



Town of Angier

www.angier.org

Robert K. Smith
Mayor

Elizabeth Krige
Town Manager

Veronica Hardaway
Town Clerk

BOARD OF COMMISSIONERS WORKSHOP

October 17, 2023

6:30pm

Pledge of Allegiance
Invocation
Approval of Agenda

Business Items:

1. **Infrastructure Update Presentation – (*Bill Dreitzler*)**
 - a. Informational only
2. **Budget Amendment #3 – (*Hans Kalwitz*)**
 - a. Consideration and approval of Budget Amendment #3 that pertains to surplus property; Pump Station #6 & Force Main.
3. **Street Closure for Trunk or Treat – (*Crissy Porter*)**
 - a. Consideration and approval of road closures for the Trunk or Treat event at Jack Marley Park
4. **Right-of-Way Encroachment for Conterra – (*Jimmy Cook*)**
 - a. Consideration and approval of an Encroachment Agreement with Conterra located at 25 S. Broad St. E.

Closed Session pursuant to NCGS 143-.18.11 (a)(6) to discuss personnel

BUSINESS ITEM #2



Board of Commissioners Agenda Report

55 N Broad Street W.
PO Box 278
Angier, NC 27501
www.angier.org

MEETING DATE: October 17, 2023
PREPARED BY: Hans Kalwitz
ISSUE Budget Amendment #3
CONSIDERED:
DEPARTMENT: Finance

SUMMARY OF ISSUE: This amendment will recognize the sale of surplus equipment, which will be used to replace a lawn mower. The parking lot project behind Napper Tandy's (Lillington Street Parking lot) was started in FY 22-23, the appropriation of fund balance is to move those funds in the FY 23-24 budget to complete the project.

The Water & Sewer Fund will subsidize the Pump Station #6 & Force Main Fund. Using the Fund Balance of the Water & Sewer Fund, a transfer will be delivered into the Pump Station #6 & Force Main Fund to complete the project.

The Pump Station #6 & Force Main Fund will have its' budget reduced to reflect that which is in the First Citizens Money Market account.

FINANCIAL IMPACT: The General Fund will be increased by \$256,001; the Water & Sewer Fund will be increased by \$1,273,747; and the Pump Station #6 & Force Main Fund will be increased by \$1,273,747.

RECOMMENDATION:

REQUESTED MOTION: I make a motion to approve Budget Amendment #3.

REVIEWED BY TOWN MANAGER: This has been reviewed by the Town Manager.

Attachments:



Town of Angier

Board Approved Budget Amendment # 3

Be it hereby ordained by the Town Council of the Town of Angier that the following amendments be made to the Budget Ordinance adopted on the 20th day of June, 2023 (as well as subsequent amendments) as follows:

| General Fund (10 Fund) | | | | |
|---|--------------|------------------|----------------|------------------|
| Revenue | Line Item | Budget | Change | Amended Budget |
| SALE OF ASSETS (sale of Tractor and Dump Truck) | 10-3010-3075 | - | ↑ 11,275 | 11,275 |
| FUND BALANCE APPROPRIATED | 10-3010-9999 | 684,193 | ↑ 244,726 | 928,919 |
| Total Budget Revenues | | 7,757,900 | 256,001 | 8,013,901 |
| | | | | |
| Planning & Inspections Department | Line Item | Budget | Change | Amended Budget |
| CAPITAL OUTLAY | 10-5400-5000 | 536,693 | ↑ 244,726 | 781,419 |
| Total Budget Expenditures for Dept 5400 | | 1,258,963 | 244,726 | 1,503,689 |
| | | | | |
| Streets & Sanitation Department | Line Item | Budget | Change | Amended Budget |
| CAPITAL OUTLAY | 10-5600-5000 | 98,000 | ↑ 11,275 | 109,275 |
| Total Budget Expenditures for Dept 5600 | | 1,336,476 | 11,275 | 1,347,751 |

| Water & Sewer Fund (30 Fund) | | | | |
|--|--------------|------------------|------------------|------------------|
| Revenue | Line Item | Budget | Change | Amended Budget |
| FUND BALANCE APPROPRIATED | 30-3030-9999 | 137,002 | ↑ 1,273,747 | 1,410,749 |
| Total Budget Revenues | | 4,228,246 | 1,273,747 | 5,501,993 |
| | | | | |
| Inter-Fund Transfers Department | Line Item | Budget | Change | Amended Budget |
| TRANSER TO PUMP STATION & FORCE MA | 30-8700-8725 | - | ↑ 1,273,747 | 1,273,747 |
| Total Budget Expenditures for Dept 8700 | | - | 1,273,747 | 1,273,747 |

| Pump Station #6 & Force Main Fund | | | | |
|--|--------------|-----------|-------------|----------------|
| Pump Station #6 & Force Main Revenue | Line Item | Budget | Change | Amended Budget |
| LOAN PROCEEDS | 38-3038-3080 | 946,320 | ↓ (946,320) | - |
| TRANSFER FROM ARPA & CARES Act Fund | 38-3038-7100 | 982,389 | ↓ (982,389) | - |
| TRANSFER FROM W/S FUND | 38-3900-8725 | - | ↑ 1,273,747 | 1,273,747 |
| Total Revenue Budget | | 1,928,709 | (654,962) | 1,273,747 |
| | | | | |
| Pump Station #6 Department | Line Item | Budget | Change | Amended Budget |
| MISCELLANEOUS | 38-8305-3990 | - | ↑ 455,018 | 455,018 |
| PROFESSIONAL SERVICES | 38-8305-4450 | 59,110 | ↓ (59,110) | - |
| CAPITAL OUTLAY - CONSTRUCTION (UPGR | 38-8305-5000 | 534,112 | ↓ (375,584) | 158,528 |
| FORCE MAIN/GRAVITY SEEWER REALIGNM | 38-8305-5910 | 60,000 | ↓ (60,000) | - |
| CONTINGENCY | 38-8305-8300 | 77,100 | ↓ (27,100) | 50,000 |
| Total Budget Expenditures for Dept 8305 | | 730,322 | (66,776) | 663,546 |
| | | | | |
| Pump Station #1 & Force Main Dept | Line Item | Budget | Change | Amended Budget |
| PROFESSIONAL SERVICES | 38-8310-4450 | 13,594 | ↓ (13,594) | - |
| PUMP STATION #1 REPLACEMENT | 38-8310-5905 | 467,943 | ↑ 142,258 | 610,201 |
| ON-SITE SANITAR SEWER UPGRADES | 38-8310-5915 | 26,500 | ↓ (26,500) | - |
| STORM SEWER RELOCATION | 38-8310-5920 | 690,350 | ↓ (690,350) | - |
| Total Budget Expenditures for Dept 8310 | | 1,198,387 | (588,186) | 610,201 |

Motion to adopt FY 2024 Board Approved Budget Amendment #3

Amended this the 17th day of October, 2023

Robert K. Smith, Mayor

Attest:

Veronica Hardaway, Town Clerk

BUSINESS ITEM #3



Board of Commissioners Agenda Report

55 N Broad Street W.
PO Box 278
Angier, NC 27501
www.angier.org

MEETING DATE: October 17, 2023
PREPARED BY: Crissy Porter
ISSUE Trunk or Treat Road Closure
CONSIDERED:
DEPARTMENT: Administration

SUMMARY OF ISSUE:

Attached is the map of the proposed closure of N Willow Street from E Williams to Wimberly Road. The plan is to close the road to thru traffic and allow parking on the curb side of the street (the lake side) to accommodate the crowd. Chief Thompson has communicated with me that on Monday we will go door to door to the houses on Willow Street advising them of the closure and will place no parking in the grass signs in the yards of residents on Willow Street.

