Blue Ridge Mountain EMC PO Box 9, 875 Main St. Tast Young Harris, GA 30582 Phone: 706-379-3121 828-837-1017	Fiber O	ptic Support
	RFP#:	FY22 Fiber - 01
Fiber Optic Installation	Revision Number:	01
RFP	Issue Date:	May 3, 2021

Purpose

Obtain a Construction Contractor proposal and quote for work rendered for the project as outlined below.

Background

In order to meet the demand of the members of BRMEMC we are seeking a construction contractor to assist in the installation of Fiber Optic Infrastructure including but not limited to aerial and underground fiber optic cable and subscriber drops as indicated on each Work Order. Construction may include, but not limited to, aerial attachment to existing electric poles (electric space and/or communications space), underground plow, trench, or boring.

General Requirements

- 1. The BRMEMC's designated Project Manager will be the main point of contact at BRMEMC and shall be notified of all project-related communication. Direct contact with other relevant BRMEMC personnel is acceptable provided the BRMEMC Project Manager is also notified. Similarly, the contractor shall provide a main point of contact for addressing BRMEMC communications.
- 2. BRMEMC will provide access to its engineering and design standards, specification and drawings relevant to the project scope.
- 3. BRMEMC will provide access to company facilities, as required, in order to perform the specified work.
- 4. BRMEMC will reserve the right to inspect the work specified in this project scope at any time and may stop any work that it deems unsatisfactory.
- 5. Contractor must be qualified to work in the electrical space on poles and residential meter bases.
- 6. Contractor must supply it's own safety equipment.
- 7. Contractor must meet or exceed all BRMEMC provided safety standards and safety manual.

Contract Pricing

Pricing shall be broken down into per unit pricing on the Bid Sheet supplied in Exhibit B of the Contract. Owner shall only pay Contractor items listed in the Bid Sheet, Exhibit B in the contract, or agreed upon in a Contract Addendum.

Statement of Work

Installation of Fiber Optic Infrastructure including but not limited to aerial and underground fiber optic cable and subscriber drops as indicated on each Work Order. Construction may include, but not limited to, aerial attachment to existing electric poles, underground plow, trench, or boring. All installation shall be at the lowest cost method possible where multiple methods could be applied to complete the same work order as specified.

BRMEMC Support

- 1. BRMEMC will provide a detailed work order for each project which will contain at a minimum a staking sheet and a material sheet.
- 2. BRMEMC will provide all materials shown on the material sheet.
- 3. BRMEMC will provide access to company facilities as required by the project scope.
- 4. All coordination will be through BRMEMC's identified personnel.

Scope of Work

BRMEMC request the assistance with installation of Fiber Optic work in accordance with this RFP and the Construction Contract as long as necessary to complete the desired work or a maximum contract amount has been reached.

Bid and Pricing should be based on the following assumptions:

- 1. 146,000 linear feet of underground fiber optic Main Line
- 2. 100,000 linear feet of overhead fiber optic Main Line

Construction Requirements

1. The awarded contractor shall comply with all provisions of the attached contract.

Bid Return Document Requirements

- 1. Company Information and Background
- 2. Completed Bid Sheet. Pricing shall be locked in for a term of one year from the execution of the contract.
- 3. Proof of Insurance and workers' compensation, also to include an initial construction bond not less than \$1,200,000.00.
- 4. Workers' Compensation MOD Rate (Experience Rating)
- 5. Statement of available start date and crew availabilities.

Return Completed Bid packets to the follow address no later than May 28th, 2021:

Blue Ridge Mountain EMC c/o Travis Lunsford 875 Main St. E Young Harris, GA 30582

or email at

travis.lunsford@brmemc.com

ATTENTION: Maximum Contract Amount and minimum Bond Requirement may be adjusted based on amounts quoted in Bid Sheet.

CONSTRUCTION CONTRACT

Job Name: FY22 Fiber - 01

W. O. #: N/A

Description: Fiber Optic Installation

Contractor:

Contract Date:

Contract Amount: the initial contract is not to exceed \$1,200,000.00, however subsequent contracts may be issued under this RFP based upon the availability of projects and funding under the current terms.

SECTION I

W.O. Number: <u>Varies</u> (Enter this number on all attachments, invoices and related correspondence.)

This Contract is entered into this	day of,	, between
(hereinafter called "Contractor")		
Contractor's License No.		
Issuance State:		
Expiration Date:		
Mailing Address:		
City:,	State:,	Zip:

and Blue Ridge Mountain Electric Membership Corporation (hereinafter called "Owner").

PROJECT

1.1 Description of work:

Assist in installation of Fiber Optic Infrastructure including but not limited to aerial and underground fiber optic cable and subscriber drops as indicated on each Work Order. Construction may include, but not limited to, aerial attachment to existing electric poles, underground plow, trench, or boring. This contract may also include fiber optic splicing.

1.2 List of Materials to be Furnished By Owner

Fiber optic cable, hand holes, aerial attachment hardware, ONT housings, power supplies, and other miscellaneous hardware that would become plant of BRMEMC.

1.3 List of Attached Drawings and Specifications Supplied By Owner

1) Owner will supply a detailed work order for each job.

2) Installation specifications

1.4 Method of Payment

Check or Direct Deposit

1.5 Payment Schedule

The maximum amount of this contract shall be \$1,200,000.00 Payment shall be due and payable in accordance with the following schedule:

Paid within thirty days of reciept of the invoice. Invoices shall not be remitted for payment more frequent than once every two weeks.

Invoices are to be submitted to: Blue Ridge Mountain EMC c/o Travis Lunsford PO Box 9 Young Harris, GA 30582

Owner shall only pay Contractor items included on the Bid Sheet (Exhibit B) unless otherwise stated on a specific Addendum, in which any variation would only apply to said specific Addendum.

Payments are subject to provisions in Section 2.17 of this contract.

1.6 Special Provisions

1) All facilities shall be installed to the suppled specifications or other mutual agreed upon specifications.

2) All invoiced rates must match the attached bid sheet and quanities must match work orders. Any deviation or additional charges must have prior approval.

3) All installation shall be at the lowest cost method possible where multiple methods could be applied to complete the same work order as specified.

4) Must be certified to operate in both the electric and communication space for aerial construction.

5) Must be certified to work inside a residential meterbase.

6) Unless otherwise specified in the attached rate sheet provided by the contractor, all footages shall be invoiced as Linear Footage.

7) Contractor must supply it's own safety equipment.

8) Contractor must meet or exceed all BRMEMC provided safety standards and safety manual.

By signing below each party agrees that they understand the above contract and will be bound by the terms of this contract.

Contractor

Signature _____

Printed _____

Date

Blue Ridge Mountain Electric Membership Corporation

Signature _____

Printed

Title

Date

SECTION II – GENERAL PROVISIONS

2.1 Defined Terms

All terms used in this Agreement that are not defined in this Article 2.1 shall have the definitions set forth elsewhere herein. Words, phrases or expressions used in this Agreement which are terms or otherwise defined herein, and which have an accepted meaning in the custom and usage of the business shall have that meaning unless the context clearly indicates otherwise.

Cable Footage: shall mean footage of cable from end to end including Linear Footage, sag, and slack loops as shown on provided staking sheets and specifications.

Linear Footage: shall mean distance between locations as shown on provided staking sheets. Distance will be measured between xy coordinates at base of each location in a straight line unless otherwise shown on the staking sheet with additional vertices.

2.2 Notification of Injury or Damage

The Contractor shall promptly notify the Owner of any injury, death, loss or damage to persons, animals, or property which is in any way related to the work performed under this Contract, even though such occurrence was not caused or contributed to by the Contractor or the Contractor's employees and agents.

