

Delegate Agency Solicitation #38569 (RFP)

Neighborhood Broadband

Specification Number:1311377

Required for use by: DEPARTMENT OF FINANCE

Bid/Proposal Submittal Date and Time: 12:00 PM Central Time, 16-DEC-2024

Deadline for Questions: 09:55 AM Central Time, 06-DEC-2024

Buyer: BRADLEY, TYRICIA

Email Address: Phone Number:

Pre-Solicitation Conference Date and Time: 12:00 PM Central Time, 04-DEC-2024

Pre-Solicitation Conference Location: https://us06web.zoom.

us/meeting/register/tZMpdu6trzItGNIDQSR_WHk2wY-3YYB2q84G#/registration

Site Visit Date & Time: N/A Site Visit Location: N/A

Please submit your response to:

http://www.cityofchicago.org/eProcurement iSupplier vendor portal registration is required. Allow 3 business days to complete registration.

BRANDON JOHNSON MAYOR Chasse Rehwinkel Comptroller

Specification Number: 1311377

Type of Funding:

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Type of Funding:

1 Header Information

1.1 General Information

Title Neighborhood Broadband Description Neighborhood Broadband

Preview Date Not Specified Open Date 20-NOV-2024 10:50:34

Close Date 12:00 PM Central Award Date Not Specified

Time, 16-DEC-2024

Time Zone Central Time Buyer BRADLEY, TYRICIA

Quote Style Blind Email

Event Delegate Agency Outcome Delegate Agency Blanket

Agreement

1.2 Terms

Effective Start Date Not Specified
Ship-To Address 027- FIN DEPT

Effective End Date Not Specified
Bill-To Address 027- FIN DEPT

121 N. LA SALLE ST. 121 N. LA SALLE ST.

ROOM 700 ROOM 700 Chicago, IL 60602 Chicago, IL 60602 United States United States

Payment Terms IMMEDIATE Carrier

FOB Freight Terms

Currency USD (US Dollar) Price Precision Any

Total Agreement Not Specified Minimum Release Not Specified

Amount (USD) Amount (USD)

1.3 Requirements

Contact Information
First Name
Provide your answer below
Last Name
Provide your answer below
Telephone Number
Provide your answer below

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Type of Funding:

Contact Information
E-mail Address
Provide your answer below
Contact Type
Provide your answer below
Organization Information
Legal Organization Name exactly as it appears on your State of Illinois business registration
documentation.
Provide your answer below
Doing Business As (DBA) Name exactly as it appears on your State of Illinois business registration
documentation.
Provide your answer below
Address
Provide your answer below
City
Provide your answer below

Organization Information
State
Provide your answer below
Zip
Provide your answer below
County
Provide your answer below
Organization Telephone Number
Provide your answer below
Wile's Allers of Colon Brown Colon Brown Colon Brown
Website Address and Social Media Handles (i.e. public username of your organization's social media accounts)
Provide your answer below
Trovide your uniswer below
Federal Employer Identification Number
Provide your answer below

Organization Information
Unique Entity Identification (UEI) Number (Official identifier for doing business with the U.S. Government as of April 4, 2022; Replaced the DUNS Number)
Provide your answer below
Head of Agency (Executive Director/CEO) Name
Provide your answer below
Head of Agency Title
Provide your answer below
Trovide your uniswer below
Head of Agency Telephone Number
Provide your answer below
Head of Agency E-mail Address
Provide your answer below
Board President Full Name
Provide your answer below

Organization Information
Board President Phone Number
Provide your answer below
Board President Email Address
Provide your answer below
Program Manager Name
Descride vous engaves helou
Provide your answer below
Program Manager Telephone Number
Provide your answer below
Program Manager Email Address
Provide your answer below
Year Organization Established
Provide your answer below

Organization Information
Did you attach the following in your Admin. section?*Liability Insurance*Board Member Identification*IRS Determination Letter*SAM Certificate*Certificate of Good Standing*Bylaws and Articles of Incorporation*Financial Statement
Circle one from the response values below: Yes
No
Organization Overview
Briefly describe the mission of your organization, relevant services or programs provided, the number of years that your organization has provided these services, geographic delivery area, and client populations served
Provide your answer below
Describe any experience executing programs similar in scope to the proposed program (e.g., objectives, size, scale, budget) over the past three years within the City of Chicago. Where possible, please note if these projects were funded by the City.
Provide your answer below
Describe any other relevant expertise in supporting small businesses, managing properties, and/or engaging with the community.
Provide your answer below
Please list any individuals who will support this program. This includes organization staff as well as any outside partners or consultants. Please also specify their specific roles and the expertise they will bring to this program. (For roles that have not yet been filled, a title is sufficient)
Provide your answer below
Geographic Service Area
Please provide the service area boundaries (i.e., North, South, East, West street names) for this program.

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Geographic Service Area
Provide your answer below
Trovide your answer below
In which City of Chinasa would in land the managed are seen to the deficiency and a first city of the
In which City of Chicago ward/s is/are the proposed program located? For a map of Chicago's wards, go to
https://data.cityofchicago.org/Facilities-Geographic-Boundaries/Boundaries-Wards-2015-2023-/sp34-6z76
Provide your answer below
In which City of Chicago community area/s is/are the proposed program located? For a map of Chicago's
community areas, go to https://data.cityofchicago.org/Facilities-Geographic-Boundaries/Boundaries-
Community-Areas-current-/cauq-8yn6.
Provide your answer below
Professional Qualifications and Specialized
Experience of Respondent and Team Members
Committed to this Project
Respondent must describe the experience of each identified member of the Respondent Team with respect
to deploying networks. Discuss the network technologies with which the Respondent Team has experience
and how those inform the proposed deployments. Discuss the experience of the Respondent Team within
the City of Chicago, if applicable. If the Respondent Team includes more than one company or
organization, indicate each entity's role in previous broadband deployments and describe the scale of those
deployments, including the following information: a. Size of the service area b. Number of addresses
served c. Speed of service delivered d. Capital cost of the project e. Operational expenses associated with
the projects, including the ongoing operating expense per customer f. Length of time to complete network
construction
Constituction
D
Provide your answer below
Decreased as a state of the Decreased of March 2012 and 1212 and 1
Respondent must describe the Respondent Team's experience providing service in low-income
neighborhoods and serving customers in multilingual neighborhoods, including the following information:
a. Experience offering an affordable plan to qualifying customers, including rates offered b. Experience
serving residents of public housing and/or affordable rental housing c. Experience with adoption and
outreach efforts to non-English speaking communities.
Provide your answer below

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Professional Qualifications and Specialized Experience of Respondent and Team Members Committed to this Project
Respondent must submit an organization chart that clearly illustrates the Respondent Team's structure comprising all firms (joint venture partners, if any, Subcontractors). In the organization chart or as an attached narrative, Respondent must describe the specific role of each firm in the project and what they
will be responsible for delivering. Respondents must also indicate which members of the team are certified small businesses, or certified WMBE businesses.
Provide your answer below
Respondent must provide the names, experience, and qualifications of key staff who will be personally leading the deployments in Chicago, including the point of contact with the City, the project manager, the technical lead, and staff responsible for subscribing customers. Discuss the technologies the Respondent has experience deploying (manufacturers, spectrum, protocols) and how those inform the proposed deployments.
Provide your answer below
Respondent must describe prior experience implementing projects funded by Federal, City, and/or State grants. Describe the Respondent Team's approach to maintaining compliance with funding and/or program requirements.
Provide your answer below
Respondent must describe their prior experience with project reporting to comply with Federal, City, and/or State grant funding requirements, as applicable.
Provide your answer below
Approach to Network Design, Deployment, and
Operations

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Approach to Network Design, Deployment, and **Operations** Describe in detail the network architecture, network elements (both active and passive) along with their specifications or manufacturer cut sheets, connectivity to the internet backbone, and the service speeds and latency that will be offered to subscribers. For the service area identified by the Respondent, the network design (either fixed wireless or wireline) must be able to support the required throughput and capacity to serve Respondent's stated percentage of housing units per census block. The narrative must explain the engineering decisions required to achieve service speeds and latency, such as: Backhaul connectivity a. Head end deployment b. Core network electronics c. Fiber capacity and strand counts on each segment of the network d. Use of coaxial cable and frequency split e. Maximum line speed at the premises f. Oversubscription ratio g. Split ratios h. Splice points i. Drop installation j. In-unit termination specification k. Customer Premise Equipment (CPE) or router model and capabilities (including Wi-Fi interface) Provide your answer below Provide a detailed logical diagram showing major interconnection points, interfaces, and speeds on all links. This should include the transmission medium used between nodes (fiber, microwave, etc.), peering points, and internet exchange locations. The diagram must also provide detailed technical information such as types of equipment, technology, split ratios, and interface speeds for all segments of the network, from the internet backhaul to the customer. Provide your answer below Describe whether the network is completely fiber or, if another medium such as copper or coaxial cable, is utilized in the network. If not 100 percent fiber, describe what percentage of the network is another medium and explain what engineering decisions led to that design. Provide your answer below Describe where fiber will be run in the public rights-of-way and to customer premises, and how strands will be allocated to individual customers. If each household will not receive a dedicated fiber handoff, describe how connectivity will be delivered to each household from an intermediate demarcation point. Provide your answer below

Describe the construction methodology for deploying the network. Describe the amount of aerial and underground construction and how you determined that percentage. (Please note that aerial fiber is only

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Approach to Network Design, Deployment, and **Operations** permitting in alleys.) Provide construction specifications, such as: a. Fiber cable type (loose tube, ribbon, armored, etc.) b. Conduit type and size for each route segment c. Construction methodology for each segment of the network. Describe how underground conduit will be installed and at what depth (per CDOT rules and regulations minimum depth is 30"). For aerial segments, describe how much makeready work is expected on poles d. Vault and handhole dimensions and material e. Your plan to protect your underground facility from damage or outage (i.e., joining the CDOT Office of Underground Coordination (optional), joining 811, the national call-before-you-dig hotline (required) Provide your answer below Provide a map of the proposed network routes. Include a .kmz of the proposed routing with clearly defined layers for the various types of infrastructure and any other information relevant to the design, including: a. Fiber routes and segment types (backbone, distribution, etc.) b. Installation method (direction bore, etc.) Provide your answer below 1 - Using the template provided in Exhibit 5 Bill of Materials workbook, state the estimated total cost and provide a bill of materials (BOM) for the deployment of the network, including design, engineering, permitting, labor and material for construction, electronics, and testing. Provide your answer below State the minimum percentage of housing units within each census block that your network will serve. Provide a network design serving the Target Community Area(s) and state the required throughput and capacity required to serve the stated percentage of housing units in each census block. Provide the following formation for each base station site: a. Site Name b. Latitude c. Longitude d. Elevation (m) e. Address Line1 f. Address Line2 g. Address Line3 h. Backhaul Type For each sector antenna at a base station site, provide the following information: a. Sector ID (to match ID in the data file) b. Name Of Parent Site (the site name as referenced above) c. Transmit Antenna Gain (dBi) d. Transmit Antenna Height (m) e. Transmit Antenna Pattern (Please provide pattern file) f. Transmit Max Transmitter Power Per Channel (dBmW) g. Transmit Transmission Line Loss (dB) h. EIRP (dBm) Provide your answer below Respond to the requirements below and, where applicable, confirm that the proposed solution complies

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Approach to Network Design, Deployment, and **Operations** and explain how. a. Provide cut sheets for all equipment specified in the Bill of Materials (BOM) detailing the form factors of the equipment. b. Provide photos of all proposed installation types for both base station sites and end- user locations. c. Provide security so that only authorized devices and users have access to the network. d. Support prioritization on a per-user basis. e. Have high availability, with a redundant core or through connection to a cloud core. f. Respondent must conduct performance tests and certify in writing to the City when the core is fully operational. Provide your answer below Provide an estimate of the expected end user throughput in each census block and the loading expected at each sector and site in the design. Please use: the capacity requirement of serving Respondent's stated percentage of housing units in the proposed service area at a speed of 100/100 Mbps, the performance specifications of the equipment, the amount of spectrum available, a suitable oversubscription assumption, and the site configurations. Provide your answer below Provide a detailed logical diagram showing major interconnection points, interfaces, and speeds on all links. This should include the transmission medium used between nodes, peering points, and internet exchange locations. The diagram must also provide detailed technical information such as types of equipment, technology, and interface speeds for all segments of the network, from the internet backhaul to the customer. Provide your answer below Using the template provided in Exhibit 5 Bill of Materials workbook, state the estimated total cost and provide a bill of materials (BOM) for the deployment of the network, including design, engineering, permitting, labor and material for construction, electronics, and testing. Provide your answer below Provide an overview of the major activities required to implement and construct the network design. The response should include sufficient detail to clearly demonstrate understanding of all major activities and clearances necessary to implement the network design.

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Provide your answer below
Explain how the proposal will comply with applicable local, state, and federal regulatory requirements.
Provide your answer below
Provide a summary of the relevant permitting processes and approvals that are required to implement the proposed network based on the public assets needed to leverage for deployment.
Provide your answer below
Provide a plan for how the network would leverage City-owned assets, such as public right-of-way, City-owned buildings, or sister agency buildings. Please click here for a map of public assets in the Target Community Areas, and refer to Exhibit 3 Use of City Assets and Relevant Permitting Processes for a summary of how each participating department and agency's assets will be made available.
Provide your answer below
Describe the approach for connecting multi-dwelling units (MDUs) in the proposed service area, and what means will be used to connect units throughout the MDUs.
Provide your answer below
If the Respondent intends to serve affordable housing properties (AHPs) through its proposed deployment, please describe the approach for connecting AHPs to the network and wiring the building.
Provide your answer below

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Approach to Network Design, Deployment, and Operations
Provide elevation drawings that show placement and dimensions and post- implementation images of each type of network and supporting infrastructure in the design visible to the public, such as antennas, small cells, towers, shelters, enclosures, and demarc boxes.
Provide your answer below
Provide a brief narrative description of the segmentation and order of the approach and reasoning for the order of the approach that will be utilized in the project management plan. Respondents must note any roadblocks and areas of risk. Include assumptions such as (but not limited to) the number of work crews, make ready timelines, permitting, and anticipated issues around material lead times. Define the roles and responsibilities of the Respondent, the City, and other partners, and parties. Indicate the primary point of contact of the Respondent.
Provide your answer below
Provide images of typical CPE installations, including indoor (and outdoor) CPE, antennas, visible exterior or interior wiring dressed wiring that represents a completed residential installation.
Provide your answer below
Describe the proposed Customer Premises Equipment responding to the minimum CPE specifications. Where applicable, confirm that the proposed solution complies and explain how. a. If a Respondent suggests an indoor CPE configuration, it must have an integrated modem, antenna, and Wi-Fi router. b. If a Respondent suggests an outdoor CPE configuration, it must have an outdoor antenna that connects to an indoor access point with a Wi-Fi router. c. The proposed CPE model(s) will deliver 100/100 Mbps to each household and meet or exceed the minimum specifications.
Provide your answer below
Describe the provisioning processes and highlight actions requiring end-user interaction. For professionally installed equipment, provide a document detailing the installation process. Describe the responsibilities that the service provider will undertake, such as: a. Installation in the right of way

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Approach to Network Design, Deployment, and
(Nothing in this RFP shall be read to waive any right of way permits and licenses required under Chicago Code). b. Providing an interoperable handoff at the customer premises. c. Making available internet services to the customer premises (specifying any actions the customer will be responsible for). d. Ensuring safe and stable power supply to all equipment, including at the customer premises. e. Ensuring safe mounting of any necessary equipment.
Provide your answer below
Detail the proposed average and maximum lead time to install—the time from receiving a customer installation request to completing installation.
Provide your answer below
Describe the conditions in which you would not be able to provide internet service to a residence.
Provide your answer below
Describe the approach to providing comprehensive operational support and capacity planning of the network to meet or exceed the Minimum Network Performance Requirements. Describe the various functions that will be operated out of the Network Operations Center (NOC), such as network monitoring, provisioning, troubleshooting, and customer support. Address how the Respondent will notify subscribers and City staff of network disruptions and how it will regularly report status updates until resolution has been completed.
Provide your answer below
Describe the approach to providing ongoing customer service, including the availability of support by phone, email, SMS, and/or in-person customer support. a. Provide the daily operating hours for each of these methods of support. Describe how customer service will function outside of regular working hours and on weekends. b. Describe which portions of the customer service experience, if any, are automated, and which receive a review from a human customer support representative. c. Identify any subcontractors that will be used to provide customer service and summarize their scopes of work.
Provide your answer below

Approach to Network Design, Deployment, and Operations
Annuagh to Departing Transportance and
Approach to Reporting, Transparency, and Compliance Requirements
Describe a dashboard and the underlying software and technologies that you will use to collect and report quarterly deployment and performance metrics as required by the Quarterly Reporting Requirements listed above. Describe any additional approaches to communicating information and performance indicators transparently with City staff and the public.
Provide your answer below
Describe the workforce training standards for all employees involved in both network deployment and ongoing operations. Provide a description of safety training, certification, and/or licensure requirements for each job title required to carry out the proposed work (including contractors and subcontractors), and detail whether there is a robust in-house training program with established requirements tied to certifications, titles; and information on the professional certifications and/or in- house training in place to ensure that deployment is done at a high standard.
Provide your answer below
Commitment to Chicago's Broadband Standards and Principles
Describe the Respondent Team's demonstrated history of providing customer outreach, customer service and service onboarding, and advertising to populations that were previously ACP-eligible. Describe in detail the community outreach approach in the Target Community Area. Describe the methods of outreach you will employ, the frequency and times of day you plan to conduct outreach, and whether you will have an ongoing physical retail and/or customer service.
Provide your answer below
Identify all Community-Based Organizations (CBOs) you plan to partner with for community outreach, engagement, or ongoing customer support. If you intend to engage CBOs or work directly to promote digital literacy or provide digital skills training in the Target Area, please describe these efforts. For each CBO in the Target Area, describe the plan for collaboration with the CBO—either as an informal partner or as a paid subcontractor—including the budget, timeline, and scope of work. If you are not planning on partnering with CBOs, please state as such.

