



MEMO TO: Members of the City Council

FROM: Mayor John Marchione

DATE : November 6, 2018

SUBJECT: Authorize the Mayor to Sign the Interlocal Consortium Project Agreement 73 Which Provides for Redmond's Participation in the Eastside Rail Corridor (ERC) Fiber Optic Feasibility Study

I. RECOMMENDED ACTION

Authorize the Mayor to sign the Interlocal Consortium Project Agreement 73 which provides for Redmond's participation in the Eastside Rail Corridor (ERC) Fiber Optic Feasibility Study and defines Redmond's contribution to the study.

II. DEPARTMENT CONTACTS

Jonny Chambers, Technology and Information Services Director
Linda Hermanson, Information Services Manager

III. DESCRIPTION/BACKGROUND

The Eastside Rail Corridor (ERC) is owned and managed by King County, the cities of Kirkland and Redmond, Sound Transit, and Puget Sound Energy. These owners work together through the Regional Advisory Council (RAC) to maintain a collaborative, regional planning process for the ERC. The ERC is already developing as a transportation and recreation corridor. The question was raised if the ERC could also serve as a high-speed communication corridor.

Information Technology representatives of the ERC owners and other agencies along the corridor determined there was interest in funding a feasibility study to answer that question and determine if the necessary criteria and conditions are available to successfully use the ERC as a high-speed communications corridor. The RAC was briefed on a project scope and approach for this study and expressed support for the concept as it aligns with the RAC's goal of a collaborative and regional planning process for the corridor. The partner agencies developed a request for proposal (RFP) to hire a consultant to conduct the study and a vendor was selected from the pool of candidates.

Funding the feasibility study is a shared cost model between the ERC owners and other participating agencies.

IV. PREVIOUS DISCUSSIONS HELD

Originally, the request for approval of the 3C Interlocal Project Agreement 73 was first presented to Council at the July 24, 2018, Finance and Administration Committee of the Whole. At the time there was questions about the approval process for the study and the benefit to Redmond given the infrastructure already built into the Central Connector. Staff took time to revisit these questions and brought the request to approve Redmond's participation back at the October 23, 2018, Finance and Administration Committee of the Whole in order to address Council's previous concerns. The Council agreed to allow this item to be placed on the consent agenda of the November 6, 2018, regular Council meeting.

V. IMPACT

A. Service/Delivery:

The feasibility study will evaluate many different ways that Redmond might get fiber into the conduit along the Redmond spur of the Eastside Rail Corridor in order to pursue future opportunities that would include Smart City initiatives, public/private partnerships for adding fiber into the conduit, etc. The information that comes out of the study will help to inform how Redmond can leverage the investment that's been made in the physical infrastructure at a price that is more cost effective than what Redmond could achieve independently.

B. Fiscal Note:

Redmond's contribution to the cost of the study is \$10,000 which will be paid from the Technology and Information Services budget.

VI. ALTERNATIVES TO STAFF RECOMMENDATION

Do not authorize the Mayor to sign the C3 Project Agreement 73 and Redmond will not participate in the study.

VII. TIME CONSTRAINTS

All payment obligations associated with the C3 Project Agreement 73 shall be completed before December 31st, 2018.

VIII. LIST OF ATTACHMENTS

Attachment A: Consortium Project Agreement 73



Jonny Chambers, Technology and Information Services Director

John Marchione

Approved for Agenda _____
John Marchione, Mayor

Consortium Project Agreement 73

City of Kirkland 123 5 th Ave Kirkland, WA 98033	City of Bellevue 450 110 th Ave NE Bellevue, WA 98004	King County IT CNK-IT-600 401 Fifth Avenue, Suite 700 Seattle, WA 98104
Lake Washington School District P.O. Box 97039 Redmond, WA 98073	City of Redmond 15670 NE 85 th St Redmond, WA 98052	City of Renton 1055 S Grady Way Renton, WA 98057
Renton School District 300 SW 7 th St Renton, WA 98057	Bellevue School District 405 12111 NE 1 st St Bellevue, WA 98005	Community Connectivity Consortium %Bellevue Information Technology 450 110 th Ave NE Bellevue, WA 98004

Provides for named C3 members' participation in the Eastside Rail Corridor (ERC) Fiber Optic Feasibility Study and defines each participating member's contribution to the study.