2.3 Withholding of Payments

The Owner may withhold money due for portions of the work which have been rejected by the Owner and which have not been corrected by the Contractor to the satisfaction of the Owner. The Contractor shall pay each material supplier, if any, within five (5) days after receipt of any payment from the Owner, the amount thereof allowed on account of materials furnished by each material supplier. The Owner may withhold money due for claims which might be the subject of reimbursement to the Owner by the Contractor. If the Owner is advised that the Contractor is not promptly paying material suppliers as set out above, or if the Owner is advised that employees of the Contractor are not being promptly paid, then the Owner may withhold such money due as the Owner deems sufficient to insure the obligations incurred by the Contractor in connection with the work covered by this Contract will be paid in full.

2.4 Changes in Project

The Owner may make changes in the Project by altering, adding to or deducting from the Project. No change in the contract price shall be made for minor changes not involving extra cost. All adjustments in the contract price by reason of any other change shall be agreed to by the parties prior to commencement of the actual work in connection with such change.

2.5 Standards of Work

The Contractor shall furnish and be responsible for all supervision, labor, tools, equipment, power, transportation, material, and supplies required to perform the work, except those items specifically listed which will be furnished by the Owner. The Contractor shall pick up and transport such material and equipment from its place of storage to the job site as needed. The Contractor shall transport and return to a place of storage designated by the Owner unused material and equipment belonging to the Owner.

2.6 Provision of Materials

All guarantees of materials and workmanship running in favor of the Contractor shall be transferred and assigned to the Owner on completion of construction and at such time as the Contractor receives final payment.

The Contractor shall save harmless and indemnify the Owner from any and all claims, suits, and proceedings for the infringement of any patent or patents covering any materials or equipment provided by the Contractor used in construction of the Project.

It shall be the duty of the Contractor to inspect all material used in the performance of the work, whether or not furnished by the Owner. The Contractor shall not use any defective material in the performance of the work.

The Contractor shall reimburse the Owner or shall replace at no cost to the Owner any material or property destroyed, damaged, or lost, regardless of cause, in the performance of the Contract.

2.7 Laws and Regulations

The Contractor shall comply with all Federal, State, and Municipal Laws, ordinances and regulations and building and construction codes applicable to the performance of the work and give all notices that may be required. If the Contractor observes that the work to be performed is at variance with any law, ordinance, regulation or building, or construction code, he shall promptly notify the Owner. The Contractor shall follow the instructions of Government officials regarding maintenance of traffic and protection of the public. The Contractor shall obtain a copy of regulations or permit requirements of the appropriate Road authorities and make all employees aware of these regulations.

2.8 Environmental Protection

The Contractor shall perform work in such a manner as to maximize preservation of beauty and conservation of natural resources, and minimize marring and scarring of the landscape and silting of streams. The Contractor shall not deposit trash in streams or waterways, and shall not deposit herbicides or other chemicals or their containers in or near streams, waterways or pastures. The Contractor shall follow, under the general direction of the Owner, the criteria relating to environmental protection as specified herein by the Owner.

2.9 Inspection of Work

The Owner may maintain inspectors at the job site, and to further assure compliance with the plans and specifications and maintain quality of construction, may, after reasonable notice to the Contractor, perform from time to time operational tests on the Project or a portion or portions thereof selected by the Owner.

2.10 Underground Structures

The Contractor at the Contractor's expense shall locate any pipes, conduits or other underground structures or obstructions which are in the way of the construction, whether or not any work plans omit to show or purport to show their locations. All such property damaged in the course of the work shall be repaired at the expense of the Contractor and in a manner satisfactory to the Owner.

2.11 Duty of Safe Performance

The Contractor shall at all times take all reasonable precautions to protect all persons and property, including property of the Owner from injury arising out of the performance of the work. The Contractor shall make such inspections, safety checks, and tests, and shall provide such equipment, personnel, and supervision as is necessary to insure the safe performance of the work.

2.12 Defects in Work

The Contractor shall correct at its expense all defects and deficiencies in the work which result from labor or material furnished by the Contractor, workmanship, or failure to follow the plans, drawings, or other specifications made a part of this Contract, which are discovered within one (1) year from the date the work is accepted. Acceptance of the work by the Owner shall not constitute a waiver of any such defects or deficiencies. The Owner shall notify the Contractor in writing of any defects and deficiencies and if the Contractor has failed to remedy or make arrangements satisfactory to the Owner to remedy such defects and deficiencies within twenty (20) days thereafter, the Owner may remedy such defects and deficiencies and the Contractor shall pay the Owner the cost of making such corrections.

2.13 Completion on Contractor's Default

If default shall be made by the Contractor in the performance of any of the terms of this Contract, the Owner, without in any manner limiting its legal and equitable remedies in the circumstances, may serve upon the Contractor a written notice requiring the Contractor to cause such default to be corrected forthwith. Unless within twenty (20) days after the service of such notice upon the Contractor such default shall be corrected or arrangements for the correction thereof satisfactory to the Owner shall be made by the Contractor, the Owner may take over the construction of the Project and prosecute the same to completion by contract or otherwise for the account and at the expense of the Contractor, and the Contractor shall be liable to the Owner for any cost or expense in excess of the contract price occasioned thereby. In such event the Owner may take possession of and utilize, in completing the construction of the Project, any materials, tools, supplies, equipment, appliances, and plant belonging to the Contractor which may be situated at the site on the Project. The Owner in such contingency may exercise any rights, claims, or demands which the Contractor may have against third persons in connection with this Contract and for such purpose the Contractor does hereby assign, transfer, and set over unto the Owner all such rights, claims, and demands.

2.14 Indemnification

The Contractor agrees to indemnify and hold harmless the Owner from any and all claims, actions, or causes of action to the extent the claimed loss or damage arises out of the Contractor's negligent performance or nonperformance of the work herein contracted to be done, whether such claims, actions, or causes of action are alleged to be the results of any act or omission of the Contractor, its subcontractors, agents, servants, employees, or any or all of them and regardless of the fact that the work may have been completed and accepted by the Owner and regardless of the fact the Contractor may have received payment for work. The Owner shall promptly notify the Contractor in writing of any such claims, actions, or causes of action and give the Contractor full opportunity and authority to assume the sole defense and settlement thereof. The Owner shall furnish to the Contractor upon request all information available to the Owner for defense against any claim, action, or cause of action. The Contractor's liability under this indemnity shall not exceed the value of the Contract except for those claims involving personal injury or tangible property damage.

2.15 Job Site

The Contractor is responsible for the condition of the properties disturbed during construction and clean up. All disturbed properties shall be returned to original condition with the exception of facilities that the Contractor installed during construction. This includes but not limited to seeding and mulching any disturbed properties, replacing lost landscaping mulch, hardscapes, gravel, shrubs, flowers, etc. as well as replacing any damaged hardscapes, shrubs, flowers, ect. All repair must be to the satisfaction of the Owner.

2.16 Contract Addendum (Exhibit A)

Prior to any billable construction taking place on any individual work order or work order package covered under this contract, Contractor and Owner must complete the documentation in Exhibit A.

2.17 Liquidated Damages

The Work Order Completion Date established in each Contract Addendum (Exhibit A) is binding for each work order or work order package as set forth in each Contract Addendum. Liquidated Damages shall be assessed based on the individual Contract Addendum. Owner will hold and not pay any invoices due after the Work Order Completion Date for any work order or work order package that is not completed. Liquidated Damages shall be deducted from any held invoices before payment. These invoices will be held until after the work order or work order package is completed and are subject to provisions in this section and the Contract Addendum.

