org/e-rate/applicant-process/before-you-begin/eligible-services-list>



disclosure of demographics. A toll-free hotline number was provided for residents taking the survey who did not have access to the internet. As of May 17, 2023, there were 121 surveys completed for Ogden City’s broadband planning efforts. There were 78 Ogden High-Speed Internet Surveys, 39 Ogden High-Speed Internet Canvassing Surveys, and four statewide surveys completed in Ogden City in conjunction with the statewide UBC surveys. Survey results and charts, related to broadband’s current needs and gaps, are included in the sections following.

3.5.1 Broadband Availability

The ability to interact with friends and family, access educational and health care resources, and fully engage in the digital economy are all made possible by having access to high-speed broadband. However, not every part of Ogden City has access to dependable and reasonably priced broadband connectivity.

The primary metric by which broadband availability is evaluated is what speeds are available to residents and businesses throughout Ogden City. The BEAD program aims to provide service of 100/20 Mbps speeds to every American. Serviceable locations with speeds under 25/3 Mbps are considered unserved locations that are given the top priority for broadband funding. Locations with speeds less than 100/20 Mbps are considered underserved locations and are the secondary consideration for BEAD funding.



FCC Service Locations

The FCC has created a map¹⁷ that shows the service availability at each broadband serviceable location. Residences and businesses that are classified as unserved or underserved will qualify for BEAD funding. The data within the other sections of 3.5.1 generally support the FCC service designations.

Figure 13 displays the residences in Ogden City with classifications of served, underserved, and unserved. The map depicts the overwhelming majority of served locations as compared to unserved and underserved locations.

Figure 14 simply illustrates the underserved and unserved locations throughout Ogden City.

¹⁷ Federal Communications Commission. FCC National Broadband Map.
<https://broadbandmap.fcc.gov/home>

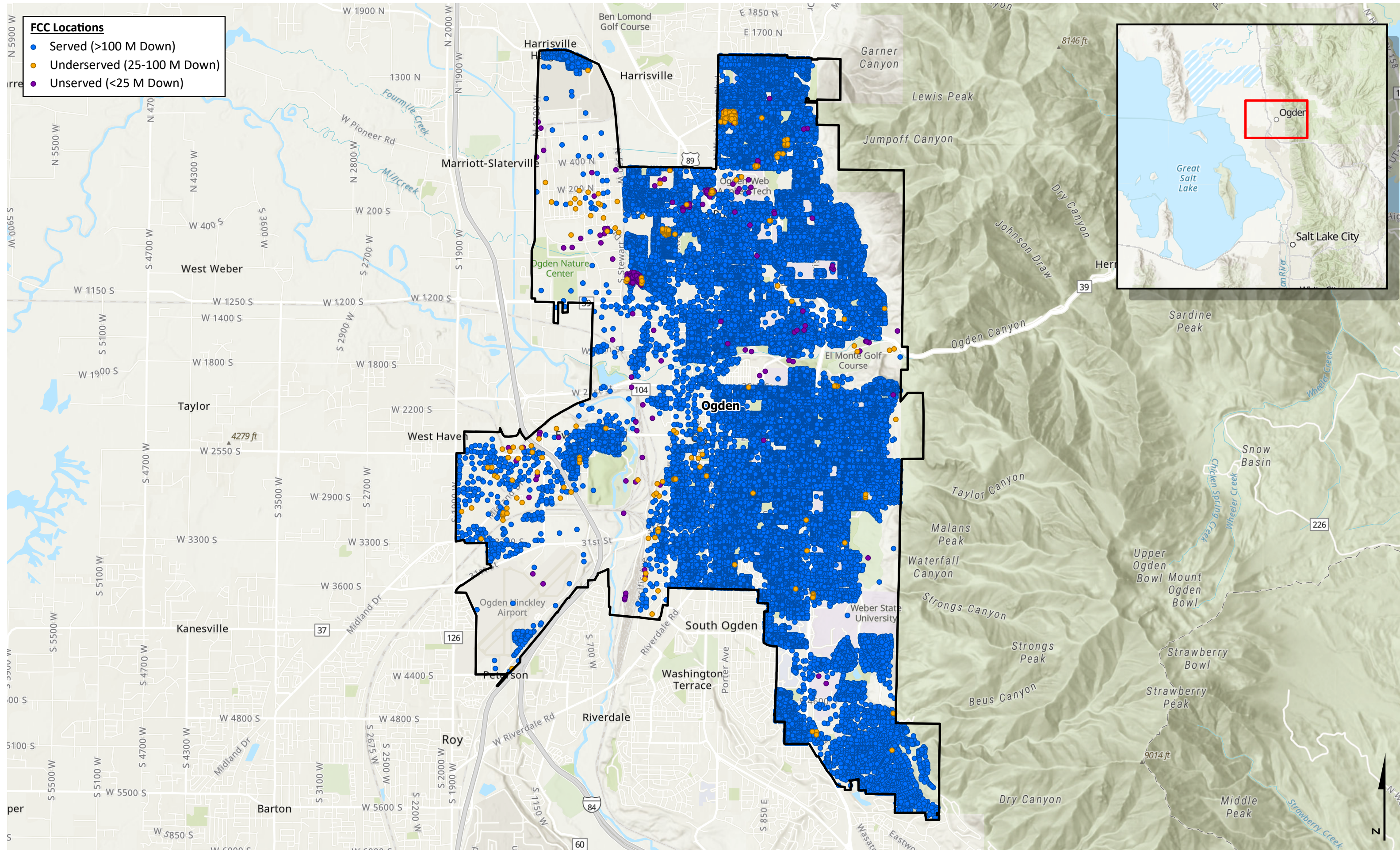


Figure 13: FCC Service Locations in Ogden City

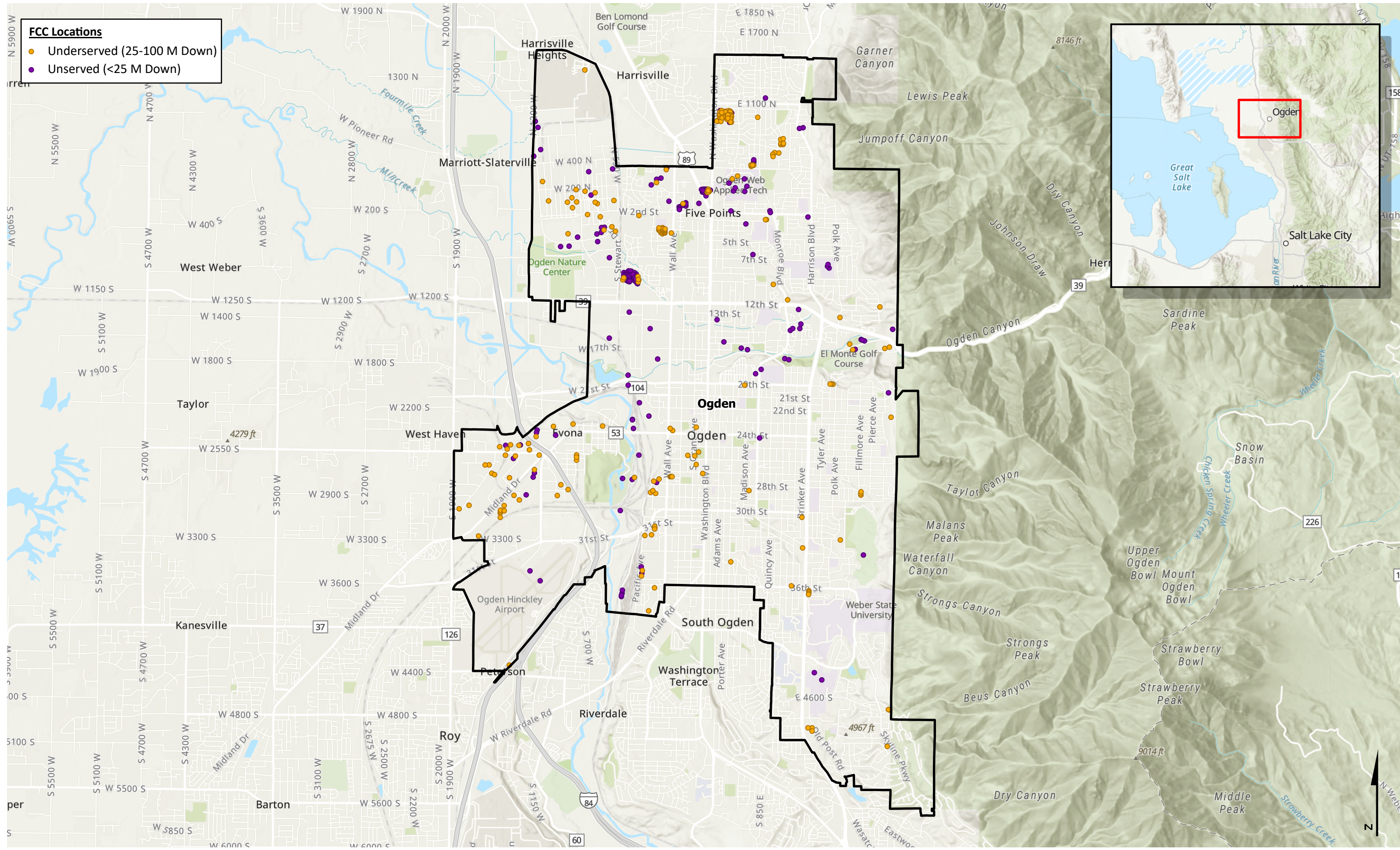


Figure 14: FCC Underserved/Unserved Service Locations in Ogden City



Below, Table 10 shows the number of FCC locations that fall within each speed tier in Ogden City. Margin of error estimates may be a factor of the percents not totaling 100.

Table 10. FFC Locations

CITY	UNSERVED (BELOW 25/3 MBPS)		UNDERSERVED (BELOW 100/20 MBPS)		SERVED (ABOVE 100/20 MBPS)		TOTAL FCC LOCATIONS
	NUMBER OF LOCATIONS	%	NUMBER OF LOCATIONS	%	NUMBER OF LOCATIONS	%	
Ogden City	209	0.82%	218	0.85%	25079	98.33%	25506

Internet Speed Test

In order to correctly gauge the accuracy of FCC broadband data and ISP coverage areas, Ogden City and the State of Utah held a [speed test campaign](#) throughout the region. Residents could test the current speeds that their device was experiencing at the time of the test. Speed tests provide insight of additional unserved and underserved locations, showing gaps and discrepancies beyond the information provided by ISP data and FCC broadband data. These real-time internet download and upload speeds, while beneficial, did not come without limitations. For example, residents may be experiencing lower speeds because they are paying for a slower speed tier, which indicates an affordability issue. In addition, slower speeds may be due to personal hardware that’s been incorrectly installed, which would be a digital access issue. The speed test cannot show if these other factors are happening, so it is best used to assess general trends.

Figure 15 indicates the locations of the speed test results. Examining the locations for the speed test results, it is noticeable that most of the tests performed were located in the eastern region of Ogden City, and showing a majority of download speeds <500 Mbps.

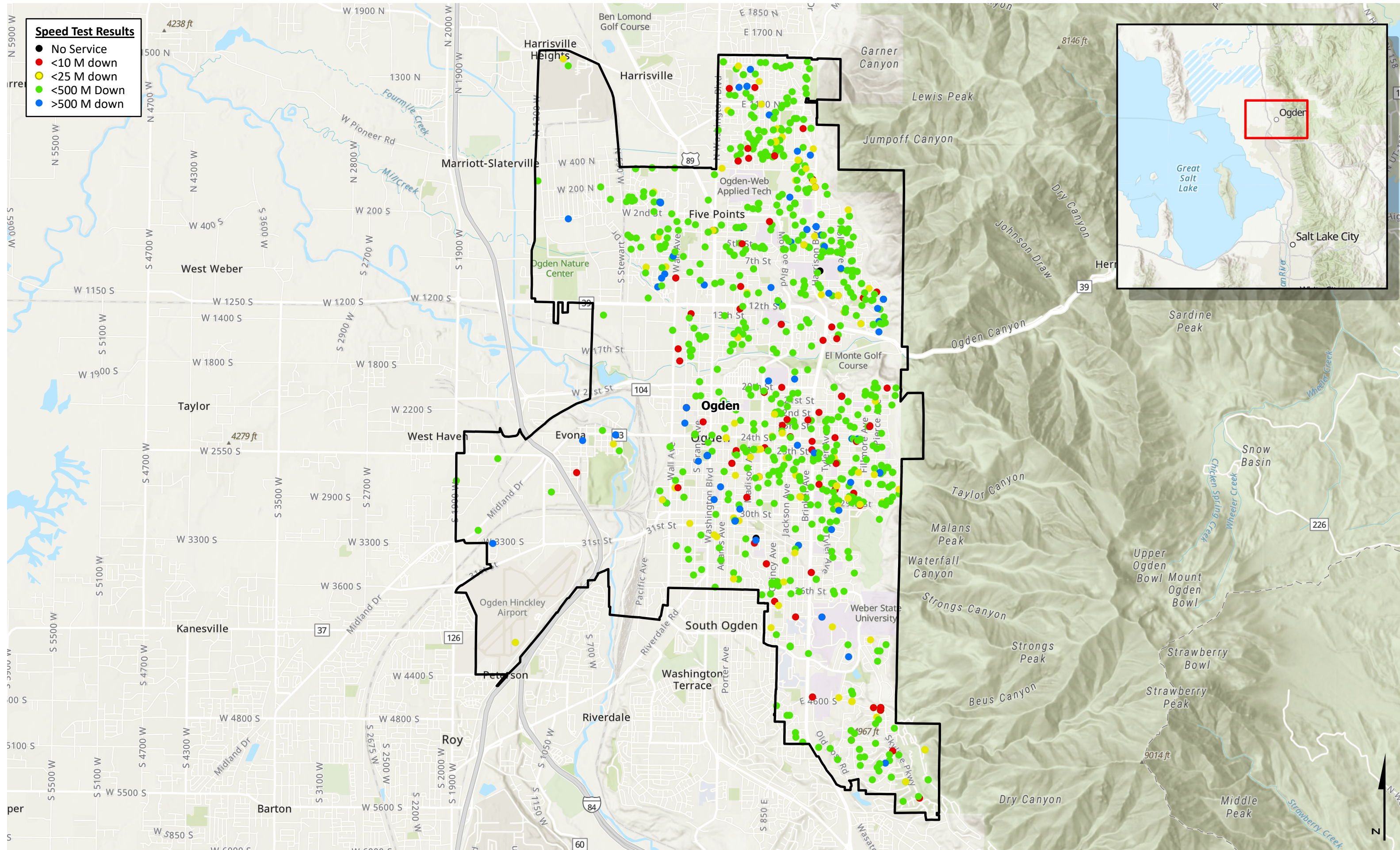


Figure 15: Speed Test Results for Ogden City



Table 11 shows the results of the speed test. Out of the total 780 tests taken in the City, nearly 19.1% (149) of the locations classify as unserved (download speeds below 25 Mbps).

Table 11. Speed Test Results

DOWNLOAD SPEED	NUMBER OF TESTS
No Service	2
Below 10 Mbps	67
Below 25 Mbps	80
Below 500 Mbps	574
Above 500 Mbps	57
Total Locations	780

Figure 16 displays the FCC locations (both underserved and unserved) in addition to the speed test results. It also shows that much of the current population in Ogden City is underserved with respect to broadband connectivity. This limits the community’s ability to participate in digital-age related activities that are made possible by having access to high-speed broadband.

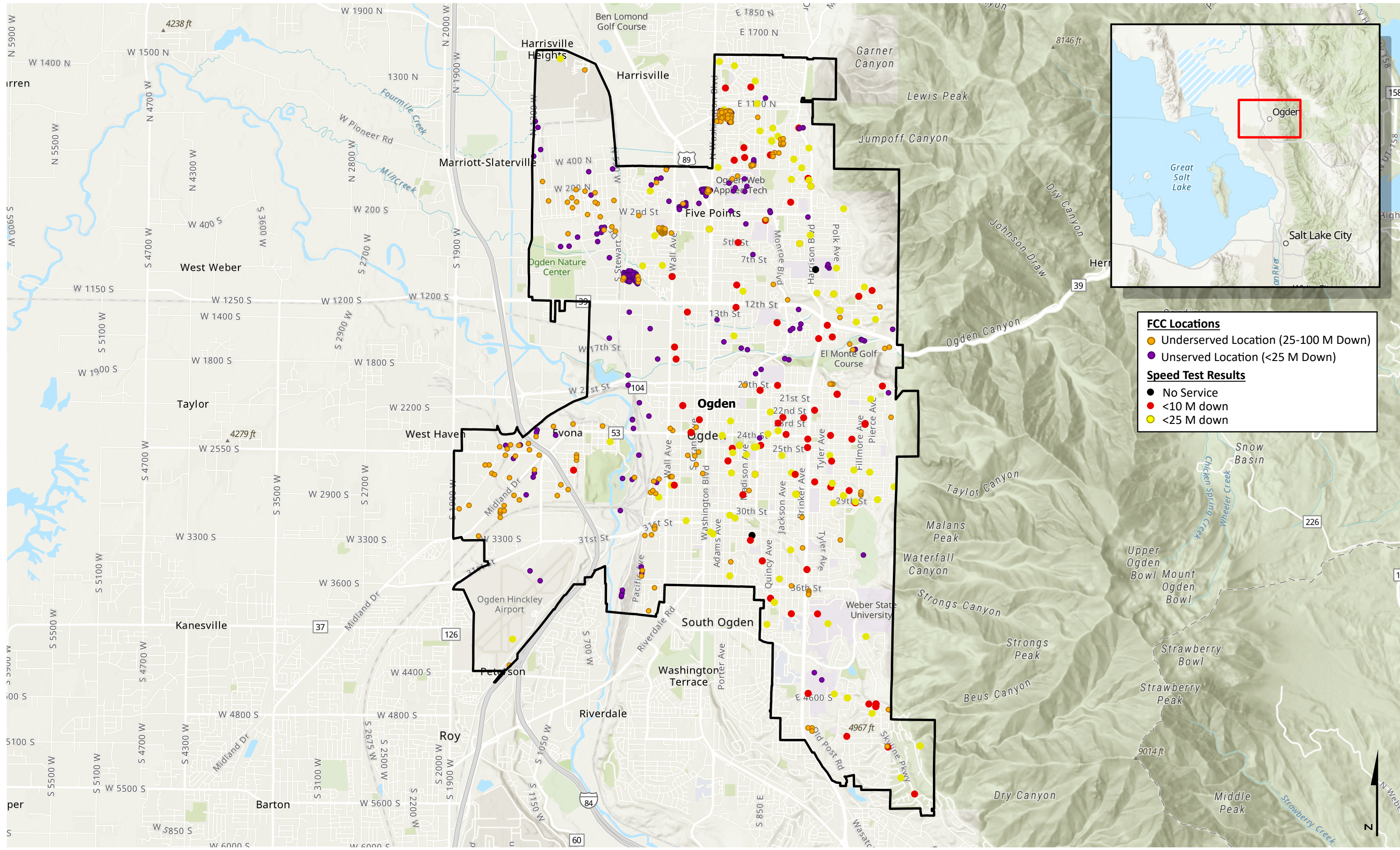


Figure 16: Unserved Speed Test Results and Underserved/Unserved FCC Locations in Ogden City



Projected Growth in Ogden

Over the next 10 years, the population of Ogden City is projected to increase slightly. In some areas, the population is expected to increase by up to 4,203. Figure 17 shows the 10-year growth estimates from the U.S. Census, known as Traffic Analysis Zones (TAZ)¹⁸.

¹⁸ Traffic Analysis Zones. July 2023.
<https://www.arcgis.com/home/item.html?id=81adbf0ae9eb47a89a9e0cf569010e16>

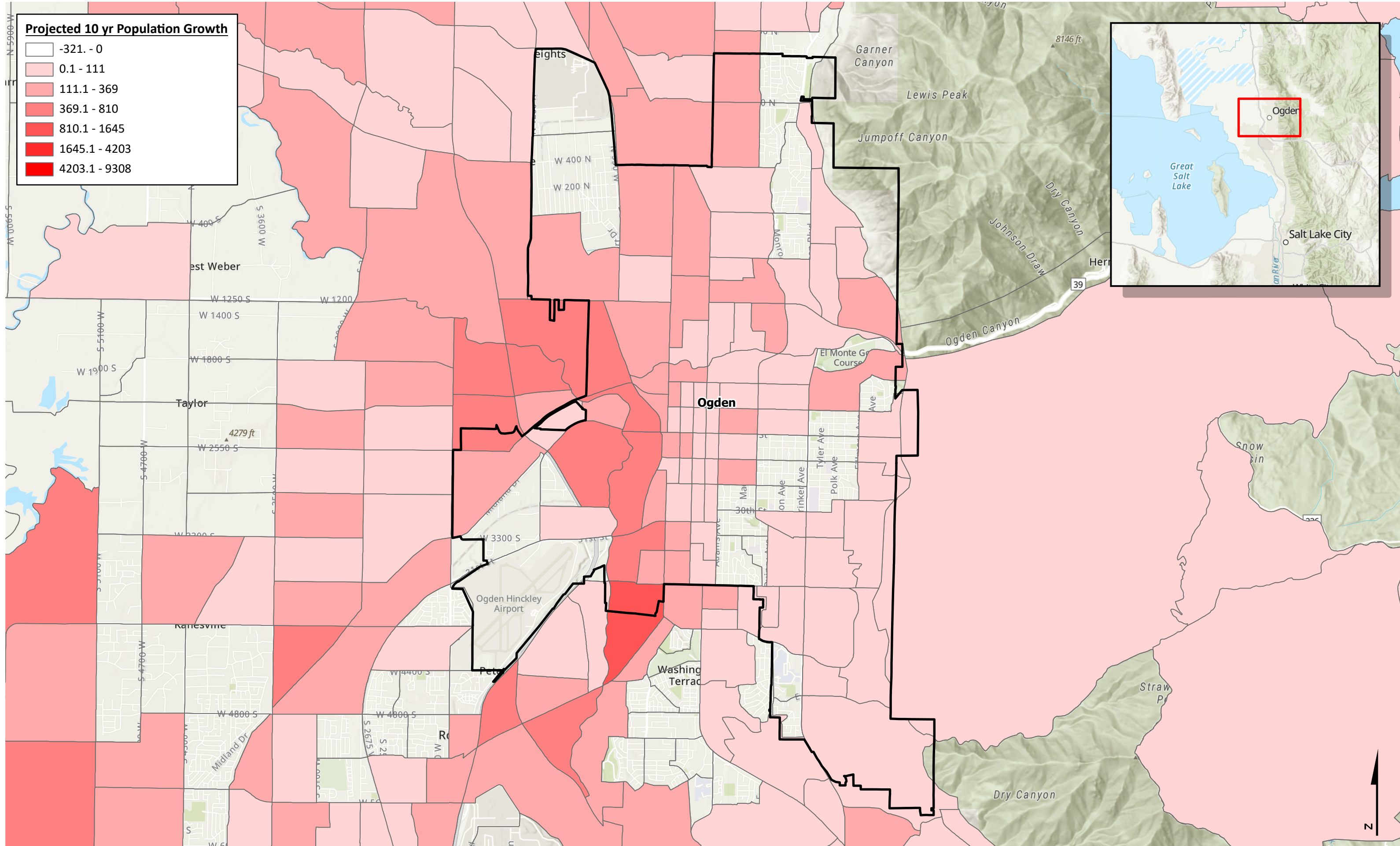


Figure 17: Projected 10 Year Population Growth of Ogden City



Survey Results

The Ogden High-Speed Internet Survey asked respondents to indicate if they had a household internet connection. Of 122 respondents, 332 responded, “Yes, I have an internet connection at my residence” and 9 selected “No, I don’t have an internet connection at my residence.” This data is detailed in Figure 18.

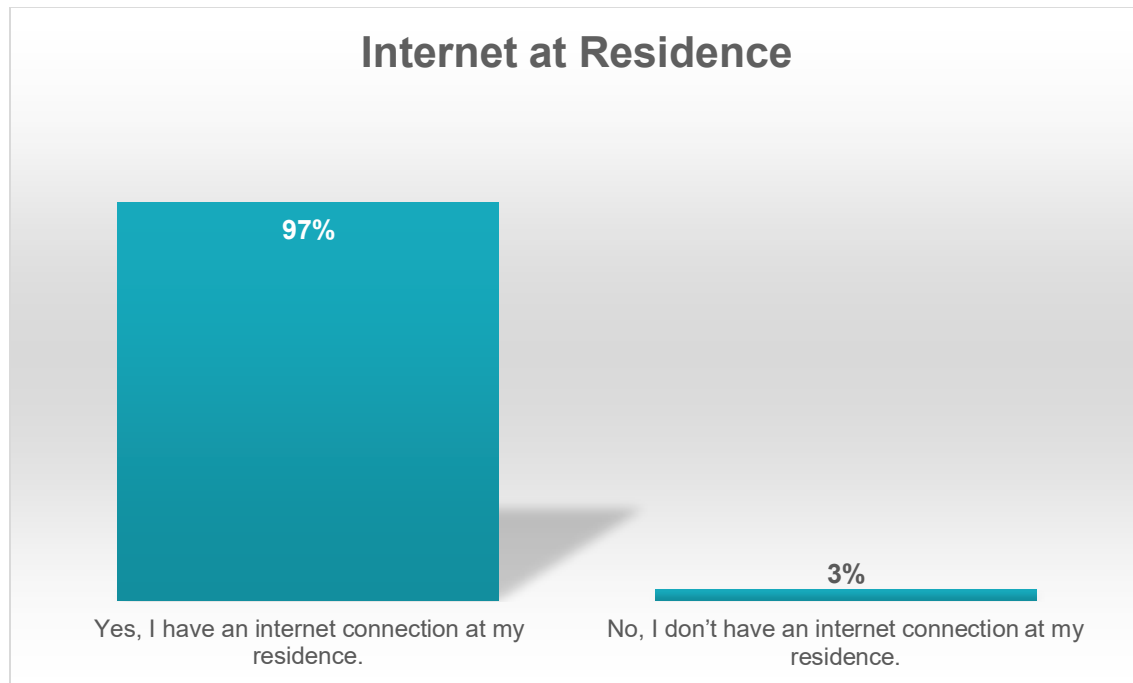


Figure 18. Internet at Residence



The Ogden High-Speed Internet Survey asked respondents what company they use for internet service. There were 128 responses to this question with the majority of respondents indicating that Xfinity/Comcast was their ISP. This data is detailed in Figure 19 below.

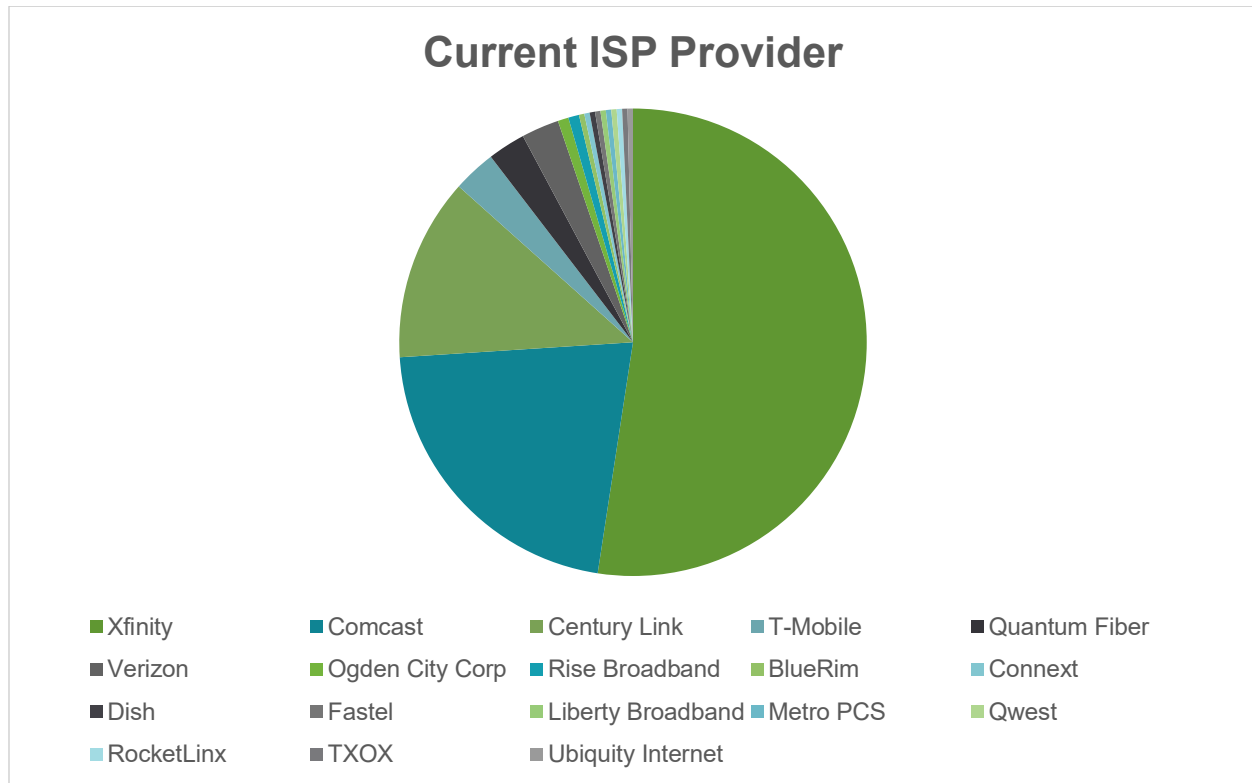


Figure 19. Current ISP Provider



Additionally, in the survey, business owners were asked if the speed or reliability of internet has impacted their business. Of 29 responses, 64% stated that internet speeds and reliability have had an impact on their business. See Figure 20.

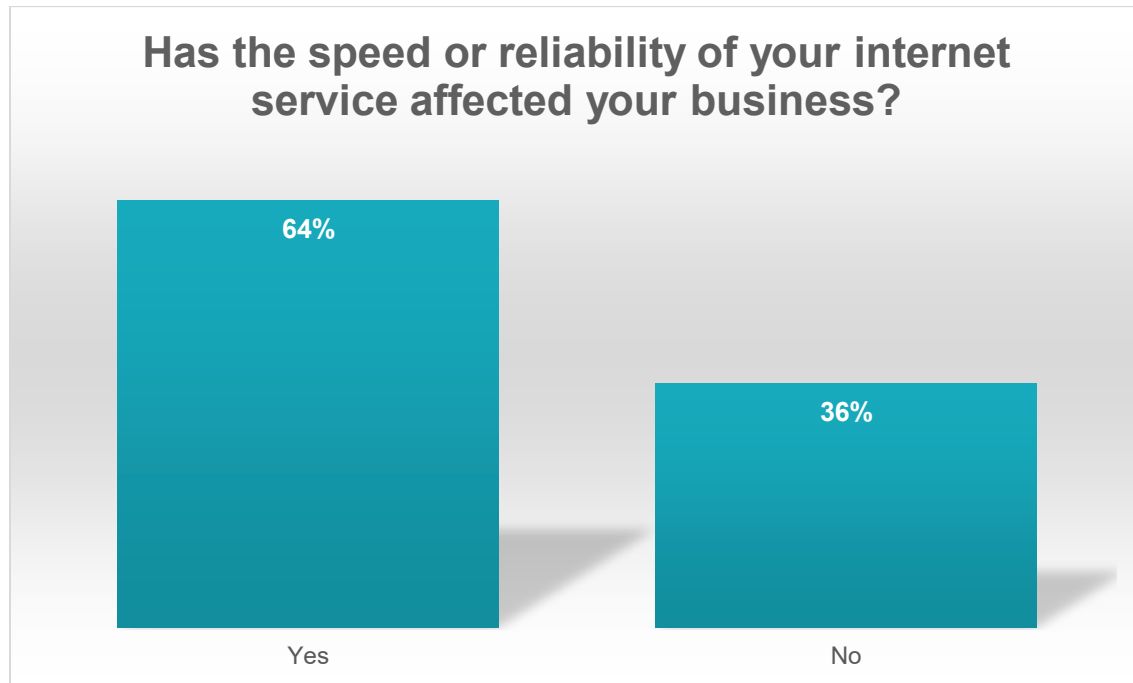


Figure 20. Internet Impacts to Businesses

3.5.2 Digital Access

There are many barriers to digital access in Ogden City which have made it difficult for residents to access high-speed broadband internet. These barriers include affordability, digital literacy, lack of devices, language barriers, and community anchor institutions with lack of access to broadband connectivity and/or devices. To address these needs, it is important to prioritize initiatives that improve digital literacy and provide affordable access to high-speed internet, particularly in underserved areas of the City.

Covered Populations

A covered population refers to a group of individuals who are eligible for a particular program or intervention based upon economic or socioeconomic barriers¹⁹ The goal of defining a covered population is to target resources and focus them on those who are most in need. The nine covered populations this plan focuses on are individuals who live in households at or below 150% of the federal poverty level (FPL), aging individuals, incarcerated individuals, veterans,

¹⁹ U.S. Census Bureau. 2021. Digital Equity Act of 2021. <https://www.census.gov/programs-surveys/community-resilience-estimates/partnerships/ntia/digital-equity.html>



individuals with disabilities, individuals with a language barrier, individuals who are members of a racial or ethnic minority group, new Americans, and individuals who primarily reside in a rural area. Ogden City is home to residents that represent each of these nine except individuals who primarily reside in a rural area.

Covered populations as a percentage of the total population in Ogden City are as follows:²⁰

- Individuals who live below the federal poverty level
 - 15.5%
- Aging individuals
 - 11.2% (65 and above)
- Incarcerated individuals, other than individuals who are incarcerated in a federal correctional facility
 - 1.03%
- Veterans
 - 4.9%
- Individuals with disabilities
 - 11.4% (under the age of 65)
- Individuals who are members of racial or ethnic minority groups
 - 20.9% (includes all individuals who are non-white)
- Individuals with a language barrier
 - 22.5% of Ogden City residents speak a language other than English at home
- New Americans
 - 10.59% of Ogden City residents were born outside of the U.S.
- Individuals who primarily reside in a rural area
 - There are no rural areas in Ogden City

According to the U.S. Census Bureau (2020), the total population of Ogden is 87,321 people. In addition to margin of error estimates, categories are not mutually exclusive; as such, percents do not total 100.

Figure 21, Figure 22, Figure 23, Figure 24, and Figure 25 below show covered populations with more than a 10% variance within Ogden City. Covered populations not depicted in the figures below do not show a significant variance throughout the city.

²⁰ U.S. Census Bureau. 2020-2021. Ogden City; Utah.
https://data.census.gov/profile/Ogden_city;_Utah?q=160XX00US4955980

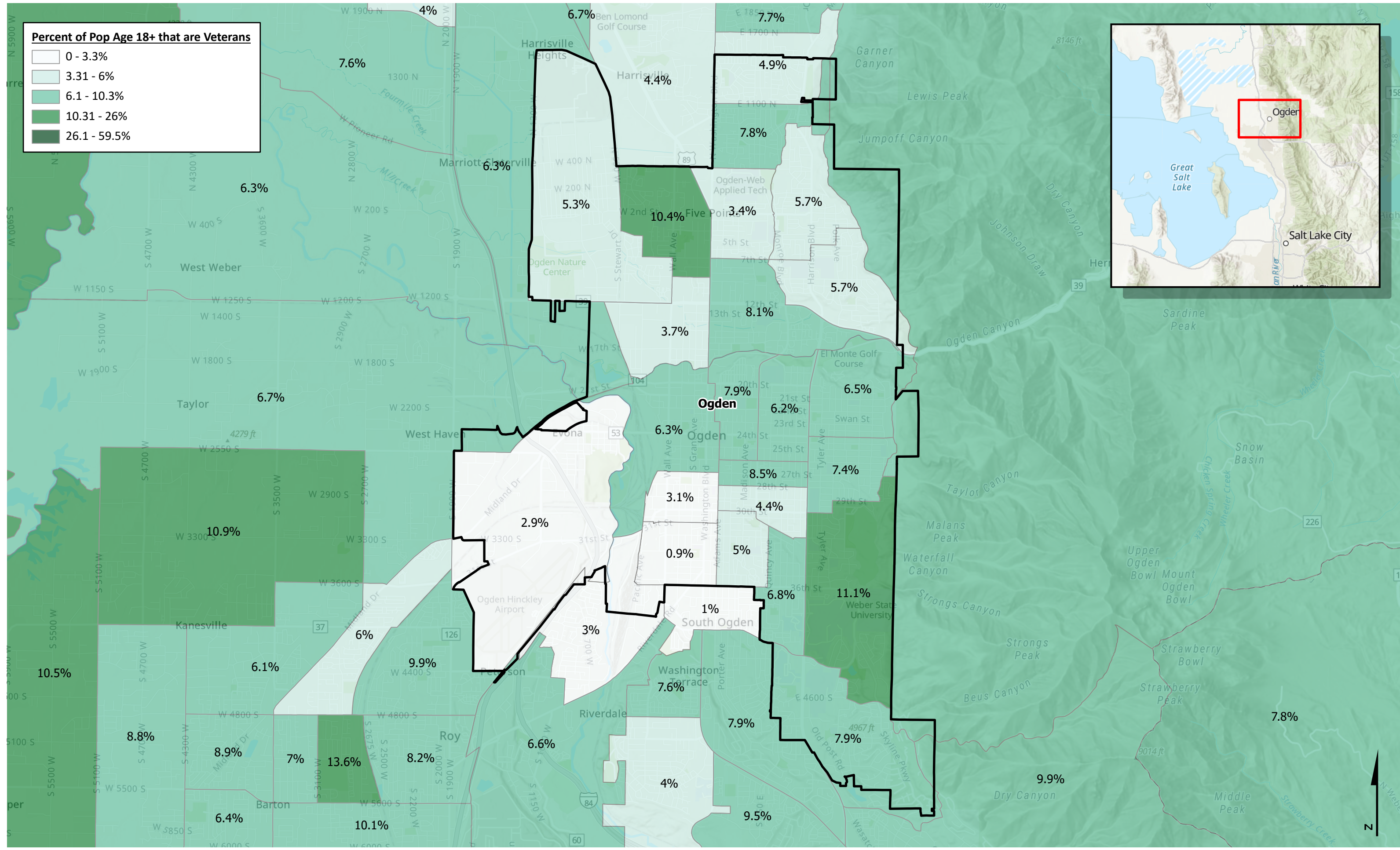
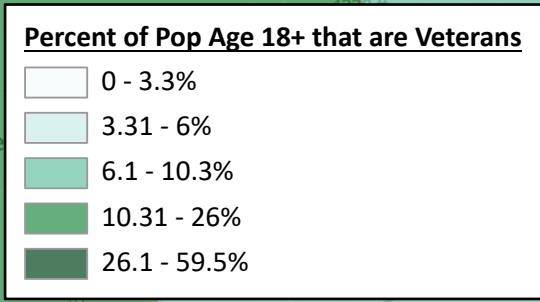


Figure 21: Veteran Population in Ogden City

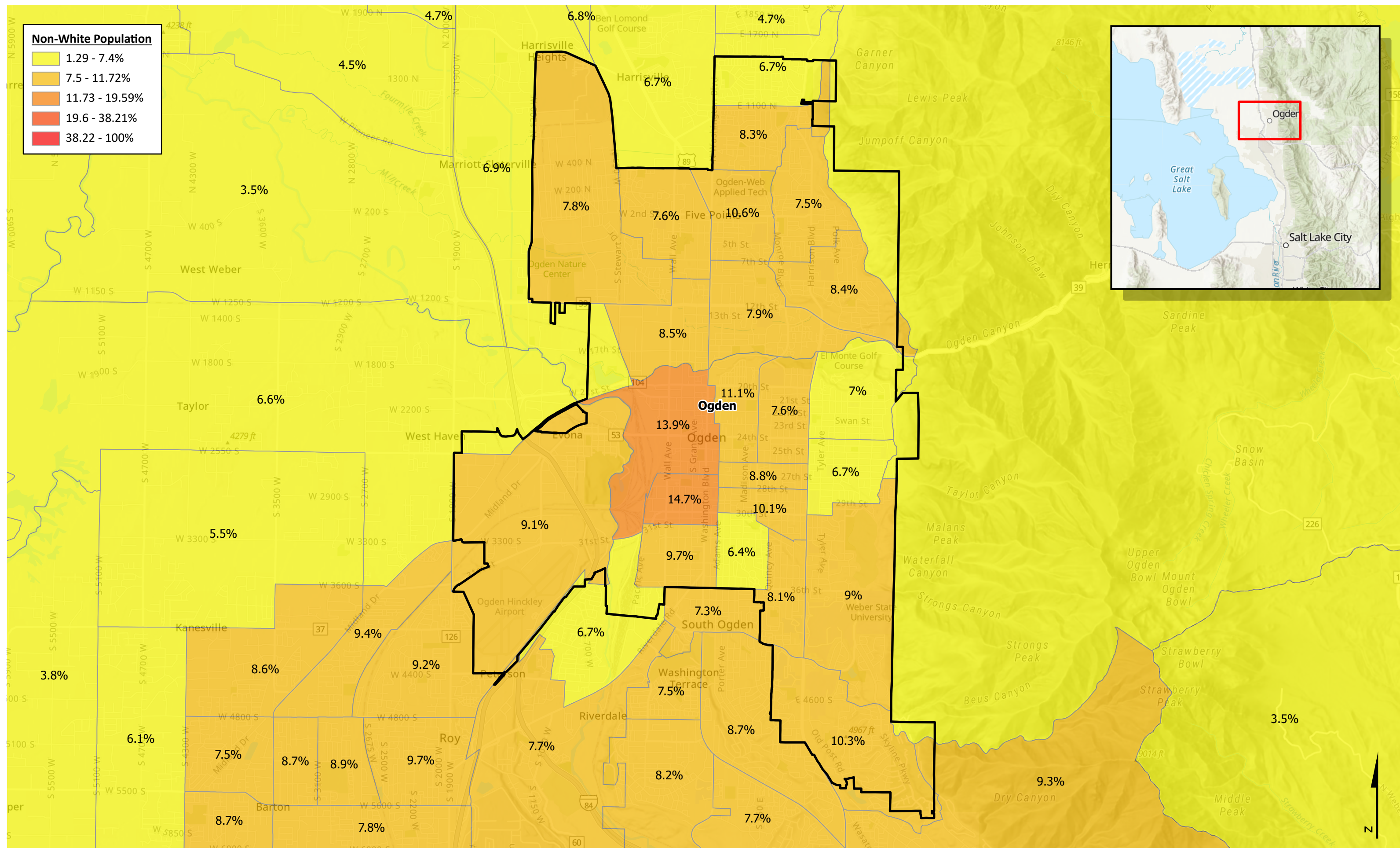


Figure 22: Non-White Population in Ogden City

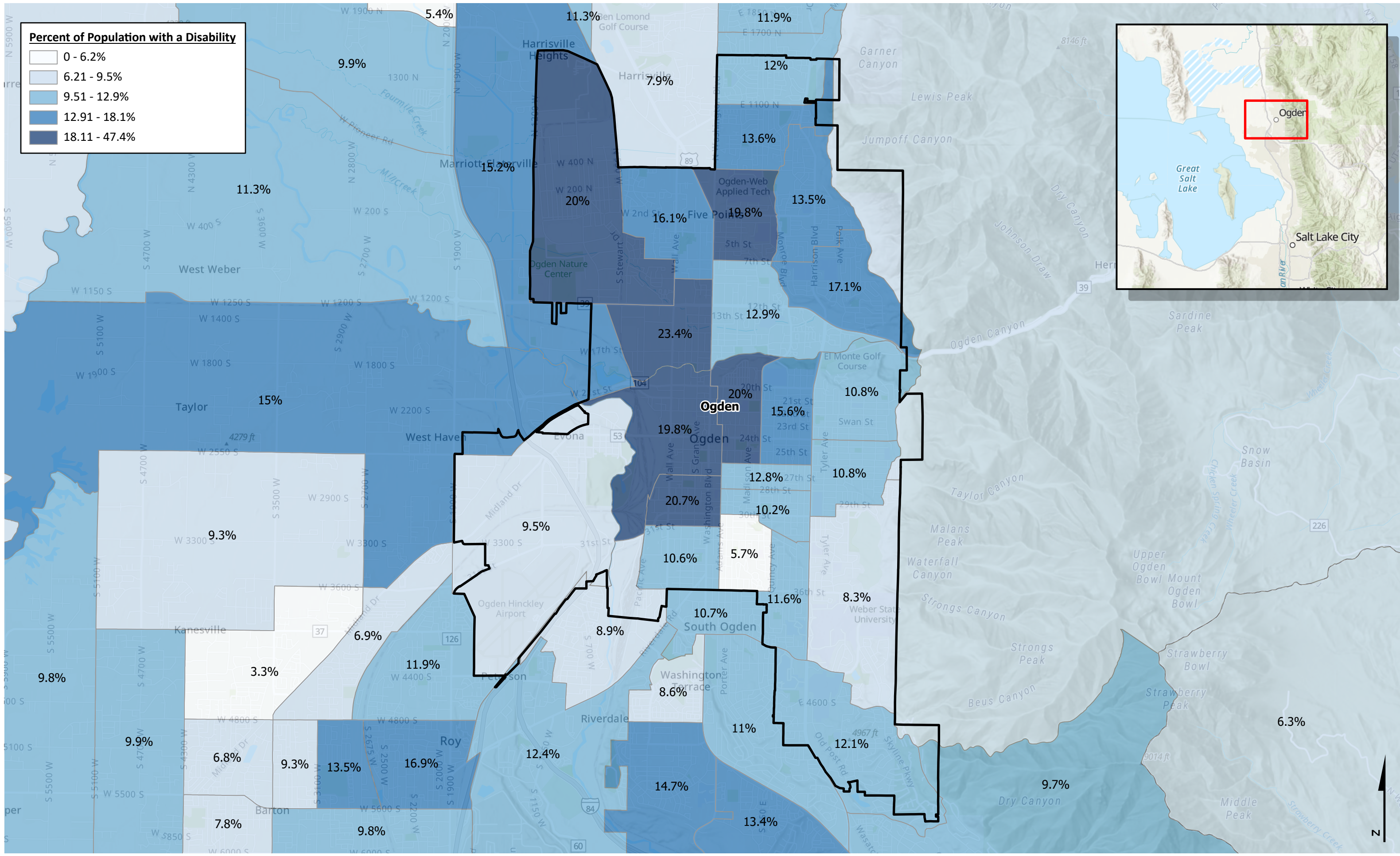


Figure 23: Population with Disabilities in Ogden City

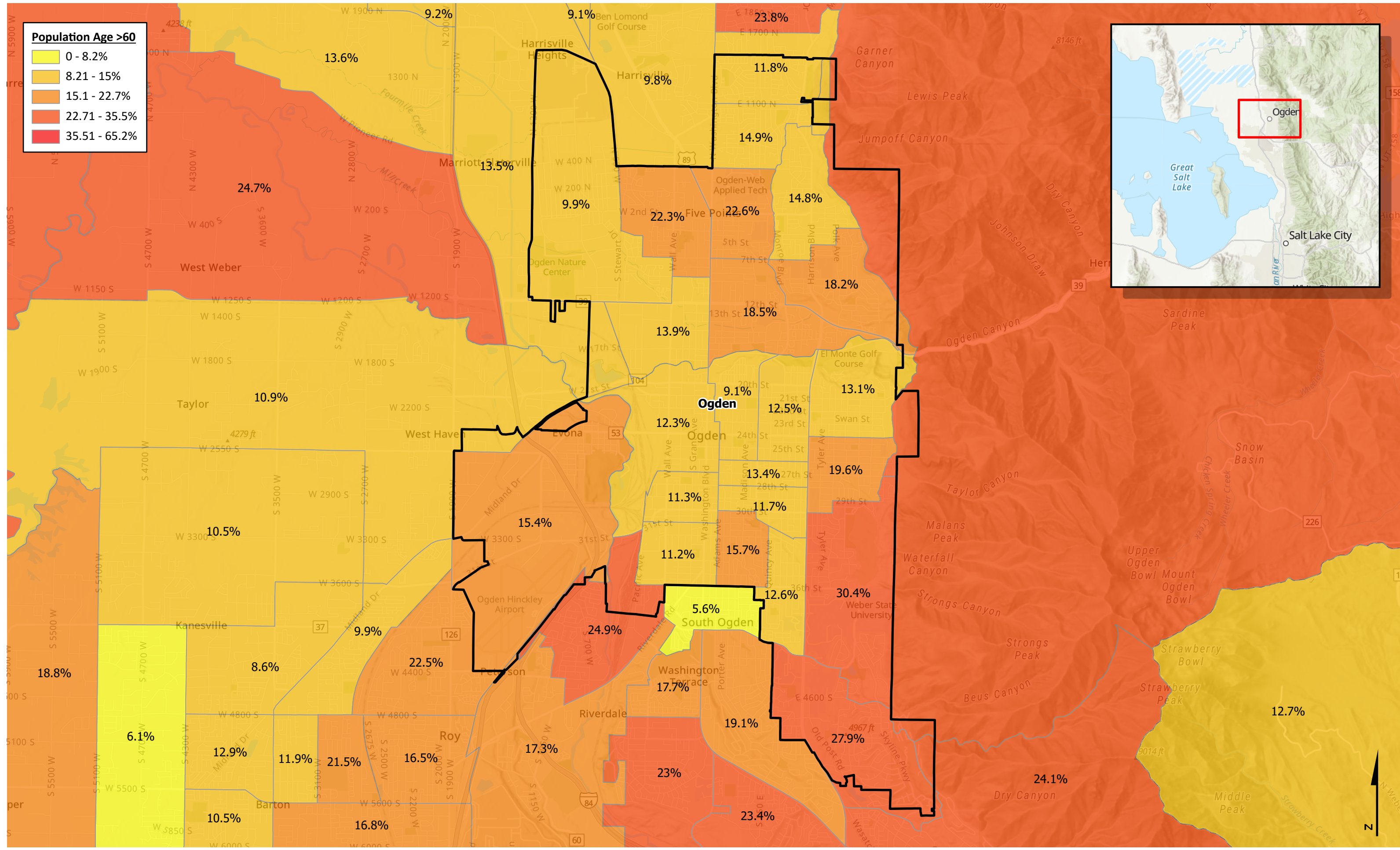


Figure 24: Population Age 60+ in Ogden City

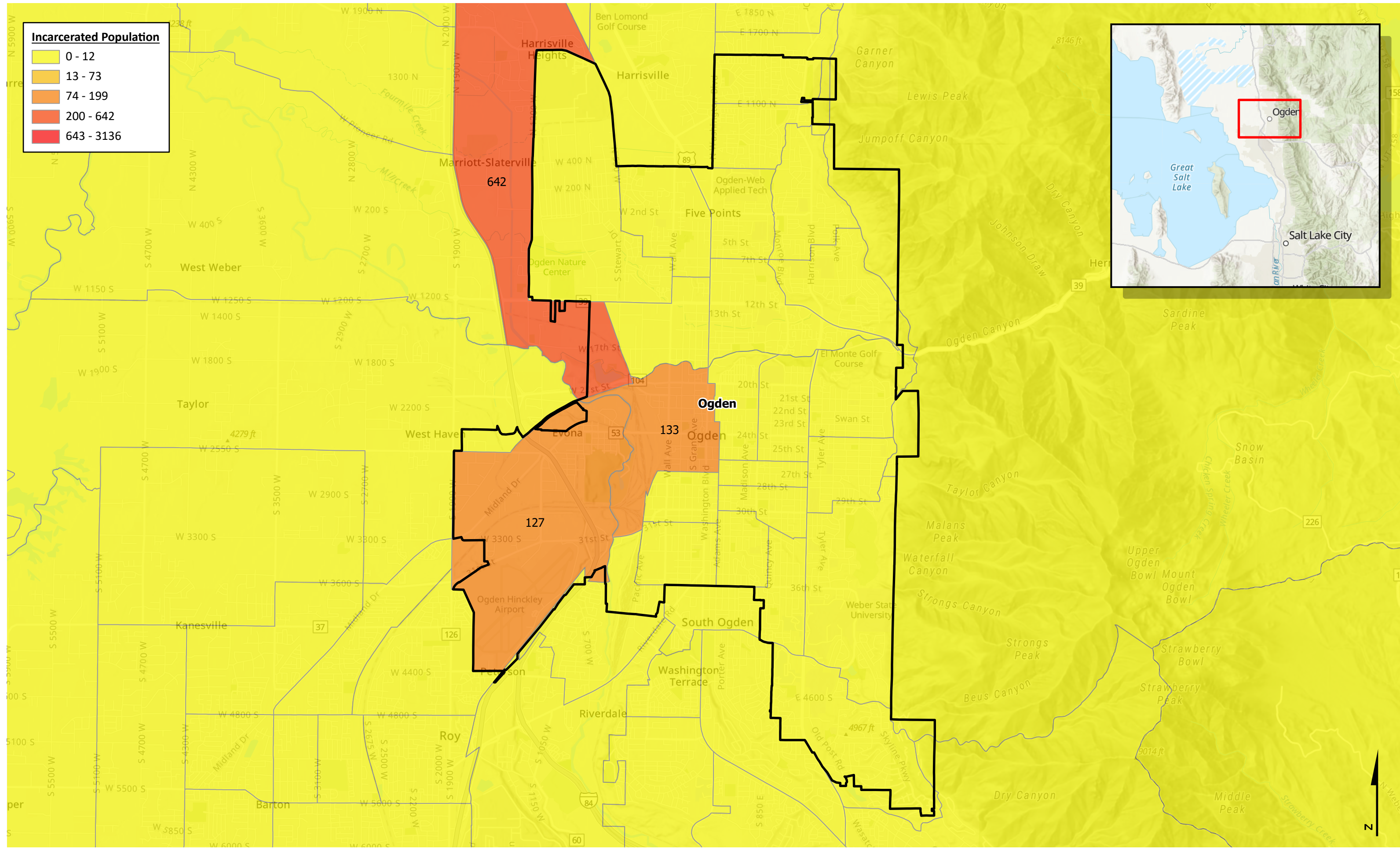


Figure 25: Incarcerated in Ogden City



Internet Subscription Rates

Ogden City recognizes the vital role that broadband internet plays in the community. Census data provides valuable insights into the adoption and accessibility of broadband services among the population. This data assists in identifying areas of opportunity and addressing existing gaps in broadband access.

