1. PROJECT DESCRIPTION AND TIMELINE / PART 1:

The nature of the improvements

Zona Wyyerd and the City of Surprise are seeking to advance broadband capacity in two uniquely underserved one-square mile areas of the Surprise community: **Surprise City Center** and **Surprise Heritage District** (Opportunity Zone). As the City of Surprise accommodates rapid citywide residential and commercial growth as a direct result of the COVID-19 pandemic, these two key areas of the city are most immediately at-risk without strategic community involvement. Surprise-based Zona Wyyerd has proposed to install approximately 40 miles of fiber to create broadband capacity in two much-needed areas in the City of Surprise at this critical time.

How the proposed project addresses the broadband needs of the area(s) it serves

The Surprise City Center and Surprise Heritage District are two distinct and uniquely underserved geographic areas; one representing the hopes of a future downtown, the other representing the community's historic roots. Although the reasons vary, the two areas share a common need for intentional community support and investment. Left to market conditions alone, the last 18 months have demonstrated that even during a period of unprecedented, record-breaking economic success and job growth in Arizona, neither site will realize its full economic potential without proactive advocacy for dedicated infrastructure investments.

Surprise City Center: Broadband capacity at Surprise City Center is needed to capture future economic opportunities for the future downtown, expected to host more than 4,000 residents by 2030 and currently welcoming more than 200,000 annual visitors. Surprise City Center is a square-mile area most known for the Surprise City Hall, Recreation and Spring Training campus as well as the Ottawa University residential campus. This is an area promoted as the community's future downtown. Despite significant investment in quality of life amenities by the City of Surprise over the last two decades, more than 400 acres of privately owned land at Surprise City Center has been slow to realize an equitable amount of private sector investment compared to other Surprise retail and employment corridors. The area remains a high priority focus of the Surprise City Council and its Strategic Plan (Strategy 2.6): https://www.surpriseaz.gov/DocumentCenter/View/19037/City-Council-Strategic-Plan.

Surprise Heritage District: The Surprise Heritage District, in contrast, is a designated Opportunity Zone and is the city's "Original Town Site," located just one mile east of Surprise City Center. The area represents an underserved low-income population with significant economic barriers to internet services, although the city offers robust services in the area, including our small business innovation hub, the AZ TechCelerator, the Surprise Senior Center, the Hollyhock Library and Community Pool, and the Surprise Resource Center. The Surprise Resource Center in the Heritage District has more than 20 non-profit and community partners that serve some of the most vulnerable in our community. Many services are now virtual due to the pandemic, which has been an issue for some households needing access to services while working from home and helping their children connect to school. Additionally, the Heritage District is in a U.S. Department of Housing 'qualified census tract' (Tract 608.01 2021 and 2022 Small DDAs and QCTs | HUD USER). The City of Surprise 2020-2024 Consolidated Plan has identified the need for greater broadband in our community, especially in the Surprise Heritage District, where over 31% of households have no broadband internet subscription. (Pg. 50-53) https://www.surpriseaz.gov/DocumentCenter/View/46945/Consolidated-Plan-2020-2024.

Number of community anchor institutions served

The City of Surprise has qualified a total of 17 anchor institutions in the two areas. They have an important presence and a connection to places we propose for infrastructure investment because of their mission, histories, physical assets and/or local relationships.

Surprise City Center Anchor Institutions (6):

1. Surprise City Hall / Police and Fire / Surprise Channel 11 Media Center
2. West Valley Arts HQ
3. Ottawa University Arizona
4. Maricopa County Northwest Regional Library, Veteran's Reflection Circle and Surprise Lake
5. Surprise Tennis and Racquet Complex
6. Spring Training Campus; inclusive of player housing for the KC Royals and Texas Rangers

Surprise Heritage District Anchor Institutions (11):

1. The AZ TechCelerator / business innovation hub: City of Surprise Resource Center, To My Surprise Shuttle Service, Luke Air Force Base West Valley Career Readiness Center, Arizona@Work.
2. Surprise Fire Station 301
3. City of Surprise Services Hub: Surprise Senior Center, Hollyhock Community Pool, Villanueva Community Center, Hollyhock Library / Floyd Gaines Park
4. Bicentennial Park
5. Arizona Charter Academy (Charter School)
6. Rio Salado Lifelong Learning Center
7. Benevilla and Surprise Community Garden at Benevilla
8. St. Mary's Food Bank
9. Desert Mirage Medical Center
10. Maricopa County Sherriff's Office
11. Arizona Department of Transportation