2.18 Miscellaneous

The Contractor has made a careful examination of the site of the Project and conditions which may affect work under this Contract.

The Contractor will build the outside plant facilities under the Contract on rights-of-way provided by the Owner including, where directed by the Owner, rights-of-way presently occupied by existing facilities of the

Owner. The Contractor will use no explosive in the performance of work under this Contract without the prior written approval of the Owner. All permits necessary for the handling or use of dynamite or other explosives in connection with construction of the Project shall be obtained by and at the expense of the Contractor.

If at any point the following conditions are met by the contractor, work will proceed as described below:

Excavation

If material is so large, heavy, hard or cumbersome that it cannot be removed with standard equipment, then that part of excavation that requires other methods of removal shall be reviewed on a per case basis and will be done at cost mutually agreed upon or otherwise omitted by BRMEMC. Drilling

In the event that caving soils, sub-surface water, hard-rock, etc., conditions (drilling refusal) prohibits work from being performing the job in a normal manner (using our rock auger equipment), the work will stop and shall be reviewed on a per case basis and will be done at cost mutually agreed upon or otherwise omitted by BRMEMC. Drilling refusal: less penetration than 1 inch in 5 minutes.

SECTION III – INSURANCE

3.1 General

This section sets forth Owner's policies for minimum insurance and bonding requirements for contractors, engineers, and architects performing work under this contract.

3.2 Policy Requirements

- a) Contractors, engineers, and architects performing work for borrowers under construction, engineering, and architectural service contracts shall obtain insurance coverage, as required in Section 3.3, and maintain it in effect until work under the contracts is completed.
- b) Contractors entering into construction contracts with borrowers shall furnish a contractors' bond, except as provided for in Section 3.4, covering all of the contractors' undertaking under the contract.

3.3 Contract Insurance Requirements

Contractors, engineers, and architects shall take out and maintain throughout the contract period insurance of the following types and minimum amounts:

- a) Workers' compensation and employers' liability insurance, as required by law, covering all their employees who perform any of the obligations of the contractor, engineer, and architect under the contract. If any employer or employee is not subject to the workers' compensation laws of the governing state, then insurance shall be obtained voluntarily to extend to the employer and employee coverage to the same extent as though the employer or employee were subject to the workers' compensation laws.
- b) Public liability insurance covering all operations under the contract shall have limits for bodily injury or death of not less than \$1 million each occurrence, limits for property damage of not less than \$1 million each occurrence, and \$1 million aggregate for accidents during the policy period. A single limit of \$1 million of bodily injury and property damage is acceptable.
- c) Automobile liability insurance on all motor vehicles used in connection with the contract, whether owned, non-owned, or hired, shall have limits for bodily injury or death of not less than \$1 million per person and \$1 million per occurrence, and property damage limits of \$1 million for each occurrence.
- d) When a borrower contracts for the installation of major equipment by other than the supplier or for the moving of major equipment from one location to another, the contractor shall furnish the borrower with an installation floater policy. The policy shall cover all risks of damage to the equipment until completion of the installation contract.

3.4 Contractors' Bond Requirements

Construction contracts shall require contractors to secure a contractors' bond attached to the contract in a penal sum of not less than the contract price, which is the sum of all labor and materials including owner-furnished materials installed in the project. The Owner may waive the requirement for a contractors' bond. Under no circumstance shall either the direct or associated costs to acquire this bond be paid by the Owner.

Exhibit A Contract Addendum

Exhibit Reference #	Click or tap here to	Contract	FY22 Fiber - 01
	enter text.	Reference:	
Work Order or Work	Click or tap here to	County:	Click or tap here to enter text.
Order Package #	enter text.		
Work Order Name:	Click or tap here to enter text.		
Work Order Address:	Click or tap here to enter text.		

Expected Start Date: Completion Date:

Dependent Activity:

(List ar comple	y work order activities that could affect the completion date where Contractor would be depend te any task before Contractor could complete Work Order)	ent on Owner to
	Dependent Activity	Completion Date
1.	Click or tap here to enter text.	
2.	Click or tap here to enter text.	
3.	Click or tap here to enter text.	
4.	Click or tap here to enter text.	
5.	Click or tap here to enter text.	

Invoicing Stipulations:

Invoid	cing Stipulations:
(List a	ny stipulations that could affect the invoicing of this job by Contractor that are not covered or clear within the contract)
1.	Click or tap here to enter text.
2.	Click or tap here to enter text.
3.	Click or tap here to enter text.
4.	Click or tap here to enter text.
5.	Click or tap here to enter text.

Additional Contractor Other:

(List a	ny additional items that may pertain to this work order. The comments in this section are not in any way to be
constru	ed as binding or contractual.)
1.	Click or tap here to enter text.
2.	Click or tap here to enter text.
3.	Click or tap here to enter text.
4.	Click or tap here to enter text.
5.	Click or tap here to enter text.

Additional Owner Other:

(List an constru	ny additional items that may pertain to this work order. The comments in this section are not in any way to be ed as binding or contractual.)
1.	Click or tap here to enter text.
2.	Click or tap here to enter text.
3.	Click or tap here to enter text.
4.	Click or tap here to enter text.
5.	Click or tap here to enter text.

Liquidated Damages:

Liqui	dated Damages shall be assessed based on Section 2.17 of the Contract and the following:
1.	EXAMPLE ONLY:Liquidated damages shall be paid to the Owner by the Contractor for every
	day past the Work Order Completion Date that the work order is not completed liquidated
	damages shall be paid to the Owner by the Contractor in the sum of \$1.50 per day per service
	under contract effected by the work order that is past the Work Order Completion Date.
2.	EXAMPLE ONLY:Liquidated Damages shall be paid to the Owner by the Contractor in the
	sum of \$2,155.14 for each unserved location effected by the work order that is past the Work
	Order Completion Date.
3.	Click or tap here to enter text.
4.	Click or tap here to enter text.
5.	Click or tap here to enter text.

By signing below each party agrees that they understand the above Contract Addendum and will be bound by the terms of this Contract Addendum.

Contractor

Signature _____

Printed

Date

Blue Ridge Mountain Electric Membership Corporation

Signature _____

Printed

Title

Date

Exhibit B Bid Sheet (attach Bid Sheet)

Description	UNIT	Price per Uni
Aerial		\$
Aerial ADSS Fiber Optic	Linear Feet	
Guy and Anchor Attachment	Each	
Underground		
Underground Fiber Optic Plow	Linear Feet	
Underground Fiber Optic Trench	Linear Feet	
Underground Fiber Optic Directional Boring (including Installation of one 1.5" or 2" Roll HDPE)	Linear Feet	
Underground Fiber Optic Missle Boring (including Installation of one 1.5" Roll HDPE)	Linear Feet	
Underground Fiber Optic Subsurface Installation Other	Linear Feet	
Conduit Installation Additional 1.5" or 2" Roll HDPE in the same Plow, Trench, or Bore	Linear Feet	
Underground Fiber Optic Hand Hole Installation 36"	Each	
Underground Fiber Optic Hand Hole Installation 30"	Each	
Underground Fiber Optic Hand Hole Installation 20"	Each	
Pull Fiber Optic in Conduit	Linear Feet	
Subscriber Drop		
Aerial Elat Dron	Linear Feet	
Underground Flat Drop Plow	Linear Feet	
Underground Flat Drop Trench	Linear Feet	
Underground Flat Drop Directional Boring (including Installation of one 1.5" Roll HDPE)	Linear Feet	
Underground Flat Drop Missle Boring (including Installation of one 1.5" Roll HDPE)	Linear Feet	
Underground Flat Drop Subsurface Installation Other	Linear Feet	
Mounting Housing and Power Supply	Each	



FIGURE 1.1

- Install IMG close to customers network cables or telephone interface when possible.
- Install battery box in optimal position for wiring into meter base with the least amount of 3/8" flex conduit.
- Use 3/8" flex conduit up wall from ground to approximately 12" to 16" below IMG enclosure to protect fiber.
- Leave 9' of fiber cable slack at bottom of IMG and anchor to house. (figure 1.1)
- Secure fiber coil with 1 hole metal clamps.



