

TOWN OF SUPERIOR
RESOLUTION NO. R-17
SERIES 2017

A RESOLUTION OF THE BOARD OF TRUSTEES OF THE TOWN OF SUPERIOR APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH UPTOWN SERVICES, LLC.

BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF SUPERIOR, COLORADO, as follows:

Section 1. The Professional Services Agreement between the Town of Superior and Uptown Services, LLC. is hereby approved in substantially the same form as attached hereto, subject to final approval by the Town Attorney.

ADOPTED this 27th day of February, 2017.

Clint Folsom

Clint Folsom, Mayor

ATTEST:



Phyllis J. Hardin
Phyllis J. Hardin, Town Clerk-Treasurer

AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made and entered into this 27th day of February, 2017 (the "Effective Date"), by and between the Town of Superior, 124 East Coal Creek Drive, Superior, Colorado 80027, a Colorado municipal corporation (the "Town"), and Uptown Services, LLC, an independent contractor with a principal place of business at 7324 Cortez Lane, Boulder, Colorado 80303 ("Contractor") (each individually a "Party" and collectively the "Parties").

WHEREAS, the Town requires professional services; and

WHEREAS, Contractor has held itself out to the Town as having the requisite expertise and experience to perform the required professional services.

NOW, THEREFORE, for the consideration hereinafter set forth, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

I. SCOPE OF SERVICES

A. Contractor shall furnish all labor and materials required for the complete and prompt execution and performance of all duties, obligations, and responsibilities which are described or reasonably implied from the Scope of Services set forth in **Exhibit A**, attached hereto and incorporated herein by this reference.

B. A change in the Scope of Services shall not be effective unless authorized as an amendment to this Agreement. If Contractor proceeds without such written authorization, Contractor shall be deemed to have waived any claim for additional compensation, including a claim based on the theory of unjust enrichment, quantum merit or implied contract. Except as expressly provided herein, no agent, employee, or representative of the Town is authorized to modify any term of this Agreement, either directly or implied by a course of action.

II. TERM AND TERMINATION

A. This Agreement shall commence on the Effective Date, and shall continue until Contractor completes the Scope of Services to the satisfaction of the Town, or until terminated as provided herein.

B. Either Party may terminate this Agreement upon 30 days advance written notice. The Town shall pay Contractor for all work previously authorized and completed prior to the date of termination. If, however, Contractor has substantially or materially breached this Agreement, the Town shall have any remedy or right of set-off available at law and equity.

III. COMPENSATION

In consideration for the completion of the Scope of Services by Contractor, the Town shall pay Contractor \$59,000. This amount shall include all fees, costs and expenses incurred by Contractor, and no additional amounts shall be paid by the Town for such fees, costs and expenses. Contractor shall not be paid until the Scope of Services is completed to the satisfaction of the Town.

IV. PROFESSIONAL RESPONSIBILITY

A. Contractor hereby warrants that it is qualified to assume the responsibilities and render the services described herein and has all requisite corporate authority and professional licenses in good standing, required by law. The work performed by Contractor shall be in accordance with generally accepted professional practices and the level of competency presently maintained by other practicing professional firms in the same or similar type of work in the applicable community. The work and services to be performed by Contractor hereunder shall be done in compliance with applicable laws, ordinances, rules and regulations.

B. The Town's review, approval or acceptance of, or payment for any services shall not be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement.

V. OWNERSHIP

Any materials, items, and work specified in the Scope of Services, and any and all related documentation and materials provided or developed by Contractor shall be exclusively owned by the Town. Contractor expressly acknowledges and agrees that all work performed under the Scope of Services constitutes a "work made for hire." To the extent, if at all, that it does not constitute a "work made for hire," Contractor hereby transfers, sells, and assigns to the Town all of its right, title, and interest in such work. The Town may, with respect to all or any portion of such work, use, publish, display, reproduce, distribute, destroy, alter, retouch, modify, adapt, translate, or change such work without providing notice to or receiving consent from Contractor.

VI. INDEPENDENT CONTRACTOR

Contractor is an independent contractor. Notwithstanding any other provision of this Agreement, all personnel assigned by Contractor to perform work under the terms of this Agreement shall be, and remain at all times, employees or agents of Contractor for all purposes. Contractor shall make no representation that it is a Town employee for any purposes.

VII. INSURANCE

A. Contractor agrees to procure and maintain, at its own cost, a policy or policies of insurance sufficient to insure against all liability, claims, demands, and other obligations assumed by Contractor pursuant to this Agreement. At a minimum, Contractor shall procure and maintain, and shall cause any subcontractor to procure and maintain, the insurance coverages listed below, with forms and insurers acceptable to the Town.

