

RADFORD UNIVERSITY

CONTRACT MODIFICATION AGREEMENT

Date:	February 21, 2019
Contract No.	C1300023
Modification No.	01
Issued By:	Radford University Procurement and Contracts P.O. Box 6885 501 Stockton Street Radford, VA 24142
Contractor:	Citizens Telephone Cooperative Inc. PO Box 137, Floyd VA, 24091
Commodity:	Dark Fiber

This Supplemental Agreement is entered into pursuant to the provision of the basic contract.

Description of Modification:

<p>This <i>Contract Modification Agreement</i> adds a 144 count "dark" fiber optic network to serve 32 off campus structures to be effective March 1, 2019. The off campus locations shall be outline in Attachment A of this document. Design and Construction project will be billed and payable upon completion and acceptance of Radford University.</p> <p>The existing contractual terms and conditions that govern the Citizens Telephone Cooperative Inc. contract on the main campus of Radford University shall also govern Radford University's Off campus structures with exceptions as noted below: Reference Attachment A</p>
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Effective: This shall become effective when signed by the university.

Except as provided herein, all terms and conditions of Contract Number C1300023, as heretofore changed remain unchanged and in full force and effect.

<i>Citizens</i>	COMMONWEALTH OF VIRGINIA RADFORD UNIVERSITY
By: <i>Robert Weeks</i>	By: <i>Ken McDowell</i>
Name: <i>Robert Weeks</i>	Name: <i>Ken McDowell</i>
Title: <i>EVP Business Development</i>	Title: <i>Sr. Contract Officer</i>
Date Signed: <i>2/21/19</i>	Date Signed: <i>2/21/19</i>

**Attachment A
Modification to Contract #C1300023**

**Radford University Fiber Project
15 year Dark Fiber IRU
02/21/2019**

In conjunction with Radford Universities Information Technology and Facilities Management departments; Citizens will design and construct a 144 count "dark" fiber optic network to serve 32 off campus structures.

Citizens will work with the City of Radford to obtain the proper permits for constructions, and work with Radford Electric to obtain pole attachment agreements.

Citizens will bore two street locations:

1. West side across Tyler Avenue to Moffett Hall
2. East side across Jefferson Street to Kyle Hall

Citizens will provide Communication junctions boxes at each locations to allow Radford University termination access with their existing network on Campus.

Campus Apartment Fiber Quote

General Goals & Assumptions -

1. Citizens will provide 2 dark fibers from Radford main campus to each specified apartment/building with a minimum capacity to add up to 3 additional fibers at each apartment building if need in the future.
2. Citizens will manage consolidation points.
3. Citizens will work with Radford City and coordinate the appropriate pole attachment agreements and any Radford University fees for this will be included in Radford University's annual Fiber Maintenance costs.
4. Citizens will work with Radford City to take over maintenance of existing fiber on poles allowing Citizens to lash to existing fiber on these poles.
5. Citizens will own maintain fiber
6. Citizens will be responsible for utility marking

300 East Main

- Provide 2 fibers from 300 East Main to 219 East Main (side entrance on Whitehall street).
- Locate a junction box on the agreed upon external wall of 300 East Main. This box will include a small patch panel and two of the fibers will be terminated on this patch panel. Radford University will be responsible for running fiber from the interior of the building to this patch panel. Both Radford University and Citizens will have access to this external local / box.

East Side Campus Apartment Fiber Project

- Bore across Jefferson Street. (Start at/near IT manhole below Kyle Hall on Calhoun street or other identified location continue across Jefferson to East A1 Consolidation point which would be an agreed upon location in the area surrounding 600, 602 and 604 Calhoun street.)
- Coordinate with Radford University on creation of the East A1 Consolidation point which will be a box, vault or other enclosure as a central fiber wiring distribution point for the East side.
- Pull 144 Fiber bundle from Kyle hall to **East A1 Consolidation Point**
- Create a new termination point at location **East A1 Consolidation Point**
- From East A1 Splice provide 2 fibers to each of the following locations:
 - 600 Howe Street
 - 612 Howe Street
 - 604 Calhoun
 - 602 Calhoun
 - 600 Calhoun
 - 527 Calhoun Street
 - 525 Calhoun Street
 - 512 Calhoun Street (4 separate buildings)
 - 521 Davis Street
 - 512 Davis Street (Replaces existing fiber)
 - 517 Fairfax Street
 - 515 Fairfax Street
 - 404 Fairfax Street
 - 303 Madison Street
 - 610 Downey Street
 - 608 Downey Street (2 Separate buildings)
 - 606 Downey Street
 - 601 East Main