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Commitment to Chicago's Broadband Standards and Principles
Provide your answer below
Describe your workforce development strategy. Will the initiative invest in and/or partner with apprenticeship or pre- apprenticeship programs? Please include the specific skill set(s) or certificates the program(s) will provide, who will conduct the program, how potential attendees will be recruited to participate in the program, and program metrics for success. Detail the percentage of total contract hours that will be reserved for apprentices.
Provide your answer below
Identify any local institutions, such as community colleges, universities, technical training schools, or community-based organizations that you will work with to implement apprenticeship or preapprenticeship programs. Describe the plan for collaboration with these local institutions, including the budget, timeline, and scope of work.
Provide your answer below
Does the Proposal include a plan to share gross revenues with the City? If so, describe the proposed revenue sharing structure. Describe any other innovative approaches to maximize investment and economic impacts for local community members.
Provide your answer below
State whether Despendent appriously posticipated in the Affordable Connectivity Decommend describe
State whether Respondent previously participated in the Affordable Connectivity Program and describe any current or upcoming eligible low-cost service plan you provide. Describe the Respondent Team's actions to advertise and enroll customers in low-cost broadband service. If you do not offer a low-cost service plan, describe how you will establish a compliant low-cost service plan.
Provide your answer below

Commitment to Chicago's Broadband Standards and Principles
List the rates for all of the proposed service tiers, including a low-cost service plan that will be offered to eligible households.
Provide your answer below
Describe Respondent's policy on conducting customer credit checks and requiring up-front cash deposits to receive service.
Provide your answer below
Describe in detail how you will fulfill the requirements listed above, including but not limited to processes and practices; number, role, and expertise of staff for each of these functions, and technologies, contractors and/or services used to fulfill these requirements.
Provide your answer below
Describe any parental controls or online safety solutions you will implement to fulfill the requirement. This may be a technology-based or education-based solution.
Provide your answer below
Financial Offer and Soundness of Financial Assumptions
Using "Financial Offer Workbook" in Exhibit 5, provide a detailed description of the Project Team's requested financial input from the City, including the total required one-time Capital Expense (CAPEX), any one-time Operational Expense (OPEX). Provide any backup materials that substantiate the request. Provide your answer below
Using "Financial Offer Workbook" in Exhibit 5, provide detailed cost, revenue, financing, and City

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Financial Offer and Soundness of Assumptions	f Financial	
financial input assumptions. This sir	nplified financial mo	odel is intended to allow the City to assess the
value of its investment over the 30-y	year life of the netwo	ork.
D. 21 1.1.	•••••	
Provide your answer below		
Conflict of Interest		
Did you complete and attach the Co	nflict of Interest Que	estionnaire?
21d you complete and attach the con		
Provide your answer below	•••••	
Trovide your answer below		
1.4 Attachments		
Name	Data Type	Description
Attachment 01:	File	Neighborhood Broadband RFP
Supplemental RFP		
1.5 Response Rules		
Solicitation is restricted	to invited suppliers	
		lines
X Suppliers are allowed toX Suppliers are allowed to		
Buyer may close the soli		
Buyer may manually ext		

2 Price Schedule

2.1 Line Information

Display Rank As No indicator displayed Ranking Price Only Cost Factors None

Line	Item, Rev	Target	Unit	Unit Price	Amount
	/ Job	Quantity			
1 0005 - Personnel		1	USD		
2 0044 - Fringe		1	USD		
Benefits					
3 0100 -		1	USD		
Operating/Technical					
4 0140 - Professional		1	USD		
and Technical Services					
5 0200 - Travel		1	USD		
6 0300 - Materials and		1	USD		
Supplies					
7 0400 - Equipment		1	USD		
8 0801 - Indirect		1	USD		
9 0999 - Other		1	USD		

2.2 Line Details

2.2.1 Line 1 0005 - Personnel

Category 94855.DA. Start Price (USD) Not Specified
Shopping Category Not Specified
Target Price (USD) Not Specified

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.2 Line 2 0044 - Fringe Benefits

Category **94855.DA.** Start Price (USD) **Not Specified**Shopping Category **Not Specified**Target Price (USD) **Not Specified**

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.3 Line 3 0100 - Operating/Technical

Category 94855.DA. Start Price (USD) Not Specified
Shopping Category Not Specified Target Price (USD) Not Specified

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.4 Line 4 0140 - Professional and Technical Services

Category 94855.DA. Start Price (USD) Not Specified

Shopping Category Not Specified Target Price (USD) Not Specified

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

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2.2.5 Line 5 0200 - Travel

Category 94855.DA. Start Price (USD) Not Specified
Shopping Category Not Specified
Minimum Release Not Specified
Target Price (USD) Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.6 Line 6 0300 - Materials and Supplies

Category **94855.DA.** Start Price (USD) **Not Specified**Shopping Category **Not Specified**Target Price (USD) **Not Specified**

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.7 Line 7 0400 - Equipment

Category **94855.DA.** Start Price (USD) **Not Specified**Shopping Category **Not Specified**Target Price (USD) **Not Specified**

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.8 Line 8 0801 - Indirect

Category **94855.DA.** Start Price (USD) **Not Specified**Shopping Category **Not Specified**Target Price (USD) **Not Specified**

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

2.2.9 Line 9 0999 - Other

Category **94855.DA.** Start Price (USD) **Not Specified**Shopping Category **Not Specified**Target Price (USD) **Not Specified**

Minimum Release Not Specified

Amount (USD)

Estimated Total Not Specified

Amount (USD)

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CITY OF CHICAGO



REQUEST FOR PROPOSALS (RFP) Neighborhood Broadband RFP# 38569

All Proposals must be submitted through eProcurement system http://www.cityofchicago.org/eprocurement

ISSUED BY: CITY OF CHICAGO DEPARTMENT OF FINANCE

Questions concerning the RFP should be directed to

Christian Taylor
Director of Digital Equity
Office of the Mayor
121 N. LaSalle, Room 406
Chicago, Illinois 60602

Email: digitalequity@cityofchicago.org

BRANDON JOHNSON MAYOR

CHASSE REHWINKEL COMPTROLLER

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I. Section 1 - Purpose of RFP and Scope of Services

A. Organizational background

The City of Chicago's Department of Finance Office is responsible for the financial policy and strategy initiatives of the administration and developing and implementing the City's fiscal goals, policies and procedures within the parameters established by the Mayor and City Council. Additionally, the Department has primary responsibility for the management and oversight of the City's overall capital structure and the City's public private partnerships and municipal marketing program.

B. Program description

More than 172,000 Chicago households (15.5%) lack affordable access to internet at home and roughly 260,000 Chicago households do not have a computer or broadband device other than a phone on which they can access the internet. The disparity between the "Have's and Have Nots," i.e. those with and without residential access to the Internet is not new, still, it became abundantly evident during the COVID-19 pandemic that this disparity dramatically impacted how the City of Chicago could respond to the crisis and the impact such programs would have on the neediest members of the community. As schools, workplaces, and many functions of Chicago's civic and social worlds shifted from in-person to virtual, Chicago found itself with an unprecedented reliance on technology and connectivity, but more than 15% of our community's households were not able participate in this virtual economy made possible by Internet access. Those households were cut off from these newfound methods for communicating, earning a living, ensuring public safety and maintaining, if not improving individuals' quality of life. The Covid pandemic exposed for all to see that in a rapidly evolving tech-centered world: Families need reliable, affordable high-speed home internet access, computers and other devices that allow one to capture the benefits of the internet, and the support to broaden their digital skills needed to fully participate in Chicago's modern economy and civic life.

Through this RFP, the City of Chicago looks to build upon the historic progress it has made tackling digital disparities over the past four years. These efforts include:

- <u>Chicago Connected.</u> This program provides no-cost Internet access to qualifying Chicago Public Schools (CPS) families. Over the past four years, Chicago Connected has connected more than 60,000 Chicago households the equivalent of roughly 100,000 students to at-home broadband. In addition, through partnerships with more than 20 community-based organizations, Chicago Connected has provided digital learning resources to families for free.
- <u>Digital Equity Council (DEC).</u> In May 2022, Chicago launched a Digital Equity Council (DEC), a cross-sector, community-driven effort to understand and overcome the barriers to digital equity by engaging those most burdened by digital inequities. The DEC heard from more than 3,000 Chicagoans through 17 community conversations and solution design workshops, plus a citywide survey. This effort resulted in the publication of the City's first <u>Digital Equity Plan</u>, and launch of a <u>Chicago Digital Equity Coalition</u>. In parallel, the City has also stood up an Interagency Broadband Task Force to coordinate efforts holistically across departments and City agencies to inform and implement broadband initiatives.

Despite progress that has been achieved to date, there is still work to be done to address the root causes of the digital divide, and to create the conditions that will close the divide permanently. For instance, in Chicago, the demographics of the 10 least connected communities is 72% Black and 25% Latinx with the average median household income just under \$35,000. In addition to the racial and economic disparities that are reflected in broadband uptake, digital disparities are faced by the aging or elderly, people with disabilities, public housing residents, and immigrant communities.

In September 2022, the Interagency Broadband Task Force supported the Mayor's Office in issuing a Broadband Equity Request for Information (RFI). The RFI gathered recommendations for deploying affordable, quality, and reliable internet service and understanding how the City can leverage its physical assets, Chicago Recovery Plan funds, and other state & Federal funding opportunities to increase broadband access citywide. The City received an overwhelming response to this RFI, demonstrating that there is a strong set of organizations ready to engage on broadband infrastructure, service, and adoption. The 28 individual responses came from national internet service providers, Chicago-based wireless providers, middle-mile carriers, small wireless internet service providers (WISPs), and nonprofits specializing in affordable housing connectivity. The City conducted interviews to learn about the market's appetite for broadband projects in Chicago, assess model and technology feasibility, and inform this RFP.

Through this RFP, the City seeks creative proposals describing how the private sector, philanthropic foundations, and non-profits can leverage City real estate assets and Chicago Recovery Plan resources to ensure every household has an affordable, quality broadband option that meets their needs. The City is looking to fund multiple initiatives that can leverage one-time seed funding, plus physical real estate assets, to stand up sustainable, cost-efficient initiatives that increase the number of households connected to home broadband in the long term.

C. Goals of this RFP

- 1. Increase availability of and enrollment in affordable, quality broadband in Chicago's least connected neighborhoods.
- 2. Increase availability of and enrollment in affordable, quality broadband among Chicago residents most impacted by the digital divide.
- 3. Increase digital skills, comfort, and confidence among households in target neighborhoods.
- 4. Increase digital skills, comfort, and confidence among Chicago residents most impacted by the digital divide.

D. Program requirements

In this RFP, the City of Chicago is focused on project outcomes rather than prescriptive project requirements. Guided by this mission statement, this RFP seeks to solicit the most extensive range of proposals.

Having identified the Target Community Areas for investment through this RFP, the City is open to all technologies, forms of deployment and ownership models or partnerships. The single disqualifying standard are proposals that cannot meet the deployment speeds that are required for obtaining ARPA support. Therefore, the City welcomes proposals that serve the City's goal of providing affordable, high-speed internet access to residents within one or more Target Community Areas. Show us how your proposal meets the following criteria:

- High-speed residential service: The City intends to fund a proposal that provides all residents with access to a package of at least 100/100 Mbps. (If a proposal cannot meet 100/100 Mbps at the time of submission, respondent should explain in their response how they plan to achieve this speed over time.) The network must provide reliable service with over 99.9% uptime, with responsive customer support protocols to address any network outages or other performance issues.
- Affordability: Residents in the Target Community Area should have access to a \$30/month or less service available within 60 days of the network's launch date.
- Clear, Fixed Pricing. While the City understands that providers must charge a monthly fee for internet service to generate revenue and sustain the network, Chicago will prioritize transparency around all costs and fees associated with the proposed services. The City will not support promotional pricing, and expects proposals to contain fixed commitments around costs and service speeds, but for marginal increases tied to rising inflation over time.
- **Investment in Outreach and Adoption**: In addition to improving access to high-speed internet, the City seeks to ensure that residents are made aware of this opportunity and are provided with the necessary resources to subscribe to the internet. The City will require partners to invest in outreach and marketing efforts across the community at least until the provider has a take-rate of 35%, and the City encourages Respondents who will commit to higher adoption rates.

The Respondent must demonstrate in its proposal how it will:

- Deploy and operate a retail broadband internet service (Service) that is affordable, highly reliable, and high-quality within one or more of the Target Community Areas below.
- Design, implement, operate, and assemble the technology and infrastructure partnerships necessary to provide the Service, including, but not limited to, the deployment of a last-mile network connecting subscribers within the Target Community Area that is based on either wireline or fixed wireless technologies. In doing so, the Respondent must comply with all federal, state, and local laws and regulations.
- Create and maintain a direct customer relationship with subscribers of the service, including but not limited to outreach, enrollment, provisioning, billing, support, and handling customer complaints.
- Partner with experienced community-based non-profits in one or more of the Target Community Areas to provide adoption, engagement, outreach, and digital skill building opportunities.

Target Community Areas

Target Community Areas are those within the top 25 Community Areas with the lowest rates of home internet connection, according to 2017-21 American Community Survey estimates. Data is publicly available through the U.S. Census and at Chicago.gov/digitalequity on "The Data" tab, linked here. The top 25 least connected Community Areas all have 20% or more households without internet at home, and all fall within Low- or Moderate-Income Community Areas. Target Community Areas are:

Community Area	Percent (%) of Households without Home Internet	Count of Households without Home Internet
West Englewood	31.77	3102

Englewood	29.42	2679
Fuller Park	28.67	324
Auburn Gresham	26.78	4742
Chatham	26.07	3823
Greater Grand Crossing	25.92	3204
Gage Park	25.70	2398
North Lawndale	25.59	2813
Avalon Park	25.34	1051
Chicago lawn	25.27	4342
East Garfield Park	25.21	1810
Archer Heights	24.40	1065
South Lawndale	24.21	4700
Roseland	23.48	2928
Austin	23.31	8063
Armour Square	23.22	1291
New City	22.42	2778
Montclare	21.71	1031
Belmont Cragin	21.14	4843
West Garfield Park	20.86	1214
Burnside	20.83	217
Humboldt Park	20.77	3856
West Pullman	20.58	1919
Pullman	19.76	650
Woodlawn	19.65	2252

E. Performance measures

See Exhibit 1, Scope of Services.