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I. Project Description

A. Project Number

73

B. Project Name

C3 participation in ERC Fiber Optic Feasibility Study

C. Project Description

Following an RFP and negotiations, the City of Kirkland contemplates engaging Columbia Telecommunications Corporation (CTC) to perform a feasibility study to assess the viability of building a high-capacity fiber optic infrastructure that runs the length of the Eastside Rail Corridor (ERC).

The City of Kirkland, acting as the Lead Agency in this Project Agreement has agreed to collect and aggregate payments from project participants towards the payment of project funds to CTC. This Project Agreement memorializes the financial commitments of the participants, and when executed, will allow the City of Kirkland to execute the final Professional Services Agreement with CTC.

The ERC passes through several C3 member cities, and a potential development of fiber optic infrastructure in the ERC could benefit these C3 members. As such, the participants in this project agreement agree to contribute funds toward the completion of the feasibility study.

Some segments of the C3 Fiber Optic System currently traverse fiber routes whose traffic is restricted by agreements to non-commercial, public, education and governmental agency use only. Utilization of potential alternate fiber optic routes identified in the ERC could allow C3 members to increase their scope of usage.

The work to complete this study is fully defined in the Scope of Work (SOW) negotiated between the city of Kirkland and CTC.

Participating Agencies benefit from this study in the following ways:

- Receive a copy of final deliverables
- Better informed on options to achieve a major north-south fiber infrastructure route that is unrestricted, a major C3 goal
- Ability to shape business and infrastructure strategies that can enhance each participating agency's mission and contribute to the broader region's resiliency

D. Lead Agency/ Project Manager

City of Kirkland/King County

E. Participating Agencies

City of Kirkland
City of Bellevue
Bellevue School District 405
City of Redmond
City of Renton
King County
Lake Washington School District
Renton School District

F. Agreement Term

This agreement will commence on the date of acceptance by all parties named in Section VII – Approvals and will terminate 60 days following delivery and acceptance of the final CTC Feasibility Study by the city of Kirkland.

II. Description of Project

Scope of Work

The Scope of Work (SOW) for this project is fully set out in the agreement between the City of Kirkland and Columbia Telecommunications Corporation (CTC) which is incorporated in this document as Addendum 1.

The SOW included in this document is a DRAFT SOW. Signatories to this Project Agreement agree that the Lead Agency and Project Manager have authority to approve the final SOW and make adjustments as needed throughout the life of that contract as long as the changes do not result in substantial material changes to this Project Agreement.

CTC will deliver a feasibility study that focuses on the opportunities and long-term vision of the study participants' utilization of the ERC as well as the expected development costs and timelines to utilize the ERC as a fiber optic infrastructure corridor.

The study will deliver the following items:

1. A conceptual technical plan
2. A fiber engineering and cost estimate
3. A high-level business model

A. Responsibilities of Lead Agency and Project Manager

1. The Lead Agency is responsible to coordinate the payments towards the project from each participant.
2. The Lead Agency is the responsible party for all matters relating to the contract with CTC.
3. The Project Manager will assist the Lead Agency by working with CTC to coordinate the project schedule. CTC will be responsible for submitting changes to the project schedule to the Lead Agency.
4. The Lead Agency will approve changes to the project scope in its contract with CTC where the Lead Agency determines that these changes are beneficial to the outcome of the project.
5. The Lead Agency may make reasonable changes to the project's scope and deliverables, as recommended by CTC, without amendment to this Project Agreement so long as these changes do not incur an increase to the project cost or financial commitment of a Project participant.
6. The Project Manager will assist the Lead Agency by working with CTC to coordinate stakeholder meetings and presentations.
7. The Project Manager will assist the Lead Agency by coordinating all ERC document requests between CTC and Project Participants.
8. The Project Manager's overall function is to assist the Lead Agency in its administration of the Lead Agency's contract with CTC. However, it is understood that the Project Manager is not an employee of the Lead Agency and shall remain under the supervisory authority of King County Information Technology, Regional Services, I-Net Business Manager.