FINANCIAL IMPACT:

N/A

RECOMMENDATION:

REQUESTED MOTION:

I move to approve the proposed road closures for the Trunk or Treat event.

REVIEWED BY TOWN MANAGER:

Attachments:

1 Map



BUSINESS ITEM #4

Town of Angier

RIGHT OF WAY ENCROACHMENT AGREEMENT
WITHIN THE CITY MAINTAINED ROADWAY SYSTEM

-AND-
Conterra Broadband
5301 77 Center Dr.
Charlotte, NC, 28217

THIS AGREEMENT, made and entered into this the _____ day of _____ 20____ by and between the Town of Angier, party of the first part; and _____
Conterra Ultra Broadband, LLC, a duly authorized telecommunication
Utility with principal offices at 5301 77 Center Drive, Charlotte, NC, 28217 _____ party of the second part,

WITNESSETH

THAT WHEREAS, the party of the second part desires to encroach on the right of way of the public road designated as
Route(s) S Broad St E, E Lillington St, located _____, beginning at southwest corner of intersection of Depot St and S Broad St E.,
going south approximately 450 _____, crossing W Lillington St, running east approximately 250 _____, turning north _____, crossing E Lillington St, running 80 _____ and leaving ROW to customer property near Angier, NC.

with the construction and/or erection of: 1030 ± (total) of new 24ct armored fiber optic cable, 250 ± by directional bore method (3) encased in 1x1.25 HDPE SDR13.5 conduit
250 ± slack loop, 50 ± slack loop of 1ct in various handholes, and three (3) 30 x 48 x 36 handhole by open trench method that will be constructed in the public ROW.

WHEREAS, it is to the material advantage of the party of the second part to effect this encroachment, and the party of the first part in the exercise of authority conferred upon it by statute, is willing to permit the encroachment within the limits of the right of way as indicated, subject to the conditions of this agreement;

NOW, THEREFORE, IT IS AGREED that the party of the first part hereby grants to the party of the second part the right and privilege to make this encroachment as shown on attached plan sheet(s), specifications and special provisions which are made a part hereof upon the following conditions, to wit:

That the installation, operation, and maintenance of the above described facility will be accomplished in accordance with the party of the first part's latest UTILITIES ACCOMMODATIONS MANUAL, and such revisions and amendments thereto as may be in effect at the date of this agreement. Information as to these policies and procedures may be obtained from the Town of Angier of the party of the first part.

That the said party of the second part binds and obligates himself to install and maintain the encroaching facility in such safe and proper condition that it will not interfere with or endanger travel upon said highway, nor obstruct nor interfere with the proper maintenance thereof, to reimburse the party of the first part for the cost incurred for any repairs or maintenance to its roadways and structures necessary due to the installation and existence of the facilities of the party of the second part, and if at any time the party of the first part shall require the removal of or changes in the location of the said facilities, that the said party of the second part binds himself, his successors and assigns, to promptly remove or alter the said facilities, in order to conform to the said requirement, without any cost to the party of the first part.

That the party of the second part agrees to provide during construction and any subsequent maintenance proper signs, signal lights, flagmen and other warning devices for the protection of traffic in conformance with the latest Manual on Uniform Traffic Control Devices for Streets and Highways and Amendments or Supplements thereto. Information as to the above rules and regulations may be obtained from the Town of Angier of the party of the first part.

That the party of the second part hereby agrees to indemnify and save harmless the party of the first part from all damages and claims for damage that may arise by reason of the installation and maintenance of this encroachment.

That the party of the second part agrees to restore all areas disturbed during installation and maintenance to the satisfaction of the Town of Angier of the party of the first part. The party of the second part agrees to exercise every reasonable precaution during construction and maintenance to prevent eroding of soil; silting or pollution of rivers, streams, lakes, reservoirs, other water impoundments, ground surfaces or other property; or pollution of the air. There shall be compliance with applicable rules and regulations of the North Carolina Division of Environmental Management, North Carolina Sedimentation Control Commission, and with ordinances and regulations of various counties, municipalities and other official agencies relating to pollution prevention and control. When any installation or maintenance operation disturbs the ground surface and existing ground cover, the party of the second part agrees to remove and replace the sod or otherwise reestablish the grass cover to meet the satisfaction of the Town of Angier of the party of the first part.

That the party of the second part agrees to assume the actual cost of any inspection of the work considered to be necessary by the Town of Angier of the party of the first part.

That the party of the second part agrees to have available at the construction site, at all times during construction, a copy of this agreement showing evidence of approval by the party of the first part. The party of the first part reserves the right to stop all work unless evidence of approval can be shown.

Provided the work contained in this agreement is being performed on a completed highway open to traffic; the party of the second part agrees to give written notice to the Town of Angier of the party of the first part when all work contained herein has been completed. Unless specifically requested by the party of the first part, written notice of completion of work on highway projects under construction will not be required.

That in the case of noncompliance with the terms of this agreement by the party of the second part, the party of the first part reserves the right to stop all work until the facility has been brought into compliance or removed from the right of way at no cost to the party of the first part.

That it is agreed by both parties that this agreement shall become void if actual construction of the work contemplated herein is not begun within one (1) year from the date of authorization by the party of the first part unless written waiver is secured by the party of the second part from the party of the first part.

During the performance of this contract, the second party, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor"), agrees as follows:

- a. Compliance with Regulations: The contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Town of Angier as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- b. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials

and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

- c. Solicitations for Subcontracts, including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- d. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Town of Angier to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Town of Angier Administration as appropriate, and shall set forth what efforts it has made to obtain the information.
- e. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Town of Angier shall impose such contract sanctions as it may determine to be appropriate, including, but not limited to,
 - (1) withholding of payments to the contractor under the contract until the contractor complies, and/or
 - (2) cancellation, termination or suspension of the contract, in whole or in part.
- f. Incorporation of Provisions: The contractor shall include the provisions of paragraphs "a" through "f" in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Town of Angier may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Town of Angier to enter into such litigation to protect the interests of the State, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

R/W (161) : Party of the Second Part certifies that this agreement is true and accurate copy of the form R/W (161) incorporating all revisions to date.