F. Contract management and data reporting requirements

Grantees will be required to maintain a data performance dashboard for the broadband delivery component of the project. Additional reporting, such as on the work of a community partner, can be submitted separately through Microsoft Excel. Additionally, the grantee will be required to submit a final report including, but not limited to, summary of project outcomes, lessons learned, and project execution template within the required timeframe. Outcome tracking will be a crucial part of this program to measure the impact of the program in affected Community Areas. All reporting will be due within thirty (30) days of the grantees contract end date.

Grantees are required to keep detailed records on costs, in addition to any other record keeping required for compliance with federal requirements related to the <u>American Rescue Plan Act and Uniform Guidance</u>.

Grantees will provide quarterly performance metrics through a performance dashboard, including the metrics included in Exhibit 1, Scope of Services. To adhere with IRS requirements to use tax-exempt bond proceeds, respondent must supply at least the following documentation to ensure correct tracking of the use tax-exempt bond proceeds:

- a. Personnel cost for those directly involved in the execution of the project
- b. List of locations where work occurred
- c. Description of the work performed at each location
- d. Materials & supplies used for work
- e. Other information may be needed upon request, relating to tracking that the bond-related program expenditures are capitalizable expenses per IRS accounting rules and other applicable rules and regulations.

G. Application guidance for respondents

Please respond to the questions per the expectations outlined in Exhibit 1, Scope of Services.

H. Anticipated term of contract and funding source

The anticipated term of the contract is up to 25 months. Contracts are expected to start as early as November 2024 and end as late as December 31, 2026. No extensions to the contract term will be allowed.

This initiative is funded by the Chicago Recovery Plan using funding from tax-exempt general obligation bonds and the American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund (SLFRF) (ALN 21.027).

- Bond funding can go toward capital costs associated with the provision of broadband service to
 households in eligible communities, such as construction and equipment. Such equipment may
 include antennas, receivers, customer premise equipment (CPE), and other equipment involved in
 the delivery of internet service. The awarded applicant must track equipment purchased using bond
 proceeds, including where and when it is installed.
- **ARPA funding** can go toward non-capital expenses, such as partnerships with community-based non-profits to provide adoption, outreach, and digital skill building. Such activities may include:

- Adoption and Outreach: Creating and disseminating flyers, one-pagers, and other educational materials to households with instructions on how to enroll in broadband and information about the service. These materials can be disseminated in-person, through doorto-door outreach, at community sites, online through social media or email, on bulletin boards, etc. Organizations can also conduct direct enrollment support when they assist households navigate the enrollment process and answer their questions through a one-onone interaction or a group workshop.
- Digital Skills Building: Hosting workshops and classes, as well as one-on-one coaching, that educate households on skills they need to complete essential tasks, such as communicating through email, enrolling in school or classes, creating a resume and applying for jobs, seeing a doctor via tele-health care, managing health records, signing up for government benefits, signing up for internet, purchasing travel tickets, reading the news, and more. This offering can also include tech support, meaning helping a household resolve a challenge with their technology.

I. Anticipated awards for this program

The City anticipates making between 3 and 7 awards, but may make more or fewer based on the applications received. Award sizes may range from \$100,000 for a small project, up to \$3-6M for a larger scale project. This may be impacted by the technology, and is subject to change based on responses received.

II. Section 2 – Eligibility, Evaluation and Selection Procedures

A. Eligible respondents

1. Provision of Services

Eligible respondents will be able to provide internet service to households in Community Areas that are within the top 25 Community Areas with the lowest rate of home internet connection, according to 2017-21 American Community Survey (ACS) estimates. The top 25 least connected Community Areas all have 20% or more households without internet at home, and all fall within Low- or Moderate-Income Community Areas.

- 2. Digital Literacy Services
- Eligible respondents will be able to provide digital literacy services to eligible recipient households (as defined below) in Community Areas that are within the top 25 Community Areas with the lowest rate of home internet connection, according to 2017-21 American Community Survey (ACS) estimates. The top 25 least connected Community Areas all have 20% or more households without internet at home, and all fall within Low- or Moderate-Income Community Areas.
 - a. Eligible Recipient Household -- Recipients of digital literacy programming from community partners must live in a Qualified Census Tract (QCT) OR demonstrate that they are low or moderate income. They will need to provide their address to show that they live in a QCT, or show proof of income to show that they are low or moderate income. Proof of income may include: W2 or 1099, recent paystub or paycheck, unemployment letter, bank statement, enrollment or eligibility confirmation letter from a program such as Pell Grant, SNAP, SSI, TANF, WIC, or other.
- 3. All successful respondents to this RFP will be required to undergo assessment of risk potential in accordance with Uniform Guidance. Program staff will monitor subrecipient performance to ensure compliance with grant standards and successful program implementation. The selected organization will serve as a Delegate Agency for the City of Chicago, which is synonymous at the federal level with "Subrecipient" or "Subawardee" for the purposes of alignment with federal grant guidance. The organization will be subject to 2 CFR Uniform Guidance requirements for subrecipients, as well as grant-specific regulations for the State and Local Fiscal Recovery Fund (SLFRF) managed by US Treasury.

B. Evaluation process

Part 1: Technical Review – Applications will go through an initial round of technical review to ensure that solutions are feasible from an engineering and financial standpoint. In this round, proposals will be evaluated for:

- Approach to Network Design, Deployment, & Operations
- Financial Offer and Soundness of Financial Assumptions

Part 2: Qualitative Review – Applications considered technically feasible will be reviewed for non-technical criteria, including:

- Professional Qualifications and Specialized Experience of Respondent and Team Members Committed to this Project
- Approach to Reporting, Transparency, and Compliance Requirements
- Commitment to Chicago's Broadband Standards and Principles
- Commitment to comply with all federal reporting requirements

Part 3: Interviews – The City may conduct oral interviews using a virtual meeting platform.

Part 4: Selections – The City will make awards to selected respondents and enter the contracting phase.

Note: For applicants that propose using City or sister agency assets for equipment installation, applicants will be connected to the respective City department or sister agency to secure approval and negotiate a lease agreement. Selection of an application does not guarantee access to these assets.

C. Selection criteria and basis of award

The Evaluation Committee will review the Respondent's Proposal using the following criteria:

Evaluation Category	Scored Points
Professional Qualifications and Specialized Experience of Respondent and Team Members Committed to this Project	10
Approach to Network Design, Deployment, & Operations	40
Approach to Reporting, Transparency, and Compliance Requirements	10
Commitment to Chicago's Broadband Standards and Principles	20

Financial Offer and Soundness of Financial	20
Assumptions	20

Pass/Fail Criteria
Financial Stability
Legal Action
Compliance with Laws, Ordinances, and Statutes
Insurance
Degree to which Respondent accepts City's Terms and Conditions
Conflict of Interest

SELECTION CRITERIA	Points out of 100
Professional Qualifications and Specialized Experience of Respondent and Team Members Committed to this Project	10
The Respondent Team must include an experienced internet service provider with previous broadband deployments of similar scale and service level. The Respondent Team should have experience serving multilingual customers and low-income customers. Applicants are encouraged to incorporate minority- and women-owned businesses and will be asked to document good faith efforts to do so. Minority- and women-owned business participation goals will be set on a contract-by-contract basis.	
The Respondent Team must be led by qualified staff with experience managing the deployment of broadband networks of a similar scale and type. The Respondent Team must include a project manager who will serve as the City's primary point of contact.	
The City intends to use a variety of federal grant funds to invest in proposed connectivity projects, including but not limited to the federal American Rescue Plan Act (ARPA). Such grants require detailed reporting and compliance. The Respondent Team will be required to produce timely, detailed reports and maintain records to comply with funding source requirements.	
The Prevailing Wage Act applies to bond- and ARPA-funded projects. If the payment of prevailing wages is required for services provided under a grant agreement awarded under	

this RFP, the successful respondent must pay the prevailing wage rates as ascertained by the Illinois Department of Labor.	
Approach to Network Design, Deployment, & Operations	40
Minimum network performance requirements around speed, quality, project management, aesthetics, and other project elements are detailed in Exhibit 1 Scope of Services . There are separate requirements for wireless and wireline proposals. Please review Exhibit 1 for details.	
Approach to Reporting, Transparency, and Compliance Requirements	10
This initiative is funded through the American Rescue Plan Local Fiscal Recovery Fund and tax-exempt bonds, which require regular reporting. The Respondent must submit quarterly performance reports to the City that include the following key performance indicators, within the three categories below. Where applicable, these must be provided in GIS or KMZ format. GIS and KMZ file formats are generated using mapping software; they show geographic representation of information through a map.	
Employment opportunities for local workers on projects situated within their communities are a key element of City investments. The construction and operation of the proposed connectivity project is expected to improve workforce and job readiness among fiber and telecom workers.	
In accordance with the American Rescue Plan Act, Respondents "are encouraged to use strong labor standards, including project labor agreements (PLAs) and community benefits agreements that offer wages at or above the prevailing rate and include local hire provisions. Treasury also recommends that respondents prioritize in their procurement decisions employers who can demonstrate that their workforce meets high safety and training standards (e.g., professional certification, licensure, and/or robust in-house training), that hire local workers and/or workers from historically underserved communities, and who directly employ their workforce or have policies and practices in place to ensure contractors and subcontractors meet high labor standards."	
The Respondent's staff must meet applicable safety and training standards (e.g., professional certification, licensure, and/or robust in-house training). Deployment of all fiber and fiber-related infrastructure must comply with all applicable codes including National Electrical Safety Code (NESC), National Electrical Code (NEC) National Electrical Contractors Association (NECA) codes, the requirements of the utility pole owners, and laws at the local, state, federal, and private land levels as they pertain to fiber optic installations.	
Commitment to Chicago's Broadband Standards and Principles	20
The City understands that there are various barriers to internet adoption that go beyond infrastructure deployment. The City seeks a Respondent who is committed to creatively engaging with community members to identify and overcome all barriers to internet adoption	

and to provide employment and career development opportunities in the designated Target Community Areas.

- <u>Equitable Access</u>: Service and infrastructure advances equity, reversing historic geographic patterns of underinvestment and promoting business practices in line with the City's goals around racial equity.
- Multilingual Community Engagement Requirement: The Respondent must implement
 multilingual community outreach, customer support, service onboarding, and
 advertising to reach residents from a variety of linguistic backgrounds. The Respondent
 must engage in community outreach and develop tailored engagement plans in
 Chicago's five most spoken languages, including Spanish, Polish, Arabic, Tagalog, and
 Chinese. The Respondent must also develop tailored engagement plans for seniors and
 residents with disabilities.
- Partnership With Community-Based Organizations: To reach unconnected households, the City recognizes the value of utilizing the expertise of local, community-based organizations (CBOs) that have public trust and experience serving the designated Target Community Area. While not a requirement, the Respondent is encouraged to partner with CBOs in the designated Target Area that meet the criteria identified below.
 - CBO has a physical presence in the designated Target Area.
 - CBO has a demonstrated history of service in the designated Target Area.
 - CBO has a demonstrated history of engaging populations that previously met ACP-eligibility criteria.
 - CBO can reach eligible households in the Target Area without the need for Cityprovided contact lists.
- Workforce Development: The City is committed to increasing access to career pathways through registered pre-apprenticeship and apprenticeship programs to help those with significant barriers to employment enter the workforce in skilled occupations.
- <u>Affordable Service:</u> Cost of internet service is not a barrier for Chicago residents to connect to the internet.
- Cyber Security and Privacy: The Respondent must operate a secure service provider network with comprehensive cyber security operations and governance programs to ensure the confidentiality, integrity, and availability of the Service and customers. This includes, but is not limited to, 24x7x365 cyber security monitoring, incident response, and timely remediation.

Financial Offer and Soundness of Financial Assumptions

20

The City seeks to maximize investments and economic impacts for local community members. As one element of the proposal evaluation, the City has developed a financial model to analyze the financial feasibility of a proposed connectivity project and assess the need for public investment in the network. Respondents will be asked to develop financial assumptions and submit via an attached "Financial Offer Workbook" Template in Exhibit 5.

The City will consider the soundness of assumptions made in the Financial Offer Workbook based on assumptions stated in the Financial Offer Workbook as it evaluates the Respondent's Financial Offer.

Given the scope and criticality of this public digital equity project, the Respondent must demonstrate it has sufficient available funding to provide the required services, not including any requested public investment. The Respondent must include information that will enable the City to discern the financial resources available to the Respondent Team. Such information should help the City determine whether the Respondent Team has the financial ability to implement and maintain the services committed to in their proposal. Respondents must submit adequate information that fully demonstrates their financial capacity and readiness to implement and maintain the services.

III. Section 3 - RFP and Submission Information

A. Pre-proposal webinar

A virtual pre-submittal conference will be held on the following date:

Wednesday, December 4th at 12pm CST via Zoom

Registration is available by clicking here.

The purpose of the pre-submitting event is to clarify the RFP process and the scope of the required services. Attendance is not mandatory, but it is strongly suggested the interested applicants attend. Questions can be emailed to digitalequity@cityofchicago.org.

B. The e-Procurement system

Proposals must be submitted via the online application. Emailed or faxed proposals will not be accepted.

To complete an application for this RFP, applicants will need to set up an account in the new eProcurement/iSupplier system.

The Department of Procurement Services (DPS) manages the iSupplier registration process. All grantees are required to register in the iSupplier portal at www.cityofchicago.org/eProcurement. All vendors must have a Federal Employer Identification Number (FEIN) and an IRS W9 for registration and confirmation of vendor business information.

- **New Vendors** Must register at www.cityofchicago.org/eProcurement. Registration in iSupplier is the first step to ensuring your agency's ability to conduct business with the City of Chicago. Please allow five to seven days for your registration to be processed.
- Existing Vendors Must request an iSupplier invitation via email. Include your Complete Company Name and City of Chicago Vendor/Supplier Number (found on the front page of your contract) in your email to customersupport@cityofchicago.org. You will then receive a response from DPS so you

can complete the registration process. Please check your junk email folder if you have made a request and not heard back as 12 many agencies have reported responses going their junk folder.

To receive training about all aspects of the eProcurement system, register using the link below and include the name of the agency which you will represent.

Training will cover eProcurement functions such as iSupplier registration and overview, responding to RFPs, creating invoices and reviewing / tracking payments. For further eProcurement help use the following contacts:

- 1. Questions on Registration: customersupport@cityofchicago.org
- 2. Questions on eProcurement for Grantees including: CustomerSupport@cityofchicago.org or contact the eProcurement hotline at 312-744- 4357 (HELP)
- 3. Online Training Materials: Online Training Materials (chicago.gov)

If you are having difficulty registering additional people, please refer to this handout: https://www.chicago.gov/content/dam/city/depts/dps/isupplier/iSupplier%20FAQs%20for%20Delegate%20Agencies.pdf

Here is a link to all additional technical assistance videos and handouts: https://www.cityofchicago.org/city/en/depts/dps/isupplier/online-training-materials.html

Additionally, respondents may e-mail CustomerSupport@cityofchicago.org to receive more specific advice and troubleshooting.

Respondents must submit an application for the request for proposal via eProcurement.

CANCELLATION

The City reserves the right, at any time and in its sole and absolute discretion, to reject any or all submissions, or to withdraw the RFP without notice. In no event shall the City be liable to respondents for any cost or damages incurred by respondents, team members, consultants, or other interested parties in connection with the RFP process, including but not limited to any and all costs of preparing the preliminary cost budget, architectural drawings and renderings or other submitted materials, and participation in any conferences, oral presentations, or negotiations.