As of 2021, 93.9% of households in the City have a broadband internet subscription.

Table 12 lists the internet subscription rates within Ogden City.²¹

Table 12. Internet Subscription Rates

LOCATION	TOTAL HOUSEHOLDS	HOUSEHOLDS WITHOUT AN INTERNET SUBSCRIPTION	% WITHOUT AN INTERNET SUBSCRIPTION
Ogden City	32,631	1,983	6.1%

²¹ U.S. Census Bureau. 2021. American Community Survey 5-Year Estimates. Types of Computers and Internet Subscriptions. <https://data.census.gov/table?q=internet+ogden+utah>

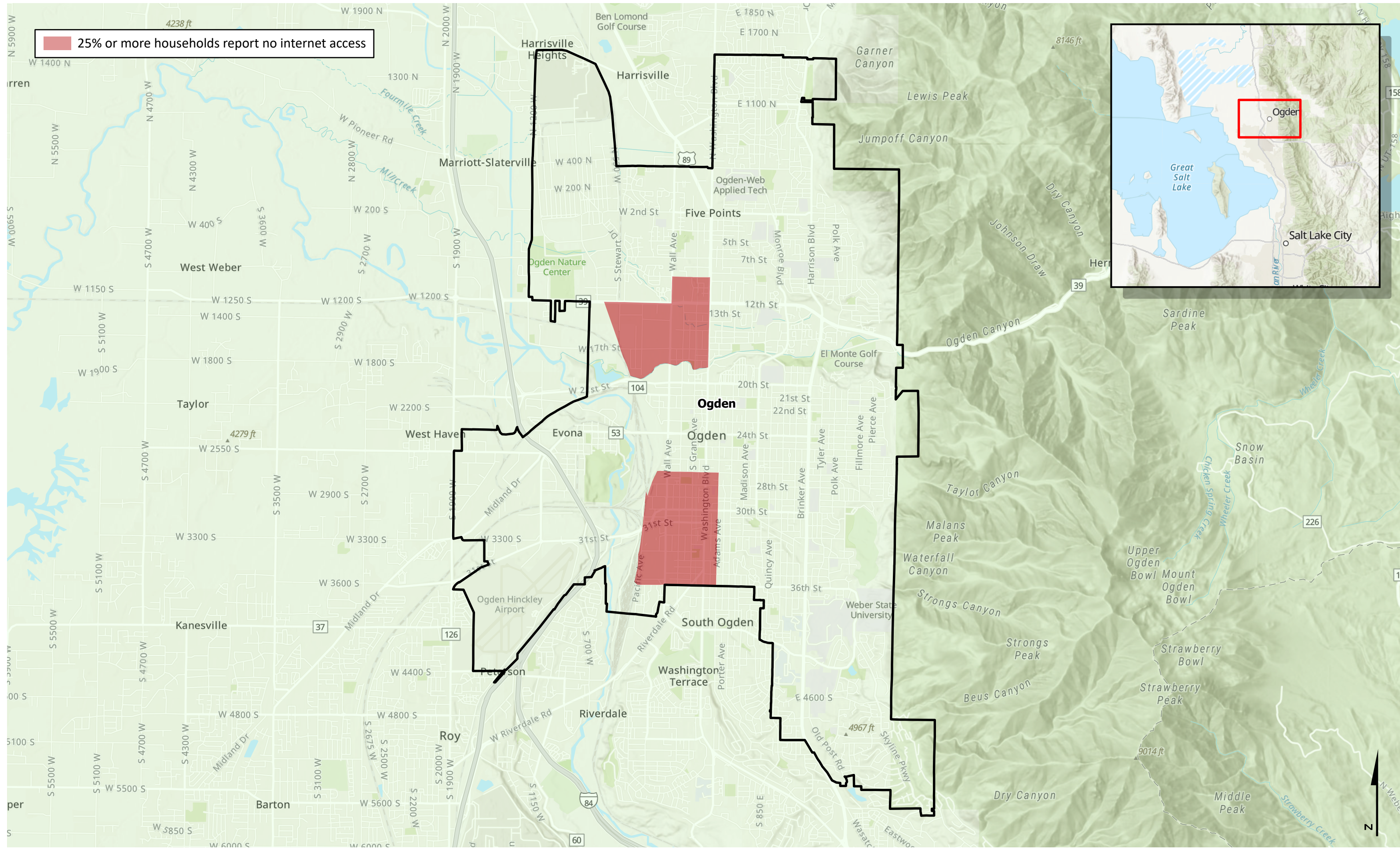


Figure 26: Areas with No Internet Access in Ogden City



The Ogden City High-Speed Internet Survey asked respondents what they use internet for at their household. Of 278 respondents to this question, the most common uses were using the internet for entertainment, shopping, remote working, and video conferencing. This data is detailed in Figure 27 below.

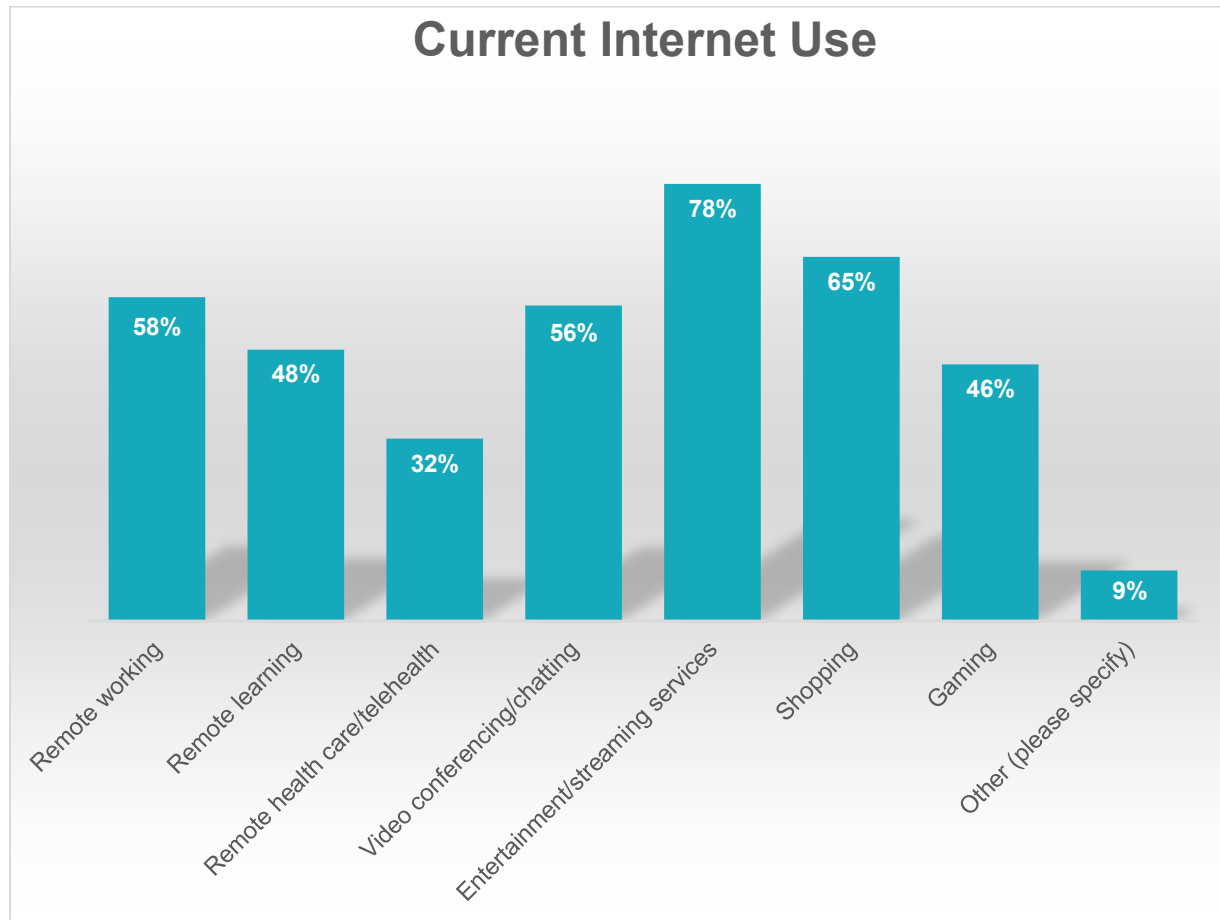


Figure 27. Internet Use in Ogden



The survey included a question for respondents about in-home, connected device access in their communities. Out of 268 survey responses to this question, 76% of participants indicated they have a desktop or laptop computer in the home and 97% indicated that they have access to a tablet at home, as detailed in Figure 28.

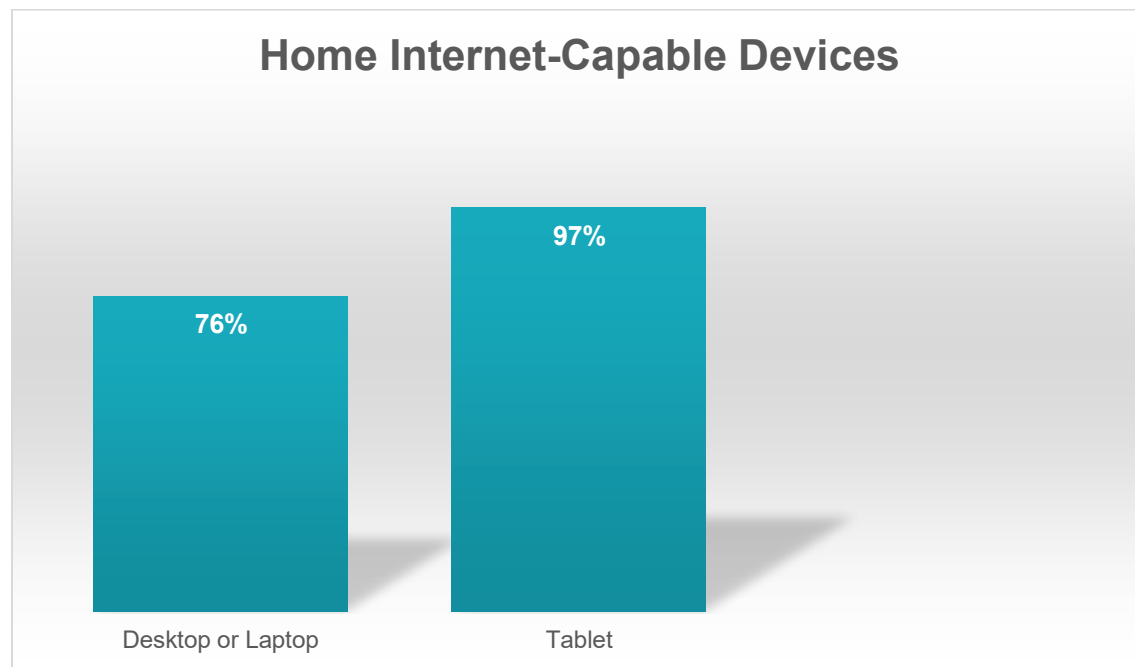


Figure 28. Household Device Access



The survey included a question about how people in their community could access internet-connected devices if they were not available in the home. Of 197 responses to this question, the top responses indicated that libraries, school, or work are where community members access devices. This data is included in Figure 29.

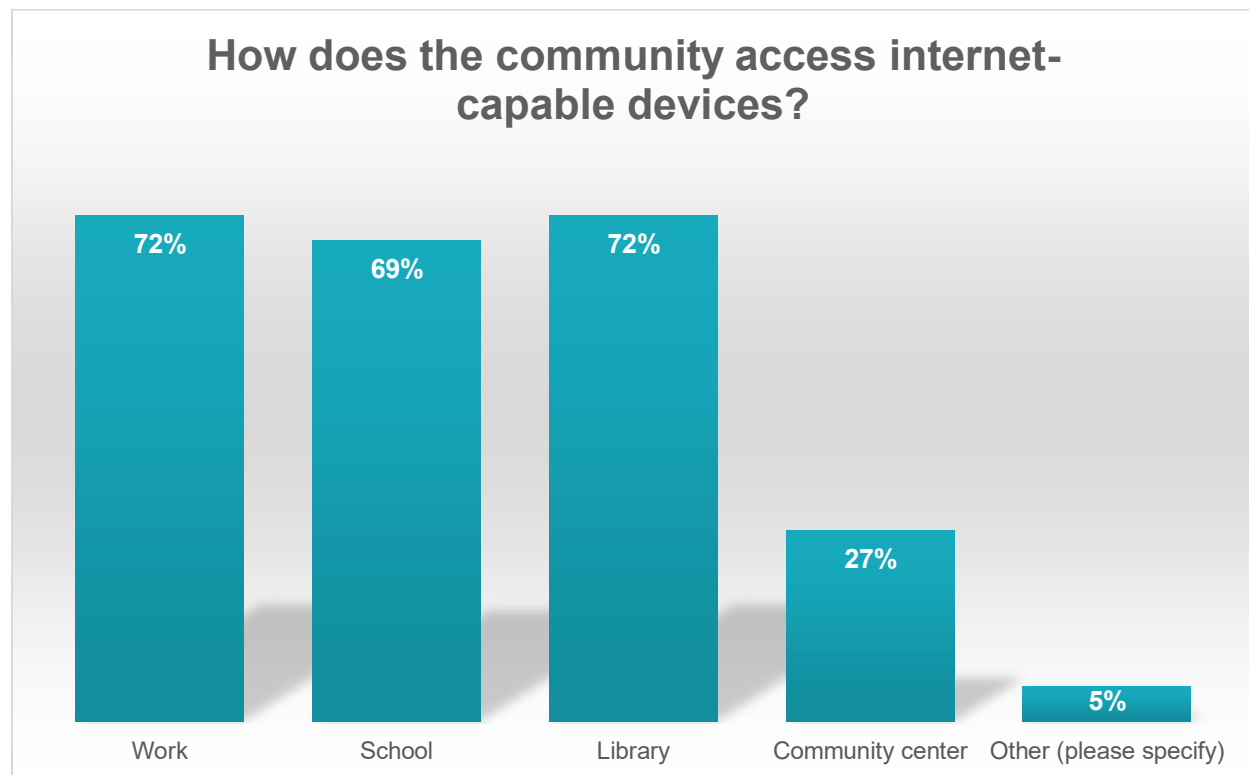


Figure 29. Alternative Locations for Device Access

3.5.3 Broadband Affordability

Affordability is a significant barrier to broadband access in Ogden City. While access to high-speed internet has become increasingly important for education, health care, and business opportunities, many residents are unable to afford the cost of broadband services. To address these needs and gaps in broadband affordability, it is important to develop initiatives that provide affordable broadband options for low-income households and increase competition among broadband providers.



The Ogden High-Speed Internet Survey included a question about what the monthly charges are for respondents' household internet service. There were 231 responses to this question, with the majority of respondents (57%) indicating monthly internet costs of \$70 and higher. This data is detailed in Figure 30.

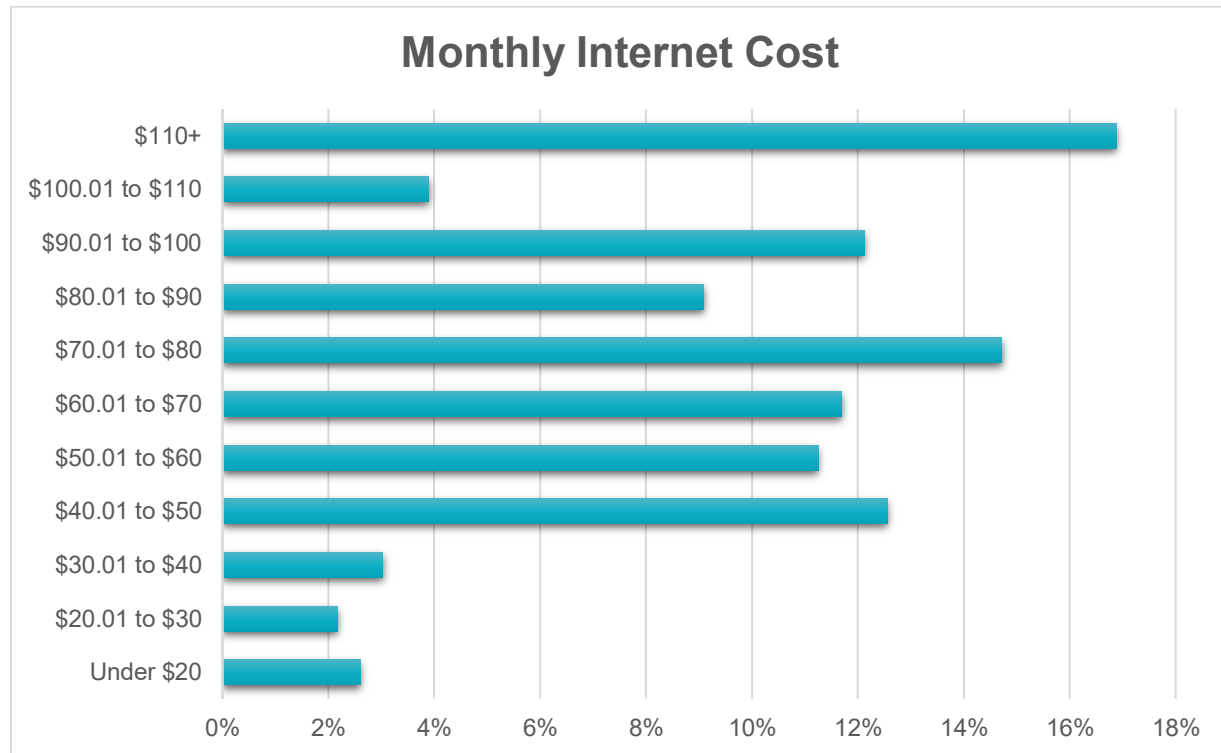


Figure 30. Monthly Internet Cost



Survey respondents were also asked about their awareness of the Affordable Connectivity Program (ACP). Of 245 responses to this question, 51% of people shared they were not aware of the ACP (see Figure 31).

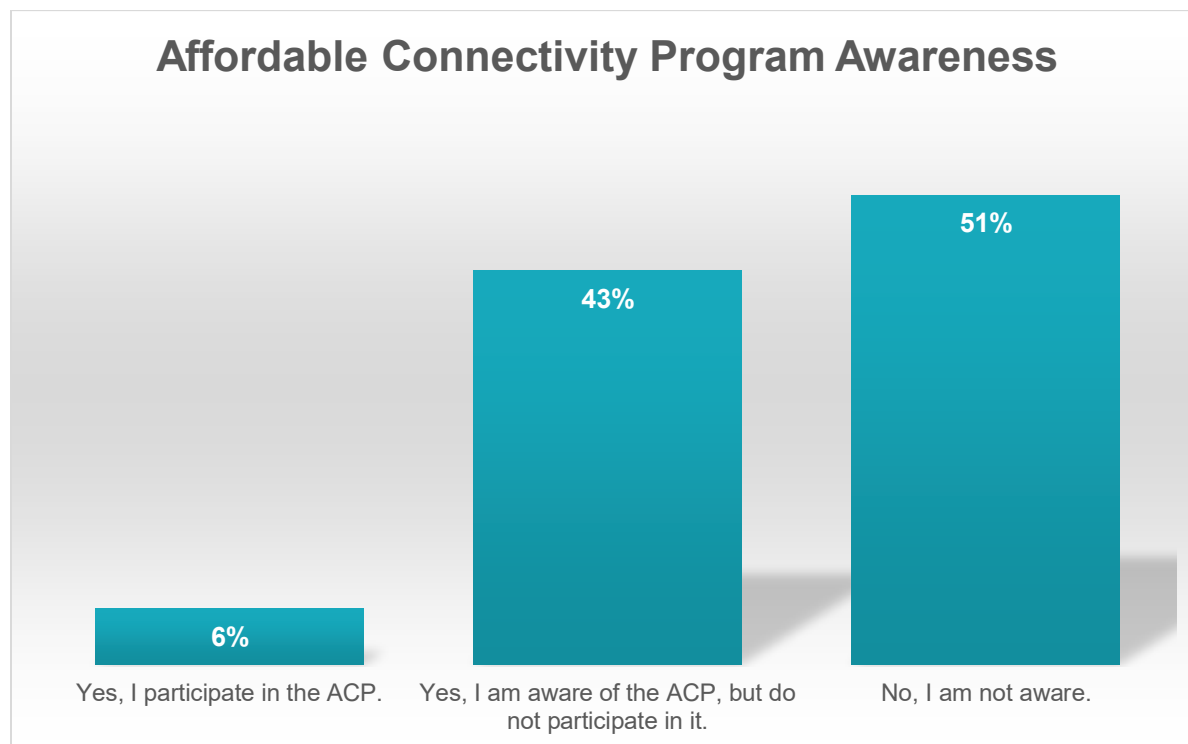


Figure 31. ACP Awareness



4 OBSTACLES OR BARRIERS

Various obstacles related to broadband deployment and adoption were identified within Ogden City. Specific obstacles related to high-speed broadband internet availability, digital access, and affordability, are identified below.

- **Physical Barriers:** The geographic properties of Ogden City contain physical barriers that block the expansion of internet infrastructure. For example, West Ogden is surrounded by the Union Pacific Railroad. Both the Weber River and I-15 run throughout the City, creating additional limitations for building infrastructure.
- **Digital Access Barriers:** Income and language limitations are primary digital access barriers present in Ogden City. Low-income neighborhoods lack the financial resources needed to purchase internet service and associated equipment, while language barriers make it difficult for non-English speakers to access online resources. Additionally, digital literacy and skills are a significant barrier for the community. To address these digital access barriers, it is important to consider strategies such as providing affordable internet service and equipment, offering language and digital literacy training, and partnering with community organizations to increase outreach and engagement.
- **Permitting:** Permitting, as seen in Table 13, presents a significant challenge for broadband infrastructure development, as the process can be lengthy, complex, and costly. By addressing permitting challenges, we can help ensure that high-speed broadband internet is deployed quickly, efficiently, and affordably, and thus accessible to everyone.

Table 13 shows many of the permitting entities within Ogden City with longer lead times.

Figure 32 shows land ownership throughout the region, which informs permitting.

Initiating the permitting application process promptly is essential to meet any of the funding opportunity's implementation deadlines. It is important to note that this list is not an exhaustive list and may evolve between the publication of this plan and the construction phase. More information regarding implementation timelines is found in section 5.5 of this plan. It is up to the providers to secure all relevant permits.



Table 13. Permitting Agencies

LEVEL	APPROXIMATE TIMEFRAME FOR PERMITTING	ENTITY
Local	30 Days	Ogden City Engineering
Local	30 Days	Weber County Engineering
State	30 Days	UDOT
Utility	45 Days	Electrical Company
Utility	45 Days	Gas Company
Utility	45 Days	Other Telecom
Railroad	90 Days	Union Pacific Railroad

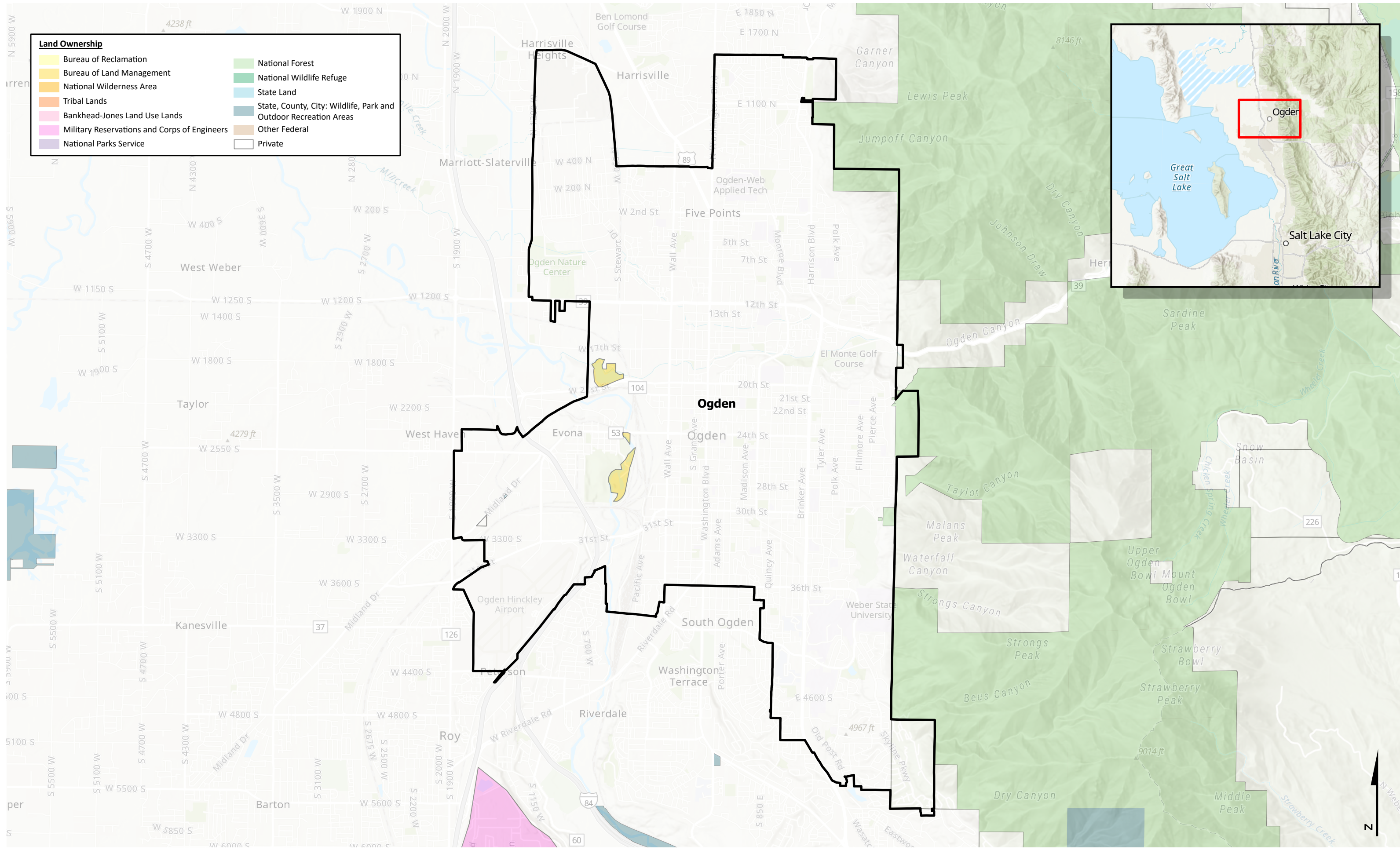


Figure 32: Land Ownership in Ogden City



The Ogden High-Speed Internet Survey included a prompt about device access and ways to make connected devices more readily available. Of 108 responses to this question, 65% of respondents stated that lower costs would make it easier to access devices. More information is included in Figure 33.

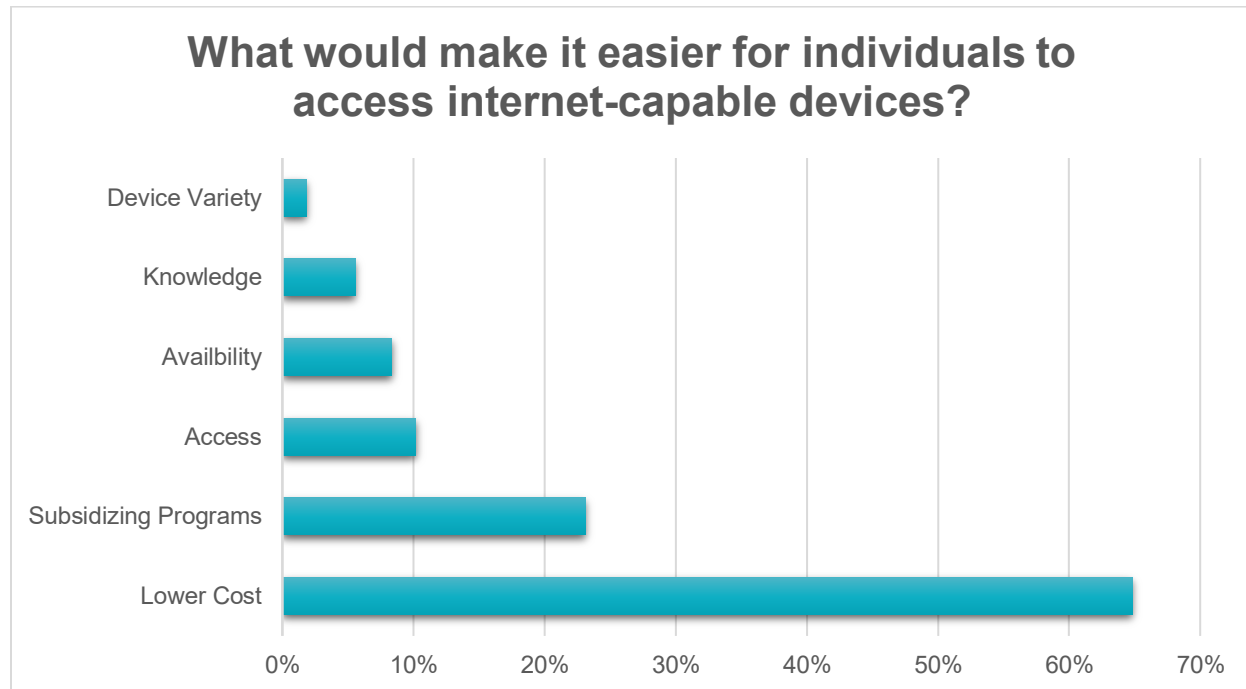


Figure 33. Barriers to Device Access



5 IMPLEMENTATION PLAN

The deployment of broadband infrastructure and expanded digital access throughout Ogden City follows the priorities, actions, strategies, and stakeholder involvement set forth in the implementation plan. With an emphasis on addressing the identified needs and gaps in broadband availability, affordability, and adoption, the plan lays out a roadmap for achieving universal access. The plan includes a projected timetable and cost as well as planned activities, key strategies, and stakeholder engagement. This implementation plan ensures that access to the possibilities and resources that come with dependable broadband infrastructure and connection are available to residents of Ogden. The implementation plan seeks to build a more connected community with a strong commitment to stakeholder involvement and collaboration.

5.1 PRIORITIES

The priorities defined in Table 14 act as the foundation for executing Ogden City's broadband plan. These priorities have been established to ensure that the plan is in line with the community's vision for broadband infrastructure and digital access. Together with the stakeholders, the Ogden community can concentrate efforts on attaining the most crucial broadband goals and objectives.

Table 14. Priorities for Broadband Deployment and Digital Access

PRIORITY	RANKING	DESCRIPTION
Establishing high-speed internet in all unserved areas.	High	Establish connection to areas that need a greater level of service.
Establishing high-speed internet for all underserved areas.	High	Establish connection to areas that need a greater level of service.
Provide more reliable infrastructure and connectivity to West Ogden.	Medium	West Ogden is the older part of town. Due to geographic barriers such as I-15, the Weber River, and the Union Pacific Railroad, West Ogden has not been able to keep pace with recent broadband infrastructure expansion.
Partner with ISPs to ensure service to the entire city and bring fiber to the homes.	Medium	There are currently four ISPs that have franchise agreements with the City which allow them to build new infrastructure.
Ensure that critical infrastructure is connected to fiber.	Medium	Upscale city infrastructure that is currently unable to connect to 1G symmetrical speeds. This infrastructure includes city buildings, schools, hospitals, first responders' buildings, etc. Ensure new construction of city facilities has access to 1G speeds. It is up to the facility managers to report if their building is not receiving adequate speeds.



5.2 KEY EXECUTION STRATEGIES

Drawing on the vision and goals in Section 1.2, this section explains the specific strategies that Ogden City will undertake to realize those goals.

GOAL 1: Partner and collaborate with public and private partners to expand high-speed internet infrastructure.

OBJECTIVE	STRATEGY	IMPLEMENTATION PLAN
<p>Work with departments within Ogden City and neighboring municipalities to maximize impact.</p>	<p>Share broadband initiatives and successes with departments within Ogden City.</p> <p>Determine and delegate broadband duties to a specific department within the City.</p> <p>Notify neighboring municipalities of major broadband infrastructure projects.</p> <p>Ensure that City economic, general and area specific plans include broadband.</p>	<p>Key Players: City officials, department staff, neighboring municipalities</p> <p>Timeline: Ongoing</p>
<p>Partner with ISPs to implement an ISP-led deployment of broadband infrastructure across the City.</p>	<p>Understand ISP plans to upgrade and expand coverage areas.</p> <p>Identify and address potential barriers to permitting and streamline the permitting process.</p>	<p>Key Players: City officials, department staff, ISPs</p> <p>Timeline: Ongoing</p>
<p>Assess potential application for infrastructure grants to support ISP-led broadband expansion</p>	<p>Support ISP grant applications to fund infrastructure expansion.</p> <p>Track developments and updates on funding available through NTIA, the FCC and the Capital Projects Fund.</p>	<p>Key Players: City officials, ISPs</p> <p>Timeline: Ongoing</p>

GOAL 2: Prioritize scalable and future-proof broadband infrastructure that can support developing technologies and rising bandwidth demands to prevent obsolescence and the need for periodic updates.



OBJECTIVE	STRATEGY	
Implement policy and codify broadband best practices	<p>Consider Dig Once practices.</p> <p>Evaluate permitting process to identify opportunities to include strategies for broadband expansion.</p> <p>Inventory City-owned facilities and identify those with access to speeds less than 1G.</p>	<p>Key Players: City officials, department staff</p> <p>Timeline: 2024</p>
Ease access to City-owned rights-of-way (ROW), poles, and other assets	<p>Adopt ordinances and develop procedures to facilitate and streamline the approval of permits to use ROW.</p> <p>Encourage ISPs to size underground and overhead facilities to accommodate future expansion and changes in technology.</p>	<p>Key Players: City officials, department staff, ISPs</p> <p>Timeline: Ongoing</p>
Ensure building and development codes include broadband	<p>Include the provision of broadband infrastructure on all public buildings.</p> <p>Incorporate conduit installation into all capital projects and plans.</p>	<p>Key Players: City officials, department staff</p> <p>Timeline: Ongoing</p>

GOAL 3: Maximize the benefit and value of digital access through engagement and coordination with City partners.

OBJECTIVE	STRATEGY	
Increase participation in the ACP	<p>Encourage ISPs to advertise ACP on websites.</p> <p>Partner with community-based organizations to promote and assist in ACP enrollment.</p> <p>Seek out opportunities to communicate the ACP and its benefits to Ogden City residents and businesses.</p>	<p>Key Players: City officials, department staff, ISPs, Weber State University, Ogden City School District, Ogden Weber Community Action Partnership, Weber County</p> <p>Timeline: Ongoing</p>



Support the expansion of programs that expand digital literacy	<p>Support digital literacy programming at My Hometown Ogden Community Resource Centers.</p> <p>Encourage Golden Hours to incorporate digital literacy programming specific to seniors.</p> <p>Support and fund, if available, digital access plan implementation done by the Ogden Civic Action Network (Ogden CAN).</p>	<p>Key Players: City officials, department staff, ISPs, Weber State University, Ogden City School District, Ogden CAN, Golden Hours Senior Center, Weber County</p> <p>Funding Sources: Utah Broadband Center Digital Access Implementation Grant</p> <p>Timeline: Ongoing</p>
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5.3 ONGOING STAKEHOLDER ENGAGEMENT

Continued stakeholder engagement is vital to the success of Ogden City’s broadband deployment strategies. The Digital Solutions Partnership will continue to build strong relationships with community partners and key stakeholders as this plan is implemented. The success of getting all residents the tools, education, and opportunities to achieve safe and reliable digital access will be dependent on the ability to continually coordinate efforts with local community organizations and the residents they serve.

Key initiatives to support continued engagement for digital access include:

- **Create a Broadband Working Group:** This working group should be diverse and represent a variety of roles. Important representation in this group includes municipal officials, educators, community influencers, business leaders, technical experts, and organizations that represent the covered populations. A broadband working group will ensure that there is city-wide support for resulting broadband projects.
- **Meet with Internet Service Providers:** Building a relationship with an internet service provider (ISP) can be beneficial for both Ogden City and the ISP. By working together, Ogden City can help to ensure that their residents have access to high-quality, affordable broadband internet.

The following strategies promote the establishment of a collaborative partnership with local ISPs:

- **IMPORTANT:** Only meet with one ISP company at a time. Ask them to share their future build-out plans for Ogden City. They are more willing to share information when their competition is not in the room.
- **Streamline permitting and processes:** Review and streamline the permitting and approval processes for ISPs to facilitate efficient infrastructure deployment.



- Create incentives: Offer incentives such as tax breaks or expedited permit processing for ISPs that invest in broadband infrastructure.
 - Foster public-private partnerships: Explore opportunities for public-private partnerships with ISPs to leverage resources, expertise, and funding.
 - Collaborate on funding opportunities: Work together with ISPs to identify and pursue available funding sources, grants, or subsidies for broadband projects.
 - Share infrastructure resources: Explore possibilities for sharing existing infrastructure, such as utility poles or conduit, to reduce costs and deployment timelines.
 - Regular communication and updates: Establish regular communication channels to keep ISPs informed about city initiatives, policies, and upcoming projects related to broadband infrastructure.
- **Continue Stakeholder Communication:** Stakeholder communication that is frequent and transparent helps build and maintain community support. The Digital Solutions Partnership should aim to educate, garner support, and celebrate accomplishments through stakeholder communication. Tactics for communicating with stakeholders should be varied and represent traditional and virtual engagement.
 - **Understand Regional Context:** By establishing and strengthening working relationships with a variety of stakeholders, the Digital Solutions Partnership may identify additional opportunities, barriers, or initiatives. Continued coordination with key stakeholders will allow community partners to clearly communicate the benefits of connectivity, empower local entities to advocate for broadband initiatives, and build enthusiasm and support for projects.
 - **Advertise and Continue to Increase Enrollment in the Affordable Connectivity Program (ACP).** The ACP is an FCC benefit program that provides a \$30/month discount on a home internet plan for qualifying households. This program also offers a one-time discount of up to \$100 off the purchase of a laptop, desktop, or tablet from certain participating providers as long as the consumer contributes between \$10 and \$50 to the total purchase price. If any individual in a household participates in any of the following programs, they automatically qualify for the ACP: Free/Reduced School Lunch, SNAP, Medicaid, Federal Public Housing Assistance, Federal Pell Grant, WIC, Lifeline. This discount is only available once to an entire household. In Ogden City, All West, Connex, Lumen, Comcast, and Utah Broadband are all ACP internet service providers.
 - The Digital Solutions Partnership will promote the ACP through a variety of outreach methods depending on available funding. Many of these outreach methods will see the best results if both English and Spanish materials are provided. There are four areas of outreach for the ACP that can be



implemented to further allow Ogden City residents discounts to their home internet plan and digital device purchases.

- Online stakeholder outreach methods
- In-person stakeholder outreach methods
- Media/advertising outreach methods
- Community partnership outreach methods

For more specific details about these four outreach methods, please refer to the Ogden City Digital Access Plan.

5.4 ESTIMATED TIMELINE FOR UNIVERSAL SERVICE

Universal service is the goal of providing broadband service to every resident of Ogden City. Achieving this goal depends upon receiving sufficient funding for broadband infrastructure projects, the timeline by which ISPs build at, and the timeline by which the BEAD program is administered by. Due to this timeline being determinant on external elements, Ogden City intends to communicate closely with all ISPs building in the area and follow the state timeline as listed in the statewide Digital Connectivity Plan. The state aims to provide universal broadband service for all Utahns by December 31, 2028. The timeline more specific to items relevant to Ogden City officials are listed in Section 5.2 of this plan.

Individual Broadband Project Minimum Timeline

It will be up to the ISPs to carry out the design and construction of broadband infrastructure projects within Ogden City, however, a sample broadband project timeline is listed here for reference. An estimated timeline concerning activities necessary to implement broadband services include the following:



Table 15. Broadband Infrastructure Project Design and Build Phase Estimated Timeline for ISPs

STEP	DESCRIPTION	TIMELINE
High-Level Design (HLD)	Create a preliminary FTTP (Fiber to the Premise) design before fielding and jurisdictional research	30-60 Days
Low-Level Design (LLD)	Create a FTTP design that is constructable using fielding data and jurisdictional research	60-90 Days
Permitting	Get approval from the appropriate jurisdictions for construction	Up to 180 Days
Construction	Build a functioning FTTP network	90-180 Days
Project Audit	Review construction documents, conduct AARs, create audit documentation	Up to 90 Days

Note that some of these phases may overlap, while others must be completed sequentially. Unforeseen circumstances or delays might impact the overall timeline.

Minimum duration: 30 days (HLD) + 60 days (fielding and LLD) + 180 days (permitting) + 90 days (construction) = 360 days (about 1 year) for full turn-key implementation.

If some phases can be completed concurrently, the duration could be shortened. For example, construction can be started on certain segments of the broadband build that have approved permits much sooner than the predicted 180 days, shortening the original estimate for the overall project duration.

It is crucial to account for potential delays and other factors that may affect the project schedule. Regular communication with relevant stakeholders and close monitoring of progress can help mitigate risks and keep the project on track.

5.5 ESTIMATED COST FOR UNIVERSAL SERVICE

An estimated cost for the project is calculated using GIS analysis, incorporating data from various sources such as the State of Utah’s roads layer and address points, as well as FCC data on served, underserved, and unserved points. The length attribute from the roads layer is used to determine the distance, considering several key parameters including aerial percentage, aerial cost, and underground cost (can vary based on the location geology).

The estimated cost for materials, design, and installation can vary. Costs for aerial fiber hung on power poles can range up to \$10/FT. Underground fiber costs range from \$30/FT when installing in easy-to-bore areas, up to \$35-\$60/FT when boring in rocky or hilly areas.

The formula for calculating the total cost of construction is as follows:



$$\text{Total Cost of Construction} = ((\text{Road Length} * \text{Aerial Cost} * \text{Aerial Percentage}) + (\text{Road Length} * \text{Underground Cost} * (1 - \text{Aerial Percentage})))$$

For this estimate, the following numbers were used:

Aerial Cost: \$10/FT

Underground Cost: \$30/FT

Aerial Percentage: See Table 16 below

To obtain the cost per passing, the total cost of construction is divided by the count of total serviceable locations within a defined geographic area, as determined by a polygon selection. This methodology ensures that the estimated cost is derived from reliable data sources and considers the specific characteristics of the project area, providing an accurate and comprehensive financial projection for the implementation of universal services.

Table 16 explains in detail the areas comprising Ogden City and their respective costs.

Table 16. Estimated Cost for Broadband Deployment in Ogden

AREA	TOTAL LENGTH (MILES)	% AERIAL	TOTAL COST (DOLLARS)	COST PER PASSING (DOLLARS)	# OF LOCATIONS	UNDER-SERVED	UN-SERVED	COST FOR JUST UN-SERVED & UNDER-SERVED
BDO and Lynn	56.57	20%	7,765,502.30	1,709.71	4,542	13	50	\$107,711.73
East Central and Mt Ogden	109.27	80%	8,076,720.11	482.10	16,753	60	58	\$56,887.80
Gibson and Jefferson	41.75	30%	5,291,162.70	1,018.90	5,193	31	111	\$144,683.80
Mt Lewis and Hilcrest	74.12	60%	7,044,705.51	805.39	8,747	11	21	\$25,772.48
Southeast Ogden	46.35	50%	4,894,233.11	1,320.27	3,707	21	45	\$87,137.82
West Ogden and Airport	36.82	40%	3,887,890.21	2,209.03	1,760	21	49	\$154,632.10



Each of Ogden City's identified underserved and unserved polygon areas are highlighted in Figure 34.

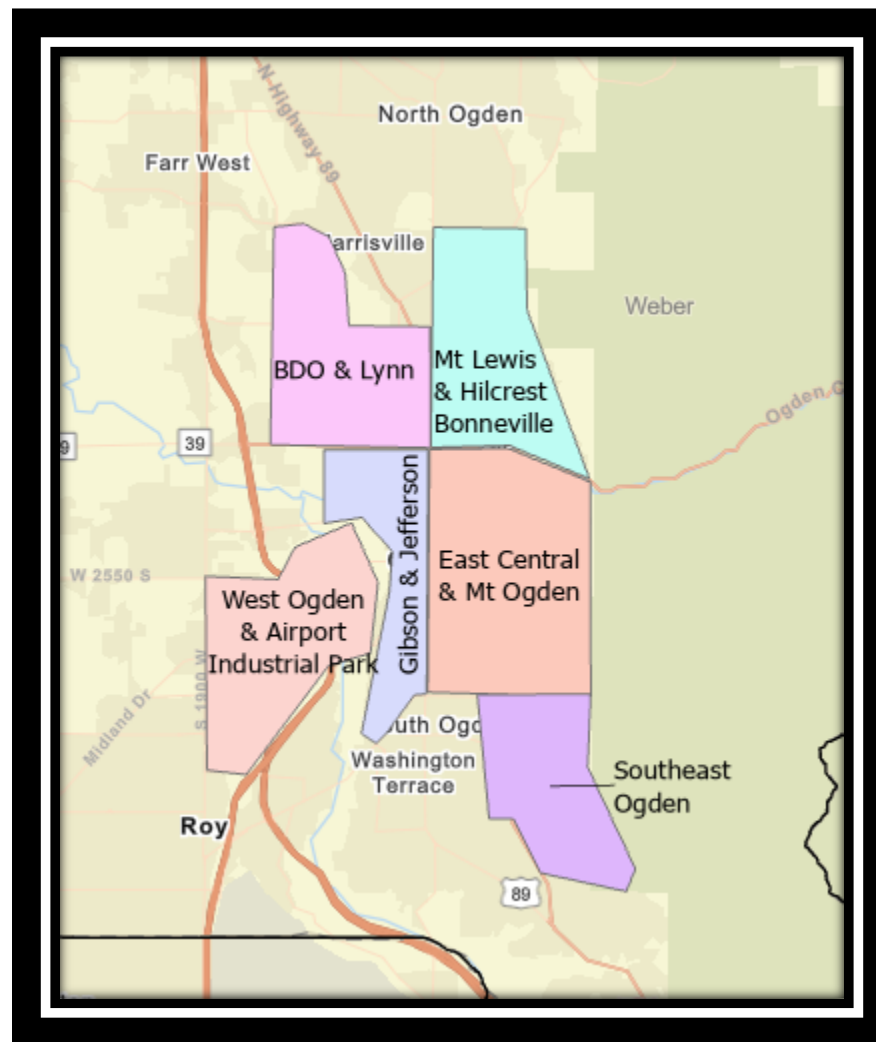


Figure 34. Identified Polygon Areas

5.6 ALIGNMENT

By partnering with ISPs, Ogden City aims to ensure comprehensive coverage throughout the entire city and bring fiber-to-the-home connectivity. The Local Broadband Plan emphasizes the importance of connecting critical infrastructure to fiber, enhancing the reliability and resilience of essential services. By prioritizing the deployment of fiber-optic networks, Ogden City seeks to strengthen the broadband infrastructure and support future growth and technological advancements.



One existing initiative of Ogden City that is indirectly aligned with the Infrastructure Plan is the Ogden City Community Development Plan²², which aims to stabilize and revitalize Ogden’s neighborhoods by enhancing various aspects of community resources (i.e., education, public amenities).

Ogden City aims to build upon existing initiatives and leverage partnerships to maximize available funding and resources. It seeks to collaborate with ISPs to close the digital divide and ensure equitable access to high-speed internet for all residents, businesses, and institutions in the community.

In alignment with these priorities, the Local Broadband Plan emphasizes the need for comprehensive coverage and connectivity, targeting unserved and underserved areas. By coordinating efforts, the plan ensures a strategic allocation of resources to meet these priorities effectively.

Through the alignment of priorities and the strategic execution of the Local Broadband Plan, Ogden City is committed to establishing high-speed internet in all unserved areas, bringing connectivity to underserved areas, providing reliable infrastructure and connectivity, partnering with ISPs to serve the entire city, and ensuring critical infrastructure is connected to fiber. This comprehensive approach will drive equitable access, economic growth, and enhanced quality of life for all residents of Ogden.

5.7 TECHNICAL ASSISTANCE

Ogden City intends to allow the private ISP companies to build within Ogden according to City requirements. No additional technical assistance is required beyond what the ISPs provide.

²² Ogden City. City Plans. General Plan (Involve Ogden). <https://www.ogdencity.com/541/City-Plans>



6 CONCLUSION

In conclusion, the broadband strategic plan outlined above serves as a comprehensive roadmap for maximizing the potential of broadband technology to drive economic growth, enhance connectivity, and foster innovation. By expanding infrastructure, affordability, reliability, and accessibility, the plan aims to connect households and create a more prosperous Ogden City. Through collaboration among government entities, private sector partners, agencies, and community stakeholders, this local broadband plan establishes a solid foundation for harnessing the transformative power of high-speed internet to empower individuals, businesses, and communities alike.

Priorities

The top priorities of this plan include establishing high-speed internet connection in all unserved areas throughout the community. Once every unserved area is covered, then the next priority will be to get connection to underserved areas. The goal is to make sure all Ogden City residents have equal access and opportunity to connect to the digital world. Other priorities in this plan include providing more reliable infrastructure and connectivity to West Ogden, partnering with ISPs to ensure service to the entire city, bringing fiber to the home, and ensuring that critical infrastructure is connected to fiber. These priorities were informed by stakeholder input and technical analysis. As the plan is implemented other strategic focus areas may arise and this plan may be updated to meet that need.

Expected Outcomes

Successful implementation of this plan will depend on the ability of Ogden City, ISPs, local community organizations, and residents to come together to promote and establish broadband expansion throughout the whole city. This will be accomplished by investing in broadband infrastructure that is accessible, modern, and scalable and provides communities with opportunities.

Having the infrastructure, tools, and education to access high-speed internet is the modern-day societal equalizer. Not only do broadband services allow residents access to essential services like online banking, telehealth, and employment, but they have the ability to connect communities, provide entertainment, and provide endless resources and information. The opportunities that accompany broadband connection are nearly as endless and unique as each of the diverse individuals that make up the great city of Ogden, Utah.

“It [internet] needs to be more affordable for everyone and high-speed. While I can afford it, it is still costly and many cannot, which only creates gaps in education and the ability to find jobs. Even low-income cost program is too much for many when deciding between rent, food, and internet.”

Ogden City High-Speed Internet Survey Response



Appendix A: Ogden City High-Speed Internet Surveys

The following pages include the individual responses from surveys gathered as part of the Ogden City local broadband planning outreach. Survey responses gathered as part of the Connecting Utah statewide survey in the Ogden City area are also included as part of this appendix.

Q1 What is your address?

