EXHIBIT A
SCOPE OF SERVICES
SMART CITY DIGITAL ROADMAP – TASKS 2-4

Task 1 of the Smart Cities Roadmap, Project Chartering and Vision/Goals/Objectives Definition, for City of Kingsport was completed last year with identification and establishment of the City's Vision/Goals/Objectives. During Task 1, Jacobs held a workshop with City staff to begin the ideation of where the City's objectives and needs lie with respect to digital infrastructure. Following the workshop, staff members further identified top needs specific to each contributing department as well as for Kingsport overall. These needs were coalesced into the top priorities of the City. From the project chartering exercise, the following top goals were identified:

1. Improving equitable high-speed connectivity across the community.
2. Providing a technology friendly environment which supports business and residents.
3. Increasing efficiencies across city operations.

With the establishment of Kingsport's digital objectives, the subsequent tasks of the roadmap development can proceed. As it is necessary to first establish the foundational connectivity across the City to enable the deployment of intelligent infrastructure, this roadmap begins with developing the communications infrastructure and progresses toward the deployment smart city applications. The following scope of work outlines the tasks and deliverables to delivered.

Task 2. Needs Assessment Telecommunications and Smart City Technology

The objective of this task is to conduct a needs assessment to gather information on current and future communication needs and usage specific to City of Kingsport's portfolio, which includes all City owned assets and facilities and requirements for the community. During this phase we will evaluate the following:

a) Baseline existing communication infrastructure across the City (both public and private).
b) Develop projections of communication connectivity demand and trends relative to City operations, businesses, and residents.
c) Identify proposed connectivity solutions to facilitate future demand.
d) Identify emerging smart technologies which should be provisioned immediately and in the future.

On-Site Meetings:

On-site meetings with Police/Fire/Water/Sanitation/Public Works, in parallel with field reconnaissance, data collection, records review. (4 Days)

- Jacobs and Owner's project manager will coordinate to plan meetings that involve other department stakeholders. Prior to the meetings, Owner's project manager will meet each stakeholder to discuss the upcoming meeting and help prepare them for the input they will need to provide. This will make the stakeholder meetings more efficient and successful.

Findings debrief on-site meeting. (1 Day)

Deliverable:

Needs Assessment summary report.

Schedule: 4 weeks

Task 3. Conceptual Network and Smart City Infrastructure Requirements

The objective of this task is to develop potential network architecture solutions using information produced during the Needs Assessment and data on targeted technologies. This assessment will consider key City assets identified in Task 2. During this phase consideration will be given to expanding the city's existing fiber optic network to provide an open access network which may be leveraged by internet service providers (ISP's) as well as complimenting the network with wireless technologies to facilitate connectivity of future IOT devices. This activity will focus on the following:

a) Perform Radio Frequency Benchmark testing at key locations. Using RF scanners, we will map the existing wireless coverage to further identify potential issues with future wireless coverage.
b) Developing a schematic design of the proposed wireless/fiber optic infrastructure for all City Assets as well as community needs (Small Cell, WIFI, LTE, 5G, Public Safety, Private LTE, Neutral Host Solutions, DAS).
c) Evaluating near term and future portfolio Capital Expenditure plans to marry telecommunication infrastructure development plans.
d) Identify infrastructure and other technical requirements for the network build.
e) Review City of Kingsport zoning by-laws to identify articles of influence.
f) Review smart city technologies for application.
g) Develop cybersecurity framework

On-Site Meetings:
RF mapping: 2 Days
Communications solutions discussion: 1 Day
Network design review: 1 Day

Deliverable:
Preliminary network design
By-law review findings
Cybersecurity framework

Schedule: 8 weeks

Task 4. Schedule, Phasing and Cost Estimation

The objective of this task is to provide detailed recommendations and cost estimates on the type, kind, and location of infrastructure needed to develop a future proof telecommunications network for the city. The tasks to be performed during this phase include:

a) Developing an overall schedule for upgrading the telecommunications infrastructure for City of Kingsport portfolio.
b) Develop a phased deployment plan prioritizing immediate needs and high-profile projects.
c) Develop cost estimates for identified infrastructure upgrades.

On-Site Meetings:

Report out on Digital Strategy: 2 Days

Deliverable:
Project Schedule/Phasing/Costing
Digital Strategy Summary report

Schedule: 6 weeks

Future Implementation Tasks (not included in this Scope of Work)

Following the development of the Digital Roadmap for City of Kingsport, the following services may be supported by the Jacobs team:

a) Detailed design of identified telecommunication systems
b) Coordination with commercial wireless design requirements.
c) Coordination with commercial wireless carriers for participation at each facility (equipment, capital, etc.)
d) Development of city wide "Smart" applications (e.g., Smart LED lighting, smart waste, building management, security, etc.)
e) Develop IT and OT Cyber security protocols
f) Other as may be identified by Jacobs and Owner

Assumptions / Exclusions:

- Jacobs will prepare data requests, as needed, and the Owner's project manager will coordinate with appropriate resources to gather and provide requested data to Jacobs in a timely fashion.
- Jacobs will reasonably rely upon the accuracy, and completeness of the information/data provided by the Client or other third parties.
- Tasks 2-4 will be completed consecutively, without gaps (starts and stops) between tasks. This will provide for an efficient delivery and enable the Owner to consider subsequent implementation steps, including identification of funding opportunities.
- Cost estimates will be in accordance with AACE Cost Estimate Classification System, Practice 18R-97 for Process Industries. Since the Engineer has no control over mark market conditions, the Engineer does not warrant that bids or ultimate costs will not vary from prepared estimates.
- Should additional services beyond the Scope of Services defined above be requested, an amendment or separate task order will be negotiated.

EXHIBIT B
COMPENSATION
SMART CITY DIGITAL ROADMAP – TASKS 2-4

Compensation will be Firm Fixed Price (FFP), which constitutes compensation for all of the Engineer's salary costs, general and administrative overhead, direct project expenses, and profit. The Owner agrees to pay Engineer monthly based on the estimated percentage of total work completed through the billing period as certified by Engineer.

Task	Fee
Tasks 2, 3, and 4	$149,000.00
TOTAL	$149,000.00