B. Responsibilities of Project Participants

Project participants will contribute towards the completion of the study in the following manners:

1. Participate in stakeholder interviews with CTC to contribute their insights, needs and concerns
2. Provide (where permitted and applicable) any relevant maps, studies, documents or data to CTC for review as part of their work.
3. As needed, participate in conference calls or meetings with CTC and other participants to provide feedback and insights to CTC as part of their study.
4. Participate in the study's final review process

C. Payment by Project Participants

The project participants agree to contribute the amounts shown in the table below toward to overall cost of the ERC Feasibility Study.

C3 agrees to allocate up to \$10,000 as contingency funds for this project to be applied in the event that change orders or contract costs exceed \$99,000. Release and payment of C3 contingency funds must be agreed to in writing as an addendum to this agreement by the City of Kirkland, King County, and C3. Payment of contingency funds must also be reported to the C3 Board of Directors at the next regularly scheduled C3 Board Meeting.

The participants agree to make their agreed payments within 30 days of invoice receipt from the City of Kirkland.

All payment obligations associated with this Project Agreement 73 shall be complete prior to December 31st, 2018

Project Participant	Contribution
City of Kirkland *	\$18,000
Lake Washington School District	\$10,000
King County	\$25,000
City of Bellevue	\$10,000
Bellevue School District	\$10,000
City of Redmond	\$10,000
City of Renton	\$10,000
Renton Schools	\$6,000
C3 Consortium (Contingency Funds)	UP TO \$10,000
Total (Including Contingency Funds)	\$109,000

* The City of Kirkland's contribution of \$18,000 includes a \$10,000 contribution towards the project from the Pacific NW GigaPop (PNWGP). The partnership between PNWGP and the City of Kirkland is solely between the PNWGP and the City of Kirkland and is noted here to clearly define the overall contribution of the City of Kirkland.

III. Apportionment of and Limitation on Liability

I. Liability

1. Except as otherwise provided in this Agreement, each party shall defend, indemnify, and hold harmless the other parties, including their officers, officials, employees, agents, and regents, from and against any claim alleging harm, damage, injury, or loss to any person or property to the extent such claim arises

out of or results from its own, or its employees' or agents' negligent acts or omissions, whether during construction or after completion of the project.

2. If a party uses contractors or subcontractors for work pursuant to this Agreement, then either (a) the party agrees that its obligations in Section I above will include responsibility for claims arising from the performance of such contractors and subcontractors, or (b) the party will include in its contract with any such contractor or subcontractor a provision requiring the contractor or subcontractor to defend, indemnify, and hold harmless the other parties, including their officials, employees, and agents from and against any claim arising from the contractor's or subcontractor's performance.

3. The indemnity in Section I above is specifically and expressly intended to constitute a waiver of each party's immunity under the Washington Industrial Insurance Act, RCW Title 51, (a) only between and with regard to the parties, (b) only for work done by a party, and (c) only to the extent necessary to provide the indemnified party or parties with a full and complete indemnity of claims made by the indemnitor's employees. The parties acknowledge that these provisions were specifically negotiated and agreed upon by them.

4. Kirkland's liability shall be limited to providing the service(s) described in this Project Agreement. Kirkland shall not be liable to any third party having a contractual relationship with CTC.

II. Worker Insurance

Each party to this Agreement shall ensure that it and all persons performing work on its behalf, including without limitation project suppliers and subcontractors, maintain in effect at all times during the Work, coverage or insurance in accordance with the applicable laws relating to worker's compensation and employer's liability insurance (including, but not limited to, the Washington Industrial Insurance Act and the laws of the state in which any such person was hired), regardless of whether such coverage or insurance is mandatory or merely elective under the law. Each party shall furnish such assurance and evidence of such coverage or insurance (such as copies of insurance policies and Certificates of Compliance issued by the Washington State Department of Labor and Industries) as Participating Agencies may request.