FIGURE 1.2

- Silicon around any wire/cord coming into IMG enclosure through rubber grommets to keep insects from getting inside.
- Secure wires entering underneath IMG below grommets with tie wraps.
- Leave a minimum of 3 feet of bare buffer tube inside the IMG enclosure and anchor to grounding plate. (figure 1.2)
- Splice the designated fiber to the pigtail and coil the slack in the tray.
- Install the IMG inside the enclosure with the provided hardware.
- Plug pigtail SC connector into the bottom of IMG. (figure 1.2)
- Install IMG power cord by running the cord through a rubber grommet and plugging into the IMG. (figure 1.2)
- If provided plug the CAT-5 cable into the provided ports on the right side of the IMG.
- Ground IMG using customers ground from meter base.



FIGURE 1.3





- Fuse barrel should be in position of example with "cap" pointed upward when possible. Installation using clamps on load side conductor is also acceptable.
- Make power cord from battery box long enough to reach all meters in a meter gang. NOTE: When installing battery box on a gang meter connect power source to line side of meter except on Murphy Power Board.
- Do not plug into a receptacle unless it has a "weatherproof in use" receptacle cover.
- Ensure copper is not corroded when applying #6 split for ground.



- On Murphy Power Board system record number on meter seal after installing power to IMG (ex. 22-010-310).
- Use the knockouts or if not available drill hole for the coupling so the power cord can enter the meter base.
- For meter base power installation, cut the male end off of the power cord and strip wires.
- Plug the female end of the power cord into the battery box and make sure the power light comes on.
- Plug IMG power cord into port in the battery box.



FIGURE 1.5

GATEWAY TERMINAL BLOCK	COLOR	POWER CORD TERMINAL BLOCK
1	RED	1
2	WHITE	2
3	GREEN	3
4	BLUE	4
5	ORANGE	5
6	BLACK	6
7	YELLOW	7

• Cut IMG power cord to length and wire the terminal connectors as shown in fig. 1.5.



FIGURE 1.6

FIGURE 1.7

FIGURE 1.8

- Install IMG and power box where applicable on pole.
- Run u-guard from J hook down pole covering fiber drop.

Fiber Count	12-60	84-96	132-192
Nominal Weight	52	120	159
(lb/1000ft)			
Minimum Bend	6.7	8.2	10.3
Radius Loaded (in.)			
Installed Minimum	4.4	5.5	6.9
Bend Radius (in.)			

FO-1 0 TO 5 DEGREE ANGLE



FIGURE 2.1			
NO.	ITEM ID	QTY	DESCRIPTION
1		1	BOLT, MACHINE, 5/8 X REQ'D LENGTH
2	8003	1	GENERAL CODE FOR FIBER OPTIC CABLE SUPPORT
3		1	WASHER, SQUARE, FLAT, 3 IN., FOR 5/8 IN. DIA. BOLT

FO-2 5 TO 22 DEGREE ANGLE



NO.	ITEM ID	QTY	DESCRIPTION
1		1	BOLT, MACHINE, 5/8 X REQ'D LENGTH
2	8003	1	GENERAL CODE FOR FIBER OPTIC CABLE SUPPORT
3		1	GUY ATTACHMENT

FO-3

22 TO 60 DEGREE ANGLE



NO.	ITEM ID	QTY	DESCRIPTION
1		1	BOLT, EYE, 5/8" X REQ'D LENGTH
2	8001	2	DEAD-END ASSEMBLY
3		1	WASHER, SQUARE, FLAT, 2-1/4", FOR 5/8 IN. DIA. BOLT
4		1	GUY ATTACHMENT
5		2	FIGURE EIGHT
6		2	ANCHOR SHACKLE

FO-4

60 TO 90 DEGREE ANGLE



FIGURE 2.4

NO.	ITEM ID	QTY	DESCRIPTION
1		2	BOLT, EYE, 5/8" X REQ'D LENGTH
2	8001	2	DEAD-END ASSEMBLY
3		2	WASHER, SQUARE, FLAT, 2-1/4", FOR 5/8 IN. DIA. BOLT
4		2	GUY ATTACHMENT





FIGURE 2.5

NO.	ITEM ID	QTY	DESCRIPTION
1		1	BOLT, EYE, 5/8 X REQ'D LENGTH
2		1	DEAD-END ASSEMBLY
3		1	WASHER, SQUARE, FLAT, 2-1/4", FOR 5/8 IN. DIA. BOLT
4		1	GUY ATTACHMENT

FO-6 DOUBLE DEAD END



NO.	ITEM	QTY	DESCRIPTION
	ID		
1		1	BOLT, EYE, 5/8 X REQ'D LENGTH
2		2	DEAD-END ASSEMBLY
3		2	WASHER, SQUARE, FLAT, 2-1/4", FOR 5/8 IN. DIA. BOLT

SECTION B





NO.	ITEM ID	QTY	DESCRIPTION
1		1	Ј НООК
2		1	CABLE HANGER





- Install fiber cable at least 30 inches below transformer and 40 inches below neutral.
- Applications where the fiber cable can not be installed 30 inches below transformer or 40 inches below neutral stay at least 12 inches above highest communication cable.
- Spans over 450 feet require vibration dampers.
- On all coils use tape and strapping to keep coil intact.



FIGURE 2.10

- Leave coil at house and pole for an overhead service.
- Put tape and strapping on coils.
- Coil flat drop so there is no kinks.



FIGURE 2.11

• Tape splice can on pole as shown. Turn aluminum ring down to keep case from filling up with water. Keep fiber cable coiled on pole and off of ground.



FIGURE 2.12

- Coil fiber, tape and strap to hang to fiber span as shown.
- Tape and strap splice enclosure to fiber span. Make sure can is ran around the same side of the pole as the fiber has been ran around. DO NOT HANG CAN ON TELEPHONE OR CABLE TV.



SECTION C

Fiber Count	2-60	73-96	121-144	241-288
Cable Outer	0.45	0.54	0.68	0.77
Diameter				
(OD) (in.)				
Cable Weight	84	114	176	202
lb/kft				

HANDLING

- Minimum Bend Radius, With Load: 15 x OD
- Minimum Bend Radius, With no Load: 10 x OD
- Minimum Bend Radius, Storage Coils: 10 x OD
- Maximum Rated Cable Load:
- 600 lbf (2700N)
- Maximum Long Term Load: 180 lbf (800 N)



FIGURE 3.2

- Bonding straps attached to alligator clamps on both pieces of cable.
- Connect to grounding studs at back of can.
- Put fiber tubes in the holders on the outside of the frame.



FIGURE 3.3

- Cut two small slits in armor of cable and slide the bottom half of the alligator clamp underneath the armor.
- Trim bonding strap as close to the eye as possible so that neither strap touches the opposite stud. MAKE SURE NEITHER STRAP TOUCHES EACH OTHER OR OPPOSITE GROUNDING STUD.
- Attach the bonding strap to the alligator clamp stud and tighten nut.