Number of households served

Today the two City of Surprise areas proposed for broadband advancement have almost 1,500 households; 120 at Surprise City Center, and 1,366 in the Surprise Heritage District. By 2024, we estimate approximately 1,616 households in these two areas combined. By 2030 – with 1,700 households at Surprise City Center – a total of 3,066 households are estimated in the two areas.

HOUSEHOLDS SERVED: CURRENT / 2022

Residential / City Center (not including Ottawa, KC/TX Player Housing)	120
Households / Surprise Heritage District	1,366
TOTAL HOUSEHOLDS SERVED / 2022	**1,486**

HOUSEHOLDS SERVED 24 MONTHS AFTER PROJECT / BY 2024

Residential / City Center (not including Ottawa, KC/TX Player Housing)	250
Residential / Surprise Heritage District	1,366
TOTAL HOUSEHOLDS SERVED / 2024	**1,616**

HOUSEHOLDS SERVED: EST. 2030

Residential / City Center (not including Ottawa, KC/TX Player Housing)	1,700
Residential / Surprise Heritage District	1,366
TOTAL POPULATION SERVED / 2030	**3,066**

Total population served

Today (2022), the two City of Surprise areas combined serve a total of 180 business licenses, 5,690 residents, and a visitor/tourism population of 200,000 specifically at Surprise City Center.

POPULATIONS SERVED: CURRENT / 2022

Surprise City Center Area Annual Visitors	320,000
Ottawa University / Surprise City Center	300 in onsite dorms / 900 total enrolled
Spring Training Player Housing / City Center	150
Residential / Surprise City Center	150
Residential / Surprise Heritage District	5,090
TOTAL POPULATION SERVED / 2022	**325,690** (5,690 residential / 320,000 visitor)

POPULATIONS SERVED 24 MONTHS AFTER PROJECT / BY 2024

Surprise City Center Area Annual Visitors	350,000
Ottawa University / Surprise City Center	600 onsite in dorms / 1,200 total est. enrolled
Spring Training Player Housing / City Center	300
Residential / Surprise City Center	500
Residential / Surprise Heritage District	5,090
TOTAL POPULATION SERVED / 2024	**356,490** (6,450 residential / 350,000 visitor)

POPULATIONS SERVED: 2030

Surprise City Center Area Annual Visitors	450,000
Ottawa University / Surprise City Center	1,000 onsite in dorms / 3,000 total est. enrolled
Spring Training Player Housing / City Center	300
Residential / Surprise City Center	4,000
Residential / Surprise Heritage District	5,090
TOTAL POPULATION SERVED / 2030	**460,390** (10,390 residential / 450,000 visitor)

The anticipated economic development benefit achieved by construction of such improvements

Both proposed targeted areas in the City of Surprise – if improved – will facilitate tremendous economic development benefits.

The Surprise Heritage District population will have the opportunity to increase both the quality and quality of household connections to the internet, as currently 31% in this area have no access. This will directly contribute to the Surprise Economic Development Department's goals of increasing quality of life and promoting workforce development opportunities in the years ahead. It is more important than ever that the City of Surprise facilitate the delivery of coordinated training, certification and job placement for our local workforce with our local education partners at the Dysart Unified School District, West-MEC and Ottawa University. This focus is of utmost importance in the low-income Census tract within the Surprise Heritage District. Post-2020, is critical to have the ability to deliver workforce services to the residents through reliable, stable internet connection, and there is also no better time to prime our most vulnerable population for new workforce skills and remote worker opportunities.

The year ahead will also be a critical one for the Surprise City Center's success. It has almost been two years since the onset of the COVID-19 pandemic caused a major entertainment-anchored retail development at the southeast corner of Bell Road and Bullard Avenue to cancel their plans. Creating additional broadband capacity will help the Surprise Economic Development Department to market the site competitively to reengage interest from signature retail projects, it will also facilitate interest from

small businesses, suburban office and healthcare development projects that may need additional broadband capacity - and also desire to co-locate next to Ottawa University's growing talent pool.