1. Worker's Compensation insurance as required by law.
2. Commercial General Liability insurance with minimum combined single limits of \$1,000,000 each occurrence and \$1,000,000 general aggregate. The policy shall be applicable to all premises and operations, and shall include coverage for bodily injury, broad form property damage, personal injury (including coverage for contractual and employee acts), blanket contractual, products, and completed operations. The policy shall contain a severability of interests provision, and shall include the Town and the

Town's officers, employees, and contractors as additional insureds. No additional insured endorsement shall contain any exclusion for bodily injury or property damage arising from completed operations.

3. Professional liability insurance with minimum limits of \$1,000,000 each claim and \$1,000,000 general aggregate.

B. Such insurance shall be in addition to any other insurance requirements imposed by law. The coverages afforded under the policies shall not be canceled, terminated or materially changed without at least 30 days prior written notice to the Town. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage. Any insurance carried by the Town, its officers, its employees or its contractors shall be excess and not contributory insurance to that provided by Contractor. Contractor shall be solely responsible for any deductible losses under any policy.

C. Contractor shall provide to the Town a certificate of insurance as evidence that the required policies are in full force and effect. The certificate shall identify this Agreement.

VIII. INDEMNIFICATION

Contractor agrees to indemnify and hold harmless the Town and its officers, insurers, volunteers, representative, agents, employees, heirs and assigns from and against all claims, liability, damages, losses, expenses and demands, including attorney fees, on account of injury, loss, or damage, including without limitation claims arising from bodily injury, personal injury, sickness, disease, death, property loss or damage, or any other loss of any kind whatsoever, which arise out of or are in any manner connected with this Agreement if such injury, loss, or damage is caused in whole or in part by, the act, omission, error, professional error, mistake, negligence, or other fault of Contractor, any subcontractor of Contractor, or any officer, employee, representative, or agent of Contractor, or which arise out of a worker's compensation claim of any employee of Contractor or of any employee of any subcontractor of Contractor.

IX. ILLEGAL ALIENS

A. **Certification.** By entering into this Agreement, Contractor hereby certifies that, at the time of this certification, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement and that Contractor will participate in either the E-Verify Program administered by the United States Department of Homeland Security and Social Security Administration or the Department Program administered by the Colorado Department of Labor and Employment to confirm the employment eligibility of all employees who are newly hired to perform work under this Agreement.

B. **Prohibited Acts.** Contractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement, or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.

C. Verification.

1. If Contractor has employees, Contractor has confirmed the employment eligibility of all employees who are newly hired to perform work under this Agreement through participation in either the E-Verify Program or the Department Program.

2. Contractor shall not use the E-Verify Program or Department Program procedures to undertake pre-employment screening of job applicants while this Agreement is being performed.

3. If Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien who is performing work under this Agreement, Contractor shall: notify the subcontractor and the Town within 3 days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien who is performing work under this Agreement; and terminate the subcontract with the subcontractor if within 3 days of receiving the notice required pursuant to subsection 1 hereof, the subcontractor does not stop employing or contracting with the illegal alien who is performing work under this Agreement; except that Contractor shall not terminate the subcontract if during such 3 days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien who is performing work under this Agreement.

D. Duty to Comply with Investigations. Contractor shall comply with any reasonable request by the Colorado Department of Labor and Employment made in the course of an investigation conducted pursuant to C.R.S. § 8-17.5-102(5)(a) to ensure that Contractor is complying with the terms of this Agreement.

E. Affidavits. If Contractor does not have employees, Contractor shall sign the "No Employee Affidavit" attached hereto. If Contractor wishes to verify the lawful presence of newly hired employees who perform work under the Agreement via the Department Program, Contractor shall sign the "Department Program Affidavit" attached hereto.

X. MISCELLANEOUS

A. Governing Law and Venue. This Agreement shall be governed by the laws of the State of Colorado, and any legal action concerning the provisions hereof shall be brought in Boulder County, Colorado.

B. No Waiver. Delays in enforcement or the waiver of any one or more defaults or breaches of this Agreement by the Town shall not constitute a waiver of any of the other terms or obligation of this Agreement.

C. Integration. This Agreement constitutes the entire agreement between the Parties, superseding all prior oral or written communications.