C. Contact person information

Christian Taylor
Director of Digital Equity, Office of the Mayor
digitalequity@cityofchicago.org

IV. Section 4 - Legal and Submittal Requirements

A description of the following required forms has been included for your information. *Please note that most of these forms will be completed prior to grant agreement execution but are not necessary for the*

completion of this proposal. A complete list of what forms will be required at the time of contracting is listed at the end of this section.

A. City of Chicago Economic Disclosure Statement (EDS)

Respondents are required to execute the **Economic Disclosure Statement** annually through its on-line EDS system. Its completion will be required for those Respondents who are awarded contracts as part of the contracting process.

More information about the on-line EDS system can be found at: https://webapps.cityofchicago.org/EDSWeb/appmanager/OnlineEDS/desktop

B. Disclosure of Litigation and Economic Issues

Legal Actions: Respondent must provide a listing and brief description of all material legal actions, together with any fines and penalties, for the past five (5) years in which (i) Respondent or any division, subsidiary or parent company of Respondent, or (ii) any officer, director, member, partner, etc., of Respondent if Respondent is a business entity other than a corporation, has been:

- A debtor in bankruptcy; or
- A defendant in a legal action for deficient performance under a contract or in violation of a statute or related to service reliability; or
- A Respondent in an administrative action for deficient performance on a project or in violation of a statute or related to service reliability; or
- A defendant in any criminal action; or
- A named insured of an insurance policy for which the insurer has paid a claim related to deficient performance under a contract or in violation of a statute or related to service reliability; or
- A principal of a bond for which a surety has provided contract performance or compensation to an
 obligee of the bond due to deficient performance under a contract or in violation of a statute or
 related to service reliability; or
- A defendant or Respondent in a governmental inquiry or action regarding accuracy of preparation of financial statements or disclosure documents.

Any Respondent having any recent, current or potential litigation, bankruptcy or court action and/or any current or pending investigation, audit, receivership, financial insolvency, merger, acquisition, or any other fiscal or legal circumstance which may affect their ability currently, or in the future, to successfully operate the requested program, must attach a letter to their proposals outlining the circumstances of these issues. Respondent letters should be included in a sealed envelope, directed to Comptroller Chasse Rehwinkel. Failure to disclose relevant information may result in a Respondent being determined ineligible or, if after selection, in termination of a contract.

C. Grant Agreement Obligations

By entering into a grant agreement with the City, the successful respondent is obliged to accept and implement any recommended technical assistance. The grant agreement will describe the payment methodology. DFSS anticipates that payment will be conditioned on the Respondent's performance in accordance with the terms of its grant agreement.

D. Funding Authority

This initiative is administered by the Department of Finance using tax-exempt general obligation bond funds and American Rescue Plan Local Fiscal Recovery Plan. Consequently, all guidelines and requirements of the

Department of Finance and the City of Chicago must be met. Additionally, all grantees must comply with the Single Audit Act if applicable.

E. Insurance Requirements

Respondent must provide and maintain at Respondent's own expense, during the term of the Agreement the insurance coverages and requirements specified below, insuring all work, services, or operations related to the Agreement.

A. INSURANCE REQUIRED

1) Workers' Compensation and Employer's Liability (Primary and Umbrella)

Workers' Compensation Insurance, as prescribed by applicable law covering all employees who are to provide a service under this Agreement and Employer's Liability coverage with limits of not less than \$1,000,000 each accident; \$1,000,000 disease-policy limit and \$1,000,000 disease-each employee, or the full per occurrence limits of the policy, whichever is greater.

The Respondent may use a combination of primary and Excess/Umbrella policy/policies to satisfy the limits of liability required herein. The Excess/Umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

2) Commercial General Liability

Commercial General Liability Insurance or equivalent must be maintained with limits of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury, personal injury, and property damage liability. Coverages must include but not be limited to, the following: all premises and operations, no exclusion for damage to work performed by Contractors or Consultants, any limitation of coverage for designated premises or project is not permitted (not to include endorsement CG 21 44 or equivalent) and any endorsement modifying or deleting the exception to the Employer's Liability exclusion is not permitted. Where the general aggregate limit applies, the general aggregate must apply per project/location and once per policy period if applicable, or Respondent may obtain separate insurance to provide the required limits which will not be subject to depletion because of claims arising out of any other work or activity of Respondent. If a general aggregate applies to products/completed operations, the general aggregate limits must apply per project and once per policy period.

The City must be provided additional insured status with respect to liability arising out of Respondent's ongoing operations. Such additional insured coverage must be provided on ISO form CG 2010 10 01 and CG 2037 10 01 or on an endorsement form at least as broad for ongoing operations and completed operations. The City's additional insured status must apply to liability and defense of suits arising out of Respondent's acts or omissions, whether such liability is attributable to the Respondent or to the City. The full policy limits and scope of protection also will apply to the City as an additional insured, even if they exceed the City's minimum limits required herein. A copy of the physical 'Additional Insured' endorsement must accompany the Certificate of Insurance when submitted. Respondent's liability

insurance must be primary without right of contribution by any other insurance or self-insurance maintained by or available to the City.

The Respondent may use a combination of primary and Excess/Umbrella policy/policies to satisfy the limits of liability required herein. The Excess/Umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

3) Automobile Liability

A Business Auto Policy covering any motor vehicles (owned, non-owned and hired) which are used in connection with work, services, or operations to be performed, must be maintained by the Respondent. Limits of not less than \$1,000,000 per accident for bodily injury and property damage and covering the ownership, maintenance, or use of any auto whether owned, leased, non-owned or hired used in the performance of the work or services. The City is to be added as an additional insured on a primary, non-contributory basis. A copy of the physical 'Additional Insured' endorsement must accompany the Certificate of Insurance when submitted.

A combination of primary and Excess/Umbrella policy/policies may be used to satisfy the limits of liability required herein. The Excess/Umbrella policy/policies must provide the same coverages/follow form as the underlying policy/policies.

4) Umbrella or Excess

Umbrella or Excess Liability Insurance must be maintained with limits of not less than \$2,000,000 per occurrence, or the full per occurrence limits of the policy, whichever is greater. The policy/policies must provide the same coverages/follow form as the underlying Commercial General Liability, Automobile Liability, Employers Liability and Completed Operations coverage required herein and expressly provide that the Excess or Umbrella policy/policies will drop down over reduced and/or exhausted aggregate limit, if any, of the underlying insurance. The Excess/Umbrella policy/policies must be primary without the right of contribution by any other insurance or self-insurance maintained by or available to the City.

The Respondent may use a combination of primary and Excess/Umbrella policies to satisfy the limits of liability required under Workers' Compensation, Employer's Liability, Commercial General Liability, and Automobile Liability.

B. ADDITIONAL REQUIREMENTS

<u>Evidence of Insurance.</u> Respondent must furnish the City of Chicago, Certificates of Insurance (COI) and additional insured endorsement, or other evidence of insurance, to be in force on the date of this Agreement, and renewal COIs and endorsement, or such similar evidence, if the coverages have an expiration or renewal date occurring during the term of this Agreement. The Respondent must submit

evidence of insurance prior to execution of Agreement. The receipt of any COI does not constitute agreement by the City that the insurance requirements in the Agreement have been fully met or that the insurance policies indicated on the COI are in compliance with all requirements of Agreement. The failure of the City to obtain, nor the City's receipt of, or failure to object to a non-complying insurance certificate, endorsement or other insurance evidence from Respondent, its insurance broker(s) and/or insurer(s) will not be construed as a waiver by the City of any of the required insurance provisions. Respondent must advise all insurers of the Agreement provisions regarding insurance. The City in no way warrants that the insurance required herein is sufficient to protect the Respondent for liabilities which may arise from or relate to the Agreement. The City reserves the right to obtain complete, certified copies of any required insurance policies at any time.

<u>Failure to Maintain Insurance</u>. Failure of the Respondent to comply with required coverage and terms and conditions outlined herein will not limit Respondent's liability or responsibility nor does it relieve Respondent of the obligation to provide insurance as specified in this Agreement. Nonfulfillment of the insurance conditions may constitute a violation of the Agreement, and the City retains the right to suspend this Agreement until proper evidence of insurance is provided, or the Agreement may be terminated.

Notice of Material Change, Cancellation or Non-Renewal. Respondent must provide for sixty (60) days prior written notice to be given to the City in the event coverage is substantially changed, canceled or non-renewed and ten (10) days prior written notice for non-payment of premium. A copy of the physical endorsements must accompany the Certificate of Insurance for General Liability, Automobile Liability and Workers Compensation in order to comply with the insurance requirements.

<u>Deductibles and Self-Insured Retentions</u>. Any deductibles or self-insured retentions on referenced insurance coverages must be borne by Respondent.

<u>Waiver of Subrogation</u>. Respondent hereby waives its rights and its insurer(s)' rights of and agrees to require their insurers to waive their rights of, subrogation against the City under all required insurance herein for any loss arising from or relating to this Agreement. The Respondent agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether the City receives a waiver of subrogation endorsement for Respondent's insurer(s).

<u>Respondent's Insurance Primary</u>. All insurance required of Respondent under this Agreement shall be endorsed to state that Respondent's insurance policy is primary and not contributory with any insurance carrier by the City.

<u>No Limitation as to Respondent's Liabilities</u>. The coverages and limits furnished by the Respondent in no way limit the Respondent's liabilities and responsibilities specified within the Agreement or by law.

<u>No Contribution by the City</u>. Any insurance or self-insurance programs maintained by the City do not contribute with insurance provided by Respondent under this Agreement.

Insurance not Limited by Indemnification. The required insurance to be carried is not limited by any

limitations expressed in the indemnification language in this Agreement or any limitation placed on the indemnity in this Agreement given as a matter of law.

<u>Insurance and Limits Maintained</u>. If Respondent maintains higher limits and/or broader coverage than the minimums shown herein, the City requires and shall be entitled the higher limits and/or broader coverage maintained by Respondent. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

<u>Joint Venture or Limited Liability Company</u>. If Respondent is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a named insured.

<u>Other Insurance obtained by Respondent</u>. If Respondent desires additional coverages, the Respondent will be responsible for the acquisition and cost.

Insurance required of Contractors and/or Consultants. Respondent shall name any Contractor and/or Consultant as a named insured(s) under Respondent's insurance or Respondent will require each Contractor and/or Consultant to provide and maintain Commercial General Liability, Commercial Automobile Liability, Worker's Compensation, Employers Liability and Professional Liability Insurance, and when applicable Excess/Umbrella Liability Insurance with coverage at least as broad as in outlined in Section A, Insurance Required. The limits of coverage will be determined by Respondent. Respondent shall determine if Contractor and/or Consultant must also provide any additional coverage or other coverage outlined in Section A, Insurance Required. The Respondent is responsible for ensuring that each Contractor and/or Consultant has named the City of Chicago as an additional insured where required, as well as specifically naming the City of Chicago as an additional insured on any endorsement form at least as broad and acceptable to the City. The Respondent is also responsible for ensuring that each Contractor and/or Consultant has complied with the required coverage and terms and conditions outlined in this Section B, Additional Requirements. When requested by the City, the Respondent must provide to the City Certificates of Insurance and additional insured endorsements or other evidence of insurance. The City reserves the right to obtain complete, certified copies of any required insurance policies at any time. Failure of the Subcontractor(s) to comply with required coverage and terms and conditions outlined herein will not limit Respondent's liability or responsibility.

<u>City's Right to Modify</u>. Notwithstanding any provisions in the Agreement to the contrary, the City, Department of Finance, Risk Management Division maintains the right to modify, delete, alter or change these requirements.

F. myCOI

Respondent, if selected, shall register with the City's online insurance certificate portal using the designated email registration link provided at http://www.cityofchicago.org/COI and as specified in Exhibit 6. Respondent shall provide a current and valid email address for both the contractor and the contractor's insurance agent or provider, as described in further detail in Exhibit 6. The Selected Respondent is responsible for ensuring the submission of a certificate of insurance (COI) through the City's online insurance certificate portal prior to award of a contract.

A Respondent selected for contract negotiation and award who fails to fulfill the requirement to register and submit a COI through the City's online insurance certificate portal may be deemed nonresponsive and the City may choose to instead engage a different Respondent for contract negotiation. If a Respondent is unable to register and submit the COI through the City's online insurance certificate portal and instead submits a printed insurance certificate prior to contract award, the City may accept a paper COI provided that written justification is provided explaining the Respondent's good faith efforts to comply with the terms of this section and the reasons why the submission could not be completed. Instructions for registering and submitting COIs are available at the following URL: http://www.cityofchicago.org/COI

G. Indemnity

The successful Respondent will be required to indemnify City of Chicago for any losses or damages arising from the delivery of services under the grant agreement that will be awarded. The City may require the successful Respondent to provide assurances of performance, including, but not limited to, performance bonds or letters of credit on which the City may draw in the event of default or other loss incurred by the City by reason of the Respondent's delivery or non-delivery of services under the grant agreement.

H. False statements

i. 1-21-010 False Statements.

Any person who knowingly makes a false statement of material fact to the city in violation of any statute, ordinance or regulation, or who knowingly falsifies any statement of material fact made in connection with an proposal, report, affidavit, oath, or attestation, including a statement of material fact made in connection with a bid, proposal, contract or economic disclosure statement or affidavit, is liable to the city for a civil penalty of not less than \$500.00 and not more than \$1,000.00, plus up to three times the amount of damages which the city sustains because of the person's violation of this section. A person who violates this section shall also be liable for the city's litigation and collection costs and attorney's fees.

The penalties imposed by this section shall be in addition to any other penalty provided for in the municipal code. (Added Coun. J. 12-15-04, p. 39915, § 1)

ii. 1-21-020 Aiding and Abetting.

Any person who aids, abets, incites, compels or coerces the doing of any act prohibited by this chapter shall be liable to the city for the same penalties for the violation. (Added Coun. J. 12-15-04, p. 39915, § 1)

iii. 1-21-030 Enforcement.

In addition to any other means authorized by law, the corporation counsel may enforce this chapter by instituting an action with the department of administrative hearings. (Added Coun. J. 12-15-04, p. 39915, § 1)

I. Compliance with laws, statutes, ordinances and executive orders

Grant awards will not be final until the City and the respondent have fully negotiated and executed a grant agreement. All payments under grant agreements are subject to annual appropriation and availability of funds. The City assumes no liability for costs incurred in responding to this RFP or for costs incurred by the respondent in anticipation of a grant agreement. As a condition of a grant award, Respondents must comply with the following and with each provision of the grant agreement:

i. Conflict of Interest Clause: No member of the governing body of the City of Chicago or other unit of government and no other officer, employee, or agent of the City of Chicago or other government unit who exercises any functions or responsibilities in connection with the carrying out of the project shall have any personal interest, direct or indirect, in the grant agreement.

The respondent covenants that he/she presently has no interest, and shall not acquire any interest, direct, or indirect, in the project to which the grant agreement pertains which would conflict in any manner or degree with the performance of his/her work hereunder. The respondent further covenants that in the performance of the grant agreement no person having any such interest shall be employed.

- ii. Governmental Ethics Ordinance, Chapter 2-156: All Respondents agree to comply with the Governmental Ethics Ordinance, Chapter 2-156 which includes the following provisions: a) a representation by the respondent that he/she has not procured the grant agreement in violation of this order; and b) a provision that any grant agreement which the respondent has negotiated, entered into, or performed in violation of any of the provisions of this Ordinance shall be voidable by the City.
- iii. Successful Respondents shall establish procedures and policies to promote a Drug-free Workplace. The successful respondent shall notify employees of its policy for maintaining a drug-free workplace, and the penalties that may be imposed for drug abuse violations occurring in the workplace. The successful respondent shall notify the City if any of its employees are convicted of a criminal offense in the workplace no later than ten days after such conviction.
- iv. Business Relationships with Elected Officials Pursuant to Section 2-156-030(b) of the Municipal Code of Chicago, as amended (the "Municipal Code") it is illegal for any elected official of the City, or any person acting at the direction of such official, to contact, either orally or in writing, any other City official or employee with respect to any matter involving any person with whom the elected official has a business relationship, or to participate in any discussion in any City Council committee hearing or in any City Council meeting or to vote on any matter involving the person with whom an elected official has a business relationship. Violation of Section 2-156-030(b) by any elected official with respect to the grant agreement shall be grounds for termination of the grant agreement. The term business relationship is defined as set forth in Section 2-156-080 of the Municipal Code.