HAND HOLE SPECIFICATIONS



FIGURE 3.4

- MINIMUM OF 100 FT. COIL IN EACH HAND HOLE WHERE CABLE IS CONTINUED AND NOT CUT.
- MINIMUM OF 60 FT. COIL FOR EACH CABLE THAT DEAD ENDS INA HAND HOLE.
- IF ANY CABLE END HAS BEEN USED TO PULL CABLE ADD AN EXTRA 20 FT. TO COIL AND NOTIFY ENGINEER AND MARK CABLE.



- Leave top of the hand hole 3 to 4 inches above ground level for an area that has not been landscaped.
- Leave top of the hand hole 2 inches above the ground for a landscaped area
- Fill bottom of hand hole with 4 to 6 inches of pea gravel.
- TIGHTEN BOLTS ON HAND HOLE COVER WHEN FINISHED.



FIGURE 3.6

FIGURE 3.7

SECTION C



- Turn conduit up side of pole.
- Run U-guard down pole and to top of conduit coming out of ground.
- Install locate wire with all underground drops unless it is installed with power.

Example Work Orders

The following are examples of a typical work order packet for a main line fiber optic job and a fiber optic drop.

Blue Ridge Mountain EMC Request CS 3 B C I Instructions: INSTALL	FIBER CONSTF	vice Order CUCTION-DROP	7/13/20 NO: SC 	DRD00002938005 LO Update by 	
Deposit #	Revenue	<u>District</u> 1	<u>Schedu</u> (- 10/16	u <u>led_Date</u> 06/30/202	0
	0/4	F U/G	R-11/6	Jones Crea UI	t nion
Location Notes	<u>Map #</u> 268-2 2	Line Sect # 26601	Meter Locat	ion <u>REA Code</u> X	
Bill to Customer 1257 Customer Notes	RD BLA	AIRSVILLE GA 3	<u>Pho</u> 0512	one: (000) 000-000	0
<u>Move In Customer</u>			Phor	<u>10:</u>	
	Last	Reading	Curren	t Reading	
4 Class: EL5	<u>Kwh</u> 32786 Last Reading	Kw KVA 0 0 Date:6/12/202	<u>Kwh K</u> 20 Type: Actual	<u>w KVA</u>	
Fask IDDescriptionENGINEER: 75 BY: 15 RELEASEDBY: 30 JG COMPLETEDBY: 30 JH COMPLETEDBY: 30 FIBER COMPLETEDBY: 30 SATEWAYBY: 30 POWER SUPPLYBY: 30 FIBER SPLICEBY: 30 OPERATIONS COMPBY: 30	ption 4 DATE: 7-6-20 0 DATE: 1/8 a0 DATE: 0ATE: 1/8 a0		Charge E 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000	mployee Comple No No No No No No No No No No	eted
)ate: (``) Underground Form (Comments Application Void after 90	<u>Multiplier</u> 1.0) Membership Form (days. Money must be	0) Security Light in office befor	Form () FTTX Form UserID: WO #: Particular Be job can be relead DR DC 7-10	orm () Flex Pay For abking 3-2042-20F sed for construction NGN 6-20	m

Locate Request Form

Site Contact:	TIN	I DEAVER				
, Т	ype of Work	Who is the Work For?)	Project Duration		
INSTA	LL FIBER DROP			4	HR	
			÷.			
Street #	Prefix	Digsite Address Street Name	Stree	t Type	Suffix	
1257		RD				
Street #	Prefix	Nearest Cross Street Street Name	Stree	t Type	Suffix	
			1			
Subdivision/	Community:	ан улан алан алан алан алан алан алан ал				
		Locate Instructions		Special Science - Des Holder		
LOCAT	E AROUND POLE	AND FLAGGED AREA TO ELECTRIC	C METERB	ASE ON H	IOME	
		Driving Instructions				
		Other Remarks				
-		Boring (Check all that apply)				
	None 🛛	Driveway Ro	ad□	Side	ewalk	
Place	ting	W/bito Lino				
VesD			UGø		Both	
,		,	(

7/7/2020 3:02:30 PM		ORK ORDER	R ISSUE DOC	CUME	NT Page 1				
PL25		(Picl	king Ticket)						
		Blue Ridge	e Mountain EM	IC					
Work Order #	B-2042-20F	Requested Sta	art Date 7/7/20	20	ν	Varehouse	01		
Job Step	All	Total Days	0		R	US Plan			
Job Type			Bond						
Class	NC	Map Number			L	ocation			
Kind	Regular	Office	2		I	ax District	0		
Description									
Order Filled	Ву	Mtrl Check	ked & Accepted	lBy		D	ate		
INSTALL									
SUBASSY									
CODE	DESCRIPTION		QTY	UM	ISSUE	RETURN	TRANSFER	CMO	
FO-J	J HOOK	397.8020	2				ļ	C	
IMG-O	OUTDOOR IMG	397.0469	1					C	
STOCK					TOTALOTY	TOTALOTY	TOTALOTY		
NUMBER	DESCRIPTION		QTY	UM	ISS/USED	RETURNED	TRANS	СМО	
8026	4-6 CT FIBER DROP (OH OF	RUG) 397.8026	592	FT				С	
8130	SPL ENCLOSURE UP TO 48	CT 397.8130	1	EA] C	
8203	IMG ENCLOSURE / HOUSIN	NG 397.0469	1	EA] C	
8204	BATTERY / CYBERSHIELD	397.0469	1	EA] C	
8205	OUTDOOR INTELLIGENT N	AEDI 397.0469	NGW	- EA				С	
FOL	FIBER OH LINE D I	866.0000	208	FT] C	
FUL	FIBER UG LINE D I	867.0000	180	FT				С	
NS8004	J HOOKS	397.8020	2	EA				С	

ADDITIONAL

CODE	DESCRIPTION	QTY	ACTUAL QTY	SALVAGE QTY	JUNK QTY
1102	102110 - 43363 4				

ŀ,

B-2042-20F

W.O. NUMBER: SORD2938005 W.O. NAME: SERVICE ORDER #: DATE RELEASED FOR CONSTRUCTION: DIRECTIONS:



Blue Ridge Mountain Electric Membership Corporation

COUNTY OR TOWN: Union MAP NUMBER: ENGINEER: Tim Deaver AP-8 CODE:

		223215	N.	4 CT FIBER DROP ON (ITEM #6020)	N. Wire 308	PluaScrap 339	Typa Fiber	overUnder N/A	Primary Lino Foot OH:	0
l		\setminus	vokie L	4 CT FIBER DROP UG (ITEM #6028)	230	253	Fiber	N/A	UG: Secondary Line Feet OH:	0
ļ		$\langle \rangle$	00						UG:	0
I	Â	ø	N						UG:	0
I	223228		1						Fibor:	388
			1	1 NewOH 0 feet	2 Fiber 208 foot		3 Fiber 180 fee	et		
	9		Xa	GPS Location:	GPS Location:		Source: 2 GPS Location:			
1		F		Comments:	Comments:		Comments:			
I	1	F	1	EX (1) 50-3 WOOD POLE (ITEM	EX (208) #4 ACSR	(ITEM #2510)	EX (180) 4/0 1			
L		F Distant	(#80)	Phase: A	((ITEM #2880)			
L	F Station	and the second sec	A	EX (1) SPIRAL VIBRATION	EX (208) #4 ACSR Phase: N	(ITEM #2510)	Phase: A			
k	10	Cook Rd Sama		EX (1) E1-2	EX (1) 40-5 WOOD	POLE (ITEM	(ITEM #2880)			
L	Lors mineral	The second s	11	EX (1) F1-2	#00)		Phase: B			
1	Street Oracity of the street of the		11	EX (1) FO-1	EX (1) F1-2		(ITEM #8026)			
ľ			ß	EX (2) K11	EX (1) M2-1		N (180) FUI.	at Linit		
	1		Į.	EX (1) M2-1	EX (1) VG10		N (1) IMG-0			
1	1		8	EX (1) VC1	N (308) 4 CT FIBEI	R DROP OH				
1			Del	EX (1) VG10	(ITEM #8026)					
C	1 R	(LL) 27.32.25	do v	N (1) SPL ENCLOSURE UP TO	N (208) FOL					
Î	16			48CT (ITEM #8130)	Comment: Acct Uni	lt				
l				N (1) FO-J						
L										
	1									
	223727									
1										
h	, ,160/4			1						

