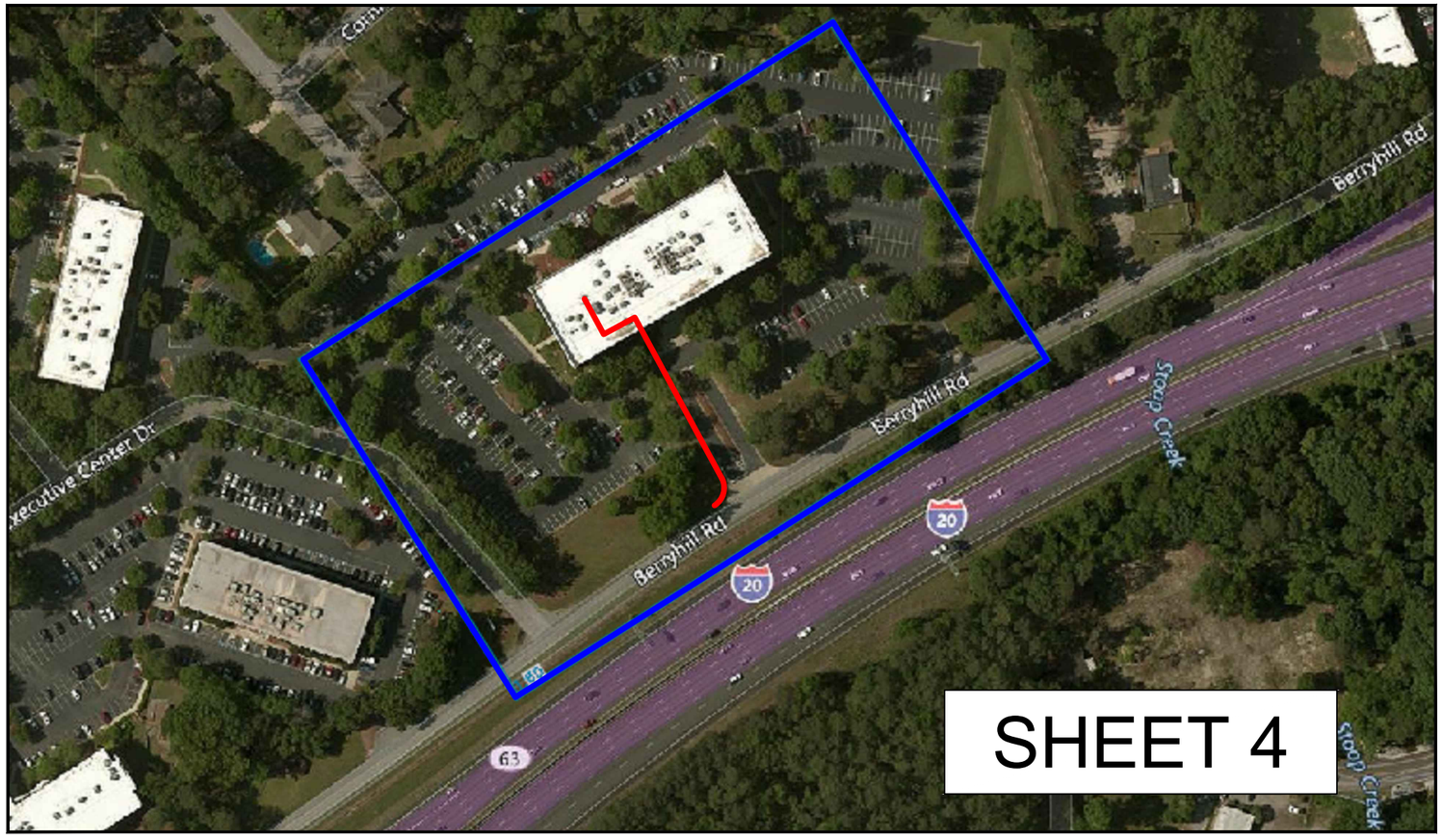
ADDRESS:250 BERRYHILL RD., COLUMBIA, SC.
PROJECT NAME: EPCI UNIVERSITY



SITE LOCATION
SERVICE ORDER: 1256464

811 Know what's below. Call before you dig.

CONTACTS

CUSTOMER CONTACT
CHRIS FLANERY
803-772-3333

SPIRIT ENGINEER
BRAD PAYNE
803-603-2531
brad.payne@spiritcom.com

TPRC BROADBAND SPECIALIST
ARTIS PARMER
404-565-3250
artis@tprcbroadband.com

SITE INDEX

01 - COVER SHEET/SITE LOCATION
02 - LEGEND
03 - GENERAL NOTES
04 - OSP PROJECT SHEET
05 - SITE PHOTOS
06 - SITE PHOTOS
07 - TYPICALS
08 - RAKE OFF TOTALS

SCOPE OF WORK:

DBORE/TRENCH/PULL/PLACE 56FT OF 48CT FROM EXISTING SPIRIT HH TO EXISTING AT&T HH. INTERCEPT CUSTOMER 4IN CONDUIT. PULL/PLACE 254FT OF 48CT TO BLDG DEMARC ON 1ST FLOOR. PULL/PLACE 50FT OF 48CT RISER FIBER FROM 1ST FLOOR DEMARC TO 3RD FLOOR EQUIP ROOM TO SERVE EPCI ON 3RD FLOOR AT 250 BERRYHILL ROAD IN COLUMBIA SC

(#) SYMBOL CORRESPONDS TO PHOTO LOCATIONS AND ORIENTATION. SEE SHEET # FOR SITE PHOTOGRAPHS.

NO.	DATE	ENG DESIGN	DRAFTING	COMMENT
3				AS–BUILT
2				REVISION # 1
1	06/20/18	AP	DWF	ORIGINAL

Spirit Communications — Voice. Data. Internet.