Total miles of fiber to be installed
Zona Wyyerd in the City of Surprise proposes an aggregate length of 40.35 miles of fiber for installation over the two distinct square-mile areas.

Location of new fiber
The City of Surprise requires all new utilities, including broadband improvements, to be undergrounded. The majority of the process will be boring and the use of trenching will be used in areas where allowed for efficiency purposes.

Stated commitment to operate and maintain the network for a minimum of five (5) years upon completion of the improvements
Zona Wyyerd is committed to operating and maintaining the network for a minimum of five (5) years upon completion of improvements.

The party or parties that will perform the infrastructure construction (if known)
Zona Wyyerd will lead the infrastructure implementation process with the use of vendors and/or contractors, which will have appropriate licenses, be in good standing with local and state governments and have a proven track record of delivering quality construction on time. Zona Wyyerd's policy for the RFP process is with at least 5 vendors returning 3 bids.

The intended uses of the ABDG Urban fund in respect to the construction or planning
The total amount of ABDG Urban funds requested for the Zona Wyyerd-City of Surprise project is [redacted]; this is the total, [redacted]. The intended use of the proposed ABDG Urban fund will be primarily the labor and materials needed to implement broadband capacity in the two square-miles designated market areas in Surprise. [redacted] will be budgeted for labor, and [redacted] has been budgeted for materials; this is a project total of [redacted].

More specifically, the Zona Wyyerd fiber-to-the-premise network in the Surprise Heritage District will allow residents to have technology to meet their everyday needs and beyond. The current infrastructure in the Heritage District is old and unreliable. The new construction will be underground and will offer residents affordable plans with high quality internet with a minimum of 100mbps up and a flat rate of [redacted] taxes, fees, a U6 state of the art router and managed Wi-Fi plan and never any data caps or promo gimmick pricing or contracts. Currently, the city of Surprise essential services buildings do not have up-to-date phone or internet services because of the decades-old infrastructure.

At Surprise City Center, Zona Wyyerd's fiber network will create a Smart City attraction that will help bring tourism, healthcare, high-density housing and an educated workforce into the city of Surprise. The work-live atmosphere will match large cities around the country. Residents and workers will be able to utilize this new technology to always stay connected as they walk to work, walk to a ball game, or pay their bills at City Hall. The goal is to give residents up to 2+ gigs right to their home and give the businesses up to 10 gigs or more, which will attract technology companies and bring thousands of jobs to the city and the state. The new technology will allow for a redundant network so city services can use the network. The MLB stadium and tennis complex will now be able to offer Wi-Fi throughout the

venues for COVID-related health plan mitigation, including ticketless entry and order-by-phone-to-your-seat vending.

A timeline for completion of the infrastructure improvements
Zona Wyyerd anticipates the ability to meet the 24-month timeline required to fully implement all broadband improvements proposed in the targeted areas of the City of Surprise. A Gantt chart timeline has been included in this application and narrative.

Cash "match" contribution description:
An Economic Development matching fund commitment [redacted] has been pledged in the form of a letter of intent from the Surprise City Manager Bob Wingenroth and is included in the proposal materials.

- Timing: Upon notification of intent to award the grant, the Surprise Economic Development has prepared a resolution for the approval of the Surprise City Council, which should not take more than 2-3 weeks to agenize and receive City Council approval, once notified.
- Intended uses: Both parties, Zona Wyyerd and the City of Surprise, agree that if awarded the parties intend for Zona Wyyerd to be the primary administrator of the grant award for the purpose of minimizing delays in reimbursement to them for qualified costs incurred in the course of project implementation. The Surprise Economic Development Department will utilize our matching fund in two ways to support the implementation of Zona Wyyerd: (1) to mitigate any city impact fees, and (2) to support costs that will directly help Zona Wyyerd meet the time-to-market goals required in the grant requirements.
- The nature of the commitment: The match fund has been committed via Letter of Intent, however the Surprise Economic Development Department has a dedicated annual $1 million Economic Development Contingency Fund that the Surprise City Council established more than 10 years ago to support economic development initiatives like this one. The City of Surprise is prepared to move forward with a match, pending a successful award notification.