Section 2-156-080 defines a "business relationship" as any contractual or other private business dealing of an official, or his or her spouse or domestic partner, or of any entity in which an official or his or her spouse or domestic partner has a financial interest, with a person or entity which entitles an official to compensation or payment in the amount of \$2,500 or more in a calendar year; provided, however, a financial interest shall not include: (i) any ownership through purchase at fair market value or inheritance of less than one percent of the share of a corporation, or any corporate subsidiary, parent or affiliate thereof, regardless of the value of or dividends on such shares, if such shares are registered on a securities exchange pursuant to the Securities Exchange Act of 1934, as amended; (ii) the authorized compensation paid to an official or employee for his office or employment; (iii) any economic benefit provided equally to all residents of the City; (iv) a time or demand deposit in a financial institution; or (v) an endowment or insurance policy or annuity contract purchased from an insurance company. A "contractual or other private business dealing" shall not include any employment relationship of an official's spouse or domestic partner with an entity when such spouse or domestic partner has no discretion concerning or input relating to the relationship between that entity and the City.

V. Compliance with Federal, State of Illinois and City of Chicago regulations, ordinances, policies, procedures, rules, executive orders and requirements, including Disclosure of Ownership Interests Ordinance (Chapter 2-154 of the Municipal Code); the State of Illinois - Certification Affidavit Statute (Illinois Criminal Code); State Tax Delinquencies (65ILCS 5/11-42.1-1); Governmental Ethics Ordinance (Chapter 2-156 of the Municipal Code); Office of the Inspector General Ordinance (Chapter 2-56 of the Municipal Code); Child Support Arrearage Ordinance (Section 2-92-380 of the Municipal Code); and Landscape Ordinance (Chapters 32 and 194A of the Municipal Code).

- vi. If selected for grant award, Respondents are required to (a) execute the Economic Disclosure Statement and Affidavit, and (b) indemnify the City as described in the grant agreement between the City and the successful Respondents.
- vii. Prohibition on Certain Contributions, Mayoral Executive Order 2011-4. Neither you nor any person or entity who directly or indirectly has an ownership or beneficial interest in you of more than 7.5% ("Owners"), spouses and domestic partners of such Owners, your Subcontractors, any person or entity who directly or indirectly has an ownership or beneficial interest in any Subcontractor of more than 7.5% ("Sub-owners") and spouses and domestic partners of such Sub-owners (you and all the other preceding classes of persons and entities are together, the "Identified Parties"), shall make a contribution of any amount to the Mayor of the City of Chicago (the "Mayor") or to his political fundraising committee during (i) the bid or other solicitation process for the grant agreement or Other Contract, including while the grant agreement or Other Contract is executory, (ii) the term of the grant agreement or any Other Contract between City and you, and/or (iii) any period in which an extension of the grant agreement or Other Contract with the City is being sought or negotiated.

You represent and warrant that since the date of public advertisement of the specification, request for qualifications, request for proposals or request for information (or any combination of those requests) or, if not competitively procured, from the date the City approached you or the date you approached the City, as applicable, regarding the formulation of the grant agreement, no Identified Parties have made a contribution of any amount to the Mayor or to his political fundraising committee.

You shall not: (a) coerce, compel or intimidate your employees to make a contribution of any amount to the Mayor or to the Mayor's political fundraising committee; (b) reimburse your employees for a contribution of any amount made to the Mayor or to the Mayor's political fundraising committee; or (c) bundle or solicit others to bundle contributions to the Mayor or to his political fundraising committee.

The Identified Parties must not engage in any conduct whatsoever designed to intentionally violate this provision or Mayoral Executive Order No. 2011-4 or to entice, direct or solicit others to intentionally violate this provision or Mayoral Executive Order No. 2011-4.

Violation of, non-compliance with, misrepresentation with respect to, or breach of any covenant or warranty under this provision or violation of Mayoral Executive Order No. 2011-4 constitutes a breach and default under the grant agreement, and under any Other Contract for which no opportunity to cure will be granted. Such breach and default entitles the City to all remedies (including without limitation termination for default) under the grant agreement, under any Other Contract, at law and in equity. This provision amends any Other Contract and supersedes any inconsistent provision contained therein.

If you violate this provision or Mayoral Executive Order No. 2011-4 prior to award of the Agreement resulting from this specification, the City may reject your bid.

For purposes of this provision:

"Other Contract" means any agreement entered into between you and the City that is (i) formed under the authority of Municipal Code Ch. 2-92; (ii) for the purchase, sale or lease of real or personal property; or (iii) for materials, supplies, equipment or services which are approved and/or authorized by the City Council.

"Contribution" means a "political contribution" as defined in Municipal Code Ch. 2-156, as amended.

"Political fundraising committee" means a "political fundraising committee" as defined in Municipal Code Ch. 2-156, as amended.

- viii. (a) The City is subject to the June 24, 2011 "City of Chicago Hiring Plan" (the "2011 City Hiring Plan") entered in Shakman v. Democratic Organization of Cook County, Case No 69 C 2145 (United States District Court for the Northern District of Illinois). Among other things, the 2011 City Hiring Plan prohibits the City from hiring persons as governmental employees in non-exempt positions on the basis of political reasons or factors.
- (b) You are aware that City policy prohibits City employees from directing any individual to apply for a position with you, either as an employee or as a subcontractor, and from directing you to hire an individual as an employee or as a subcontractor. Accordingly, you must follow your own hiring and contracting procedures, without being influenced by City employees. Any and all personnel provided by you under the grant agreement are employees or subcontractors of you, not employees of the City of Chicago. The grant agreement is not intended to and does not constitute, create, give R.I.S.E to, or otherwise recognize an employer-employee relationship of any kind between the City and any personnel provided by you.
- (c) You will not condition, base, or knowingly prejudice or affect any term or aspect of the employment of any personnel provided under the grant agreement, or offer employment to any individual to provide services under the grant agreement, based upon or because of any political reason or factor, including, without limitation, any individual's political affiliation, membership in a political organization or party, political support or activity, political financial contributions, promises of such political support, activity or financial contributions, or such individual's political sponsorship or recommendation. For purposes of the grant agreement, a political organization or party is an identifiable group or entity that has as its primary purpose the support of or opposition to candidates for elected public office. Individual political activities are the activities of individual persons in support of or in opposition to political organizations or parties or candidates for elected public office.
- (d) In the event of any communication to you by a City employee or City official in violation of paragraph (b) above, or advocating a violation of paragraph (c) above, you will, as soon as is reasonably practicable, report such communication to the Hiring Oversight Section of the City's Office of the Inspector General ("IGO Hiring Oversight"), and also to the head of the Department. You will also cooperate with any inquiries by IGO Hiring Oversight related to this Agreement.

EXHIBIT 1 SCOPE OF SERVICES

1. **Duties and Expectations**

City Broadband Principles

The City of Chicago envisions broadband and digital equity investment that is founded upon five Principles: Equitable Access, Affordable Service, High-quality Performance, Privacy, and Choice. These will be used to assess whether a potential broadband provider, project, or technology meets the standards the City expects residents to receive. In their proposals, Respondents should prioritize the following broadband standards and principles:

- 1. **Equitable Access**: Service and infrastructure advances equity, reversing historic geographic patterns of underinvestment and promoting business practices in line with the City's goals around racial equity.
- 2. **Affordable Service**: Cost of internet service is not a barrier for Chicago residents to connect to the internet.
- 3. **High-Quality Performance**: Service is fast, reliable, upgraded as technologies advance, and resilient, designed to withstand equipment failures, power outages, natural disasters, or manmade disasters. Speeds of 100/100 Mbps are delivered.
- 4. **Privacy**: Chicagoans must be able to determine how their data is or is not used.
- 5. **Choice**: Optimal infrastructure is designed to accommodate multiple service providers, and service options are not limited due to network capacity, physical space in network hub locations, or technology choices.

The City encourages Respondents to present creative connectivity ideas that leverage community anchor institutions, such as schools, libraries, and community centers, and that directly benefit Chicagoans most burdened by the digital divide. These target populations include but are not limited to:

- Communities in areas of the city with low rates of household broadband connection / adoption (based on 2017-2021 American Community Survey, or other available data)
- Low-income households
- Individuals who live in public housing
- Communities with a high population of immigrants and/or English language learners
- Individuals with disabilities
- Communities with limited internet service options
- Neighborhood small businesses

Respondents are also encouraged to discuss how projects will serve Chicago households that meet the above criteria and further meet the following criteria:

- Returning residents (formerly incarcerated)
- Survivors of violence, including gender-based violence, and their families
- LGBTQIA+ residents
- Migrants and refugees

Project Scope

The Respondent must deploy and operate a retail broadband internet service (Service) that is affordable, highly reliable, and high-quality within one or more of the Target Community Areas below. The Respondent

must maintain a direct customer relationship with subscribers of the service, including but not limited to outreach, enrollment, provisioning, billing, support, and handling customer complaints.

The Respondent will design, implement, operate, and assemble the technology and infrastructure partnerships necessary to provide the Service, including, but not limited to, the deployment of a last-mile network connecting subscribers within the Target Community Area that is based on either wireline or fixed wireless technologies. In doing so, the Respondent must comply with all federal, state, and local laws and regulations.

Target Community Areas

Target Community Areas are those within the top 25 Community Areas with the lowest rates of home internet connection, according to 2017-21 American Community Survey estimates. Data is publicly available through the U.S. Census and at Chicago.gov/digitalequity on "The Data" tab, <u>linked here</u>. The top 25 least connected Community Areas all have 20% or more households without internet at home, and all fall within Low- or Moderate-Income Community Areas. Target Community Areas are:

Community Area	Percent (%) of Households without Home Internet	Count of Households without Home Internet
West Englewood	31.77	3102
Englewood	29.42	2679
Fuller Park	28.67	324
Auburn Gresham	26.78	4742
Chatham	26.07	3823
Greater Grand Crossing	25.92	3204
Gage Park	25.70	2398
North Lawndale	25.59	2813
Avalon Park	25.34	1051
Chicago lawn	25.27	4342
East Garfield Park	25.21	1810
Archer Heights	24.40	1065
South Lawndale	24.21	4700
Roseland	23.48	2928
Austin	23.31	8063

Armour Square	23.22	1291
New City	22.42	2778
Montclare	21.71	1031
Belmont Cragin	21.14	4843
West Garfield Park	20.86	1214
Burnside	20.83	217
Humboldt Park	20.77	3856
West Pullman	20.58	1919
Pullman	19.76	650
Woodlawn	19.65	2252

2. Qualifying Criteria

Evaluation Approach

Performance-Based Approach to Proposal Evaluation

To gather the most extensive range of proposals, the City of Chicago is focused on project outcomes rather than prescriptive project requirements. Having identified the Target Community Areas for investment through this RFP, the City is open to a variety of technologies, deployment and ownership models, and partnerships that can serve the City's goal of providing affordable, high-speed internet access to residents within one or more Target Community Areas. At a high level, the City is seeking the following attributes in a proposal:

- High-speed residential service: The City intends to fund a proposal that provides all residents with access to a package of at least 100/100 Mbps. (If a proposal cannot meet 100/100 Mbps at the time of submission, respondent should explain in their response how they plan to achieve this speed over time.) The network must provide reliable service with over 99.9% uptime, with responsive customer support protocols to address any network outages or other performance issues.
- **Affordability**: Residents in the Target Community Area should have access to a \$30/month or less service available within 60 days of the network's launch date
- Clear, Fixed Pricing. While the City understands that providers must charge a monthly fee for
 internet service to generate revenue and sustain the network, Chicago will prioritize transparency
 around all costs and fees associated with the proposed services. The City will not support
 promotional pricing, and expects proposals to contain fixed commitments around costs and service
 speeds, but for marginal increases tied to rising inflation over time.
- **Investment in Outreach and Adoption**: In addition to improving access to high-speed internet, the City seeks to ensure that residents are made aware of this opportunity and are provided with the necessary resources to subscribe to the internet. The City will require partners to invest in outreach

and marketing efforts across the community at least until the provider has a take-rate of 35%, and the City encourages Respondents who will commit to higher adoption rates.

The Evaluation Committee will choose a portfolio of selected projects that reflects the diversity of Chicago and the attributes listed above. The Evaluation Committee will evaluate proposals based on the application questions listed below, with the relative weights of each criterion specified below.

3. Application Questions and Evaluation Criteria

Professional Qualifications and Specialized Experience of Respondent and Team Members Committed to this Project (10 points)

Respondent Team Profile

The Respondent Team must include an experienced internet service provider with previous broadband deployments of similar scale and service level. The Respondent Team should have experience serving multilingual customers and low-income customers. Applicants are encouraged to incorporate minority- and women-owned businesses and will be asked to document good faith efforts to do so. Minority- and women-owned business participation goals will be set on a contract-by-contract basis.

- **Q1.** Respondent must describe the experience of each identified member of the Respondent Team with respect to deploying networks. Discuss the network technologies with which the Respondent Team has experience and how those inform the proposed deployments. Discuss the experience of the Respondent Team within the City of Chicago, if applicable. If the Respondent Team includes more than one company or organization, indicate each entity's role in previous broadband deployments and describe the scale of those deployments, including the following information:
 - a. Size of the service area
 - b. Number of addresses served
 - c. Speed of service delivered
 - d. Capital cost of the project
 - e. Operational expenses associated with the projects, including the ongoing operating expense per customer
 - f. Length of time to complete network construction
- Q2. Respondent must describe the Respondent Team's experience providing service in low-income neighborhoods and serving customers in multilingual neighborhoods, including the following information:
 - a. Experience offering an affordable plan to qualifying customers, including rates offered
 - b. Experience serving residents of public housing and/or affordable rental housing
 - c. Experience with adoption and outreach efforts to non-English speaking communities.
- **Q3.** Respondent must submit an organization chart that clearly illustrates the Respondent Team's structure comprising all firms (joint venture partners, if any, Subcontractors). In the organization chart or as an attached narrative, Respondent must describe the specific role of each firm in the project and what they will be responsible for delivering. Respondents must also indicate which members of the team are certified small businesses, or certified WMBE businesses.

Respondent Team Key Leadership

The Respondent Team must be led by qualified staff with experience managing the deployment of broadband networks of a similar scale and type. The Respondent Team must include a project manager who will serve as the City's primary point of contact.

Q4. Respondent must provide the names, experience, and qualifications of key staff who will be personally leading the deployments in Chicago, including the point of contact with the City, the project manager, the technical lead, and staff responsible for subscribing customers. Discuss the technologies the Respondent has experience deploying (manufacturers, spectrum, protocols) and how those inform the proposed deployments.

Experience With Grant Funded Projects

The City intends to use a variety of federal grant funds to invest in proposed connectivity projects, including but not limited to the federal American Rescue Plan Act (ARPA). Such grants require detailed reporting and compliance. The Respondent Team will be required to produce timely, detailed reports and maintain records to comply with funding source requirements.

The Prevailing Wage Act applies to bond- and ARPA-funded projects. If the payment of prevailing wages is required for services provided under a grant agreement awarded under this RFP, the successful respondent must pay the prevailing wage rates as ascertained by the Illinois Department of Labor.

Q5. Respondent must describe prior experience implementing projects funded by Federal, City, and/or State grants. Describe the Respondent Team's approach to maintaining compliance with funding and/or program requirements.

Q6. Respondent must describe their prior experience with project reporting to comply with Federal, City, and/or State grant funding requirements, as applicable.

Approach to Network Design, Deployment, and Operations (40 points)

Minimum Network Performance Requirements

The City requires all network deployments to meet the minimum performance criteria presented in Table 1. Detail on testing methodology to measure each of these performance requirements is provided in Exhibit 4
Testing Methodology. The Testing Methodology sets expectations for how measurement should be done. Selected respondents must be open to third-party validation.