D. Third Parties. There are no intended third-party beneficiaries to this Agreement.

E. Notice. Any notice under this Agreement shall be in writing, and shall be deemed sufficient when directly presented or sent pre-paid, first class United States Mail to the party at the address set forth on the first page of this Agreement.

F. Severability. If any provision of this Agreement is found by a court of competent jurisdiction to be unlawful or unenforceable for any reason, the remaining provisions hereof shall remain in full force and effect.

G. Modification. This Agreement may only be modified upon written agreement of the Parties.

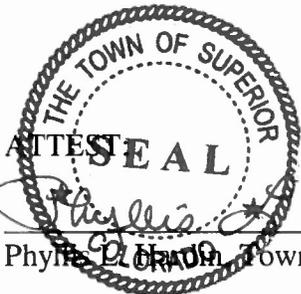
H. Assignment. Neither this Agreement nor any of the rights or obligations of the Parties hereto, shall be assigned by either Party without the written consent of the other.

I. Governmental Immunity. The Town and its officers, attorneys and employees, are relying on, and do not waive or intend to waive by any provision of this Agreement, the monetary limitations or any other rights, immunities or protections provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*, as amended, or otherwise available to the Town and its officers, attorneys or employees.

J. Rights and Remedies. The rights and remedies of the Town under this Agreement are in addition to any other rights and remedies provided by law. The expiration of this Agreement shall in no way limit the Town's legal or equitable remedies, or the period in which such remedies may be asserted, for work negligently or defectively performed.

K. Subject to Annual Appropriation. Consistent with Article X, § 20 of the Colorado Constitution, any financial obligation of the Town not performed during the current fiscal year is subject to annual appropriation, shall extend only to monies currently appropriated, and shall not constitute a mandatory charge, requirement, debt or liability beyond the current fiscal year.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.


Phyllis G. Hadden
Town Clerk

TOWN OF SUPERIOR, COLORADO


Clint Folsom, Mayor

CONTRACTOR

By: *[Signature]*

STATE OF COLORADO)
) ss.
COUNTY OF Boulder)

The foregoing instrument was subscribed, sworn to and acknowledged before me this 27th day of February, 2017, by Neil Shaw as President of Uptown Services.

My commission expires: June 09, 2019

(S E A L)

[Signature]
Notary Public

JOE MICHEAL MCLAREN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20154022508
MY COMMISSION EXPIRES JUNE 09, 2019.

EXHIBIT A SCOPE OF SERVICES

Contractor's Duties

During the term of this Agreement, Contractor shall perform the following duties, as directed by the Town:

Task 1: Inventory Currently Available Services

Contractor shall analyze the local providers of broadband and telecommunications services (phone, video, and Internet access) used by the residential and business markets. The incumbents studied will include at a minimum:

- Incumbent Local Cable TV Providers
- Broadband Internet Access Providers
- Incumbent Local Telephone Providers

Contractor shall evaluate the local offerings of the existing providers with assistance from Town staff. Due to the secretive nature of non-promotional pricing by the incumbents, Contractor will require local assistance with securing current service offerings. In completing this task, Contractor shall complete a side-by-side comparison of each major product, or product package, within each product category (LOB) to the appropriate benchmark incumbent and identify any corresponding price discount or price premiums.

Contractor shall determine the current satisfaction ratings for each service category and provider. Specific satisfaction data will be measure for these provider categories:

- Cable TV
- Satellite TV
- DSL Internet
- Cable Modem Internet
- Local Telephone

Finally, Contractor shall interpret the role service satisfaction levels play in market demand for alternative broadband services. This data can be cross-tabbed with other data to provide insight into the drivers of satisfaction.

Task 2: Create Competitive Pricing Model

Contractor shall define the service performance characteristics for multiple applicable classes of next generation broadband services appropriate for a FTTP network. To accomplish this, Contractor shall define the services to be offered with respect to capacity (downstream and upstream), features and functionality, packaging, tiers, rate card pricing, and discounting/bundling parameters for the relevant classes of service (*e.g.* residential, high cap services, etc.).