Answered: 281 Skipped: 3

ANSWER CHOICES	RESPONSES	
Address 2	8.54%	24
City/Town	99.29%	279
Company	0.00%	0
Country	0.00%	0
Email Address	0.00%	0
Name	0.00%	0
Phone Number	0.00%	0
State/Province	0.00%	0
ZIP/Postal Code	99.64%	280
Street Address	100.00%	281

#	ADDRESS 2	DATE
1		6/15/2023 9:10 AM
2		5/20/2023 7:50 AM
3		5/19/2023 5:08 PM
4		5/19/2023 2:03 AM
5		5/18/2023 10:01 PM
6		5/18/2023 8:57 PM
7		5/18/2023 7:56 PM
8		5/18/2023 7:44 PM
9		5/18/2023 10:20 AM
10		5/17/2023 2:35 PM
11		5/17/2023 12:38 PM
12		5/17/2023 10:21 AM
13		5/17/2023 8:25 AM
14		5/16/2023 3:58 PM
15		5/16/2023 2:22 PM
16		5/16/2023 12:28 PM
17		5/16/2023 9:48 AM
18		5/16/2023 9:32 AM
19		5/15/2023 4:39 PM
20		5/14/2023 7:27 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

21		5/9/2023 9:53 PM
22		5/6/2023 11:58 AM
23		5/5/2023 5:07 PM
24		5/5/2023 4:35 PM
#	CITY/TOWN	DATE
1	Ogden	7/5/2023 11:18 AM
2	Ogden	7/3/2023 1:45 AM
3	Ogden	7/1/2023 12:15 PM
4	OGDEN	6/29/2023 9:14 AM
5	Ogden	6/28/2023 4:43 PM
6	Ogden	6/28/2023 11:04 AM
7	Ogden	6/26/2023 7:03 PM
8	Ogden	6/23/2023 7:01 AM
9	ogden	6/22/2023 11:26 PM
10	Ogden	6/22/2023 4:34 PM
11	Ogden	6/22/2023 4:29 PM
12	Ogden	6/22/2023 2:53 PM
13	Ogden	6/19/2023 10:44 PM
14	Ogden	6/19/2023 1:50 PM
15	Ogden	6/15/2023 11:39 AM
16	Ogden	6/15/2023 9:25 AM
17	Ogden	6/15/2023 9:10 AM
18	Ogden	6/15/2023 5:48 AM
19	Ogden	6/14/2023 4:26 AM
20	Ogden	6/13/2023 8:19 PM
21	Ogden	6/12/2023 12:26 PM
22	Ogden	6/9/2023 9:34 PM
23	Ogden	6/9/2023 4:26 AM
24	Ogden	6/8/2023 7:14 PM
25	Ogden	6/8/2023 6:07 PM
26	Ogden	6/8/2023 7:25 AM
27	Ogden	6/8/2023 6:29 AM
28	Ogden	6/7/2023 9:15 PM
29	Ogden	6/7/2023 8:07 PM
30	Ogden	6/7/2023 6:00 PM
31	Ogden	6/5/2023 8:21 PM
32	Ogden	6/3/2023 11:14 AM
33	South Ogden	5/31/2023 9:13 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

34	Ogden	5/30/2023 10:45 PM
35	Ogden	5/30/2023 4:50 PM
36	Ogden	5/30/2023 3:04 PM
37	Ogden	5/30/2023 2:42 PM
38	Ogden	5/30/2023 9:56 AM
39	Ogden	5/30/2023 8:01 AM
40	Ogden	5/30/2023 6:57 AM
41	Ogden	5/30/2023 6:37 AM
42	Ogden	5/29/2023 10:00 PM
43	Ogden	5/29/2023 8:05 PM
44	Ogden	5/29/2023 5:50 PM
45	Ogden	5/29/2023 11:13 AM
46	ogden	5/29/2023 9:28 AM
47	Ogden	5/27/2023 9:58 PM
48	Ogden	5/27/2023 6:31 PM
49	Ogden	5/25/2023 3:54 PM
50	Ogden	5/24/2023 9:24 PM
51	Ogden	5/24/2023 4:32 PM
52	OGDEN	5/24/2023 3:39 PM
53	South Ogden	5/24/2023 8:30 AM
54	Ogden	5/23/2023 6:11 PM
55	Ogden	5/22/2023 10:18 PM
56	Ogden	5/22/2023 9:04 PM
57	Ogden	5/21/2023 7:24 AM
58	Ogden	5/20/2023 6:08 PM
59	ogden	5/20/2023 11:09 AM
60	Ogden	5/20/2023 9:22 AM
61	Ogden	5/20/2023 7:50 AM
62	Ogden	5/19/2023 8:40 PM
63	Ogden	5/19/2023 8:21 PM
64	Ogden	5/19/2023 8:05 PM
65	Ogden	5/19/2023 7:28 PM
66	Ogden	5/19/2023 5:08 PM
67	Ogden	5/19/2023 1:49 PM
68	Ogden	5/19/2023 1:35 PM
69	Ogden	5/19/2023 12:19 PM
70	Ogden	5/19/2023 12:11 PM
71	Ogden	5/19/2023 11:51 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

72	Ogden	5/19/2023 10:36 AM
73	Ogden	5/19/2023 9:48 AM
74	Ogden	5/19/2023 9:42 AM
75	Ogden	5/19/2023 9:24 AM
76	Ogden	5/19/2023 8:57 AM
77	Ogden	5/19/2023 8:20 AM
78	Ogden	5/19/2023 8:03 AM
79	Ogden	5/19/2023 7:15 AM
80	Ogden	5/19/2023 7:04 AM
81	Ogden	5/19/2023 7:01 AM
82	Ogden	5/19/2023 6:50 AM
83	Ogden	5/19/2023 6:48 AM
84	Ogden	5/19/2023 6:41 AM
85	Ogden	5/19/2023 6:34 AM
86	Ogden	5/19/2023 6:30 AM
87	Ogden	5/19/2023 6:22 AM
88	Ogden	5/19/2023 6:11 AM
89	Ogden	5/19/2023 5:41 AM
90	Ogden	5/19/2023 5:15 AM
91	Ogden	5/19/2023 4:19 AM
92	Ogden	5/19/2023 2:03 AM
93	Ogden	5/19/2023 1:28 AM
94	Ogden	5/19/2023 12:57 AM
95	Ogden	5/19/2023 12:50 AM
96	Ogden	5/19/2023 12:44 AM
97	Ogden	5/19/2023 12:18 AM
98	Ogden	5/18/2023 11:54 PM
99	Ogden	5/18/2023 11:42 PM
100	Ogden	5/18/2023 11:35 PM
101	Ogden	5/18/2023 11:29 PM
102	Ogden	5/18/2023 11:12 PM
103	Ogden	5/18/2023 11:00 PM
104	Ogden	5/18/2023 10:55 PM
105	Ogden	5/18/2023 10:51 PM
106	Ogden	5/18/2023 10:39 PM
107	Ogden	5/18/2023 10:30 PM
108	Ogden	5/18/2023 10:26 PM
109	Ogden	5/18/2023 10:03 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

110	Ogden	5/18/2023 10:01 PM
111	Ogden	5/18/2023 10:00 PM
112	Ogden	5/18/2023 9:52 PM
113	Ogden	5/18/2023 9:47 PM
114	Ogden	5/18/2023 9:26 PM
115	Ogden	5/18/2023 9:17 PM
116	Ogden	5/18/2023 9:15 PM
117	Ogden	5/18/2023 9:11 PM
118	Ogden	5/18/2023 9:11 PM
119	Ogden	5/18/2023 9:04 PM
120	Ogden	5/18/2023 9:03 PM
121	ogden	5/18/2023 9:02 PM
122	Ogden	5/18/2023 8:58 PM
123	Ogden	5/18/2023 8:57 PM
124	Ogden	5/18/2023 8:53 PM
125	Ogden	5/18/2023 8:49 PM
126	Ogden	5/18/2023 8:47 PM
127	Ogden	5/18/2023 8:35 PM
128	Ogden	5/18/2023 8:35 PM
129	Ogden	5/18/2023 8:22 PM
130	Ogden	5/18/2023 8:14 PM
131	Ogden	5/18/2023 8:13 PM
132	Ogden	5/18/2023 8:04 PM
133	Riverdale	5/18/2023 7:56 PM
134	Ogden	5/18/2023 7:56 PM
135	Ogden	5/18/2023 7:53 PM
136	Ogden	5/18/2023 7:44 PM
137	Ogden	5/18/2023 7:44 PM
138	Ogden	5/18/2023 7:43 PM
139	Washington Terrace	5/18/2023 7:31 PM
140	Ogden	5/18/2023 7:19 PM
141	Ogden	5/18/2023 7:18 PM
142	Riverdale	5/18/2023 7:17 PM
143	Ogden	5/18/2023 7:13 PM
144	Ogden	5/18/2023 7:12 PM
145	Ogden	5/18/2023 7:04 PM
146	Ogden	5/18/2023 7:02 PM
147	Ogden	5/18/2023 6:54 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

148	Ogden	5/18/2023 6:45 PM
149	Ogden	5/18/2023 6:43 PM
150	Ogden	5/18/2023 6:41 PM
151	Ogden	5/18/2023 6:38 PM
152	Ogden	5/18/2023 6:33 PM
153	Ogden	5/18/2023 6:29 PM
154	Ogden	5/18/2023 6:22 PM
155	Ogden	5/18/2023 6:15 PM
156	Ogden	5/18/2023 6:15 PM
157	Ogden	5/18/2023 6:13 PM
158	Ogden	5/18/2023 6:13 PM
159	OGDEN	5/18/2023 3:55 PM
160	Harrisvile	5/18/2023 10:33 AM
161	ogden	5/18/2023 10:20 AM
162	Ogden	5/18/2023 9:54 AM
163	Ogden	5/18/2023 8:33 AM
164	Ogden	5/17/2023 10:42 PM
165	Ogden	5/17/2023 3:48 PM
166	Ogden	5/17/2023 3:46 PM
167	Ogden	5/17/2023 2:36 PM
168	Ogden	5/17/2023 2:35 PM
169	Ogden	5/17/2023 12:56 PM
170	Ogden	5/17/2023 12:38 PM
171	OGDEN	5/17/2023 12:04 PM
172	North Ogden	5/17/2023 10:21 AM
173	Ogden	5/17/2023 8:53 AM
174	Ogden	5/17/2023 8:25 AM
175	Ogden	5/16/2023 7:15 PM
176	Ogden	5/16/2023 6:24 PM
177	OGDEN	5/16/2023 3:58 PM
178	OGDEN	5/16/2023 2:22 PM
179	Ogden	5/16/2023 12:42 PM
180	Ogden	5/16/2023 12:28 PM
181	Ogden	5/16/2023 12:04 PM
182	Ogden	5/16/2023 11:28 AM
183	OGDEN	5/16/2023 11:07 AM
184	Ogden	5/16/2023 10:36 AM
185	Ogden	5/16/2023 9:51 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

186	Ogden	5/16/2023 9:48 AM
187	Ogden	5/16/2023 9:32 AM
188	Ogden	5/16/2023 9:23 AM
189	Ogden	5/16/2023 8:53 AM
190	ogden	5/16/2023 8:49 AM
191	Ogden	5/16/2023 7:42 AM
192	Ogden	5/16/2023 7:39 AM
193	Ogden	5/16/2023 7:37 AM
194	Ogden	5/16/2023 6:38 AM
195	Ogden	5/15/2023 7:13 PM
196	Ogden	5/15/2023 6:58 PM
197	Ogden	5/15/2023 4:39 PM
198	Ogden	5/15/2023 4:25 PM
199	Kaysville	5/15/2023 4:17 PM
200	Ogden	5/15/2023 4:16 PM
201	Ogden	5/15/2023 12:01 PM
202	Ogden	5/15/2023 5:40 AM
203	Ogden	5/14/2023 10:55 PM
204	Ogden	5/14/2023 9:40 PM
205	Ogden	5/14/2023 9:11 PM
206	Ogden	5/14/2023 7:27 PM
207	Ogden	5/14/2023 2:32 PM
208	Ogden	5/14/2023 1:19 PM
209	Ogden	5/14/2023 9:58 AM
210	Ogden	5/14/2023 9:35 AM
211	Ogden	5/14/2023 9:11 AM
212	Ogden	5/14/2023 8:22 AM
213	Ogden	5/14/2023 7:29 AM
214	Ogden	5/14/2023 12:06 AM
215	Pleasant view	5/13/2023 7:08 PM
216	Ogden	5/13/2023 6:12 PM
217	Ogden	5/13/2023 3:36 PM
218	Ogden	5/13/2023 3:33 PM
219	Ogden	5/13/2023 2:55 PM
220	Ogden	5/13/2023 2:47 PM
221	Ogden	5/13/2023 2:45 PM
222	Ogden	5/13/2023 2:14 PM
223	Ogden	5/13/2023 12:58 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

224	Ogden	5/13/2023 12:48 PM
225	Ogden	5/13/2023 12:32 PM
226	Ogden	5/13/2023 12:32 PM
227	Ogsen	5/13/2023 12:22 PM
228	Ogden	5/13/2023 12:16 PM
229	Ogden	5/13/2023 11:57 AM
230	Ogden	5/13/2023 11:41 AM
231	Ogden	5/13/2023 11:38 AM
232	Ogden	5/13/2023 11:26 AM
233	Ogden	5/13/2023 11:08 AM
234	Ogden	5/12/2023 12:15 PM
235	Ogden	5/12/2023 10:58 AM
236	Ogden	5/12/2023 9:50 AM
237	Ogden	5/11/2023 12:56 PM
238	Ogden	5/10/2023 9:22 PM
239	Ogden	5/10/2023 2:29 PM
240	Ogden	5/10/2023 12:40 PM
241	Ogden	5/10/2023 12:38 PM
242	Ogden	5/9/2023 9:53 PM
243	S ogden	5/8/2023 10:02 AM
244	OGDEN	5/7/2023 7:28 PM
245	Ogden	5/7/2023 1:02 PM
246	Ogden	5/7/2023 8:04 AM
247	North Ogden	5/7/2023 3:58 AM
248	Ogden	5/6/2023 2:42 PM
249	Ogden	5/6/2023 2:22 PM
250	Ogden	5/6/2023 1:10 PM
251	Ogden	5/6/2023 11:58 AM
252	Clearfield	5/5/2023 5:23 PM
253	Ogden	5/5/2023 5:07 PM
254	Ogden	5/5/2023 4:35 PM
255	Ogden	5/5/2023 4:30 PM
256	Ogden	5/5/2023 1:25 PM
257	Ogden	5/5/2023 11:32 AM
258	Ogden	5/4/2023 9:31 PM
259	Ogden	5/4/2023 8:39 PM
260	Ogden	5/4/2023 8:15 PM
261	Ogden	5/4/2023 8:05 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

262	Ogden	5/4/2023 4:09 PM
263	Ogden	5/4/2023 3:54 PM
264	Ogden	5/4/2023 12:26 PM
265	Ogden	5/4/2023 12:00 PM
266	Ogden	5/4/2023 11:07 AM
267	Ogden	5/4/2023 10:12 AM
268	Ogden	5/4/2023 10:11 AM
269	OGDEN	5/4/2023 9:54 AM
270	Ogden	5/3/2023 6:45 PM
271	Ogden ut	5/3/2023 7:20 AM
272	Ogden	5/1/2023 8:59 PM
273	Ogden	4/30/2023 1:29 PM
274	Ogden	4/29/2023 9:48 PM
275	Ogden	4/29/2023 2:25 PM
276	Ogden	4/29/2023 2:17 PM
277	Ogden	4/29/2023 2:14 PM
278	Ogden	4/29/2023 11:22 AM
279	Ogden	4/29/2023 9:06 AM
#	COMPANY	DATE
	There are no responses.	
#	COUNTRY	DATE
	There are no responses.	
#	EMAIL ADDRESS	DATE
	There are no responses.	
#	NAME	DATE
	There are no responses.	
#	STREET ADDRESS	DATE
1		7/5/2023 11:18 AM
2		7/3/2023 1:45 AM
3		7/1/2023 12:15 PM
4		6/29/2023 9:14 AM
5		6/28/2023 4:43 PM
6		6/28/2023 11:04 AM
7		6/26/2023 7:03 PM
8		6/23/2023 7:01 AM
9		6/22/2023 11:26 PM
10		6/22/2023 4:34 PM
11		6/22/2023 4:29 PM
12		6/22/2023 2:53 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

13	6/19/2023 10:44 PM
14	6/19/2023 1:50 PM
15	6/15/2023 11:39 AM
16	6/15/2023 9:25 AM
17	6/15/2023 9:10 AM
18	6/15/2023 5:48 AM
19	6/14/2023 4:26 AM
20	6/13/2023 8:19 PM
21	6/12/2023 12:26 PM
22	6/9/2023 9:34 PM
23	6/9/2023 4:26 AM
24	6/8/2023 7:14 PM
25	6/8/2023 6:07 PM
26	6/8/2023 7:25 AM
27	6/8/2023 6:29 AM
28	6/7/2023 9:15 PM
29	6/7/2023 8:07 PM
30	6/7/2023 6:00 PM
31	6/5/2023 8:21 PM
32	6/3/2023 11:14 AM
33	5/31/2023 9:13 AM
34	5/30/2023 10:45 PM
35	5/30/2023 4:50 PM
36	5/30/2023 3:04 PM
37	5/30/2023 2:42 PM
38	5/30/2023 9:56 AM
39	5/30/2023 8:01 AM
40	5/30/2023 6:57 AM
41	5/30/2023 6:37 AM
42	5/29/2023 10:00 PM
43	5/29/2023 8:05 PM
44	5/29/2023 5:50 PM
45	5/29/2023 11:13 AM
46	5/29/2023 9:28 AM
47	5/27/2023 9:58 PM
48	5/27/2023 6:31 PM
49	5/25/2023 3:54 PM
50	5/24/2023 9:24 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

51	5/24/2023 4:32 PM
52	5/24/2023 3:39 PM
53	5/24/2023 8:30 AM
54	5/23/2023 6:11 PM
55	5/22/2023 10:18 PM
56	5/22/2023 9:04 PM
57	5/21/2023 7:24 AM
58	5/20/2023 6:08 PM
59	5/20/2023 11:09 AM
60	5/20/2023 9:22 AM
61	5/20/2023 7:50 AM
62	5/19/2023 8:40 PM
63	5/19/2023 8:21 PM
64	5/19/2023 8:05 PM
65	5/19/2023 7:28 PM
66	5/19/2023 5:08 PM
67	5/19/2023 1:49 PM
68	5/19/2023 1:35 PM
69	5/19/2023 12:19 PM
70	5/19/2023 12:11 PM
71	5/19/2023 11:51 AM
72	5/19/2023 10:36 AM
73	5/19/2023 9:48 AM
74	5/19/2023 9:42 AM
75	5/19/2023 9:24 AM
76	5/19/2023 8:57 AM
77	5/19/2023 8:20 AM
78	5/19/2023 8:03 AM
79	5/19/2023 7:15 AM
80	5/19/2023 7:04 AM
81	5/19/2023 7:01 AM
82	5/19/2023 6:50 AM
83	5/19/2023 6:48 AM
84	5/19/2023 6:41 AM
85	5/19/2023 6:34 AM
86	5/19/2023 6:30 AM
87	5/19/2023 6:22 AM
88	5/19/2023 6:11 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

89	5/19/2023 5:41 AM
90	5/19/2023 5:15 AM
91	5/19/2023 4:19 AM
92	5/19/2023 2:03 AM
93	5/19/2023 1:28 AM
94	5/19/2023 12:57 AM
95	5/19/2023 12:50 AM
96	5/19/2023 12:44 AM
97	5/19/2023 12:18 AM
98	5/18/2023 11:54 PM
99	5/18/2023 11:42 PM
100	5/18/2023 11:35 PM
101	5/18/2023 11:29 PM
102	5/18/2023 11:12 PM
103	5/18/2023 11:00 PM
104	5/18/2023 10:55 PM
105	5/18/2023 10:51 PM
106	5/18/2023 10:39 PM
107	5/18/2023 10:30 PM
108	5/18/2023 10:26 PM
109	5/18/2023 10:03 PM
110	5/18/2023 10:01 PM
111	5/18/2023 10:00 PM
112	5/18/2023 9:52 PM
113	5/18/2023 9:47 PM
114	5/18/2023 9:26 PM
115	5/18/2023 9:17 PM
116	5/18/2023 9:15 PM
117	5/18/2023 9:11 PM
118	5/18/2023 9:11 PM
119	5/18/2023 9:04 PM
120	5/18/2023 9:03 PM
121	5/18/2023 9:02 PM
122	5/18/2023 8:58 PM
123	5/18/2023 8:57 PM
124	5/18/2023 8:53 PM
125	5/18/2023 8:49 PM
126	5/18/2023 8:47 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

127	5/18/2023 8:35 PM
128	5/18/2023 8:35 PM
129	5/18/2023 8:22 PM
130	5/18/2023 8:14 PM
131	5/18/2023 8:13 PM
132	5/18/2023 8:04 PM
133	5/18/2023 7:56 PM
134	5/18/2023 7:56 PM
135	5/18/2023 7:53 PM
136	5/18/2023 7:44 PM
137	5/18/2023 7:44 PM
138	5/18/2023 7:43 PM
139	5/18/2023 7:31 PM
140	5/18/2023 7:19 PM
141	5/18/2023 7:18 PM
142	5/18/2023 7:17 PM
143	5/18/2023 7:13 PM
144	5/18/2023 7:12 PM
145	5/18/2023 7:04 PM
146	5/18/2023 7:02 PM
147	5/18/2023 6:54 PM
148	5/18/2023 6:45 PM
149	5/18/2023 6:43 PM
150	5/18/2023 6:41 PM
151	5/18/2023 6:38 PM
152	5/18/2023 6:33 PM
153	5/18/2023 6:29 PM
154	5/18/2023 6:22 PM
155	5/18/2023 6:15 PM
156	5/18/2023 6:15 PM
157	5/18/2023 6:13 PM
158	5/18/2023 6:13 PM
159	5/18/2023 3:55 PM
160	5/18/2023 10:33 AM
161	5/18/2023 10:20 AM
162	5/18/2023 9:54 AM
163	5/18/2023 8:33 AM
164	5/17/2023 10:42 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

165	5/17/2023 3:48 PM
166	5/17/2023 3:46 PM
167	5/17/2023 2:36 PM
168	5/17/2023 2:35 PM
169	5/17/2023 12:56 PM
170	5/17/2023 12:38 PM
171	5/17/2023 12:04 PM
172	5/17/2023 10:21 AM
173	5/17/2023 8:53 AM
174	5/17/2023 8:25 AM
175	5/16/2023 7:15 PM
176	5/16/2023 6:24 PM
177	5/16/2023 3:58 PM
178	5/16/2023 2:22 PM
179	5/16/2023 12:42 PM
180	5/16/2023 12:28 PM
181	5/16/2023 12:04 PM
182	5/16/2023 11:28 AM
183	5/16/2023 11:07 AM
184	5/16/2023 10:36 AM
185	5/16/2023 9:51 AM
186	5/16/2023 9:48 AM
187	5/16/2023 9:32 AM
188	5/16/2023 9:23 AM
189	5/16/2023 8:53 AM
190	5/16/2023 8:49 AM
191	5/16/2023 7:42 AM
192	5/16/2023 7:39 AM
193	5/16/2023 7:37 AM
194	5/16/2023 6:38 AM
195	5/15/2023 7:13 PM
196	5/15/2023 6:58 PM
197	5/15/2023 4:39 PM
198	5/15/2023 4:25 PM
199	5/15/2023 4:17 PM
200	5/15/2023 4:16 PM
201	5/15/2023 12:01 PM
202	5/15/2023 5:40 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

203	5/14/2023 10:55 PM
204	5/14/2023 9:40 PM
205	5/14/2023 9:11 PM
206	5/14/2023 7:27 PM
207	5/14/2023 2:32 PM
208	5/14/2023 1:19 PM
209	5/14/2023 9:58 AM
210	5/14/2023 9:35 AM
211	5/14/2023 9:11 AM
212	5/14/2023 8:22 AM
213	5/14/2023 7:29 AM
214	5/14/2023 12:06 AM
215	5/13/2023 10:46 PM
216	5/13/2023 7:08 PM
217	5/13/2023 6:12 PM
218	5/13/2023 3:36 PM
219	5/13/2023 3:33 PM
220	5/13/2023 2:55 PM
221	5/13/2023 2:47 PM
222	5/13/2023 2:45 PM
223	5/13/2023 2:14 PM
224	5/13/2023 12:58 PM
225	5/13/2023 12:48 PM
226	5/13/2023 12:32 PM
227	5/13/2023 12:32 PM
228	5/13/2023 12:22 PM
229	5/13/2023 12:16 PM
230	5/13/2023 11:57 AM
231	5/13/2023 11:41 AM
232	5/13/2023 11:38 AM
233	5/13/2023 11:26 AM
234	5/13/2023 11:08 AM
235	5/12/2023 12:15 PM
236	5/12/2023 10:58 AM
237	5/12/2023 9:50 AM
238	5/11/2023 12:56 PM
239	5/10/2023 9:22 PM
240	5/10/2023 2:29 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

241	5/10/2023 12:40 PM
242	5/10/2023 12:38 PM
243	5/9/2023 9:53 PM
244	5/8/2023 10:02 AM
245	5/7/2023 7:28 PM
246	5/7/2023 1:02 PM
247	5/7/2023 8:04 AM
248	5/7/2023 3:58 AM
249	5/6/2023 2:42 PM
250	5/6/2023 2:22 PM
251	5/6/2023 1:10 PM
252	5/6/2023 11:58 AM
253	5/5/2023 5:23 PM
254	5/5/2023 5:07 PM
255	5/5/2023 4:35 PM
256	5/5/2023 4:30 PM
257	5/5/2023 1:25 PM
258	5/5/2023 11:32 AM
259	5/4/2023 9:31 PM
260	5/4/2023 8:39 PM
261	5/4/2023 8:15 PM
262	5/4/2023 8:05 PM
263	5/4/2023 4:09 PM
264	5/4/2023 3:54 PM
265	5/4/2023 12:26 PM
266	5/4/2023 12:00 PM
267	5/4/2023 11:07 AM
268	5/4/2023 10:12 AM
269	5/4/2023 10:11 AM
270	5/4/2023 9:54 AM
271	5/3/2023 6:45 PM
272	5/3/2023 7:20 AM
273	5/1/2023 8:59 PM
274	4/30/2023 1:29 PM
275	4/29/2023 9:48 PM
276	4/29/2023 2:25 PM
277	4/29/2023 2:17 PM
278	4/29/2023 2:14 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

279		4/29/2023 11:22 AM
280		4/29/2023 9:06 AM
281		4/20/2023 9:37 AM
#	PHONE NUMBER	DATE
There are no responses.		
#	STATE/PROVINCE	DATE
There are no responses.		
#	ZIP/POSTAL CODE	DATE
1	84403	7/5/2023 11:18 AM
2	84404	7/3/2023 1:45 AM
3	84403	7/1/2023 12:15 PM
4	84404	6/29/2023 9:14 AM
5	84401	6/28/2023 4:43 PM
6	84401	6/28/2023 11:04 AM
7	84401	6/26/2023 7:03 PM
8	84404	6/23/2023 7:01 AM
9	84401	6/22/2023 11:26 PM
10	84401	6/22/2023 4:34 PM
11	84403	6/22/2023 4:29 PM
12	84401	6/22/2023 2:53 PM
13	84403	6/19/2023 10:44 PM
14	84403	6/19/2023 1:50 PM
15	84403	6/15/2023 11:39 AM
16	84403	6/15/2023 9:25 AM
17	84404	6/15/2023 9:10 AM
18	84403	6/15/2023 5:48 AM
19	84404	6/14/2023 4:26 AM
20	84401	6/13/2023 8:19 PM
21	84404	6/12/2023 12:26 PM
22	84404	6/9/2023 9:34 PM
23	84404	6/9/2023 4:26 AM
24	84404	6/8/2023 7:14 PM
25	84404	6/8/2023 6:07 PM
26	84404	6/8/2023 7:25 AM
27	84404	6/8/2023 6:29 AM
28	84404	6/7/2023 9:15 PM
29	84404	6/7/2023 8:07 PM
30	84404	6/7/2023 6:00 PM
31	84401	6/5/2023 8:21 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	84403	6/3/2023 11:14 AM
33	84403	5/31/2023 9:13 AM
34	84403	5/30/2023 10:45 PM
35	84404	5/30/2023 4:50 PM
36	84404	5/30/2023 3:04 PM
37	84404	5/30/2023 2:42 PM
38	84403	5/30/2023 9:56 AM
39	84403	5/30/2023 8:01 AM
40	84403	5/30/2023 6:57 AM
41	84403	5/30/2023 6:37 AM
42	84401	5/29/2023 10:00 PM
43	84403	5/29/2023 8:05 PM
44	84404	5/29/2023 5:50 PM
45	84404	5/29/2023 11:13 AM
46	84401	5/29/2023 9:28 AM
47	84403	5/27/2023 9:58 PM
48	84404	5/27/2023 6:31 PM
49	84401	5/25/2023 3:54 PM
50	84401	5/24/2023 9:24 PM
51	84404	5/24/2023 4:32 PM
52	84401	5/24/2023 3:39 PM
53	84405	5/24/2023 8:30 AM
54	84403-4568	5/23/2023 6:11 PM
55	84403	5/22/2023 10:18 PM
56	84404	5/22/2023 9:04 PM
57	84401	5/21/2023 7:24 AM
58	84401	5/20/2023 6:08 PM
59	84401	5/20/2023 11:09 AM
60	84401	5/20/2023 9:22 AM
61	84404	5/20/2023 7:50 AM
62	84403	5/19/2023 8:40 PM
63	84403	5/19/2023 8:21 PM
64	84401	5/19/2023 8:05 PM
65	84401	5/19/2023 7:28 PM
66	84403	5/19/2023 5:08 PM
67	84401	5/19/2023 1:49 PM
68	84404	5/19/2023 1:35 PM
69	84404	5/19/2023 12:19 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

70	84403	5/19/2023 12:11 PM
71	84401	5/19/2023 11:51 AM
72	84403	5/19/2023 10:36 AM
73	84403	5/19/2023 9:48 AM
74	84401	5/19/2023 9:42 AM
75	84404	5/19/2023 9:24 AM
76	84404	5/19/2023 8:57 AM
77	84403	5/19/2023 8:20 AM
78	84401	5/19/2023 8:03 AM
79	84404	5/19/2023 7:15 AM
80	84404	5/19/2023 7:04 AM
81	84401	5/19/2023 7:01 AM
82	84403	5/19/2023 6:50 AM
83	84403	5/19/2023 6:48 AM
84	84401	5/19/2023 6:41 AM
85	84401	5/19/2023 6:34 AM
86	84404	5/19/2023 6:30 AM
87	84404	5/19/2023 6:22 AM
88	84403	5/19/2023 6:11 AM
89	84404	5/19/2023 5:41 AM
90	84403	5/19/2023 5:15 AM
91	84404	5/19/2023 4:19 AM
92	84405	5/19/2023 2:03 AM
93	84401	5/19/2023 1:28 AM
94	84403	5/19/2023 12:57 AM
95	84401	5/19/2023 12:50 AM
96	84403	5/19/2023 12:44 AM
97	84401	5/19/2023 12:18 AM
98	84404	5/18/2023 11:54 PM
99	84404	5/18/2023 11:42 PM
100	84404	5/18/2023 11:35 PM
101	84403	5/18/2023 11:29 PM
102	84404	5/18/2023 11:12 PM
103	84403	5/18/2023 11:00 PM
104	84401	5/18/2023 10:55 PM
105	84401	5/18/2023 10:51 PM
106	84403	5/18/2023 10:39 PM
107	84403	5/18/2023 10:30 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

108	84403	5/18/2023 10:26 PM
109	84403	5/18/2023 10:03 PM
110	84401	5/18/2023 10:01 PM
111	84403	5/18/2023 10:00 PM
112	84403	5/18/2023 9:52 PM
113	84404	5/18/2023 9:47 PM
114	84403	5/18/2023 9:26 PM
115	84403	5/18/2023 9:17 PM
116	84403	5/18/2023 9:15 PM
117	84404	5/18/2023 9:11 PM
118	84404	5/18/2023 9:11 PM
119	84404	5/18/2023 9:04 PM
120	84404	5/18/2023 9:03 PM
121	84404	5/18/2023 9:02 PM
122	84404	5/18/2023 8:58 PM
123	84404	5/18/2023 8:57 PM
124	84401	5/18/2023 8:53 PM
125	84403	5/18/2023 8:49 PM
126	84403	5/18/2023 8:47 PM
127	84403	5/18/2023 8:35 PM
128	84404	5/18/2023 8:35 PM
129	84401	5/18/2023 8:22 PM
130	84401	5/18/2023 8:14 PM
131	84403	5/18/2023 8:13 PM
132	84404	5/18/2023 8:04 PM
133	84405	5/18/2023 7:56 PM
134	84403	5/18/2023 7:56 PM
135	84404	5/18/2023 7:53 PM
136	84404	5/18/2023 7:44 PM
137	84404	5/18/2023 7:44 PM
138	84404	5/18/2023 7:43 PM
139	84405	5/18/2023 7:31 PM
140	84403	5/18/2023 7:19 PM
141	84404	5/18/2023 7:18 PM
142	84405	5/18/2023 7:17 PM
143	84401	5/18/2023 7:13 PM
144	84401	5/18/2023 7:12 PM
145	84401	5/18/2023 7:04 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

146	84403	5/18/2023 7:02 PM
147	84401	5/18/2023 6:54 PM
148	84401	5/18/2023 6:45 PM
149	84401	5/18/2023 6:43 PM
150	UT	5/18/2023 6:41 PM
151	84401	5/18/2023 6:38 PM
152	84404	5/18/2023 6:33 PM
153	84401	5/18/2023 6:29 PM
154	84403	5/18/2023 6:22 PM
155	84403	5/18/2023 6:15 PM
156	84404	5/18/2023 6:15 PM
157	84404	5/18/2023 6:13 PM
158	84404	5/18/2023 6:13 PM
159	84403	5/18/2023 3:55 PM
160	84404	5/18/2023 10:33 AM
161	84401	5/18/2023 10:20 AM
162	84401	5/18/2023 9:54 AM
163	84401	5/18/2023 8:33 AM
164	84404	5/17/2023 10:42 PM
165	84404	5/17/2023 3:48 PM
166	84401	5/17/2023 3:46 PM
167	84404	5/17/2023 2:36 PM
168	84401	5/17/2023 2:35 PM
169	84401	5/17/2023 12:56 PM
170	84404	5/17/2023 12:38 PM
171	84401	5/17/2023 12:04 PM
172	84414	5/17/2023 10:21 AM
173	84401	5/17/2023 8:53 AM
174	84401	5/17/2023 8:25 AM
175	84404-3615	5/16/2023 7:15 PM
176	84401	5/16/2023 6:24 PM
177	84401	5/16/2023 3:58 PM
178	84401	5/16/2023 2:22 PM
179	84401	5/16/2023 12:42 PM
180	84401	5/16/2023 12:28 PM
181	84401	5/16/2023 12:04 PM
182	84403	5/16/2023 11:28 AM
183	84404	5/16/2023 11:07 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

184	84403	5/16/2023 10:36 AM
185	84401	5/16/2023 9:51 AM
186	84404	5/16/2023 9:48 AM
187	84403	5/16/2023 9:32 AM
188	84401	5/16/2023 9:23 AM
189	84401	5/16/2023 8:53 AM
190	84404	5/16/2023 8:49 AM
191	84401	5/16/2023 7:42 AM
192	84401	5/16/2023 7:39 AM
193	84404	5/16/2023 7:37 AM
194	84401-1343	5/16/2023 6:38 AM
195	84405	5/15/2023 7:13 PM
196	84404	5/15/2023 6:58 PM
197	84401	5/15/2023 4:39 PM
198	84404	5/15/2023 4:25 PM
199	84037	5/15/2023 4:17 PM
200	84401	5/15/2023 4:16 PM
201	84401	5/15/2023 12:01 PM
202	84401	5/15/2023 5:40 AM
203	84404	5/14/2023 10:55 PM
204	84403	5/14/2023 9:40 PM
205	84403	5/14/2023 9:11 PM
206	84404	5/14/2023 7:27 PM
207	84404	5/14/2023 2:32 PM
208	84403	5/14/2023 1:19 PM
209	84403	5/14/2023 9:58 AM
210	84401	5/14/2023 9:35 AM
211	84404	5/14/2023 9:11 AM
212	84404	5/14/2023 8:22 AM
213	84403	5/14/2023 7:29 AM
214	84403	5/14/2023 12:06 AM
215	84403	5/13/2023 10:46 PM
216	84414	5/13/2023 7:08 PM
217	84404	5/13/2023 6:12 PM
218	84403	5/13/2023 3:36 PM
219	84403	5/13/2023 3:33 PM
220	84403	5/13/2023 2:55 PM
221	84401	5/13/2023 2:47 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

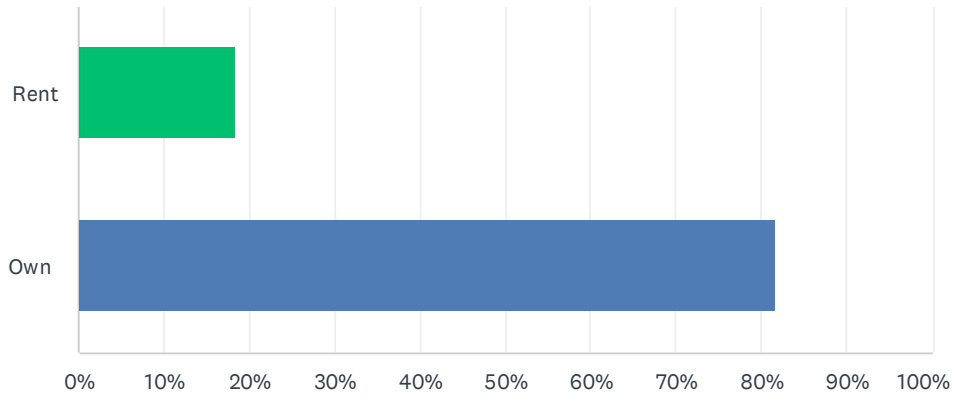
222	84403	5/13/2023 2:45 PM
223	84404	5/13/2023 2:14 PM
224	84404	5/13/2023 12:58 PM
225	84404	5/13/2023 12:48 PM
226	84401	5/13/2023 12:32 PM
227	84401	5/13/2023 12:32 PM
228	Utah	5/13/2023 12:22 PM
229	84401	5/13/2023 12:16 PM
230	84403	5/13/2023 11:57 AM
231	84403	5/13/2023 11:41 AM
232	84403	5/13/2023 11:38 AM
233	84403	5/13/2023 11:26 AM
234	84401	5/13/2023 11:08 AM
235	84403	5/12/2023 12:15 PM
236	84403	5/12/2023 10:58 AM
237	84403	5/12/2023 9:50 AM
238	84404	5/11/2023 12:56 PM
239	84403	5/10/2023 9:22 PM
240	84403	5/10/2023 2:29 PM
241	84403	5/10/2023 12:40 PM
242	84403	5/10/2023 12:38 PM
243	84403	5/9/2023 9:53 PM
244	84403	5/8/2023 10:02 AM
245	84404	5/7/2023 7:28 PM
246	84401-2906	5/7/2023 1:02 PM
247	84403	5/7/2023 8:04 AM
248	84414	5/7/2023 3:58 AM
249	84401	5/6/2023 2:42 PM
250	84404	5/6/2023 2:22 PM
251	84401	5/6/2023 1:10 PM
252	84404	5/6/2023 11:58 AM
253	84016	5/5/2023 5:23 PM
254	84403	5/5/2023 5:07 PM
255	84401	5/5/2023 4:35 PM
256	84403	5/5/2023 4:30 PM
257	84404	5/5/2023 1:25 PM
258	84403	5/5/2023 11:32 AM
259	84403	5/4/2023 9:31 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

260	84404	5/4/2023 8:39 PM
261	84404	5/4/2023 8:15 PM
262	84401	5/4/2023 8:05 PM
263	84401	5/4/2023 4:09 PM
264	84404	5/4/2023 3:54 PM
265	84404	5/4/2023 12:26 PM
266	84403	5/4/2023 12:00 PM
267	84403	5/4/2023 11:07 AM
268	84403	5/4/2023 10:12 AM
269	84401	5/4/2023 10:11 AM
270	84401	5/4/2023 9:54 AM
271	84404	5/3/2023 6:45 PM
272	84401	5/3/2023 7:20 AM
273	84403	5/1/2023 8:59 PM
274	84401	4/30/2023 1:29 PM
275	Utah	4/29/2023 9:48 PM
276	84401	4/29/2023 2:25 PM
277	84401	4/29/2023 2:17 PM
278	84401	4/29/2023 2:14 PM
279	8441	4/29/2023 11:22 AM
280	84401	4/29/2023 9:06 AM

Q2 Do you rent or own this property?

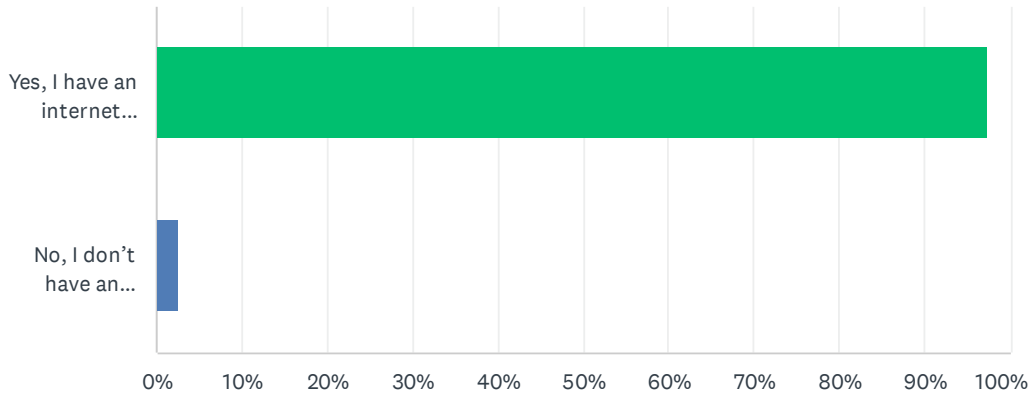
Answered: 277 Skipped: 7



ANSWER CHOICES	RESPONSES	
Rent	18.41%	51
Own	81.59%	226
TOTAL		277

Q3 Do you have an internet connection at your residence?

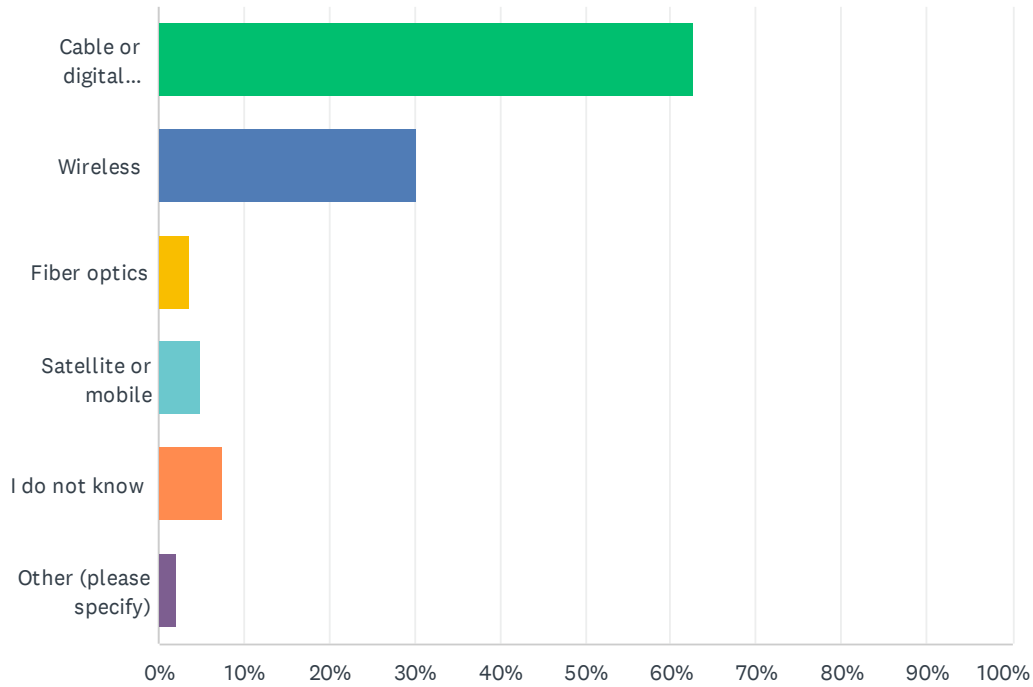
Answered: 283 Skipped: 1



ANSWER CHOICES	RESPONSES	
Yes, I have an internet connection at my residence.	97.53%	276
No, I don't have an internet connection at my residence.	2.47%	7
TOTAL		283

Q4 What kind of internet connection do you have? (Select all that apply)

Answered: 225 Skipped: 59

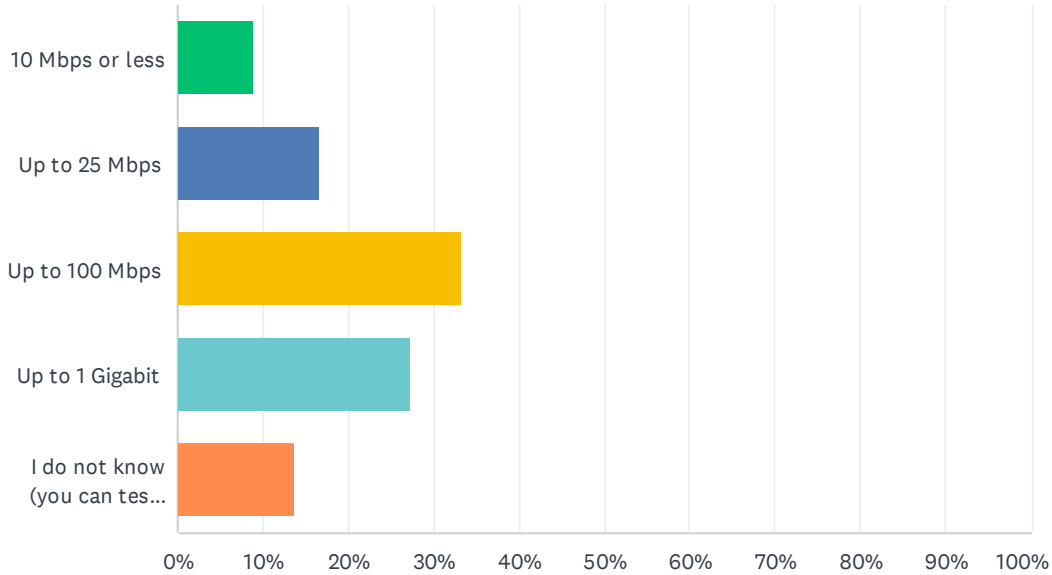


ANSWER CHOICES	RESPONSES
Cable or digital subscriber line (DSL- telephone line)	62.67% 141
Wireless	30.22% 68
Fiber optics	3.56% 8
Satellite or mobile	4.89% 11
I do not know	7.56% 17
Other (please specify)	2.22% 5
Total Respondents: 225	

#	OTHER (PLEASE SPECIFY)	DATE
1	broad band	5/24/2023 9:29 PM
2	Wireless Cell Phone Tower access	5/20/2023 9:30 AM
3	CenturyLink	5/18/2023 7:47 PM
4	Coaxial (Xfinity)	5/13/2023 2:53 PM
5	Quántum fiber	4/29/2023 2:30 PM

Q5 What speed is your internet service (download speed)? (Megabits per second = Mbps)

Answered: 234 Skipped: 50



ANSWER CHOICES	RESPONSES	
10 Mbps or less	8.97%	21
Up to 25 Mbps	16.67%	39
Up to 100 Mbps	33.33%	78
Up to 1 Gigabit	27.35%	64
I do not know (you can test your internet speed at speedtest.utah.gov)	13.68%	32
TOTAL		234

Q6 Which company do you use for internet? (E.g. South Central, CenturyLink, Google Fiber, Connex, Emery Telecom, etc.)

Answered: 233 Skipped: 51

#	RESPONSES	DATE
1	Xfinity	7/3/2023 1:46 AM
2	Tmobile	7/1/2023 12:16 PM
3	Comcast	6/29/2023 9:16 AM
4	Comcast	6/28/2023 4:48 PM
5	Xfinity	6/28/2023 11:07 AM
6	Xfinity	6/26/2023 7:05 PM
7	Xfinity	6/23/2023 7:03 AM
8	Quantum Fiber	6/22/2023 11:30 PM
9	Century link	6/22/2023 4:35 PM
10	CenturyLink	6/22/2023 2:55 PM
11	Xfinity	6/19/2023 10:45 PM
12	T-Mobile	6/15/2023 11:41 AM
13	Xfinity	6/15/2023 9:27 AM
14	Xfinity	6/15/2023 9:11 AM
15	Centurylink	6/15/2023 5:50 AM
16	Comcast	6/14/2023 4:27 AM
17	CenuryLink	6/13/2023 8:24 PM
18	Rise	6/12/2023 12:29 PM
19	Comcast	6/9/2023 9:36 PM
20	TXOX	6/9/2023 4:27 AM
21	Xfinity	6/8/2023 7:15 PM
22	Tmobile	6/8/2023 6:09 PM
23	Xfinity comcast	6/8/2023 7:27 AM
24	T-mobile	6/8/2023 6:39 AM
25	Xfinity	6/7/2023 9:17 PM
26	Xfinity	6/7/2023 8:10 PM
27	Xfinity	6/7/2023 6:04 PM
28	xfinity?	6/5/2023 8:25 PM
29	CenturyLink	6/3/2023 11:29 AM
30	Xfinity	5/30/2023 10:46 PM
31	CenturyLink	5/30/2023 4:52 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	CenturyLink	5/30/2023 3:07 PM
33	Comcast	5/30/2023 2:50 PM
34	Xfinity	5/30/2023 9:58 AM
35	TMobile	5/30/2023 8:02 AM
36	TMobile	5/30/2023 6:58 AM
37	CenturyLink	5/30/2023 6:42 AM
38	Comcast	5/29/2023 10:03 PM
39	CenturyLink	5/29/2023 8:06 PM
40	Rise	5/29/2023 5:52 PM
41	Comcast	5/29/2023 11:17 AM
42	Xfinity	5/29/2023 9:30 AM
43	Comcast	5/27/2023 10:08 PM
44	Metro pcs	5/25/2023 3:56 PM
45	Liberty Broad Band	5/24/2023 9:29 PM
46	Xfinity	5/24/2023 4:34 PM
47	Quantum Fiber	5/24/2023 3:42 PM
48	Comcast	5/24/2023 8:32 AM
49	CenturyLink	5/22/2023 10:19 PM
50	Xfinity	5/22/2023 9:06 PM
51	Xfinity	5/21/2023 7:25 AM
52	Xfinity	5/20/2023 6:12 PM
53	Comcast	5/20/2023 11:16 AM
54	T-Mobile Wireless Home Internet	5/20/2023 9:30 AM
55	CenturyLink	5/19/2023 8:43 PM
56	Xfinity	5/19/2023 8:23 PM
57	Xfinity	5/19/2023 7:30 PM
58	Xfinity	5/19/2023 5:12 PM
59	Xfinity	5/19/2023 1:51 PM
60	Xfinity	5/19/2023 1:36 PM
61	Comcast	5/19/2023 12:23 PM
62	Comcast	5/19/2023 12:12 PM
63	Comcast	5/19/2023 11:55 AM
64	Xfinity	5/19/2023 10:38 AM
65	Xfinity	5/19/2023 9:49 AM
66	Xfinity comcast	5/19/2023 9:44 AM
67	Xfinity	5/19/2023 9:26 AM
68	Xfinity	5/19/2023 8:58 AM
69	Comcast	5/19/2023 8:05 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

70	Xfinity	5/19/2023 7:17 AM
71	Comcast	5/19/2023 7:07 AM
72	Don't know	5/19/2023 7:03 AM
73	Xfinity	5/19/2023 6:50 AM
74	Xfinity	5/19/2023 6:43 AM
75	Verizon	5/19/2023 6:36 AM
76	Xfinity	5/19/2023 6:28 AM
77	Comcast/Xfinity	5/19/2023 6:14 AM
78	Comcast	5/19/2023 5:42 AM
79	Century Link	5/19/2023 5:17 AM
80	Xfinity	5/19/2023 4:21 AM
81	Xfinity	5/19/2023 2:06 AM
82	Provided by property	5/19/2023 1:30 AM
83	Comcast	5/19/2023 1:24 AM
84	T-Mobile	5/19/2023 12:58 AM
85	Comcast	5/19/2023 12:51 AM
86	CenturyLink	5/19/2023 12:24 AM
87	Comcast	5/18/2023 11:43 PM
88	Comcast	5/18/2023 11:37 PM
89	Comcast	5/18/2023 11:30 PM
90	Comcast	5/18/2023 11:16 PM
91	Xfinity	5/18/2023 10:56 PM
92	Xfinity	5/18/2023 10:52 PM
93	Comcast	5/18/2023 10:41 PM
94	Xfinity/comcast	5/18/2023 10:36 PM
95	Xfinity	5/18/2023 10:28 PM
96	Comcast	5/18/2023 10:08 PM
97	Xfinity Comcast	5/18/2023 10:03 PM
98	Comcast	5/18/2023 10:02 PM
99	Xfinity	5/18/2023 9:53 PM
100	Quantum Fiber	5/18/2023 9:52 PM
101	Xfinity	5/18/2023 9:19 PM
102	XFINITY by Comcast	5/18/2023 9:13 PM
103	Xfinity	5/18/2023 9:07 PM
104	Century Link	5/18/2023 9:06 PM
105	Century Link, Verizon	5/18/2023 9:04 PM
106	Centurylink	5/18/2023 9:02 PM
107	Comcast	5/18/2023 8:59 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

108	Century link	5/18/2023 8:54 PM
109	Xfinity	5/18/2023 8:52 PM
110	Centurylink	5/18/2023 8:48 PM
111	Xfinity	5/18/2023 8:38 PM
112	Comcast	5/18/2023 8:36 PM
113	Comcast/Xfinity	5/18/2023 8:24 PM
114	xfinity	5/18/2023 8:17 PM
115	Comcast	5/18/2023 8:08 PM
116	Xfinity	5/18/2023 8:00 PM
117	Xfinity	5/18/2023 7:58 PM
118	Xfinity	5/18/2023 7:54 PM
119	Xfinity	5/18/2023 7:53 PM
120	CenturyLink	5/18/2023 7:47 PM
121	CenturyLink	5/18/2023 7:45 PM
122	Xfinity	5/18/2023 7:21 PM
123	Xfinity	5/18/2023 7:20 PM
124	xfinity	5/18/2023 7:19 PM
125	Comcast	5/18/2023 7:14 PM
126	Xfinity	5/18/2023 7:03 PM
127	CentuyLink	5/18/2023 6:58 PM
128	Comcast	5/18/2023 6:46 PM
129	Xfinity	5/18/2023 6:46 PM
130	Xfinity	5/18/2023 6:42 PM
131	Xfintiy	5/18/2023 6:30 PM
132	Xfinity	5/18/2023 6:23 PM
133	Xfinity	5/18/2023 6:17 PM
134	Xfinity	5/18/2023 6:16 PM
135	Centurylink	5/18/2023 6:15 PM
136	Xfinity	5/18/2023 6:15 PM
137	CenturyLink	5/18/2023 3:57 PM
138	RocketLinx	5/18/2023 11:03 AM
139	Comcast	5/18/2023 10:00 AM
140	Comcast (Xfinity)	5/18/2023 8:35 AM
141	Xfinity	5/17/2023 10:43 PM
142	N/A	5/17/2023 3:51 PM
143	CenturyLink	5/17/2023 2:37 PM
144	Verizon	5/17/2023 12:58 PM
145	Comcast	5/17/2023 12:45 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

146	Comcast	5/17/2023 12:06 PM
147	Xfinity	5/17/2023 10:31 AM
148	?	5/17/2023 8:27 AM
149	CenturyLink	5/16/2023 6:27 PM
150	Ogden City Corp	5/16/2023 2:24 PM
151	xfinity	5/16/2023 12:30 PM
152	Comcast	5/16/2023 12:07 PM
153	Verizon	5/16/2023 11:30 AM
154	CenturyLink	5/16/2023 11:08 AM
155	Comcast	5/16/2023 10:46 AM
156	Xfinity	5/16/2023 8:54 AM
157	Connex	5/16/2023 7:45 AM
158	Comcast	5/16/2023 7:40 AM
159	Verizon	5/16/2023 7:39 AM
160	?	5/16/2023 6:41 AM
161	Comcast	5/15/2023 7:00 PM
162	Century Link	5/15/2023 4:42 PM
163	Century Link	5/15/2023 4:21 PM
164	Ogden City	5/15/2023 4:17 PM
165	Xfinity	5/15/2023 12:05 PM
166	Comcast	5/15/2023 5:41 AM
167	Xfinity	5/14/2023 10:58 PM
168	Xfinity	5/14/2023 9:43 PM
169	Xfinity	5/14/2023 9:12 PM
170	Centurylink	5/14/2023 7:28 PM
171	CenturyLink	5/14/2023 2:33 PM
172	Comcast	5/14/2023 1:22 PM
173	Xfinity	5/14/2023 9:59 AM
174	Fastel	5/14/2023 9:37 AM
175	Xfinity	5/14/2023 9:15 AM
176	Comcast	5/14/2023 8:24 AM
177	Comcast	5/14/2023 12:07 AM
178	Xfinity	5/13/2023 10:48 PM
179	Xfinity	5/13/2023 7:09 PM
180	Xfinity	5/13/2023 6:15 PM
181	Comcast	5/13/2023 3:37 PM
182	Xfinity	5/13/2023 2:56 PM
183	Xfinity	5/13/2023 2:53 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

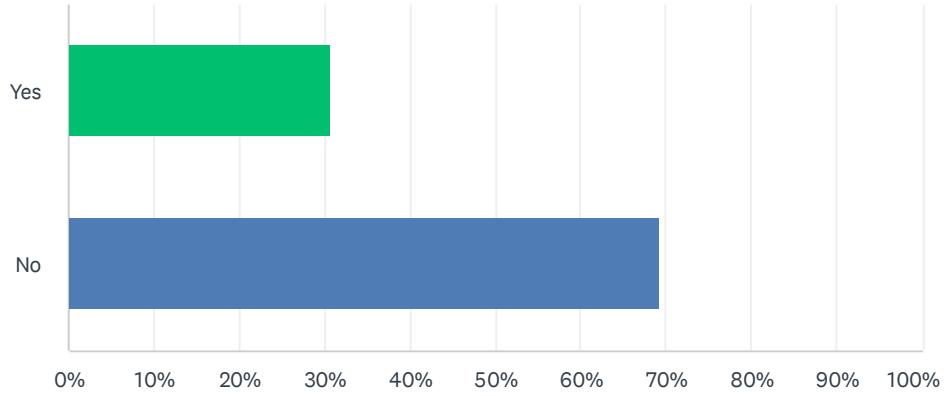
184	Xfinity	5/13/2023 2:16 PM
185	Xfinity	5/13/2023 1:00 PM
186	Xfinity	5/13/2023 12:53 PM
187	Xfinity	5/13/2023 12:36 PM
188	Xfinity/comcast	5/13/2023 12:35 PM
189	Comcast essentials	5/13/2023 12:23 PM
190	Verizon 5G	5/13/2023 12:17 PM
191	XFINITY	5/13/2023 12:01 PM
192	Xfinity	5/13/2023 11:47 AM
193	CenturyLink	5/13/2023 11:46 AM
194	Xfinity	5/13/2023 11:30 AM
195	Exfinity	5/13/2023 11:09 AM
196	Comcast	5/12/2023 12:16 PM
197	Xfinity	5/12/2023 11:04 AM
198	Comcast	5/12/2023 9:51 AM
199	Xfinity	5/10/2023 9:29 PM
200	Xfinity	5/10/2023 2:30 PM
201	X-finity	5/10/2023 12:43 PM
202	Comcast/Xfinity	5/10/2023 12:40 PM
203	Infinity	5/8/2023 10:03 AM
204	Xfinity	5/7/2023 7:29 PM
205	xinfinity	5/7/2023 1:04 PM
206	Xfinity	5/7/2023 8:05 AM
207	Comcast	5/7/2023 4:04 AM
208	Comcast	5/6/2023 2:44 PM
209	xfinity	5/6/2023 2:23 PM
210	Xfinity	5/6/2023 1:14 PM
211	Ubiquity Internet	5/6/2023 12:01 PM
212	Xfinity	5/5/2023 5:09 PM
213	Xfinity	5/5/2023 4:32 PM
214	Xfinity	5/5/2023 1:31 PM
215	Xfinity	5/5/2023 11:33 AM
216	Xfinity by Comcast	5/4/2023 8:42 PM
217	Qwest	5/4/2023 4:10 PM
218	Xfinity	5/4/2023 3:55 PM
219	Xfinity	5/4/2023 12:29 PM
220	Quantum Fiber	5/4/2023 12:04 PM
221	X finity	5/4/2023 11:10 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

222	Xfinity	5/4/2023 10:13 AM
223	Verizon	5/4/2023 10:12 AM
224	Xfinity	5/4/2023 9:57 AM
225	xfinity	5/3/2023 6:49 PM
226	Netflix	5/3/2023 7:23 AM
227	BlueRim	5/1/2023 9:00 PM
228	Comcast	4/30/2023 1:34 PM
229	Quantum Fiber(CenturyLink)	4/29/2023 9:50 PM
230	Quántum fiber	4/29/2023 2:30 PM
231	xfinity	4/29/2023 11:30 AM
232	CenturyLink	4/29/2023 9:07 AM
233	TEST	4/20/2023 9:38 AM

Q7 Does your internet bill include other services such as phone, TV, or premium content?