IN WITNESS WHEREOF, each of the parties to this agreement has caused the same to be executed the day and year first above written.

Town of Angier

by: _____

Town Manager

ATTEST OR WITNESS:

Jasmina Krkalic

Jasmina Krkalic

SE OSP Permitting Specialist

Conterra Ultra Broadband

Anne Hill

Anne Hill

Director OSP Engineering and Construction SE Region

Conterra Ultra Broadband

Second Party

INSTRUCTIONS

When the applicant is a corporation or a municipality, this agreement must have the corporate seal and be attested by the corporation secretary or by the empowered city official, unless a waiver of corporate seal and attestation by the secretary or by the empowered City official is on file in the Raleigh office of the State Utilities Manager. In the space provided in this agreement for execution, the name of the corporation or municipality shall be typed above the name, and title of all persons signing the agreement should be typed directly below their signature.

When the applicant is not a corporation, then his signature must be witnessed by one person. The address should be included in this agreement and the names of all persons signing the agreement should be typed directly below their signature.

This agreement must be accompanied, in the form of an attachment, by plans or drawings showing the following applicable information:

1. All roadways and ramps.
2. Right of way lines and where applicable, the control of access lines.
3. Location of the existing and/or proposed encroachment.
4. Length, size and type of encroachment.
5. Method of installation.
6. Dimensions showing the distance from the encroachment to edge of pavement, shoulders, etc.
7. Location by highway survey station number. If station number cannot be obtained, location should be shown by distance from some identifiable point, such as a bridge, road, intersection, etc. (To assist in preparation of the encroachment plan, the Department's roadway plans may be seen at the various Highway Division Offices, or at the Raleigh office.)
8. Drainage structures or bridges if affected by encroachment (show vertical and horizontal dimensions from encroachment to nearest part of structure).
9. Method of attachment to drainage structures or bridges.
10. Manhole design.
11. On underground utilities, the depth of bury under all traveled lanes, shoulders, ditches, sidewalks, etc.
12. Length, size and type of encasement where required.
13. On underground crossings, notation as to method of crossing - boring and jacking, open cut, etc.
14. Location of vents.

GENERAL REQUIREMENTS

1. Any attachment to a bridge or other drainage structure must be approved by the State Utilities Manager in Raleigh prior to submission of encroachment agreement to the Division Engineer.
2. All crossings should be as near as possible normal to the centerline of the highway.
3. Minimum vertical clearances of overhead wires and cables above all roadways must conform to clearances set out in the National Electric Safety Code.
4. Encasements shall extend from ditch line to ditch line in cut sections and 5' beyond toe of slopes in fill sections.
5. All vents should be extended to the right of way line or as otherwise required by the Department.
6. All pipe encasements as to material and strength shall meet the standards and specifications of the Department.
7. Any special provisions or specifications as to the performance of the work or the method of construction that may be required by the Department must be shown on a separate sheet attached to encroachment agreement provided that such information cannot be shown on plans or drawings.
8. The Department's Division Engineer should be given notice by the applicant prior to actual starting of installation included in this agreement.

PROJECT NAME: FreedomTech_P-011265

ADDRESS: 25 S Broad St E
Angier, NC 27501

SCOPE OF WORK

Project will consist of installing 1277' of new 24ct FOC from existing handhole to new proposed handhole then 275' of single fiber FOC from handhole to existing pole then from existing pole to customer location.



SHEET:

1 of 12

CONFIDENTIAL/PROPRIETARY



CONterra NETWORKS
5301 77 CENTER DR, CHARLOTTE, NC
28217

**CONTACT NAMES
AND NUMBERS**

PROJECT MANAGER:
Jonathan_Drawdy_704-458-0700

PROJECT ENGINEER:
Darius_Olazabal_704-493-6165

PROJECT DRAFTER:
Christopher_Adams_704-466-1965

JOB NUMBER:
P-011265

DRAWING LIST

| SHEET | DESCRIPTION | SHEET | DESCRIPTION | SHEET | PROJECT SHEET 1 | DATE | DESCRIPTION | DRAFTER | SET |
|-------|--------------------|-------|-----------------|-------|-----------------|----------|----------------|---------|-----|
| 1 | COVER SHEET | 12 | PROJECT SHEET 1 | | | 7/5/2023 | ORIGINAL DRAFT | CPA | 1 |
| 2 | MATERIALS RAKE OFF | 13 | | | | | | | |
| 3 | LEGEND | 14 | | | | | | | |
| 4 | GENERAL NOTES | 15 | | | | | | | |
| 5-11 | TYPICALS | 16 | | | | | | | |

DRAWING STATUS

Project Name: FreedomTech_P-011265
Project Number: C017101601

| MATERIAL RAKE-OFF | | | | |
|-------------------|---|-------------------------------|----------|------|
| PRODUCT TYPE | PART NAME / DESCRIPTION | PART NUMBER | QUANTITY | UNIT |
| CONDUIT | Dual 1 1/4 SDR 13.5 Orange and Black 1 1/4 SDR 13.5 Orange (S.E.) | 01-25-grainnerduct2way | 877 | FT |
| FIBER | 24 ct Armored SM FOC (S.E) | 01-25-COMFIBDRYSM24 | 1277 | FT |
| DROP_FIBERS | CABLE 300' DIEL DROP HARDENED SCA | 0625ALLFHDH01A0300F | 1 | EA |
| HANDHOLES | Large HandHoles - 30" x 48" x 36" (S.E.) | 01-70-COM-HOLBULK736F072WLID | 4 | EA |
| MISC | Ground Rod (S.E.) | 01-80-COMGNDRODCLP625 | 8 | EA |
| SPLICING | C Closures (S.E.) | 01-40-TYCCLSSPlce292MM | 3 | EA |
| SPLICING | C Closure Trays (S.E.) | 01-40-TYCTRYBELLHOUSING 24 H | 6 | EA |
| PANELS | 4 Port Wall Mount Fiber Panel (S.C) | 04-25-POW-FLP15G0660400003304 | 1 | EA |

LEGEND

LINETYPES

| | |
|--|---------------------------------|
| | UG FIBER - EXISTING |
| | UG FIBER - PROPOSED |
| | AERIAL FIBER - EXISTING |
| | AERIAL FIBER - PROPOSED |
| | BURIED DROP FIBER - EXISTING |
| | BURIED DROP FIBER - PROPOSED |
| | AERIAL DROP FIBER - EXISTING |
| | AERIAL DROP FIBER - PROPOSED |
| | 3RD PARTY FIBER - EXISTING |
| | CONDUIT - EXISTING |
| | UTILITY OVERHEAD GUY - EXISTING |
| | UTILITY OVERHEAD GUY - PROPOSED |
| | CURB/GUTTER |
| | DITCH LINE |
| | GAS |
| | WATER |
| | TELEPHONE |
| | ELECTRIC |
| | SEW |
| | STORM DRAIN |
| | CABLE TV |
| | FENCE |
| | SIDEWALK |
| | PUBLIC UTILITY EASEMENT |
| | RIGHT OF WAY |
| | EDGE OF PAVEMENT |