The next generation broadband services that will be quantified will include:

Service	Market	Service Parameters
High Capacity Data Services	Medium-Large Commercial & Institutions	<ul style="list-style-type: none"> • Dedicated high-capacity Access and Transport services ranging from 100Mbps to 10Gbps+
Internet Access Services	Residential & Commercial	<ul style="list-style-type: none"> • Internet Service Tiers • Downstream and upstream speeds • Features
Video Services	Residential	<ul style="list-style-type: none"> • Limited Basic • Expanded Basic • Digital Packages • Digital Tiers • Premiums • High Definition/ DVR Set Top
Voice Services	Residential & Commercial	<ul style="list-style-type: none"> • Access Line Fees • Feature Packages • Long Distance Packages
Triple Play Bundles	Residential	<ul style="list-style-type: none"> • 2- and 3-service combinations, discounts, and term limitations

Task 3: Conduct Market Survey

Contractor shall conduct market research with the purpose of determining the estimated take-rate for each potential service, as well as gather other important market intelligence. To accomplish this, the demand analysis will utilize local and statistically valid quantitative market research and will feed into the financial analysis as inputs. Additionally, Contractor shall conduct qualitative research in the form of depth interviews to assess the demand and needs of the large commercial and institutional segments. Contractor shall work with Town staff to finalize the survey instrument to be used.

This task will be completed using both primary (local market) quantitative telephone surveys and qualitative depth interviews to evaluate local market conditions. The structure of the research is summarized in the table below:

Market Segment	Research Methodology	Research Parameters
Residential Consumers	Quantitative Phone Survey	<ul style="list-style-type: none"> • Sample size of 400 with 95% Confidence Interval (n=400) • 10-12 minute survey • Screened for telecom/broadband decision maker and employment bias • Weighted by age decile to project to census distribution of population

<p>Medium-Large Businesses & Non-Profit Institutions</p>	<p>Depth Interviews</p>	<ul style="list-style-type: none"> • Depth interviews of 30-45 minutes each¹ • Sectors included: • Businesses (should be medium or large) • Healthcare service providers • Local government and non-profit organizations • K-12 Education • Higher Education
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Quantitative Research Methodology

The research survey will be conducted according to acceptable research standards for achievement of random and independent sampling of the universe population. Contractor's quantitative research approach utilizes formal and empirically proven techniques to ensure that both the data and the analysis are of the highest quality.

Scope of Survey

The quantitative survey will cover the following major areas:

- Identification of current broadband services being used, from which provider (market share), and monthly spending.
- Satisfaction with current services and areas for improvement.
- Willingness-to-pay at a 10% discount to incumbent offerings and analysis of expected take rates (penetration) for each service.
- An identification and rating of service attributes.
- Identification of areas of improvement relative to current services
- Ranking of importance of broadband to the community and identification of ideal service provider

Response Design

Contractor shall carefully design response options to ensure they are symmetrical and meet accepted research standards. Contractor shall exclusively use Likert scales for purchase intent questions. Contractor shall include open-ended response options in the surveys to gather specific information where needed (e.g. "What could be improved with your current broadband services?").

Screening Criteria

Contractor shall use screening questions at the start of every interview to insure that the respondent is not biased due to their employment.

Survey Sample

Residential sample size will be 400 and business sample will be 50. A 95% confidence interval will be achieved for the residential quantitative research survey. With a universe of approximately 2,900 households, an error rate of +/-4.6% is realized with a sample size of 400.

¹ In person at interviewee location, with phone interview if scheduling conflict

Important Survey Metrics

- The length of the phone survey will be 10-12 minutes.
- The survey sample will be conducted with decision makers of entertainment and communications services for their household/business.
- Sample file to be provided by The Town (*e.g.* Electric Utility Customer File or Property Tax Database)
- The survey will include an up-front screener question to ensure that employees of the Town or one of the incumbent providers are not included in the sample.

Survey Scope

The survey scope shall generate the key local market data required to enable an accurate financial analysis to be prepared and will be conducted using professional research practices and standards.

- The survey will identify current usage of broadband services
- The survey will identify current spending patterns for broadband services
- The survey will measure the current satisfaction levels among the incumbent providers for Cable TV, Internet access, and local phone service.
- The survey will measure the performance of the following key players on the above attributes:
 - Incumbent Cable Television Providers (MSOs)
 - Incumbent Local Phone Companies (ILECs)
- The survey will quantify the interest and purchase intent (willingness to switch) for broadband services if offered by an alternative provider.

Contractor's approach to survey design shall be consistent with professional techniques to ensure data validity. In this way, the Town is assured of viable research data and the quality of the financial inputs derived from it:

- Sampling (randomness and confidence interval)
- Response design (*e.g.* Likert Scale)
- Overstatement adjustment (purchase intent forecasting)
- Screening criteria (*e.g.* not an employee of an incumbent)

Evaluation of Consumption Patterns

Contractor shall determine the current usage behavior for each broadband service. Specific usage information will include:

Cable Television

- % of households using no pay TV service
- % of households using cable TV service
- % of households using satellite TV service

Internet Access

- % of households without Internet
- % of households using cable modem internet service
- % of households using DSL internet service

- Market share of internet providers

Local Telephone

- % of households using wireless as a substitute for wireline
- % of households using VoIP
- Number of lines per household

Determination of Market Demand Estimation

Contractor shall define the opportunity for launching broadband services in Superior in terms of potential size and market share penetration rates.