2. PROJECT DESCRIPTION AND TIMELINE / PART 2 (TECHNICAL NARRATIVE):

[redacted]

The nature and scope of the project
Surprise-based Zona Wyyerd proposes to install approximately 40 miles of fiber to create broadband capacity in two much-needed areas in the City of Surprise at this critical time. As the City of Surprise accommodates rapid citywide residential and commercial growth as a direct result of the COVID-19 pandemic, these two key areas of the city are most immediately at-risk without strategic community involvement:

1. **Surprise Heritage District (aka, the Surprise Original Townsite; Opportunity Zone)** - Currently, this square mile opportunity zone in Surprise has an extremely outdated copper network that will not allow the residents, businesses and essential city services to operate proper internet for work, school and emergency services. The Zona Wyyerd fiber-to-the-premise network will allow residents to have technology to meet their everyday needs and beyond. The current infrastructure is old and unreliable. The new construction will be underground and will offer residents affordable plans with high quality internet with a minimum of 100mbps up and down at a flat rate of [redacted] including taxes, fees a U6 state of the art router and managed WIFI plan and never any data caps or promo gimmick pricing or contracts. Currently, the city of Surprise essential services buildings do not have up to date phone or internet services because of the decades-old infrastructure. The fiber-to-the-premise improvements will update the infrastructure to arm the city with the latest and best technology available to better serve at-risk residents.
2. **Surprise City Center** - Zona Wyyerd's fiber network will create a "smart city" attraction that will help bring tourism, healthcare, high density housing and an educated workforce into the city of Surprise. The work-live atmosphere will match large cities around the country. Residents and workers will be able to utilize this new technology to stay connected. The goal is to give residents up to 2+ gigs right to their home and give the businesses up to 10 gigs or more, which will attract technology companies and bring thousands of jobs to the city and the state. The new technology will allow for alternate solutions for city services. The baseball and tennis stadium will now be able to offer WIFI throughout the venue for COVID related health plan mitigation including ticketless entry, order-by-phone to your seat vending.

Type of technology to be utilized

The type of technology proposed for utilization in Surprise City Center and Surprise Heritage District include:

- Fiber-to-the-premise up to 2+ gigs residential
- Micro fiber used underground
- Deliver symmetrical speeds
- XGS-PON - differentiators - Scalable to launch up to 10 gig
- Ubiquiti wireless system set up for walkable community and tourism for wireless capabilities
- Additional APs would be needed to extend coverage beyond the three gates
- Consumes less power, an eco-friendly solution
- Low latency

Type of construction to be undertaken (aerial or underground)

The construction will be underground. The majority of the process will be boring. The use of trenching will be used in areas where allowed for efficiency purposes.

Qualifications of the vendors/contractors

All vendors/contractors must have the appropriate licenses to operate in the city and state. They must be in good standing with the local and state municipalities. They must have a proven track record of delivering quality construction on time. Zona Wyyerd's policy for the RFP process with at least 5 vendors with at least 3 returning bids

Engineering analysis

The engineering will consist of an underground running line of approximately 109,519 feet with one water collection canal crossing. Existing plant in the area is primarily aerial, but due to age and future beautification, will not be used. Also, by installing an underground path, all equipment is kept out of the elements, and we create a more secure and resilient network. The underground path will be engineered for five micro ducts in all paths, and all structures will be at grade level. The fiber cable in these paths will vary from 48 to 144, depending on the requirements of the neighborhood.