Blue Ridge Mounta	in EMC	Service Order	NO: SO	RD00002885916
Request CS 3 B Instructions: #1	M FIBER (8 - INSTALL FIBER M	CONSTRUCTION-MAIN LINI AIN LINE -, WHITE OAK 1	E FOREST (EXPANSI	ON) #2
<u>Deposit #</u>	<u>Re</u> :	<u>venue District</u> 3	<u>Schedu</u> Update	<u>led Date</u> 05/04/2020 - By - 11-3-20
				TOWNS
Service Address	999991 1360	Main ST YOUNG HARRIS	GA 30582	
Location Notes	<u>Map #</u>	<u>Line Sect #</u>	<u>Meter Locat</u>	ion <u>REA Code</u> 999
<u>Bill to Customer</u> <u>Customer Notes</u>	999991 BRMEN 1360 Main ST YOUNG	MC.NET NOC G HARRIS GA 30582	<u>Pho</u>	ne: (706) 379-3121 (000) 000-0000 (000) 000-0000
Move In Customer			<u>Phon</u>	<u>e:</u>

		Last	Read	ing	Cu	rrent Re	ading	
<u>Meter ID</u>		<u>Kwh</u>	<u>Kw</u>	KVA	<u>Kwh</u>	<u>Kw</u>	<u>KVA</u>	
Task ID	Description				Charg	e Employ	ee Comp	leted
ENGINEER:	BY: Ja 6 D	ATE: 5-14-20			0.0000	0	1	No
FIBER MAIN CHR	ft@OH\$3.	09/UG\$4.64			0.0000	0	1	10
FIBER OPTIC CHR	ft@OH\$2.	06/UG\$2.59			0.0000	0	1	10
RELEASED	ву: <u>309</u> di	ATE: 5 22 20			0.0000	0 '	í '	10
RW COMPLETED	ву: <u>107</u> d.	ate: 6/2/20			0.0000	0	1	10
UG COMPLETED	BY:	DATE:			0.0000	0	1	10
OH COMPLETED	BY:	DATE:			0.0000	0	1	10
FIBER COMPLETED	BY:D	ATE:			0.0000	0	1	10
FIBER SPLICE	BY:D	ATE:			0.0000	0	1	10
SPLICE CAN UP	BY:D	ATE:			0.0000	0	· 1	10
OPERATIONS COMP	BY:D	ATE:			0.0000	0	И	10
Date:		Multiplier						
() Underground I	Form () Mer	nbership Form () See	curity Light Form	()FT	TX Form() Flex Pay F	orm
Contrents					[]se	rTD, aking	~	
					WO :		13-20F	
Application Void	after 90 days.	Money must be	in off	fice before job	can be :	released fo	or construction	on.
						23		600
						V		$\mathcal{N}_{\mathcal{A}}$
						TY	- 1 - 76	
				κ.			21 N	
				•		61		

Site Contact:		Matt \	Walls							
T	ype of Work		Who is the Wo	rk For?		Project Duration				
1	fiber install		BRMEMO	BRMEMC						
			Digsite Address							
Street #	Prefix		Street Name		Street	t Type	Suffix			
			White Oak Forest		Road					
Street #	Prefix		Nearest Cross Street Street Name		Street Type Si					
			White Oak		La	ne				
Subdivision/Community:										
			Locate Instructions							
	Locate 20' w	ride along fl	ags from ribboned pole thro	ough oi	ut entire sul	odivision				
			Driving Instructions							
Travelling Hw of overhead	ry 76E from ⊦ I line just bef	liawassee, ore address includi	right on Hwy 17/75, right or s 1800 White Oak Forest R ing White Oak Ln and Whit	n White d and e e Oak	e Oak Fores extends thro Ct	st Rd, job sl ough out su	arts at end bdivision			
			Other Remarks				_			
	Boring (Check all that apply)									
	Noi	ne 🗆	Driveway 🛛	Ro	adø	Side	walk□			
Blas	ting	i i	White Line	i		UG/OH				
yes□	noख		yes□ no⊠		UGø	OHo	Both□			

A-1473-20F

Blue Ridge Mountain Electric Membership Corporation

Dide Aldge Mountain Liectric Membership Corporation										
Job #: SORD2885916	Staked By: Matt Walls									
Job Name: BRMEMC.NET NOC-WHITE OAK FOREST	Staked Date: 2020-05-07									
Unit	# New									
1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120)	747									
2-IN CONDUIT (ITEM #NS3820)	42									
12 CT FIBER DROP UG (ITEM #8025)	-3387- 3730									
20-IN RECTANGLE HANDHOLE (ITEM #8095)	14									
48 ADSS OH FIBER (ITEM #8020)	-1463 [61]									
48 LOOSE TUBE UG FIBER (ITEM #8055)	1874-20(0 ^L									
FE1-2	2									
FO-1	2									
FO-5	2									
FOL	1223									
FUL	3321									
SPIRAL VIBRATION DAMPER (ITEM #8040)	2									
SPL ENCLOSURE UP TO 48CT (ITEM #8130)	2									
Unit	# Retire									

5/27/2020 3:19:30 PM		RK ORDER	ISSUE DOC	CUMI	ENT Page I			
PL25		(Pick	ing Ticket)					
		Blue Ridge	Mountain EM	IC				
Work Order #	A-1473-20F R	equested Sta	rt Date 5/27/2	020	Warehouse 01			
Job Step	All T	otal Days	0		R	US Plan	999	
Job Type			Bond					
Class	NC N	Iap Number			L	ocation	2885916	
Kind	Regular C	Office	1		Т	ax District	0	
Description	BRMEMC.NET (WHITE OA	K FOREST	EXPANSION	I)				
Order Filled By		Mtrl Check	ed & Accepted	l By	Date			
INSTALL								
SUBASSY								
CODE	DESCRIPTION		QTY	UM	ISSUE	RETURN	TRANSFER	СМО
FE1-2	FIBER DOWN GUY	397.9015	2					C
FO-1	0 TO 22 DEGREE ANGLE	397.8020	2					C
FO-5	DEAD END	397.8020	2				<u> </u>	C C
STOCK								
NUMBER	DESCRIPTION		QTY	UM	TOTAL QTY ISS/USED	TOTAL QTY RETURNED	TOTAL QTY TRANS	СМО
8001	FIBER OPTIC DEAD END	397.8020	2	EA] c
8003	SUPPORT CLAMP (TANGENT)	397.8020	2	EA				c
8020	48 ADSS OH FIBER	397.8020	1611	FT				С
8025	12 CT FIBER DROP (OH OR UC	G) 397.8025	3730	FT				C C
8055	48 LOOSE TUBE UG FIBER	397.8055	2064	FT				С
8095	20-IN RECTANGLE HANDHOL	E 397.8095	14	EA				С
8130	SPL ENCLOSURE UP TO 48CT	397.8130	1	EA				C
8130	SPL ENCLOSURE UP TO 48CT	397.8230	1	EA				C C
9015	FIBER DOWN GUY	397.9015	2	EA	· · · · · · · · · · · · · · · · · · ·			C C
FOL	FIBER OH LINE D I	866.0000	1223	FT				С
FUL	FIBER UG LINED I	867.0000	3321	FT				c
NS1410	GUY WIRE 3/8-IN	397.9015	80	FT				С
NS1435	GUY WRAP	397.9015	4	EA				С
NS1455	BONDING CLAMP	397.9015	2	EA				С
NS1465	GUY ATTACHMENT	397.9015	2	EA				С
NS370	BOLTS MACHINE 5/8 3,6,10&1	21 397.8020	4	EA				С
NS370	BOLTS MACHINE 5/8 3,6,10&1	2I 397.9015	2	EA				C
NS3820	2-IN CONDUIT	397.0000	42	FT				C
NS550	LAG SCREW	397.9015	2	EA				С
NS8040	SPIRAL VIBRATION DAMPER	S 397.8005	2	EA				c
NS8120	1 & 1 1/2-IN ROLL CONDUIT	397.0000	747	FT] C