III. General Liability Insurance.

Each party to this Agreement shall maintain in full force and effect throughout the term of this Agreement, a minimum of Two Million Dollars (\$2,000,000) liability

insurance for property damage and bodily injury, and shall cause its agents, contractors, and subcontractors to maintain the same with regard to work under this Agreement. In satisfying the insurance requirements set forth in this section, a party may self-insure against such risks in such amounts as are reasonable for a municipality or agency of its size or shall obtain a coverage agreement through a Risk Pool authorized by Chapter 48.62 RCW which shall provide liability coverage to the party for the liabilities contractually assumed by the party in this Agreement. At the time of execution of this Agreement, and prior to commencement of performance of any of the Work, each party shall furnish, upon request, a Certificate of Insurance as evidence that policies providing insurance (or self-insurance) with such provisions, coverages and limits are in full force and effect.

Lead Agency will insure that CTC includes King County as an additional insured party on their Certificate of Insurance as evidence that policies providing insurance (or self-insurance) with such provisions, coverages and limits are in full force and effect.

IV. Disclaimer, Third Party Components, and Exclusion of Damages

A. DISCLAIMER.

ALL SERVICES AND ACTIVITIES PROVIDED BY A PARTY UNDER THIS AGREEMENT, , AND NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, ARE PROVIDED "AS IS". THE PARTIES ACCEPT SUCH ACTIVITIES, SERVICES AND THE SERVICE EQUIPMENT "AS IS," WITH NO REPRESENTATIONS OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OR ANY IMPLIED WARRANTY ARISING FROM STATUTE, COURSE OF DEALING, COURSE OF PERFORMANCE, OR USAGE OF TRADE. WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, NO PARTY HAS ANY OBLIGATION TO INDEMNIFY OR DEFEND ANY OTHER PARTY AGAINST CLAIMS RELATED TO INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS

B. EXCLUSION OF DAMAGES.

TO THE EXTENT ALLOWED BY LAW, AND NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT WILL ANY PARTY BE LIABLE TO ANY OTHER PARTY OR TO ANY THIRD PARTY FOR ANY LOST PROFITS (WHETHER DIRECT OR INDIRECT) OR LOSS OF DATA, COVER, SUBSTITUTE GOODS OR SERVICES, OR FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, SPECIAL, OR EXEMPLARY DAMAGES (INCLUDING DAMAGE TO BUSINESS, REPUTATION, OR GOODWILL), OR INDIRECT DAMAGES OF ANY TYPE HOWEVER CAUSED, WHETHER BY BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), OR ANY OTHER

LEGAL OR EQUITABLE CAUSE OF ACTION, EVEN IF THE PARTY HAS BEEN ADVISED OF SUCH DAMAGES IN ADVANCE OR IF SUCH DAMAGES WERE FORESEEABLE.

V. Project Schedule

The Project Schedule shown below represents a draft project schedule, assuming that the project begins on September 4, 2018. As noted in the SOW, many of the project tasks listed below will be performed in parallel.

The Project Schedule included in this document is a DRAFT Project Schedule. Signatories to this Project Agreement agree that the Lead Agency and Project Manager have authority to approve the final Project Schedule and make adjustments as needed throughout the life of that contract as long as the changes do not result in substantial material changes to this Project Agreement.

Task	Begin	End
Project Kick-off Meeting	9/4/18	9/7/18
Conceptual Technical Plan	9/7/18	
Stakeholder Outreach	9/7/18	
Engagement with permitting authorities and other agencies and governments		
Fiber Engineering and Cost Estimate		
Survey and document fiber routes		
Cost estimates		
Develop scope and responsibilities for portions of the route		
Development of a High-Level Business Model		
Business case analysis		
Benchmark pricing		
Data collection with potential customers		
Study Delivery		
Study Draft Review Process		
Final Study Acceptance		
Project Completion		12/31/18

VI. Miscellaneous

A. Modifications or Amendments

No modification to or amendment of the provisions of this Agreement shall be effective unless in writing and signed by authorized representatives of the parties

to this Agreement. The parties expressly reserve the right to modify this Agreement, from time to time, by mutual agreement as called for in the Project Agreement Template Policy.