Project approach

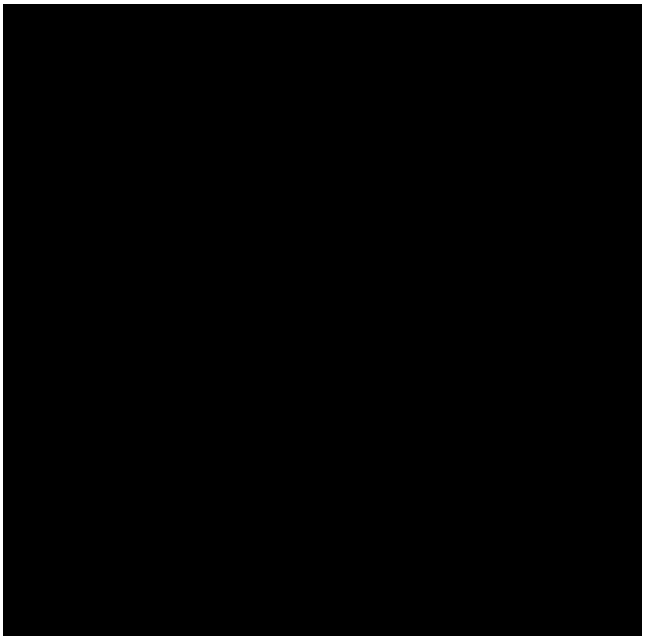
This project entails the installation and deployment of the latest generation of a network redundant fiber optic internet to the home. The process will require constructing underground fiber optic lines in the right away easement the city has for public utilities. Each home will have their own independent fiber optic feed from the main backbone, which will be in the PUE ROW.

Background of the project

The City of Surprise has defined two areas underserved with internet services and technology. Here is the analysis on current fiber internet:

Surprise Heritage District:

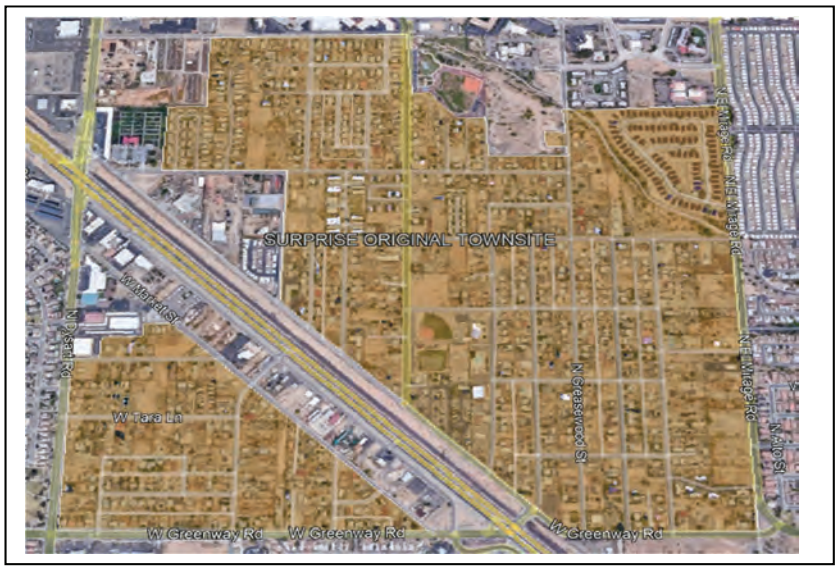
1. The only fiber to the Surprise Heritage District is the community center area (in green).



2. Currently wired incumbents Cox and CTL. Wireless Triad:
   - COX- Aver. Speed non-Symmetrical- 940 X 35
   - CTL- Aver. Speed non-Symmetrical- 100 X 10
   - Triad- Aver. Speed non-Symmetrical- 300 X 50

3. Current wired services are delivered primarily via telephone poles. This solution is consistently susceptible to weather and impacts services to residents.

4. Zona Wyyerd wired solution of below ground installation:
   - Guarantees 100-year-plus architecture that grows with community
   - Improves reliability.
   - Significantly reduces impact from weather.
   - Is aesthetically pleasing as 90% is buried or at surface.
   - 100% Symmetrical with speeds up to 2 Gig.



Surprise City Center:

[redacted]

The only fiber provider to the MLB Fields and to the main City Center area; the outlying open area does not have fiber.

- The map shows there is only 20 down / 1.5 up.
- The baseball stadium will need to be fully wireless operationally to fulfill the city's infrastructure masterplan and help with COVID and other health and safety protocols.
- The wireless solution and increased speed and redundancy will also help draw more tourism as NCAA and MLB now that protocols can be met with fiber demand.

Internet coverage:

[redacted]

The City Center has 2 different carriers, but they only have copper / coax available.