ADDITIONAL

CODE	DESCRIPTION	QTY	ACTUAL QTY	SALVAGE QTY	JUNK QTY

5/27/2020 3:19:30	WORK ORDER	ISSU	UE DOCUME	NT	Page 2				
PL25		(Picki	ing T						
		Blue Ridge	Mou	ntain EMC					
Work Order #	A-1473-20F	Requested Star	rt Da	te 5/27/2020		Warehouse	01		
Job Step	All	Total Days	0			RUS Plan	999		
Job Type Bond									
Class	NC	Map Number				Location	2885916		
Kind	Regular	Office	1			Tax District 0			
Description	BRMEMC.NET (WHIT	TE OAK FOREST	EXP	ANSION)					



SORD2885916 - BRMEMC.NET NOC-WHITE OAK FOREST



W.O. NUMBER: SORD2885916 W.O. NAME: BRMEMC.NET NOC-WHITE OAK FOREST SERVICE ORDER #: DATE RELEASED FOR CONSTRUCTION:



Blue Ridge Mountain Electric Membership Corporation

COUNTY OR TOWN: Towns MAP NUMBER: ENGINEER: Matt Walls

Directions: Travelling Hwy 76E from Hiawassee, right on Hwy 17/75, right on White Oak Forest Rd, job starts at end of overhead line just before address 1800 White Oak Forest Rd and extends through out subdivision including White Oak Ln and White Oak Ct		Unit 12 CT FIBER DROP UG (ITEM #8025) 48 ADSS OH FIBER (ITEM #8020) 48 LOOSE TUBE UG FIBER (ITEM #8055)		N. Wire 3387 1463 1874	PlusScrap 3730 1611 2064	Type Fiber Fiber Fiber	overUnder N/A N/A N/A	Primary Line Feet OH: 0 UG: 0 Secondary Line Feet OH: 0 UG: 0 Service Drop Feet OH: 0 UG: 0 Fiber: 4544		
1 Backspan 0 FT Comments: Leave 120' fiber coil on pole EX (1) E1-3 EX (1) F1-4 EX (1) M2-1 EX (3) VA5-2 EX (1) VC1-3 EX (1) VG10 EX (1) VM5-9 EX (1) VM5-9 EX (1) VUA2 N (1) SPIRAL VIBRATION DAMPER (ITEM #8040) Comment: 48ct N (1) FE1-2 N (1) FO-5	2 Backspan 508 FT Comments: EX (508) #4 ACSR (ITEM #2510) Phase: N EX (508) #4 ACSR (ITEM #2510) Phase: C EX (1) M2-2 EX (1) VA1 N (628) 48 ADSS OH FIBER (ITEM #8020) N (1) SPIRAL VIBRATION DAMPER (ITEM #8040) Comment: 48ct N (1) FO-1 N (508) FOL Comment: Acct Unit	3 Backspan 393 FT Comments: EX (393) #4 ACSR (ITEM #2510) Phase: N EX (393) #4 ACSR (ITEM #2510) Phase: C EX (1) M2-2 EX (1) VA1 N (393) 48 ADSS OH FIBER (ITEM #8020) N (1) FO-1 N (393) FOL Comment: Acct Unit	4 Backs Comm Coil on EX (32 Pha EX (32 Pha EX (1) EX (1) EX (1) EX (1) EX (1) EX (1) N (442 (ITEM N (1) S 48CT (N (1) F N (1) F N (1) F N (1) F N (322) Comr	span 322 FT hents: Leave 120' fiber pole 2) #4 ACSR (ITEM #2510) ise: N 2) #4 ACSR (ITEM #2510) ise: C E1-2 F1-2 W2-1 VA5 VUA2) 48 ADSS OH FIBER #8020) SPL ENCLOSURE UP TO ITEM #8130) E1-2 O-5) FOL nent: Acct Unit	5 Backspan 245 FT Comments: Leave 120'f coil in handhole EX (245) 1/0 PRIM URD CA (ITEM #2870) Phase: C EX (1) UM1 EX (1) UM6-21 N (465) 48 LOOSE TUBE U FIBER (ITEM #8055) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (245) FUL Comment: Acct Unit	fiber ABLE JG				

AP-8 CODE: 999 - BROADBAND EXPANSION



Page 2 of 6

W.O. NUMBER: SORD2885916 W.O. NAME: BRMEMC.NET NOC-WHITE OAK FOREST SERVICE ORDER #: DATE RELEASED FOR CONSTRUCTION:



Blue Ridge Mountain Electric Membership Corporation

COUNTY OR TOWN: Towns MAP NUMBER: ENGINEER: Matt Walls

Directions: Travelling Hwy 76E from Hiawassee, right on Hwy 17/75, right on White Oak Forest Rd, job starts at end of overhead line just before address 1800 White Oak Forest Rd and extends through out subdivision including White Oak Ln and White Oak Ct		Unit 12 CT FIBER DROP UG (ITEM #8025) 48 ADSS OH FIBER (ITEM #8020) 48 LOOSE TUBE UG FIBER (ITEM #8055)		N. Wire 3387 1463 1874	PlusScrap 3730 1611 2064	Type Fiber Fiber Fiber	overUnder N/A N/A N/A	Primary Line Feet OH: 0 UG: 0 Secondary Line Feet OH: 0 UG: 0 Service Drop Feet OH: 0 UG: 0 Fiber: 4544		
6 Backspan 342 FT Comments: Leave 120' fiber coil in handhole EX (342) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (1) UG7 EX (1) UM1 N (462) 48 LOOSE TUBE UG FIBER (ITEM #8055) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (342) FUL Comment: Acct Unit	7 Backspan 208 FT Comments: Leave 100' fiber coil in handhole from all new lines EX (208) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (1) UM1 EX (1) UM6-22 N (308) 48 LOOSE TUBE UG FIBER (ITEM #8055) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (1) SPL ENCLOSURE UP TO 48CT (ITEM #8130) N (208) FUL Comment: Acct Unit N (42) 2-IN CONDUIT (ITEM #NS3820) 2-IN CONDUIT	8 Backspan 299 FT Comments: Leave 120' fiber coil in handhole EX (299) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (299) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT EX (1) UG7 EX (1) UM1 N (519) 12 CT FIBER DROP UG (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (299) FUL Comment: Acct Unit	9 Back Com coil ir EX (3- (ITEM Ph EX (3- CONE 1 & EX (1) EX (1) EX (1) N (460 (ITEM N (1) : HAND N (345) Con	span 347 FT ments: Leave 120' fiber handhole 47) 1/0 PRIM URD CABLE #2870) ase: C 47) 1 & 1 1/2-IN ROLL DUIT (ITEM #NS8120) 1 1/2-IN ROLL CONDUIT) UG7) UM1 7) 12 CT FIBER DROP UG #8025) 20-IN RECTANGLE 0HOLE (ITEM #8095) 7) FUL iment: Acct Unit	10 Backspan 188 FT Comments: Leave 120' fi coil in handhole EX (188) 1/0 PRIM URD CA (ITEM #2870) Phase: C EX (188) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT EX (1) UG7 EX (1) UG7 EX (1) UM1 N (308) 12 CT FIBER DROP (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (188) FUL Comment: Acct Unit	iber BLE T YUG				