Answered: 232 Skipped: 52



ANSWER CHOICES	RESPONSES	
Yes	30.60%	71
No	69.40%	161
TOTAL		232

Q8 What is the monthly charge for your internet service excluding the costs of other services or bundle options? Write "Unknown" if unknown.

Answered: 230 Skipped: 54

#	RESPONSES	DATE
1	65	7/3/2023 1:46 AM
2	50.00	7/1/2023 12:16 PM
3	60.00	6/29/2023 9:16 AM
4	\$62.00	6/28/2023 4:48 PM
5	79.99	6/26/2023 7:05 PM
6	55	6/23/2023 7:03 AM
7	49	6/22/2023 11:30 PM
8	60	6/22/2023 4:35 PM
9	Unknown	6/22/2023 2:55 PM
10	110	6/19/2023 10:45 PM
11	Unknown	6/15/2023 11:41 AM
12	100	6/15/2023 9:27 AM
13	150	6/15/2023 9:11 AM
14	Unknown	6/15/2023 5:50 AM
15	65	6/14/2023 4:27 AM
16	\$45	6/13/2023 8:24 PM
17	85.00	6/12/2023 12:29 PM
18	106.00	6/9/2023 9:36 PM
19	40.00	6/9/2023 4:27 AM
20	62	6/8/2023 7:15 PM
21	50	6/8/2023 6:09 PM
22	96	6/8/2023 7:27 AM
23	\$50	6/8/2023 6:39 AM
24	130.00	6/7/2023 9:17 PM
25	80	6/7/2023 8:10 PM
26	65	6/7/2023 6:04 PM
27	unknown	6/5/2023 8:25 PM
28	Unknown	6/3/2023 11:29 AM
29	Unknown	5/30/2023 10:46 PM
30	\$60	5/30/2023 4:52 PM
31	\$85 for Internet alone. CenturyLink promised 100 4 years ago but we're still under 40mg speeds.	5/30/2023 3:07 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	95.00	5/30/2023 2:50 PM
33	\$200	5/30/2023 9:58 AM
34	50.00	5/30/2023 8:02 AM
35	30	5/30/2023 6:58 AM
36	\$63	5/30/2023 6:42 AM
37	Free (Internet Essentials)	5/29/2023 10:03 PM
38	55	5/29/2023 8:06 PM
39	\$85	5/29/2023 5:52 PM
40	108.00	5/29/2023 11:17 AM
41	50	5/29/2023 9:30 AM
42	\$209	5/27/2023 10:08 PM
43	50	5/25/2023 3:56 PM
44	\$60.00	5/24/2023 9:29 PM
45	80.00	5/24/2023 4:34 PM
46	\$65	5/24/2023 3:42 PM
47	75.00	5/24/2023 8:32 AM
48	40	5/22/2023 10:19 PM
49	60	5/22/2023 9:06 PM
50	\$90	5/21/2023 7:25 AM
51	70.00	5/20/2023 6:12 PM
52	101.59	5/20/2023 11:16 AM
53	\$65	5/20/2023 9:30 AM
54	39.99	5/19/2023 8:43 PM
55	80	5/19/2023 8:23 PM
56	76.00	5/19/2023 7:30 PM
57	90	5/19/2023 5:12 PM
58	\$65	5/19/2023 1:51 PM
59	\$300	5/19/2023 1:36 PM
60	95	5/19/2023 12:23 PM
61	100	5/19/2023 12:12 PM
62	110	5/19/2023 11:55 AM
63	\$90	5/19/2023 10:38 AM
64	\$120	5/19/2023 9:49 AM
65	Unknown	5/19/2023 9:44 AM
66	75	5/19/2023 9:26 AM
67	\$230	5/19/2023 8:58 AM
68	\$100	5/19/2023 8:05 AM
69	99	5/19/2023 7:17 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

70	130	5/19/2023 7:07 AM
71	50	5/19/2023 7:03 AM
72	125	5/19/2023 6:50 AM
73	\$100	5/19/2023 6:43 AM
74	\$25 because it is an add on from my phone	5/19/2023 6:36 AM
75	Unknown	5/19/2023 6:28 AM
76	30	5/19/2023 6:14 AM
77	90	5/19/2023 5:42 AM
78	50	5/19/2023 5:17 AM
79	\$180	5/19/2023 4:21 AM
80	\$112	5/19/2023 2:06 AM
81	99	5/19/2023 1:30 AM
82	\$100	5/19/2023 1:24 AM
83	50	5/19/2023 12:58 AM
84	\$70	5/19/2023 12:51 AM
85	Unknown	5/19/2023 12:24 AM
86	\$65.00	5/18/2023 11:43 PM
87	210.00	5/18/2023 11:37 PM
88	100	5/18/2023 11:30 PM
89	Unknown	5/18/2023 11:16 PM
90	60	5/18/2023 10:56 PM
91	111	5/18/2023 10:52 PM
92	75	5/18/2023 10:41 PM
93	70.00	5/18/2023 10:36 PM
94	62	5/18/2023 10:28 PM
95	\$100	5/18/2023 10:08 PM
96	30. (government access program)	5/18/2023 10:03 PM
97	\$80	5/18/2023 10:02 PM
98	\$100	5/18/2023 9:53 PM
99	Unknown	5/18/2023 9:52 PM
100	\$62	5/18/2023 9:19 PM
101	\$80	5/18/2023 9:13 PM
102	90	5/18/2023 9:07 PM
103	50.00	5/18/2023 9:06 PM
104	60	5/18/2023 9:04 PM
105	Unknown	5/18/2023 9:02 PM
106	Unknown	5/18/2023 8:59 PM
107	Unknown	5/18/2023 8:54 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

108	10	5/18/2023 8:52 PM
109	55.00	5/18/2023 8:48 PM
110	Too much	5/18/2023 8:38 PM
111	\$89	5/18/2023 8:36 PM
112	95	5/18/2023 8:24 PM
113	78.10	5/18/2023 8:17 PM
114	Unknown	5/18/2023 8:08 PM
115	\$50.00	5/18/2023 8:00 PM
116	\$50	5/18/2023 7:58 PM
117	73	5/18/2023 7:54 PM
118	Unknown	5/18/2023 7:53 PM
119	55.00	5/18/2023 7:47 PM
120	50	5/18/2023 7:45 PM
121	\$174	5/18/2023 7:21 PM
122	150	5/18/2023 7:20 PM
123	unknown	5/18/2023 7:19 PM
124	80	5/18/2023 7:14 PM
125	\$60	5/18/2023 7:03 PM
126	Unknown	5/18/2023 6:58 PM
127	60	5/18/2023 6:46 PM
128	100+	5/18/2023 6:46 PM
129	\$80	5/18/2023 6:42 PM
130	65	5/18/2023 6:30 PM
131	70	5/18/2023 6:23 PM
132	Unknown	5/18/2023 6:17 PM
133	60	5/18/2023 6:16 PM
134	80	5/18/2023 6:15 PM
135	100	5/18/2023 6:15 PM
136	\$40	5/18/2023 3:57 PM
137	60.00	5/18/2023 11:03 AM
138	unknown	5/18/2023 10:00 AM
139	56	5/18/2023 8:35 AM
140	100	5/17/2023 10:43 PM
141	Unknown	5/17/2023 3:51 PM
142	Unknown	5/17/2023 2:37 PM
143	50	5/17/2023 12:58 PM
144	\$70.00	5/17/2023 12:45 PM
145	90	5/17/2023 12:06 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

146	120	5/17/2023 10:31 AM
147	Unknown	5/17/2023 8:27 AM
148	Unknown	5/16/2023 6:27 PM
149	UNKNOWN	5/16/2023 2:24 PM
150	130.00	5/16/2023 12:30 PM
151	\$60	5/16/2023 12:07 PM
152	About \$45.00	5/16/2023 11:30 AM
153	75	5/16/2023 11:08 AM
154	I'm not sure	5/16/2023 10:46 AM
155	65.00	5/16/2023 8:54 AM
156	Unknown	5/16/2023 7:45 AM
157	unknown	5/16/2023 7:39 AM
158	Unknown	5/16/2023 6:41 AM
159	Unknown	5/15/2023 7:00 PM
160	Unknown	5/15/2023 4:42 PM
161	\$45	5/15/2023 4:21 PM
162	113	5/15/2023 12:05 PM
163	100\$	5/15/2023 5:41 AM
164	180	5/14/2023 10:58 PM
165	43	5/14/2023 9:43 PM
166	189.00	5/14/2023 9:12 PM
167	75	5/14/2023 7:28 PM
168	50	5/14/2023 2:33 PM
169	60	5/14/2023 1:22 PM
170	138	5/14/2023 9:59 AM
171	60	5/14/2023 9:37 AM
172	100	5/14/2023 9:15 AM
173	100	5/14/2023 8:24 AM
174	\$90	5/14/2023 12:07 AM
175	81	5/13/2023 10:48 PM
176	\$95	5/13/2023 7:09 PM
177	\$76	5/13/2023 6:15 PM
178	120	5/13/2023 3:37 PM
179	120	5/13/2023 2:56 PM
180	\$130	5/13/2023 2:53 PM
181	\$76	5/13/2023 2:16 PM
182	\$105	5/13/2023 1:00 PM
183	89	5/13/2023 12:53 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

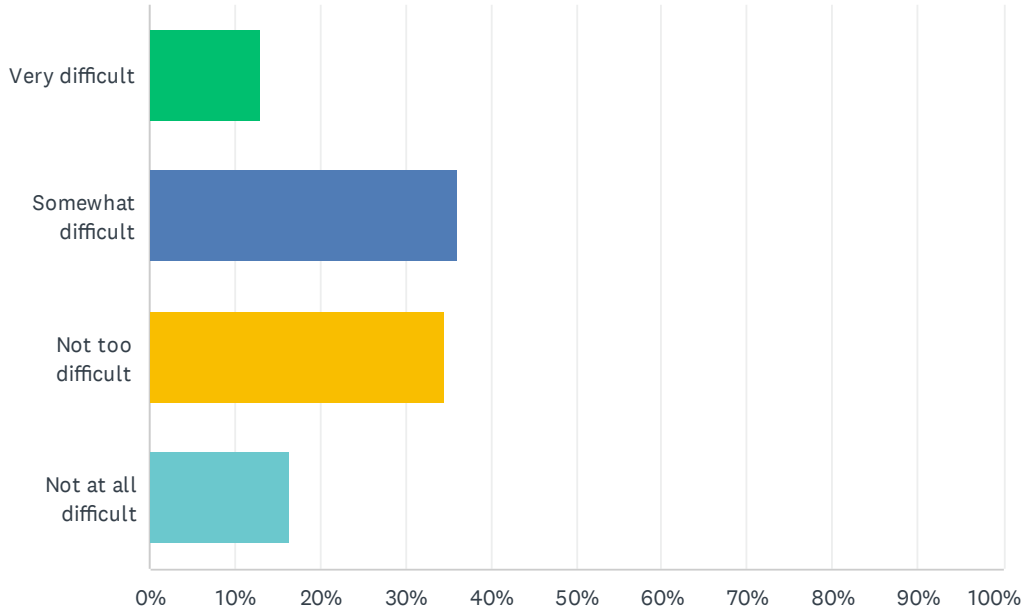
184	\$50	5/13/2023 12:36 PM
185	\$89	5/13/2023 12:35 PM
186	14	5/13/2023 12:23 PM
187	50	5/13/2023 12:17 PM
188	\$90	5/13/2023 12:01 PM
189	108.00	5/13/2023 11:47 AM
190	101.49	5/13/2023 11:46 AM
191	100	5/13/2023 11:30 AM
192	70	5/13/2023 11:09 AM
193	80	5/12/2023 12:16 PM
194	\$180	5/12/2023 11:04 AM
195	60.00	5/12/2023 9:51 AM
196	\$73.00	5/10/2023 9:29 PM
197	75.88	5/10/2023 2:30 PM
198	\$40	5/10/2023 12:43 PM
199	\$45	5/10/2023 12:40 PM
200	140	5/8/2023 10:03 AM
201	70	5/7/2023 7:29 PM
202	unknown	5/7/2023 1:04 PM
203	220	5/7/2023 8:05 AM
204	\$120	5/7/2023 4:04 AM
205	56	5/6/2023 2:44 PM
206	95	5/6/2023 2:23 PM
207	Unknown	5/6/2023 1:14 PM
208	43	5/6/2023 12:01 PM
209	\$100	5/5/2023 5:09 PM
210	50	5/5/2023 4:32 PM
211	140.00	5/5/2023 1:31 PM
212	75	5/5/2023 11:33 AM
213	60	5/4/2023 8:42 PM
214	70.00	5/4/2023 4:10 PM
215	\$80	5/4/2023 3:55 PM
216	76	5/4/2023 12:29 PM
217	45.00	5/4/2023 12:04 PM
218	75	5/4/2023 11:10 AM
219	80	5/4/2023 10:13 AM
220	\$25	5/4/2023 10:12 AM
221	60	5/4/2023 9:57 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

222	100	5/3/2023 6:49 PM
223	65.00	5/3/2023 7:23 AM
224	Unknown	5/1/2023 9:00 PM
225	\$35	4/30/2023 1:34 PM
226	Unknown	4/29/2023 9:50 PM
227	\$65.00	4/29/2023 2:30 PM
228	\$125	4/29/2023 11:30 AM
229	\$65	4/29/2023 9:07 AM
230	TEST	4/20/2023 9:38 AM

Q9 How difficult, if at all, is it for you to fit your monthly internet bill into your household's budget?

Answered: 231 Skipped: 53



ANSWER CHOICES	RESPONSES	
Very difficult	12.99%	30
Somewhat difficult	35.93%	83
Not too difficult	34.63%	80
Not at all difficult	16.45%	38
TOTAL		231

Q10 At what monthly price would you consider a home broadband subscription to be too expensive to consider?

Answered: 226 Skipped: 58

#	RESPONSES	DATE
1	50	7/3/2023 1:46 AM
2	75.00	7/1/2023 12:16 PM
3	more than \$60.00	6/29/2023 9:16 AM
4	\$75	6/28/2023 4:48 PM
5	\$110	6/28/2023 11:07 AM
6	100	6/26/2023 7:05 PM
7	75 or more	6/23/2023 7:03 AM
8	150	6/22/2023 11:30 PM
9	50	6/22/2023 4:35 PM
10	\$50	6/22/2023 2:55 PM
11	125	6/19/2023 10:45 PM
12	50.00	6/15/2023 11:41 AM
13	70	6/15/2023 9:27 AM
14	100	6/15/2023 9:11 AM
15	\$100	6/15/2023 5:50 AM
16	100	6/14/2023 4:27 AM
17	\$60	6/13/2023 8:24 PM
18	65	6/12/2023 12:29 PM
19	\$150	6/9/2023 9:36 PM
20	40.00	6/9/2023 4:27 AM
21	\$50	6/8/2023 7:15 PM
22	100	6/8/2023 6:09 PM
23	150	6/8/2023 7:27 AM
24	\$85	6/8/2023 6:39 AM
25	100	6/7/2023 9:17 PM
26	If you consider broadband by fcc standard \$10	6/7/2023 8:10 PM
27	100	6/7/2023 6:04 PM
28	?	6/3/2023 11:29 AM
29	\$500	5/30/2023 10:46 PM
30	\$80	5/30/2023 4:52 PM
31	\$75	5/30/2023 3:07 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	75.00	5/30/2023 2:50 PM
33	\$150	5/30/2023 9:58 AM
34	80.00	5/30/2023 8:02 AM
35	75	5/30/2023 6:58 AM
36	75	5/30/2023 6:42 AM
37	\$25	5/29/2023 10:03 PM
38	100	5/29/2023 8:06 PM
39	\$100	5/29/2023 5:52 PM
40	150.00	5/29/2023 11:17 AM
41	100	5/29/2023 9:30 AM
42	75	5/25/2023 3:56 PM
43	\$60.00	5/24/2023 9:29 PM
44	100	5/24/2023 4:34 PM
45	\$100	5/24/2023 3:42 PM
46	Over \$75.00	5/24/2023 8:32 AM
47	70	5/22/2023 10:19 PM
48	60	5/22/2023 9:06 PM
49	\$100	5/21/2023 7:25 AM
50	100	5/20/2023 6:12 PM
51	90.00	5/20/2023 11:16 AM
52	\$70	5/20/2023 9:30 AM
53	Over \$50	5/19/2023 8:43 PM
54	100	5/19/2023 8:23 PM
55	125	5/19/2023 7:30 PM
56	150	5/19/2023 5:12 PM
57	\$65	5/19/2023 1:51 PM
58	\$150	5/19/2023 1:36 PM
59	50	5/19/2023 12:23 PM
60	120	5/19/2023 12:12 PM
61	100	5/19/2023 11:55 AM
62	\$100	5/19/2023 10:38 AM
63	\$150	5/19/2023 9:49 AM
64	Na	5/19/2023 9:44 AM
65	80	5/19/2023 9:26 AM
66	\$150	5/19/2023 8:58 AM
67	\$40	5/19/2023 8:05 AM
68	\$150+	5/19/2023 7:17 AM
69	50	5/19/2023 7:07 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

70	50 plus	5/19/2023 7:03 AM
71	150	5/19/2023 6:50 AM
72	\$100+	5/19/2023 6:43 AM
73	100	5/19/2023 6:36 AM
74	\$300	5/19/2023 6:28 AM
75	60	5/19/2023 6:14 AM
76	100	5/19/2023 5:42 AM
77	75	5/19/2023 5:17 AM
78	\$100	5/19/2023 4:21 AM
79	\$95	5/19/2023 2:06 AM
80	99	5/19/2023 1:30 AM
81	\$50	5/19/2023 1:24 AM
82	75	5/19/2023 12:58 AM
83	\$100	5/19/2023 12:51 AM
84	\$75	5/19/2023 12:24 AM
85	\$75.00	5/18/2023 11:43 PM
86	What it is now but I need it for work	5/18/2023 11:37 PM
87	200	5/18/2023 11:30 PM
88	\$75	5/18/2023 11:16 PM
89	75	5/18/2023 10:56 PM
90	150	5/18/2023 10:52 PM
91	40	5/18/2023 10:41 PM
92	70.00	5/18/2023 10:36 PM
93	70	5/18/2023 10:28 PM
94	\$150	5/18/2023 10:08 PM
95	40	5/18/2023 10:03 PM
96	100+	5/18/2023 10:02 PM
97	\$100	5/18/2023 9:53 PM
98	\$70	5/18/2023 9:52 PM
99	\$70	5/18/2023 9:19 PM
100	\$100	5/18/2023 9:13 PM
101	60	5/18/2023 9:07 PM
102	\$50.00	5/18/2023 9:06 PM
103	\$100	5/18/2023 9:02 PM
104	50.00	5/18/2023 8:59 PM
105	100	5/18/2023 8:54 PM
106	30	5/18/2023 8:52 PM
107	70	5/18/2023 8:48 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

108	\$150.00	5/18/2023 8:38 PM
109	\$100+	5/18/2023 8:36 PM
110	150	5/18/2023 8:24 PM
111	80	5/18/2023 8:17 PM
112	75.00	5/18/2023 8:08 PM
113	\$60.00	5/18/2023 8:00 PM
114	\$75	5/18/2023 7:58 PM
115	75	5/18/2023 7:54 PM
116	\$75.00	5/18/2023 7:53 PM
117	56.00	5/18/2023 7:47 PM
118	100	5/18/2023 7:45 PM
119	100	5/18/2023 7:21 PM
120	200	5/18/2023 7:20 PM
121	40.00	5/18/2023 7:19 PM
122	60	5/18/2023 7:14 PM
123	\$45	5/18/2023 7:03 PM
124	?	5/18/2023 6:58 PM
125	75	5/18/2023 6:46 PM
126	100.00	5/18/2023 6:46 PM
127	\$85	5/18/2023 6:42 PM
128	85	5/18/2023 6:30 PM
129	50	5/18/2023 6:23 PM
130	I dont know	5/18/2023 6:17 PM
131	75 or more	5/18/2023 6:16 PM
132	100	5/18/2023 6:15 PM
133	More than \$100	5/18/2023 6:15 PM
134	Anything over what I currently pay	5/18/2023 3:57 PM
135	75.00	5/18/2023 11:03 AM
136	unknown	5/18/2023 10:00 AM
137	100	5/18/2023 8:35 AM
138	50	5/17/2023 10:43 PM
139	Unknown	5/17/2023 3:51 PM
140	Unknown	5/17/2023 2:37 PM
141	Anything more than \$75 for my basic internet speed needs	5/17/2023 12:58 PM
142	\$50.00	5/17/2023 12:45 PM
143	150	5/17/2023 12:06 PM
144	130	5/17/2023 10:31 AM
145	\$100	5/17/2023 8:27 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

146	\$40.00	5/16/2023 6:27 PM
147	150.00	5/16/2023 12:30 PM
148	\$70	5/16/2023 12:07 PM
149	Unknown	5/16/2023 11:30 AM
150	100	5/16/2023 11:08 AM
151	80	5/16/2023 10:46 AM
152	70	5/16/2023 8:54 AM
153	Unknown	5/16/2023 7:45 AM
154	100	5/16/2023 7:39 AM
155	50.00	5/16/2023 6:41 AM
156	\$75	5/15/2023 7:00 PM
157	80.00	5/15/2023 4:42 PM
158	\$60	5/15/2023 4:21 PM
159	90	5/15/2023 12:05 PM
160	120	5/15/2023 5:41 AM
161	75	5/14/2023 10:58 PM
162	75	5/14/2023 9:43 PM
163	200.00	5/14/2023 9:12 PM
164	100	5/14/2023 7:28 PM
165	70	5/14/2023 2:33 PM
166	150	5/14/2023 1:22 PM
167	200	5/14/2023 9:59 AM
168	75	5/14/2023 9:37 AM
169	50	5/14/2023 9:15 AM
170	60	5/14/2023 8:24 AM
171	\$100	5/14/2023 12:07 AM
172	No	5/13/2023 10:48 PM
173	\$150	5/13/2023 7:09 PM
174	90	5/13/2023 6:15 PM
175	120	5/13/2023 3:37 PM
176	100	5/13/2023 2:56 PM
177	\$85	5/13/2023 2:53 PM
178	\$50	5/13/2023 2:16 PM
179	\$110+	5/13/2023 1:00 PM
180	90	5/13/2023 12:53 PM
181	\$75	5/13/2023 12:36 PM
182	Higher speed for \$80	5/13/2023 12:35 PM
183	Above \$20	5/13/2023 12:23 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

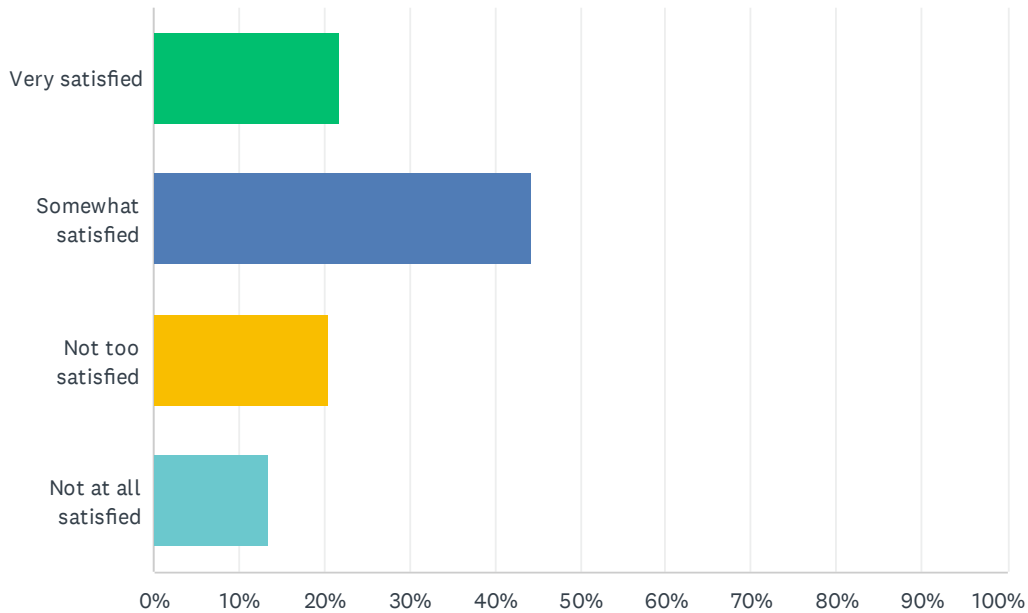
184	60	5/13/2023 12:17 PM
185	\$90	5/13/2023 12:01 PM
186	80	5/13/2023 11:47 AM
187	125	5/13/2023 11:46 AM
188	150	5/13/2023 11:30 AM
189	40	5/13/2023 11:09 AM
190	100	5/12/2023 12:16 PM
191	\$100	5/12/2023 11:04 AM
192	85.00	5/12/2023 9:51 AM
193	\$125	5/10/2023 9:29 PM
194	\$50	5/10/2023 2:30 PM
195	\$50	5/10/2023 12:43 PM
196	\$60	5/10/2023 12:40 PM
197	Less 80	5/8/2023 10:03 AM
198	80	5/7/2023 7:29 PM
199	unknown	5/7/2023 1:04 PM
200	120	5/7/2023 8:05 AM
201	70	5/7/2023 4:04 AM
202	75	5/6/2023 2:44 PM
203	75	5/6/2023 2:23 PM
204	\$100.00	5/6/2023 1:14 PM
205	45	5/6/2023 12:01 PM
206	\$75	5/5/2023 5:09 PM
207	60	5/5/2023 4:32 PM
208	\$75	5/5/2023 11:33 AM
209	50	5/4/2023 8:42 PM
210	50.00	5/4/2023 4:10 PM
211	\$100	5/4/2023 3:55 PM
212	100	5/4/2023 12:29 PM
213	Anything above what I am paying now	5/4/2023 12:04 PM
214	Anything more than what I'm paying currently	5/4/2023 11:10 AM
215	100	5/4/2023 10:13 AM
216	\$150	5/4/2023 10:12 AM
217	100	5/4/2023 9:57 AM
218	120	5/3/2023 6:49 PM
219	30 to40dollars	5/3/2023 7:23 AM
220	N/a	5/1/2023 9:00 PM
221	\$80	4/30/2023 1:34 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

222	66	4/29/2023 9:50 PM
223	\$30.00	4/29/2023 2:30 PM
224	\$150	4/29/2023 11:30 AM
225	\$125	4/29/2023 9:07 AM
226	TEST	4/20/2023 9:38 AM

Q11 How satisfied, if at all, are you with the quality of your home internet connection for doing the online activities that are important to you, such as taking classes, doing telework, or using video or streaming applications?

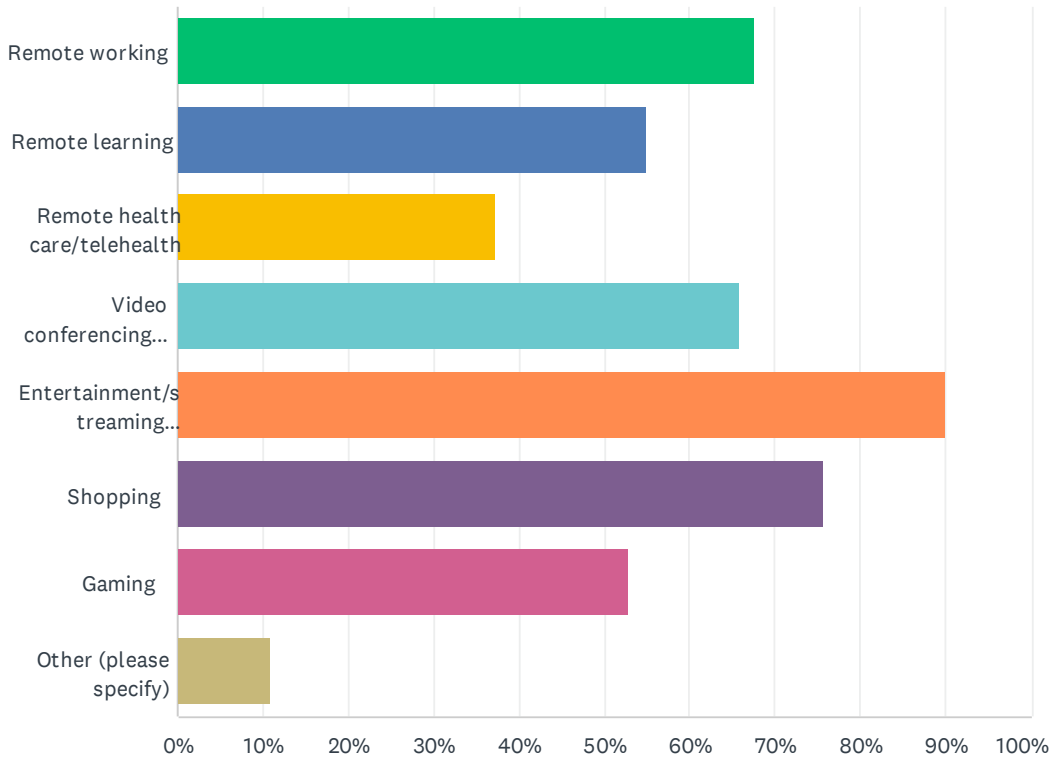
Answered: 230 Skipped: 54



ANSWER CHOICES	RESPONSES	
Very satisfied	21.74%	50
Somewhat satisfied	44.35%	102
Not too satisfied	20.43%	47
Not at all satisfied	13.48%	31
TOTAL		230

Q12 What do you use the internet for? Select all that apply.

Answered: 231 Skipped: 53



ANSWER CHOICES	RESPONSES
Remote working	67.53% 156
Remote learning	54.98% 127
Remote health care/telehealth	37.23% 86
Video conferencing/chatting	65.80% 152
Entertainment/streaming services	90.04% 208
Shopping	75.76% 175
Gaming	52.81% 122
Other (please specify)	10.82% 25
Total Respondents: 231	

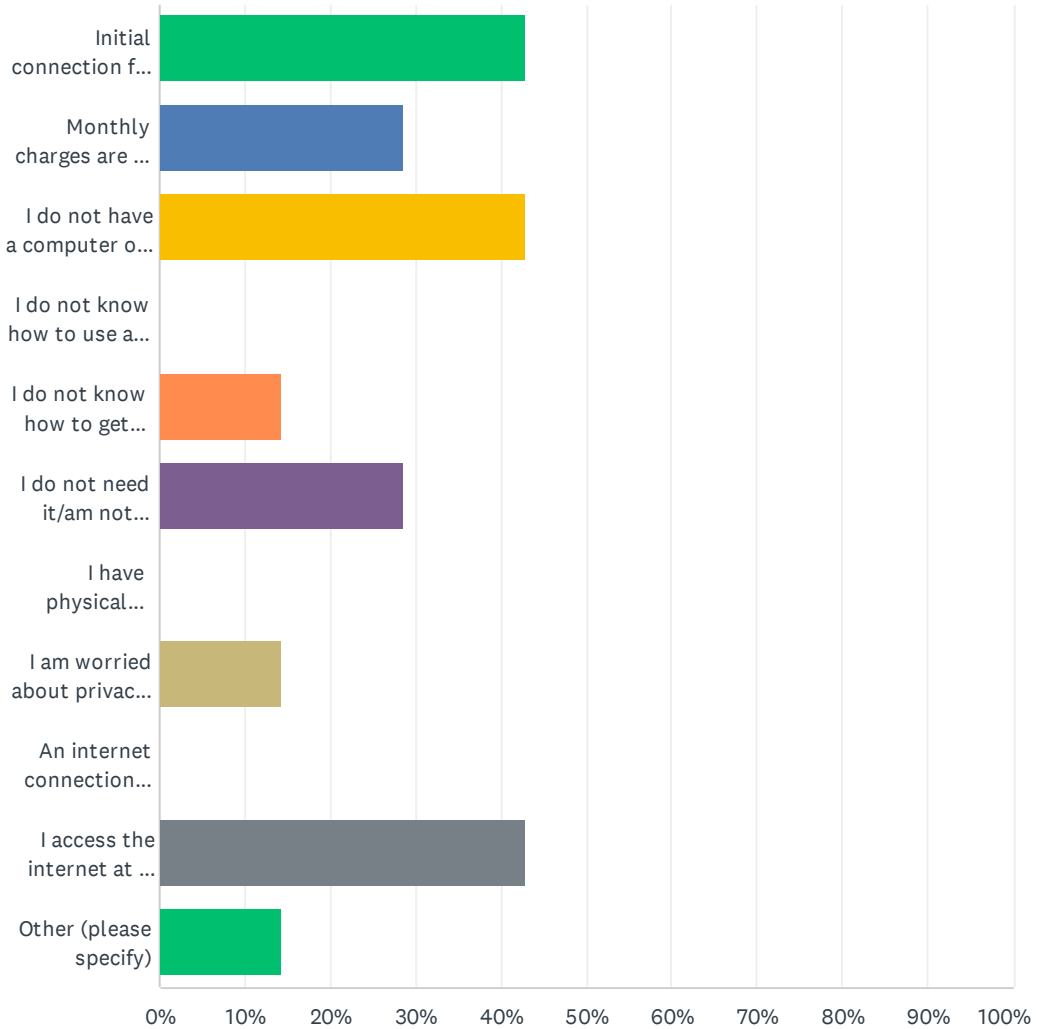
#	OTHER (PLEASE SPECIFY)	DATE
1	Zoom meetings	6/29/2023 9:16 AM
2	streaming educational lectures (non credit)	6/28/2023 4:48 PM
3	Banking , work related training	6/22/2023 2:55 PM
4	Research, Books	6/15/2023 11:41 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

5	Phone (VOIP), general web browsing	6/13/2023 8:24 PM
6	news, social connection, business, church services, ...	6/5/2023 8:25 PM
7	Banking, Bill Pay, Email, Home business website, News	6/3/2023 11:29 AM
8	Social Media, Email, etc	5/30/2023 3:07 PM
9	Email	5/30/2023 2:50 PM
10	Banking and just about everything else nowadays!	5/20/2023 9:30 AM
11	Security cameras	5/19/2023 8:23 PM
12	Home automation	5/19/2023 9:49 AM
13	Banking	5/18/2023 10:41 PM
14	Social media, website, book club	5/18/2023 9:02 PM
15	Business	5/18/2023 8:54 PM
16	security cameras / baby monitor	5/18/2023 8:17 PM
17	ordering supplies many office details	5/18/2023 10:00 AM
18	Work computer at this office	5/17/2023 8:27 AM
19	News	5/16/2023 11:30 AM
20	Work	5/16/2023 7:45 AM
21	Live streaming video gameplay	5/13/2023 2:53 PM
22	Research/information	5/13/2023 12:35 PM
23	WiFi phone service, self employment	5/13/2023 11:47 AM
24	General browsing	5/10/2023 12:40 PM
25	A Family member uses it for streaming their own game.	5/7/2023 4:04 AM

Q13 Why don't you have internet access at your residence? Select all that apply.

Answered: 7 Skipped: 277



HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

ANSWER CHOICES	RESPONSES	
Initial connection fees are too expensive	42.86%	3
Monthly charges are too expensive	28.57%	2
I do not have a computer or tablet to use	42.86%	3
I do not know how to use a computer or tablet	0.00%	0
I do not know how to get internet service	14.29%	1
I do not need it/am not interested in it	28.57%	2
I have physical limitations	0.00%	0
I am worried about privacy and others getting my information	14.29%	1
An internet connection isn't available in my area	0.00%	0
I access the internet at a public internet source, such as a library or a community center	42.86%	3
Other (please specify)	14.29%	1
Total Respondents: 7		

#	OTHER (PLEASE SPECIFY)	DATE
1	City survey	5/15/2023 4:18 PM

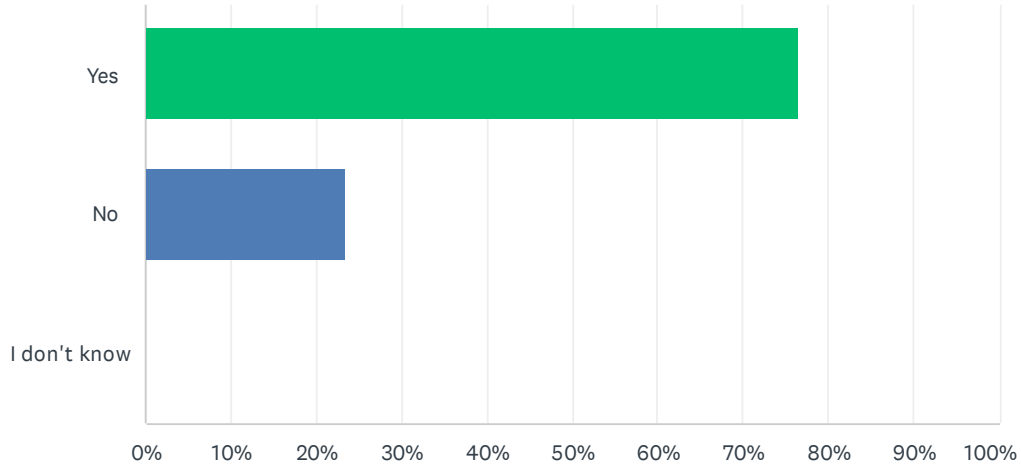
Q14 If you are willing, please share how a high-speed internet connection would improve your quality of life.

Answered: 3 Skipped: 281

#	RESPONSES	DATE
1	I don't think it would.	5/16/2023 7:17 PM
2	This would allow me to get work done at home and be able to pay bills! As well as gaining access to personal documents emails and movies just for fun!	5/11/2023 12:57 PM
3	I don't know	5/5/2023 4:37 PM

Q15 Do you have a tablet device you can use to access the internet at home?

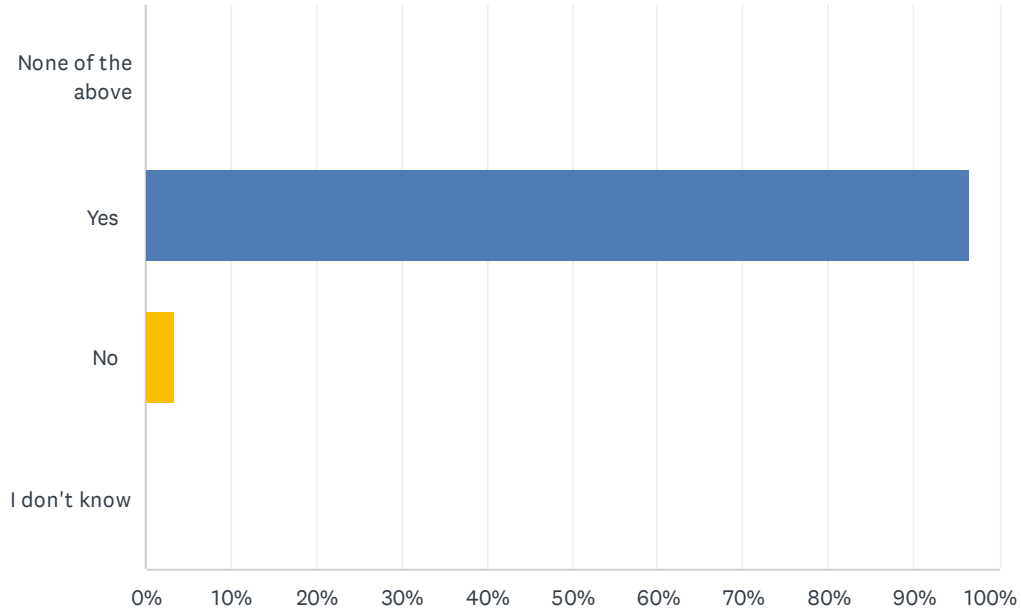
Answered: 235 Skipped: 49



ANSWER CHOICES	RESPONSES	
Yes	76.60%	180
No	23.40%	55
I don't know	0.00%	0
TOTAL		235

Q16 Do you have a desktop or laptop computer you can use to access the internet at home?

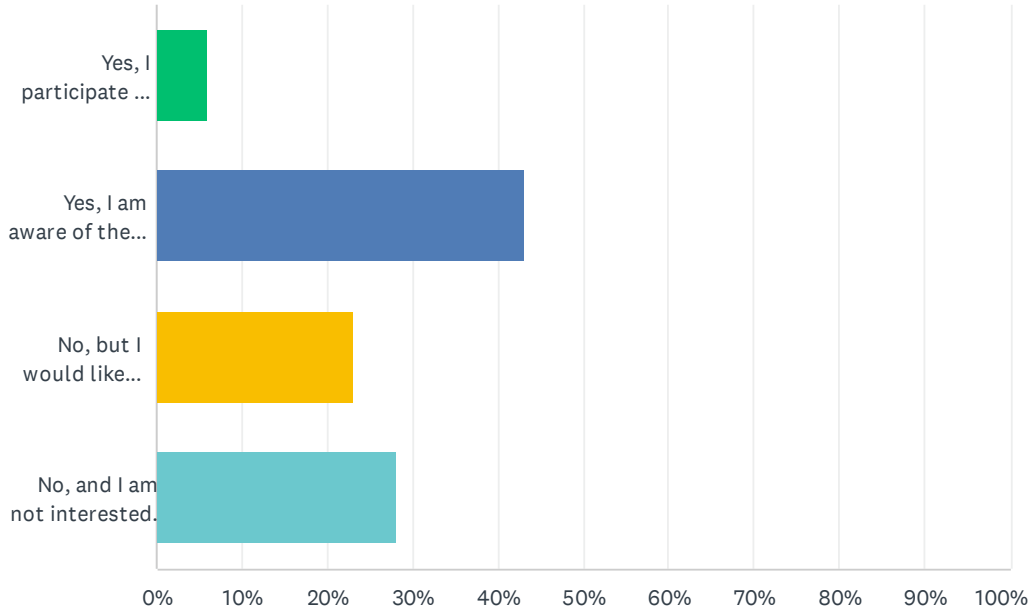
Answered: 234 Skipped: 50



ANSWER CHOICES	RESPONSES	
None of the above	0.00%	0
Yes	96.58%	226
No	3.42%	8
I don't know	0.00%	0
TOTAL		234

Q17 Are you aware of the Affordable Connectivity Program, which provides a \$30 monthly discount for internet to low-income households?

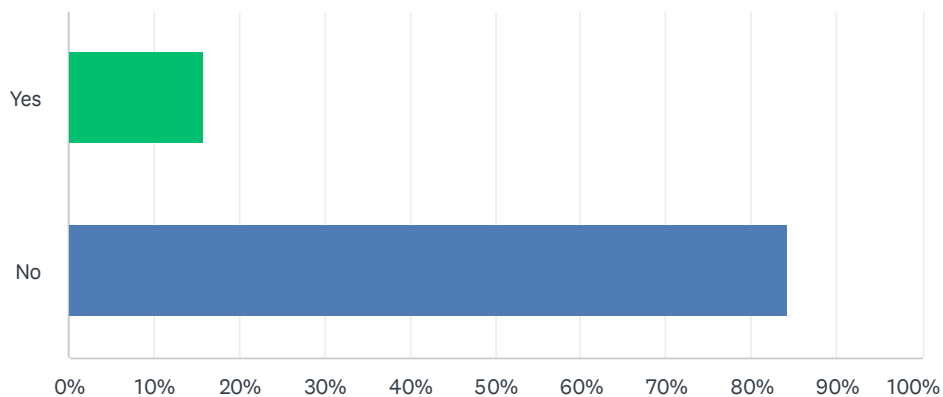
Answered: 235 Skipped: 49



ANSWER CHOICES	RESPONSES	
Yes, I participate in the ACP.	5.96%	14
Yes, I am aware of the ACP, but do not participate in it or am not eligible.	42.98%	101
No, but I would like information to learn if my household qualifies. (Please visit business.utah.gov)	22.98%	54
No, and I am not interested.	28.09%	66
TOTAL		235

Q18 Are you a business owner?

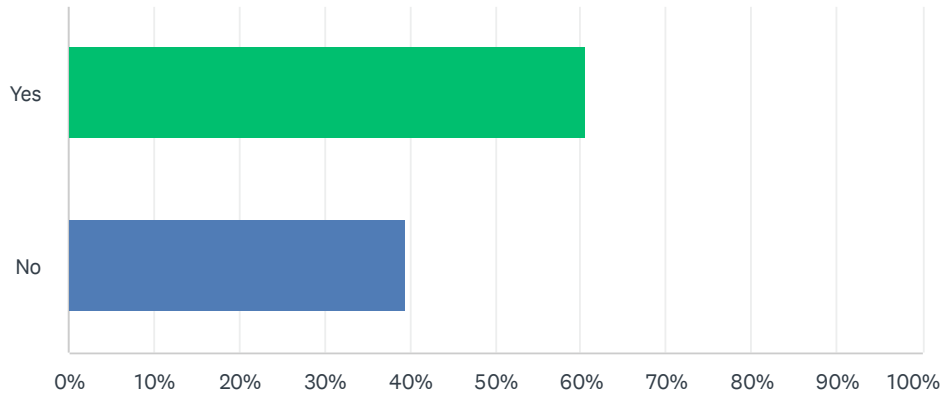
Answered: 234 Skipped: 50



ANSWER CHOICES	RESPONSES	
Yes	15.81%	37
No	84.19%	197
TOTAL		234

Q19 Is your business located at your primary residence?

Answered: 38 Skipped: 246



ANSWER CHOICES	RESPONSES	
Yes	60.53%	23
No	39.47%	15
TOTAL		38

Q20 What is your business address?

Answered: 9 Skipped: 275

ANSWER CHOICES	RESPONSES	
Name	0.00%	0
Company	100.00%	9
Address	66.67%	6
Address 2	0.00%	0
City/Town	88.89%	8
State/Province	0.00%	0
ZIP/Postal Code	77.78%	7
Country	0.00%	0
Email Address	0.00%	0
Phone Number	0.00%	0

#	NAME	DATE
	There are no responses.	

#	COMPANY	DATE
1	4933 200 W	5/21/2023 7:27 AM
2	290 25th Street	5/19/2023 12:59 AM
3	Ogden City Fire Department	5/15/2023 4:19 PM
4	Holmes Clothing	5/13/2023 7:10 PM
5	The Local Artisan Collective	5/13/2023 12:24 PM
6	Extreme Cleaning Services/Healthy Homes Housekeeping	5/10/2023 9:32 PM
7	Farmington Service	5/10/2023 2:31 PM
8	Sage Art LLC	5/4/2023 12:06 PM
9	TEST	4/20/2023 9:39 AM

#	ADDRESS	DATE
1	2186 Lincoln Avenue.	5/15/2023 4:19 PM
2	2342 Washington Blvd	5/13/2023 7:10 PM
3	2371 Kiesel Ave	5/13/2023 12:24 PM
4	375 S. Stewart Way	5/10/2023 9:32 PM
5	92 N main st	5/10/2023 2:31 PM
6	455 25th St	5/4/2023 12:06 PM

#	ADDRESS 2	DATE
	There are no responses.	

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

#	CITY/TOWN	DATE
1	Riverdale	5/21/2023 7:27 AM
2	Ogden	5/19/2023 12:59 AM
3	Ogden	5/15/2023 4:19 PM
4	Ogden	5/13/2023 7:10 PM
5	Ogden	5/13/2023 12:24 PM
6	Ogden	5/10/2023 9:32 PM
7	Farmington	5/10/2023 2:31 PM
8	Ogden	5/4/2023 12:06 PM

#	STATE/PROVINCE	DATE
	There are no responses.	

#	ZIP/POSTAL CODE	DATE
1	84401	5/19/2023 12:59 AM
2	84401	5/15/2023 4:19 PM
3	84401	5/13/2023 7:10 PM
4	Utah	5/13/2023 12:24 PM
5	84403	5/10/2023 9:32 PM
6	84025	5/10/2023 2:31 PM
7	84403	5/4/2023 12:06 PM

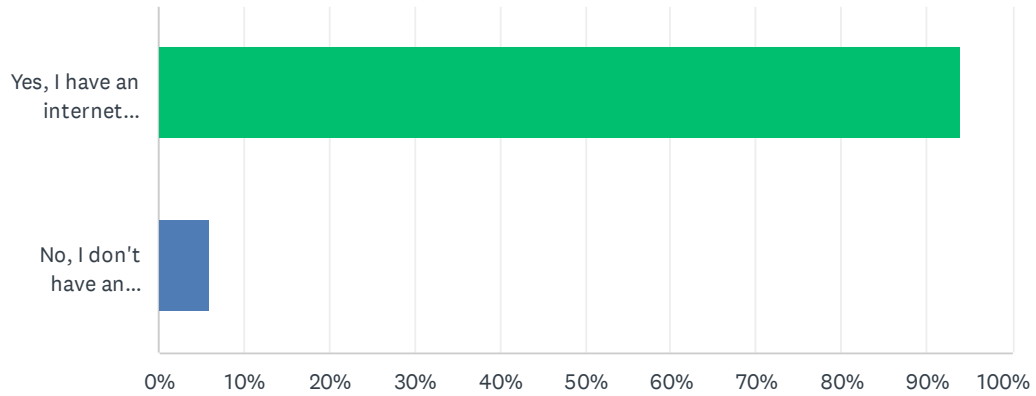
#	COUNTRY	DATE
	There are no responses.	

#	EMAIL ADDRESS	DATE
	There are no responses.	

#	PHONE NUMBER	DATE
	There are no responses.	

Q21 Do you have an internet connection at your business?