B. Counterparts

This Agreement may be executed in counterparts, each of which so executed will be deemed to be an original and such counterpart together will constitute on and the same agreement.

C. Authority

Each party hereby represents and warrants to the other parties that it has the right, powers, and authority to enter into this Agreement and to fully perform all of its obligations hereunder.

VII. Approvals

IN WITNESS WHEREOF, the parties hereto have executed this Project Agreement on the respective dates indicated below.

City of Kirkland

Signature

Date

Name (Printed)

Title (Printed)

City of Bellevue

Signature

Date

Name (Printed)

Title (Printed)

Community Connectivity Consortium

Signature

Date

Name (Printed)

Title (Printed)

Project Agreement 73 Approvals (continued):

Bellevue School District 405

Signature

Date

Name (Printed)

Title (Printed)

King County

Signature

Date

Name (Printed)

Title (Printed)

City of Redmond

Signature

Date

Name (Printed)

Title (Printed)

Project Agreement 73 Approvals (continued):

City of Renton

Signature

Date

Name (Printed)

Title (Printed)

Renton School District

Signature

Date

Name (Printed)

Title (Printed)

Lake Washington School District

Signature

Date

Name (Printed)

Title (Printed)

Addendum 1 – Statement of Work (CTC)

July 6, 2018

Ms. Brenda Cooper
Chief Information Officer
Information Technology Department
City of Kirkland
123 5th Ave.
Kirkland, WA 98033

Subject: Revised expanded scope of work for Eastside Rail Corridor Feasibility Study

Dear Brenda:

As you requested, I've revised our scope of work to reflect your comments and those of your colleagues. Please do not hesitate to contact me if you would like to talk further. We look forward to working with you and your colleagues on this important initiative.

Best regards,

A handwritten signature in black ink that reads "Joanne S. Hovis". The signature is written in a cursive style.

Joanne S. Hovis | President

Overview

The project stakeholders (*collectively referred to here as “the ERC Partners”*) seek to assess the viability of building a high-capacity fiber optic infrastructure that runs the entire length of the Eastside Rail Corridor (ERC) to the northern border of King County, including the Redmond spur.¹ This statement of work outlines the tasks that CTC Technology & Energy (CTC) proposes to undertake on the ERC Partners’ behalf to comprehensively examine the project requirements and opportunities, and to identify a fiber implementation plan and business model and sources of funding. CTC proposes to develop a technical and business analysis, conceptual designs and cost estimates, and a business model to help guide the project future steps.

The goal of this effort is to enable the ERC Partners to capitalize on the construction within the ERC right-of-way and to bring a valuable resource to the ERC owners. CTC will provide the strategic analysis, recommendations, and constraints the ERC Partners need to understand whether such an initiative is realistic and feasible in terms of both technical and financial requirements.

The ERC Partners’ consideration of this project is forward thinking. The development of the ERC project presents a unique, time-sensitive opportunity to share costs on a significant fiber backbone in a region where a lack of adequate fiber access may have a negative impact on local businesses and economic development.

The feasibility study will not include examination or assessment of property rights or property interests along the ERC. CTC’s will use our extensive knowledge of the experiences, best practices, and results of similar initiatives in other communities nationwide for this study.

Project Tasks

Following a project kick-off meeting to introduce stakeholders (including representatives of any stakeholders that the ERC Partners’ project team chooses) and to establish the project’s goals and schedule, our engineer and business planner will review any relevant maps, studies, documents, or data that these stakeholders can share with us. Our review will focus on understanding the opportunities and long-term vision, as well as the expected development timeline and processes.

Based on this initial information gathering, we will proceed with the primary project tasks—a series of interrelated steps that will be conducted in parallel, but that we list separately here for ease of review.