PROJECT MANAGER: BRAD PAYNE
ENGINEERING FIRM: TPRC BROADBAND
SERVICE ORDER: 1256464
DESCRIPTION: 250 BERRYHILL RD., COLUMBIA SC
DESCRIPTION: EPCI UNIVERSITY
DRAWING NAME: 250 Berryhill Rd.Columbia, SC (final).dwg

CONFIDENTIAL/PROPRIETARY

LEGEND

LINETYPES

- UG FIBER – EXISTING
- UG FIBER – PROPOSED
- AERIAL FIBER – EXISTING
- AERIAL FIBER – PROPOSED
- STRAND – EXISTING
- STRAND – PROPOSED
- CONDUIT – EXISTING
- CONDUIT – PROPOSED
- INNERDUCT – EXISTING
- INNERDUCT – PROPOSED
- G — GAS
- W — WATER
- T — TELEPHONE
- E — ELECTRIC
- SEW — SANITARY SEWER (SEW)
- SD — STORM DRAIN
- X — X — FENCE
- TV — CABLE TV
- STM — STEAM
- OIL — OIL
- UNK — UNKNOWN UTILITY
- R/W — RIGHT OF WAY
- EOP — EDGE OF PAVEMENT
- SIDEWALK

SYMBOL	DESCRIPTION
ASW	ASPHALT SIDEWALK
BIP	BLACK IRON PIPE
BOS	BACK OF SIDEWALK
CSW	CONCRETE SIDEWALK
EOP	EDGE OF PAVEMENT
EOTW	EDGE OF TRAVEL WAY
FOC	FIBER OPTIC CABLE
HDPE	HIGH DENSITY POLYETHYLENE
HH	HANDHOLE
JB	JUNCTION BOX
MH	MANHOLE
MP	MILE POST
O/S	OFFSET
PVC	POLY VINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
ROW	RIGHT OF WAY
STA.	STATION

- (R) RISER
- (T) TELEPHONE
- (P) POWER VAULT
- CATCH BASIN/INLET
- FIRE HYDRANT
- GROUND/BOND
- STREET LIGHT
- TREE
- CULVERT
- WING WALL
- BRIDGE
- (U) MISC. UTILITY
- (⊗) OWNER ID — UTILITY POLE – EXISTING
- POLE – PROPOSED
  SPIRIT TELECOM
  ID
- HH– [HH] HANDHOLE
  SPIRIT TELECOM — HANDHOLE – EXISTING
- HH- [HH]
  HANDHOLE
  SPIRIT TELECOM — HANDHOLE – PROPOSED
- MH– [MH]
  MANHOLE
  SPIRIT TELECOM — MANHOLE – EXISTING
- MH- [MH]
  MANHOLE
  SPIRIT TELECOM — MANHOLE – PROPOSED
- PB– [PB]
  PULLBOX
  SPIRIT TELECOM — PULLBOX – EXISTING
- PB- [PB]
  PULLBOX
  SPIRIT TELECOM — PULLBOX – PROPOSED

- VAULT– [V]
  VAULT
  SPIRIT TELECOM — VAULT – EXISTING
- VAULT- [V]
  VAULT
  SPIRIT TELECOM — VAULT – PROPOSED
- 0' — AERIAL STORAGE – EXISTING
- 0' — AERIAL STORAGE – PROPOSED
- (0') VAULT/BUILDING STORAGE – EXISTING
- (0') VAULT/BUILDING STORAGE – PROPOSED
- POLE ANCHOR/DOWN GUY – EXISTING
- POLE ANCHOR/DOWN GUY – PROPOSED
- PROPOSED DOWN GUY ON EXISTING ANCHOR
- [FDP]
  NAME
  SIZE
  LOCATION — TERMINATION – EXISTING
- [FDP]
  NAME
  SIZE
  LOCATION — TERMINATION – PROPOSED
- BUILDING
  NAME
  STREET — BUILDING CALLOUT – PROPOSED
- MANUFACTURER NAME — SPLICE POINT – EXISTING
- MANUFACTURER NAME — SPLICE POINT – PROPOSED
- #F | IN: 0 / OUT: 0 — SEQUENTIAL CALLOUT
- #F | IN: 0 / TAIL: 0 — SEQUENTIAL IN TAIL CALLOUT
- #F | TAIL: 0 / OUT: 0 — SEQUENTIAL TAIL OUT CALLOUT

POLE NO	N/A
UTILITY1	0'–0"

POLE ATTACHMENT CALLOUT – EXISTING
USE DYNAMIC PULL DOWN TO SELECT
FROM 1 TO 6 ATTACHMENTS

POLE NO	N/A
UTILITY1	0'–0"

POLE ATTACHMENT CALLOUT – PROPOSED
USE DYNAMIC PULL DOWN TO SELECT
FROM 1 TO 6 ATTACHMENTS

(1)
CABLE FIBERS: FIBERS
CABLE OWNER: SPIRIT TELECOM
CABLE LENGTH: LENGTH
NOTES:
— CABLE SPAN CALLOUT – EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)

(1)
CABLE FIBERS: FIBERS
CABLE OWNER: SPIRIT TELECOM
CABLE LENGTH: LENGTH
NOTES:
— CABLE SPAN CALLOUT – PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)

(1)
CONDUIT OWNER: SPIRIT TELECOM
CONDUIT LENGTH: LENGTH
CONDUIT QTY: CONDUITS
CONDUIT SIZE: SIZE
CONDUIT TYPE: TYPE
INNER DUCT QTY: INNERDUCTS
INNER DUCT SIZE: SIZE
INNER DUCT TYPE: TYPE
NOTES:
— CONDUIT CALLOUT – EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)
WITH OR WITHOUT INNER DUCT INFO

(1)
CONDUIT OWNER: SPIRIT TELECOM
CONDUIT LENGTH: LENGTH
CONDUIT QTY: CONDUITS
CONDUIT SIZE: SIZE
CONDUIT TYPE: TYPE
INNER DUCT QTY: INNERDUCTS
INNER DUCT SIZE: SIZE
INNER DUCT TYPE: TYPE
NOTES:
— CONDUIT CALLOUT – PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)
WITH OR WITHOUT INNER DUCT INFO

(1)
STRAND TYPE: TYPE
STRAND LENGTH: LENGTH
NOTES:
— STRAND CALLOUT – EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)

(1)
STRAND TYPE: TYPE
STRAND LENGTH: LENGTH
NOTES:
— STRAND CALLOUT – PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)

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CONFIDENTIAL/PROPRIETARY

GENERAL NOTES

GENERAL NOTES

CONTRACTOR MUST OBTAIN LOCATES PRIOR TO DISTURBING THE GROUND.

CONTRACTOR MUST HAVE A COPY OF THE APPROVED PERMIT FROM THE APPROPRIATE AGENCY ON THE JOBSITE AT ALL TIMES.

ALL CABLE WILL BE PLACED AT STANDARD MINIMUM DEPTH. (SPIRIT TELECOM STANDARD IS 48" DEEP UNLESS OTHERWISE DIRECTED BY A SPIRIT TELECOM REPRESENTATIVE.)

ANY LANDSCAPING WILL BE REPLACED TO EQUAL OR BETTER THAN THAT WHICH EXISTED PRIOR TO WORK.

PROJECT SITE WILL BE PROPERLY SECURED PRIOR TO THE END OF EACH DAY.

ALL WORK IS TO BE IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION IN THE WORK ZONE.

CONTRACTORS ARE ADVISED TO CONTACT SPIRIT TELECOM FOR ANY ADDITIONAL INFORMATION OR CLARIFICATION CONCERNING SCOPE OF WORK OR THE REQUIREMENTS NECESSARY FOR PROJECT COMPLETION.

CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS, QUANTITIES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF A SIGNIFICANT CHANGE TO THE RUNNING LINE IS NEEDED, PLEASE CONTACT YOUR SPIRIT TELECOM REPRESENTATIVE BEFORE PROCEEDING.

BEFORE CONSTRUCTION BEGINS, CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO AVOID ANY POTENTIAL OBSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.

NO CONSTRUCTION ON PRIVATE PROPERTY WILL COMMENCE UNTIL APPROVAL IS GIVEN BY THE APPROPRIATE SPIRIT TELECOM EMPLOYEE.

CONTRACTOR SHALL NOT PROCEED WITH WORK UNTIL THEY HAVE RECEIVED A PURCHASE ORDER AND HAVE BEEN DIRECTED TO DO SO BY AN AUTHORIZED SPIRIT TELECOM REPRESENTATIVE.

CONTRACTOR SHALL NOT EXCEED THE PURCHASE ORDER VALUE WITHOUT AUTHORIZATION IN WRITING FROM THE APPROPRIATE SPRIT TELECOM REPRESENTATIVE.

AS-BUILTS WILL BE REQUIRED FOR EACH PROJECT INCLUDING CABLE FOOTAGE SEQUENTIALS AT EVERY ACCESS POINT, SLACK LOOP, SPLICE LOCATION, POLE AND TERMINATION POINT. CONTRACTOR SHOULD ALSO PROVIDE NOTES OF ALL CHANGES IN DEPTHS, RUNNING LINES, WH/HH LOCATIONS, AND ANY OTHER APPLICABLE NOTES TO DEPICT THE WORK THAT TOOK PLACE. NOTE: ALL MAJOR CHANGES NEED TO BE PRE-APPROVED BY AN AUTHORIZED SPIRIT TELECOM EMPLOYEE PRIOR TO STARTING THE WORK.

SITE CONDITIONS

THE ACTUAL LOCATION OF EXISTING CONDUIT AND CABLES MAY VARY FROM THE LOCATION SHOWN. REPAIR OF ANY DAMAGED CONDUIT CONTAINING CABLE SHALL BE MADE BY USE OF PVC SPLIT DUCT. THE CONTRACTOR SHALL ENCLOSE THE EXISTING CABLES IN PVC.

THE LOCATIONS OF EXISTING UTILITIES SHOWN IN THIS PLAN ARE APPROXIMATE. WHEN WORK IS TO BE CONDUCTED IN THE VICINITY OF KNOWN UTILITIES, THEIR ACTUAL LOCATION MUST BE FIELD VERIFIED TO AVOID CONFLICTS IR DAMAGE TO THOSE UTILITIES. VARIATION IN LOCATION BETWEEN "RECORDED POSITIONS" AND ACTUAL POSITIONS SHOULD BE ANTICIPATED.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES. BURIED UTILITIES MAY EXIST IN THE AREA IN ADDITION TO THOSE SHOWN ON THE PLAN. THE CONTRACTOR SHALL CONTACT PROPERTY OWNERS WHEN WORKING WITHIN PRIVATE EASMENTS FOR LOCATION OF UNDERGROUND TANKS, PIPELINES, DRAIN TILES, OR OTHER BURIED IMPROVEMENTS. THE CONTRACTOR SHALL ALSO NOTIFY THE UTILITY NOTIFICATION CENTER PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.

THE CONTRACTOR MUST ASSUME ALL BURIED UTILITIES ENCOUNTERED ARE ALIVE AND ACTIVE UNLESS SPECIFICALLY INSTRUCTED OTHERWISE BY OWNERS OR OPERATORS OF SAID UTILITIES.

DAMAGE TO SUB-SURFACE STRUCTURES IS THE SOLE RESPONSIBILITY OF THE PLACING CONTRACTOR.

THE CONTRACTOR SHALL PROTECT THE EXISTING TRAFFIC CONTROL LOOPS. IF EXISTING TRAFFIC CONTROL LOOPS ARE DAMAGED DURING CONSTRUCTION, THE ENTIRE LOOPWIRE FROM TERMINAL TO TERMINAL SHALL BE REPLACED IN ACCORDANCE WITH GOVERNING AGENCY STANDARDS AND REGULATIONS AT CONTRACTOR'S EXPENSE.

REMOVAL OF EXISTING ASPHALT PAVEMENT, CONCRETE CURBS, AND CONCRETE SIDEWALKS WILL BE "NEAT LINE" WITH SAW OR PAVEMENT CUTTER, PER REQUIREMENTS AND SPECIFICATIONS OF THE AGENCY OR DEPARTMENT RESPONSIBLE FOR EACH LOCATION. IF CONCRETE PAVEMENT IS ENCOUNTERED WHILE EXCAVATING CONDUIT TRENCHES, THE CONCRETE REMOVAL WILL BE "NEAT LINE" WITH A PAVEMENT SAW.

IF CONCRETE CURB RETURNS AND/OR SIDEWALKS ARE REPLACED DUE TO CONDUIT OR MANHOLE INSTALLATION, THE CONTRACTOR SHALL PLACE APPROVED HANDICAPPED SIDEWALK AND CURB ACCESS RAMPS IN CONFORMANCE WITH STATE OF JURISDICTION STATUTES.

ALL MATERIALS NECESSARY FOR THE REPAIR OF STREETS, CURBS, SIDEWALKS, SANITARY SEWERS, STORM SEWERS, AND PUBLIC SERVICE UTILITIES, AND THE INSTALLATION OF SUCH MATERIALS SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE AGENCY OR DEPARTMENT RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF THE REPAIRED FACILITY.

ALL WORK SHALL CONFORM TO THE SPECIFICATIONS OF THE JURISDICTIONAL PERMIT AGENCY.

ALL OPEN TRENCH WILL BE CLEARLY MARKED WITH BARRICADES OR CONES. STEEL PLATES OR OTHER TYPES OF BRIDGING SHALL BE PROVIDED TO COVER OPEN TRENCH IN THE TRAVEL PORTION OF THE STREETS. THESE PLATES OR BRIDGING SHALL BE ADEQUATE TO SUPPORT THE NORMAL VEHICLE LOADS ANTICIPATED IN THIS AREA AND SHALL BE IN PLACE DURING ALL NON-WORKING AREAS.

ALL SURFACES TO BE RESTORED TO ORIGINAL CONDITION, AND BACKFILL TO BE COMPACTED AS SPECIFIED. TRENCH EXCAVATION IN SURFACES WHICH INCLUDE CONCRETE TREATED BASE SHALL FOLLOW LOCAL AREA SPECIFICATIONS.