Answered: 34 Skipped: 250



ANSWER CHOICES	RESPONSES	
Yes, I have an internet connection at my business	94.12%	32
No, I don't have an internet connection at my business	5.88%	2
TOTAL		34

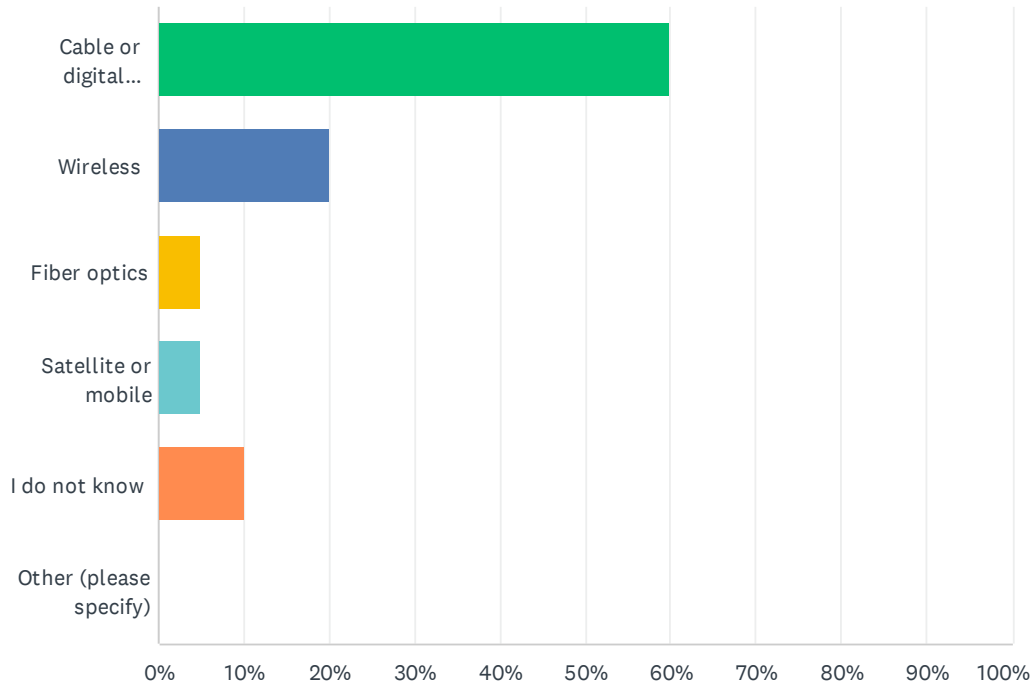
Q22 Which company do you use for business internet? (E.g., South Central, CenturyLink, Xfinity, Google Fiber, Connex, Emery Telecom, etc.)

Answered: 20 Skipped: 264

#	RESPONSES	DATE
1	Xfinity	7/3/2023 1:48 AM
2	Xfinity	5/30/2023 10:48 PM
3	CenturyLink	5/29/2023 8:07 PM
4	Comcast	5/24/2023 8:34 AM
5	Don't know	5/21/2023 7:28 AM
6	We had Digis Wireless (and it sucked also)	5/20/2023 9:38 AM
7	Verizon	5/19/2023 6:40 AM
8	T-Mobile	5/19/2023 1:01 AM
9	Xfinity	5/18/2023 10:30 PM
10	Comcast	5/18/2023 6:48 PM
11	Xfinity	5/18/2023 6:32 PM
12	Xfinity	5/15/2023 7:03 PM
13	Xfinity	5/13/2023 7:11 PM
14	Comcaat	5/13/2023 12:25 PM
15	Exfinity	5/13/2023 11:10 AM
16	Rise Broadband	5/10/2023 9:34 PM
17	Xfinity	5/10/2023 2:32 PM
18	Don't know. I rent a space in the Monarch and it is provided through there.	5/4/2023 12:08 PM
19	xfinity	5/3/2023 6:54 PM
20	TEST	4/20/2023 9:40 AM

Q23 What kind of internet connection do you have? (Select all that apply)

Answered: 20 Skipped: 264

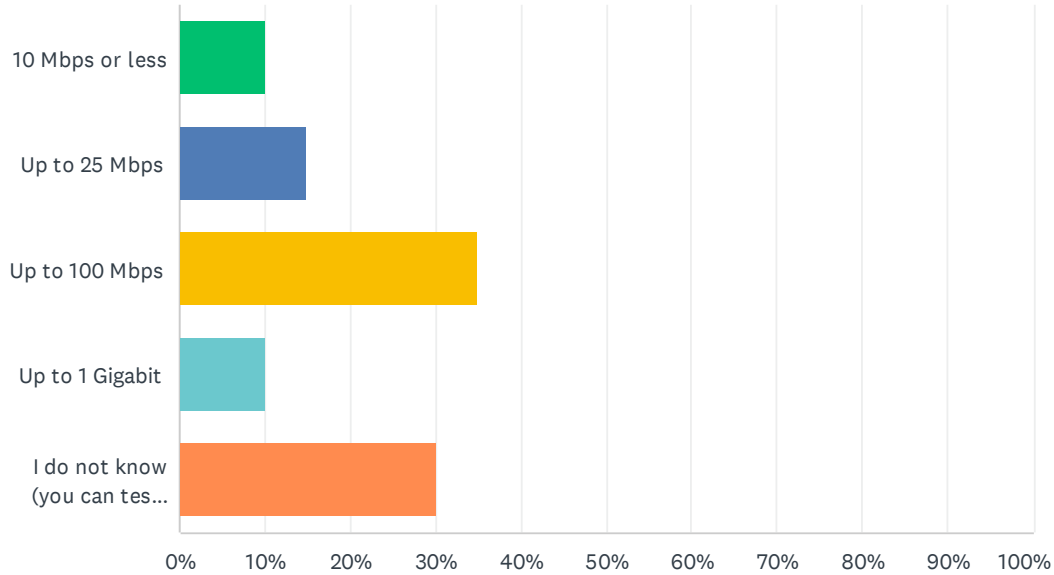


ANSWER CHOICES	RESPONSES	
Cable or digital subscriber line (DSL- telephone line)	60.00%	12
Wireless	20.00%	4
Fiber optics	5.00%	1
Satellite or mobile	5.00%	1
I do not know	10.00%	2
Other (please specify)	0.00%	0
Total Respondents: 20		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q24 What speed is your internet service (download speed)? (Megabits per second = Mbps)

Answered: 20 Skipped: 264



ANSWER CHOICES	RESPONSES	
10 Mbps or less	10.00%	2
Up to 25 Mbps	15.00%	3
Up to 100 Mbps	35.00%	7
Up to 1 Gigabit	10.00%	2
I do not know (you can test your internet speed at speedtest.utah.gov)	30.00%	6
TOTAL		20

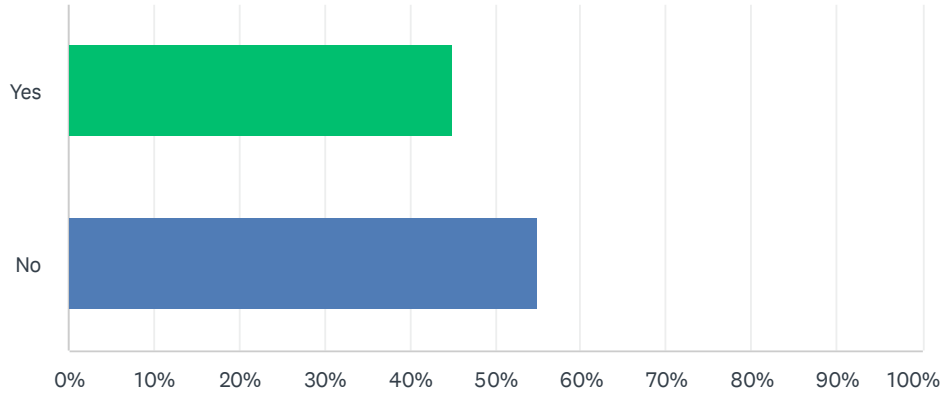
Q25 What is the monthly charge for your internet service? Write "Unknown" if unknown.

Answered: 20 Skipped: 264

#	RESPONSES	DATE
1	unknown	7/3/2023 1:48 AM
2	Unknown	5/30/2023 10:48 PM
3	55	5/29/2023 8:07 PM
4	75.00	5/24/2023 8:34 AM
5	Unknown	5/21/2023 7:28 AM
6	\$60	5/20/2023 9:38 AM
7	25	5/19/2023 6:40 AM
8	100	5/19/2023 1:01 AM
9	Unknown	5/18/2023 10:30 PM
10	60	5/18/2023 6:48 PM
11	Unknown	5/18/2023 6:32 PM
12	Unknown	5/15/2023 7:03 PM
13	295	5/13/2023 7:11 PM
14	157	5/13/2023 12:25 PM
15	80	5/13/2023 11:10 AM
16	\$140	5/10/2023 9:34 PM
17	Unknown	5/10/2023 2:32 PM
18	It is included with my business rent. I don't know what they pay.	5/4/2023 12:08 PM
19	100	5/3/2023 6:54 PM
20	TEST	4/20/2023 9:40 AM

Q26 Does your internet bill include other services such as phone, TV, or premium content?

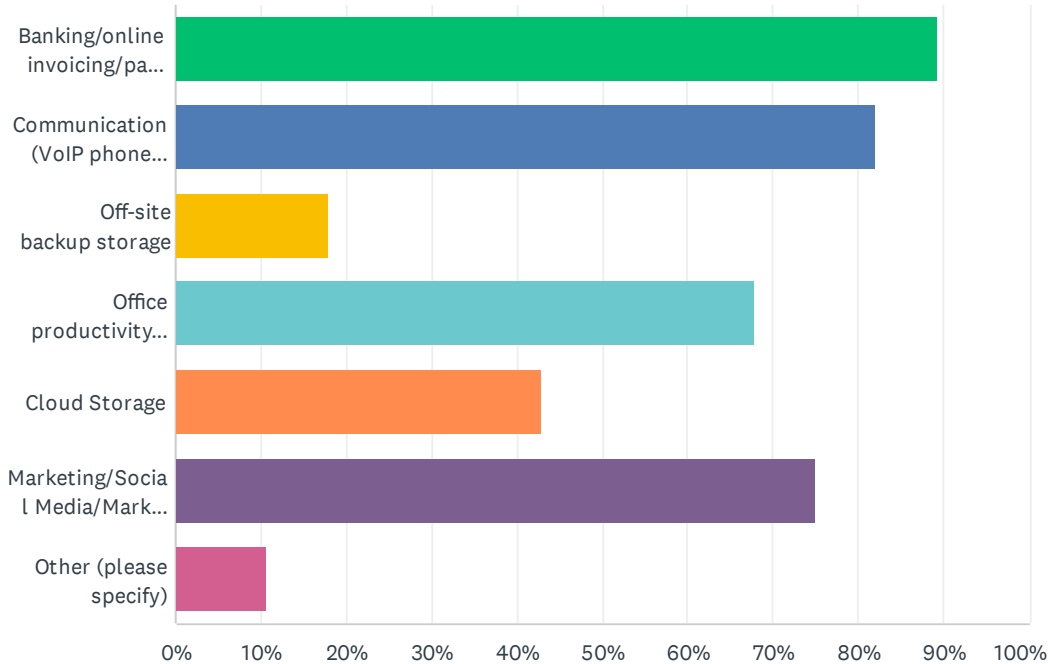
Answered: 20 Skipped: 264



ANSWER CHOICES	RESPONSES	
Yes	45.00%	9
No	55.00%	11
TOTAL		20

Q27 What do you typically use the internet for at your business? Select all that apply.

Answered: 28 Skipped: 256

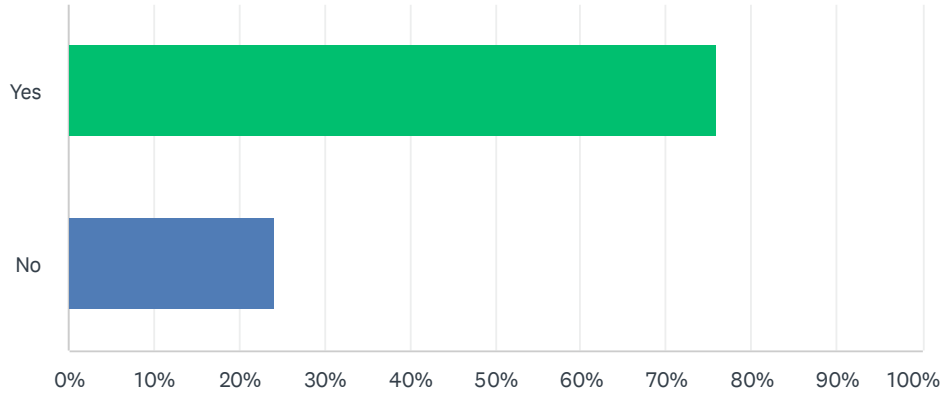


ANSWER CHOICES	RESPONSES	
Banking/online invoicing/payment processing/payroll	89.29%	25
Communication (VoIP phone system, email)	82.14%	23
Off-site backup storage	17.86%	5
Office productivity (Video conferencing, Slack, Microsoft Teams)	67.86%	19
Cloud Storage	42.86%	12
Marketing/Social Media/Market Research	75.00%	21
Other (please specify)	10.71%	3
Total Respondents: 28		

#	OTHER (PLEASE SPECIFY)	DATE
1	EVERYTHING!!!	5/20/2023 9:38 AM
2	Access to Adobe Creative Cluid	5/16/2023 11:13 AM
3	Occasionally teach online classes	5/4/2023 12:08 PM

Q28 Has the speed or reliability of your internet service affected your business?

Answered: 29 Skipped: 255



ANSWER CHOICES	RESPONSES	
Yes	75.86%	22
No	24.14%	7
TOTAL		29

Q29 Please describe how internet reliability - or lack of internet connection - has affected your business.

Answered: 20 Skipped: 264

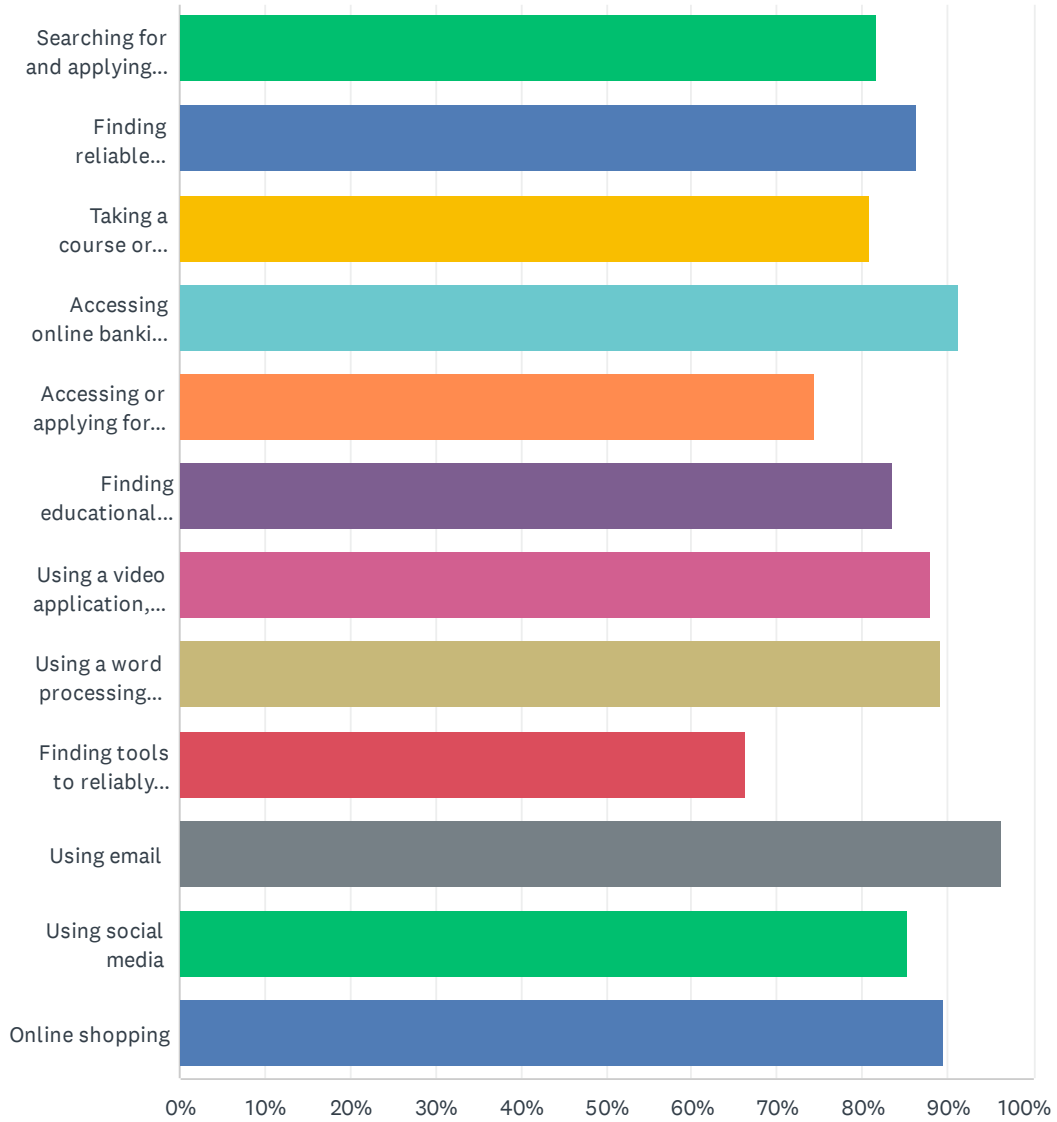
#	RESPONSES	DATE
1	Unreliable internet makes business difficult overall.	7/3/2023 1:48 AM
2	I was starting a media company and doing any type of uploading costed me enough money that it became not worth the effort. Not only is it slow upload speeds they want to charge extra money for what is already a service they should provide and on top of it. By giving you a "data cap" you are effectively punishing small businesses and development of small businesses by making us pay more in upload costs. I understand the values of Americans is different from other countries but how do we not have the same upload as we have down like other countries. Not only the lack of upload speeds hinder me, my Tennants complain that their internet is down constantly just due to a gust of wind. Also why the heck do I have only one choice in cable provider? Let's at least have a few more choices instead of the monopoly that Xfinity has.	6/7/2023 8:36 PM
3	Allowed me to consolidate our internet services. It is much more reliable than in the past.	5/30/2023 10:48 PM
4	When my connection drops or slows down during the day I can't do work	5/30/2023 6:59 AM
5	Not very fast. Drops sometimes	5/29/2023 8:07 PM
6	When the connection is slow it is very difficult to work at home from the computer. Since that happens to be how we earn a living.	5/24/2023 8:34 AM
7	Every Internet Service available in Ogden, Utah sucks monkey dick!!!! They all suck, they all throttle, they all drop connections on a daily basis. And if they are Comcast the service doesn't work unless you rent all their stupid equipment and you can't use your own routers after their gateway/modem because they purposely make it stop working. OGDEN SUCKS, COMCAST SUCKS and Ogden is 40 years behind the times in just about everything, not just internet access.	5/20/2023 9:38 AM
8	Lack of internet, was unable to connect once for several days had to go elsewhere to send emails. Low speed connection makes it stressful. I have contract deadlines to meet in real estate and need to get back promptly. It's made me less efficient	5/19/2023 6:40 AM
9	Transactions	5/19/2023 1:01 AM
10	Slow connection = longer wait times for customers.	5/18/2023 10:30 PM
11	Internet is horrible, I have replaced my modem and router many times and it didn't matter. Still poor connection	5/18/2023 6:48 PM
12	We can't use our sales system if the internet is down.	5/18/2023 6:32 PM
13	Speed is the main issue. I work in video editing and I'll need to download/upload large files. My slow speed makes this take hours when others with faster connection for the same price or cheaper can upload the same files in a fraction of the time. When I had my internet "upgraded" in 2020, the tech told me that my neighborhood will never get fiber internet because it's not worth it to the city to upgrade the older neighborhoods. That is hugely disappointing, in 2023 the fastest internet that I can ever have is speeds from 10 years ago.	5/16/2023 11:13 AM
14	We need higher speeds. The old infrastructure is just wires run across buildings and is very prone to errors	5/13/2023 7:11 PM
15	It has been great. We have had very little issues.	5/13/2023 12:25 PM
16	We aren't able to schedule jobs if we lose our connection.	5/10/2023 9:34 PM
17	I have had no lack of connection. Our connection at the Monarch is very very good.	5/4/2023 12:08 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

18	Without internet I would be unable to manage my subscription and event services	5/4/2023 10:18 AM
19	n/a	5/3/2023 6:54 PM
20	TEST	4/20/2023 9:40 AM

Q30 Please check each task below that you feel confident completing using the internet:

Answered: 219 Skipped: 65



HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

ANSWER CHOICES	RESPONSES	
Searching for and applying for jobs, including creating or submitting a resume	81.74%	179
Finding reliable information about a health or medical condition	86.30%	189
Taking a course or training materials to improve your job skills	80.82%	177
Accessing online banking or financial services	91.32%	200
Accessing or applying for government services	74.43%	163
Finding educational content and information	83.56%	183
Using a video application, such as Zoom, for work, school or telehealth	88.13%	193
Using a word processing application, such as Google Docs or Microsoft Word, to create a document	89.04%	195
Finding tools to reliably protect the privacy of your personal data	66.21%	145
Using email	96.35%	211
Using social media	85.39%	187
Online shopping	89.50%	196
Total Respondents: 219		

Q31 Do you have anything else to share about internet access in your area?

Answered: 117 Skipped: 167

#	RESPONSES	DATE
1	XFINITY is a terrible company, I would much rather pay for a city service.	7/3/2023 1:48 AM
2	Nope	7/1/2023 12:17 PM
3	no	6/29/2023 9:19 AM
4	Our internet speeds are very inconsistent day-to-day and during very hot weather. Also, Comcast tries to jack the price every year for no reason while offering "deals" well below the increased price. Given the internet is now akin to a utility, there should be some regulation on all these arbitrary pricing schemes.	6/28/2023 4:52 PM
5	Its really slow and incredibly laggy	6/26/2023 7:06 PM
6	Internet upload speeds have increased a lot recently in my area due to fiber being available	6/22/2023 11:32 PM
7	It would be nice if it were cheaper of course	6/22/2023 4:36 PM
8	My connection is unreliable for several hours in the evening	6/22/2023 2:59 PM
9	no	6/15/2023 11:43 AM
10	Not a lot of options for high speed broadband providers	6/15/2023 9:28 AM
11	It's slow sometimes, but doable. Price is high sometimes	6/15/2023 9:12 AM
12	I'm happy with my internet speed, which I guess is low by today's standards, but I'm unhappy about CenturyLink's occasional outages and poor customer service (handling billing issues) so more competition is always good.	6/13/2023 8:28 PM
13	Over-priced	6/12/2023 12:31 PM
14	Looking forward to connext to offer fiber in my area since Xfinity is my only real option at my home.	6/8/2023 7:17 PM
15	We need fiber	6/7/2023 9:18 PM
16	Step 1. bring down the monopoly of cable providers by providing permits to lay lines for our city. Step 2 Mandate that we get same up as we get down. Step 3. Raise the bar for what is qualified as "Broadband" we are not in the 20th century this outdated thought of "broadband" is just a marketing ploy from old providers that stuck around and eventually coined in by law. 1g is a standard across the globe. Let's innovate for the future.	6/7/2023 8:45 PM
17	We are hoping Fiber internet becomes available in our area soon.	5/30/2023 4:56 PM
18	No	5/30/2023 3:08 PM
19	I can not always get a good connection to the internet in the home or yard.	5/30/2023 2:57 PM
20	I am considering changing providers. Xfinity has become far too expensive.	5/30/2023 9:59 AM
21	We need fiber on the benches!!	5/30/2023 7:00 AM
22	N/A	5/29/2023 10:05 PM
23	The city should solicit Google fiber and other providers to give Ogden more options	5/29/2023 8:08 PM
24	I do not have any access to broadband to my area. Neither do my neighbors on my street. I am considering leaving the area as this affects my work.	5/29/2023 5:54 PM
25	I don't want the government to increase their subsidies of internet. ACP is enough. Stay out of	5/22/2023 10:21 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

it.

26	IT SUCKS! They all suck monkey cock! If you don't fix this problem many people will have to move because we work remotely and can't keep risking losing our jobs or being forced to drive to Salt Lake City again everyday. When it takes 10 seconds for someone else to hear what you said in a Google Meet.	5/20/2023 9:41 AM
27	When CenturyLink came to hook up our internet they advised us to reconsider, stating it was too slow in our area to even stream a show. They claim there are no good options in our area. They weren't wrong. We had just moved from an apartment with fiber, which was outstanding. Why not consider that?	5/19/2023 8:47 PM
28	Total lack of choice. We would take Google Fi in a heartbeat.	5/19/2023 7:32 PM
29	No	5/19/2023 5:14 PM
30	Would like more options.	5/19/2023 12:26 PM
31	Xfinity is the only real high speed option in the Ogden area. Their service is terrible and the community would do well to have some competition available.	5/19/2023 9:51 AM
32	It's sometimes slow.	5/19/2023 9:00 AM
33	It needs to be more affordable for everyone and high-speed. While I can afford it, it is still costly and many cannot, which only creates gaps in education and ability to find jobs. Even low income cost program is too much for many when deciding between rent, food, and internet. We can do better as a country.	5/19/2023 8:08 AM
34	No	5/19/2023 7:04 AM
35	These companies charge too much and it would be nice to have internet provided by the city as it is now a necessity, not just a luxury	5/19/2023 6:44 AM
36	Our current service is sometimes unreliable and that makes work very difficult	5/19/2023 5:27 AM
37	I wish we had Utopia	5/19/2023 4:23 AM
38	Please introduce new ISP's so Comcast is no longer a monopoly in older Ogden neighborhoods!	5/19/2023 1:27 AM
39	The cost of high speed could be less downtown with the addition of 5G towers	5/19/2023 1:02 AM
40	There are two options and both are not great and are expensive	5/18/2023 11:40 PM
41	I fully support the city in bringing in high speed internet to compete with Comcast.	5/18/2023 11:34 PM
42	No	5/18/2023 10:53 PM
43	No	5/18/2023 10:42 PM
44	The largest problem most face is cost. I am currently on the government plan, but before that, if you want speeds that can actually do work, in Ogden, you MUST use Xfinity Comcast. And they know this, so they give Ogden huge prices and data caps! If you travel just down to Layton, they know you have options, the price is way lower and there is no data cap. Honestly, it has felt like Ogden City has worked with Comcast to force this.	5/18/2023 10:08 PM
45	I need high speeds that won't go down often like Xfinity and also more affordable.	5/18/2023 9:55 PM
46	It's crappy and cuts out all the time.	5/18/2023 9:08 PM
47	Centurylink is confusing, they change pricing and routers and have terrible customer service. I wish I had more options.	5/18/2023 8:50 PM
48	No	5/18/2023 8:39 PM
49	No	5/18/2023 8:38 PM
50	More options are always welcome. Still limited choices.	5/18/2023 8:26 PM
51	No other providers have been able to provide service in my neighborhood for 20+ years.	5/18/2023 7:56 PM
52	No	5/18/2023 7:48 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

53	Xfinity is overpriced for unreliable service, but why is the city interfering with private business? How much taxpayer funding is going into this effort?	5/18/2023 7:23 PM
54	Limited access options because I live in a trailer park	5/18/2023 7:22 PM
55	Up on the high East bench it's spotty at times. We are unable to use satellite as to many trees .	5/18/2023 7:01 PM
56	It also affects TMobile service which is horrible	5/18/2023 6:49 PM
57	Internet access (and wireless phone service) is absolutely terrible near Ogden Canyon... sometimes impossible to get any connection.	5/18/2023 6:44 PM
58	Would love multiple options only option is Xfinity	5/18/2023 6:18 PM
59	Very slow. Cant have all programs needed open at one time or it stalls. TVs needed in certain educational rooms and unable to use just sits on one page	5/18/2023 10:06 AM
60	The internet sucks so bad. Literally can't do anything at a normal speed, it's so so slow	5/17/2023 2:38 PM
61	I live blocks from downtown and I have basically 3 options: Comcast, Century Link, and Verizon 5G. Comcast is a horrible monopoly, Century Link barely functions, and Verizon is fine, but not that reliable. I would love fast, reliable internet for all that is not run by a monopolistic corporation :)	5/17/2023 1:00 PM
62	I don't get the surface I pay for and it's too expensive	5/17/2023 12:51 PM
63	It needs to be faster in North Ogden, UT. Thanks.	5/17/2023 10:34 AM
64	No	5/16/2023 7:19 PM
65	No	5/16/2023 6:29 PM
66	Comcast seems a bit expensive, I don't like that you're always subject to new terms/prices when the contract comes up. It seems you're at the whim of Comcast on prices. Plus customer service can be difficult as sometimes the customer service reps are outside the country and English is their second language, creating language barriers.	5/16/2023 12:10 PM
67	No	5/16/2023 11:32 AM
68	Please expand the fiber options in older neighborhoods. As mentioned before I was told that the best internet I will ever be able to get is 40mbps. That was amazing 10 years ago. It's time to upgrade.	5/16/2023 11:14 AM
69	Comcast has said I was getting up to 200 Mbps when in fact I was getting 5 Mbps when I had my previous plan. I have been forced into getting a more expensive plan to get a higher speed.	5/16/2023 10:49 AM
70	NA	5/16/2023 7:40 AM
71	No	5/15/2023 7:05 PM
72	Get us fiber	5/15/2023 5:42 AM
73	Only one provider in my area. And it's too expensive.	5/14/2023 11:00 PM
74	We wish we had access to fiber!	5/14/2023 9:45 PM
75	It's terrible. We live by a train so we are stuck for the highest cost for the worst internet speeds.	5/14/2023 7:50 PM
76	Comcast (xfinity) holds a monopoly and is the only option that is halfway reliable so they charge way too much and put a cap on the data you can use. We need more better options. Cell phone towers are not a viable option and we have no fiber lines. Ogden is falling behind fast when it comes to technology.	5/14/2023 8:27 AM
77	Please, bring fiber in.	5/13/2023 7:12 PM
78	Speeds are slower than the plan I'm paying for.	5/13/2023 6:18 PM
79	No	5/13/2023 2:57 PM
80	We have internet but it's been dropping out a lot lately. It'll work fine and then stop. It wasn't doing it much but now it's daily.	5/13/2023 2:17 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

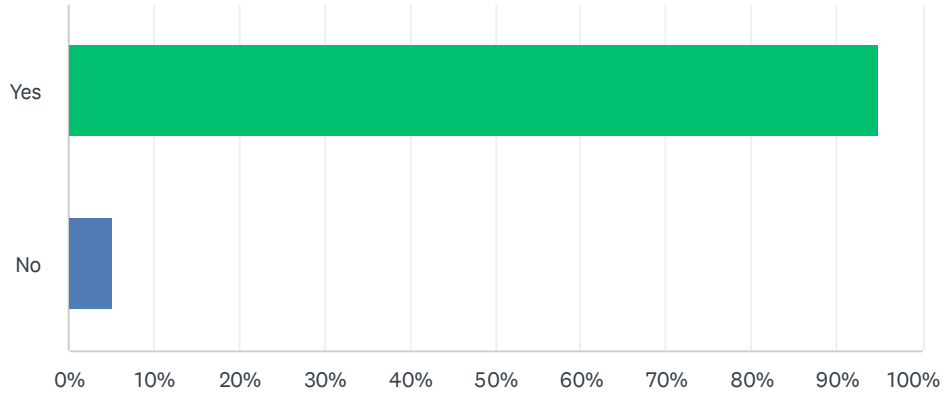
81	Only one viable option for reliable/fast speeds, and it's expensive.	5/13/2023 1:02 PM
82	I have six overhead cable lines over my backyard and garage. Underground would be wonderful advancement and improvement.	5/13/2023 12:39 PM
83	I don't get the speed I pay for	5/13/2023 12:37 PM
84	Not at this time	5/13/2023 12:25 PM
85	Verizon 5G sucks a satchel of Richards.	5/13/2023 12:20 PM
86	No	5/13/2023 12:05 PM
87	Internet is spotty. I would prefer fiber optic as I work from home full time and am required to have a certain speed and reliability. The choice to just have internet without a bundle service is ridiculous.	5/13/2023 11:51 AM
88	It's just too expensive and the price goes up every year.	5/13/2023 11:49 AM
89	We are lucky to have high-speed Internet service in my neighborhood, but it would be nice if there were other options available preferably cheaper.	5/13/2023 11:32 AM
90	I would prefer to have a more reliable fiber internet with a better download and upload speed for a more consistent monthly cost that is associated with a local fiber company.	5/12/2023 12:18 PM
91	It seems adequate for our uses	5/10/2023 9:35 PM
92	We need Google fiber!	5/10/2023 2:33 PM
93	There aren't enough viable options for home internet. Without much competition, prices aren't held in check for the lousy speed and reliability we have.	5/10/2023 12:47 PM
94	There are few and certain internet service providers in the area and much like the rest of the US (Comcast/Xfinity, century link, etc.) who have completely monopolized the market. I would much prefer to be able to access fiber internet from a local provider if I had the option. Also, why is fiber infrastructure first to arrive to affluent and relatively wealthy neighborhoods in Ogden? Why are lower income neighborhoods stuck with monopolizing ISPs?	5/10/2023 12:47 PM
95	no	5/7/2023 1:06 PM
96	Xfinity is the only high speed internet, and they charge too much. \$125 per month for internet only.	5/7/2023 8:08 AM
97	Current service, yes are fast speed at areas in North Ogden but there is too many disconnections.	5/7/2023 4:08 AM
98	Comcast is our only option. Its almost a monopoly. There are too many trees for wireless. DSL and satellite are even more expensive.	5/6/2023 2:47 PM
99	I wish I had fiber internet such as utopia.	5/6/2023 2:26 PM
100	Nothing	5/6/2023 1:16 PM
101	It was very hard finding a company we use and the internet is slower than what it should be but they can't make it any faster	5/6/2023 12:03 PM
102	Wish I had more options for internet providers	5/5/2023 5:10 PM
103	No	5/5/2023 4:38 PM
104	The Internet is way too expensive. I have it and pay for it only because it is a necessity. It is like water you have to have it.	5/5/2023 1:34 PM
105	We need broadband internet in Ogden City. We are on the 21st century and need to catch up with technology.	5/5/2023 11:35 AM
106	It's too slow and too expensive. The connection is not reliable, it disconnects constantly.	5/4/2023 8:43 PM
107	When are we getting fiber in our area?	5/4/2023 3:57 PM
108	Would like to have other options besides xfinity that actually work well	5/4/2023 12:31 PM
109	We love our Internet service at our home, and it is totally affordable. I also am happy with the	5/4/2023 12:08 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

	service we get at the Monarch for our business.	
110	Our community needs fiber!!!	5/4/2023 10:19 AM
111	Broadband in Ogden would be great	5/4/2023 10:14 AM
112	Xfinity is the only high speed option and the service is poor and unreliable for remote work. We depend on it and it is insufficient	5/4/2023 10:01 AM
113	no	5/3/2023 6:56 PM
114	No	4/29/2023 2:35 PM
115	no	4/29/2023 11:32 AM
116	No	4/29/2023 9:09 AM
117	TEST	4/20/2023 9:40 AM

Q32 Does your household have enough computer devices available to meet the needs of those living in your household?

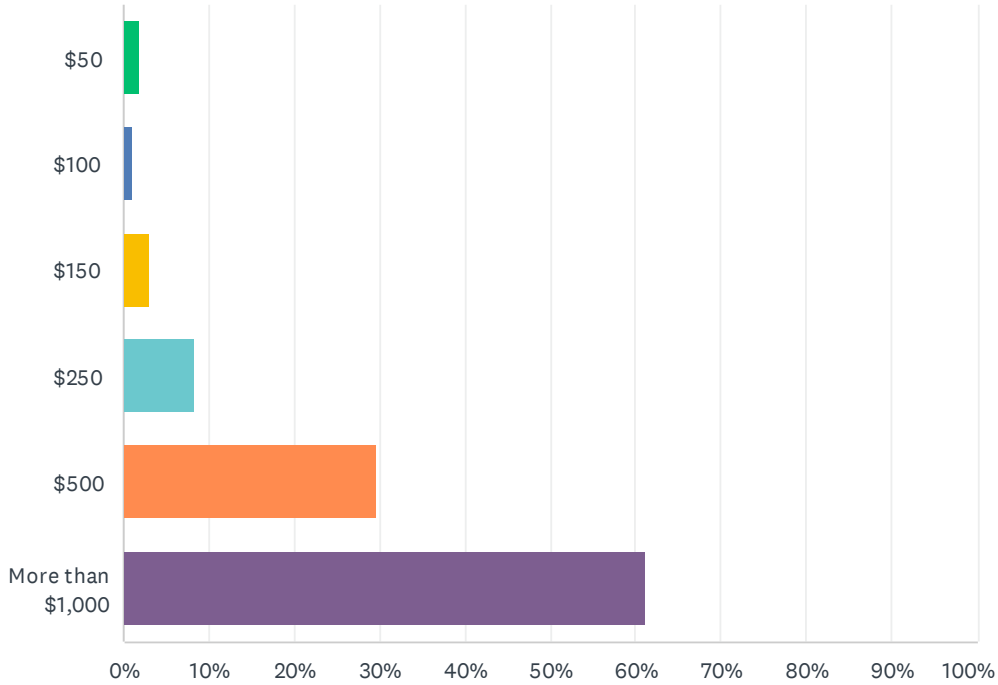
Answered: 212 Skipped: 72



ANSWER CHOICES	RESPONSES	
Yes	94.81%	201
No	5.19%	11
TOTAL		212

Q33 In thinking about purchasing a desktop or laptop computer, what would you consider to be too expensive?

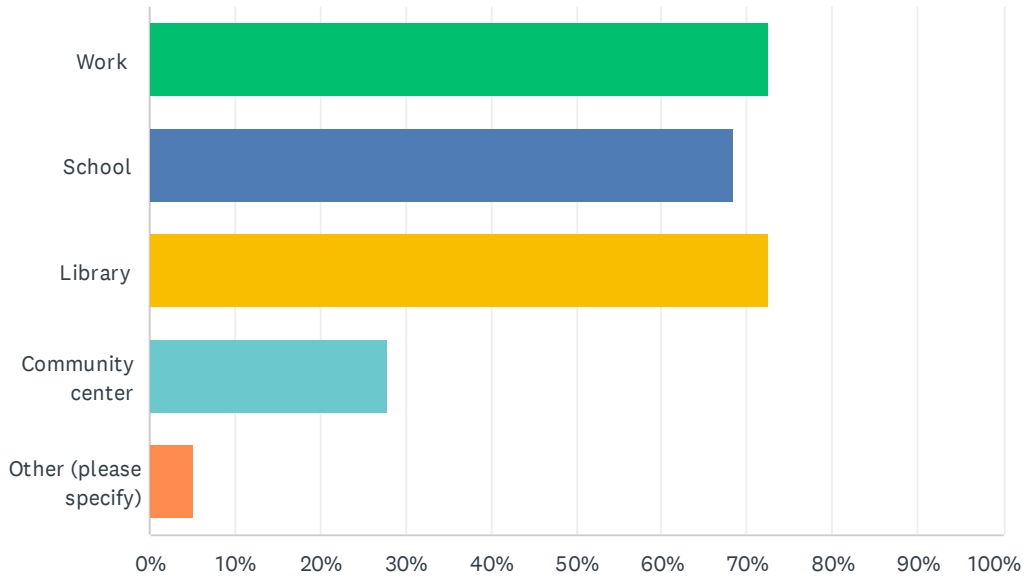
Answered: 206 Skipped: 78



ANSWER CHOICES	RESPONSES	
\$50	1.94%	4
\$100	0.97%	2
\$150	2.91%	6
\$250	8.25%	17
\$500	29.61%	61
More than \$1,000	61.17%	126
Total Respondents: 206		

Q34 Select the other ways your community accesses devices if they do not own them. Select all that apply.

Answered: 193 Skipped: 91



ANSWER CHOICES	RESPONSES
Work	72.54% 140
School	68.39% 132
Library	72.54% 140
Community center	27.98% 54
Other (please specify)	5.18% 10
Total Respondents: 193	

#	OTHER (PLEASE SPECIFY)	DATE
1	I do not understand this question.	6/5/2023 8:29 PM
2	Family/Friends	5/29/2023 10:11 PM
3	Church	5/22/2023 10:23 PM
4	Libraries are dead, please stop paying for them.	5/20/2023 9:43 AM
5	Fast food wifi	5/19/2023 7:13 AM
6	Only when needed	5/19/2023 6:35 AM
7	?	5/16/2023 11:33 AM
8	Friends and family	5/10/2023 12:49 PM
9	None	5/6/2023 1:19 PM
10	Home	5/3/2023 7:31 AM

Q35 What would make it easier for individuals in your area to access to device(s)? (For example, lower costs, subsidizing programs for device purchases, etc.)

Answered: 128 Skipped: 156

#	RESPONSES	DATE
1	.	7/3/2023 1:49 AM
2	Not sure	7/1/2023 12:18 PM
3	I don't think device cost is the issue. There are plenty of cheap devices to be had in the secondary market. The issue seems to be ISP cost.	6/28/2023 4:55 PM
4	Lower cost	6/22/2023 4:37 PM
5	Lower cost	6/22/2023 3:01 PM
6	Lower costs	6/15/2023 11:45 AM
7	Lower costs, and more access	6/15/2023 9:13 AM
8	Lower costs	6/8/2023 7:18 PM
9	I don't know the needs of others outside of my household, however I do support government subsidies to cover the cost of devices to access the internet. I also feel having a cap on how high business can charge for access or a state run alternative with a reasonable price.	6/8/2023 6:15 PM
10	More cell towers for a more reliable stronger connection.	6/8/2023 6:48 AM
11	Recycle/Reuse old computers. Hill AFB I'm sure has a bunch of computers that they throw away every year because they are EOL. Let's grab those and give them out to the community. Also I highly suggest we allow companies to donate their old hardware to the community for a tax break. Too many machines I see go to waste and we could have community action take advantage of those old computers. If we do this make sure that the computer is at most 5 years old or it will not keep up with the windows updates. Also if there is "too much" computers we can start giving them out to all of the students to do homework at home via online. Think! We could go to totally digital school system! Ogden could be the first!	6/7/2023 8:55 PM
12	"to access to devices? " What?	6/5/2023 8:29 PM
13	?	6/3/2023 11:33 AM
14	Both lower cost and access to devices, you cannot have one without the other.	5/30/2023 10:49 PM
15	Subsidizing program to purchase devices. Older neighborhoods should not be left out. Even old people want high speed internet. And <40mg like we're getting and paying \$85 for is not reasonable anymore.	5/30/2023 3:11 PM
16	? Advertise? I work at Porter Clinic and there are many people who do not have internet access/do not know how to use electronics/do not have an email. Perhaps flyers to hang/mail out to low-income and at-risk facilities?	5/29/2023 10:11 PM
17	Not needed	5/29/2023 8:09 PM
18	Bring more tech jobs to area so people can make more money.	5/29/2023 9:32 AM
19	Free internet	5/24/2023 4:36 PM
20	Plenty of handouts. No additional handouts needed. Libraries, community centers, schools... everyone has a phone.	5/22/2023 10:23 PM
21	?	5/21/2023 7:29 AM
22	Lower costs	5/20/2023 6:16 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

57	providing routers? Renting them from providers adds up	5/18/2023 8:21 PM
58	Lower costs, help for seniors	5/18/2023 8:10 PM
59	I think lower costs would be helpful, but I feel like that's not something that can be controlled outside of the brands that sell the products. I think the most helpful thing would be a program to control cost of rent and access to internet. Rent costs are through the roof and it's not being regulated or controlled in any way, so the landlords are just sitting back as they take in the dough and screw over those of us that can barely afford food after the costs of rent.	5/18/2023 8:03 PM
60	Just need the service available at my house	5/18/2023 8:02 PM
61	NA	5/18/2023 7:49 PM
62	low cost	5/18/2023 7:25 PM
63	Don't know	5/18/2023 7:24 PM
64	Why does the city feel the need to subsidize these things?	5/18/2023 7:24 PM
65	Subside	5/18/2023 7:15 PM
66	Lower costs are always good.	5/18/2023 7:03 PM
67	Lower costs	5/18/2023 6:50 PM
68	Yes to the examples	5/18/2023 6:46 PM
69	Lower cost	5/18/2023 6:20 PM
70	Not sure	5/18/2023 6:19 PM
71	All of these	5/18/2023 3:59 PM
72	Low costs	5/17/2023 10:44 PM
73	Make the internet actually work so computers are actually useful	5/17/2023 2:39 PM
74	eliminating fees for damage to school chromebooks	5/17/2023 12:09 PM
75	Lower cost is always important.	5/17/2023 10:35 AM
76	Longer Library hours	5/17/2023 8:32 AM
77	I don't know. I'm not interested.	5/16/2023 7:21 PM
78	Lower costs	5/16/2023 6:32 PM
79	Unknown	5/16/2023 11:33 AM
80	Subsidies could be a great way to get low income families some help. Especially those with young children in schools. I couldn't have made it through college without my own device. And now that's creeping down to the elementary age students.	5/16/2023 11:17 AM
81	Lower costs, used devices in good working order.	5/16/2023 10:52 AM
82	Do not care	5/16/2023 9:36 AM
83	subsidizing programs	5/16/2023 8:55 AM
84	lower cost	5/16/2023 7:41 AM
85	Lower cost or lower internet so I can save for one	5/15/2023 12:07 PM
86	Labs	5/15/2023 5:43 AM
87	More providers to lower costs	5/14/2023 9:13 PM
88	More locations	5/14/2023 7:51 PM
89	Lower cost	5/14/2023 8:28 AM
90	Subsidizing programs	5/13/2023 7:13 PM
91	Lower cost of services, make the services higher quality and available to all homes.	5/13/2023 2:59 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

92	More choices	5/13/2023 2:58 PM
93	Low cost	5/13/2023 2:18 PM
94	Subsidies. If we can all agree that internet access is essential for upwards mobility then we need to make it readily available to those without the means to gain access themselves.	5/13/2023 1:04 PM
95	Lower cost	5/13/2023 12:40 PM
96	NA	5/13/2023 12:38 PM
97	Not sure	5/13/2023 12:26 PM
98	Nothing really	5/13/2023 12:21 PM
99	Low cost for internet and computers, laptops. Classes on how to use internet and devices.	5/13/2023 12:08 PM
100	Cost	5/13/2023 11:52 AM
101	Yes	5/12/2023 11:08 AM
102	Lower costs	5/11/2023 12:59 PM
103	I'm not familiar with any way to get better access	5/10/2023 9:37 PM
104	Subsidizing device purchases	5/10/2023 2:34 PM
105	Free/cheap public transportation	5/10/2023 12:49 PM
106	Lower the cost. City government programs to provide at no or low cost.	5/10/2023 12:49 PM
107	no idea	5/7/2023 1:07 PM
108	Fiber optic internet to complete with cable.	5/7/2023 8:10 AM
109	For individuals, that can pay for good service, to provide them with fiber optic internet. for the individuals that cannot pay for internet access, why not set a main tower that would cover over Ogden. which could will be much a safer option. use Japan and other countries that has the same system.	5/7/2023 4:21 AM
110	Lower cost, subsidized programs, more education opportunities	5/6/2023 2:49 PM
111	Reuse program, where old devices of the wealthy can be passed on to those in need.	5/6/2023 2:30 PM
112	Lower cost	5/6/2023 1:19 PM
113	Lower costs	5/6/2023 12:04 PM
114	Subsidizing cost or rentals	5/5/2023 5:13 PM
115	All of the above	5/5/2023 4:40 PM
116	Lower costs and assistance for personal devices	5/5/2023 4:33 PM
117	Low cost. Higher speed	5/5/2023 1:36 PM
118	With our Hispanic population outreach efforts in partnerships with non profit orgs should happen. Adult Ed classes to teach how to use a laptop or iPad. Basic functions and typing classes to get the device at a low cost.	5/5/2023 11:38 AM
119	Lower costs.	5/4/2023 8:44 PM
120	Lower device cost, lower service costs	5/4/2023 4:12 PM
121	NA	5/4/2023 3:58 PM
122	Na	5/4/2023 10:20 AM
123	lower cost	5/3/2023 6:58 PM
124	Most people in my area are disable and some own there own car some don't I think it would make it easy if they had devices in their homes	5/3/2023 7:31 AM
125	I don't know	4/29/2023 2:38 PM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

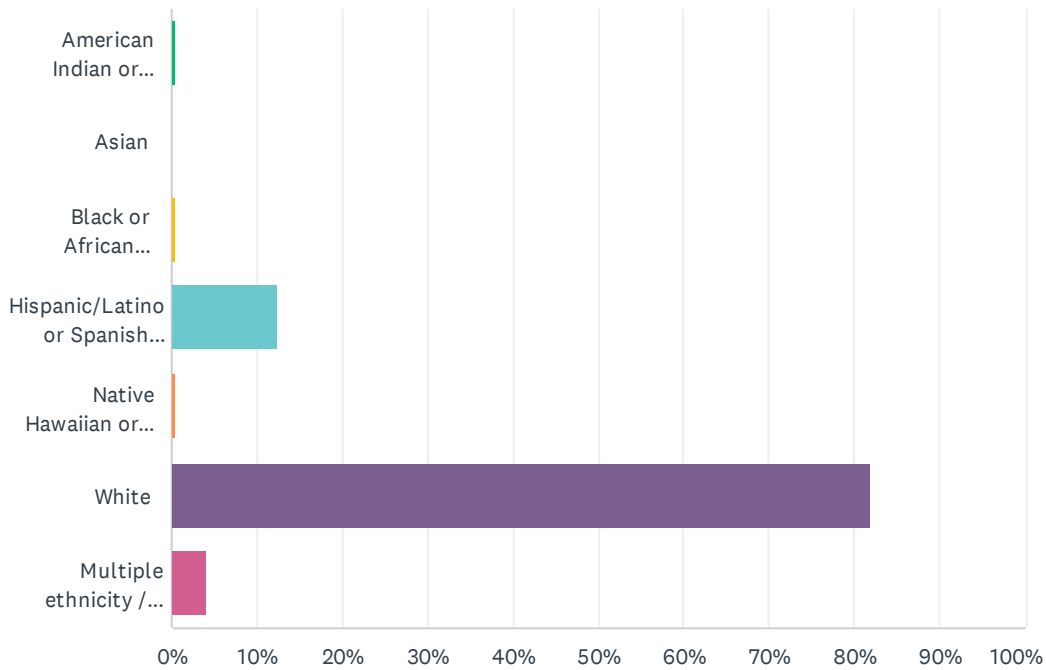
126	lower costs	4/29/2023 11:33 AM
127	??	4/29/2023 9:09 AM
128	TEST	4/20/2023 9:41 AM

HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

28	No	5/18/2023 7:24 PM
29	No	5/18/2023 7:03 PM
30	No	5/18/2023 6:50 PM
31	More options would be great. I've only ever had one service provider to choose from no matter where in Ogden I've lived.	5/18/2023 6:46 PM
32	No	5/18/2023 6:20 PM
33	No	5/18/2023 6:19 PM
34	RIP to our devices	5/17/2023 2:39 PM
35	No, thanks.	5/17/2023 10:35 AM
36	No	5/16/2023 7:21 PM
37	Most of the devices are loaded with advertising and useless apps that take up memory.	5/16/2023 6:32 PM
38	No	5/16/2023 11:33 AM
39	no	5/16/2023 7:41 AM
40	No	5/13/2023 7:13 PM
41	Na	5/13/2023 12:55 PM
42	NA	5/13/2023 12:38 PM
43	Not at this time	5/13/2023 12:26 PM
44	Nope	5/13/2023 12:21 PM
45	No	5/13/2023 12:08 PM
46	No	5/13/2023 11:52 AM
47	No	5/10/2023 9:37 PM
48	no	5/7/2023 1:07 PM
49	N/A	5/7/2023 4:21 AM
50	No	5/6/2023 1:19 PM
51	N/a	5/6/2023 12:04 PM
52	No	5/5/2023 4:40 PM
53	Partnerships with non profits to find ways to get these tools in the hands of people who may not be able to afford the device or internet.	5/5/2023 11:38 AM
54	No.	5/4/2023 8:44 PM
55	NA	5/4/2023 3:58 PM
56	no	5/3/2023 6:58 PM
57	No	5/3/2023 7:31 AM
58	No	4/29/2023 2:38 PM
59	no	4/29/2023 11:33 AM
60	nope	4/29/2023 9:09 AM
61	TEST	4/20/2023 9:41 AM

Q37 What is your race/ethnicity? Select all that apply.

Answered: 193 Skipped: 91

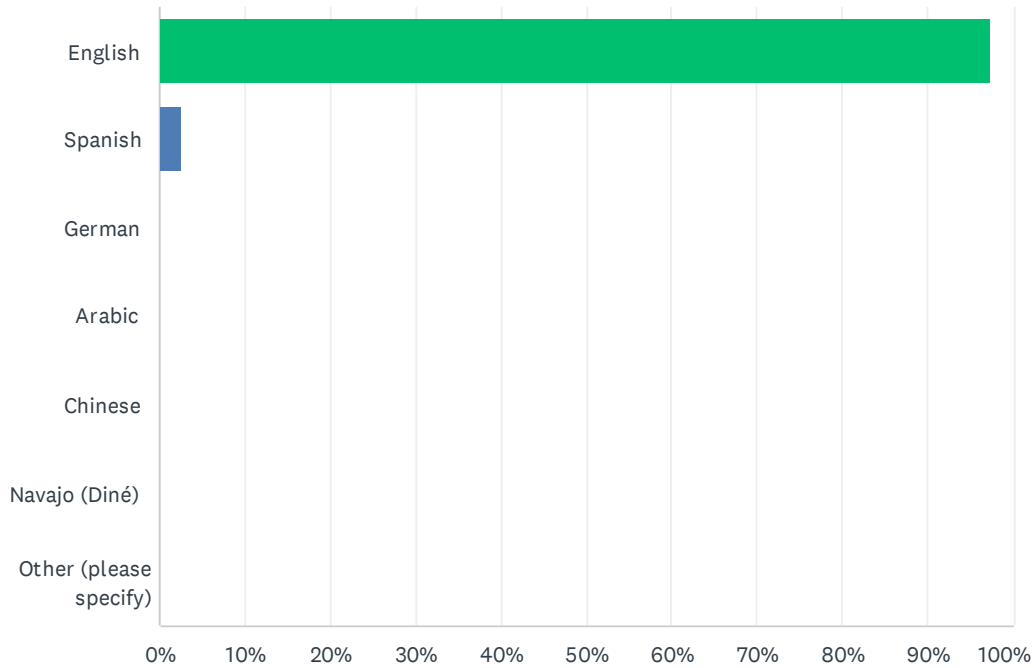


ANSWER CHOICES	RESPONSES
American Indian or Alaska Native	0.52% 1
Asian	0.00% 0
Black or African American	0.52% 1
Hispanic/Latino or Spanish Origin	12.44% 24
Native Hawaiian or Other Pacific Islander	0.52% 1
White	81.87% 158
Multiple ethnicity / Other (please specify)	4.15% 8
TOTAL	193

#	MULTIPLE ETHNICITY / OTHER (PLEASE SPECIFY)	DATE
1	Asían, white	6/22/2023 3:02 PM
2	Caucasian	5/20/2023 9:44 AM
3	Asian, white	5/19/2023 12:28 AM
4	Allow more than one buttons instead of typing something into obscurity. d o	5/18/2023 7:26 PM
5	Unknown	5/17/2023 2:40 PM
6	Hispanic, White, Black	5/16/2023 7:50 AM
7	White and Hispanic	5/10/2023 12:50 PM

Q38 What language is spoken most often in your household?