¹ See, for example: “Creating Connections: Recommendations on the Eastside Rail Corridor from the Regional Advisory Council,” October 2013. See also: “Eastside Rail Corridor from the Regional Advisory Council,” <http://www.kingcounty.gov/operations/erc-advisory-council.aspx>

Task 1: Conceptual Technical Plan

In this task, we will identify the required infrastructure and other technical considerations for providing services along the corridor and to adjacent areas. We will develop a high-level design and cost estimate for deploying a future-proof middle-mile fiber network that not only has sufficient capacity to meet the ERC Partners' technical requirements for fiber-based broadband connectivity in this area, but also features excess fiber capacity that will enable future use and the corresponding long-term revenue that such future uses might provide.

Stakeholder Outreach

As a prerequisite to developing the fiber conceptual design and cost estimate, we will have on-site discussions with project stakeholders to establish a clear definition of the broadband connectivity requirements that the project will address, and to identify geographic and other considerations (e.g., underground construction) that will guide the network design.

Drawing on our experience supporting numerous broadband network developments for many cities, counties, states, and non-profit entities, we will also seek to meet with representatives of other potential stakeholders and partners that might in the future want to partner on construction or become a fiber lessee.

We will also engage with representatives of permitting authorities and other agencies government regarding the issues of planning fiber infrastructure deployment during other capital projects as a way to minimize costs. (We have in the past worked with ERC team members to develop long-term planning strategies for installing conduit for telecommunications.) We will address important factors such as:

- Developing ongoing relations and agreement with telecommunications providers
- Installing shared access points
- Creating shared equipment hubs
- Ensuring proper maintenance support

This task will create the foundation for the following tasks and the recommendations we present in our final deliverable. Throughout this task we will be in regular contact with ERC Partners' staff.

Fiber Engineering and Cost Estimate

We will develop a fiber plan (i.e., a map illustrating the potential placement of fiber throughout the corridor and adjacent target areas), a conceptual design, and a budgetary cost estimate for the fiber construction. We will identify candidate locations for last-mile service interconnection, recommend splice points, and determine whether there would need to be a peering point for service providers and municipal customers.

The primary focus of our conceptual design will be to develop a cost estimate for building fiber in the ERC to meet the needs of potential current and future users, with specific attention paid to optimizing economic development and supporting competitive services.

We will develop a high-level design that is optimized to support the needs of the ERC Partners and other potential stakeholders, as well as to enable the ERC Partners access to fiber for future uses. The design will thus include excess fiber in the backbone to enable the ERC Partners to explore options for future expansion and service provisions.

To survey candidate fiber routes and develop cost estimates, CTC engineers will perform both field surveys and a desk survey of candidate fiber routing using ERC Partners-provided maps, Google Earth, and other data sources.

We will include in our engineering analysis existing infrastructure (including rights-of-way access and locations for network hubs and other necessary infrastructure) that we believe the ERC Partners can use to support the backbone deployment.

Among the issues we will address are the regulatory and permitting costs required to start construction, and a high-level assessment of how long construction might take.

We will provide estimates in the form of a cost range, with the lower-end estimates representing most likely costs, and the higher-end representing budgetary estimates with suitable contingencies included. Budgetary estimates will include any studies or permits that are likely to be necessary.

Our planning will also seek to ensure that the ERC Partners understand the scope of what it will need to build so that the infrastructure is future-proof and does not require retrofitting to move to new technologies. This will include addressing questions such as how the responsibility for specific portions of the construction might be divided among the ERC Partners, other public and non-profit stakeholders, and others that may share an interest in the initiative.

To be clear, we will not be providing a blueprint-level network design. Rather, we will be providing a conceptual design and system-level overview of the potential infrastructure—which in turn will become a roadmap for future decisions, including detailed engineering and contracting for the fiber build-out along the ERC.

Task 2: High-Level Business Model

In collaboration with the ERC Partners, we will conduct meetings with potential private partners. For those potential partners that are local, the meetings would ideally be face to face; we would generally reserve telephone discussions for companies in other parts of the country that we have worked with on behalf of other municipal or county clients.