Each subscribing residential household must receive service speeds of a minimum of 100 Mbps downstream and 100 Mbps upstream (100/100 Mbps). (If a proposal cannot meet 100/100 Mbps at the time of submission, respondent should explain in their response how they plan to achieve this speed over time.) For the service area identified by the Respondent, the network design (either fixed wireless or wireline) must be

able to support the required throughput and capacity to serve, at minimum, Respondent's stated percentage of housing units within each census block.

Table 1. Minimum Network Performance Requirements

Network Performance Criterion				
Criterion	Requirement	Measurement Method		
Minimum speed available to subscriber	100/100 Mbps*	Measure using traffic generation software or other industry standard testing software or hardware, as described in the Testing Methodology table in Exhibit 4		
Latency (round trip ping time from user premises to core site router)	< 20 ms**	Measure using ping test generated via command line or industry standard testing software or hardware, as described in the Testing Methodology table in Exhibit 4		
Average outage time per subscriber	Less than 48 hours over any 365-day period	Measure using dashboard real-time network monitoring software, as described in the Testing Methodology table in Exhibit 4		
Network availability	99.5% of the time over a one- month period	Measure using dashboard real-time network monitoring software, as described in the Testing Methodology table in Exhibit 4		
Other criteria	No data caps or usage- based throttling	Measure using traffic generation software or other industry standard testing software or hardware, as described in the Testing Methodology table in Exhibit 4		

^{*} If a respondent presents a solution with cannot achieve 100/100 mbps at the time of submission, respondent should explain why it cannot provide such speed in their response how they plan to achieve this speed over time.

^{**} If a respondent presents a solution which cannot achieve < 20 ms latency, respondent should explain why it cannot achieve such standards and outline they plan to over time.

Wireline Network Design

If proposing a wireline-based solution, the Respondent must design a comprehensive wireline network with sufficient availability and capacity to serve all subscribers at a minimum speed of 100/100 Mbps. (If a proposal cannot meet 100/100 Mbps at the time of submission, respondent should explain in their response how they plan to achieve this speed over time.) The selected Respondent must further develop the proposed design to achieve the level of detail required for implementation.

Only Respondents suggesting a wireline solution must respond to Q7-Q13:

- **Q7.** Describe in detail the network architecture, network elements (both active and passive) along with their specifications or manufacturer cut sheets, connectivity to the internet backbone, and the service speeds and latency that will be offered to subscribers. For the service area identified by the Respondent, the network design (either fixed wireless or wireline) must be able to support the required throughput and capacity to serve Respondent's stated percentage of housing units per census block. The narrative must explain the engineering decisions required to achieve service speeds and latency, such as:
 - a. Backhaul connectivity
 - b. Head end deployment
 - c. Core network electronics
 - d. Fiber capacity and strand counts on each segment of the network
 - e. Use of coaxial cable and frequency split
 - f. Maximum line speed at the premises
 - g. Oversubscription ratio
 - h. Split ratios
 - i. Splice points
 - j. Drop installation
 - k. In-unit termination specification
 - Customer Premise Equipment (CPE) or router model and capabilities (including Wi-Fi interface)
- **Q8.** Provide a detailed logical diagram showing major interconnection points, interfaces, and speeds on all links. This should include the transmission medium used between nodes (fiber, microwave, etc.), peering points, and internet exchange locations. The diagram must also provide detailed technical information such as types of equipment, technology, split ratios, and interface speeds for all segments of the network, from the internet backhaul to the customer.
- **Q9.** Describe whether the network is completely fiber or, if another medium such as copper or coaxial cable, is utilized in the network. If not 100 percent fiber, describe what percentage of the network is another medium and explain what engineering decisions led to that design.

- **Q10.** Describe where fiber will be run in the public rights-of-way and to customer premises, and how strands will be allocated to individual customers. If each household will not receive a dedicated fiber handoff, describe how connectivity will be delivered to each household from an intermediate demarcation point.
- **Q11.** Describe the construction methodology for deploying the network. Describe the amount of aerial and underground construction and how you determined that percentage. (Please note that aerial fiber is only permitting in alleys.) Provide construction specifications, such as:
 - a. Fiber cable type (loose tube, ribbon, armored, etc.)
 - b. Conduit type and size for each route segment
 - c. Construction methodology for each segment of the network. Describe how underground conduit will be installed and at what depth (per CDOT rules and regulations minimum depth is 30"). For aerial segments, describe how much make-ready work is expected on poles
 - d. Vault and handhole dimensions and material
 - e. Your plan to protect your underground facility from damage or outage (i.e., joining the CDOT Office of Underground Coordination *(optional)*, joining 811, the national call-before-you-dig hotline *(required)*)
- **Q12.** Provide a map of the proposed network routes. Include a .kmz of the proposed routing with clearly defined layers for the various types of infrastructure and any other information relevant to the design, including:
 - a. Fiber routes and segment types (backbone, distribution, etc.)
 - b. Installation method (direction bore, etc.)
- **Q13.** Using the template provided in <u>Exhibit 5 Bill of Materials</u> workbook, state the estimated total cost and provide a bill of materials (BOM) for the deployment of the network, including design, engineering, permitting, labor and material for construction, electronics, and testing.

Fixed Wireless Network Design

If proposing a fixed wireless network, the Respondent must design a comprehensive wireless network core solution with sufficient availability and capacity to serve all subscribers at a minimum speed of 100/100 Mbps when fully loaded. If 100/100 cannot be achieved, respondents should describe the speed available, and any plans to reach 100/100. The core may have a hybrid cloud component with control and media plane separation. The Respondent's suggested network design (either fixed wireless or wireline) must be able to serve the indicated percentage of households on each census block with the required throughput. The selected Respondent Team must further develop the proposed design to achieve the level of detail required for implementation.

The Respondent must design the fixed wireless network to operate under current availability of spectrum and to continue to provide the required performance if conditions change, such as if there is a decrease in available CBRS GAA spectrum or if unlicensed spectrum is congested.

The core solution must include a provisioning module with an administrative interface for all common provisioning activities, including device activations and deactivations, device replacements and upgrades, SIM card changes (if applicable), and subscriber account information. Role-based access controls must restrict provisioning access to trained and authorized personnel.

Only Respondents suggesting a fixed wireless solution must respond to Q14- Q18:

Q14. State the minimum percentage of housing units within each census block that your network will serve. Provide a network design serving the Target Community Area(s) and state the required throughput and capacity required to serve the stated percentage of housing units in each census block. Provide the following formation for each base station site:

- a. Site Name
- b. Latitude
- c. Longitude
- d. Elevation (m)
- e. Address Line1
- f. Address Line2
- g. Address Line3
- h. Backhaul Type

For each sector antenna at a base station site, provide the following information:

- i. Sector ID (to match ID in the data file)
- j. Name Of Parent Site (the site name as referenced above)
- k. Transmit Antenna Gain (dBi)
- Transmit Antenna Height (m)
- m. Transmit Antenna Pattern (Please provide pattern file)
- n. Transmit Max Transmitter Power Per Channel (dBmW)
- o. Transmit Transmission Line Loss (dB)
- p. EIRP (dBm)

Q15. Respond to the requirements below and, where applicable, confirm that the proposed solution complies and explain how.

- a. Provide cut sheets for all equipment specified in the Bill of Materials (BOM) detailing the form factors of the equipment.
- b. Provide photos of all proposed installation types for both base station sites and end- user locations.
- c. Provide security so that only authorized devices and users have access to the network.
- d. Support prioritization on a per-user basis.
- e. Have high availability, with a redundant core or through connection to a cloud core.
- f. Respondent must conduct performance tests and certify in writing to the City when the core is fully operational.

Q16. Provide an estimate of the expected end user throughput in each census block and the loading expected at each sector and site in the design. Please use: the capacity requirement of serving Respondent's stated percentage of housing units in the proposed service area at a speed of 100/100 Mbps, the performance specifications of the equipment, the amount of spectrum available, a suitable oversubscription assumption, and the site configurations.

Q17. Provide a detailed logical diagram showing major interconnection points, interfaces, and speeds on all links. This should include the transmission medium used between nodes, peering points, and internet exchange locations. The diagram must also provide detailed technical information such as types of equipment, technology, and interface speeds for all segments of the network, from the internet backhaul to the customer.

Q18. Using the template provided in <u>Exhibit 5 Bill of Materials</u> workbook, state the estimated total cost and provide a bill of materials (BOM) for the deployment of the network, including design, engineering, permitting, labor and material for construction, electronics, and testing.

Network Implementation and Construction

The successful Respondent must implement and construct the network design as proposed according to the Respondent's Project Management Plan.

Any wireless technology implemented, including all towers, antennas, and other components utilized to deliver wireless broadband service must comply with all FCC or other applicable regulations regarding tower construction, spectrum registration or licensing, and applicable state/City authority over zoning and land use regulations.

The Respondent must have all routes and tower sites surveyed by a licensed surveyor as well as provide City with GIS/CAD mapping showing the locations of all facilities deployed and Target Community Areas of engineered coverage design(s).

The successful Respondent also must:

a. Work with all appropriate departments to obtain all required right of way approvals.

- b. Obtain all required permits and private easement approvals.
- c. Coordinate project deployment with all utilities.
- d. Obtain any necessary subcontractors.
- e. Provide on-site construction inspections to ensure proper design and execution.
- f. Coordinate and resolve third-party or private claims.
- g. Repair any and all damage to private and government property.
- h. At all times, maintain an adequate staff of experienced and qualified employees for efficient performance.
- i. At all times, furnish or perform any services in a safe, proper, and professional manner.
- **Q19**. Provide an overview of the major activities required to implement and construct the network design. The response should include sufficient detail to clearly demonstrate understanding of all major activities and clearances necessary to implement the network design.
- **Q20**. Explain how the proposal will comply with applicable local, state, and federal regulatory requirements.
- **Q21**. Provide a summary of the relevant permitting processes and approvals that are required to implement the proposed network based on the public assets needed to leverage for deployment.
- **Q22.** Provide a plan for how the network would leverage City-owned assets, such as public right-of-way, City-owned buildings, or sister agency buildings. <u>Please click here for a map</u> of public assets in the Target Community Areas, and refer to <u>Exhibit 3 Use of City Assets and Relevant Permitting Processes</u> for a summary of how each participating department and agency's assets will be made available.
- **Q23.** Describe the approach for connecting multi-dwelling units (MDUs) in the proposed service area, and what means will be used to connect units throughout the MDUs.
- **Q24.** If the Respondent intends to serve affordable housing properties (AHPs) through its proposed deployment, please describe the approach for connecting AHPs to the network and wiring the building.

Minimization of Environmental and Aesthetic Impacts

The City seeks to minimize impact on the environment and encourages Respondent to reduce environmental impacts to the extent feasible. Additionally, given the urgent need to provide this Service to the Target Area(s) that are experiencing the digital divide, Proposals should seek to utilize existing infrastructure and rights of way, and seek to minimize disturbances and impact to the environment.

The City also encourages Respondents to minimize the aesthetic impacts of their proposed designs to the Target Area. This includes minimizing visual disturbances to the public, reducing the size and quantity of equipment placed in public view, and utilizing appropriate camouflaging techniques within the community.

Q25. Provide elevation drawings that show placement and dimensions and post- implementation images of each type of network and supporting infrastructure in the design visible to the public, such as antennas, small cells, towers, shelters, enclosures, and demarc boxes.

Project Management Plan

The Respondent must provide a project management plan for the deployment of the network infrastructure and initiation of the Service. The project management plan, which is subject to the City's approval, must comprehensively describe the Respondent's approach to managing the planning, design, and construction of the network and include a project timeline that highlights the order of segments for design, construction, and activation. The EC will consider the Respondent's current capacity to perform the scope of services and timeline to begin the execution of the scope of services. Preference will be given to Respondents who can begin work soon.

Q26. Provide a brief narrative description of the segmentation and order of the approach and reasoning for the order of the approach that will be utilized in the project management plan. Respondents must note any roadblocks and areas of risk. Include assumptions such as (but not limited to) the number of work crews, make ready timelines, permitting, and anticipated issues around material lead times. Define the roles and responsibilities of the Respondent, the City, and other partners, and parties. Indicate the primary point of contact of the Respondent.

<u>Customer Premises Equipment</u>

The Respondent must provide customer premises equipment (CPE) to all end-users to connect the location to the Respondent's network that is providing the internet access service and to interface multiple end-user devices via wired Ethernet and wireless Wi-Fi connections inside the premises. The CPE must meet the minimum requirements in the Minimum CPE Specifications Table below. Both indoor and outdoor CPE types will be acceptable, although solutions that are more aesthetically pleasing and that require less expensive efforts to install are desirable.

The Respondent must manage the CPE, and as necessary troubleshoot, repair and/or replace CPE that is not operating properly.

Table 2. Minimum CPE Specifications

Element	Specification
Power	Outdoor must be Power-Over-Ethernet (PoE) Indoor must plug into a standard AC 15-amp outlet
User Interface	Wi-Fi 802.11ac or better, Ethernet

	A minimum of two SSIDs must be supported Ability to provide a splash page to support guest hot spot connectivity			
SSID				
Routing	Able to redirect DNS to CIPA-compliant servers even if client/student device is configured to outside DNS			
Filtering	Support for MAC OUI filtering with vendor masking Support for bandwidth management via URL/IP locking Able to generate event logs accessible via a remote portal			
	Over the air (remote) flash of configuration and device software Temperature sensor of device			
Additional	Able to remotely disable services on CPE			
Management	Support group policy changes vs. requiring individual device configurations			
Logs	Maintain a log of all historically connected devices			

Q27. Provide images of typical CPE installations, including indoor (and outdoor) CPE, antennas, visible exterior or interior wiring dressed wiring that represents a completed residential installation.

Q28. Describe the proposed Customer Premises Equipment responding to the minimum CPE specifications. Where applicable, confirm that the proposed solution complies and explain how.

- a. If a Respondent suggests an indoor CPE configuration, it must have an integrated modem, antenna, and Wi-Fi router.
- b. If a Respondent suggests an outdoor CPE configuration, it must have an outdoor antenna that connects to an indoor access point with a Wi-Fi router.
- **c.** The proposed CPE model(s) will deliver 100/100 Mbps to each household and meet or exceed the minimum specifications.

Service Provision

The Respondent must streamline and automate the setup and installation of the Service for customers to the maximum extent possible while ensuring a high success rate. The Respondent must be equipped to efficiently onboard customers, with a maximum lead time to install of ten business days.

The Respondent must professionally install CPE and associated materials when necessary, or otherwise provide a customer-friendly self-installation kit when professional installation is not necessary.

- **Q29.** Describe the provisioning processes and highlight actions requiring end-user interaction. For professionally installed equipment, provide a document detailing the installation process. Describe the responsibilities that the service provider will undertake, such as:
 - a. Installation in the right of way (Nothing in this RFP shall be read to waive any right of way permits and licenses required under Chicago Code.);
 - b. Providing an interoperable handoff at the customer premises;
 - c. Making available internet services to the customer premises (specifying any actions the customer will be responsible for);
 - d. Ensuring safe and stable power supply to all equipment, including at the customer premises, and
 - e. Ensuring safe mounting of any necessary equipment.
- **Q30**. Detail the proposed average and maximum lead time to install—the time from receiving a customer installation request to completing installation.
- Q31. Describe the conditions in which you would not be able to provide internet service to a residence.

Supported Systems and Services

The Respondent must provide or arrange operational support for all devices, systems, and services provided by the delivered solution. This includes hardware, software, configuration, provisioning, and integration of:

- a. Customer premises equipment (CPE)
- b. Core electronics
- c. Fiber distribution equipment (if applicable)
- d. Radio access network (RAN): Radio systems, sub-systems, X-haul (if applicable)
- e. Transport/backhaul infrastructure or services
- f. Upstream internet service or peering

Network Operations and Customer Support

The Respondent must provide tiered support accessible via email, online chat, and/or telephone. The support functions must be organized and staffed to respond to planned and unplanned events, and seasonal trends. The Respondent must staff all tiers of support, from primary points of contact to high level engineering experts.