Answered: 195 Skipped: 89

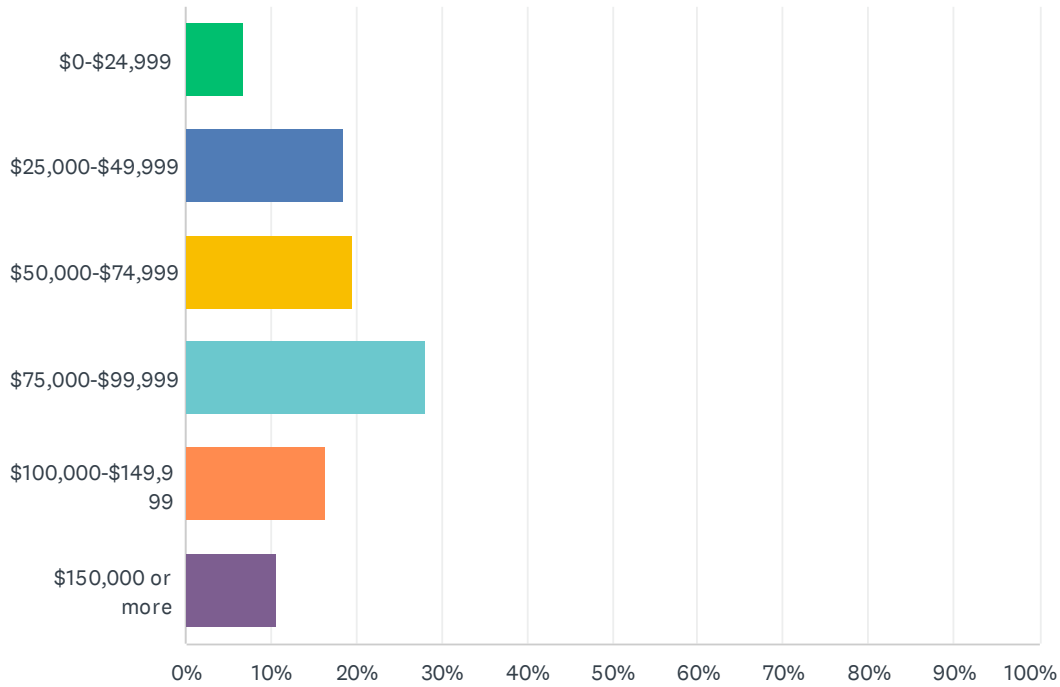


ANSWER CHOICES	RESPONSES	
English	97.44%	190
Spanish	2.56%	5
German	0.00%	0
Arabic	0.00%	0
Chinese	0.00%	0
Navajo (Diné)	0.00%	0
Other (please specify)	0.00%	0
TOTAL		195

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q39 What is your household's gross annual income?

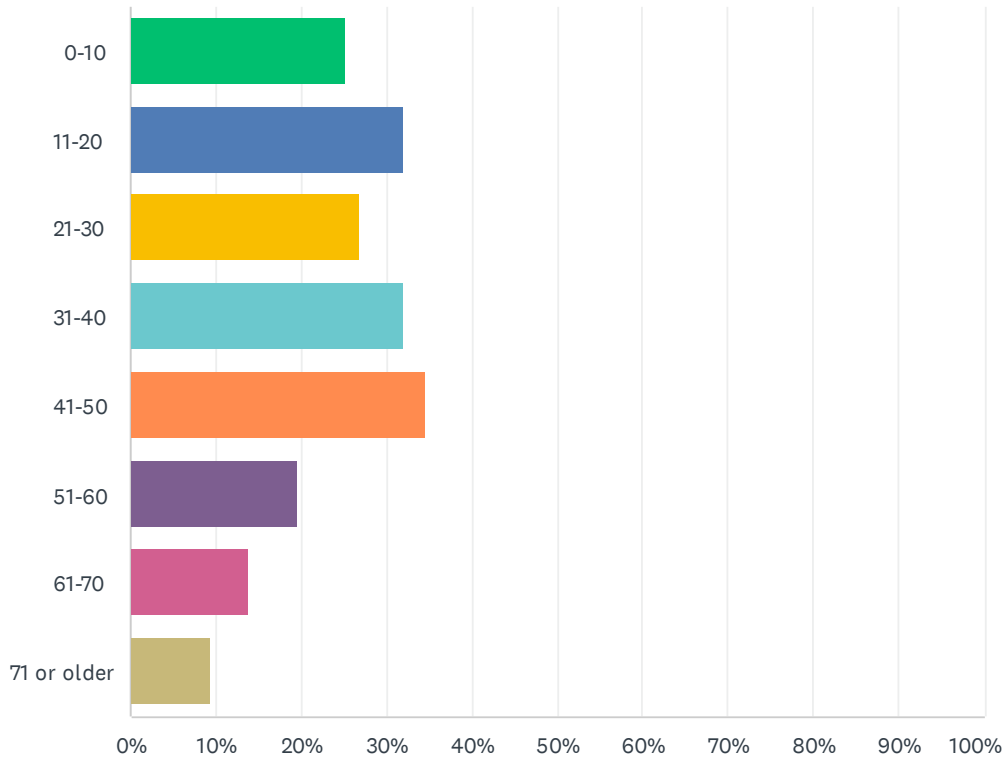
Answered: 189 Skipped: 95



ANSWER CHOICES	RESPONSES	
\$0-\$24,999	6.88%	13
\$25,000-\$49,999	18.52%	35
\$50,000-\$74,999	19.58%	37
\$75,000-\$99,999	28.04%	53
\$100,000-\$149,999	16.40%	31
\$150,000 or more	10.58%	20
TOTAL		189

Q40 Which age groups live in your home? Select all that apply.

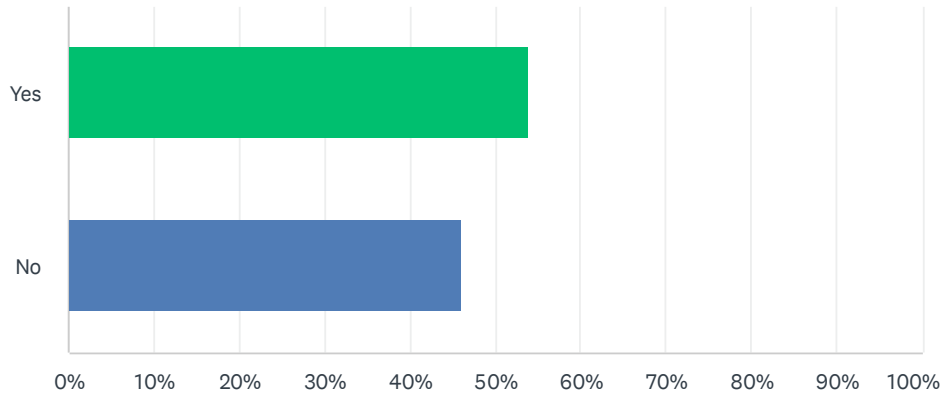
Answered: 194 Skipped: 90



ANSWER CHOICES	RESPONSES
0-10	25.26% 49
11-20	31.96% 62
21-30	26.80% 52
31-40	31.96% 62
41-50	34.54% 67
51-60	19.59% 38
61-70	13.92% 27
71 or older	9.28% 18
Total Respondents: 194	

Q41 Do students live at your household?

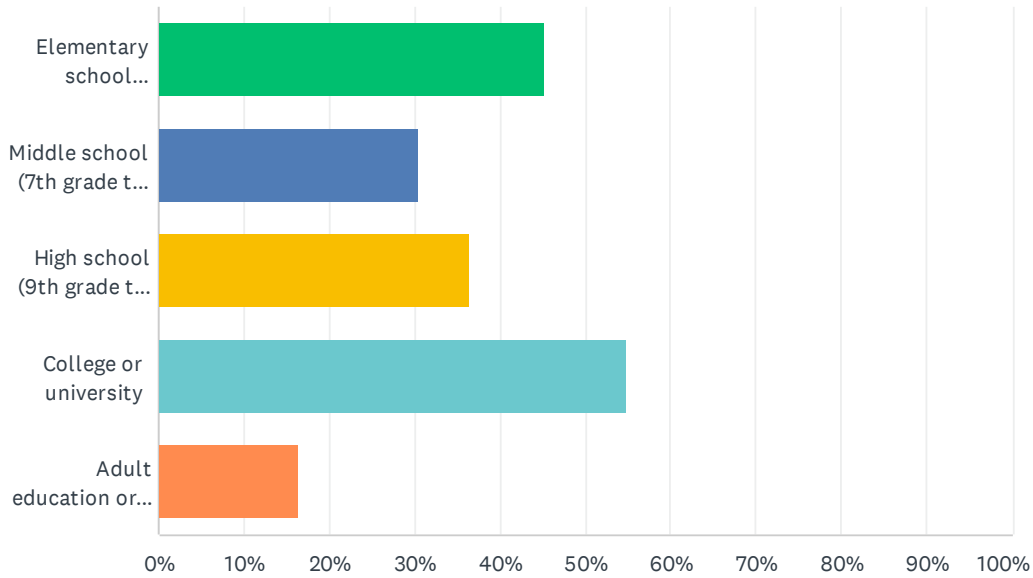
Answered: 195 Skipped: 89



ANSWER CHOICES	RESPONSES	
Yes	53.85%	105
No	46.15%	90
TOTAL		195

Q42 Which education level? Select all that apply.

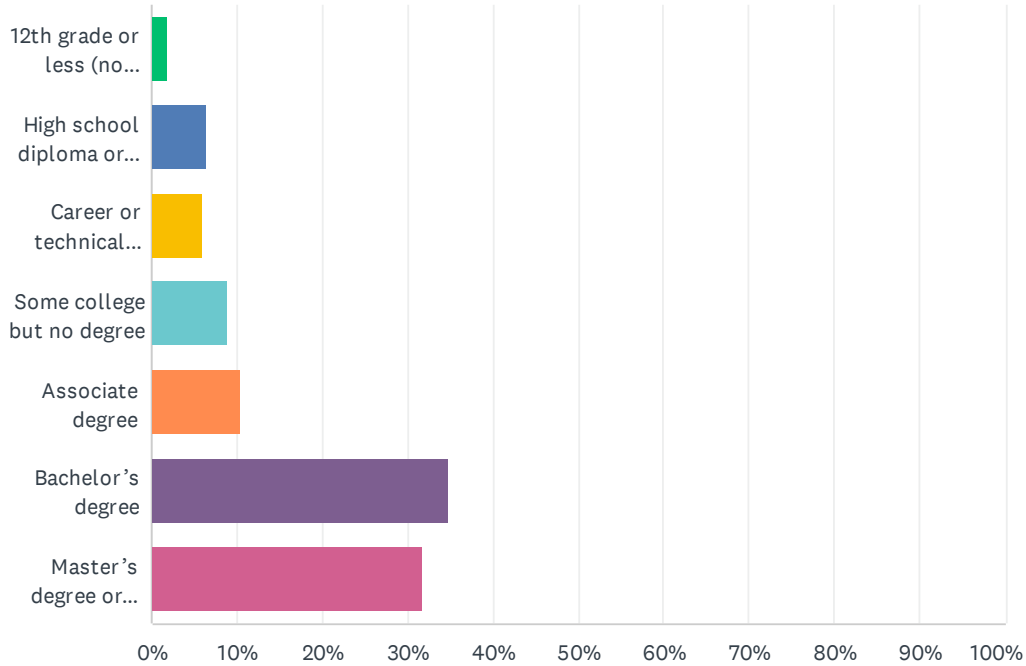
Answered: 115 Skipped: 169



ANSWER CHOICES	RESPONSES	
Elementary school (kindergarten to 6th grade)	45.22%	52
Middle school (7th grade to 9th grade)	30.43%	35
High school (9th grade to 12th grade)	36.52%	42
College or university	54.78%	63
Adult education or technical training	16.52%	19
Total Respondents: 115		

Q43 What is the highest level of education completed by someone in your household?

Answered: 202 Skipped: 82



ANSWER CHOICES	RESPONSES	
12th grade or less (no diploma)	1.98%	4
High school diploma or equivalent (GED)	6.44%	13
Career or technical education certificate	5.94%	12
Some college but no degree	8.91%	18
Associate degree	10.40%	21
Bachelor's degree	34.65%	70
Master's degree or doctorate	31.68%	64
TOTAL		202

Q1 What is Your Address?

Answered: 36 Skipped: 3

ANSWER CHOICES	RESPONSES	
Address Line 1	100.00%	36
Address Line 2	0.00%	0
City	19.44%	7
State	5.56%	2
Zip Code	13.89%	5

#	ADDRESS LINE 1	DATE
1		5/3/2023 7:18 PM
2		5/3/2023 7:02 PM
3		5/3/2023 6:57 PM
4		5/3/2023 6:35 PM
5		5/3/2023 6:28 PM
6		5/3/2023 5:59 PM
7		5/3/2023 5:26 PM
8		5/3/2023 5:21 PM
9		5/3/2023 5:13 PM
10		5/3/2023 5:00 PM
11		5/1/2023 7:20 PM
12		5/1/2023 7:15 PM
13		5/1/2023 7:06 PM
14		5/1/2023 7:01 PM
15		5/1/2023 6:52 PM
16		5/1/2023 6:27 PM
17		5/1/2023 5:59 PM
18		5/1/2023 5:56 PM
19		5/1/2023 5:49 PM
20		5/1/2023 5:33 PM
21		5/1/2023 5:27 PM
22		5/1/2023 5:19 PM
23		5/1/2023 5:17 PM
24		5/1/2023 4:51 PM
25		4/29/2023 3:06 PM
26		4/29/2023 2:32 PM

CANVASSING HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

27	4/29/2023 2:05 PM
28	4/29/2023 1:27 PM
29	4/29/2023 1:15 PM
30	4/29/2023 11:42 AM
31	4/29/2023 11:29 AM
32	4/29/2023 11:20 AM
33	4/29/2023 10:51 AM
34	4/29/2023 10:37 AM
35	4/29/2023 10:24 AM
36	4/27/2023 2:02 PM

#	ADDRESS LINE 2	DATE
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There are no responses.

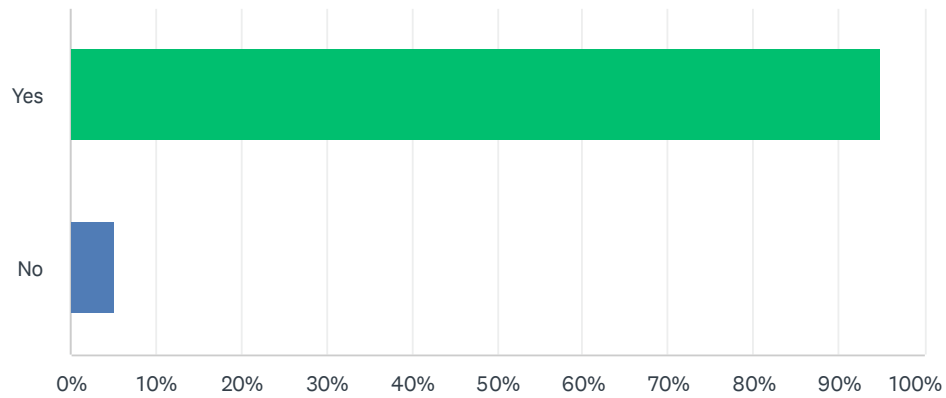
#	CITY	DATE
1	Ogden	5/1/2023 4:51 PM
2	Ogden	4/29/2023 11:42 AM
3	Ogden	4/29/2023 11:29 AM
4	Ogden	4/29/2023 11:20 AM
5	Ogden	4/29/2023 10:51 AM
6	Ogden	4/29/2023 10:24 AM
7	Ogden	4/27/2023 2:02 PM

#	STATE	DATE
1	Ut	5/1/2023 4:51 PM
2	Utah	4/27/2023 2:02 PM

#	ZIP CODE	DATE
1	84401	5/3/2023 5:21 PM
2	84401	5/3/2023 5:13 PM
3	84401	5/1/2023 7:01 PM
4	84401	5/1/2023 4:51 PM
5	84403	4/27/2023 2:02 PM

Q2 Do you have internet connection at your household?

Answered: 39 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	94.87%	37
No	5.13%	2
TOTAL		39

Q3 What is the monthly charge for just your internet service (excluding the costs of other services or bundle options)?

Answered: 34 Skipped: 5

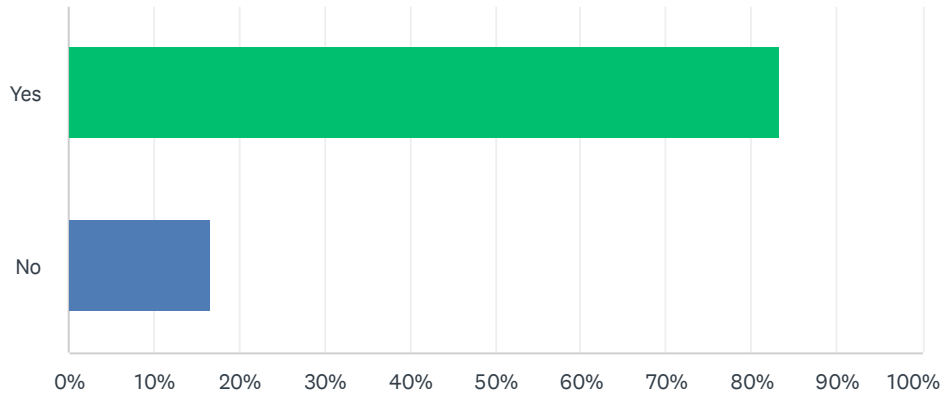
#	RESPONSES	DATE
1	140	5/3/2023 7:18 PM
2	160	5/3/2023 7:03 PM
3	85	5/3/2023 6:36 PM
4	120 for combined	5/3/2023 6:28 PM
5	75	5/3/2023 5:59 PM
6	78	5/3/2023 5:26 PM
7	87	5/3/2023 5:22 PM
8	129	5/1/2023 7:21 PM
9	Unknown	5/1/2023 7:16 PM
10	60	5/1/2023 7:06 PM
11	45	5/1/2023 7:02 PM
12	136	5/1/2023 6:27 PM
13	80\$ and rising	5/1/2023 5:59 PM
14	79	5/1/2023 5:56 PM
15	50	5/1/2023 5:50 PM
16	90\$	5/1/2023 5:33 PM
17	60\$	5/1/2023 5:27 PM
18	100ish	5/1/2023 5:20 PM
19	73	5/1/2023 5:18 PM
20	10\$	5/1/2023 4:52 PM
21	\$90	4/29/2023 3:06 PM
22	\$100	4/29/2023 2:32 PM
23	\$65	4/29/2023 2:05 PM
24	None	4/29/2023 1:27 PM
25	\$80	4/29/2023 1:16 PM
26	\$150	4/29/2023 11:42 AM
27	\$200	4/29/2023 11:30 AM
28	Free	4/29/2023 11:20 AM
29	\$100	4/29/2023 10:51 AM
30	Not sure	4/29/2023 10:37 AM
31	\$16	4/29/2023 10:24 AM

CANVASSING HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	\$10	4/29/2023 9:48 AM
33	\$60	4/29/2023 9:44 AM
34	\$36	4/27/2023 2:03 PM

Q4 Do you have a desktop or laptop computer you use to access the internet at home?

Answered: 36 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	83.33%	30
No	16.67%	6
Total Respondents: 36		

Q5 Who is your internet service provider? (e.g. Xfinity, Google Fiber, Lumen, etc.)

Answered: 36 Skipped: 3

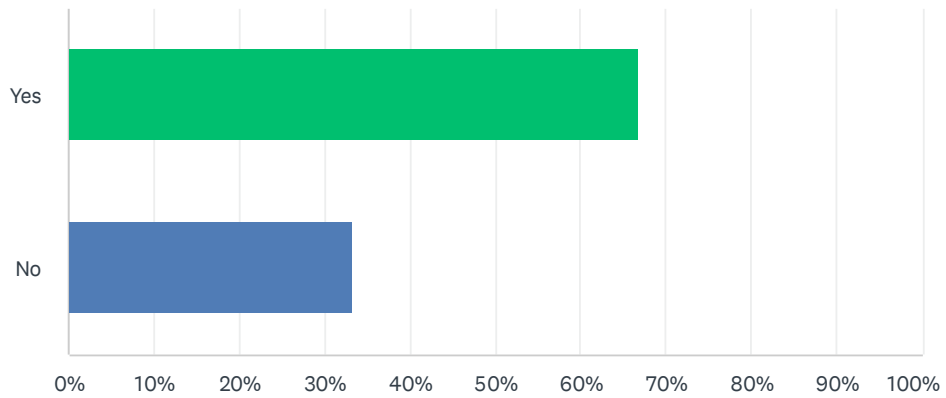
#	RESPONSES	DATE
1	Xfinity	5/3/2023 7:18 PM
2	Comcast	5/3/2023 7:03 PM
3	Xfinity/ Comcast	5/3/2023 6:36 PM
4	Xfinity	5/3/2023 6:28 PM
5	Xfinity	5/3/2023 5:59 PM
6	Xfinity	5/3/2023 5:26 PM
7	Xfinity	5/3/2023 5:22 PM
8	Comcast	5/3/2023 5:14 PM
9	Comcast	5/3/2023 5:01 PM
10	Xfinity	5/1/2023 7:21 PM
11	Xfinity	5/1/2023 7:16 PM
12	Xfinity	5/1/2023 7:06 PM
13	Xfinity	5/1/2023 7:02 PM
14	Xfinity	5/1/2023 6:27 PM
15	Xfinity	5/1/2023 5:59 PM
16	Xfinity	5/1/2023 5:56 PM
17	Comcast	5/1/2023 5:50 PM
18	Xfinity	5/1/2023 5:33 PM
19	Xfinity	5/1/2023 5:27 PM
20	Comcast	5/1/2023 5:20 PM
21	Century link	5/1/2023 5:18 PM
22	Xfinity	5/1/2023 4:52 PM
23	Xfinity	4/29/2023 3:06 PM
24	Xfinity	4/29/2023 2:32 PM
25	Fiber	4/29/2023 2:05 PM
26	Xfinity	4/29/2023 1:27 PM
27	Dish	4/29/2023 1:16 PM
28	Xfinity	4/29/2023 11:42 AM
29	Xfinity	4/29/2023 11:30 AM
30	Verizon	4/29/2023 11:20 AM
31	Xfinity	4/29/2023 10:51 AM

CANVASSING HIGH-SPEED INTERNET SURVEY FOR OGDEN CITY

32	Doesn't know	4/29/2023 10:37 AM
33	Doesn't know	4/29/2023 10:24 AM
34	Xfinity	4/29/2023 9:48 AM
35	Xfinity	4/29/2023 9:44 AM
36	Xfinity	4/27/2023 2:03 PM

Q6 Are you satisfied with your current internet speeds?

Answered: 36 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	66.67%	24
No	33.33%	12
TOTAL		36

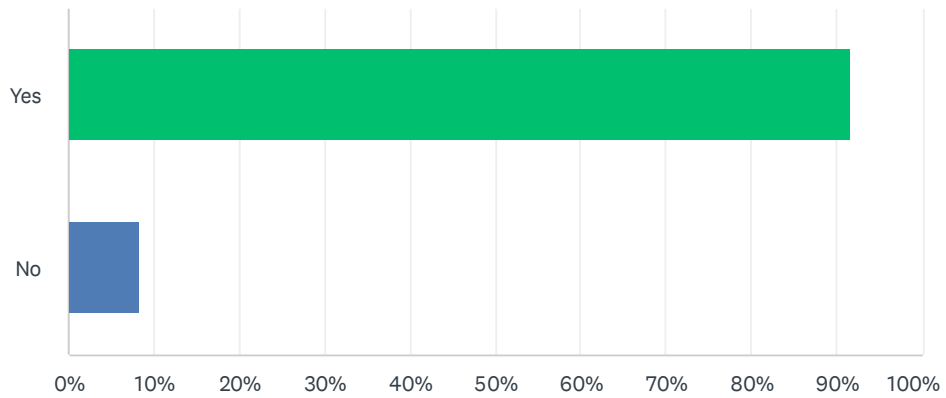
Q7 Why aren't you satisfied with your current internet speeds? (e.g. bad video call connection, slow speeds after school, not able to stream)

Answered: 12 Skipped: 27

#	RESPONSES	DATE
1	Takes a minute for apps to start working, slow	5/3/2023 6:00 PM
2	Sometimes it gets very slow	5/3/2023 5:22 PM
3	Goes in and out once a week restart	5/3/2023 5:14 PM
4	Inconsistency	5/3/2023 5:01 PM
5	Price	5/1/2023 6:27 PM
6	Bad speeds, very expensive, bad quality	5/1/2023 6:00 PM
7	Drops a lot. Video will pause and buffer	5/1/2023 5:57 PM
8	Doesn't always work	4/29/2023 2:32 PM
9	Could be faster	4/29/2023 1:16 PM
10	Speed, homework too slow to do	4/29/2023 11:42 AM
11	Bill lowered	4/29/2023 11:30 AM
12	Too slow	4/29/2023 10:37 AM

Q8 Do you feel confident in your ability to use the internet?

Answered: 36 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	91.67%	33
No	8.33%	3
TOTAL		36

Q9 What areas of internet use would you like to improve? (e.g. Using email, online banking, video calls etc.)

Answered: 3 Skipped: 36

#	RESPONSES	DATE
1	Feels old school	4/29/2023 1:27 PM
2	Doesn't use it	4/29/2023 10:24 AM
3	Watch videos	4/29/2023 9:48 AM

Q10 Would you be willing to share why you don't have internet at home?
(e.g. It's too expensive, no devices at home, not interested in internet,
digital literacy concerns, etc.)

Answered: 2 Skipped: 37

#	RESPONSES	DATE
1	Had century link was at 37 and went up to 100	5/3/2023 6:58 PM
2	Busy with work only have dish	5/1/2023 6:54 PM

Q11 How much would you be willing to pay to get connected to the internet at home?

Answered: 2 Skipped: 37

#	RESPONSES	DATE
1	30	5/3/2023 6:58 PM
2	Not that much 15	5/1/2023 6:54 PM

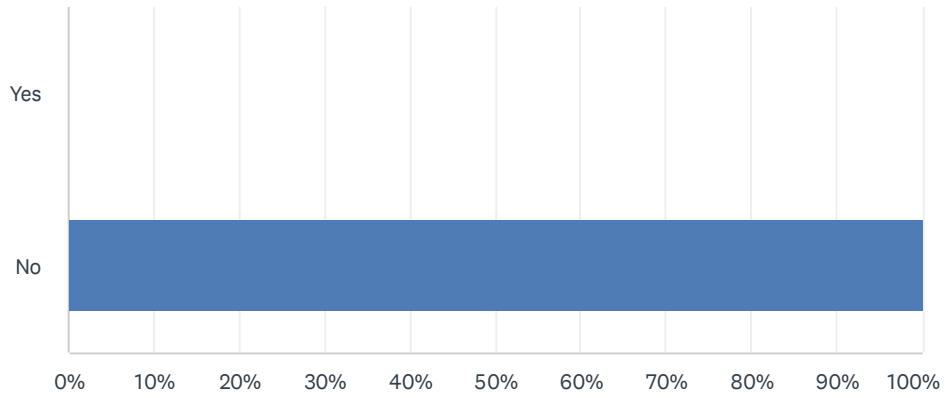
Q12 Do you have a device you could use the internet on at home? If so what type of device (laptop, tablet, phone etc.)

Answered: 2 Skipped: 37

#	RESPONSES	DATE
1	Laptop	5/3/2023 6:58 PM
2	Phone	5/1/2023 6:54 PM

Q13 Do you go somewhere else to access the internet?

Answered: 2 Skipped: 37



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	2
TOTAL		2

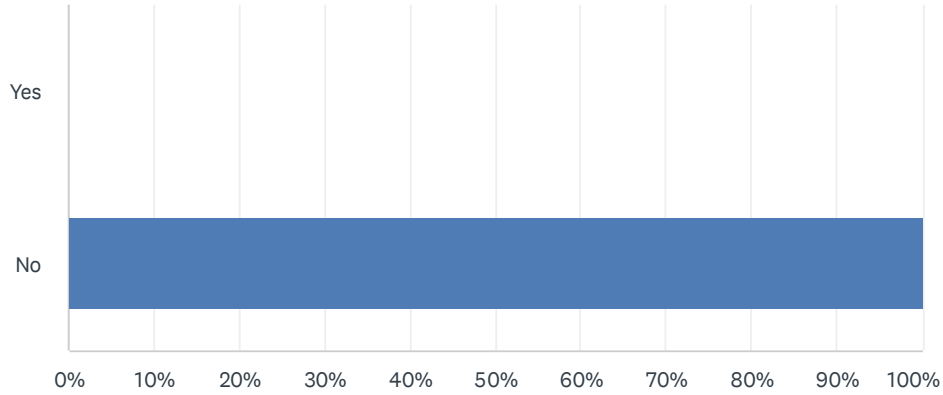
Q14 Where do you go to access the internet? (e.g. library, school, community center, etc.)

Answered: 0 Skipped: 39

#	RESPONSES	DATE
	There are no responses.	

Q15 Are you aware of the Affordable Connectivity Program (ACP), which provides a \$30 monthly discount for internet to low-income households? (If no, use the flyer to explain the program)

Answered: 2 Skipped: 37



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	2
TOTAL		2

Q16 Do you have anything else you'd like to let Ogden City know regarding your internet connectivity or experience?

Answered: 11 Skipped: 28

#	RESPONSES	DATE
1	Na	5/3/2023 7:19 PM
2	Cheaper more reasonable price for the area	5/3/2023 7:04 PM
3	Create more consistent internet	5/3/2023 6:36 PM
4	Applying for affordability program	5/3/2023 6:29 PM
5	She doesn't have it so she doesn't use it, if she had children she might	5/1/2023 6:55 PM
6	Fiber would be nice, only choice is Xfinity	5/1/2023 6:01 PM
7	Reliable internet very important for working from home. One of the residents works from home full time	5/1/2023 5:58 PM
8	Fiber would be great. They want it	5/1/2023 5:50 PM
9	Not reliable all the time	5/1/2023 5:18 PM
10	Good since switching to fiber	4/29/2023 2:05 PM
11	Comcast has had some outages and glitches.	4/29/2023 10:51 AM

Appendix A. Ogden City Statewide Survey Responses

Response #	Date	City/Town	Do you have an internet connection at your residence?	What kind of internet connection do you have? (Select all that apply)	What speed is your internet service (download speed)? (Megabits per second = Mbps)	Which company do you use for internet? (E.g. Xfinity, Google Fiber, Connex, Emery Telecom, CenturyLink, etc.)	What is the monthly charge for your internet service? Write "Unknown" if unknown.
1	2023-04-22 06:37:42	OGDEN	Yes, I have an internet connection at my residence.	Cable or digital subscriber line (DSL- telephone line)	Up to 1 Gigabit	XFINITY	252
2	2023-02-04 09:22:32	Ogden	Yes, I have an internet connection at my residence.	Xfinity	Up to 25 Mbps	Xfinity	\$84.00
3	2023-01-28 06:54:21	Ogden	Yes, I have an internet connection at my residence.	Cable or digital subscriber line (DSL- telephone line)	Up to 1 Gigabit	xfinity	\$84.00
4	2023-01-25 09:28:29	Ogden	Yes, I have an internet connection at my residence.	Cable or digital subscriber line (DSL- telephone line), Satellite or mobile	Up to 1 Gigabit	Xfinity and AT&T Wireless	\$135 combined

Appendix A. Ogden City Statewide Survey Responses

Response #	Does your internet bill include other services such as phone, TV, or premium content?	What do you use the internet for? Select all that apply.							
		Remote working	Remote learning	Remote health care/telehealth	Video conferencing/chatting	Entertainment/streaming services	Shopping	Gaming	Other (please specify)
1	Yes	Remote working	Remote learning			Entertainment/streaming services			
2	Yes		Remote learning		Video conferencing/chatting	Entertainment/streaming services	Shopping		
3	No		Remote learning	Remote health care/telehealth	Video conferencing/chatting	Entertainment/streaming services	Shopping		
4	No	Remote working	Remote learning	Remote health care/telehealth	Video conferencing/chatting	Entertainment/streaming services	Shopping	Gaming	

Appendix A. Ogden City Statewide Survey Responses

Response #	Are you aware of the Affordable Connectivity Program, which provides a \$30 monthly discount for internet to low-income households?	What is your race/ethnicity? Select all that apply.		What language is spoken most often in your household?		What is your household's gross annual income?	Which age groups live in your home? Select all that apply.							
			Multiple ethnicity / Other (please specify)		Other (please specify)		0-10	11-20	21-30	31-40	41-50	51-60	61-70	71 or older
1	No, and I am not interested.	White		English										71 or older
2	Yes, I am aware of the Program, but do not participate in it or am not eligible.	Hispanic/Latino or Spanish Origin		English		\$150,000 or more						51-60		
3	No, and I am not interested.	No	White		English		\$75,000-\$99,999					41-50		
4	Yes, I am aware of the Program, but do not participate in it or am not eligible.	Yes	White		English		\$100,000-\$149,999		11-20			41-50	51-60	

Appendix A. Ogden City Statewide Survey Responses

Response #	Do students live at your household?	Which education level? Select all that apply.					What is the highest level of education completed by someone in your household?	
		Elementary school (kindergarten to 6th grade)	Middle school (7th grade to 9th grade)	High school (9th grade to 12th grade)	College or university	Adult education or technical training		
1	No						Bachelor's degree	Bachelor's degree
2	No						Associate degree	Master's degree or doctorate
3	71 or older	No						Master's degree or doctorate
4		No						Master's degree or doctorate



Appendix B: Community Partner Survey

This appendix contains the responses from the surveys distributed to Ogden City’s community partners, to get a better understanding of what current plans for broadband and digital access activities are already in place.

#2

INCOMPLETE

Collector: Web Link 1 (Web Link)
Started: Friday, May 12, 2023 1:58:06 PM
Last Modified: Friday, May 12, 2023 1:59:24 PM
Time Spent: 00:01:17
IP Address:

Page 1: Organization Information

Q1

Contact Information

Name
 Organization **Weber State University and the Ogden Civic Action Network**
 Department **Office of Community Development**
 Phone
 Email
 City/Town **Ogden**

Q2 **Yes**

Do you currently have any broadband or digital access projects, plans, or initiatives underway?

Page 2: Broadband Projects and Initiatives

Q3 **Respondent skipped this question**

Broadband Project Information

Q4 **Respondent skipped this question**

What is the status of this broadband project?

Q5 **Respondent skipped this question**

Estimated Duration of Project (by months)

Q6 **Respondent skipped this question**

Estimated Total Project Cost

Q7 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q8 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q9 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 3: Broadband Projects and Initiatives

Q10 Respondent skipped this question

Broadband Project Information

Q11 Respondent skipped this question

What is the status of this broadband project?

Q12 Respondent skipped this question

Estimated Duration of Project (by months)

Q13 Respondent skipped this question

Estimated Total Project Cost

Q14 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q15 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q16 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 4: Broadband Projects and Initiatives

Q17

Respondent skipped this question

Broadband Project Information

Q18

Respondent skipped this question

What is the status of this broadband project?

Q19

Respondent skipped this question

Estimated Duration of Project (by months)

Q20

Respondent skipped this question

Estimated Total Project Cost

Q21

Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q22

Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q23

Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 5: Broadband Projects and Initiatives

Q24

Respondent skipped this question

Please list any additional broadband projects, plans, or initiatives.

Page 6: Broadband Staffing

Q25

Respondent skipped this question

Does your organization have any dedicated positions related to broadband expansion?

Page 7: Broadband Staffing

Q26

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q27

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 8: Broadband Staffing

Q28

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q29

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 9: Broadband Staffing

Q30

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q31

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 10

Q32

Respondent skipped this question

Please list any additional broadband-specific positions and contacts within your organization (include name, title, department, status, and role).

Q33

Respondent skipped this question

Has your organization explored or had interest in additional, broadband-specific staffing?

Page 11: Broadband Planning

Q34

Respondent skipped this question

To your knowledge, have any local county or city organizations in your area undertaken any data collection efforts as it relates to broadband? If yes, please select the efforts undertaken.

Q35

Respondent skipped this question

Outline any known policy and/or regulatory impediments to the expansion of broadband in your organization. Does your area have any plans to create policies that allow aid to be given in broadband expansion?

Q36

Respondent skipped this question

Are there areas in your city or county where you commonly hear complaints regarding the lack of high-speed internet?

Page 12: Partner Coordination

Q37

Respondent skipped this question

Broadband expansion may be expedited through shared resources and access to existing physical resources to cut costs and quicken expansion. What physical infrastructure does your organization have that it could leverage for broadband expansion?

Q38

Respondent skipped this question

Does your organization have any upcoming capital projects that could be leveraged to deploy broadband infrastructure (conduit or fiber)? For example, any road construction, sewer system repair, or new building projects that could be coupled with broadband deployment.

Page 13

Q39

Respondent skipped this question

Please list the upcoming capital projects that could be coupled with broadband expansion in your community.

Q40

Respondent skipped this question

What support does your organization need from the Utah Broadband Center moving forward?

Page 14: Broadband Coalition

Q41 Respondent skipped this question

Does your organization have a broadband committee or similar working group tasked with expanding broadband?

Q42 Respondent skipped this question

If a community or broadband action team has been established, select the organizations or sectors that are represented in that group. Select all that apply.

Page 15: Digital Equity

Q43 Respondent skipped this question

Does your organization provide any programs, policies, funding, or resources that expand digital access, affordability, or availability?

Page 16: Digital Equity Programs

Q44 Respondent skipped this question

Program Name

Q45 Respondent skipped this question

Organization Type

Q46 Respondent skipped this question

Website

Q47 Respondent skipped this question

Location (if any)

Q48 Respondent skipped this question

What location(s) does this program serve geographically?

Q49 Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q50

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q51

Respondent skipped this question

How is this program funded? Select all the apply.

Q52

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q53

Respondent skipped this question

Does your organization have any other digital access programs?

Page 17: Digital Equity Programs

Q54

Respondent skipped this question

Program Name

Q55

Respondent skipped this question

Organization Type

Q56

Respondent skipped this question

Website

Q57

Respondent skipped this question

Location (if any)

Q58

Respondent skipped this question

What location(s) does this program serve geographically?

Q59

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q60

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q61

Respondent skipped this question

How is this program funded? Select all that apply.

Q62

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q63

Respondent skipped this question

Does your organization have any other digital access programs?

Page 18: Digital Equity Programs

Q64

Respondent skipped this question

Program Name

Q65

Respondent skipped this question

Organization Type

Q66

Respondent skipped this question

Website

Q67

Respondent skipped this question

Location (if any)

Q68

Respondent skipped this question

What location(s) does this program serve geographically?

Q69

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q70

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q71

Respondent skipped this question

How is this program funded? Select all that apply.

Q72

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q73

Respondent skipped this question

Does your organization have any other digital access programs?

Page 19

Q74

Respondent skipped this question

Please list any additional digital access programs provided by your organization.

Page 20: Affordability and Accessibility

Q75

Respondent skipped this question

Does your organization provide subsidized or low-cost devices such as tablets or laptops?

Page 21: Affordability and Accessibility

Q76

Respondent skipped this question

What devices does your organization provide? Select all the apply.

Q77

Respondent skipped this question

What is the criteria used to determine who qualifies to receive a device?

Q78

Respondent skipped this question

Does your organization provide subsidies for broadband service subscriptions?

Q79

Respondent skipped this question

How many people does your organization provide devices to each month (specific to digital access)?

Q80

Respondent skipped this question

Does your organization help people access the Affordable Connectivity Program?

Page 22: Digital Skills & Technical Support

Q81

Respondent skipped this question

Does your organization provide training for digital skills?

Page 23: Digital Skills & Technical Support

Q82

Respondent skipped this question

How does your organization provide training for digital skills?

Q83

Respondent skipped this question

What training subjects do you cover relating to digital skills?

Q84

Respondent skipped this question

Does your organization provide any technical support to people?

Q85

Respondent skipped this question

What technical support does your organization provide? Select all that apply.

#3

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, May 16, 2023 1:57:33 PM
Last Modified: Tuesday, May 16, 2023 2:04:56 PM
Time Spent: 00:07:23
IP Address:

Page 1: Organization Information

Q1

Contact Information

Name
 Organization **First United Methodist Church**
 Phone
 Email
 City/Town **Ogden**
 Brief description of involvement with broadband **I use high speed internet nearly all waking hours of every day for work and personal life.**

Q2

No

Do you currently have any broadband or digital access projects, plans, or initiatives underway?

Page 2: Broadband Projects and Initiatives

Q3

Respondent skipped this question

Broadband Project Information

Q4

Respondent skipped this question

What is the status of this broadband project?

Q5

Respondent skipped this question

Estimated Duration of Project (by months)

Q6

Respondent skipped this question

Estimated Total Project Cost

Q7 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q8 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q9 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 3: Broadband Projects and Initiatives

Q10 Respondent skipped this question

Broadband Project Information

Q11 Respondent skipped this question

What is the status of this broadband project?

Q12 Respondent skipped this question

Estimated Duration of Project (by months)

Q13 Respondent skipped this question

Estimated Total Project Cost

Q14 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q15 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q16 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 4: Broadband Projects and Initiatives

Q17 Respondent skipped this question

Broadband Project Information

Q18 Respondent skipped this question

What is the status of this broadband project?

Q19 Respondent skipped this question

Estimated Duration of Project (by months)

Q20 Respondent skipped this question

Estimated Total Project Cost

Q21 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q22 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q23 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 5: Broadband Projects and Initiatives

Q24 Respondent skipped this question

Please list any additional broadband projects, plans, or initiatives.

Page 6: Broadband Staffing

Q25 No

Does your organization have any dedicated positions related to broadband expansion?

Page 7: Broadband Staffing

Q26

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q27

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 8: Broadband Staffing

Q28

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q29

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 9: Broadband Staffing

Q30

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q31

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 10

Q32

Respondent skipped this question

Please list any additional broadband-specific positions and contacts within your organization (include name, title, department, status, and role).

Q33

No

Has your organization explored or had interest in additional, broadband-specific staffing?

Page 11: Broadband Planning

Q34

Internet Speed Test

To your knowledge, have any local county or city organizations in your area undertaken any data collection efforts as it relates to broadband? If yes, please select the efforts undertaken.

Q35

Respondent skipped this question

Outline any known policy and/or regulatory impediments to the expansion of broadband in your organization. Does your area have any plans to create policies that allow aid to be given in broadband expansion?

Q36

Are there areas in your city or county where you commonly hear complaints regarding the lack of high-speed internet?

My church is in Marriott-Slaterville, and we only can receive internet services through Rise Broadband satellite. A fiberoptics cable would be too expensive for us to bring to our building.

Page 12: Partner Coordination

Q37

Broadband expansion may be expedited through shared resources and access to existing physical resources to cut costs and quicken expansion. What physical infrastructure does your organization have that it could leverage for broadband expansion?

Other (please specify):

Our First United Methodist Church has a bell tower, but I don't know if it has space for broadband. What kind of space is needed?

Q38

No

Does your organization have any upcoming capital projects that could be leveraged to deploy broadband infrastructure (conduit or fiber)? For example, any road construction, sewer system repair, or new building projects that could be coupled with broadband deployment.

Page 13

Q39

Respondent skipped this question

Please list the upcoming capital projects that could be coupled with broadband expansion in your community.

Q40

Respondent skipped this question

What support does your organization need from the Utah Broadband Center moving forward?

Page 14: Broadband Coalition

Q41 **No**

Does your organization have a broadband committee or similar working group tasked with expanding broadband?

Q42 **Respondent skipped this question**

If a community or broadband action team has been established, select the organizations or sectors that are represented in that group. Select all that apply.

Page 15: Digital Equity

Q43 **No**

Does your organization provide any programs, policies, funding, or resources that expand digital access, affordability, or availability?

Page 16: Digital Equity Programs

Q44 **Respondent skipped this question**

Program Name

Q45 **Respondent skipped this question**

Organization Type

Q46 **Respondent skipped this question**

Website

Q47 **Respondent skipped this question**

Location (if any)

Q48 **Respondent skipped this question**

What location(s) does this program serve geographically?

Q49 **Respondent skipped this question**

What populations does this program focus its digital inclusion services on? Select all the apply.

Q50

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q51

Respondent skipped this question

How is this program funded? Select all the apply.

Q52

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q53

Respondent skipped this question

Does your organization have any other digital access programs?

Page 17: Digital Equity Programs

Q54

Respondent skipped this question

Program Name

Q55

Respondent skipped this question

Organization Type

Q56

Respondent skipped this question

Website

Q57

Respondent skipped this question

Location (if any)

Q58

Respondent skipped this question

What location(s) does this program serve geographically?

Q59

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q60

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q61

Respondent skipped this question

How is this program funded? Select all that apply.

Q62

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q63

Respondent skipped this question

Does your organization have any other digital access programs?

Page 18: Digital Equity Programs

Q64

Respondent skipped this question

Program Name

Q65

Respondent skipped this question

Organization Type

Q66

Respondent skipped this question

Website

Q67

Respondent skipped this question

Location (if any)

Q68

Respondent skipped this question

What location(s) does this program serve geographically?

Q69

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q70

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q71

Respondent skipped this question

How is this program funded? Select all that apply.

Q72

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q73

Respondent skipped this question

Does your organization have any other digital access programs?

Page 19

Q74

Respondent skipped this question

Please list any additional digital access programs provided by your organization.

Page 20: Affordability and Accessibility

Q75

No

Does your organization provide subsidized or low-cost devices such as tablets or laptops?

Page 21: Affordability and Accessibility

Q76

Respondent skipped this question

What devices does your organization provide? Select all the apply.

Q77

Respondent skipped this question

What is the criteria used to determine who qualifies to receive a device?

Q78

Respondent skipped this question

Does your organization provide subsidies for broadband service subscriptions?

Q79

Respondent skipped this question

How many people does your organization provide devices to each month (specific to digital access)?

Q80

Respondent skipped this question

Does your organization help people access the Affordable Connectivity Program?

Page 22: Digital Skills & Technical Support

Q81

No

Does your organization provide training for digital skills?

Page 23: Digital Skills & Technical Support

Q82

Respondent skipped this question

How does your organization provide training for digital skills?

Q83

Respondent skipped this question

What training subjects do you cover relating to digital skills?

Q84

No

Does your organization provide any technical support to people?

Q85

Respondent skipped this question

What technical support does your organization provide? Select all that apply.

#4

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Wednesday, May 17, 2023 11:59:28 AM
Last Modified: Wednesday, May 17, 2023 12:01:11 PM
Time Spent: 00:01:43
IP Address:

Page 1: Organization Information

Q1

Contact Information

Name
 Organization **St. Anne's Center/Lantern House**
 Phone
 Email
 City/Town **Ogden**

Q2

No

Do you currently have any broadband or digital access projects, plans, or initiatives underway?

Page 2: Broadband Projects and Initiatives

Q3

Respondent skipped this question

Broadband Project Information

Q4

Respondent skipped this question

What is the status of this broadband project?

Q5

Respondent skipped this question

Estimated Duration of Project (by months)

Q6

Respondent skipped this question

Estimated Total Project Cost

Q7 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q8 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q9 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 3: Broadband Projects and Initiatives

Q10 Respondent skipped this question

Broadband Project Information

Q11 Respondent skipped this question

What is the status of this broadband project?

Q12 Respondent skipped this question

Estimated Duration of Project (by months)

Q13 Respondent skipped this question

Estimated Total Project Cost

Q14 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q15 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q16 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 4: Broadband Projects and Initiatives

Q17 Respondent skipped this question
Broadband Project Information

Q18 Respondent skipped this question
What is the status of this broadband project?

Q19 Respondent skipped this question
Estimated Duration of Project (by months)

Q20 Respondent skipped this question
Estimated Total Project Cost

Q21 Respondent skipped this question
Is funding for this project secured? If so, please describe amounts and sources.

Q22 Respondent skipped this question
Describe the economic benefits of this project and how these benefits can be measured.

Q23 Respondent skipped this question
Do you have additional broadband projects, plans, or initiatives?

Page 5: Broadband Projects and Initiatives

Q24 Respondent skipped this question
Please list any additional broadband projects, plans, or initiatives.

Page 6: Broadband Staffing

Q25 No
Does your organization have any dedicated positions related to broadband expansion?

Page 7: Broadband Staffing

Q26

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q27

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 8: Broadband Staffing

Q28

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q29

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 9: Broadband Staffing

Q30

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q31

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 10

Q32

Respondent skipped this question

Please list any additional broadband-specific positions and contacts within your organization (include name, title, department, status, and role).

Q33

No

Has your organization explored or had interest in additional, broadband-specific staffing?

Page 11: Broadband Planning

Q34

Respondent skipped this question

To your knowledge, have any local county or city organizations in your area undertaken any data collection efforts as it relates to broadband? If yes, please select the efforts undertaken.

Q35

Respondent skipped this question

Outline any known policy and/or regulatory impediments to the expansion of broadband in your organization. Does your area have any plans to create policies that allow aid to be given in broadband expansion?

Q36

Respondent skipped this question

Are there areas in your city or county where you commonly hear complaints regarding the lack of high-speed internet?

Page 12: Partner Coordination

Q37

Respondent skipped this question

Broadband expansion may be expedited through shared resources and access to existing physical resources to cut costs and quicken expansion. What physical infrastructure does your organization have that it could leverage for broadband expansion?

Q38

Respondent skipped this question

Does your organization have any upcoming capital projects that could be leveraged to deploy broadband infrastructure (conduit or fiber)? For example, any road construction, sewer system repair, or new building projects that could be coupled with broadband deployment.

Page 13

Q39

Respondent skipped this question

Please list the upcoming capital projects that could be coupled with broadband expansion in your community.

Q40

Respondent skipped this question

What support does your organization need from the Utah Broadband Center moving forward?

Page 14: Broadband Coalition

Q41 Respondent skipped this question

Does your organization have a broadband committee or similar working group tasked with expanding broadband?

Q42 Respondent skipped this question

If a community or broadband action team has been established, select the organizations or sectors that are represented in that group. Select all that apply.

Page 15: Digital Equity

Q43 Respondent skipped this question

Does your organization provide any programs, policies, funding, or resources that expand digital access, affordability, or availability?

Page 16: Digital Equity Programs

Q44 Respondent skipped this question

Program Name

Q45 Respondent skipped this question

Organization Type

Q46 Respondent skipped this question

Website

Q47 Respondent skipped this question

Location (if any)

Q48 Respondent skipped this question

What location(s) does this program serve geographically?

Q49 Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q50

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q51

Respondent skipped this question

How is this program funded? Select all the apply.

Q52

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q53

Respondent skipped this question

Does your organization have any other digital access programs?

Page 17: Digital Equity Programs

Q54

Respondent skipped this question

Program Name

Q55

Respondent skipped this question

Organization Type

Q56

Respondent skipped this question

Website

Q57

Respondent skipped this question

Location (if any)

Q58

Respondent skipped this question

What location(s) does this program serve geographically?

Q59

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q60

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q61

Respondent skipped this question

How is this program funded? Select all that apply.

Q62

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q63

Respondent skipped this question

Does your organization have any other digital access programs?

Page 18: Digital Equity Programs

Q64

Respondent skipped this question

Program Name

Q65

Respondent skipped this question

Organization Type

Q66

Respondent skipped this question

Website

Q67

Respondent skipped this question

Location (if any)

Q68

Respondent skipped this question

What location(s) does this program serve geographically?

Q69

Respondent skipped this question

What populations does this program focus its digital inclusion services on? Select all the apply.

Q70

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q71

Respondent skipped this question

How is this program funded? Select all that apply.

Q72

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q73

Respondent skipped this question

Does your organization have any other digital access programs?

Page 19

Q74

Respondent skipped this question

Please list any additional digital access programs provided by your organization.

Page 20: Affordability and Accessibility

Q75

No

Does your organization provide subsidized or low-cost devices such as tablets or laptops?

Page 21: Affordability and Accessibility

Q76

Respondent skipped this question

What devices does your organization provide? Select all the apply.

Q77

Respondent skipped this question

What is the criteria used to determine who qualifies to receive a device?

Q78

Respondent skipped this question

Does your organization provide subsidies for broadband service subscriptions?

Q79

Respondent skipped this question

How many people does your organization provide devices to each month (specific to digital access)?

Q80

Respondent skipped this question

Does your organization help people access the Affordable Connectivity Program?

Page 22: Digital Skills & Technical Support

Q81

Respondent skipped this question

Does your organization provide training for digital skills?

Page 23: Digital Skills & Technical Support

Q82

Respondent skipped this question

How does your organization provide training for digital skills?

Q83

Respondent skipped this question

What training subjects do you cover relating to digital skills?

Q84

Respondent skipped this question

Does your organization provide any technical support to people?

Q85

Respondent skipped this question

What technical support does your organization provide? Select all that apply.