HAZARDOUS MATERIALS

THE CONTRACTOR SHALL NOTIFY THE JURISDICTIONAL PERMIT AGENCY IMMEDIATELY IF ANY MATERIALS ARE ENCOUNTERED THAT ARE CONSIDERED HAZARDOUS BY THE EPA, DEQ, OR OSHA. IF POTENTIALLY HAZARDOUS MATERIALS ARE ENCOUNTERED THE CONTRACTOR SHALL SECURE THE SITE AND PREVENT THE ACCIDENTAL EXPOSURE BY THE PUBLIC OR THE CONTRACTOR'S PERSONNEL.

THE CONTRACTOR MAY EXCAVATE UP TO, BUT SHALL NOT DISTURB KNOWN HAZARDOUS MATERIALS SUCH AS ASBESTOS, OILS, ACID, ETC. THE REMOVAL OF ALL HAZARDOUS MATERIALS MUST BE DONE BY AN APPROVED OR CERTIFIED HAZARDOUS MATERIALS CONTRACTOR LICENSED BY THE STATE OF JURISDICTION.

A COPY OF ALL CORRESPONDENCE PERTINENT TO THE REMOVAL OF HAZARDOUS MATERIALS SHALL BE TRANSMITTED TO OWNER AND A COPY SHALL BE AVAILABLE AT THE PROJECT OFFICE AND THE JOB SITE.

AERIAL NOTES

- AERIAL CONSTRUCTION TO BE PERFORMED TO INDUSTRY ACCEPTABLE STANDARDS.
- ALL HEIGHTS OF CABLE PLACEMENT WILL BE RECORDED AT TIME OF CONSTRUCTION. DOCUMENT ALL POINTS OF ATTACHMENT.
- 6.6M STRAND WILL BE USED WITH STANDARD 5/8 HARDWARE.
- ALL EXTENSION ARMS TO BE PLACED WILL BE EPOXY ARMS UNLESS OTHERWISE NOTED OR APPROVED BY THE INSPECTOR.
- BOND STRAND TO POWER MGN WHERE APPLICABLE. ANCHORS TO BE USED WILL BE 3/4 SCREW IN TYPE.
- ALL STRAPS WILL BE PLACED 4" BEFORE AND AFTER EVERY SUPPORTING CLAMP AT A MINIMUM OF 21" APART.
- P.O.A. = POINT OF ATTACHMENT.
- ADD MISSING GROUNDS.
- REPAIR/REPLACE EXISTING LASHING WIRE IF DAMAGED.

CONSTRUCTION STAKING

IN AREAS WHERE THE CONDUIT ALIGNMENT IS NOT CLEARLY DEFINED BY CURB LINES, FENCE LINES, OR OTHER EVIDENCE OF THE RIGHT-OF-WAY, THE ENGINEER WILL PROVIDE CENTERLINE STAKES OR PAINT MARKS WHERE REQUIRED TO MAKE THE PROPOSED CONDUIT ALIGNMENT EVIDENT.

MANHOLE CENTERS WILL BE FIELD STAKED BY THE ENGINEER WHEN REQUESTED WITH OFFSET STAKES AT RIGHT ANGLES (90°) TO THE CONDUIT ALIGNMENT.

CLOSURES IDENTIFIED IN THE PLANS SHALL BE LOCATED BY THE CONTRACTOR. DEVIATION FROM PLAN LAYOUT SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONDUIT AND/OR CLOSURE INSTALLATION.

IF ADDITIONAL, FIELD STAKING OR LOCATION OF CONDUITS, MANHOLES, PROPERTY LINES, ETC., BECOMES NECESSARY, THE CONTRACTOR IS TO NOTIFY THE INSPECTOR OR THE ENGINEER TWO WORKING DAYS PRIOR TO BEGINNING THE WORK.

PERMITS - FRANCHISES - EASEMENTS

PHYSICAL WORK SHALL NOT BE STARTED UNTIL THE GOVERNING AGENCY INSPECTOR AND THE CONTRACTOR ARE IN POSSESSION OF AND HAVE CAREFULLY REVIEWED AND FULLY UNDERSTAND ALL CONDITIONS AND SPECIFICATIONS SET FORTH IN THE REQUIRED PERMITS, FRANCHISES, AND/OR EASEMENTS.

PLACING FOREMAN TO HAVE A COPY OF THE PERMITS/EASEMENTS ON SITE AT ALL TIMES.

ANY CONFLICT BETWEEN WORK PRINT SPECIFICATIONS AND SPECIFICATIONS SET FORTH UNDER RELATED PERMITS, FRANCHISES, AND/OR EASEMENTS MUST BE CLEARED BY PROPER COMPANY AUTHORITY BEFORE PROGRESSING WITH WORK INVOLVED

.TRAFFIC CONTROL

THIS PROJECT WILL INVOLVE WORKING ALONG A MAJOR ARTERIAL ROAD AND HEAVY TRAFFIC VOLUME SHOULD BE ANTICIPATED.

UNIFORM TRAFFIC FLOW SHALL BE MAINTAINED AT ALL TIMES. ONLY EQUIPMENT AND MATERIALS NECESSARY FOR IMMEDIATELY SCHEDULED OR IN PROGRESS WORK WILL BE MAINTAINED IN THE WORK AREA. ALL OTHER EQUIPMENT AND MATERIALS WILL BE "STORED OR STOCKPILED" IN SUCH A MANNER AS TO ELIMINATE HAZARDOUS CONDITIONS FOR TRAFFIC OR PEDESTRIANS DURING NON-WORKING OR SHUT DOWN PERIODS.

TRAFFIC WARNING DEVICES AND SIGNS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (U.S. GOVERNMENT PRINTING OFFICE) AND TO THE STATE HIGHWAY DIVISION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. HIGH LEVEL WARNING TYPE DEVICES ARE TO BE USED AT ALL TIMES AND SPECIAL WARNING DEVICES MAY BE STIPULATED BY THE JURISDICTIONAL PERMIT AGENCY AT ANY TIME THE USE WILL ADD TO THE SAFETY AND PROTECTION OF TRAFFIC OR PEDESTRIANS IN THE CONSTRUCTION AREA.

ALL CONDUIT TRENCHING IN PAVED AREAS SHALL BE BACKFILLED WITH CRUSHED GRAVEL OR COMPLETELY COVERED AT THE COMPLETION OF EACH WORKING DAY. ANY BACKFILLED TRENCH SHALL BE CAPPED WITH A MINIMUM LAYER OF ASPHALTIC CONCRETE COLD PATCH AT THE END OF EACH WORKING DAY.

THE CONTRACTOR SHALL MARK THE CONDUIT TRENCH AND DEFINE HIS CONSTRUCTION AREA CLEARLY WITH BARRICADES, CONES, AND/OR OTHER VISIBLE METHODS THAT ALERT THE PUBLIC OF THE CONSTRUCTION ACTIVITY.

A TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR AS REQUIRED AND SUBMITTED TO EACH PERMITTING AGENCY REQUESTING SUCH PLAN FOR REVIEW AND APPROVAL OR REVISION PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY FOR THIS PROJECT. THE APPROVED PLAN SHALL BE SUBMITTED TO THE AGENCY AND A COPY OF THE PLAN SHALL BE KEPT AT THE CONSTRUCTION SITE AND MUST BE READILY AVAILABLE FOR REVIEW BY THE AGENCY REPRESENTATIVES.

SPECIAL UTILITY CLEARANCES

ALL WORK CONDUCTED ADJACENT TO WATER MAINS SHALL CONFORM TO THE FOLLOWING CONDITIONS:

A. WHEREVER POSSIBLE CONDUIT SHALL MAINTAIN A HORIZONTAL SEPARATION OF 3.0 FEET, MEASURED SURFACE TO SURFACE (OUTSIDE EDGE TO OUTSIDE EDGE), FROM PARALLEL WATER MAINS.

B. WHEREVER POSSIBLE, CONDUIT SHALL PASS UNDER EXISTING WATER MAINS AND MUST MAINTAIN 12" VERTICAL CLEAR SEPARATION. CONDUITS PASSING OVER WATER MAINS MUST ALSO MAINTAIN THE 12" VERTICAL SEPARATION.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING THIS REQUIRED VERTICAL SEPARATION BY EITHER EXPOSING THE WATER MAIN EVERY 100 FEET IN THOSE AREAS WHERE HORIZONTAL SEPARATION IS LESS THAN 3.0 FEET OR BY UTILIZING THE DEPTHS OF ADJACENT WATER VALVES. IF THE CONTRACTOR UTILIZES THE ADJACENT WATER TO DETERMINE WATER MAIN DEPTH, HE SHALL CONTACT THE AGENCY AT EACH SUCH LOCATION AND THE AGENCY WILL DETERMINE THE NECESSARY DEPTH OF THE TOP OF THE CONDUIT AT THAT POINT.

D. THE VERTICAL AND HORIZONTAL SEPARATION SHALL BE MAINTAINED AT ALL TIMES UNLESS SPECIFICALLY REVISED BY AGREEMENT BETWEEN THE JURISDICTIONAL PERMIT AGENCY AND THE AGENCY ANY SPECIFIC DEVIATION IN VERTICAL AND HORIZONTAL SEPARATION FROM THOSE DESCRIBED SHALL BE REPORTED TO THE OWNER BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VERTICAL AND HORIZONTAL SEPARATION AT ALL TIMES AND SHALL BE RESPONSIBLE FOR ANY AND ALL ENCROACHMENTS.

E. CLEARANCES TO STORM SEWERS AND SANITARY SEWERS SHALL BE EXACTLY THE SAME AS THOSE TO WATER MAINS.

STRUCTURE PROTECTION

MANHOLES AND CONDUIT TO BE PLACED ADJACENT TO EXISTING STRUCTURES SUCH AS BRIDGE BRIDGE FOOTINGS/PIERS, BUILDING FOUNDATIONS, WALLS, POWER AND TELEPHONE POLES, AND OTHER UTILITIES SHALL MAINTAIN A MINIMUM CLEARANCE AS SHOWN. THE CONTRACTOR SHALL NOT UNDERMINE ANY ADJACENT STRUCTURE WITHOUT SPECIFIC WRITTEN PERMISSION FROM THE OWNER/OPERATOR OF SUCH STRUCTURE.

SHORING USED AS FOUNDATION SUPPORT SHALL BE DESIGNED SPECIFICALLY FOR BOTH THE LIVE AND DEAD LOADS OF THE STRUCTURE, OR IF ONLY THE DEAD LOAD IS USED FOR DESIGN, THE CONTRACTOR SHALL PROVIDE A DETAILED LAYOUT AND PLAN OF THE METHOD OF ESTABLISHING AND MAINTAINING THE DESIGN LOAD CONDITIONS (I.E., ROAD DETOURS, TIEBACKS, ETC.).

SEE UTILITY CLEARANCE SECTION NOTES FOR CLEARANCE CRITERIA TO PARALLEL OR CROSS UTILITIES.

EXISTING UTILITIES EXPOSED DURING EXCAVATION SHALL BE 100% SUPPORTED BY EITHER TRENCH BRIDGING AND SUSPENSION OR BY THE USE OF LONGITUDINAL TRAYS OR PLATFORMS VERTICALLY SUPPORTED BY ADJUSTABLE BUILDING JACKS.

EXISTING SPLICE CASES AND CABLES SHALL BE SUPPORTED BY SUSPENSION FROM A CROSSING BEAM. SUPPORTS SHALL BE PLACED AT A MAXIMUM SPACING OF 4.0 FEET AND SHALL CONSIST OF A CANVAS SLING WITH NYLON BELTING OR ROPE. ALL CABLE SUPPORTS SHALL BE PLACED IN A MANNER THAN PREVENTS KINKS OR OTHER DAMAGE TO THE CABLE SHEATH.

AN ACCEPTABLE ALTERNATIVE TO CABLE SLINGS WOULD BE THE UTILIZATION OF A WIDE FLANGE "I" BEAM OR CHANNEL AS A "CABLE TRAY" WITH THE CABLES/CASES BANDED IN PLACE.

SHORING

THE CONTRACTOR SHALL PROVIDE SHORING FOR CONDUIT TRENCH EXCAVATION 42" OR MORE IN DEPTH AS MEASURED FROM THE HIGH SIDE OF THE TRENCH AND FOR ALL MANHOLE EXCAVATION.

MANHOLE SHORING SHALL BE TIGHT-SHEETED.

ALL SHORING SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL COUNTY AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

SHORING SHALL BE DESIGNED TO MEET H-20 HIGHWAY LOADING.

THE CONTRACTOR SHALL PROVIDE ALL SHORING AND DESIGN CALCULATIONS TO THE PERMIT ISSUING AGENCY PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY.

811 Know what's **below.** **Call** before you dig.

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Spirit Communications — Voice. Data. Internet.