Willingness to Pay

Contractor shall identify the purchase intent of the residential market for each of the three services and the willingness to switch from an incumbent provider to the Town. To extend the "shelf-life" of the research and ensure correct interpretation by respondents who may not be aware of nominal price points by the incumbents, Contractor shall use a "10 Percent Less" reference point to the existing incumbent services.

Overstatement Adjustment

Contractor shall use Overstatement Adjustment within the municipal broadband sector. Overstatement Adjustment is a time-tested empirical method for determining eventual market penetration of a service being evaluated using quantitative market research. This technique involves adjusting the respondent statement downward to reflect actual purchasing behavior when someone is actually choosing to pay for a service. In other words, Contractor shall factor down the responses to generate a more accurate penetration forecast. Contractor shall use a 5-point Likert scale as the response options for purchase intent, and these will then be factors for overstatement adjustment.

Benchmarking of Research Results

Contractor shall provide comparable data to clarify where the Town stands in comparison to other markets relative to demand for alternative broadband. This analysis will be completed such that Town staff will receive benchmark metrics for the key market variables on these dimensions:

Purchase Intent (research-based)

Contractor shall use a minimum of 20 relevant and comparable quantitative surveys within the last 10 years to graphically depict how the Town's survey penetration metrics compares to these other markets. The range of penetration estimates will be provided and the Town will be plotted within that range.

Satisfaction Levels (research-based)

In a similar fashion, Contractor shall use the same comparable quantitative surveys to graphically depict how the Town's survey satisfaction metrics compares to these other markets. The range of penetration estimates will be provided and the Town will be plotted within that range.

Task 4: Conduct Depth Interviews

The objective of the depth interviews is to qualify the current and future capacity needs, unmet needs, issues with the currently available broadband service/infrastructure, and interest and level of support for the development and implementation of gigabit speed, high-capacity fiber broadband infrastructure. Some of those interviewed could be potential customers as a major commercial account, or they could be a person of importance in the community whose support of this project is desired. The Town will be responsible for the following tasks relative to the depth interviews:

- Identifying the participants
- Approving the final interview list
- Recruit participants and scheduling the interviews

Contractor shall complete 10 in-depth face-to-face interviews within the stakeholder segments identified in the Research Parameters above. Information gathered will include but not be limited to:

- Applications using broadband service
- Current use of broadband services and data networks regarding capacity, architecture and redundancy
- Future use of broadband services and data networks regarding capacity, architecture and redundancy
- Experience with existing broadband service in the local area and satisfactions/deficiencies with current service and providers
- Desired and/or expected expansion of broadband in the local/regional area
- Responsiveness to price decreases/increases or service improvements
- Beliefs about how broadband could/should impact future economic development within the local/regional area

Task 5: Network Design Alternatives

Consideration of Innovative Design and Construction Approaches

Contractor shall start with a review of the latest enabling equipment and outside plant technologies and construction techniques, considering the leading design and outside plant construction approaches as part the Town's feasibility study. Contractor shall review the latest innovations for FTTP systems as part of the Town's study. This process will start with discussions with Town staff related to network requirements such as spliceless installs, structure size and fiber placement. Contractor shall then work with leading vendors to discover any new or innovative building blocks that might help to achieve the Town's given objectives. Contractor shall include Town staff in this process which will give them an opportunity to learn about the latest FTTP capabilities and provide critical feedback to Contractor as the reference architecture takes shape.

Identification of Reference Architecture

The purpose of this task is to define the appropriate technology strategy for the Town and then to develop a capital budget using advanced engineering methods. Contractor shall develop the network architecture recommendation for the Town based on the aforementioned analysis and the following factors:

- Triple play services requirements
- Support of open access / open services business model as required
- Ability to leverage existing infrastructure
- Deployment cost and life cycle costs
- Point on the cost curve
- Point in technology life cycle
- Upgrade path
- Overall cost of ownership
- Bandwidth capabilities
- Standards compliance
- Optical budget

The system architecture recommendation will consist of the technology specific recommendations for the broadband systems required to support the Town's broadband objectives and requirements. Contractor's recommended technology approach will be used as the basis for developing the capital budget for the business plan.