SYMBOL

DESCRIPTION

| | |
|------|--------------------------------|
| ASW | ASPHALT SIDEWALK |
| BIP | BLACK IRON PIPE |
| BSP | BLACK STEEL PIPE |
| CSW | CONCRETE SIDEWALK |
| EOP | EDGE OF PAVEMENT |
| EOTW | EDGE OF TRAVEL WAY |
| FOC | FACE OF CURB |
| 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 |

| | |
|--|----------------------|
| | STREET SIGN |
| | TRAFFIC SIGN |
| | STREET LIGHT |
| | CATCH BASIN/INLET |
| | ADA RAMP |
| | TRAFFIC JUNCTION BOX |

| | |
|--|-----------|
| | TREE |
| | CULVERT |
| | TRASH CAN |

| | |
|--|-------------------|
| | PARKING METER |
| | RESTORATION NOTES |
| | MISC. UTILITY |
| | GROUND/BOND |

| | |
|--|---------------|
| | GAS METER |
| | GAS VALVE |
| | SEWER MANHOLE |
| | WATER METER |
| | WATER VALVE |
| | FIRE HYDRANT |

| | |
|--|--|
| | UTILITY POLE - 3rd PARTY EXISTING POLE / EXISTING ATTACHMENT |
| | UTILITY POLE - 3rd PARTY EXISTING POLE / NEW ATTACHMENT |
| | UTILITY POLE - CONTERRA EXISTING |
| | UTILITY POLE - CONTERRA PROPOSED |
| | SPLICE ENCLOSURE |

| | |
|--|--------------------------------------|
| | AERIAL STORAGE - EXISTING |
| | AERIAL STORAGE - PROPOSED |
| | VAULT/BUILDING STORAGE - EXISTING |
| | VAULT/BUILDING STORAGE - PROPOSED |
| | POLE ANCHOR/DOWN GUY - EXISTING |
| | POLE ANCHOR/DOWN GUY - PROPOSED |
| | PROPOSED DOWN GUY ON EXISTING ANCHOR |

| | |
|--|---------------------|
| | HANDHOLE - EXISTING |
| | HANDHOLE - PROPOSED |
| | MANHOLE - EXISTING |
| | MANHOLE - PROPOSED |
| | PULLBOX - EXISTING |
| | PULLBOX - PROPOSED |
| | PEDESTAL - EXISTING |
| | BORE PIT - PROPOSED |

| | |
|--|-----------------------------|
| | SEQUENTIAL CALLOUT |
| | SEQUENTIAL IN TAIL CALLOUT |
| | SEQUENTIAL TAIL OUT CALLOUT |

| | |
|----------|-------|
| POLE NO | N/A |
| UTILITY1 | 0'-0" |

| | |
|----------|-------|
| POLE NO | N/A |
| UTILITY1 | 0'-0" |

| | |
|---|--|
| 1 | CABLE FIBERS: FIBERS CABLE OWNER: OWNER CABLE LENGTH: LENGTH NOTES: |
|---|--|

| | |
|---|--|
| 1 | CABLE FIBERS: FIBERS CABLE OWNER: OWNER CABLE LENGTH: LENGTH NOTES: |
|---|--|

| | |
|---|---|
| 1 | CONDUIT OWNER: OWNER 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: |
|---|---|

| | |
|---|---|
| 1 | CONDUIT OWNER: OWNER 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: |
|---|---|

| | |
|---|--|
| 1 | STRAND TYPE: TYPE STRAND LENGTH: LENGTH NOTES: |
|---|--|

| | |
|---|--|
| 1 | STRAND TYPE: TYPE STRAND LENGTH: LENGTH NOTES: |
|---|--|

| | |
|-----|-----------------------|
| FTG | 4 PORT MST - PROPOSED |
|-----|-----------------------|

| | |
|-----|-----------------------|
| FTG | 8 PORT MST - PROPOSED |
|-----|-----------------------|

| | |
|-----|------------------------|
| FTG | 12 PORT MST - PROPOSED |
|-----|------------------------|

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

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

CABLE SPAN CALLOUT - EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)

CABLE SPAN CALLOUT - PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)

CONDUIT CALLOUT - EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)
WITH OR WITHOUT INNER DUCT INFO

CONDUIT CALLOUT - PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)
WITH OR WITHOUT INNER DUCT INFO

STRAND CALLOUT - EXISTING
FOR USE ON PAPER SPACE (SHOWN AT 50X)

STRAND CALLOUT - PROPOSED
FOR USE ON PAPER SPACE (SHOWN AT 50X)

ENGINEER:

CONTERRA
NETWORKS
Fiber. Better. People. Powered.

CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

LEGEND

PROJECT MANAGER: BRETT HANNAN (352) 302-5410

PROJECT ENGINEER: ROCKY HODGE

PROJECT NUMBER: P-011205

DESCRIPTION: FREEDOMTECH_P-011205

DRAWING NAME: FreedomTech_P-011205.dwg

SHEET:

3 of 12

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 A MINIMUM DEPTH OF 60" DEEP UNLESS OTHERWISE DIRECTED BY A REPRESENTATIVE OF THE UTILITY OWNER.

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 THE PROJECT MANAGER 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 THE PROJECT MANAGER 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 A REPRESENTATIVE OF THE UTILITY OWNER.

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

CONTRACTOR SHALL NOT EXCEED THE PURCHASE ORDER VALUE WITHOUT AUTHORIZATION IN WRITING FROM THE APPROPRIATE REPRESENTATIVE OF THE UTILITY OWNER.

AS-BUILTS WILL BE REQUIRED FOR EACH PROJECT INCLUDING CABLE FOOTAGE SEQUENTIALS AT EVERY ACCESS POINT, SLACK LOOP, SPICE LOCATION, POLE AND TERMINATION POINT. CONTRACTOR SHOULD ALSO PROVIDE NOTES OF ALL CHANGES IN DEPTHS, RUNNING LINES, MH/HN 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 REPRESENTATIVE OF THE UTILITY COMPANY 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 OR 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 EASEMENTS 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 LOOP WIRE 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 THE APPROPRIATE STATE 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 IN THE APPROPRIATE STATE.

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.

•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 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 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 SPICE 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 THAT 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.