The goal of this effort will be to determine whether there is a potential strategy to offset

the ERC Partners' risk by sharing costs or enabling private sector deployment—or by some other mechanism that achieves the public sector goals of this initiative (i.e., meeting public sector communications needs, enabling use of excess fiber for last-mile deployment, and increasing the attractiveness and viability of the ERC) while mitigating public sector risk.

We will then develop a business case analysis and high-level business model that provides recommendations and guidance on the likely roles of the ERC Partners and other stakeholders' in project funding, ownership, and operation of the network infrastructure defined in the previous tasks.²

Our business planning will also include benchmarking pricing based on dark fiber pricing we see in comparable markets elsewhere. We will develop a financial model to determine the viability of the effort as a breakeven enterprise. In other words, we will seek to determine whether the revenues from dark fiber leases would potentially cover the ERC Partners' costs, and whether it would be possible to make this effort work financially by offsetting costs through public – private partnerships of various sorts. The proposed business model will reflect our understanding of the ERC Partners' position—driven by a mission to enhance community economic growth and job creation, but interested in identifying private sector motivation to develop this infrastructure. To the extent that we identify a public sector role, we will focus on also identifying a cost recovery model (whether short- or long-term) over time.

We will also attempt to collect data through interviews with potential fiber customers, property developers, and the commercial real estate community along the corridor; we will gauge their interest in gaining access to new competitive service providers on a wholesale or retail basis and to gain insight into related issues of importance to these sectors. (We would request the ERC Partners' help in making those connections, and would undertake one or two group meetings with these stakeholders if possible.)

Throughout this task, we will be focused on developing the cost and revenue inputs for our high-level financial analysis. Customer insights gathered in this stage can also be further leveraged at a later time for marketing purposes.

Drawing together all of the research, analysis, and recommendations developed in the previous steps, we will then prepare a high-level financial model that describes, based on a range of clearly identified assumptions, the potential revenue (if any) that the ERC Partners or a partner might see over the course of its fiber construction and operations. We will pay particular attention to evaluating the ERC Partners' risk over time, and to

² CTC is not qualified to provide legal advice. We recommend that the ERC Partners and other project stakeholders seek qualified legal counsel on any issues related to local or state laws or regulations as they relate to network planning.

answering the overarching question of whether there is a reasonable potential for cost recovery.

To complement the financial and business model analysis, we will also develop a high-level strategic analysis of how this infrastructure, if it were deployed, would address many of the digital and broadband equity concerns of the public sector partners. To this end, we will review their digital inclusion and equity plans; conduct up to six calls with the stakeholders; and seek to build into the pricing plan and business recommendations strategies that would hopefully help to move the needle on digital equity matters.

Project Communications

As we discussed extensively on the phone, we commit to scheduling biweekly check-in calls with your project team to provide timely feedback and insight into what we find during our engineering process. We will also establish a file-sharing mechanism (e.g., SharePoint, Dropbox, FTP) for the ongoing, two-way transfer of data and maps.

One of the goals of these ongoing communications will be to enable your project team to track emerging risks and challenges as we identify them—and to ensure that the final report does not include any surprises in terms of potential construction risk. While it is impossible to predict whether we will uncover any significant issues (such as significant environmental concerns) that might make the project financially infeasible, flagging any such issues early on will create the opportunity for an off-ramp for the project. That is, you will not have to proceed with subsequent stages of planning if we identify an issue that you determine might be a showstopper.

Deliverables

Our final deliverable will be a technical and business strategy with a conceptual network design, construction cost estimates, and fiber plan (map). We will identify strategic points of presence and describe potential business models (including a list of plausible partners). Our written report will include a clear and concise narrative supported by charts, tables, graphics, and maps, as appropriate. We will attribute and provide sourcing for our research.

We will provide the ERC Partners' identified reviewers with an electronic draft of our report for initial review. We will incorporate feedback and edits from reviewers within one week of receipt, and will deliver an electronic version of the final report. We will also present our strategic plan and recommendations via teleconference and in person at up to five meetings, to be scheduled following acceptance of the report.