Completion of FTTP Sample Designs

Contractor shall develop broadband sample network designs as part of the development of an accurate capital budget. The design will accommodate current needs and be scalable enough to provide for future needs without wholesale equipment replacement. Outside plant items such as rights-of-way issues, pole attachments, and other items required for successful implementation will be addressed. Other issues such as network redundancy, equipment, ancillary equipment such as vehicles and other equipment not directly used in the transmission of the signal will be addressed. The sample design phase involves evaluation and development of the optimal outside plant design approach for the proposed broadband system. Contractor shall work with Town staff to define the best mix of building blocks and their sizing for all critical outside plant components. Contractor shall also identify with staff the appropriate sample areas to be evaluated in detail.

Characterization of Service Area

A good broadband design should accommodate and leverage the unique characteristics of the local service area. Contractor shall work with Town staff to collect important information including, but not limited to the following:

1. Total residential passings;
2. Total commercial passings;
3. Total Multiple Dwelling Units (MDUs);
4. Total road miles;
5. Total miles of electric plant;
6. Percentage overhead vs. underground (direct buried vs. conduit);
7. Availability of pole space for additional fiber cable (power space vs. telecom space);
8. Square miles of service area;
9. Location of all key utility assets;
10. Existing fiber routes;

Selection of Sample Design Areas

Contractor shall jointly determine what areas (up to three service areas of 250 passings or less) are best representative of the entire service area and then complete a detailed design of them. This information will then be used to develop weighted capital requirements for the full service area.

Node Sizing

Depending on the size of the service area and the broadband system used in the study, the Town may need to deploy nodes to house active electronics. Contractor shall discuss this approach with Town staff and go over any restrictions on these locations. Contractor shall also review active node configuration alternatives that have been installed in various broadband networks. Finally, Contractor shall estimate the number of passings and subscribers per active node. This node sizing will be based on the combination of the desired configuration (footprint/form factor), distance from head end and likely penetration of homes passed for the Town's services.

Completion of Sample Designs

Contractor shall provide detailed ESRI-based maps of each of the selected sample design areas.

Completion of Capital Budget

Contractor shall provide a line item capital budget including quantity and unit cost information for each major piece of equipment or materials required for a system-wide broadband deployment. This budget will include expenditures related to outside plant materials and construction, fiber transport equipment, broadband equipment including network interface devices, customer premises equipment including set top boxes, head end systems, building renovations and any other major expenditures (vehicles, test equipment, etc.). This will serve as a key input for the financial analysis task.

Task 6: Business Model Alternatives & Considerations

Contractor shall evaluate and make a strategy recommendation on both the ownership options available to the Town (business structure), as well as the service mix options.

Evaluation of Service Mix Options

Contractor shall evaluate whether or not the Town should offer the traditional triple play services, or some reduced service set, based on the following market trends:

- Increased video programming costs and a collapse of the video service gross margin from 40-20% or less
- The emergence and growing use of online video services (OTT)
- Ongoing wireless substitution for wireline phone service
- Fewer households subscribing to triple play from a single service provider
- Increased importance of Internet speed, including recognition of the importance of upload speed

The impact of these trends is that some municipal systems are now launching with a smaller service set than the traditional triple play of video, Internet, and voice. In light of this, Contractor shall evaluate the full range of services mix, including:

- Data only

- Data and voice
- Voice, video and data services.

Business Structure & Financial Scenario Analysis

Identification of Business Structure Options

Completion of this task will include an analysis of the following business structure options:

- Option 1: Town-built and operated network and services (the "Retail Model"). The Town builds/owns/operates its own broadband network and directly retails the services being provided. It is expected that a CLEC partner would resell voice service to the Town in this scenario if voice service is offered over the network.
- Option 2: Town-built and operated network but services provided by a 3rd party (the "Wholesale Model"). The Town builds and owns the fiber system network conduit and fiber and relies on a 3rd party partner to fund the system electronics and serve as the services retailer/provider to the end user. The 3rd party provider(s) could be either existing municipal broadband systems within the region, existing major incumbents (cable and telco), and/or local and regional ISPs.
- Option 3: The Town provides a franchise agreement to a third party that subsequently builds and operates the network, as well as provide services as the end use retailer (the "Franchise Model"). The third-party funds all costs related to creating and operating the FTTP system.