ENGINEER:



CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

GENERAL NOTES

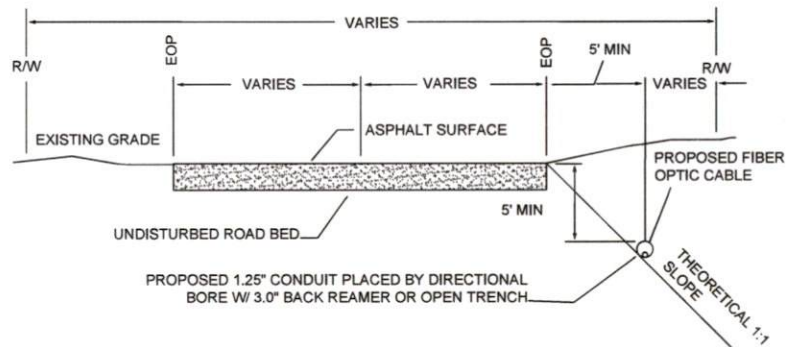
| | |
|-------------------|-----------------------------|
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011265 |
| DESCRIPTION: | FREEDOMTECH_P-011265 |
| DRAWING NAME: | FreedomTech_P-011265.dwg |
| SHEET: | |

4 of 12

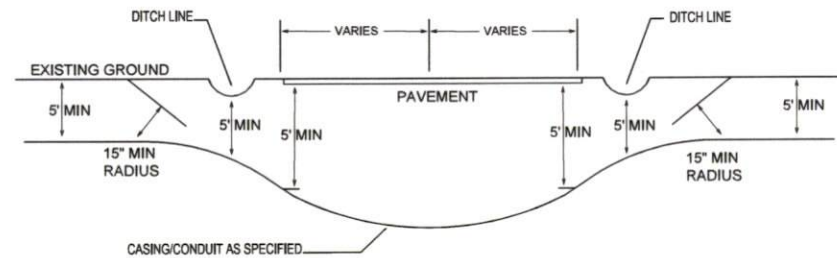
CONFIDENTIAL/PROPRIETARY

TYPICALS

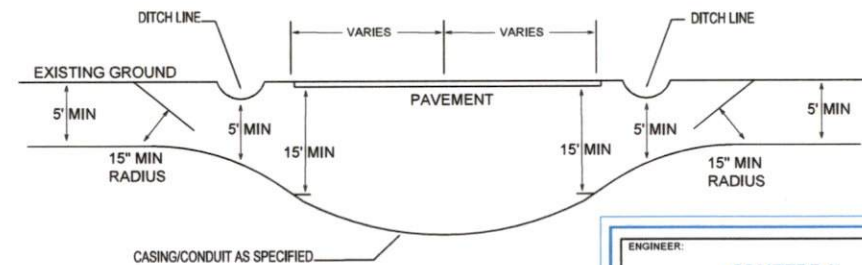
PARALLEL CONDUIT DETAIL FOR NCDOT RIGHT-OF-WAY
NOT TO SCALE



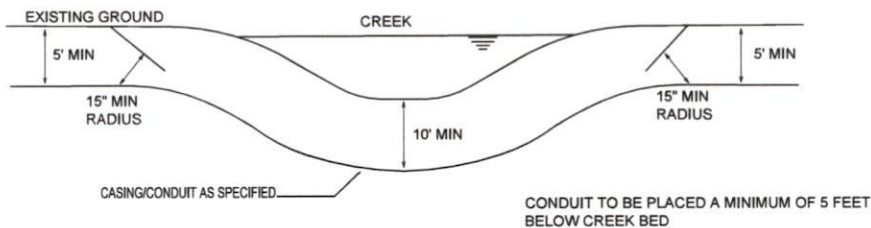
DIRECTIONAL BORE UNDER SECONDARY ROADWAY
NOT TO SCALE




DIRECTIONAL BORE UNDER CONTROLLED ACCESS ROADWAY
NOT TO SCALE



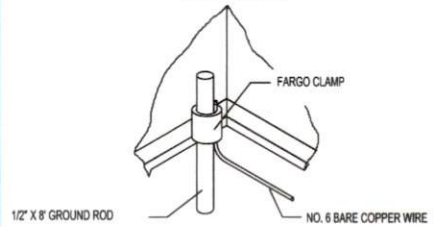
DIRECTIONAL BORE UNDER CREEK BED
NOT TO SCALE



| | |
|--|-----------------------------|
| ENGINEER: | |
|  Fiber Drives. People Powered. | |
| CONTERRA NETWORKS 5301 77 CENTER DR. CHARLOTTE, NC 28217 | |
| SHEET TITLE: | |
| TYPICALS | |
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011265 |
| DESCRIPTION: | FREEDOMTECH_P-011265 |
| DRAWING NAME: | FreedomTech_P-011265.dwg |
| SHEET: | |
| 5 of 12 | |
| CONFIDENTIAL/PROPRIETARY | |

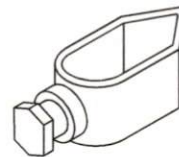
TYPICALS

DETAIL "B"
GROUND CONNECTION

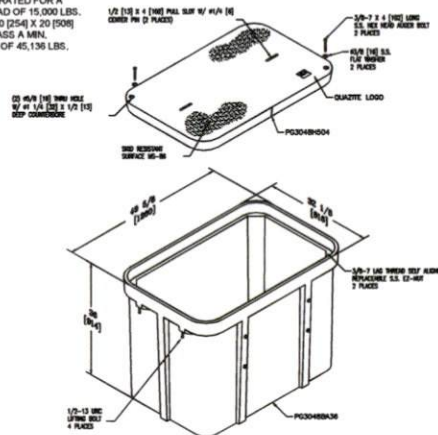


FEATURES
THIS ASSEMBLY IS RATED FOR A
STATIC DESIGN LOAD OF 15,000 LBS.
(66,720 N) OVER A 10 (254) X 20 (508)
AREA AND MUST PASS A MIN.
STATIC TEST LOAD OF 45,136 LBS.
(200,795 N).

DETAIL "C"
FARGO CLAMP

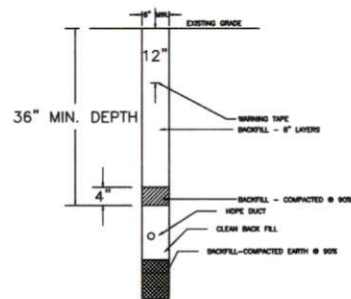


FIBER OMITTED FOR CLARITY



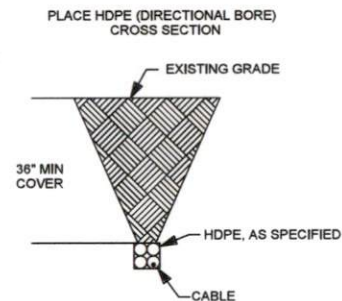
36" x 48" x 30" HANDHOLE HUBBELL MODEL PG3048BA36 OR EQUAL