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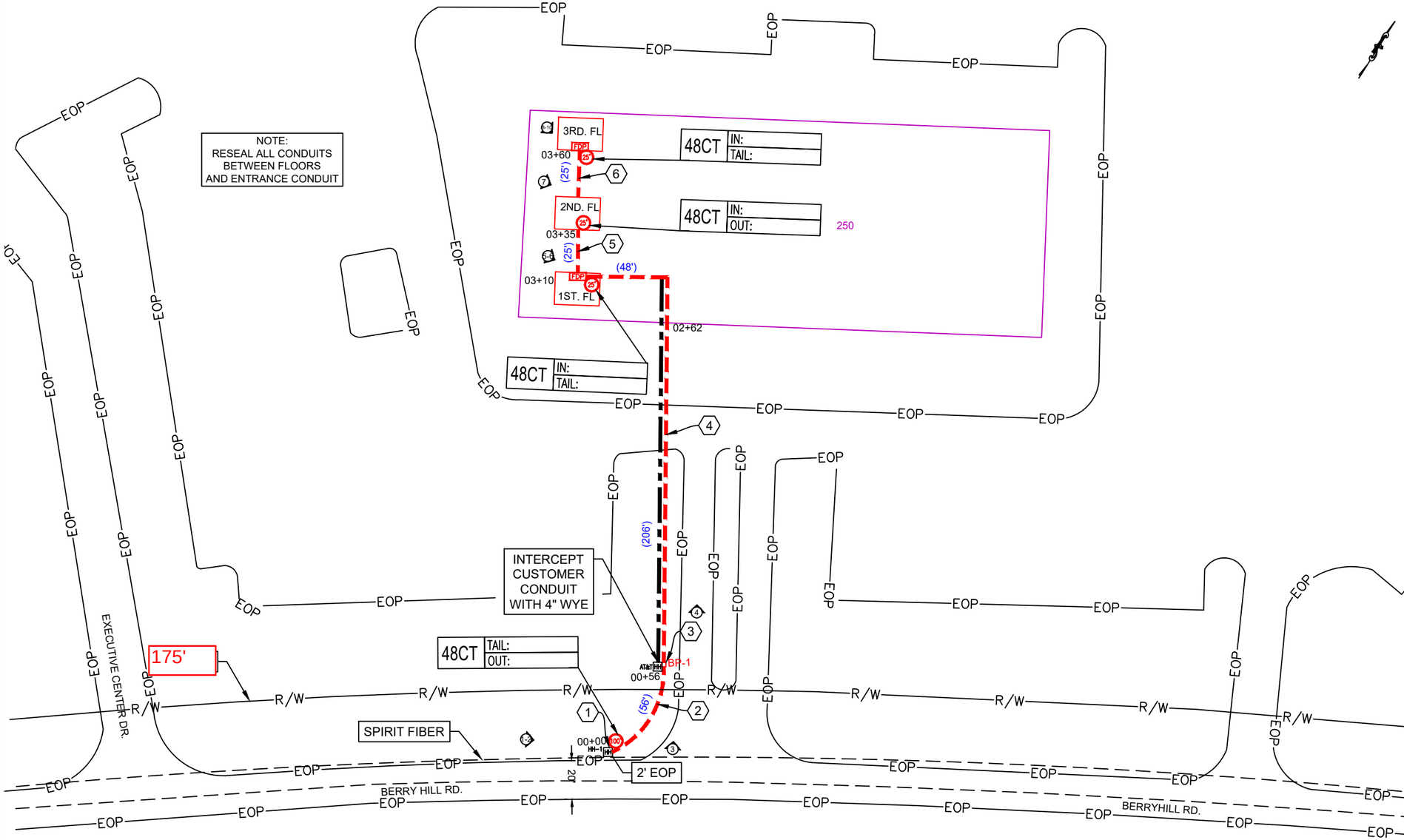
ENGINEERING FIRM: TPRC BROADBAND
SERVICE ORDER: 1256464
DESCRIPTION: 250 BERRYHILL RD., COLUMBIA SC
DESCRIPTION: EPCI UNIVERSITY
DRAWING NAME: 250 Berryhill Rd.Columbia, SC (final).dwg

CONFIDENTIAL/PROPRIETARY



Page Rake Off			
Unit Code & Description	Units	Estimated Quantity	Actual Quantity
200-1 – Directional Bore (1) up to 2" HDPE SDR11	FT	56'	
201-1 – Expose Pipe/Duct and/or Cable up to 48" Depth	EA	1	
301-1 – Cable Placement in conduit – OSP	FT	156'	
301-1 – Cable Placement in conduit – ISP	FT	379'	

SCALE IS FOR REFERENCE PURPOSES ONLY. THE CABLE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE APPROPRIATE PERMITTING MUNICIPALITY PRIOR TO BEGINNING CONSTRUCTION, IN ORDER TO VERIFY THAT THE CABLE IS BEING PLACED WITHIN THEIR RIGHT-OF-WAY.

Know what's **below.** **Call** before you dig.

0 10' 20' 30' 40' 50'

SCALE: 1"=50'

CONSTRUCTION NOTES

1. EXISTING HANDHOLE-1
   -RING CUT

2. CABLE FIBERS: 48CT FOC
   CABLE OWNER: SPIRIT
   CABLE LENGTH: 156'
   NOTES: PULL NEW 48CT FOC 56' FROM EXISTING HH-1 TO PROPOSED BP-1 LEAVING A 100' SERVICE COIL AT EXISITING HH-1

   CONDUIT OWNER: SPIRIT
   CONDUIT LENGTH: 56'
   CONDUIT QTY: 1
   CONDUIT SIZE: 1.25"
   CONDUIT TYPE: HDPE
   NOTE: DIRECTIONAL BORE (1) NEW 1.25" HDPE 56' FROM EXISITING HH-1 TO PROPOSED BP-1

3. PROPOSED SMALL BORE PIT-1
   SIZE: 6'X4'X5'
   -INTERCEPT CUSTOMER CONDUIT
   -PLACE 4" WYE CASTE

4. CABLE FIBERS: 48CT FOC
   CABLE OWNER: SPIRIT
   CABLE LENGTH: 279'
   NOTES: PULL NEW 48CT FOC 254' FROM INTERCEPTING POINT TO 1ST FLOOR EQUIPMENT FDP LEAVING A 25' SERVICE COIL AT FDP
   -PLACE WALL MOUNT FDP

   CONDUIT OWNER: SPIRIT
   CONDUIT LENGTH: 206'
   CONDUIT QTY: 1
   CONDUIT SIZE: 4"
   CONDUIT TYPE: PVC
   NOTE: ROD AND PROOF CUSTOMER EXISTING CONDUIT

5. CABLE FIBERS: 48CT FOC
   CABLE OWNER: SPIRIT
   CABLE LENGTH: 50'
   NOTES: PULL NEW 48CT FOC 25' FROM 1ST FLOOR FDP TO 2ND FLOOR EQUIPMENT ROOM LEAVING A 25' SLACK LOOP AT 2ND FLOOR EQUIPMENT ROOM