Contractor shall clearly define and identify the potential business structures available to the Town represented by the 3 options above and translate them into business models for the fiber network. The following dimensions will help define and differentiate the available options:

- Product strategy ramifications
- Organizational staffing and resource requirements
- Outsourcing needs and requirements
- Operational roles of the Town versus the Private Partner

Financial Analysis of Each Business Structure

By modeling the outcome from a quantitative, financial perspective, Contractor shall create a very specific and objective forecast of the financial outcomes of each model (the Franchise Model does not involve financial analysis, because there is no Town investment requirement). Additionally, Contractor shall use the actual wholesale terms of contemporary wholesale municipal partnerships within the last 3 years to evaluate the financial outcome of these terms if they were applied to the specific financials of a Superior fiber network. Should the actual wholesale terms be insufficient to achieve financial feasibility, Contractor shall use its financial model to identify the specific wholesale terms that would achieve viability. With this approach, Contractor shall complete a scenario analysis within its financial models to quantify and present the Town with a back-to-back comparison of each business structure from a financial perspective. The financial metrics that will be addressed will be:

- Working Capital Requirement
- Bond Amount
- Total Funding Requirement
- Total Revenue (Year 15)

- Total Expense (Year 15)
- Operating Income (Year 15)
- Cash Flow with Debt Service (Year 15)
- Cumulative Cash Flow (Year 15)
- Net Present Value (Year 15)
- Return on Investment (Year 15)

Business Structure Recommendation

Based upon the findings of the financial and strategic analysis addressed by Contractor, a specific business structure recommendation will be made. The final business case *pro forma* will be built using the specific assumptions related to this structure alternative.

Task 7: Financing Options

Contractor shall work with Town staff to identify viable options for financing the recommended fiber network.

Task 8: Business Plan/*Pro Forma* Financial Analysis

Contractor shall analyze the financial feasibility of deploying a broadband network in the Town and deliver a 15 year *pro forma* forecast. As part of the greater financial analysis, Contractor shall complete an analysis of the various business structure options available to the Town for providing broadband services by exploring the strategic, financial, and organizational implications of each. Contractor shall evaluate the potential business structure options with Town staff to make sure all appropriate options are being considered and then go about evaluating the alternatives from both qualitative and quantitative points of view. This deliverable will include all applicable capital costs, operating expenses, and revenues to operate an FTTP system as either a wholesaler or retailer. The following specific line-items will be included:

- Capital investment required (amount, timeframe, responsible party, etc.)
- Additional assets required (alignment with asset inventory)
- Potential services and partners (aligned with assessment and identifying strategic impact and cash flows)
- Operations & maintenance (amount, timeframe, responsible party, etc.)
- Repair
- Customer service
- Installation
- Marketing
- SG&A (personnel, professional services, supplies, etc.)
- Financials (Net Income, Balance Sheet & Cash Flow) over 15 years

Contractor shall use its financial models to evaluate in detail the financial feasibility and outcomes for the business models being evaluated. Accordingly, the feasibility analysis methodology will allow creation of a market-driven demand-planning tool that is flexible and allows for mutations of the various strategies depending on certain variables, including different business structure models, rather than a detailed business plan of a single option. For those models which involve a private operator, Contractor shall evaluate the viable wholesale price points that would need to be charged by the Town to sustain financial feasibility.

Revenue Forecast

Contractor shall create a revenue forecast based upon the retail or wholesale service that would be offered. The business case will include penetration and pricing input as derived from the market research for each business model being considered by the Town. The revenue forecast will account for each business structure option being considered, and therefore will reflect retail revenues for the Town under some business structures and wholesale revenues under others. From the service set definition identified in Task 2, the likely revenue stream will be modeled. To accomplish this, Contractor shall identify and quantify the sources of revenue for the network and describe the portfolio of services the network will offer, either via the Town or a retail partner(s). Contractor shall financially model the business structure options specified above. Consideration will be given to all three broadband services (video, internet and phone) for the residential and commercial segments, as well as high capacity data services for the higher end commercial market. Revenue will be quantified by line of business and all assumptions will explicitly be detailed. The revenue model will include revenue projections for the fifteen-year study and include rate comparisons and sensitivities.