The Respondent must have a 24x7x365 Network Operations Center to monitor the Service.

The Respondent must include a 24×7×365 remote technical support (RTS) agreement with equipment manufacturers. The Respondent must include an onsite hardware replacement agreement for the systems and components of the core network electronics, such as routers, switches, and RAN systems.

Onsite hardware replacement must have a delivery established in an SLR (e.g., same day or next day) to be negotiated with the City.

The Respondent must include maintenance support agreement for all systems and components used to deliver or operate the Service. Maintenance support must include all software and firmware updates and patches.

Q32. Describe the approach to providing comprehensive operational support and capacity planning of the network to meet or exceed the Minimum Network Performance Requirements. Describe the various functions that will be operated out of the Network Operations Center (NOC), such as network monitoring, provisioning, troubleshooting, and customer support. Address how the Respondent will notify subscribers and City staff of network disruptions and how it will regularly report status updates until resolution has been completed.

Q33. Describe the approach to providing ongoing customer service, including the availability of support by phone, email, SMS, and/or in-person customer support.

- a. Provide the daily operating hours for each of these methods of support. Describe how customer service will function outside of regular working hours and on weekends.
- b. Describe which portions of the customer service experience, if any, are automated, and which receive a review from a human customer support representative.
- c. Identify any subcontractors that will be used to provide customer service and summarize their scopes of work.

Approach to Reporting, Transparency, and Compliance Requirements (10 points)

Quarterly Reporting Requirements

This initiative is funded through the American Rescue Plan Local Fiscal Recovery Fund and tax-exempt bonds, which require regular reporting. The Respondent must submit quarterly performance reports to the City that include the following key performance indicators, within the three categories below. Where applicable, these must be provided in GIS or KMZ format. GIS and KMZ file formats are generated using mapping software; they show geographic representation of information through a map.

1. Project Performance Reporting:

- a. Project milestones and percentage of network completion, including construction milestones, number of miles of fiber deployed, problems/issues encountered, and actions taken to resolve construction issues
- b. Description of changes, challenges, or risks to project timeline, including environmental compliance and permitting challenges
- c. Detailed reporting of actual construction costs, as compared to approved construction costs
- d. Subscription information including the number of paying subscribers enrolled in the service, and the number of subscribers enrolled in a low-cost service plan
- e. Speed and latency test data at the address level for all locations served in the project area--including maximum download speed offered, maximum download speed

- delivered, maximum upload speed offered, maximum upload speed delivered, and latency.
- f. Maps and associated data for all locations served, including latitude/longitude of all buildings where service was installed and broken out by type (residential housing units, businesses, community anchor institutions)
- g. Documentation of advertisements, billing inserts, and marketing information by speed tier and price, including corresponding non-promotional prices, associated fees, and data allowance for each speed tier
- h. Customer service response time
- i. Customer service resolution time
- j. Customer satisfaction data
- k. Compliance with the Prevailing Wage Act requirements
- I. Other reporting as required by grantor agencies or as mutually agreed upon by the Respondent and City.
- 2. Network Deployment Reporting Requirements:
 - a. Sections of the network that have been completed
 - b. The number and locations of homes passed (wireline) or within range (fixed wireless) and are service ready
 - c. The number of homes that have service connected since the previous report
 - d. Explanation of any variance from the Project Management Plan, such as detailed explanation of delays that have occurred with a plan to remedy
 - e. Addresses where construction has been completed and where construction will be conducted in the coming weeks (provided in a .kmz or shapefile)
 - f. Status of permitting
 - g. Any anticipated delays
 - h. Forecast for the upcoming weeks
 - i. Proposed changes to the project
 - Other reporting as required by grantor agencies or as mutually agreed upon by the Respondent and City.
- 3. Network Performance Reporting Requirements:
 - a. Average uptime (including maximum downtime)
 - b. Average latency (including minimum and maximum)
 - c. Average service speeds (including minimum and maximum)
 - d. Number of unique active connections in the network
 - e. Number of new connections that have joined the network since the last report
 - f. The number of households that have left the network since the last report
 - g. The net growth in subscribers since the last report
 - h. Average time to connect new subscriber (from sign-up to completion of CPE installation)
- 4. To adhere with IRS requirements to use tax-exempt bond proceeds, respondent must supply at least the following documentation to ensure correct tracking of the use tax-exempt bond proceeds:
 - a. Personnel cost for those directly involved in the execution of the project
 - b. List of locations where work occurred

- c. Description of the work performed at each location
- d. Materials & supplies used for work
- e. Other information may be needed upon request, relating to tracking that the bondrelated program expenditures are capitalizable expenses per IRS accounting rules and other applicable rules and regulations.

Q34. Describe a dashboard and the underlying software and technologies that you will use to collect and report quarterly deployment and performance metrics as required by the Quarterly Reporting Requirements listed above. Describe any additional approaches to communicating information and performance indicators transparently with City staff and the public.

Workforce Training and Safety Standards

Employment opportunities for local workers on projects situated within their communities are a key element of City investments. The construction and operation of the proposed connectivity project is expected to improve workforce and job readiness among fiber and telecom workers.

In accordance with the American Rescue Plan Act, Respondents "are encouraged to use strong labor standards, including project labor agreements (PLAs) and community benefits agreements that offer wages at or above the prevailing rate and include local hire provisions. Treasury also recommends that respondents prioritize in their procurement decisions employers who can demonstrate that their workforce meets high safety and training standards (e.g., professional certification, licensure, and/or robust in-house training), that hire local workers and/or workers from historically underserved communities, and who directly employ their workforce or have policies and practices in place to ensure contractors and subcontractors meet high labor standards."

The Respondent's staff must meet applicable safety and training standards (e.g., professional certification, licensure, and/or robust in-house training). Deployment of all fiber and fiber- related infrastructure must comply with all applicable codes including National Electrical Safety Code (NESC), National Electrical Code (NEC) National Electrical Contractors Association (NECA) codes, the requirements of the utility pole owners, and laws at the local, state, federal, and private land levels as they pertain to fiber optic installations.

Q35. Describe the workforce training standards for all employees involved in both network deployment and ongoing operations. Provide a description of safety training, certification, and/or licensure requirements for each job title required to carry out the proposed work (including contractors and subcontractors), and detail whether there is a robust in-house training program with established requirements tied to certifications, titles; and information on the professional certifications and/or inhouse training in place to ensure that deployment is done at a high standard.

Commitment to Chicago's Broadband Standards and Principles (20 points)

The City understands that there are various barriers to internet adoption that go beyond infrastructure deployment. The City seeks a Respondent who is committed to creatively engaging with community

members to identify and overcome all barriers to internet adoption and to provide employment and career development opportunities in the designated Target Community Areas.

<u>Equitable Access:</u> Service and infrastructure advances equity, reversing historic geographic patterns of underinvestment and promoting business practices in line with the City's goals around racial equity.

• Multilingual Community Engagement Requirement: The Respondent must implement multilingual community outreach, customer support, service onboarding, and advertising to reach residents from a variety of linguistic backgrounds. The Respondent must engage in community outreach and develop tailored engagement plans in Chicago's five most spoken languages, including Spanish, Polish, Arabic, Tagalog, and Chinese. The Respondent must also develop tailored engagement plans for seniors and residents with disabilities.

Q36. Describe the Respondent Team's demonstrated history of providing customer outreach, customer service and service onboarding, and advertising to populations that were previously ACP-eligible. Describe in detail the community outreach approach in the Target Community Area. Describe the methods of outreach you will employ, the frequency and times of day you plan to conduct outreach, and whether you will have an ongoing physical retail and/or customer service.

- Partnership With Community-Based Organizations: To reach unconnected households, the City recognizes the value of utilizing the expertise of local, community-based organizations (CBOs) that have public trust and experience serving the designated Target Community Area. While not a requirement, the Respondent is encouraged to partner with CBOs in the designated Target Area that meet the criteria identified below.
 - CBO has a physical presence in the designated Target Area.
 - o CBO has a demonstrated history of service in the designated Target Area.
 - CBO has a demonstrated history of engaging populations that previously met ACPeligibility criteria.
 - CBO can reach eligible households in the Target Area without the need for City- provided contact lists.

Q37. Identify all Community-Based Organizations (CBOs) you plan to partner with for community outreach, engagement, or ongoing customer support. If you intend to engage CBOs or work directly to promote digital literacy or provide digital skills training in the Target Area, please describe these efforts. For each CBO in the Target Area, describe the plan for collaboration with the CBO—either as an informal partner or as a paid subcontractor—including the budget, timeline, and scope of work. If you are not planning on partnering with CBOs, please state as such.

• <u>Workforce Development</u>: The City is committed to increasing access to career pathways through registered pre- apprenticeship and apprenticeship programs to help those with significant barriers to employment enter the workforce in skilled occupations.

Q38. Describe your workforce development strategy. Will the initiative invest in and/or partner with apprenticeship or pre- apprenticeship programs? Please include the specific skill set(s) or certificates the program(s) will provide, who will conduct the program, how potential attendees will be recruited to

participate in the program, and program metrics for success. Detail the percentage of total contract hours that will be reserved for apprentices.

Q39. Identify any local institutions, such as community colleges, universities, technical training schools, or community-based organizations that you will work with to implement apprenticeship or preapprenticeship programs. Describe the plan for collaboration with these local institutions, including the budget, timeline, and scope of work.

Revenue Sharing and Community Investment: The City seeks to maximize investments and
economic impacts for local community members beyond the availability of the service and its
operation. The City invites respondents to propose innovative models of sharing revenues with
the City.

Q40. Does the Proposal include a plan to share gross revenues with the City? If so, describe the proposed revenue sharing structure. Describe any other innovative approaches to maximize investment and economic impacts for local community members.

Affordable Service: Cost of internet service is not a barrier for Chicago residents to connect to the internet.

- Low-Cost Service Plan & Participation in the Affordable Connectivity Program: The Respondent must provide a low-cost residential broadband service plan. The Respondent must be either an Eligible Telecommunications Carrier (ETC) in the state of Illinois or approved by the FCC to provide benefits in Illinois as a non- ETC broadband provider.
- The low-cost service plan must meet the following criteria:
 - Must not include data usage caps, surcharges, or usage-based throttling;
 - Must offer a minimum speed of 100/100 Mbps;
 - o Must cost no more than \$30 per month, inclusive of all taxes, fees and charges;
 - Must not charge for installation or setup;
 - Must provide a free modem, router, or other similar CPE;
 - Must not require a minimum term;
 - o In the event the Respondent later offers a service plan at the same or lower cost with higher speeds downstream and/or upstream, the provider must permit subscribers to the low-cost service plan to upgrade to the faster and/or lower cost plan.
- The Respondent must actively support enrollment in their low-cost service plan.

Q41. State whether Respondent previously participated in the Affordable Connectivity Program and describe any current or upcoming eligible low-cost service plan you provide. Describe the Respondent Team's actions to advertise and enroll customers in low-cost broadband service. If you do not offer a low-cost service plan, describe how you will establish a compliant low-cost service plan.

Q42. List the rates for all of the proposed service tiers, including a low-cost service plan that will be offered to eligible households.

Q43. Describe Respondent's policy on conducting customer credit checks and requiring up-front cash deposits to receive service.

<u>Cyber Security and Privacy</u>: The Respondent must operate a secure service provider network with comprehensive cyber security operations and governance programs to ensure the confidentiality, integrity, and availability of the Service and customers. This includes, but is not limited to, 24x7x365 cyber security monitoring, incident response, and timely remediation.

- The Respondent must have appropriate processes and personnel to respond to legallyauthorized requests, such as copyright claims and warrants. The Respondent must ensure that Customer Premise Equipment is managed, is free from known vulnerabilities, and is remediated in a timely manner when vulnerabilities occur.
- The Respondent must ensure that the privacy of customers is protected according to the Illinois Consumer Privacy Act and other applicable laws.
- The Respondent must provide customers with parental controls capability so that they may restrict access to undesirable content or to the internet based on a variety of conditions, such as time-of-day, specific device or user, or destination.

Q44. Describe in detail how you will fulfill the requirements listed above, including but not limited to processes and practices; number, role, and expertise of staff for each of these functions, and technologies, contractors and/or services used to fulfill these requirements.

Q45. Describe any parental controls or online safety solutions you will implement to fulfill the requirement. This may be a technology-based or education-based solution.

Financial Offer and Soundness of Financial Assumptions (20 points)

The City seeks to maximize investments and economic impacts for local community members. As one element of the proposal evaluation, the City has developed a financial model to analyze the financial feasibility of a proposed connectivity project and assess the need for public investment in the network. Respondents will be asked to develop financial assumptions and submit via an attached "Financial Offer Workbook" Template in Exhibit 5. The City will consider the soundness of assumptions made in the Financial Offer Workbook based on assumptions stated in the Financial Offer Workbook as it evaluates the Respondent's Financial Offer.

Given the scope and criticality of this public digital equity project, the Respondent must demonstrate it has sufficient available funding to provide the required services, not including any requested public investment. The Respondent must include information that will enable the City to discern the financial resources available to the Respondent Team. Such information should help the City determine whether the Respondent Team has the financial ability to implement and maintain the services committed to in their proposal. Respondents must submit adequate information that fully demonstrates their financial capacity and readiness to implement and maintain the services.

Q46. Using "Financial Offer Workbook" in <u>Exhibit 5</u>, provide a detailed description of the Project Team's requested financial input from the City, including the total required one-time Capital Expense (CAPEX), any one-time Operational Expense (OPEX). Provide any backup materials that substantiate the request.

Q47. Using "Financial Offer Workbook" in <u>Exhibit 5</u>, provide detailed cost, revenue, financing, and City financial input assumptions. This simplified financial model is intended to allow the City to assess the value of its investment over the 30-year life of the network.

EXHIBIT 2

COMPANY PROFILE INFORMATION

Submit a completed company profile information sheet for prime, each joint venture partner and subcontractor(s), as applicable.

(1)	Legal Name of Firm:					
(2)	Doing Business under Other Company Name?					
	If yes, Name of Company:					
(3)	Headquarters Address:					
(4)	City, State, Zip Co	de:				
(5)	Web Site Address	:				
(6)	Proposed Role:	□ Prime□ Subcontractor/SubConsultant□ Joint Venture Partner□ Supplier or□ Other:				
(7)	Number of Years i	n Business:				
(8)	Total Number of E	mployees:				
(9)	Total Annual Revenues separated by last 3 full fiscal years:					
(10)	Major Products and/or Services Offered:					
(11)	Other Products a	nd/or Services:				
(12)	Briefly describe th	ne Respondent's strategy for providing the Services outlined in the RFP:				
(13)	Briefly describe th	ne Respondent's experience with providing the Services outlined in the RFP:				

EXHIBIT 3

USE OF CITY ASSETS AND RELEVANT PERMITTING PROCESSES

The City has conducted an extensive asset inventory and plans to offer selected Respondents access to physical assets owned by the City, Chicago Housing Authority, Chicago Park District, and Chicago Public Schools. Linked here is the map of assets tentatively available for use in broadband implementations, pending the required department approval. Below is a breakdown of assets by owners and policy for accessing.

Owner of Asset	Types of Assets	Policy
City of Chicago – Department of Fleet & Facility Management (2FM)	Library branches, administrative buildings, parking garages, fire stations	Assets can be leased for no cost to the respondent.
City of Chicago – Chicago Department of Transportation (DOT)	Light Poles, Traffic Lights	Selected respondents must follow standard permitting processes, including associated fees.
Chicago Housing Authority (CHA)	CHA-owned buildings – residential and non-residential	Leasing costs must be negotiated based on resident benefits demonstrated.
Chicago Public Schools (CPS)	Schools	Leasing costs must be negotiated with the school principal and are subject to approval by Local School Council.

Below are descriptions of assets and processes overseen by sister agencies who have expressed an interest and willingness to participate in selected projects.

Rights-of-Way (ROW)

The City of Chicago understands that access to the public right-of-way is essential to the deployment of new broadband infrastructure. This section describes the processes governing underground and aerial rights-of-way. This information is provided for Respondents' convenience, but Respondents are ultimately responsible for contacting the relevant permitting authorities and complying with their requirements.