#5

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Friday, May 19, 2023 1:58:26 PM
Last Modified: Monday, May 22, 2023 9:44:34 AM
Time Spent: Over a day
IP Address: 204.152.132.4

Page 1: Organization Information

Q1

Contact Information

Name	
Organization	Weber-Morgan Health Department
Department	Community Health Division
Phone	
Email	
City/Town	
Brief description of involvement with broadband	Community Health

Q2

Do you currently have any broadband or digital access projects, plans, or initiatives underway?

No

Page 2: Broadband Projects and Initiatives

Q3

Broadband Project Information

Respondent skipped this question

Q4

What is the status of this broadband project?

Respondent skipped this question

Q5

Estimated Duration of Project (by months)

Respondent skipped this question

Q6

Estimated Total Project Cost

Respondent skipped this question

Q7 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q8 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q9 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 3: Broadband Projects and Initiatives

Q10 Respondent skipped this question

Broadband Project Information

Q11 Respondent skipped this question

What is the status of this broadband project?

Q12 Respondent skipped this question

Estimated Duration of Project (by months)

Q13 Respondent skipped this question

Estimated Total Project Cost

Q14 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q15 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q16 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 4: Broadband Projects and Initiatives

Q17 Respondent skipped this question

Broadband Project Information

Q18 Respondent skipped this question

What is the status of this broadband project?

Q19 Respondent skipped this question

Estimated Duration of Project (by months)

Q20 Respondent skipped this question

Estimated Total Project Cost

Q21 Respondent skipped this question

Is funding for this project secured? If so, please describe amounts and sources.

Q22 Respondent skipped this question

Describe the economic benefits of this project and how these benefits can be measured.

Q23 Respondent skipped this question

Do you have additional broadband projects, plans, or initiatives?

Page 5: Broadband Projects and Initiatives

Q24 Respondent skipped this question

Please list any additional broadband projects, plans, or initiatives.

Page 6: Broadband Staffing

Q25 No

Does your organization have any dedicated positions related to broadband expansion?

Page 7: Broadband Staffing

Q26

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q27

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 8: Broadband Staffing

Q28

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q29

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 9: Broadband Staffing

Q30

Respondent skipped this question

Please list the position, employment status, and roles for any dedicated broadband positions.

Q31

Respondent skipped this question

Are there additional broadband-specific positions within your organization currently?

Page 10

Q32

Respondent skipped this question

Please list any additional broadband-specific positions and contacts within your organization (include name, title, department, status, and role).

Q33

No

Has your organization explored or had interest in additional, broadband-specific staffing?

Page 11: Broadband Planning

Q34 **I'm not aware of any data collection efforts**

To your knowledge, have any local county or city organizations in your area undertaken any data collection efforts as it relates to broadband? If yes, please select the efforts undertaken.

Q35 **Respondent skipped this question**

Outline any known policy and/or regulatory impediments to the expansion of broadband in your organization. Does your area have any plans to create policies that allow aid to be given in broadband expansion?

Q36 **Respondent skipped this question**

Are there areas in your city or county where you commonly hear complaints regarding the lack of high-speed internet?

Page 12: Partner Coordination

Q37 **I don't know**

Broadband expansion may be expedited through shared resources and access to existing physical resources to cut costs and quicken expansion. What physical infrastructure does your organization have that it could leverage for broadband expansion?

Q38 **No**

Does your organization have any upcoming capital projects that could be leveraged to deploy broadband infrastructure (conduit or fiber)? For example, any road construction, sewer system repair, or new building projects that could be coupled with broadband deployment.

Page 13

Q39 **Respondent skipped this question**

Please list the upcoming capital projects that could be coupled with broadband expansion in your community.

Q40 **Respondent skipped this question**

What support does your organization need from the Utah Broadband Center moving forward?

Page 14: Broadband Coalition

Q41 **No**

Does your organization have a broadband committee or similar working group tasked with expanding broadband?

Q42 **Respondent skipped this question**

If a community or broadband action team has been established, select the organizations or sectors that are represented in that group. Select all that apply.

Page 15: Digital Equity

Q43 **I don't know**

Does your organization provide any programs, policies, funding, or resources that expand digital access, affordability, or availability?

Page 16: Digital Equity Programs

Q44 **Respondent skipped this question**

Program Name

Q45 **Respondent skipped this question**

Organization Type

Q46 **Respondent skipped this question**

Website

Q47 **Respondent skipped this question**

Location (if any)

Q48 **Respondent skipped this question**

What location(s) does this program serve geographically?

Q49 **Respondent skipped this question**

What populations does this program focus its digital inclusion services on? Select all the apply.

Q50

Respondent skipped this question

Which digital equity category does this program address?
Select all that apply.

Q51

Respondent skipped this question

How is this program funded? Select all the apply.

Q52

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q53

Respondent skipped this question

Does your organization have any other digital access programs?

Page 17: Digital Equity Programs

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Respondent skipped this question

Program Name

Q55

Respondent skipped this question

Organization Type

Q56

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Website

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Location (if any)

Q58

Respondent skipped this question

What location(s) does this program serve geographically?

Q59

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What populations does this program focus its digital inclusion services on? Select all the apply.

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Which digital equity category does this program address?
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Q61

Respondent skipped this question

How is this program funded? Select all that apply.

Q62

Respondent skipped this question

How does your organization advertise existing broadband related programs? Select all the apply.

Q63

Respondent skipped this question

Does your organization have any other digital access programs?

Page 18: Digital Equity Programs

Q64

Respondent skipped this question

Program Name

Q65

Respondent skipped this question

Organization Type

Q66

Respondent skipped this question

Website

Q67

Respondent skipped this question

Location (if any)

Q68

Respondent skipped this question

What location(s) does this program serve geographically?

Q69

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What populations does this program focus its digital inclusion services on? Select all the apply.

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How does your organization advertise existing broadband related programs? Select all the apply.

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Respondent skipped this question

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Page 19

Q74

Respondent skipped this question

Please list any additional digital access programs provided by your organization.

Page 20: Affordability and Accessibility

Q75

I don't know

Does your organization provide subsidized or low-cost devices such as tablets or laptops?

Page 21: Affordability and Accessibility

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Respondent skipped this question

What devices does your organization provide? Select all the apply.

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How many people does your organization provide devices to each month (specific to digital access)?

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Page 22: Digital Skills & Technical Support

Q81

I don't know

Does your organization provide training for digital skills?

Page 23: Digital Skills & Technical Support

Q82

Respondent skipped this question

How does your organization provide training for digital skills?

Q83

Respondent skipped this question

What training subjects do you cover relating to digital skills?

Q84

No

Does your organization provide any technical support to people?

Q85

Respondent skipped this question

What technical support does your organization provide? Select all that apply.



Appendix C: Notes from Stakeholder Meetings

The following pages include notes from stakeholder meetings and workshops gathered as part of the Ogden City digital equity planning outreach. Stakeholder meeting and workshop notes gathered as part of the Connecting Utah statewide outreach in the Weber County area are also included as part of this appendix.

OGDEN CITY COMMUNITY PARTNERS WORKSHOP NOTES

May 18, 2023 | 1 p.m.

14 total attendees

- Ogden School District LTE Network (OSD worked with WSU)
 - The speeds they get in this program maybe bumped a few areas speeds from unserved to underserved
 - There isn't enough bandwidth to get everyone served
 - Backed by UETN
 - Cares Funding was used
 - Installed 12 cells in Ogden City, 6 cells in Davis campus
 - Every school in the city has a tower, WSU purchased 12 cells
 - WSU purchased gear and checked it out through Ogden School District
 - They offer hotspots through checkouts
 - "Last resort" option for students
 - T-Mobile hotspots
 - They handed out 400+ hotspots during Covid
 - 54 dual cell base stations were purchased, approx 150 cells installed(?)
 - 17 sites in Ogden with 3 dual capable radios (flower pattern to hopefully cover 360 degrees)
- Weber State has around 20 hotspots and laptops for students to checkout
 - Weber State dorms have free connectivity
- Public Wi-Fi hotspots
 - WSU Guest network on all campuses
 - Students can use the network on any campus
 - Edgiroam - K-12 Wi-Fi access
 - Public libraries have public wifi
- UETN pre-configured Aps(?) to broadcast out Edgiroam in locations around the city (coffee shops, community centers etc.) - this is a volunteer based program they are trying out
- Ogden CAN Civic Action Board:
 - Attendee gave overview of the Ogden CAN organization
 - Board of directors - 7 anchor institutions
 - WSU
 - Ogden City
 - OSD
 - Weber Morgan Health Department
 - Intermountain
 - Ogden Region Medical Center
 - 11 Partner Organizations
 - NAACP
 - Other partners...
 - Focused on the East Central neighborhood (Washington to Harrison, 20th-30th)
 - 15,000 people live in this area
 - Cover
 - Health
 - Education

Ogden City Stakeholder Notes

- Built environment
 - Broadband included here
 - Transportation
 - Social... (?)
 - Education
 - 165 people that bring forward interventions in the 5 areas they cover (to address needs)
 - Effort through United Way - United Partnership
 - County wide focus, they partner with
 - Looks at policy and system issues county wide
 - Community Leaders Network
 - They hire interns that are residents of the community
 - 8-month training program
 - Then they become community leaders
 - They focus on a community project during their time
 - Roughly 30% poverty, 30-40% Hispanic/Latino
 - 70% of people living here don't make a living wage
 - Ogden CAN website - WSU Networks <https://www.weber.edu/ogdencan>
- When LDS temple was dedicated, sections of downtown had free wi-fi
 - Some through the Junction area, through and over to 25th to Washington
 - Ogden City believes it was an ISP that donated all the equipment, connectivity, and strung it all up - that ISP has since changed their business model
 - Will find out if the city is interested in updating this community Wi-Fi hotspot
- Visit Ogden
 - Lives in Ogden CAN area, she said sometimes even low cost options are too expensive
 - Tourism doesn't see a huge problem with accessing Wi-Fi
 - Free Wi-Fi spots would be welcomed
- Lantern House
 - 330 Beds for the homeless, but they don't currently provide Wi-Fi to their residents
 - They receive several requests a day from their homeless population
 - They want to job search, apply for benefits, connecting with family/friends, accessing email
 - They go to other locations currently to get those services
 - They want to provide something, but it may end up overloading their systems
 - During Covid they experienced a lot of different issues
 - They provided over 300 people quarantine space, but connection was difficult
 - A lot of their phones get turned off, they need somewhere to log in
 - They don't have a computer lab/facility
 - Their clients work with case workers to create emails, apply for benefits
 - This happens directly with a case worker
- Utah Hispanic Chamber of Commerce
 - 8/10 businesses being opened up are being opened up by minorities (especially women) in Utah
 - Opening Ogden office in about a month - opportunity for partnership
 - Business Academy - 15 week course
 - Teach QuickBooks, registering LLC, other things needed to properly open a business

Ogden City Stakeholder Notes

- Health Fairs
- Telecommunication Doctors programs
- In person outreach is necessary until people get connected to the internet
- Possibly teach digital skills course as relating to starting a business (coordinate with local universities)
- Registered as a non-profit
- Utah Latinos Chamber of Commerce and Utah Hispanic CoC combined together
- Staggering numbers, a lot of people need virtual health appointments/programs
- A lot of people don't apply for programs even though they
- A lot of this community has entrepreneurship tendencies
- A lot of migrants are former doctors, athletes, lawyers
 - They don't always come and continue their work from their home countries, the community is missing out
- Ways to bridge trust with their populations: Radio stations, televisions commercials, Latino Coalition of Utah (represents 12 different countries), church leaders (Catholic, LDS), grassroots outreach, "town halls"
- A lot of new businesses avoid using the internet - a lack of information access is to blame
- A lot of their children will put business and parents' information online (social media)
- Suggested having interpreters to explain benefits to people

WEBER COUNTY STATE WORKSHOPS NOTES

Jan. 24, 2023

Public Workshop | 2 p.m.

Private Workshop | 4 p.m.

Public Workshop Notes:

- **Weber County GIS Representative**
 - When buildings are being built up the GIS department is not receiving info on those parcels because they are all in the same location
 - They've had issues with emergency services not being sure where to go
 - They submitted around 4500 challenges to the FCC maps and haven't heard back if they were accepted or not
 - UBC explained how many had been accepted at the state level
 - She wants the cities to communicate with them about new development
 - Talked about Ogden City being covered by DSL a lot and ever though
 - Utopia has been around awhile in Layton, but in Ogden they are just starting to come over
 - There are more pockets of non-coverage in Weber County rather than big, large areas
 - Weber County in the upper valley may have worse coverage
 - Uintah Highlands is not incorporated, and the coverage is really bad
- **Ogden School District Director of Technology Representative**
 - A nightmare for providers to go under a state road
 - Took 18 months to get fiber to one of their high schools (Utopia built it out)
 - There were a lot of hoops to jump through to build out infrastructure (even with UDOT)
 - They get referrals from people to get hot spots set up for kids in need
 - All their students have a Chromebook (K-12)
 - Their main concern is connectivity at the home for the students
 - ECF Funds (these funds will go away in 2024)- they check out hotspots (unlimited data) to families that need service
 - They only check it out for school related devices
 - Before Covid they did a pilot program for their 1:1 Chromebook services and many parents didn't realize that their phones also had internet to look at their children's grades etc.
 - They'd use the money to help people in "black holes" that are in too weird of a place to get connectivity
 - Ogden has really big, old trees and big buildings that make it difficult to get cell service
- **Weber County Library Representative**
 - Programs through the libraries - Emergency Connectivity program - 500 laptops they circulate, 400 iPads, and 1,000 hotspots (checkout program)
 - Greatest need they have is teaching people how to use the devices they have (digital literacy)
 - They do trainings for every piece of equipment they check out
 - They do 1:1 coaching with people to help people learn their laptops, phones, etc.
 - They also help set up emails, apps etc.
 - People in these sessions are very motivated to learn because they've tried to do something online and they couldn't figure it out

Ogden City Stakeholder Notes

- People are referred by social service agencies or schools to come to the library and take digital literacy classes
- Help people understand the need of taking the Internet Speed Test
- They tell people about the ACP
- They help people sign up for a lot of different services (Affordable Care Act, government services, etc.)
- They have hundreds of public computers and their reference Librarians help people one on one that way too
- Digital Divide - people are being left behind not because they don't have devices but because they don't know how to use the devices
- They have about 25 left laptops left of the 500 they have
- 5 branches (Roy, Ogden, Huntsville, North Ogden, and one other city)
 - They are open 7 days a week and in the evenings as well
- Issue with volunteers is dependability and volunteers conducting themselves appropriately
- They check out the laptops for an extended period of time - 6 month check-out time
- They coordinate with the schools through vouchers - but they mostly focus on adults
- Horrocks suggested handing out ACP flyers with hotspot locations
- Connect with Ogden School District through the UBC director's contacts about getting lists of the students in need
- She talked about if they had more money/resources she'd like to see some sort of network built of services with outlining local churches, services, agencies to guide people to the right places
 - They have classes but they can't always fill them because they aren't in the community recruiting people
 - She suggested figuring out a way to have a referral program for the libraries' services/classes

Private Workshop Notes:

- **Ogden Weber Community Action Partnership (Headstart, Circle)**
 - Some families they serve go to libraries to access the internet
 - They have a computer lab at their facilities to help people apply for jobs
 - Online applications are hard for the people to navigate and they don't necessarily prioritize internet when other things take priority
 - The families they send over to the library sometimes get lost on the way
 - There is a possibility to direct the people they work with to the workforce needed for building out broadband in the upcoming years
- **Charter School Representative**
 - They give students a Chromebook at their schools and when they graduate they get to keep it
 - They do participate in the DTO program
 - Waterford Upstart - receives state funding every year
 - They have parents asking about a hot spot program
 - They have great connectivity at the school itself
 - They have a "cyber Friday" where students do at home learning
 - As a resident, he noted a block away from him they have fiber but his residence can't have fiber

Ogden City Stakeholder Notes

- Clearfield has Utopia but Ogden doesn't
- Job core and Department of Workforce services was suggested
- His wish list item would bring Utopia or Google Fiber to the city (open access network)
- **Cottages of Hope Representative**
 - They've set up a lot of people through the ACP program
 - They get people access to ACP but it's harder to get them access to devices - they usually send them to the library
- **Weber State University Network Representative**
 - They have library check-out programs through the library
 - All of their hot spots are usually checked out
 - They put antennas on 14 of their locations - but they don't work great because people have to be really close to access the connectivity
 - A lot of students just use their phone because they don't want to pay for both internet and a cell phone plan
 - Many students only utilize the internet on campus so Covid hit them harder, but they used state funds to get more
 - Ogden City has GIS maps that know where there gaps are in broadband coverage
 - Construction Management at Weber State, Ogden Technical College could help with workforce deployment
 - Upper bench outside Ogden is not covered super well
 - Pockets in Ogden that only have DSL or no access to fiber even though a street over they did
 - If they had money for broadband he would
 - South Ogden only has DSL, Lumon, or Xfinity
- **Ogden City Councilmember and Weber State Online and Continuing Education**
 - The city has a monopoly of an internet provider - Comcast
 - Wants to make broadband a priority in the community
 - Connect him with other city councils like Kaysville and Lehi for broadband planning ideas
 - Our team encouraged him to apply for a local planning grant with Ogden City
 - Frequently hears from residents that they really want to bring Utopia to Ogden City
 - Said that competition in ISPs would help lower prices



Appendix D: Notes from Internet Service Provider Meetings

The following pages contain notes from meetings held with ISPs as part of the Ogden City local broadband planning efforts.

Connex | May 2, 2023

Attendees:

- Connex – David Brown
- Ogden City – Justin Anderson, Brian Martinson, Jess McClelland
- Horrocks Engineers – Jason Libert, Eleise Lowe, Jerson Fernandez

Meeting Summary:

Groundbreaking for Ogden build-out this month

(1)-1.25" is typical

Put in 1-D if UDOT wants it

Can add a conduit and fiber for Ogden

IRU - Irrefutable right of use - for Ogden

Directional bore

Plan to build and connect entire city within 2-3 years

All West | May 3, 2023

Participants (Collapse)

- Justin Anderson - Ogden City
- Nathan Chapman - Horrocks BEADS
- Jerson Fernandez- Horrocks BEADS
- Jason Libert- Horrocks BEADS
- Eleise Lowe- Horrocks BEADS
- Brian Martinson - Ogden City
- Jess McClelland - Ogden City
- Georgia Tsoutsounis- Horrocks BEADS

- Don Anderson KLI -- FTTH Ogden Design Lead
- Mont Flygare - All West - Director of Design & Construction
- Matt Hirst - CRS Engineers - FTTH Program Manager
- Jon Howse - CRS Engineers - FTTH Design Lead
- Phil Marchant - All West - Director of Corporate/Strategic Partnerships
- Michael Northrup - KLI -- FTTH Ogden Design Manager
- Jack Walkenhorst - All West - Strategic Partnerships

Meeting Summary:

1. Introductions
2. All West – Who are we
 - a. New owners, wanting to expand within Wasatch Front
3. All West experience with BEAD/Federal/Community Funding
4. All West – Plans for Ogden Area
5. Ogden City Build approach
6. Q&A
 - a. Pricing
 - 1 gig 70\$/month (Goes up for higher speeds)
 - Drop connection fee of \$150-200 (waived if during initial construction)
 - b. Infrastructure
 - Use 7-way and 4-way microduct, would leave a microduct for Ogden

Comcast | May 2, 2023

Attendees:

- Comcast – Jennifer Somers, Kate Sneed, Joseph Silverzweig, Deneiva Knight
- Ogden City – Justin Anderson, Brian Martinson, Jess McClelland
- Horrocks Engineers – Jason Libert, Eleise Lowe, Jerson Fernandez

Meeting Summary:

Plans to build – Showed maps where Comcast has plans to build within Ogden

<https://corporate.comcast.com/covid-19/network/may-20-2020>

Internet essentials plan - 9.95\$ per month

<https://www.xfinity.com/learn/internet-service/internet-essentials>

Area with 25% or more reporting no internet access

- Comcast is serving this area
- Adoption issue
- They set up booths for helping people connect to ACP program and Internet essentials plan (free if qualify for ACP or
 - 100/20 - 20\$/month
 - 50/20 - 10\$/month
- Purchase laptop for \$149

Additional information shared from Comcast via email July 18, 2023 and July 26, 2023:

1. Internet Essentials Plan

Comcast's Internet Essentials Plan is low-cost, high-speed internet for anyone on Federal Assistance. It's \$9.95 a month for a 50/20 Mbps plan and \$29.95 a month for a 100/20 Mbps plan. With the Federal \$30/month ACP benefit, that means that high speed internet is free to qualifying income constrained-income Xfinity customers. Internet Essentials also comes with access to a brand-new laptop computer for just \$150 as well as a full suite of digital literacy training through the website.

2. ACP questions- Ioana Platon is our Community Impact specialist and best point of contact for ACP partnerships and questions. Deneiva Knight is the Director of External Affairs for the market.

3. Community Impact:

Youth Impact: Comcast has a multiprong partnership with Youth Impact, including cash and in-kind donations. For over 5 years, Comcast has supported Youth Impact's programs to tackle intergenerational poverty through digital literacy and career readiness. Youth Impact is also a Lift Zone location providing members access to free 1Gig Wifi. We've also provided in-kind donations by producing video content to promote the work of Youth Impact.

Boys & Girls Clubs of Weber-Davis: For over five years, Comcast has supported Boys & Girls Clubs of Weber-Davis programs like My.Future, Create @ The Club, and digital equity work through annual fund-raising events. The club is also a Lift Zone location providing members access to free 1Gig Wifi.

Tech-Moms: Comcast supports Tech-Mom programming across the Wasatch Front to help women transition into tech and achieve long-term career success. We've also provided in-kind donations by producing video content to promote Tech-Mom's programming.

Ogden School Foundation: Comcast has supported its work for over five years through its annual Raptors Night Grand Slam event. We've also partnered on STEM training workshops and various volunteer opportunities supporting schools in the district.

Ogden-Weber Chamber of Commerce: Comcast has been a chamber member for [over eight \(this isn't a consistent time frame, but total\)](#) years.

Utah Schools for the Deaf and the Blind Education Foundation: Comcast supports the foundation's digital equity work to provide digital literacy training to specialized accessibility tools for students across its campuses. We've also provided in-kind donations by producing video content to promote the foundation's work.

United Way of Northern Utah: Comcast supports United Way through cash and in-kind donations. We're supporting the organization's nonprofit connection initiative, connected the center with a Lift Zone providing members with access to free 1Gig Wifi, and produced multiple PSAs and video content materials to promote the work at United Way of Northern Utah.

YCC Family Crises Center: YCC is a Lift Zone location providing members access to free 1Gig Wifi. We're also continually working with YCC on creating volunteering opportunities for employees.



Appendix E: Sample Specifications and Policies

Attachments in this section include:

1. UDOT specifications for fiber conduit
2. UDOT standard drawing for fiber junction box and utility vault
3. "Dura-line Dig Once Best Practices" with state legislation examples

SECTION 13553

ATMS CONDUIT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. ATMS conduit for communications and fiber optic cables.
- B. Detectable pull tape, conduit, and all materials, labor, workmanship, equipment, and incidental items required for a complete system of conduit.

1.2 RELATED SECTIONS

- A. Section 02056: Embankment, Borrow, and Backfill
- B. Section 02221: Remove Structures and Obstruction
- C. Section 02705: Pavement Cutting
- D. Section 02741: Hot Mix Asphalt (HMA)
- E. Section 02776: Concrete Sidewalk, Median Filler, and Flatwork
- F. Section 02842: Delineators
- G. Section 03575: Flowable Fill

1.3 REFERENCES

- A. ASTM D 2241: Poly-Vinyl Chloride (PVC) Pressure-Rated Pipe (SDR Series)
- B. ASTM F 2160: Solid Wall High Density Polyethylene (HDPE) Conduit based on Controlled Outside Diameter (OD).
- C. National Electrical Code (NEC)
- D. National Electrical Manufacturers Association (NEMA)
- E. State of Utah Administrative Rules
- F. Underwriters Laboratories (UL)

1.4 DEFINITIONS Not Used

1.5 SUBMITTALS

- A. Manufacturer's product data sheets and recommended installation instructions.
- B. Manufacturer's warranties and parts lists
- C. Conduit Mandrel Test Form prior to substantial completion.
- D. Refer to <http://www.udot.utah.gov/go/standardsreferences> for blank forms for this Section.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Conduit and fittings for ATMS communication and fiber optic conduit
 - 1. Schedule 40 PVC rated at 194 degrees F as specified in NEMA TC-2, NEMA TC-3, ASTM D 2241,
 - 2. High Density Polyethylene (HDPE) SDR11 rated complying with ASTM F 2160.
 - a. HDPE conduit with smooth outer wall and ribbed or smooth interior wall.
 - b. Fittings and couplers rated for a minimum of 130 psi.
 - c. Mechanical type couplers when joining HDPE and PVC conduits.
 - 3. Microduct
 - a. HDPE microduct with an outside/inside diameter of 0.500/0.394 inch (12.7/10 mm) or 0.630/0.512 inch (16/13 mm) or 0.709/0.551 (18/14 mm), as shown.
 - b. Microduct having a ribbed interior.
 - c. Watertight couplers rated for a minimum of 200 psi.
 - d. Microduct bundle within a single 0.100 inch thick polyethylene oversheath.
 - e. Microduct bundles must contain a factory installed #14 AWG solid, insulated locate wire and a minimum of two rip cords for removal of oversheath.
- B. Conduit Banks
 - 1. New, prefabricated
 - 2. ATMS Multi-duct Conduit Types
 - a. 1D = four 1.25-inch conduits

- b. 2D = eight 1.25-inch conduits
 - c. 4D = sixteen 1.25-inch conduits
 - 3. Color-code each conduit or cell as follows:
 - a. One, two, or three conduits gray
 - b. 1D Bank 1 blue, orange, green and brown
 - c. 2D Bank 1 blue, orange, green, and brown
Bank 2 slate, white, red, and black
 - d. 4D Bank 1 blue, orange, green, and brown
Bank 2 slate, white, red, and black
Bank 3 same as bank 1 with a contrasting stripe
Bank 4 same as bank 2 with a contrasting stripe
 - 4. Microduct types:
 - a. Individual 0.500/0.394 inch (12.7/10 mm) or 0.630/0.512 inch (16/13 mm) microducts installed loosely within new or existing conduit.
 - b. MD2, MD3, MD4 and MD7: microduct bundle containing two, three, four or seven 0.709/0.551 inch (18/14 mm) microducts respectively.
 - c. Factory-assembled bundles for bundled applications.
 - 5. Color-code microducts and oversheaths as follows:
 - a. Individual microducts installed loosely within conduit or bundled within oversheath:
 - 1) blue
 - 2) orange
 - 3) green
 - 4) brown
 - 5) slate
 - 6) white
 - 7) red
 - 8) black
 - b. Oversheaths:
 - Bundle #1 blue
 - Bundle #2 orange
 - Bundle #3 green
 - Bundle #4 brown
- C. Meet or exceed all of the conduit manufacturer's recommendations for materials used in the installation of conduits including sweeps, adapters, couplings, glue, plugs, and fittings.
 - 1. Conduit plugs must seal the conduit and allow the secure fastening of detectable pull tape.
- D. PVC conduit sections – Nominal 20 ft sections. Couplings and fittings must provide watertight integrity.

- E. Sweeps – factory manufactured sweeps (11¼, 22½, 45, and 90 degree angles) complete with bell and spigot.
- F. Detectable Pull Tape – flat profile, low stretch polyester, detectable, sequential footage marked, 1,200 lb tensile strength pull tape in each conduit.
- G. Backfill
 - 1. Flowable Fill – Refer to Section 03575.
 - 2. Free Draining Granular Backfill – Refer to Section 02056.
 - 3. Sand
 - a. Friable natural river or bank aggregate, free of loam, detrimental, or soluble or organic matter.
 - b. ¾ inch minus, well graded.
 - 4. Hand-mix grout
 - a. Minimum strength – 50 psi
 - b. Maximum strength – 150 psi
 - c. Slump – 5 inches to 10 inches
- H. Rigid Metal Conduit (RMC) complying with UL-6. Zinc galvanized exterior coating complying with ANSI C80.1.
- I. Liquidtight Flexible Metal Conduit (LFMC), -30 degrees C to 80 degrees C rated, UL 360 listed.
- J. Liquidtight Flexible Nonmetallic Conduit (LFNC), 80 degrees C dry, 60 degrees C wet rated, sunlight resistant, UL 1660 listed.

PART 3 EXECUTION

3.1 GENERAL

- A. Maximum spacing between junction boxes and vaults
 - 1. 500 ft for electrical cable.
 - 2. 1,000 ft for fiber optic cable on tangent surface street installations.
 - 3. 2,500 ft for fiber optic cable on tangent highway installations.
 - 4. Reduce maximum spacing if horizontal or vertical deflection incurred during installation prevents the installation of cable within maximum pulling tension rating of the cable.
 - 5. Notify the Engineer if utility avoidance requires junction box and conduit locations differing from requirements for deflection in this Section, article 3.2.

- B. Minimum Cover of Conduit
 - 1. Minimum cover under pavement is 4ft and minimum cover under sidewalks is 3 ft.
 - 2. Minimum cover in highway right-of-way, greater than 20 ft from the edge of the pavement is 3 ft.
 - 3. Minimum cover in highway right-of-way, within 20 ft of the edge of the pavement is 5 ft.
 - 4. Refer to State of Utah Administrative Rule 930-7

3.2 INSTALLATION

- A. Prevent conduit from deflecting vertically or horizontally along its length by a ratio greater than 10:1, (no more than 4-inch deflection per 40 inch in length) when installing conduit that houses communication cable.
- B. Prevent sum total of the vertical and horizontal conduit deflection or bend between any two junction boxes from exceeding 270 degrees when installing conduit.
- C. Install conduit within 1 ft of existing parallel conduit run if the planned location of conduit is parallel to the existing traffic signal or ATMS conduit.
- D. Obtain approval for field bending of conduit with the Engineer in cases where factory sweeps are not appropriate. Field bending must be performed using a heat box or heat blanket. Torch heating conduit is prohibited. Install all conduit bends to have a radius that is not less than the following:
 - 1. 24 inches within the cabinet and pole foundations
 - 2. 36 inches in all other locations
 - 3. 46 inches for MD7 microduct bundle
 - 4. 40 inches for MD4 microduct bundle
 - 5. 36 inches for MD3 microduct bundle
 - 6. 32 inches for MD2 microduct bundle
 - 7. 12 inches for individual microduct
- E. Install conduits that cross finished curbs and gutters, sidewalks, concrete flatwork, or textured or decorative surfaces by boring, jacking, or drilling. Replace any damaged concrete sections, joint to joint. Refer to Section 02221.
- F. Proof all conduit before installation of cabling and detectable pull tape.
 - 1. Use a mandrel at least 80 percent of the conduit diameter, at least twice as long as the conduit diameter, and composed of rigid material.
 - 2. Schedule proofing with the Engineer at least 5 working days in advance of performing the work.

3. Proof all conduit with a Department representative witness present.
 4. Complete and submit a completed Conduit Mandrel Test Form for all ATMS conduit.
 5. Proof microducts using proofing balls.
 6. Proofing balls must maintain a minimum 80 percent fill ratio of inside diameter of the microduct being tested.
 7. Proofing must occur after all junction boxes have been installed to final grade, including placement of flowable fill or hand-mix grout at junction box walls, and after all excavation in the immediate proximity of the conduit system has been completed.
 - a. Re-proof any conduit segment where excavation has occurred near the conduits following initial proof testing.
- G. Provide detectable pull tape in all conduits.
1. Install continuously between junction boxes.
 2. Fasten securely to conduit plug and leave 6 ft of pull tape slack inside of the conduit.
 3. Do not splice detectable pull tape in conduit.
 4. Use flat profile, low stretch polyester, 1,200 lb tensile strength detectable pull tape that is sequential footage marked.
 5. Verify that the pull tape is detectable throughout its entire length by performing a continuity test or equivalent verification.
 6. Detectable pull tape not required in microducts.
- H. Encase open trench conduit in sand backfill covered by flowable fill within existing roadway, proposed roadway and sidewalk pavement areas only.
1. Seal junction box wall around conduits using flowable fill or approved hand-mix grout.
 2. Use 6 inches of sand backfill covered with native material in all other areas.
 3. Refer to AT Series Standard Drawings.
- I. Use rigid metal conduit or schedule 80 PVC conduit for above ground application.
1. Liquidtight flexible metal conduit (LFMC) or liquidtight flexible non-metallic conduit (LFNC) is permitted in lengths not exceeding 6 ft where not subject to physical damage.
 2. Apply corrosion protection to any portion of rigid metal conduit buried in the ground or encased in concrete.
- J. Use PVC or HDPE conduit for underground application.
- K. Warning Tape
1. Install orange warning tape with black legend "Caution - Buried Communication Cable," in all trenches containing multi-duct conduit or conduit containing communication cables.

2. Install red warning tape with black legend "Caution - Buried Electric" in all other trenches.
 3. Not required when flowable fill is directly overlaid with asphalt pavement or PCCP.
 4. Not required when boring or plowing conduit.
- L. Install a bushing or adapter at ends of all conduits that contain a conductor according to the NEC.
- M. Furnish and install Utility Marker Posts along the longitudinal conduit running line. Refer to AT Series Standard Drawings and Section 02842.
- N. Install a #14 AWG solid, insulated locate wire inside of new or existing conduit with individual microducts.
1. Verify that all locate wires are detectable throughout their entire length by performing a continuity test or equivalent verification.

3.3 TRENCH

- A. Paved Asphalt Surface
1. Install T-patch over trenched area according to AT Series Standard Drawings.
 2. Cut pavement from roadway surface to roadway base on both sides of trench to provide a clean, straight wall for T-patch before any backhoe use according to Section 02705.
 3. Refer to AT Series Standard Drawings for depth of flowable fill under paved surfaces.
 4. Evenly apply tack coat on final backfill before installing T-patch.
 5. Place restoration patch – match the composition, density, and elevation ($\pm\frac{1}{4}$ inch), of the existing surface according to Section 02741.
 6. Apply a hot-pour rubberized asphalt joint sealant or approved equal after the patch is installed.
- B. Sidewalk or Decorative Pavement
1. Use flowable fill to bottom of new pavement or sidewalk.
 2. Match existing pavement thickness. New pavement thickness must be 3½ inches minimum and 8 inches maximum.
 3. Restore sidewalk or decorative pavement to original condition or better after work is completed. Refer to Section 02776.
- C. Unpaved Surface
1. Backfill using native material, if suitable, that matches the composition, density, and elevation (± 0.2 inch), of the existing surface according to Section 02056.

2. Dispose of surplus material promptly.
3. Sand Backfill
 - a. Use sand backfill in trench sections outside of existing roadway, proposed roadway, and sidewalk pavement areas, including exposed conduit locations when plowing or boring.
 - b. Provide 6 inches of sand backfill above conduit in trench.
 - 1) Backfill trench above sand to finished grade using native material.
 - a) Backfill and tamp in 6 inch lifts.
 - c. Compaction of sand backfill is not required.
- D. Sleeve foreign utilities that cross a trench so they are not encased in flowable fill.
- E. Place all conduits in the same trench whenever possible.
- F. Flowable Fill or Hand-mix Grout
 1. Install flowable fill or approved hand-mix grout to the wall of junction box to seal conduit entry into junction box.
 2. Clean excess flowable fill or hand-mix grout from the inside of the junction box.
- G. Install all conduits so the flowable fill or sand backfill completely encases all exterior surfaces of the conduit.
 1. Separate multi-duct conduits using a commercially available conduit spacer or approved equivalent.
 2. Place spacers no more than 4 ft apart and not more than 2 ft from each coupler.
- H. Anchor the conduit in trench at 16 ft intervals to maintain the required conduit depth during flowable fill placement.
- I. Minimum separation between all conduits and the wall of the trench is 1½ inches.

3.4 BORE OR PLOW

- A. Immediately contain, remove, and properly dispose of all excess drilling fluid.

3.5 USE OF EXISTING OR OCCUPIED CONDUIT

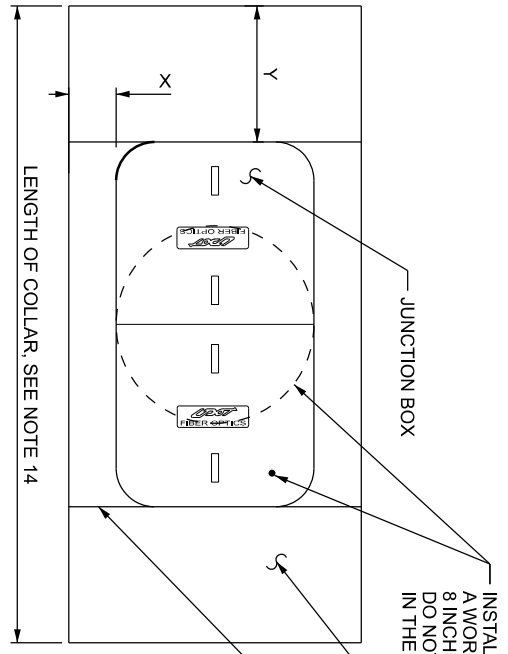
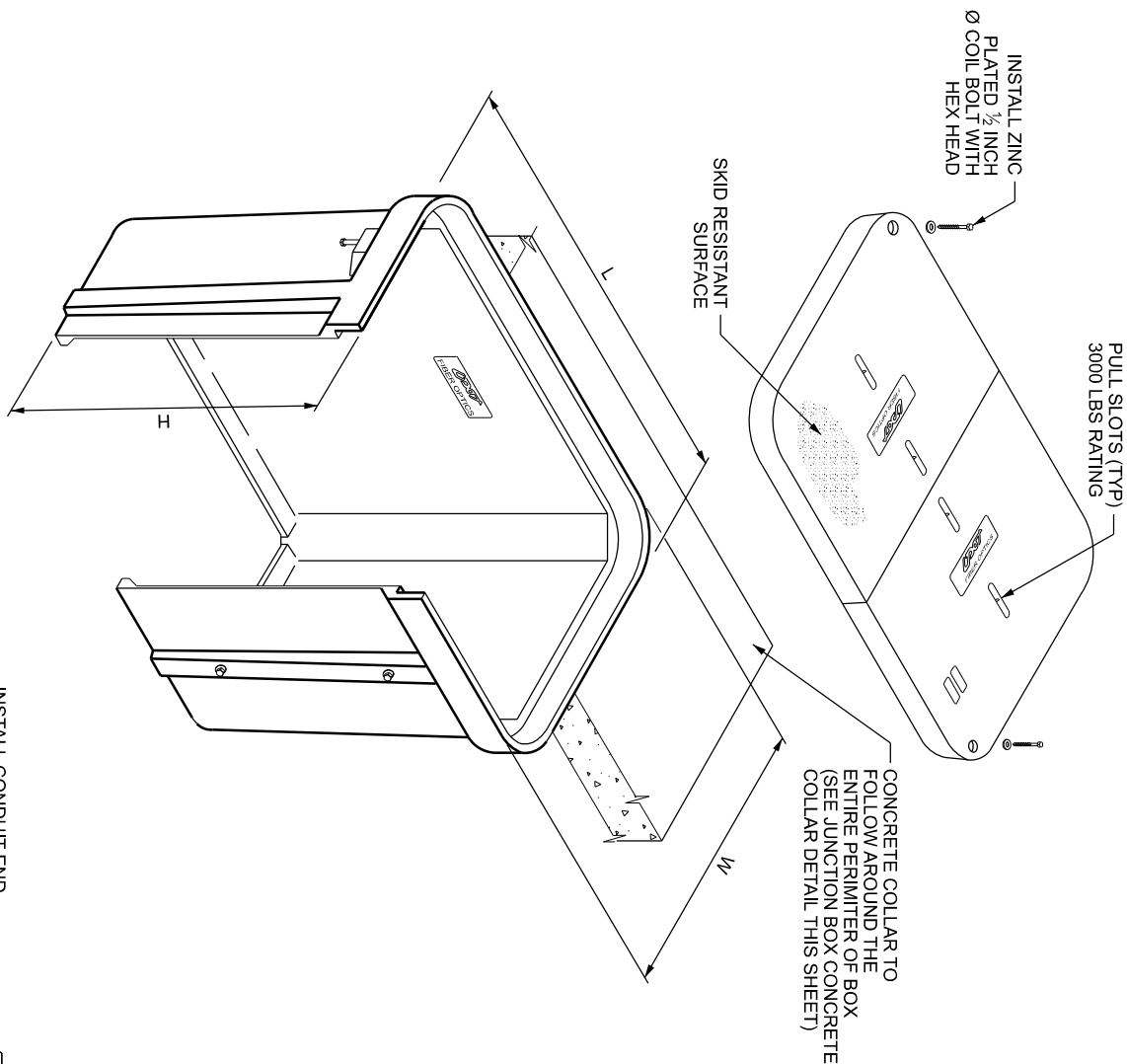
- A. Maintain the physical condition and functional integrity of all cabling and wiring in existing or occupied conduit.
- B. Cable or wire installation in an existing or occupied conduit.

1. Remove any existing fiber optic cable or copper wire.
 2. Test the integrity and clean the conduit by successfully pulling a Department-approved mandrel through the conduit.
 3. Re-pull existing and new fiber optic cable or copper wire together.
 4. Perform all necessary splices and replace any impacted fiber cable and spider fan-out kits according to Section 13594.
- C. Use existing conduit in-situ only if shown and as approved by the Engineer.
- D. Intercept individual microducts from existing microduct bundle mid-span and reroute to new junction box location:
1. Type II-PC junction box
 - a. Bury at existing microduct bundle depth.
 - b. Notch the 24-inch box walls and install junction box over existing microduct bundle.
 - c. Provide 12 inches of free draining granular backfill borrow underneath junction box.
 - d. Encase all conduit in flowable fill or hand-mix grout where the conduit enters the junction box.
 - e. Place locate ball or disk in junction box.
 - f. Ground rod, and grout floor are not required.
 2. Conduit and microduct bundle inside of buried Type II-PC junction box.
 - a. Install conduit from buried junction box to new junction box location for rerouting of individual microducts. Provide #14 AWG solid, insulated locate wire inside of new conduit between junction boxes.
 - b. Extend conduit and microduct oversheath 6 inches beyond inside wall of the junction box.
 - c. Expose microducts by removing no more than 20 inches of oversheath.
 - d. Identify and cut only the individual microducts to be rerouted.
 - e. Use approved couplers and extend microducts to new junction box using corresponding microduct color.
 - f. Splice all locate wires together using an approved waterproof connector.
 - 1) Verify that the locate wire conductors are not exposed.
 3. New junction box location
 - a. Install new junction box within 20 ft of buried junction box or within 20 ft of edge of roadway when existing microduct bundle is underneath roadway, to provide access to locate wire for mapping and locating purposes.

3.6 REPAIR OR RESTORATION

- A. Restore all areas, including landscaping, concrete pavement, asphalt, finished curbs and gutters, box culverts, sewers, underground water mains, sprinkler systems, sidewalks, concrete flatwork, colored, textured, or decorative surfaces damaged during conduit and junction box installation.
- B. Coordinate with local utilities for utility repair.
- C. Notify the Engineer of all necessary repairs.
- D. Replace all damaged facilities in kind.
- E. Buried microduct bundle coupling and repair:
 - 1. Expose microducts by removing no more than 12 inches of oversheath beyond area to be coupled or repaired.
 - a. Trim microducts to length as necessary to eliminate all bends and deflection.
 - 2. Use approved couplers.
 - 3. Splice the locate wires together using an approved waterproof connector.
 - a. Verify that the locate wire conductors are not exposed.
 - 4. Protect exposed microducts, couplers and locate wire using split duct.
 - a. Seal split duct joints and split duct ends around microduct bundle oversheath using approved waterproof sealing tape or other approved methods prior to backfill.
 - b. Do not use heat-shrink or cold-shrink protection methods.

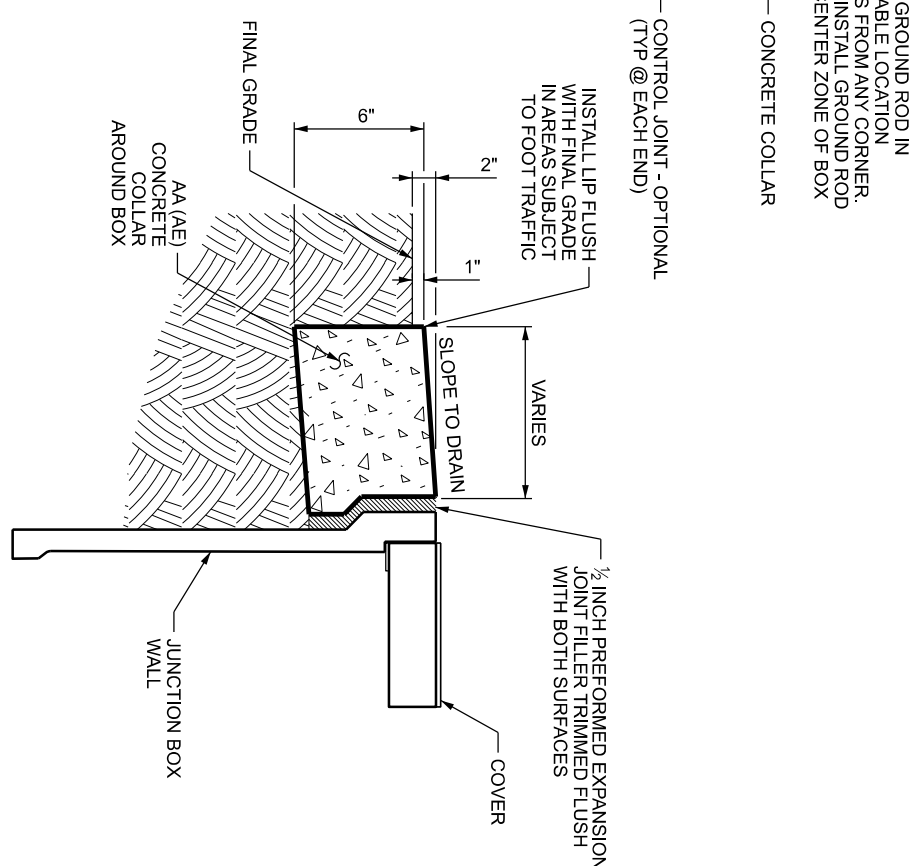
END OF SECTION



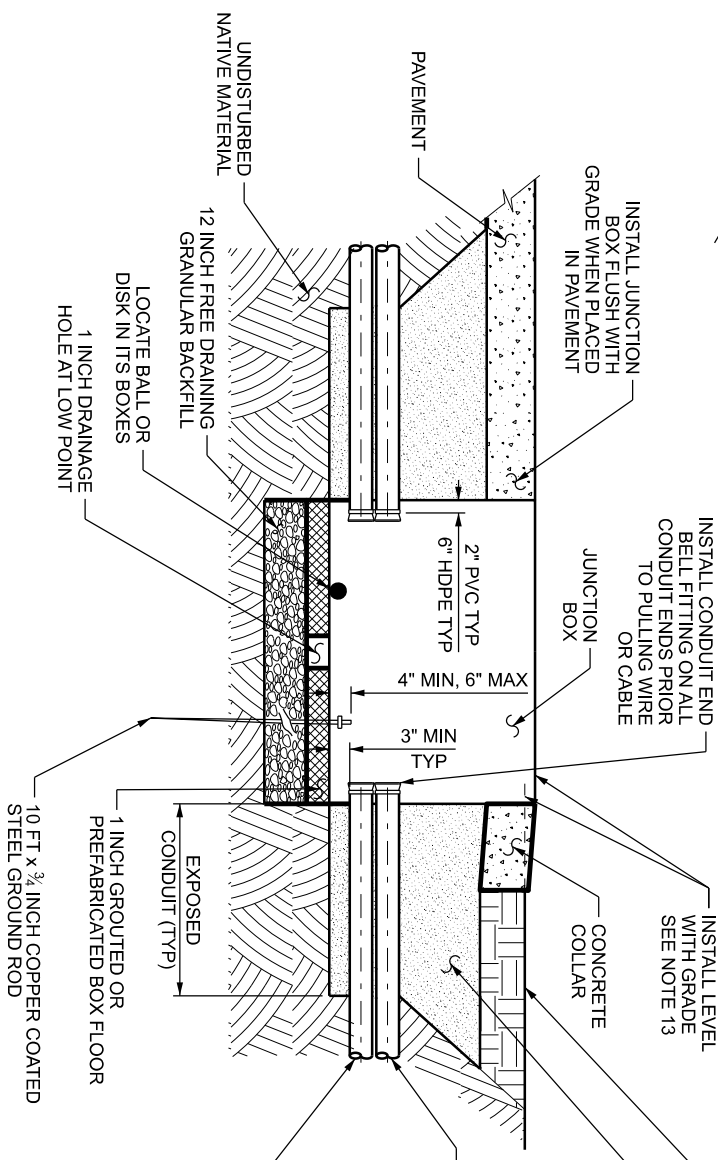
PLAN VIEW - JUNCTION BOX AND CONCRETE COLLAR

TABLE OF DIMENSIONS

BOX TYPE	"W" inch	"L" inch	"H" inch	"X" inch	"Y" inch	LOADING
I-PC	13	24	24	10	10	TIER 22
II-PC	24	36	36	10	24	TIER 22
III-PC	30	48	36	10	24	TIER 22



JUNCTION BOX CONCRETE COLLAR DETAIL



JUNCTION BOX CONDUIT PENETRATION DETAIL

- NOTES:**
1. BOX LOGO OR NAME PLATE. REFER TO STANDARD SPECIFICATION 13554.
 2. DO NOT PLACE JUNCTION BOXES IN THE TRAVELED WAY OR ON FREEWAY SHOULDERS.
 3. CONCRETE COLLAR WIDTH VARIES WHEN ADJACENT TO ITS CABINETS. REFER TO AT AND SL SERIES STD DWGS.
 4. PROVIDE CONCRETE COLLARS EXCEPT WITHIN CONCRETE PAVED AREAS.
 5. INSTALL CONDUIT PLUG PER STANDARD SPECIFICATION 13554.
 6. ALIGN ITS CONDUIT BY COLOR ON EACH SIDE OF THE JUNCTION BOX.
 7. PROVIDE TYPE III-PC JUNCTION BOXES WITH A SPLIT LID.
 8. CONFORM TO ANSIS/SC77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY" TIER 22 LOADING FOR ALL JUNCTION BOXES. TIER 22 ID PLATE TO BE VISIBLE ON BOX.
 9. EXTEND GROUND ROD A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6 INCHES ABOVE BOTTOM OF JUNCTION BOX.
 10. USE INTER SYSTEM GROUNDING BRIDGE CLAMP FOR BONDING TO GROUND ROD. ATTACH NOT MORE THAN 4 WIRES PER CLAMP.
 11. DO NOT CUT GROUND RODS.
 12. PROVIDE CLEAR SPACE OF AT LEAST 36 INCH FOR PERSONNEL TO PULL LID OFF BOX WITHOUT CONFLICT.
 13. PLACE JUNCTION BOXES AND CONCRETE COLLARS LEVEL WITH GRADE ON SLOPES 6:1 OR FLATTER. REFER TO PLANS FOR DETAILS OF JUNCTION BOX PLACEMENTS ON SLOPES STEEPER THAN 6:1. SLOPE CONCRETE COLLAR TO DRAIN AS SHOWN.
 14. INSTALL ENTIRE PAD UNIFORMLY TO LONGEST LENGTH WHEN SEVERAL JUNCTION BOXES ARE BEING PLACED ADJACENT TO ONE ANOTHER.