PLACEMENT - TYPICALS



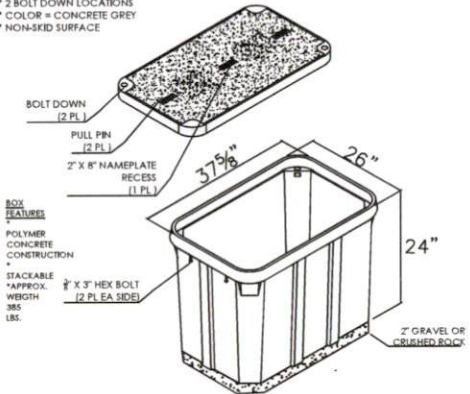
TYPICAL DETAIL - #12
TRENCH IN SOIL (NON TRAFFIC AREAS)

TYPICAL "B"

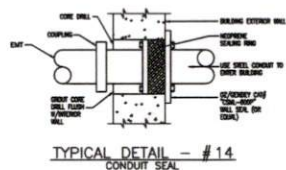


COVER FEATURES:

- * STANDARD LOAD RATING: 45,136 POUND WHEEL LOAD ON 10 X 20 PLATE
- * POLYMER CONCRETE CONSTRUCTION
- * WEIGHT = 220 POUNDS
- * 2 BOLT DOWN LOCATIONS
- * COLOR = CONCRETE GREY
- * NON-SKID SURFACE



24" x 36" x 24" NODOT APPROVED HANDHOLE WITH EXTRA REBAR
BY LID, HUBBELL MODEL PG2436Z950 OR PG2436Z952 OR EQUAL



TYPICAL DETAIL - #14
CONDUIT SEAL

PLACEMENT DEPTHS VARIES - PLEASE FOLLOW DEPTHS CALLED OUT IN CONSTRUCTION SHEETS

ENGINEER:



CONTRERA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

TYPICALS

PROJECT MANAGER: BRETT HANNAN (352) 302-5410

PROJECT ENGINEER: ROCKY HODGE

PROJECT NUMBER: P-011285

DESCRIPTION: FREEDOMTECH_P-011285

DRAWING NAME: FreedomTech_P-011285.dwg

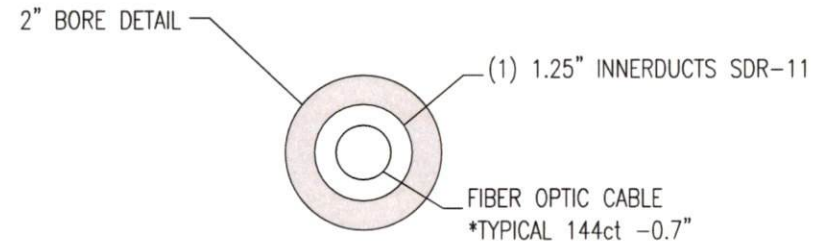
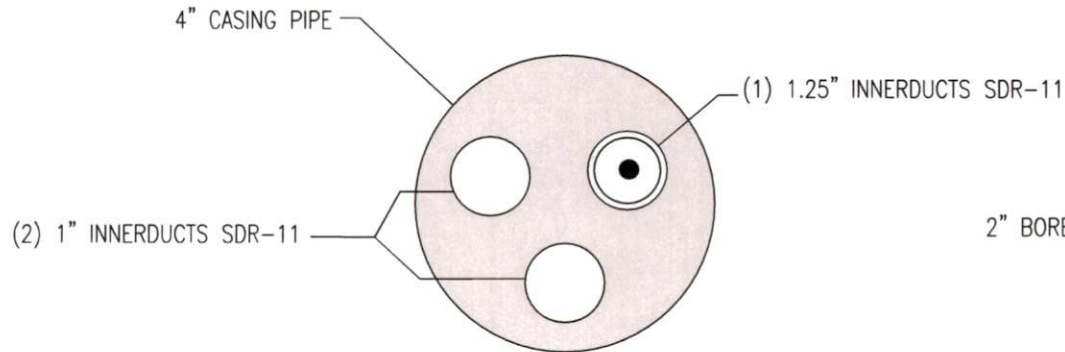
SHEET:

6 of 12

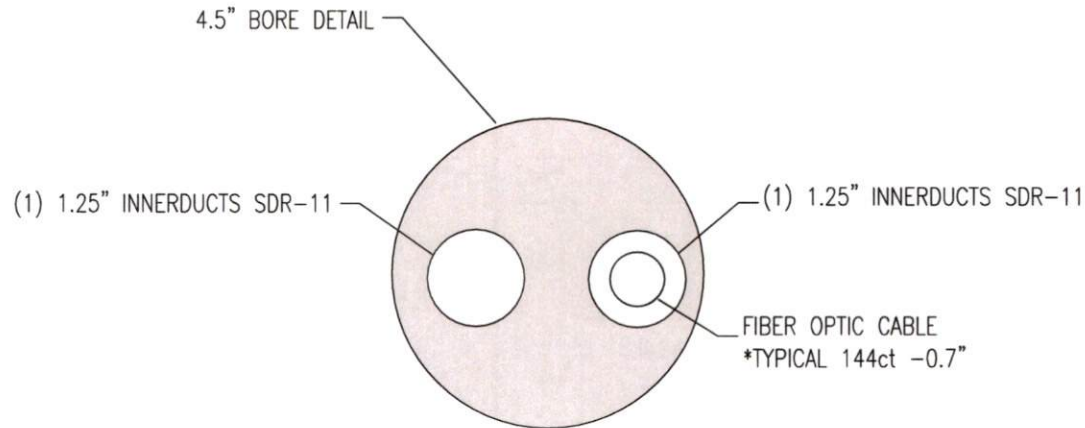
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TYPICALS


BORE DETAIL WITH
(1) 4" CASING PIPE
(1) 1.25" INNERDUCTS, SDR-11
(2) 1" INNERDUCTS, SDR-11



BORE DETAIL WITH
(1) 1.25" INNERDUCTS, SDR-11



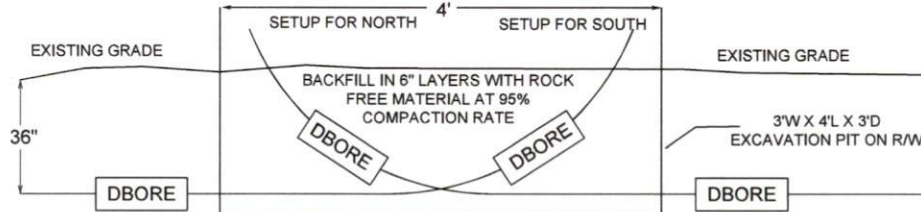
BORE DETAIL WITH
(2) 1.25" INNERDUCTS, SDR-11

| | |
|--|-----------------------------|
| ENGINEER: | |
|  Fiber Drives People Powered CONTERRA NETWORKS 5301 77 CENTER DR. CHARLOTTE, NC 28217 | |
| SHEET TITLE: | |
| TYPICALS | |
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011265 |
| DESCRIPTION: | FREEDOMTECH_P-011265 |
| DRAWING NAME: | FreedomTech_P-011265.dwg |
| SHEET: | 7 of 12 |
| CONFIDENTIAL/PROPRIETARY | |