Operating Budget

Contractor shall develop a detailed operating budget that covers the many different expenses involved with running a broadband enterprise. The opex and capital inputs will be identified, and Contractor shall review these with Town staff. The business case will include all appropriate inputs related to cost of goods sold and sales general & administrative (SG&A) expenses, including but not limited to the following:

- Video programming
- Internet backbone connection
- Telephone interconnection or third party fees for outsourced dial-tone
- Incremental staffing and applicable overhead loading
- Help desk services
- Vendor and vehicle maintenance
- Professional services
- Right of way fees
- Advertising, marketing and sales
- Billing and collections
- Training
- Financing expenses

Capital Budget

Contractor shall fold the capital budget developed as part of Task1 into this section of the feasibility analysis. Contractor generally targets a $\pm 10\%$ level of accuracy for capital budgeting in a typical FTTP feasibility study. The business case will include the following capital items:

- Outside plant construction costs to pass all homes and businesses in the proposed service area
- Building additions, renovations or improvements
- Fixed equipment capital for all head end systems, vehicles, test equipment and data center platforms

- Variable capital per subscriber served including fiber drop, network interface unit, power supply, battery backup, set top boxes, inside wire and contract labor
- Upgrade budget for general network and subscriber level equipment

15-Year *Pro Forma* Financial Forecast

Contractor shall complete, for a 15-year period of time, an economic feasibility assessment of providing the needed communications services over a Town-owned broadband network. Revenue projections will include market penetration and price sensitivity. The economic assessment will include at a minimum, all of the following:

- Revenue projections
- Operating expenditures
- Earnings before interest, taxes, depreciation and amortization (EBITDA)
- Capital expenditures
- Peak funding requirements
- Net present value of cash flows
- Return on investment (ROI)
- Annual cash flows
- Working capital requirements

Contractor's Full Service Network Business Model (FSN Model) will be used to conduct all financial analysis as required by the Town. With over 450 inputs, this tool accounts for all variables that generate revenue, expense, and capital costs. The model has detailed sections for demand, revenue, expense and capital, including a detailed staffing section. The FSN Model generates *pro forma* results for each scenario and Contractor provides side-by-side comparisons of key outcomes for all scenario runs. While Contractor shall bring the power of the existing FSN Model to this project, it shall be customized to meet the requirements of the Town.

Task 9: Final Report & Recommendation

Contractor shall provide a detailed and comprehensive report to the Town covering all analysis and findings related to Tasks 1-11. The primary format for the report will be a high quality PowerPoint report to present the data, analysis, and findings of the project, with supplements including applicable spreadsheets, maps, and other formats (*e.g.* market research banner tables). Contractor shall present the findings of the study to the Town staff, the Town Council, and key stakeholders (as requested by the Town staff) with final recommendations based upon the results of the project. The final report will provide guidance to the Town on the financial viability of the fiber system based upon the *pro forma* outcomes and financial sensitivity analysis. Contractor shall further make recommendations on strategies and tactics that could reduce costs and decrease financial risks. Contractor shall outline next steps typically taken by a municipal system if the Town determines to proceed.

NO EMPLOYEE AFFIDAVIT

[To be completed only if Contractor has no employees]

1. Check and complete one:

I, _____, am a sole proprietor doing business as _____. I do not currently employ any individuals. Should I employ any employees during the term of my Agreement with the Town of Superior (the "Town"), I certify that I will comply with the lawful presence verification requirements outlined in that Agreement.

OR

I, NEIL V SHAW, am the sole owner/member/shareholder of UPTOWN SERVICES, LLC, a CORPORATION [specify type of entity - i.e., corporation, limited liability company], that does not currently employ any individuals. Should I employ any individuals during the term of my Agreement with the Town, I certify that I will comply with the lawful presence verification requirements outlined in that Agreement.

2. Check one.

I am a United States citizen or legal permanent resident.

The Town must verify this statement by reviewing one of the following items:

- A valid Colorado driver's license or a Colorado identification card;
A United States military card or a military dependent's identification card;
A United States Coast Guard Merchant Mariner card;
A Native American tribal document;
In the case of a resident of another state, the driver's license or state-issued identification card from the state of residence, if that state requires the applicant to prove lawful presence prior to the issuance of the identification card; or
Any other documents or combination of documents listed in the Town's "Acceptable Documents for Lawful Presence Verification" chart that prove both Contractor's citizenship/lawful presence and identity.

OR

I am otherwise lawfully present in the United States pursuant to federal law.

Contractor must verify this statement through the federal Systematic Alien Verification of Entitlement ("SAVE") program, and provide such verification to the Town.

Signature

2/27/2017
Date

State of Colorado
County of Boulder
The foregoing instrument was acknowledged before me on this 27th day of February 2017 by Neil Shaw who is personally known to me or has produced Colorado Driver License as identification

JOE MICHEAL MCLAREN
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20164022508
MY COMMISSION EXPIRES JUNE 09, 2019