6. CABLE FIBERS: 48CT FOC
   CABLE OWNER: SPIRIT
   CABLE LENGTH: 50'
   NOTES: PULL NEW 48CT FOC 25' FROM 2ND FLOOR EQUIPMENT ROOM TO 3RD FLOOR EQUIPMENT ROOM FDP LEAVING A 25' SERVICE COIL AT FDP
   -PLACE WALL MOUNT FDP

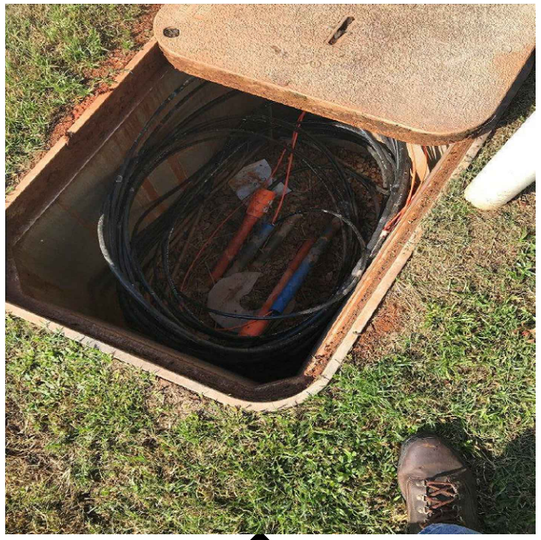
(#) SYMBOL CORRESPONDS TO PHOTO LOCATIONS AND ORIENTATION. SEE SHEET # FOR SITE PHOTOGRAPHS.

NO.	DATE	ENG DESIGN	DRAFTING	COMMENT
3				AS-BUILT
2				REVISION # 1
1	06/20/18	AP	DWF	ORIGINAL

Spirit Communications
Voice. Data. Internet.

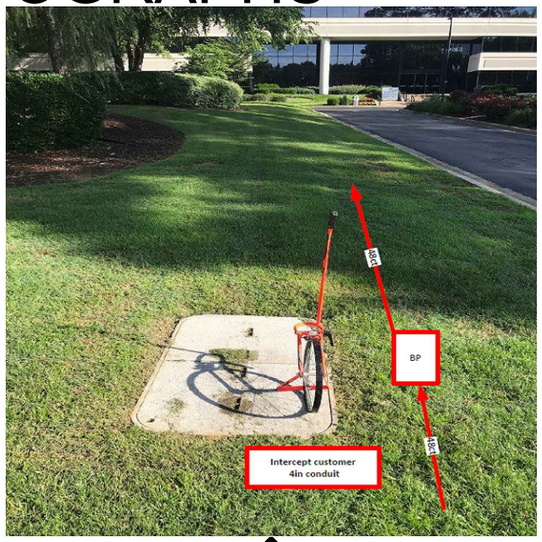
PROJECT MANAGER:	BRAD PAYNE
ENGINEERING FIRM:	TPRC BROADBAND
SERVICE ORDER:	1256464
DESCRIPTION:	250 BERRYHILL RD., COLUMBIA SC
DESCRIPTION:	EPCI UNIVERSITY
DRAWING NAME:	250 Berryhill Rd.Columbia, SC (final).dwg

SITE PHOTOGRAPHS



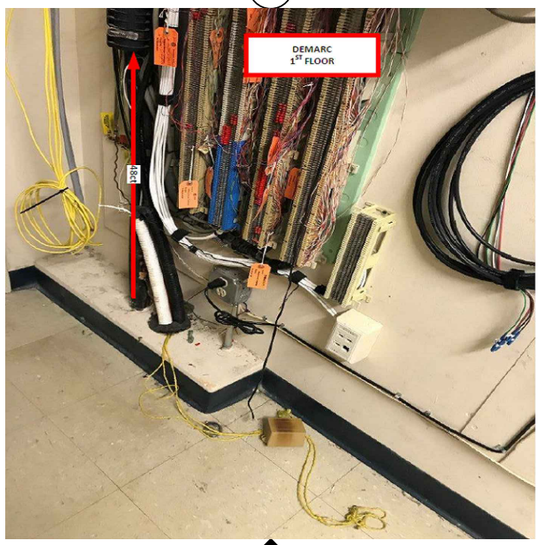
1

2



3

4



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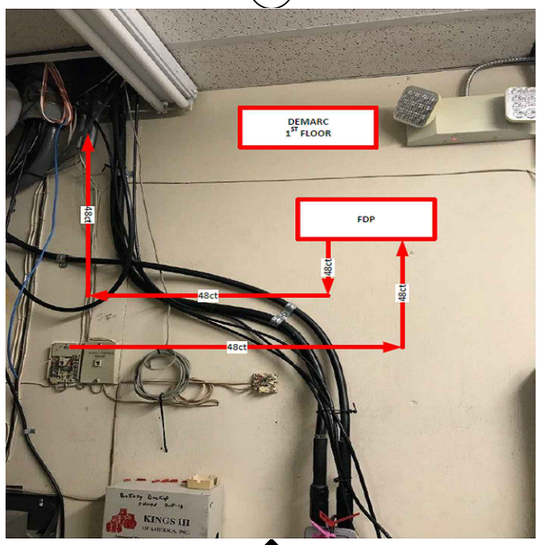

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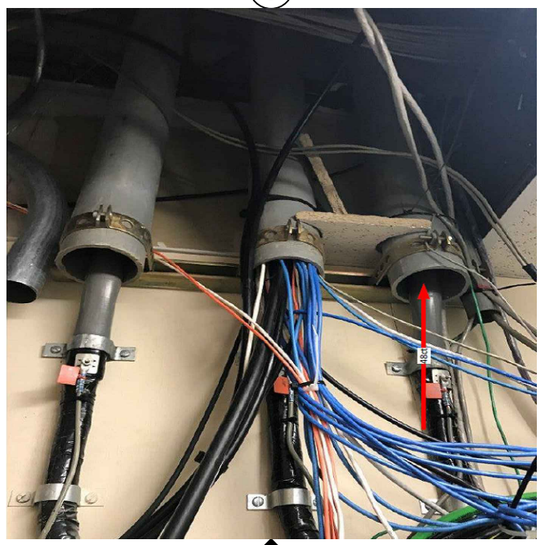

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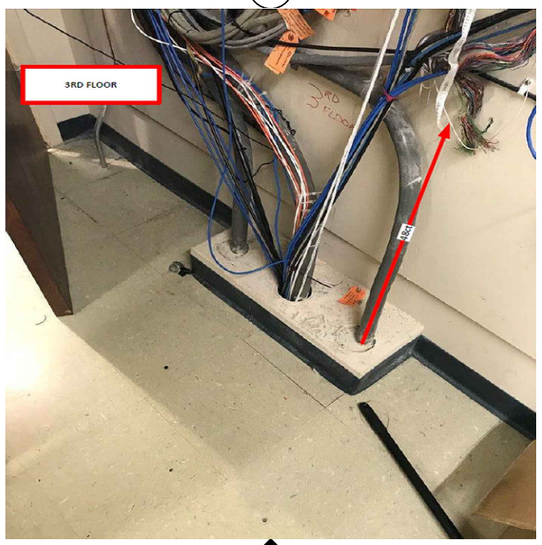

8

Know what's **below.**
Call before you dig.