AP-8 CODE: 999 - BROADBAND EXPANSION



SORD2885916 - BRMEMC.NET NOC-WHITE OAK FOREST

W.O. NUMBER: SORD2885916 W.O. NAME: BRMEMC.NET NOC-WHITE OAK FOREST SERVICE ORDER #: DATE RELEASED FOR CONSTRUCTION:



Blue Ridge Mountain Electric Membership Corporation

COUNTY OR TOWN: Towns MAP NUMBER: **ENGINEER:** Matt Walls

Directions: Travelling Hwy 76E from Hiawassee, right on Hwy 17/75, right on White Oak Forest Rd, job starts at end of overhead line just before address 1800 White Oak Forest Rd and extends through out subdivision including White Oak Ln and White Oak Ct			Unit 12 CT FIBER DROP UG (ITEM #8025) 48 ADSS OH FIBER (ITEM #8020) 48 LOOSE TUBE UG FIBER (ITEM #8055)	N. Wire 3387 1463 1874	PlusScrap 3730 1611 2064	Type Fiber Fiber Fiber	overUnder N/A N/A N/A	Primary Line Feet OH: 0 UG: 0 Secondary Line Feet OH: 0 UG: 0 Service Drop Feet OH: 0 UG: 0 Fiber: 4544	
	11 Backspan 331 FT Comments: Leave 120' fiber coil in handhole EX (331) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (331) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT EX (1) UG7 EX (1) UG7 EX (1) UM1 N (451) 12 CT FIBER DROP UG (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (331) FUL Comment: Acct Unit	12 Backspan 195 FT Comments: Leave 120' fiber coil in handhole EX (195) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (195) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT EX (1) UG7 EX (1) UM1 N (315) 12 CT FIBER DROP UG (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (195) FUL Comment: Acct Unit	13 Backspan 263 FT Comments: Leave 120' fiber coil in handhole EX (263) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (1) UM1 EX (1) VUG6 N (383) 12 CT FIBER DROP UG (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (263) FUL Comment: Acct Unit N (16) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT						UG: 0 Fiber: 4544
	\								

AP-8 CODE: 999 - BROADBAND EXPANSION



Page 6 of 6

W.O. NUMBER: SORD2885916 W.O. NAME: BRMEMC.NET NOC-WHITE OAK FOREST SERVICE ORDER #: DATE RELEASED FOR CONSTRUCTION:



Blue Ridge Mountain Electric Membership Corporation

COUNTY OR TOWN: Towns MAP NUMBER: ENGINEER: Matt Walls

Directions: Travelling Hwy 76E from Hiawassee, right on Hwy 17/75, right on Wh of overhead line just before address 1800 White Oak Forest Rd and extends throu Oak Ln and White Oak Ct	Vhite Oak Forest Rd, job starts at end ough out subdivision including White	Unit 12 CT FIBER DROP UG (ITEM #80 48 ADSS OH FIBER (ITEM #8020) 48 LOOSE TUBE UG FIBER (ITEM	N. Win 25) 3387 1463 #8055) 1874	re PlusScrap 3730 1611 2064	Type Fiber Fiber Fiber	overUnder N/A N/A N/A	Primary Line Feet OH: 0 UG: 0 Secondary Line Feet OH: 0 UG: 0 Service Drop Feet OH: 0 UG: 0 Fiber: 4544
6 7 14 Backspan 342 FT Comments: Leave 120' fiber Comments: Leave 100' fiber Comments: Leave 100' fiber coil in handhole Comments: Leave 100' fiber Comments: Leave 100' fiber Comments: Leave 100' fiber EX (342) 1/0 PRIM URD CABLE Fiber Comments: Leave 100' fiber Comments: Leave 100' fiber (ITEM #2870) Phase: C EX (1) UM1 EX (1) UM1 EX (1) N (452) 48 LOOSE TUBE UG Fiber (ITEM #8055) N (1) Phase: C EX (1) UM1 EX (1) N (192) FUL Comment: Acct Unit N (306) 48 LOOSE TUBE UG Fiber (ITEM #8055) N (1) N (1) N (36) N (342) FUL Comment: Acct Unit N (208) FUL Conment: Acct Unit N (208) N (208) N (177) Conment: Acct Unit N (208) FUL Connent: Acct Unit N (42) 2-IN CONDUIT (ITEM 1 & #NS3820) 2-IN CONDUIT I A I I	:kspan 247 FT nments: Leave 120' fiber in handhole15 Backs Comm coil in(247) 1/0 PRIM URD CABLE M #2870)EX (15 (ITEM # Pha EX (1))'hase: C (1) UG7 (1) UM1 (67) 48 LOOSE TUBE UG ER (ITEM #8055)EX (1) EX (1)) EX (1) POLE (ITEM #8095)20-IN RECTANGLE VDULE (ITEM #8095)N (122) Tomment: Acct Unit N (152) Tomment: Acct Unit N (152) ODUIT (ITEM #NS8120) & 1 1/2-IN ROLL CONDUITN (54) CONDI 1 & 1	(span 152 FT ments: Leave 120' fiber in handhole (52) 1/0 PRIM URD CABLE (#2870) hase: C) UG7) UM1 2) 48 LOOSE TUBE UG (ITEM #8055) 20-IN RECTANGLE DHOLE (ITEM #8095) 2) FUL mment: Acct Unit) 1 & 1 1/2-IN ROLL DUIT (ITEM #NS8120) (1 1/2-IN ROLL CONDUIT)	16 Backspan 186 FT Comments: Leave 120' fiber coil in handhole EX (186) 1/0 PRIM URD CABLE (ITEM #2870) Phase: C EX (1) UG7 EX (1) UM1 N (406) 12 CT FIBER DROP UG (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (186) FUL Comment: Acct Unit N (186) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT	17 Backspan 152 FT Comments: Leave 120' fibe coil in handhole EX (1) UK6 N (272) 12 CT FIBER DROP U (ITEM #8025) N (1) 20-IN RECTANGLE HANDHOLE (ITEM #8095) N (152) FUL Comment: Acct Unit N (152) 1 & 1 1/2-IN ROLL CONDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT	T Co coi G EX N ((IT N (HA N (CC	ackspan 166 FT omments: Leave 100' fibe oil in handhole ((1) UM1 ((1) VUG6 (266) 12 CT FIBER DROP U TEM #8025) (1) 20-IN RECTANGLE ANDHOLE (ITEM #8095) (166) FUL Comment: Acct Unit (166) 1 & 1 1/2-IN ROLL DNDUIT (ITEM #NS8120) 1 & 1 1/2-IN ROLL CONDUIT	8Backspan 299 FTComments: Leave 120' fibercoil in handholeEX (299) 1/0 PRIM URD CABLE(ITEM #2870)Phase: CEX (299) 1 & 1 1/2-IN ROLLCONDUIT (ITEM #NS8120)1 & 1 1/2-IN ROLL CONDUITEX (1) UG7EX (1) UG7

AP-8 CODE: 999 - BROADBAND EXPANSION

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