There is no redundancy in the area. Zona Wyyerd's build will allow a provider to come in with fiber and redundancy that will help offer an even more secure network for the city.

Population to be served
Currently, the two City of Surprise areas combined serve residential population of 5,690 and a visitor/tourism population of 200,000 (specifically at Surprise City Center).

The residential population at Surprise City Center is relatively nascent today with new multifamily projects growing, Ottawa students and visitors – and all these cohorts will grow substantially over the next few years. The Surprise Heritage District population has remained consistent over the years. The median household income in the Surprise Heritage District is $39,311 – nearly half the median income of the overall City of Surprise ($69,076). The population in the Heritage District has a substantially younger median age at 28.3 than the overall Surprise population of 41, indicating a tremendous workforce competitiveness opportunity.

Number of households served
The two City of Surprise areas proposed for broadband advancement have 1,486 total households today - with 1,616 estimated in 24 months. By 2030, especially if existing multifamily residential projects in the pipeline at Surprise City Center come to fruition, there will be a total of 3,066 households are estimated in the two areas – with 1,700 of them at Surprise City Center.

Number of anchor institutions served
The City of Surprise has qualified a total of 17 "anchor institutions" that we believe meet a traditional asset definition of having an important presence as well as a connection to the places we propose for infrastructure investment because of their mission, histories, physical assets or local relationships.

Number of businesses served
There are 180 business licenses today in the two areas of Surprise City Center and the Surprise Heritage District (*January 2022 – Surprise Business Licenses*).

Ways in which the project will improve redundancy and reliability, if any.
Zona Wyyerd will provide redundancy and diverse paths to help the city have another carrier to provide backup for emergency services with a redundant network.

3. **OTHER PROJECT OUTCOMES**

Economic Development:

- Surprise City Center: broadband infrastructure advancement will accelerate quality downtown development, business attraction, small business services and workforce development delivery, which has lagged comparatively.
- Surprise Heritage District: broadband capacity will advance new redevelopment opportunities, small business services and, most importantly, education and workforce development program delivery.

Community Resiliency:

- At Surprise City Center, broadband infrastructure will assist the City of Surprise to recover from COVID-19 economic setbacks and build economic momentum.
- In the Surprise Heritage District, improved and affordable broadband will foster more household adoption, and increase the community's access to education, healthcare and workforce resources, lessening the digital divide between our Original Townsite and the rest of the community.

Education:

- Surprise City Center: the Economic Development Department is facilitating certification-to-degree programs with Ottawa University and has a vision of advancing innovation, healthcare and education at the center of this campus. As a growing employment center, the Surprise City Center will attract new high-quality jobs that wish to co-locate near educational centers with growing residential populations within walking distance, retail and expanding broadband capacity.
- Surprise Heritage District: the ability for more of the population to access the internet affordably is critical to achieving better education and workforce outcomes.

Healthcare Advancements:

- Surprise City Center: Banner Health and Dignity Health both have initial investments on the campus. The Surprise Economic Development Department is promoting a healthcare innovation and workforce development center in partnership with Ottawa University's campus. Surprise aspires to be a center of medical excellence and an international medical and healthcare destination.
- Surprise Heritage District: Without sufficient broadband and internet access, this area of Surprise will be left behind from a healthcare perspective. 13-17% of U.S. patient visits in 2021 across all specialties in 2021 were telehealth visits (source: McKinsey & Company), and the number of telehealth visits increased by 50% from 2019 to 2020, according to the Centers for Disease Control and Prevention.

Public Safety: Deficiencies and lack of reliability of infrastructure have at times put the Surprise Heritage District at risk, without the ability to contact emergency services. The need for broadband infrastructure in this area in particular is a life safety issue.

Additional Metrics:

	2022	**2024 (est.)**	**2030 (est.)**
Potential Businesses Served (+25 per year)	180 business licenses	230 business licenses	355 business licenses
Potential Households Served	1,486	1,616	3,066
Potential Anchor Institutions Served	17	20	25
Total Population Served (residential + visitors)	205,690	256,490	410,390

Type	Project	Applicant	GEOID	wkt_geom
Urban	Surprise City Center & Heritage District	City of Surprise - ZonaWyyerd	04013060801	