Underground ROW

The Chicago Department of Transportation (CDOT) issues permits for work and access related to the public right-of-way, inclusive of underground trenching work, along with providing existing utility

information. Per Municipal Code of Chicago (MCC) § 10-21, all excavation activity will also require a "dig ticket" issued by CDOT.

Within CDOT's Division of Infrastructure Management, the Office of Underground Coordination (OUC) reviews any project to install new utilities in or under the public right-of-way. OUC ensures projects are designed to avoid existing infrastructure by requesting its members (utility owners) review and comment on the proposed installation plan. OUC conducts two main types of reviews: Information Retrieval (IR) review—during which OUC members submit atlas pages to the project owner; and Existing Facility Protection (EFP) review—during which OUC members review the project design. The OUC process is setup to be 30 days, but securing OUC approval in one cycle is dependent on the applicant and the stakeholders completing any comments or revisions in a timely manner. If the planned installation encroaches upon a member's facility, they can request design changes. EFP submissions may go through several cycles of review before all members approve the design. CDOT only clears a project for construction after all members approve the design. To facilitate an efficient OUC process, CDOT has a team setup with City personnel and contractors to first review proposals internally, before passing them along to OUC stakeholders. For further explanation of their standard processes, please see OUC's site.¹ OUC review fees are set at \$50, in addition to overall permitting fees based on the proposed work.

After OUC approval is obtained, application for public way permits for any construction/installation activities is required. The City reviews all public way permit requests. To inform applicants' permit preparations, CDOT published a guidebook on permitting and construction techniques allowed on public property and the right-of-way.² The guidebook is extensive and detailed. Opening permits require a flat fee per opening and occupancy permits are based on duration and length (footage) of the requested impact.³

Typical minimum cover allowed for underground construction is 3 feet, with anything deeper than 12 feet requiring a Deep-Ex review. Although there are some locations where micro-trenching has been done in the City, these projects have been part of a pilot program or approved as a temporary measure. CDOT has allowed small-scale installation on a trial basis in limited areas. It is not a preferred construction technique because of potential impact on existing utilities and because the micro trenched fiber is vulnerable to damage in routine construction and repair. The City requires a written justification letter for micro trenching.

Respondents should also be aware that there is 5-year moratorium on resurfaced streets and a 10-year moratorium on recently reconstructed streets. Information on impacted streets is available on the Chistreetwork website.⁴ Any relevant moratoria would be flagged during the OUC review, although the

¹ Chicago's Office of Underground Coordination:

https://www.chicago.gov/city/en/depts/cdot/provdrs/construction_information/svcs/office_of_undergroundcoordination.html

2CDOT Rules and Regulations for Construction in the Public Way, 2019:

https://www.chicago.gov/content/dam/city/depts/cdot/Construction%20Guidelines/2019/2019 CDOT Rules and Regs 101819.pdf

³ To review CDOT's 2023 Permitting and Fee Schedule, see:

https://www.chicago.gov/content/dam/city/depts/cdot/permit/2022/CDOT%202023%20Permit%20Fee%20Schedule.pdf

⁴ ChiStreetWork: https://chistreetwork.chicago.gov/map

deputy has the authority to allow the OUC approval if there is no other option for the build. This exception would trigger a degradation fee on the permit.

Aerial ROW: Street Light Poles and Traffic Poles⁵

Aerial right-of-way is managed by CDOT. Stringing third party cable from City-owned light poles is not typically allowed, but the City does allow small cell attachments on its poles, through a process managed by CDOT.

CDOT's Division of Engineering, Electrical Engineering Section is responsible for reviewing plans and approving work on City light poles. CDOT will likely require a Structural Analysis Letter stamped by an Illinois-licensed Structural Engineer confirming the additional loading from the new equipment will not compromise the structural integrity of City assets located within the public way. Providers will also have to account for their own power needs as it relates to equipment on any city poles. Stringing third party cable from City owned light poles is not typically allowed, and providers would need to engage directly with ComEd and AT&T to gain access to utility poles.

The City has an existing process for wireless communication and installation permits. Access to City-owned rooftops will need approval from 2FM. CDOT is currently in the process of updating its requirements for small cell attachments and information is available at this link.

There are approximately 192K CDOT light poles citywide. Light poles that are not decorative might be used to attach wireless infrastructure for City or commercial use. There are also approximately 12K traffic poles owned by the City, which can potentially serve as vertical assets for installation of attachments.

Mobile providers and infrastructure providers (i.e., companies such as Crown Castle that build and lease antennas sites) have been installing small cells and distributed antenna systems (DAS) on poles for 15 years. Providers pay to replace the light pole and foundation, and to install power; they also pay an inspection fee and an annual fee. Current fees are listed on the CDOT 2024 Permitting and Fee Schedule. An updated Fee Schedule for 2025 will be available on CDOT's website.

City-Owned Buildings

City buildings can be neighborhood points of presence for broadband. They can house network equipment and connect to existing fiber networks. Generally, City-owned buildings are managed by a singular process. For buildings under the umbrella of the Chicago Police Department, Chicago Fire Department, Chicago Public Library, and general municipal administrative buildings, the Department of Fleet & Facility Management (2FM) exercises jurisdiction and approves attachments of wireless equipment to City buildings

For internal work, the Department of Buildings (DOB) Issues permits and inspects work done within buildings to ensure compliance with the City's building and zoning codes. For any telecommunications projects involving the interior of CPL properties, the CPL Information Technology Team is the starting

⁵ Chicago Smart Lighting Installation Map, https://chicagosmartlighting-chicago.opendata.arcgis.com/

point for discussions. CPL has a telecommunications specialist who can advise as to the precise approval process and CPL's available IT closet space/power availability to accommodate a project.

To leverage City buildings' existing fiber connections, Respondents should coordinate with the respective provider to request a commercial lease.

Chicago Housing Authority⁶

As a sister agency of the City of Chicago, the Chicago Housing Authority (CHA) is interested in sharing access to their assets to Respondents who intend to connect CHA buildings and residents. CHA has several means of providing access to their property for the installation and maintenance of telecommunications equipment. Through CHA's property division, telecommunications entities can acquire a license agreement.

Providers can negotiate a license agreement. License agreements incorporate maintenance requirements, terms of roof access, and terms discussing future expansion. In the process of negotiating a license agreement, CHA engineers will conduct a site visit and review a proposal for the installation and hardware that they installation. The Respondent provides design documents and is required to ensure that no damage will occur to the building. The Respondent will be responsible for attaining all needed City permits to complete the installation. CHA's architects and engineers must review and approve the design. CHA ultimately calculates a lease agreement for providers.

Respondent, at its sole expense, shall arrange for its own metered electrical supply from the local utility company and shall pay for all electric and other utility charges consumed by Respondent. During the application period for electric service from the local utility company, Respondent shall have the right to use temporarily CHA's electricity and pay CHA for the electric consumed by Respondent at the current local utility company rate. In the event Respondent cannot secure its own metered electrical supply, Respondent shall have a right at its own cost and expense, to submeter from CHA on a monthly basis for the electric consumed by Respondent.

Chicago Public Schools⁷

As a sister agency of the City of Chicago, Chicago Public Schools (CPS) is also willing to allow Respondents to access CPS assets to deploy new broadband infrastructure in CPS communities. CPS' Capital and Facilities department would drive the process to review and approve builds on CPS property and into CPS buildings. The Capital and Facilities Department has approved projects involving antennas or other wireless equipment on roofs and fiber running through CPS properties. If there is a need to lease space, CPS would also engage its Real Estate office to review the proposed project. Right-of-entry agreement will be needed to conduct any work on site and contractors will need to provide certificates of insurance naming the Board of Education as an additional insured party. Local School Council approval will be needed prior to installation on any school site.

When the plans involve the inside of a CPS building, the plans also go to the Technology Infrastructure team for a design review of the internal wiring approach. The Technology Infrastructure team owns CPS'

⁶ City of Chicago Data Portal, "Affordable Housing Units by Community Area" https://data.cityofchicago.org/Community-Economic-Development/Affordable-Housing-Units-by-Community-Area/yvi4-y3fb

https://data.cityofchicago.org/Education/Chicago-Public-Schools-School-Locations-SY2122/vfmh-nkyk

infrastructure standards concerning type of conduit, and the team works closely with the contractors conducting the work.⁸

CPS, through their vendor Crosstown Fiber, is currently building a wide-area fiber network to connect more than 500 schools. Respondents can contact Crosstown Fiber to explore whether they can leverage any existing conduit or dark fiber in their proposed solution.

Railroad Crossings

Anything being constructed adjacent to CTA structures or tracks must comply with CTA's adjacent construction process. More information, including CTA's Adjacent Construction Manual, can be found at: https://www.transitchicago.com/nearbyconstruction/

⁸ For a full description of CPS' standards for on-premise broadband deployments, see the CPS Infrastructure Handbook at this link: https://www.cps.edu/services-and-supports/school-facilities/facility-standards/cps-infrastructure-handbook/

EXHIBIT 4

TESTING METHODOLOGY

Wireline and Mesh Wireless Throughput Testing

All testing should match testing requirements as laid out by FCC performance measures testing standards for broadband grant programs. Speed testing methodology, latency testing methodology, testing locations, and response reporting should be consistent with requirements for federal grant programs.

Table 1: FCC Performance Testing Requirements

Process Detail	FCC		
Testing topics	Download, Upload, Latency		
Download and upload speeds	Up to 1 Gbps / 500 Mbps		
tested			
Latency tested	Less than or greater than 100 milliseconds		
Source of active ISP subscriber	ISP must enter its ongoing deployment progress for each		
addresses	household into the FCC's HUBB portal's map; must provide		
	proof of established customer service and other service details		
	(like speed) for each household		
Number of locations tested	The lesser of 50 locations or 10 percent of total subscribers;		
	minimum 5 subscriber locations		
Testing period	6 p.m. and 12 a.m. local time		
Testing frequency	Each hour for six hours, for one week		
Required results	At least 80% of all of the speed test results must be at a		
	minimum of 80% of the subscription connection speeds for		
	uplink and downlink; 95 percent of latency measurements must		
	be at or below 100 milliseconds round-trip time		
Reporting	Uses the FCC's Speed Data Upload Template and Latency		
	Reporting Template		
Testing Methods	Range of methods listed, including Consumer Premises		
	Equipment (CPE)		
Testing Paths	Through any FCC-designated Internet Exchange Points (IXP)		

Point-to-Multipoint Wireless Throughput Testing

Location testing

A UDP throughput test should be performed at 6 locations per sector resembling the actual deployment scenario envisioned by the respondent. These locations need to be close (expected high signal strength), medium (expected good signal strength), and far (expected marginal signal strength) This includes actual CPE equipment mounted at the intended heights. If the proposed deployment scenario is indoor, the

base station power needs to be temporarily attenuated by a minimum of 15 dB to account for building losses so the test can be performed outdoor. The UDP traffic should be set to generate 100 Mbps downstream and 100 Mbps upstream. The sector base station radio should have the "dummy load" feature enabled and set to 100%. This will replicate the interference seen from the other sectors of the site. Statistics such as RSRP, RSRQ, throughput, RSSI, and any CQI information or the technologies equivalent should be recorded. The test user equipment (CPE) should be the same residential unit used in the full-scale deployment plan. Following this methodology will show the area that a user can meet the minimum 100 Mbps downstream and 100 Mbps upstream end user criteria, taking into account interference from the adjacent sectors. This test will set an upper bound of end user performance. During this testing, several ping test should also be performed, and latency recorded. The UDP traffic generator can be used for the destination pings.

Stress Testing

The respondent shall also perform a stress test on each sector once construction is complete. This is referred to as a "pizza pie" test. The pizza pie test will simulate network performance when many users are attached to the network at the same time. The concept behind this test, which is standard in the wireless industry, is that placing the test locations in a narrow strip within a single sector will simulate a larger number of connected users and identify limits in network performance. Thus, this test will help simulate what the performance would be in a loaded environment.

The test requires the UDP traffic generator and six individuals at test locations with separate CPEs. Two CPEs should be placed in the good signal area (RSRP > 90 dBm), two CPEs in the average area (RSRP of - 110 to -90 dBm), and two CPEs in the poor signal area (RSRP <-110 dBm), all lined up along a narrow wedge area from the antenna. Non 3GPP technologies should follow this qualitative signal indicator (good, average, poor) for their corresponding signal strengths. The user devices should be placed well within the main beam of the antenna (± 15 degrees of the pointing azimuth of the antenna) to ensure that the CPEs will not hand over to the adjacent sector. All the six CPEs must be served by the same sector radio (eNodeB). Each CPE should be set to receive/generate UDP traffic at speeds based upon the end user throughput criteria of 100 Mbps downstream and 100 Mbps upstream. The speed criteria should be adjusted to account for any oversubscription assumptions. Tests should also be performed at 1 kbps downstream and 1 kbps upstream to simulate the "off state".

The test cases are outlined below. The CPEs shall be all operational at a single window of time. RSRP, RSRQ, throughput, RSSI, and any CQI information (for non 3GPP technologies use the corresponding metrics) should be recorded for each test scenario. The sites other two sectors/cells should have a dummy load set 100%. The test UE should be the residential unit used in the full-scale deployment plan. The results should be evaluated and compared to the design.

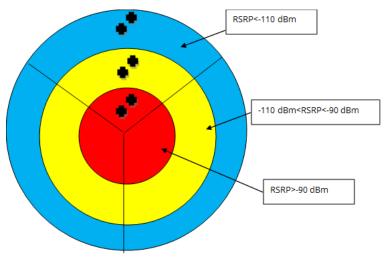
The test scenarios should be as follows:

Test Case	CPEs with RSRP>-90	CPEs with RSRP	CPEs with RSRP<-110	
	dBm	between -110 and -90	dBm	
		dBm		
1	A	A	A	
2	В	A	A	
3	В	В	А	
4	В	A	В	
5	A	A	В	
6	А	В	В	
7	А	A	В	

Test Scenarios

Test Scenario A: 100 Mbps downstream and 100 Mbps second upstream (scaled to oversubscription assumptions)

Test Scenario B: 1 kbps downstream and 1 kbps upstream (to ensure CPE is RRC_CONNECTED and not RRC_IDLE).



Test CPE alignment

Depending upon the eNodeB scheduling algorithm the test may have some varying results. It is expected that the CPEs in areas above -110 dBm RSRP can the supported simultaneously. At this moment, it is uncertain how the eNodeB will schedule resources to the CPEs in areas below -110 dBm RSRP. This test will assess the sector capacity and under loaded conditions.

The data collected from this test will be useful in projecting the number of users supported when distributed throughout varying radio conditions. Also, the test can be used to set expectations of end user performance and throughput in a loaded network for differing radio conditions. This test can be viewed as determining a lower bound of performance of the network. The combination of the previous

drive test and the "Pizza Pie" test can be used to set an upper and lower bound of network performance in varying RF conditions.					
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EXHIBIT 5

FINANCIAL OFFERING WORKBOOK AND BILL OF MATERIALS

Please complete and submit the following two documents as part of your application:

1) Financial Offering Workbook



2) Bill of Materials Workbook



Exhibit 6

Registration and Submittal of Certificate of Insurance through myCOI

You will receive a registration e-mail from registration@myCOItracking.com. Please follow the instructions in the e-mail to complete your registration with myCOI. Outlined within this exhibit are step by step instructions on how to register.

Contractor's organizational contact for this contract and insurance related matters as well as your insurance agent's contact information will be needed for registration.

You do not need to provide a certificate of insurance during your registration; myCOI will work with your agent using the information provided during registration to obtain the certificate of insurance directly from your agent.

Once the certificate of insurance is submitted by your agent and is approved for compliance by myCOI notification will be provided.

Please add the following e-mail addresses to your safe sender list to ensure you receive all e-mail communication from myCOI: registration@myCOItracking.com, certificaterequest@myCOIsolution.com

If you have any questions, please contact myCOI directly at 317-759-9426, Ext. 105 or via e-mail at support@myCOItracking.com.