- Price Williams owned buildings (Include these in list.)
 - 608 Clement
 - 610 Clement
- For each apartment building / house on this list, locate a junction box on the agreed upon external wall. This box will include a small patch panel and two of the fibers will be terminated on this patch panel. Radford University will be responsible for running fiber from the interior of the building to this patch panel. Both Radford University and Citizens will have access to this external local / box.
 - Assumptions: Unless Radford University installs a conduit or is doing parking lot work, it is assumed that all of these building connections will be aerial.

West Side Campus Apartment Fiber Project

- Bore across Tyler Avenue from Pole 8459 7909 (205 D) PCRL – 7 (Citizens current splice location to Moffett hall.) Citizens will install communication box near the corner of Moffett
- Coordinate with Radford University on creation of the West A1 Consolidation point which will be a box, vault or other enclosure located at the corner of First Avenue and Clement
- Pull 144 Fiber bundle from Moffett to **West A1 Consolidation Point** at corner of on First Ave and Clement
- Create a new splice point at location **West A1 Consolidation Point** (First Avenue and Clement)
- From West A1 Splice provide 2 fibers to each of the following locations:
 - 1117 Clement Street
 - 1023 Clement Street
 - 1019 Clement Street
 - 1020 Fairfax Street
 - 1028 Fairfax Street
 - For each building on this list, locate a junction box on the agreed upon external wall. This box will include a small patch panel and two of the fibers will be terminated on this patch panel. Radford University will be responsible for running fiber from the interior of the building to this patch panel. Both Radford University and Citizens will have access to this external local / box.
 - Assumptions: Unless Radford University installs a conduit or is doing parking lot work, it is assumed that all of these building connections will be aerial.

- Reroute Citizens Internet and Dark Fiber Connection through new bored connection to campus.

Replace Existing Fiber on East Side (Secondary Project may not complete at this time.)

- Install fiber from East Consolidation Point to Governor Tyler House
- Install Fiber from East Consolidation point to 615 Fairfax
- Install Fiber from East Consolidation Point To 903 Tyler Ave

Additional Charges

Citizens reserves the right to place time and material charges for any construction challenges not anticipated under normal construction planning, (i.e hitting rock during boring). Or any unanticipated charges such as pole make readies or pole replacements, or changes to the initial construction plans. Any additional charges must be mutually agreed upon before work is started. (i.e. Citizens to provide quote and obtain approval from Radford University)

Pricing

Construction			
FIBER IRU: 15-Year IRU, 12 fibers strands per segment (144 Fibers)			
Location "A"	Location "B"	Route Miles	IRU Price
Moffett Hall	Grove Avenue	0.52	\$22,000.00
Kyle Hall	Jefferson Street	1.52	\$64,400.00
Totals		2.04	\$86,400.00

Bore			
Moffett Hall	Tyler Avenue	300'	\$8,000.00
Kyle Hall	Jefferson Street	132'	\$3,300.00
Total		432'	\$11,300.00

**Includes Hand Holes*

*Drops			
West Tyler Avenue	Drops 1 fiber strand per segment (12 fibers)	5	\$6,000.00
East Jefferson	Drops 1 fiber strand per segment (12 fibers)	25	\$30,000.00
	Governor Tyler House, 903 Tyler Ave	2	\$2,400.00
Total	Construction Installation		\$38,400.00

**Includes Patch Panels*

Total	Construction and Drop Installation		\$136,100.00
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FIBER IRU "Annual" Operation and Maintenance Cost 12 fiber strands per segment (144 Fibers)

Location "A"	Location "B"	Route Miles	IRU Price
Moffett Hall	Grove Avenue	0.52	\$2,640.00
Kyle Hall	Jefferson Street	1.52	\$7,728.00
Drops	East and West	32	\$4,608.00
Total Annual Operating and Maintenance Cost			\$14,976.00