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2				REVISION # 1
1	06/20/18	AP	DWF	ORIGINAL

Spirit Communications
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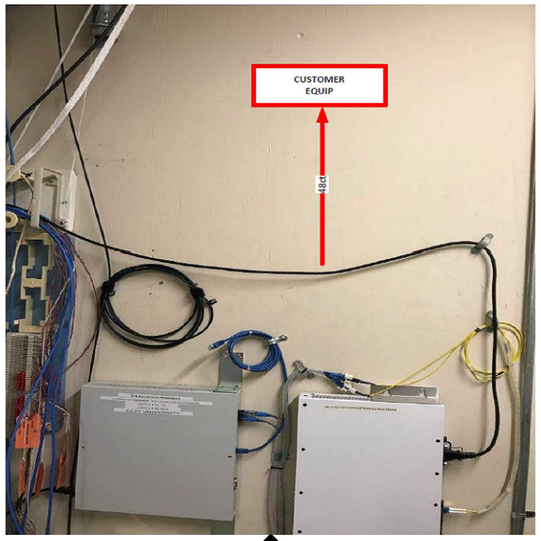
DESCRIPTION: EPCI UNIVERSITY
DRAWING NAME: 250 Berryhill Rd.Columbia, SC (final).dwg

SITE PHOTOGRAPHS



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10

Know what's **below.**
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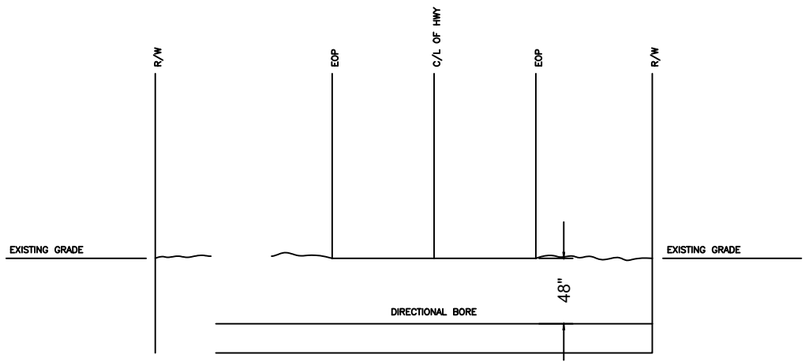
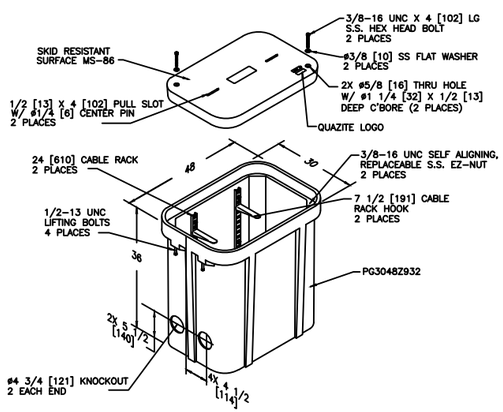
CONFIDENTIAL/PROPRIETARY

TYPICALS

TYPICAL DETAIL – #TYPICALNUMBER

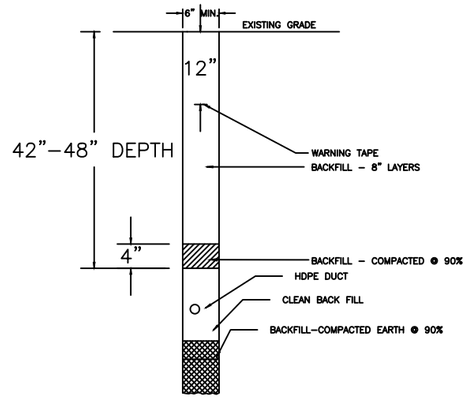
DIRECTIONAL BORE
UNDER ROAD / HIGHWAY / INTERSTATE





TYPICAL DETAIL – #TYPICALNUMBER

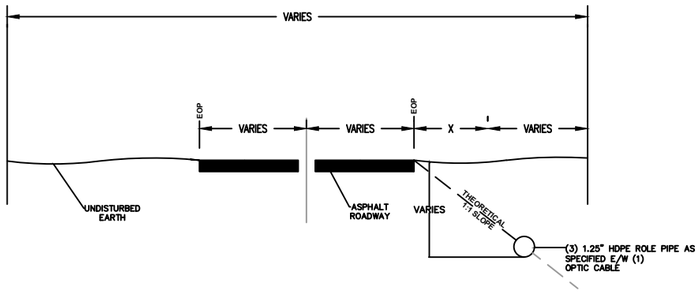
QUAZITE 30X48X36 BOX ASSEMBLY
W/(2) 24" CR, (2) 7 1/2" CR, HOOKS
& (4) ø4 3/4 KNOCKOUT
PG3048Z932



TYPICAL DETAIL – #TYPICALNUMBER

TRENCH IN SOIL (NON TRAFFIC AREAS)

TYPICAL DETAIL "H"
PARALLEL CONDUIT DETAIL FOR DOT R/W



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Total Underground Rake Off			
Unit Code & Description	Units	Estimated Quantity	Actual Quantity
200-1 – Directional Bore (1) up to 2" HDPE SDR11	FT	56'	
201-1 – Expose Pipe/Duct and/or Cable up to 48" Depth	EA	1	
301-1 – Cable Placement in conduit – OSP	FT	156'	

Total Aerial Rake Off			
Unit Code & Description	Units	Estimated Quantity	Actual Quantity

Total Inside Plant (ISP) Rake Off			
Unit Code & Description	Units	Estimated Quantity	Actual Quantity
301-1 – Cable Placement in conduit – ISP	FT	379'	

MATERIAL TOTALS

48CT FOC	535'
1.25" HDPE	56'
WALL MOUNT FDP	2
4" WYE CASTE	1

OSP 48CT. FIBER OPTIC CABLE	UNDERGROUND	56'
OSP 48CT. SERVICE COIL	UNDERGROUND	100'
ISP 48CT. FIBER OPTIC CABLE	BUILDING	304'
ISP 48CT. SLACK LOOP	BUILDING	25'
ISP 48CT. SERVICE COIL	BUILDING	50'

JOB TOTAL (48CT): 535'

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