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH
STANDARD DRAWING EDITION

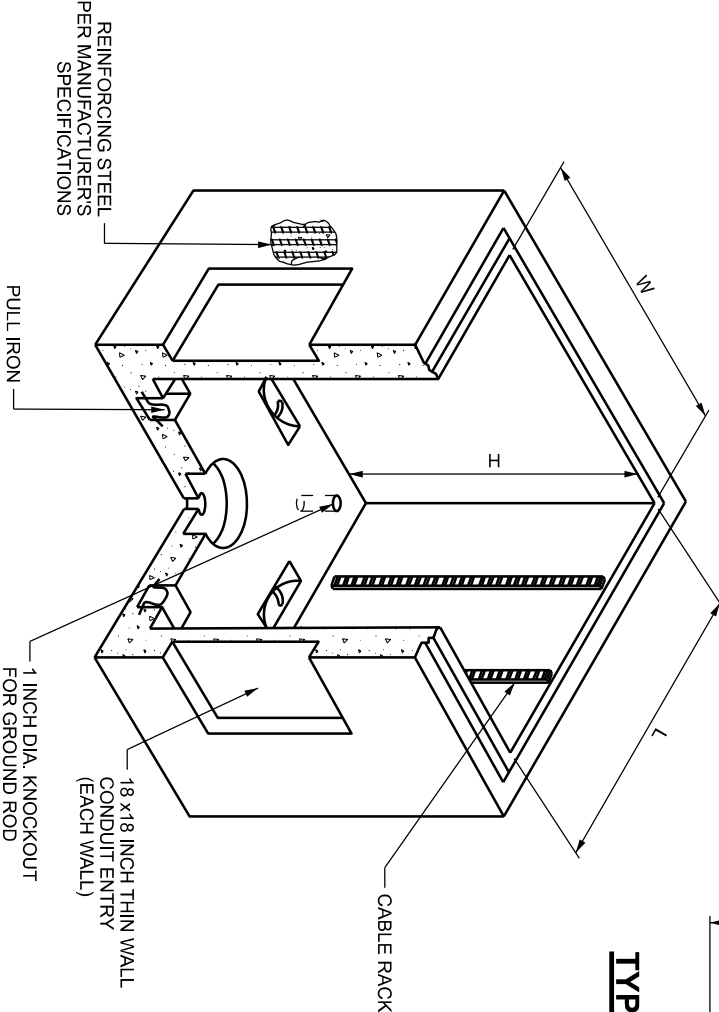
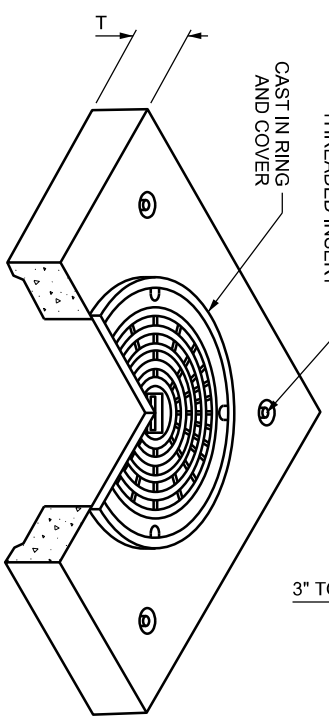
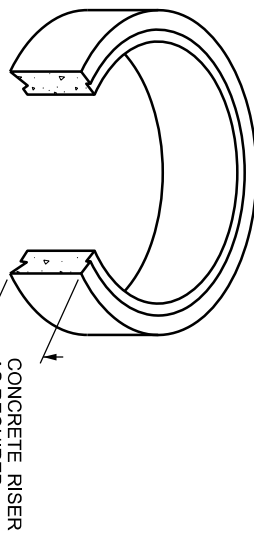
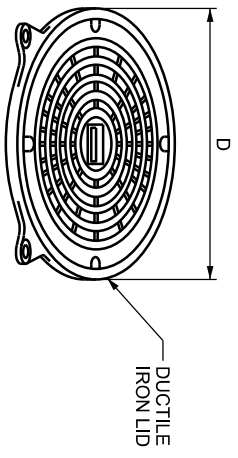
2024 Standard Drawing

NO.	DATE	APPR.	REMARKS
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	4/30/20	MAA	ADDED "OPTIONAL" TO CONCRETE COLLAR DETAIL

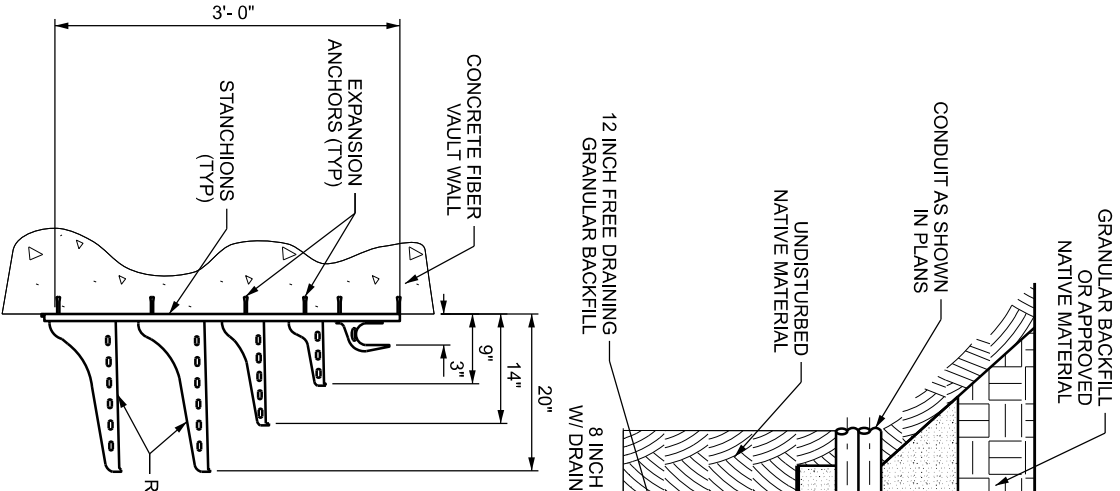
POLYMER CONCRETE JUNCTION BOX DETAILS

STD. DWG. NO.
AT 7A

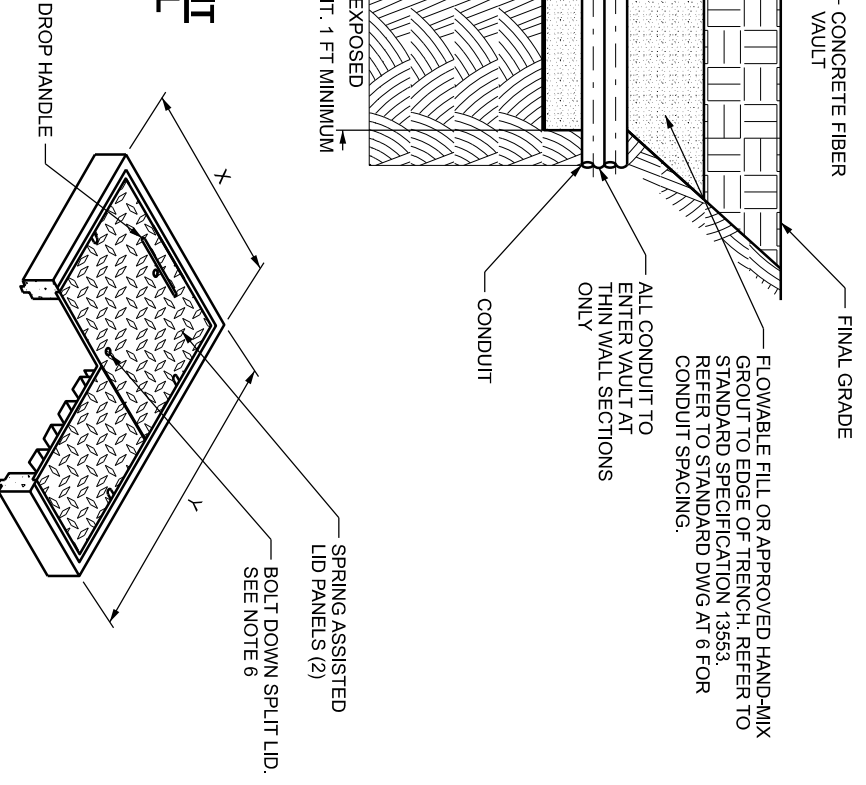
STANDARD DRAWING TITLE



CONCRETE FIBER VAULT WITH MANHOLE LID



FIBER VAULT CONDUIT PENETRATION DETAIL



METAL LID FOR TYPE IV-CV FIBER VAULT

VAULT DIMENSIONS

VAULT TYPE	"L" INCH	"W" INCH	"H" INCH	"T" INCH	LID	"X" INCH	"Y" INCH	"D" INCH
IV-CV	48	48	48	6 MIN	HINGED OR MANHOLE	24	36	36
V-CV	48	72	72	6 MIN	MANHOLE ONLY	N/A	N/A	36

TYPICAL CABLE RACK

NOTES:

- SUPPLY TYPE IV FIBER VAULT WITH A TAMPERPROOF HINGED METAL LID FOR UNPAVED AREAS, OR A TAMPERPROOF HEAVY DUTY MANHOLE-STYLE LID IN PAVED AREAS. SUPPLY FIBER VAULTS, LIDS, AND COVERS RATED FOR AASHTO LRFD HL-93 LOADING.
- SUPPLY TYPE V-CV FIBER VAULT WITH A MANHOLE-STYLE LID ONLY.
- SUPPLY MANHOLE LIDS WITH A HOLE OR SLOT FOR REMOVAL WITH A LEVER OR HOOK. SUPPLY HINGED METAL LIDS WITH DROP HANDLES.
- SUPPLY VAULTS WITH A PERMANENT INTERNAL LADDER.
- PROVIDE FIBER VAULT LIDS MARKED, "DOT FIBER OPTIC" USING MIN 3 INCH HIGH LETTERING WITH 1/8 INCH THICKNESS. FORM LETTERS BY ENGRAVING, CASTING, STAMPING, OR WITH A PRECISE WELD BEAD.
- PROVIDE HINGED METAL LID WITH A MINIMUM OF 3/8 INCH HIGH DIAMOND PATTERN OR SIMILAR SURFACE.
- PROVIDE FIBER VAULTS WITH A HEAVY-DUTY NON-METALLIC CABLE STORAGE RACK SYSTEM. PROVIDE RACK ARMS AND STANCHIONS CAPABLE OF SUPPORTING A MINIMUM OF 250 LB FOR TYPE IV-CV FIBER VAULT RACKS. INCLUDE A MINIMUM OF 36 INCH RACK STANCHIONS AND 4 RACK ARMS. FOR TYPE V-CV FIBER VAULTS, INCLUDE A MINIMUM OF 45 INCH RACK STANCHIONS AND 5 RACK ARMS.
- CONDUITS PENETRATE FIBER VAULT AT THIN WALL SECTIONS ONLY. CORE DRILL HOLE IN THIN WALL SECTION TO CONDUIT SIZE PLUS 1/4 INCH. DO NOT "KNOCK OUT" THE THIN WALL SECTION.
- COMPLY WITH OSHA REQUIREMENTS FOR ENCLOSED WORK SPACES.
- BOND AND GROUND ALL EXPOSED METALLIC COMPONENTS OF THE FIBER VAULT PER NEC 250 IF ARMORED FIBER OPTIC CABLE IS USED.
- INSTALL CONDUIT PLUGS ACCORDING TO STANDARD SPECIFICATION 13553.
- ALIGN ATMS CONDUIT BY COLOR ON EACH SIDE OF FIBER VAULT.
- EXTEND GROUND ROD A MINIMUM OF 4 INCHES AND A MAXIMUM OF 6 INCHES ABOVE BOTTOM OF FIBER VAULT.
- USE GROUND ROD BRIDGE CLAMP FOR BONDING TO GROUND ROD. ATTACH NOT MORE THAN 4 WIRES PER CLAMP.
- DO NOT CUT GROUND RODS.
- INSTALL VAULT PLUMB AND LEVEL. GRADE BACKFILL FLUSH WITH VAULT.

UTAH DEPARTMENT OF TRANSPORTATION
STANDARD DRAWINGS FOR ROAD AND BRIDGE CONSTRUCTION
SALT LAKE CITY, UTAH
STANDARD DRAWING EDITION

2024 Standard Drawing

**PRECAST CONCRETE
FIBER OPTIC AND
UTILITY VAULT DETAILS**

STD. DWG. NO.
AT 7B

STANDARD DRAWING TITLE

NO.	DATE	APPR.	REMARKS



Dig Once Best Practices Overview

SECTION 1: GOALS OF THE LEGISLATION

Economic Viability Exists in a Digital Connection

No one can predict the demand for data in the next 10 to 20 years, but we know our lives are going to be even more connected. By consolidating the installation of broadband infrastructure at the time of road construction, communities are positioned to [participate in the digital economy in the most cost-effective way for the taxpayers.](#)

Saving Tax-Payers Dollars

The U.S. DOT's Intelligent Transportation Systems Joint Program Office estimates the average cost of deploying fiber-optic cable is about \$27,000 per mile. According to the Federal Highway Administration, the Dig Once legislation has the potential to eliminate up to 90 percent of the cost of deployment.

Dig Once U.S. Federal Legislation

In an effort to make high speed broadband more affordable and accessible, the U.S. Federal Government passed "Dig Once" legislation. After a decade of various versions of the concept, the bill received overwhelming bi-partisan support with more than 30 co-sponsors.

Eliminating Duplicate Expenses

Essentially, the legislation provides for the notification of federally funded road construction projects where conduit or fiber could be included at the same time. [Digging one time for two or more projects and enabling future upgrades without additional expense brings tremendous added value and efficient use of resources.](#)

Digging Deeper into Saving Taxpayer's Money

The law allows for some flexibility: installation of fiber, conduit, or both fiber and conduit. If fiber is direct buried alone, it will still be a leap forward in streamlining and investing in broadband infrastructure. However, when an upgrade is needed, it eventually means more digging to replace the fiber cable.

[The Federal Communications Commission, or FCC, recommended State policies should require contractors to install spare fiber and empty conduit to accommodate "reasonably anticipated" future demand.](#) The use of a conduit network system provides the flexibility of upgrading (adding additional fiber) without the cost of digging. Fiber can be placed by air-jetting into the conduit quickly and easily without the expense and disruption of construction. Burying empty conduits in the ground at the time of road construction allows the potential for expansion when it is necessary and can be immediately revenue-generating by leasing or renting.

SECTION 2: BEST PRACTICES OF DIG ONCE POLICIES

The law allows for some flexibility: installation of fiber, conduit, or both fiber and conduit. The Federal Communications Commission, or FCC, recommended State policies should require contractors to install spare fiber and empty conduit to accommodate “reasonably anticipated” future demand.

Best Practice #1: Education

- The extra effort spent on educating the stakeholders will result in on-going cooperation
- Explain the cost-savings benefits
- Demonstrate the high-speed broadband connectivity economic impact
- Clarify the definition of “reasonably anticipated” future demand in conjunction with the installation of fiber, conduit, or both fiber and conduit
- Describe the ability to upgrade for the future (if conduit is used)

Best Practice #2: Ordinances (see pages 3-9: <https://broadbandnow.com/report/dig-once-digital-divide/>)

- Use existing laws and practices and integrate ideas into statutes and processes
- Explain expectations for compliance and how to cope with expectations
- Underscore who is responsible in the text of ordinance
- Encourage or require companies to use your conduit
- Maintain public ownership of conduit as much as possible

Best Practice #3: Coordination

- Establish relationships and expectations by keeping track of private projects and streamlining bureaucratic systems
- Create effective coordination committees
- Provide clear explanation of costs
- Line up departments’ budgets for potential large projects

Best Practice #4: Installation of Conduit Network Systems (see pages 10-13)

- Create a master plan
- Publish clear and consistent guidelines (with engineering standards)
- Choose the type of conduit that makes sense for your community – plan for the future
- Do not underestimate the added value of MicroTechnology and MicroTrenching (*Note: MicroTrenching is different than NanoTrenching, which puts the conduit only a few inches below the surface and is unproven. MicroTrenching has been around 10+ years and is a proven installation method with the correct reinstatement material.*)
- Document and verify your conduit

NOTE: Incremental funding required to pass 90 percent of U.S. households with high-speed fiber broadband by 2025 is estimated at a cost of \$70 billion.* Dig Once has the potential to reduce that expense significantly. (*Source: Cartesian, FCC Form 477, US Census, American Community Survey, Company Presentations)

SECTION 3: STATE LEGISLATION EXAMPLES

(SOURCE: <https://broadbandnow.com/report/dig-once-digital-divide/>)

NORTH CAROLINA

Law(s): Executive Order 91 forming the Task Force on Connecting North Carolina

Date enacted: 2019

Description: The Governor of North Carolina formed the Task Force on Connecting North Carolina in March 2019, aimed at increasing Internet access to North Carolina residents and aligning state agencies policies in order to remove barriers to broadband deployment. It's comprised of officials representing an array of state departments, including the department of transportation (DOT) and the department of information technology (DIT). The governor asked representatives from the DOT and DIT to jointly develop and implement a statewide "Dig Once" policy promoting the installation of broadband conduit or cables during road construction projects by July 1st, 2019.

UTAH

Law(s): R907-64. Longitudinal and Wireless Access to Interstate System Rights-of-Way for Installation of Telecommunication Facilities; Section 72-7-108

Date enacted: 1999

Description: Utah's state government began implementing Dig Once policies ahead of the 2002 Salt Lake City Olympics. The state's DOT has since expanded the policy, requiring the installation of oversized conduit for certain road construction projects, while interested telecom parties can then extend that infrastructure to neighboring communities. The state's DOT owns the conduit and leases it to telecom companies that want to use it. The state's Telecommunications Advisory Council reviews and approves valuations and trades between the state's DOT and telecom companies for access to conduit, and maintains a map of fiber locations.

ARIZONA

Law(s): Arizona REV. STAT. ANN. § 28-7381

Date enacted: 2012

Description: Arizona's Dig Once policies are targeted specifically at expanding broadband access to rural communities. The policy states that during road construction projects along rural highways, the DOT can coordinate with telecom companies to install conduit and **it** enables the agency to lease the conduit to telecom providers at a cost-based rate.

MINNESOTA

Law(s): 116J.39-116J.40: Coordination of Broadband Infrastructure Development

Date enacted: 2013

Description: Minnesota's state laws encourage the state's Office of Broadband Development to coordinate with the state's DOT for "Dig Once" measures in planning, relocation, installation, or improving broadband conduit within a right-of-way. It enables the Office of Broadband Development to evaluate procedures and criteria for contracts or lease agreements with telecom companies, as well as pricing requirements. It also allows for co-location of fiber and conduit with other utilities in the same trench.

NEVADA

Law(s): SB 53, creating the Nevada Telecommunications Advisory Council

Date enacted: 2017

Description: Nevada state legislature formed the Telecommunications Advisory Council within the state's DOT in 2017, outlining parameters and regulations for the DOT in coordinating with telecom companies for access to rights-of-way for installing telecommunications equipment. The law charges the council with seeking input from telecommunications providers and the public relating to broadband access, providing recommendations to the state DOT on offering access to rights-of-way to telecommunications providers, as well as approving or denying proposed fiber trade agreements between the DOT and a telecom provider. The DOT is also authorized to enter into agreements with telecom companies and charge fees to access to public rights-of-way or receive in-kind compensation.

MARYLAND

Law(s): SB 717 –Connecting Rural Maryland Act of 2017, creating the Task Force on Rural Internet, Broadband, Wireless, and Cellular Service; HB 961-Rural Broadband Communication Services

Date enacted: 2017-present


Description: Maryland's DOT coordinates with telecom providers and local utilities for installing conduit. The Connecting Rural Maryland Act created the Task Force on Rural Internet, Broadband, Wireless and Cellular Service, which was charged with facilitating cooperation between telecom providers to reduce redundancy, save money, and ensure that the all fiber assets are being used efficiently. The task force focused on facilitating cooperation between electric cooperatives and telecom companies. The task force's last report recommended the state include fiber optic cable as part of the state's definition of telecommunications equipment, and that it allow utilities to lease excess fiber and/or pole attachment rights for telecommunications, including broadband, without obtaining a separate easement, in order to promote broadband access in rural parts of the state. It has requested that the state's legislature draft authority for electric cooperatives to coordinate with telecom providers in laying fiber. That bill was expected to be introduced in 2019. HB 961, meanwhile, specifies that nonprofit telecommunications services providers in rural and underserved areas of the State must be allowed to use the right-of-way or easement of specified State agencies for the installation of broadband communication infrastructure without being charged to do so.

GEORGIA

Law(s): SB 402 – Achieving Connectivity Everywhere (ACE) Act

Date enacted: 2018

Description: Georgia state legislature passed the ACE bill in 2018, which enables the state DOT to develop and implement a long-term policy allowing public rights-of-way to be used for the deployment of broadband services and other “emerging communication technologies” either by the state or private providers. It also requires local governments’ comprehensive plans to include elements to facilitate the deployment of broadband services, and it amends the OneGeorgia Authority Act to include broadband services. Finally, the bill authorizes the Georgia Technology Authority to establish policies and programs necessary to coordinate



statewide efforts to promote broadband deployments between state agencies, local governments and industry representatives.

WEST VIRGINIA

Law(s): HB 4447, creating new codes §17 – 2 E- 1-E-9

Date enacted: 2018

Description: West Virginia’s state government has developed a uniform system for conduit installation for telecom companies that are applying to install telecom infrastructure. Telecom companies must enter into an agreement with the state’s Division of Highways for installing conduit in public rights-of-way; companies must also notify the West Virginia Broadband Enhancement Council and all other carriers on record within the state of their installation permit. Other telecom companies that are interested in installing their own fiber have 30 days to notify the applicant of interest in sharing the trench. The telecom company is also required to run an advertisement in the relevant media for two weeks advertising the project to allow other carriers the opportunity to respond. The law also allows the Division of Highways to charge fees for access to public rights-of-way, or accept in-kind compensation from sources such as conduit, dark fiber, access points, other telecom equipment or services, or even bandwidth.

MAINE

Law(s): Chapter 344, Sec. 1. 35-A MRSA §2503, sub-§2

Date enacted: 2018

Description: Maine’s law requires any public entity involved in a construction project to install broadband conduit and authorizes that entity to lease the conduit to telecom companies for installing broadband and/or wireless facilities for the purpose of providing service. The law states that telecom companies proposing broadband deployments must notify the ConnectME Authority with the location and description of the proposed facility and that the Authority must then disseminate that information to all other telecom companies or other entities that may be interested in installing broadband at the same time. The Authority is also tasked with maintaining a map of broadband conduit installations through the state.

ILLINOIS

Law(s): 605 ILCS 5/9-131) Sec. 9-131.

Date enacted: 2009

Description: Illinois state law requires the state DOT and the Department of Central Management Services (DCMS) to collaborate in installing fiber network conduit, where it does not already exist, in every new state-funded construction project that opens trenches along state-owned roadways. Either department is authorized to allow a third-party company to manage the leasing of the conduit to telecom companies, as long as the state can receive market-based pricing for the lease. The state’s DOT also coordinates with the Illinois Broadband Deployment Council to compile Dig Once best practices and draft ordinances for county and city agencies within the state.



CALIFORNIA

Law(s): Section 14051 of the Government Code

Date enacted: 2016

Description: California requires the state DOT to notify telecom companies of state-led highway construction projects through its website to enable companies to collaborate with the state on installing conduit in public rights-of-way during each project.

SECTION 4: CITY AND COUNTY LEGISLATIONS EXAMPLES

(SOURCE: <https://broadbandnow.com/report/dig-once-digital-divide/>)

LOMA LINDA, CA

Law: Ord. 629 §1

Date enacted: 2004

Description: The city of Loma Linda requires all new construction to connect to the city's existing fiber network through ordinances laid out in their Loma Linda Connected Community Program. Residential and commercial builders in Loma Linda are required to include broadband-capable internal wiring and fiber-optic interfaces in new structures. Loma Linda was one of the first communities in the US to adopt a comprehensive future-facing dig once construction policy, and one of the only ones to extend the ordinance to building wiring specifications.

BRENTWOOD, CA

Law: Ordinance No. 609

Date enacted: 1999

Description: Brentwood began implementing Dig Once policies 20 years ago. The city requires developers to design and install two advanced technology system conduits dedicated to the city within public rights-of-way during new construction and to each lot line within the development. It goes on to require developers to install a fiber optic system in one of the two conduits designed to serve the development by either the city itself or a licensed franchisee. The second conduit must remain empty and is reserved for future use by other franchisees. Over the last 20 years, the city now has 150 miles of conduit passing over 8,000 homes. ISP Sonic.net has relied heavily on the conduit to provide broadband service to residents.

SANDY, OR


Law: Development code 17.84.60

Description: The city of Sandy requires private developers to install conduit when disturbing existing roads or building new ones and offers maps of existing installations so that developers can be strategic in how they install conduit. The city has added broadband fiber to the list of municipal infrastructures (such as water, sewer, power lines and mailboxes) that all new developments must include.

BOSTON, MA

Date enacted: 1998; expansion in 1994

Description: Boston is possibly the very first city to implement a Dig Once policy, back in 1988. Initially, the city required all construction projects that involved excavators in a public right-of-way to install conduit and the city then leased that conduit to telecom companies through a one-time fee plus a \$5 per foot annual charge. However, the city found its offering wasn't attractive enough to telecom companies, who had begun building their own conduit along parallel streets. The city has since revised its laws to require telecom companies to lease space from the installed conduit before being allowed to install their own conduit, thereby encouraging companies to make use of what's already been installed. In 1994, Boston implemented a policy that required all telecom companies to install conduits in the same trench at the same time, on a shared-cost basis. This policy requires a lead company to



coordinate with other telecom entities in drafting engineering plans and estimating costs for the trenching and conduit installation.

BERKELEY, CA

Law: Ord. 7083-NS § 4 (part) Excavations for video and telecommunications systems

Date enacted: 2009

Description: Berkeley has implemented a suite of policies and procedures outlining best practices for telecom companies in order to minimize the inconveniences of installation, maintenance, and removal of telecom facilities in public rights-of-way. The city requires existing facilities be moved underground alongside new facilities when feasible, and that telecom companies coordinate construction projects with utilities installing infrastructure in public rights-of-way. Telecom companies must also alert the city to any excess or surplus conduit to be installed, and that new facilities be installed within existing facilities where there is sufficient excess capacity.

BELLEVUE, WA

Description: The city of Bellevue doesn't have a formal Dig Once policy in place, but the city has set Dig Once conditions within some of its development projects in the past. The city asks excavator projects include installing conduit along roads when feasible, as well as during street lighting and traffic signal upgrades. It also requires transportation projects that interrupt public sidewalks to include installed conduit.

GONZALES, CA

Law: "Dig Once" Policy for Public Works Projects in Gonzales

Date enacted: 2016

Description: Gonzales city government has implemented a Dig Once policy for public works projects that requires the city to install conduit during projects such as construction and maintenance of utility infrastructure or public roadways, or during excavations for installing communications, in public rights-of-way. The conduit is owned by the city.

ARLINGTON COUNTY, VA


Description: Arlington County does not have a specific Dig Once policy, but the county has reached "Dig Once" agreements with utility providers in the past. The county entered into one such agreement with electric utility Dominion Virginia Power. The utility needed to install underground conduit along a congested urban public right-of-way. The county required the utility to install fiber in parallel conduit for the county's use. The county is in the midst of installing a fiber network and is building extra capacity for use at a later date.

SAN FRANCISCO, CA

Law: Ordinance 220-14

Date enacted: 2014

Description: San Francisco laws requires any government-led construction project involving a public right-of-way to include improvements to communications infrastructure when feasible. It also requires a telecom company applying to install communications infrastructure to notify the city's Department of Technology so the department can participate in installing conduit at



the same time. The law encourages the department to participate to create a more efficient delivery of broadband services to the public and for the city's needs.

MONTEREY, CA

Law: MBEP/CCBC Shadow Conduit Specifications version 1.0

Date enacted: 2016

Description: The city of Monterey and the Central Coast Broadband Consortium (CCBC) have developed a set of conduit specifications and guidelines for reducing redundancy in installation. Its recommendations range from the conduit size and number of conduits to install, whether future conduit installation would be problematic or impossible, and whether any partners or customers will make immediate use of it. However, the specifications leave out guidance on when conduit installation is required and who should be required to install it.

SANTA CRUZ, CA

Law: Telecommunications Improvement Ordinance

Date enacted: 2014

Description: The city of Santa Cruz, also part of the Central Coast Broadband Consortium (CCBC), adopted the Santa Cruz county's ordinance in 2014, which in turn, was based on the city of San Francisco's Dig One policy. It requires that any entity proposing construction projects in public rights-of-way for utility improvements also install conduit or other telecommunications equipment when practical and feasible. City staff will work with contractors to identify the most cost-effective approach to installing conduit to meet the city requirements and will notify and coordinate with other telecom companies to join the project.

SAN BENITO COUNTY, CA

Law: Multi-use streets policy

Date enacted: 2015

Description: San Benito County, part of the CCBC, implemented a Dig Once practice as part of its multi-use streets policy. It requires county roadway construction projects to include installation of underground utility conduit. The county, which is part of a municipal broadband network, can then use the conduit to expand the network. The county may also utilize the CCBC's shadow conduit policy, which recommends trenching digging projects include a 60-day window so other telecom or utility providers who may be interested in installing conduit at the same time may be notified. The county encourages local jurisdictions to adopt similar policies.

CHICAGO, IL

Description: The City of Chicago has created a specific office that handles coordinating construction projects across agencies and companies to minimize disruptions to the public. The Project Coordination Office, within the city's DOT, was formed in 2012 at the direction of Mayor Rahm Emanuel to coordinate projects within public rights-of-way between different service providers and utilities. In 2013, the mayor expanded the scope of the office to include telecommunications. The office has helped the city save an estimated \$150 million in construction costs since 2012.

CELINA, TX

Law: Subdivision Ordinance; Division 4. Design Standards; Section 10.03.126: Improvements; Subsection 10.03.126(i)

Date enacted: 2017

Description: The city of Celina has adopted a conduit ordinance that requires any city-led or developer-led construction project that includes underground excavation to install conduit and fiber-optic cable at the same time to accommodate future telecommunications uses. Private developers must pay for the conduit installation, which then becomes the property of the city. The city also requires that telecom companies looking to install fiber make use of the city's fiber assets when available first and pay fees to the city for access to the infrastructure.

MOUNT VERNON, WA

Law: Municipal code 12.20.015 Construction standards for the regulation of use of public rights-of-way and public property.

Date enacted: 1999

Description: Mount Vernon requires private developers to install conduit when engaging in construction projects that either disturb existing roads or create new roads. The city maintains maps of conduit installations so developers can strategically place the conduit.

EL DORADO COUNTY, CA

Law: Broadband Infrastructure Installation Policy

Date enacted: 2018

Description: El Dorado County adopted a conduit installation requirement for capital improvement projects. The policy requires construction projects from the county's Department of Transportation, the Facilities Division and the Parks, Trails and Rivers Division to include installing conduit when digging trenches or excavating underground as part of the construction.

HUMBOLDT COUNTY, CA

Law: General Plan

Date enacted: 2017

Description: Humboldt county's 2017 updated general plan includes provisions to expand broadband access that include implementing Dig Once policies. The plan recommends that new residential and commercial development projects include requiring developers to install conduit within joint utility trenches for future telecommunications use. It also recommends flexibility in conduit placement requirements in order to allow for retrofitting of communications systems.

POULSBO, WA

Law: 12.02.010 Construction and development standards

Date enacted: 2003

Description: Poulsbo requires any new public street construction, by either the city or a private developer, to include the installation of conduit that can accommodate two telecom companies' fiber infrastructures. The law requires that the conduit be dedicated to the city upon completion and any telecom company looking to deploy infrastructure must first lease conduit space from the city if available.



SECTION 5: CONDUIT NETWORK SYSTEMS

A well-engineered plan will ensure the application can achieve benefits well in excess of the costs of the plan and the conduit network system deployment. Generally, the actual cost of the conduit network systems is only approximately three percent of the overall project costs. Conduit is widely used in most industries, accommodating simpler initial installations and providing a Dig Once permanent pathway.

It is common for cables to be buried in ducts to provide further protection, allowing for simple repair, and potentially providing upgrade paths. In some circumstances, ducts are only used for sections of deployment (e.g. under roads or rivers) where excavation would pose a difficulty, but increasingly ducts are being used for the entire route. This is possible because conduits can provide several benefits without a significant project cost impact.


Brief History of Conduit Network Systems

In the early to mid-1980s, tremendous growth occurred in the deployment of fiber optic cables, linking major metropolitan areas. Fiber optic cables were quickly becoming the technology of choice for streaming huge amounts of voice, video, and data. These cables were installed in very long lengths, up to 30,000 feet, with the goal of using as few splice points as possible to minimize signal attenuation. Because of the more fragile qualities of these long, thin strings of glass, individually no thicker than a strand of human hair, they needed more protection and different handling procedures than traditional jacketed metallic cables. There was an immediate need for a conduit system that offers improved installation efficiencies and cable protection.

Existing conduit network systems typically were 3.5 inches to 6 inches in diameter to accommodate the very large diameter of copper cables that filled the duct banks. As copper cables were being replaced with fiber optic cables, which are much smaller in diameter, smaller high-density polyethylene (HDPE) conduits ranging from 1 inch to 1.25 inches were pulled into the vacated conduit creating multiple pathways to be used for initial and future fiber optic cable placement and for redundancies if a cable got damaged.

This new method of deployment using MicroDucts in existing pathways was called “innerducts” and is still used today. Additionally, now conduit suppliers offer bundled MicroDucts under one oversheath for ease of placement and to maximize fiber count in limited underground and aerial spaces. Multiple variations of standard HDPE conduit and bundled HDPE MicroDucts are available. The installation methods and tools are the same for both.

In addition to traditional trenching, over the years newer installation methods also evolved to minimize the above and below ground surface damage, restoration requirements, and disruption to traffic: plowing, horizontal directional drilling (HDD), and MicroTrenching.



In 1999, new technology was introduced to help solve the issue of overcrowded right-of-ways. Using the same installation methods and tools as traditional HDPE standard conduit, bundled MicroDucts under one oversheath maximized the fiber count in the same space. As technology advances, fiber optic cables are higher capacity in a smaller size, called MicroCables, and conduits are following in size, called MicroDucts. Multiple configurations allow for easy connection to existing networks and efficient transition to current technology.

All conduit is not created equal, and the type of conduit can determine which type of fiber cable you need. Conduit has an inner diameter (ID) and an outer diameter (OD); the standard is to refer to the outer diameter when describing the conduit. A common engineering practice is to not fill each conduit subduct more than about 65 percent full of fiber cables. This space is necessary to air-jet, or pull, the fiber through the conduit without damaging the fiber.

As fiber technology continues to evolve, the fiber cable diameter will continue to get smaller. Microfiber cables can fit many strands of fiber in small diameter conduit. MicroTechnology continues to improve. For decades, conduit has been the preferred manner of installing fiber cable underground and now even in aerial applications.

Installation Advantages

It is easier to install, as it can be put in section-by-section between access points, with the fiber cable later air-assisted and pushed or pulled in as a continuous run.

It is also easier to handle unexpected changes in the route, such as having to go around an obstacle, as compared to directly placing fiber cable.

The continuous run of fiber cable can help reduce the cost of splice points and improve the fiber loss budget and performance for the total system.

The conduit itself can be locatable, which allows the fiber cable to be constructed with only non-conductive dielectric materials which can allow easier access to the fibers.

Protection of the Fiber

The conduit provides mechanical protection of the fiber cable, both during installation of the fiber cable and over the entire life of the fiber cable.

Typically, direct buried fiber cables require additional design enhancements to withstand environmental conditions, whereas the conduit can provide that environmental, tensile and crush protection itself. This enables the fiber density to increase significantly for a given outer diameter cable.



Permanent Pathways

Conduit provides for an always-present pathway for upgrades and changes whenever needed. For example:

1. Remove and change out a fiber cable that is damaged
2. Swap out with improved technology
3. Use the additional empty conduits for increasing capacity
4. Re-route the conduit pathway if there is a change in route

The Dig Once legislation stresses the importance of burying conduit once, with the possibility to add new cables, upgrade existing ones, and increasing capacity. By planning for the future by installing extra permanent pathways, the networks are able to adapt to changes more quickly.

Communication Needs

Communication needs could be for telecommunications, cameras, data transfer, security and many others.

Revenue Opportunity

There is a financial opportunity that network and right-of-way owners are realizing and planning whereby empty pathways can be used, to grant access to difficult right-of-ways or be leased to carriers.

By installing multiple MicroDucts, take full advantage of the new high-density MicroCables that fiber cable providers are shrinking and improving year over year.

It is important to realize that there are different types of conduits suited for different purposes:

- In a more traditional system, 1, 2, or 3 standard conduits could be installed together. However, the outside diameter of these conventional ducts is often quite large compared to the smaller outer diameter of MicroDucts now available. While these large dimensions, perhaps 1.5 inches or 2 inches in diameter, are still used in the industry, they were developed at a time when fiber cables were of much larger diameter with lower fiber density. Since typically only one cable is placed per duct, they actually limit the number of fiber cables that can be placed in a right-of-way.
- Smaller diameter MicroDucts are designed to take advantage of the advances the higher fiber density MicroCables that have much smaller outer diameter. Amazingly, there are 288 and 432 fiber cable diameters on the market on the order of 8 to 10mm, so by sizing the MicroDucts for better space utilization, you can achieve much greater overall fiber density in any right-of-way space.



SECTION 6: ADDED VALUE OF FIBER OPTIC SENSING OPPORTUNITIES

Distributed Acoustic Sensing in Conduit

Optical fiber sensing (FOS) interrogator companies have been installing commercial sensing system in conduit of many years. Information from several market leading companies has indicated that as approximately 50 percent of sensing systems are comprised of fiber cables installed within conduit pathways. The reasons for doing this included conduit pathways provide tremendous added protection, easier installation, flexibility for changes, repairs, and technology upgrades, as well as added capacity for additional use and monetization. When it comes to distributed acoustic sensing, however, an additional reason is that commercially sensitive systems work extremely well in conduit. FOS use is increasing in many vertical markets, with new applications and use cases growing with experience. The following presents an overview of common applications and finding relative to sensing using the advantages of conduit.

Predominant Vertical Markets

- The Security and Asset Integrity Market
- The Pipeline Market
- Emerging Smart City applications

Monitor Assets

- Manual excavation (perimeter security)
- People walking
- Traffic flow
- Leak prevention (oil and gas line)

Research Shows

- Standard telecom-grade fiber is well suited for DAS installations
- Cable design specifically engineered for FOS purposes does impact DAS performance
- For current commercial quality Fiber Optic Sensing systems, there is a negligible difference between performance of a cable in a duct and a cable not in a duct. The protection and advantage the conduit offers far outweighs any difference in signal sensitivity in most all commercial cases.
- The cable to conduit fill-ratio should be considered when selecting a conduit and cable mix, in that an overly large conduit with too much air gap may impact performance. The conduit can be sized for both easily installation through jetting or pulling into the conduit, with sensing consideration also accommodated.
- Typical cable Installed in conduit: Gel-filled, loose tube, unarmored



About Dura-Line

At Dura-Line we aspire to a more connected world, because we believe every company, every community, every person deserves the chance to advance their lives through better access to high-speed broadband. Strengthening our fiber optic network and conduit system infrastructure is critical to supporting the next wave of digitization. And, Dura-Line is at the forefront of the industry creating strategic solutions that solve the issue of the unpredictable needs of tomorrow's fiber cable requirements.

As a TL 9000 and ISO 9001 rated manufacturer, Dura-Line takes pride in our state-of-the-art quality products and being recognized a key partner with all of the major telecommunications companies across the world. In one year, Dura-Line produced over 1.4 billion feet of digital network infrastructure. Through our innovative product solutions and unparalleled customer insight, we are the ones who enable the physical build-out of this new technology realm that impacts education, healthcare, agriculture, energy, transportation, industry, and more.

SILICORE™

Several advanced manufacturing techniques set Dura-line apart as an industry-leader, including low friction SILICORE™ permanently lubricated lining. SILICORE™ is proven to reduce installation time, thus reducing installation costs.

Advantages of Dura-Line's FuturePath (multi-bundled MicroDuct conduit)

Dura-Line manufactures FuturePath, which are smaller MicroDucts are packaged together under one sheath. There are combinations of FuturePath all the way from 2-MicroDucts, under a single sheath to 24-MicroDucts under a single sheath. Other configurations have mixed sizes of MicroDucts and standard conduit to accommodate both smaller and larger diameter cables.

Dura-Line's FuturePath HDPE Product Line is Sustainable

- Supports Dig Once initiatives
- Saves space in overcrowded right-of-ways
- Requires fewer and smaller handholes
- Reduces manpower and machine power for installation
- Reduces fuel consumption, gas emissions, and lower material handling requirements
- Lessens soil displacement Environmental Benefits of HDPE
- Non-leaching
- Flexible, non-rusting materials minimizes leaks common in corroded steel pathways
- Resin and pipe have a superior resistance to failure, corrosion, tuberculation, deposits, and rapid crack propagation (RCP)
- Modern manufacturing methods allow for hundreds, or even thousands, of feet of continuous extrusion, which results in fewer joints
- High performance in extreme temperatures, which greatly reduces compromised pathways Reduced transportation, handling, and installation due to quick installation with less heavy machinery which reduces fuel and labor usage as well as ground disturbance when compared with installation of steel counterparts

- Joints typically use a mechanical coupler, rather than a glue-based solvent which gives off noxious fumes
- Fewer and smaller handholes required
- Low lifecycle costs
- Useful life of HDPE is estimated at 50+ years
- Studies have shown that HDPE can withstand scratching and gouging up to 10-20 percent with no detrimental effects to the long-term performance of the pipe
- Versatility of design allows for multiple applications in several industries



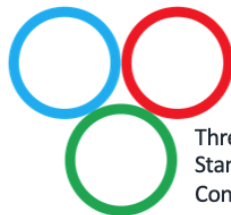
Standard Conduit with a single fiber cable



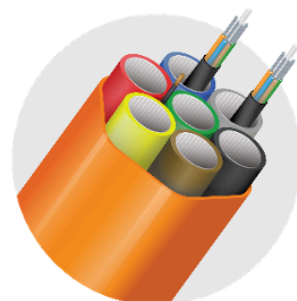
Single Standard Conduit



Two Standard Conduit



Three Standard Conduit



MicroDucts or FuturePath with high-density fiber cables



2 Way



3 Way



3 Way



4 Way



7 Way

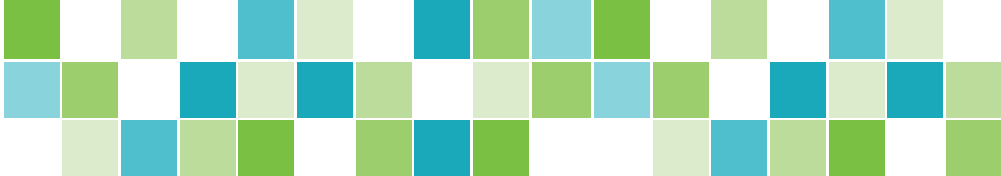


8 Way



Appendix F: Outreach Collateral

Collateral created and distributed as part of the local broadband planning outreach is included within this appendix.



SHARE YOUR INTERNET SPEEDS

Ogden City, in conjunction with the Utah Broadband Center, is asking you to report your internet speeds by taking the 60-second Utah Internet Speed Test at **speedtest.utah.gov**. Your test results will help identify gaps in high-speed internet service and areas in need of broadband infrastructure expansion. Every test taken gets us closer to our goal of at least 3,248 speed tests completed in Ogden City and guides us towards a fully connected city.

Your internet speeds can vary during the day based on a variety of factors, so **please take the speed test** multiple times where you work, live, or anywhere you connect to the internet.

No internet at all? Give us a call at **435-264-8880** or email at connectingutah@utah.gov.

Visit connectingutah.com/ogdencity to learn more about internet expansion in your community.





TELL US ABOUT YOUR INTERNET CONNECTIVITY IN OGDEN CITY

Access to high-speed internet is no longer a luxury, but an essential utility to connect Utahns to work, education, health care, and commerce. Did you know that more than 1,983 Ogden City households do not have access to the internet? Ogden City has received funds, made available through the Utah Broadband Center, to develop broadband infrastructure and digital access plans to expand high-speed internet access, availability, and affordability to all community members, and we need your help!

WE NEED YOUR INPUT

Please complete the following survey and speed test so your input can be reflected in Ogden City's broadband plans.

1. INTERNET SURVEY

Tell us about your internet service. Is it too slow, expensive, or even non-existent? This survey will help us know what the internet looks like for you right now and guide us in closing the gap between those with and without access to the digital world.



connectingutah.com/ogdencity

2. UTAH INTERNET SPEED TEST

Share your internet speed with us by completing a 60-second test. Don't just take the test once! We need you to take the test multiple times: at home or where you work, during lunch, or at the end of the day. All these factors impact internet speeds.



speedtest.utah.gov

DO YOU QUALIFY FOR THE AFFORDABLE CONNECTIVITY PROGRAM?

If you or someone in your household participates in any of the following programs, you automatically qualify for \$30 off your monthly internet bill or up to \$100 off a connected device.

- Free/Reduced School Lunch
- SNAP
- Medicaid
- Lifeline
- Federal Public Housing Assistance
- Federal Pell Grant
- WIC

For more information go to:
aqp.utah.gov

CONTACT INFORMATION

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CUÉNTENOS SOBRE SU CONECTIVIDAD DEL INTERNET EN LA CIUDAD DE OGDEN

El acceso a internet de alta velocidad ya no es un lujo, sino una utilidad esencial para conectar a los residentes de Utah con el trabajo, la educación, la atención médica, y el comercio. ¿Sabía que más de 1,983 hogares de la ciudad de Ogden no tienen acceso al internet? ¡La ciudad de Ogden ha recibido fondos, disponibles a través del Utah Broadband Center, para desarrollar una infraestructura de banda ancha y planes de acceso digital para expandir el acceso a internet de alta velocidad, la disponibilidad y la asequibilidad para todos los miembros de la comunidad, y necesitamos su ayuda!

NECESITAMOS SU CONTRIBUCIÓN

Por favor finalice la siguiente encuesta y prueba de velocidad para que su opinión se refleje en los planes de banda ancha de la ciudad de Ogden.

1. ENCUESTA DEL INTERNET

Cuéntenos sobre su servicio de internet. ¿Es demasiado lento, caro, o incluso inexistente? Esta encuesta nos ayudará a saber cómo es el internet para usted en este momento y nos guiará para cerrar el hueco entre quienes tienen y quienes no tienen acceso al mundo digital.



connectingutah.com/ogdencity

2. PRUEBA DE VELOCIDAD DE INTERNET EN UTAH

Comparta su velocidad de internet con nosotros completando una prueba de 60 segundos. ¡No haga la prueba solo una vez! Necesitamos que tome la prueba varias veces: en su casa o en su trabajo, durante el almuerzo o al final del día. Todos estos factores afectan las velocidades de internet.



speedtest.utah.gov

¿CALIFICA PARA EL PROGRAMA DE CONECTIVIDAD ASEQUIBLE?

Si usted o alguien en su hogar participa en cualquiera de los siguientes programas, automáticamente califica para \$30 de descuento en su factura mensual de internet o hasta \$100 de descuento en un dispositivo conectado.

- | | |
|--|--|
| <ul style="list-style-type: none"> • Almuerzo Escolar Gratis/ Reducido • Estampillas de comida • Medicaid | <ul style="list-style-type: none"> • Lifeline • Asistencia Federal de Vivienda Pública • Beca Federal Pell • WIC |
|--|--|

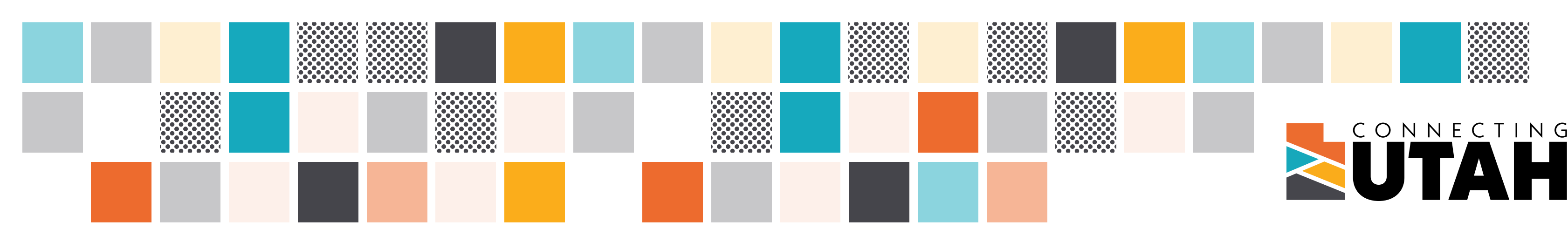
Para más información vaya a acp.utah.gov

INFORMACIÓN DE CONTACTO

LÍNEA DIRECTA: 435-264-8880

CORREO ELECTRÓNICO: connectingutah@utah.gov

SITIO WEB: connectingutah.com/ogdencity



OGDEN CITY INTERNET CONNECTIVITY

DID YOU KNOW?

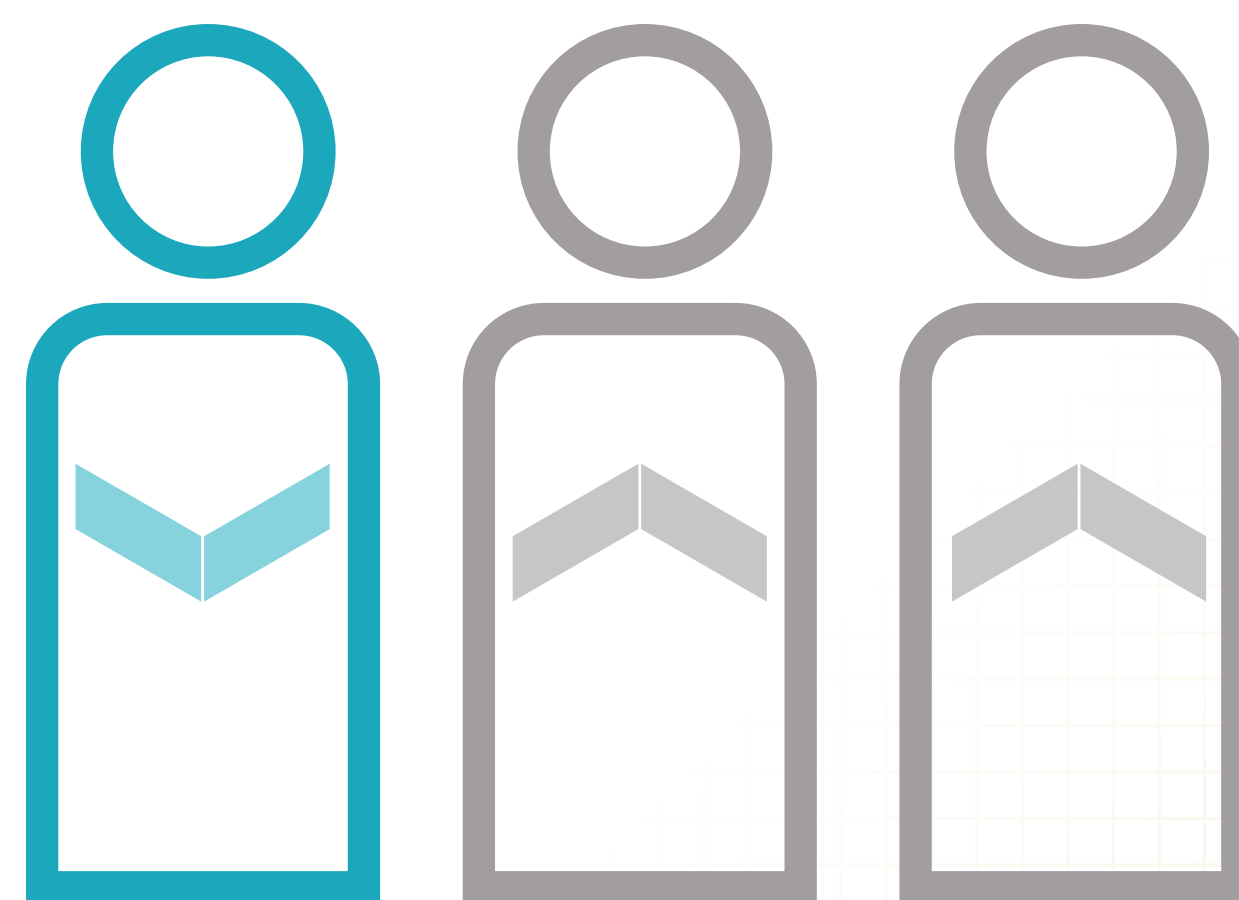
- **1,983** Ogden City households do not have internet connectivity for a variety of reasons.



- About **1,891** households do not have a connected device at home such as a computer, smartphone or tablet.



- **One in three** employed workers lack foundational digital skills.



Scan the QR code to take the Ogden City High-Speed Internet Survey



OGDEN CITY OUTREACH PACKAGE

FLYERS AND OTHER REFERENCE MATERIALS

- [Ogden City Overview Flyer](#)
- [Ogden City Speed Test Utility Insert](#)

GRAPHICS

- Social Media Survey Graphics
 - [Facebook](#)
 - [Instagram](#)
 - [Twitter](#)

SOCIAL MEDIA SAMPLE POSTS

Shareable Social Media Post #1

Channel Suggestion: Facebook or Instagram

Visual: [Facebook Survey Graphic](#) or [Instagram Survey Graphic](#)

Copy: Access to high-speed, reliable, and affordable internet is becoming more essential to our daily lives than ever. Ogden City is developing broadband plans to expand high-speed internet availability, accessibility, and affordability throughout our community. Tell us about your connectivity by completing the survey by Wednesday, May 10. We need to hear from you! Survey: connectingutah.com/ogdencity

Shareable Social Media Post #2:

Channel Suggestion: Twitter

Visual: [Twitter Survey Graphic](#)

Copy: Is internet connectivity in your area great, slow, nonexistent, or too expensive? Take this quick online survey by Wednesday, May 10, so your input can be reflected in Ogden City’s plan to expand high-speed internet availability, access, and affordability in your area! Survey: connectingutah.com/ogdencity

WEBSITE/NEWSLETTER CONTENT

Headline: Help Expand High-Speed Internet Access in Ogden City

Copy:

You can help shape the future of high-speed internet in Ogden City. Is your internet service too slow, expensive, or nonexistent? Your input is needed! Here’s how you can help get all of Ogden City online:

- Take the 60-second Utah Internet Speed test at speedtest.utah.gov. Information gathered from the tests will identify gaps in high-speed internet service and areas in need of broadband

infrastructure and digital access expansion. *Your internet speeds can vary during the day based on a variety of factors, so please take the speed test multiple times where you work, live, or anywhere you connect to the internet.*

- Share your story by taking the High-Speed Internet Survey at connectingutah.com/ogdencity.
- Encourage your family, friends, neighbors, and colleagues to take the speed test and survey. **The more you help spread the word, the greater impact it will have on the future of high-speed internet here in Ogden.**

If you don't have internet, we still need to hear from you. Please share your input by calling 435-264-8880.

Ogden City is developing broadband plans to expand high-speed internet availability, access, and affordability. Ogden City needs your help to identify gaps in internet connectivity and plan for a future where every resident, business, and student has the tools and knowledge to access the digital world. **Please complete the survey and speed test by Wednesday, May 10, so your input can be reflected in the City's plans.**

To learn more about the digital connectivity plan, visit connectingutah.com/ogdencity. For questions, contact the project team at 435-264-8880 or connectingutah@utah.gov.

There is also funding available now through the Affordable Connectivity Program (ACP) to help those who qualify access high-speed internet. This program provides eligible households \$30 off their monthly internet bill and up to \$100 towards a connected device Visit acp.utah.gov for more information.

Additional Connecting Utah Flyers

The following materials have been created and distributed to inform the Utah Broadband Center's statewide Digital Connectivity Plan. Ogden City may utilize and adapt these materials to fit any outreach or planning need.

- English
 - [Utah Internet Speed Test General Public Poster \(UBC\)](#)
 - [Utah Internet Speed Test General Public Flyer \(UBC\)](#)
 - [Utah Internet Speed Test Bookmark \(UBC\)](#)
 - [Affordable Connectivity Program Flyer \(FCC\)](#)
- Spanish
 - [Utah Internet Speed Test General Public Flyer \(UBC\)](#)
 - [Utah Internet Speed Test Bookmark \(UBC\)](#)
 - [Affordable Connectivity Program Flyer \(FCC\)](#)