TYPICALS

DIRECTIONAL BORE TIE-IN DETAIL

NOT TO SCALE

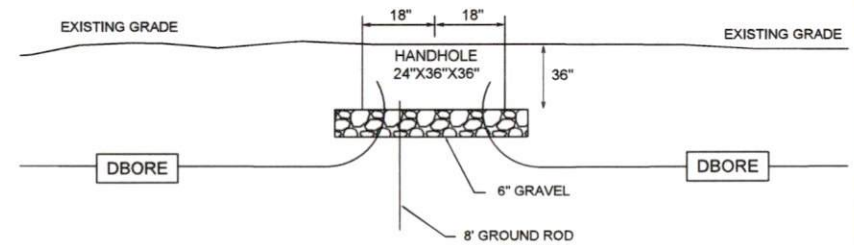


TIE-IN STATION

- BORE FROM EACH DIRECTION IS RUN AT DESIGN DEPTH TO 2 FEET PAST THE INTENDED TIE-IN. THEN TURNED UP TO DAYLIGHT.
- THE TIE-IN POINT IS EXCAVATED. THE CONDUITS CUT OFF WHERE THEY CROSS EACH OTHER AT DESIGN DEPTH, AND A COUPLER IS INSTALLED TO CONNECT THE TWO CONDUITS AT THE DESIGN DEPTH.
- ALL EXCAVATIONS OR TRENCHES 4 FEET OR GREATER IN DEPTH SHALL BE APPROPRIATELY BENCHED, SHORED, OR SLOPED IN OSHA'S EXCAVATION STANDARD, 29 CFR 1926.650, .651, AND .652

HANDHOLE CONSTRUCTION DETAILS, CONDUIT TO HANDHOLE PROFILE FOR R/W CONSTRUCTION

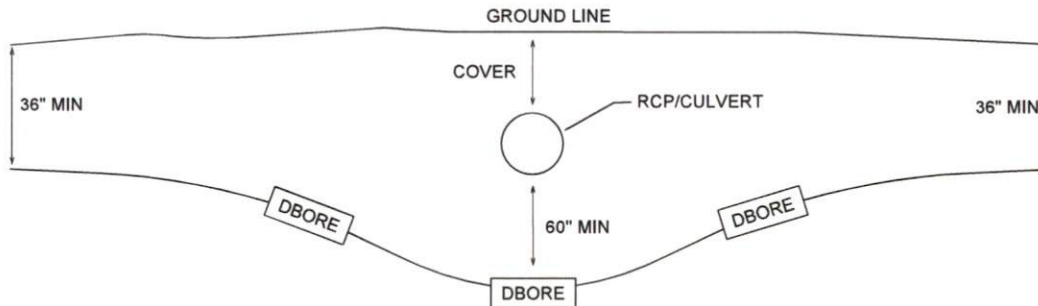
NOT TO SCALE



ALL EXCAVATIONS OR TRENCHES 4 FEET OR GREATER IN DEPTH SHALL BE APPROPRIATELY BENCHED, SHORED, OR SLOPED ACCORDING TO THE PROCEDURES AND REQUIREMENTS SET FORTH IN OSHA'S EXCAVATION STANDARD, 29 CFR 1926.650, .651, AND .652.

CULVERT CROSSING DETAIL

NOT TO SCALE



ENGINEER:

CONTERRA
NETWORKS
Fiber Drives People Powered

CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

TYPICALS

PROJECT MANAGER: BRETT HANNAN (352) 302-5410

PROJECT ENGINEER: ROCKY HODGE

PROJECT NUMBER: P-011265

DESCRIPTION: FREEDOMTECH_P-011265

DRAWING NAME: FreedomTech_P-011265.dwg

SHEET:

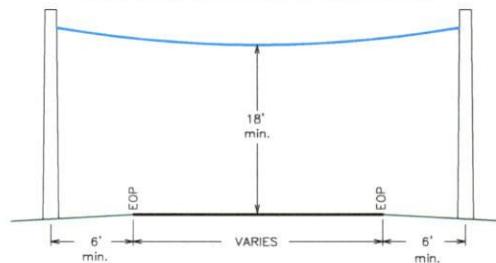
8 of 12

CONFIDENTIAL/PROPRIETARY

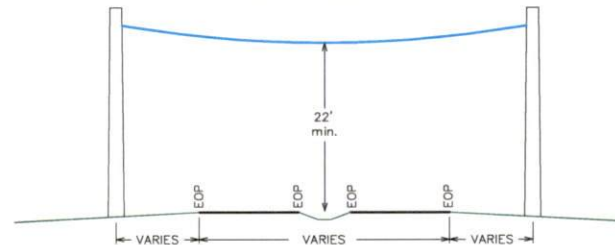
TYPICALS

HIGHWAY CROSSING TYPICALS - VERTICAL PROFILE

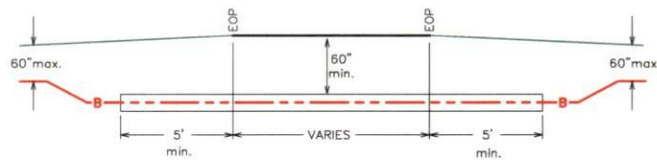
Aerial Clearance Detail - 2 Lane Highway



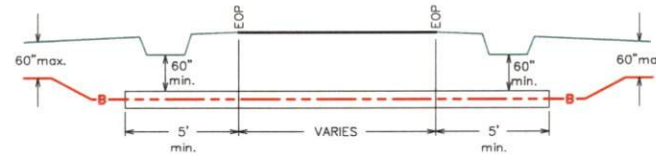
Aerial Clearance Detail - 4 Lane Highway



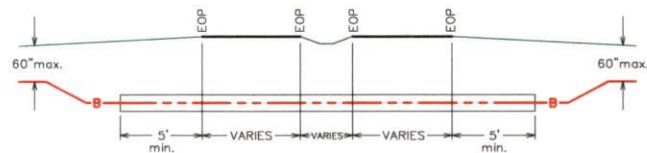
Bore Detail - NO Drainage Ditch Involved



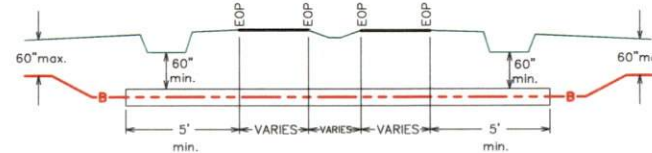
Bore Detail - Drainage Ditch Involved



4-Lane Bore Detail - NO Drainage Ditch Involved



4-Lane Bore Detail - Drainage Ditch Involved



ENGINEER:



CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

TYPICALS

PROJECT MANAGER: BRETT HANNAN (352) 302-5410

PROJECT ENGINEER: ROCKY HODGE

PROJECT NUMBER: P-011265

DESCRIPTION: FREEDOMTECH_P-011265

DRAWING NAME: FreedomTech_P-011265.dwg

SHEET:

9 of 12

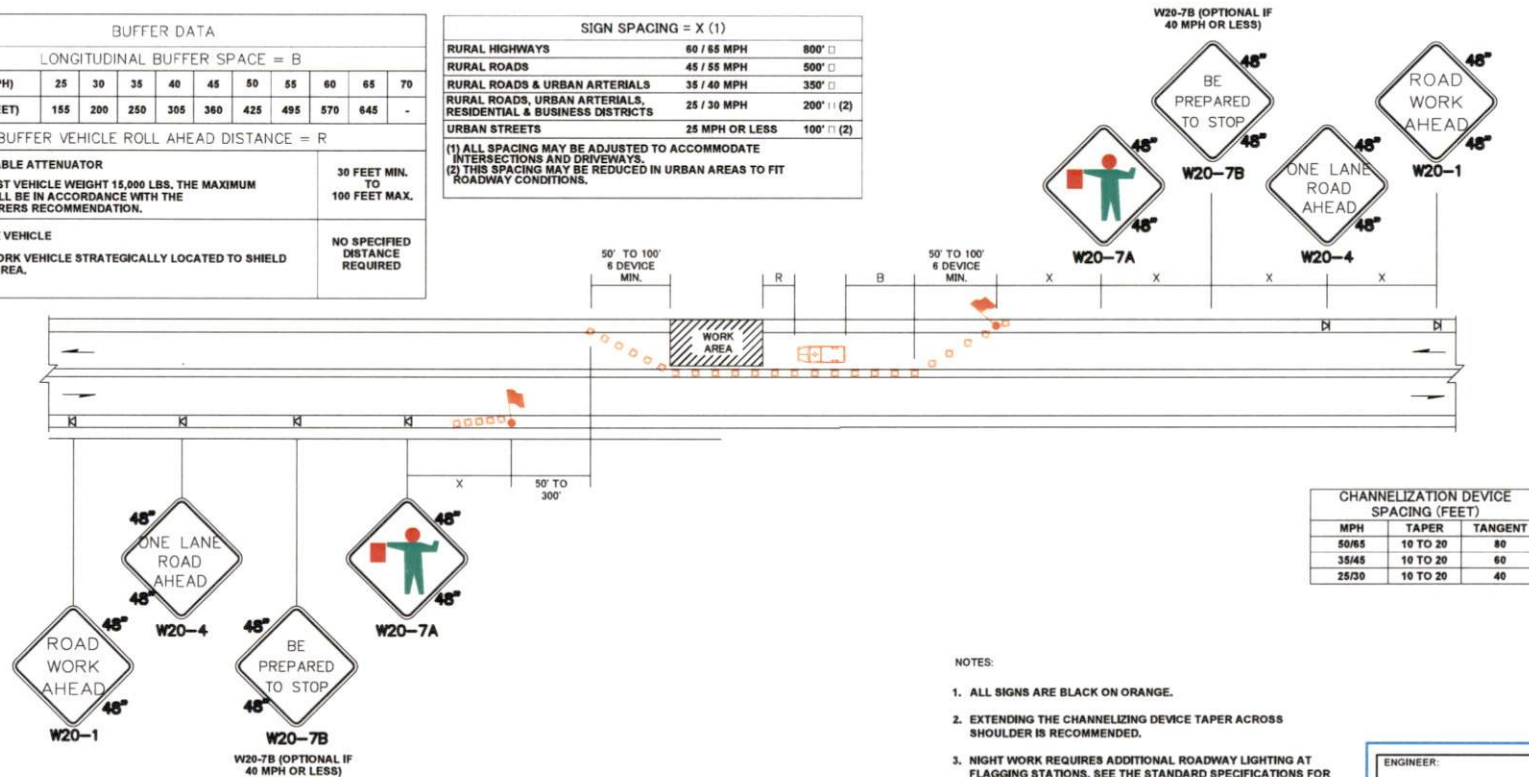
CONFIDENTIAL/PROPRIETARY

TYPICALS

| BUFFER DATA | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|--------------------------------|-----|----|
| LONGITUDINAL BUFFER SPACE = B | | | | | | | | | | |
| SPEED (MPH) | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
| LENGTH (FEET) | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | - |
| BUFFER VEHICLE ROLL AHEAD DISTANCE = R | | | | | | | | | | |
| TRANSPORTABLE ATTENUATOR | | | | | | | | 30 FEET MIN. TO 100 FEET MAX. | | |
| MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION. | | | | | | | | | | |
| PROTECTIVE VEHICLE | | | | | | | | NO SPECIFIED DISTANCE REQUIRED | | |
| MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA. | | | | | | | | | | |

| SIGN SPACING = X (1) | | |
|--|----------------|------------|
| RURAL HIGHWAYS | 60 / 65 MPH | 800' □ |
| RURAL ROADS | 45 / 55 MPH | 500' □ |
| RURAL ROADS & URBAN ARTERIALS | 35 / 40 MPH | 350' □ |
| RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS | 25 / 30 MPH | 200' □ (2) |
| URBAN STREETS | 25 MPH OR LESS | 100' □ (2) |

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



| CHANNELIZATION DEVICE SPACING (FEET) | | |
|--------------------------------------|----------|---------|
| MPH | TAPER | TANGENT |
| 50/65 | 10 TO 20 | 80 |
| 35/45 | 10 TO 20 | 60 |
| 25/30 | 10 TO 20 | 40 |

NOTES:

1. ALL SIGNS ARE BLACK ON ORANGE.
2. EXTENDING THE CHANNELIZING DEVICE TAPER ACROSS SHOULDER IS RECOMMENDED.
3. NIGHT WORK REQUIRES ADDITIONAL ROADWAY LIGHTING AT FLAGGING STATIONS. SEE THE STANDARD SPECIFICATIONS FOR ADDITIONAL DETAILS.
4. SEE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.

| LEGEND | |
|--------|-------------------------|
| | FLAGGING STATION |
| | TEMPORARY SIGN LOCATION |
| | CHANNELIZING DEVICES |
| | PROTECTIVE VEHICLE |

ONE-LANE, TWO-WAY TRAFFIC CONTROL
WITH FLAGGERS
NOT TO SCALE

ENGINEER:

CONTERRA
NETWORKS
Fiber Drives People Forward
CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

SHEET TITLE:

TYPICALS

| | |
|-------------------|-----------------------------|
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011285 |
| DESCRIPTION: | FREEDOMTECH_P-011285 |
| DRAWING NAME: | FreedomTech_P-011285.dwg |

SHEET:

10 of 12

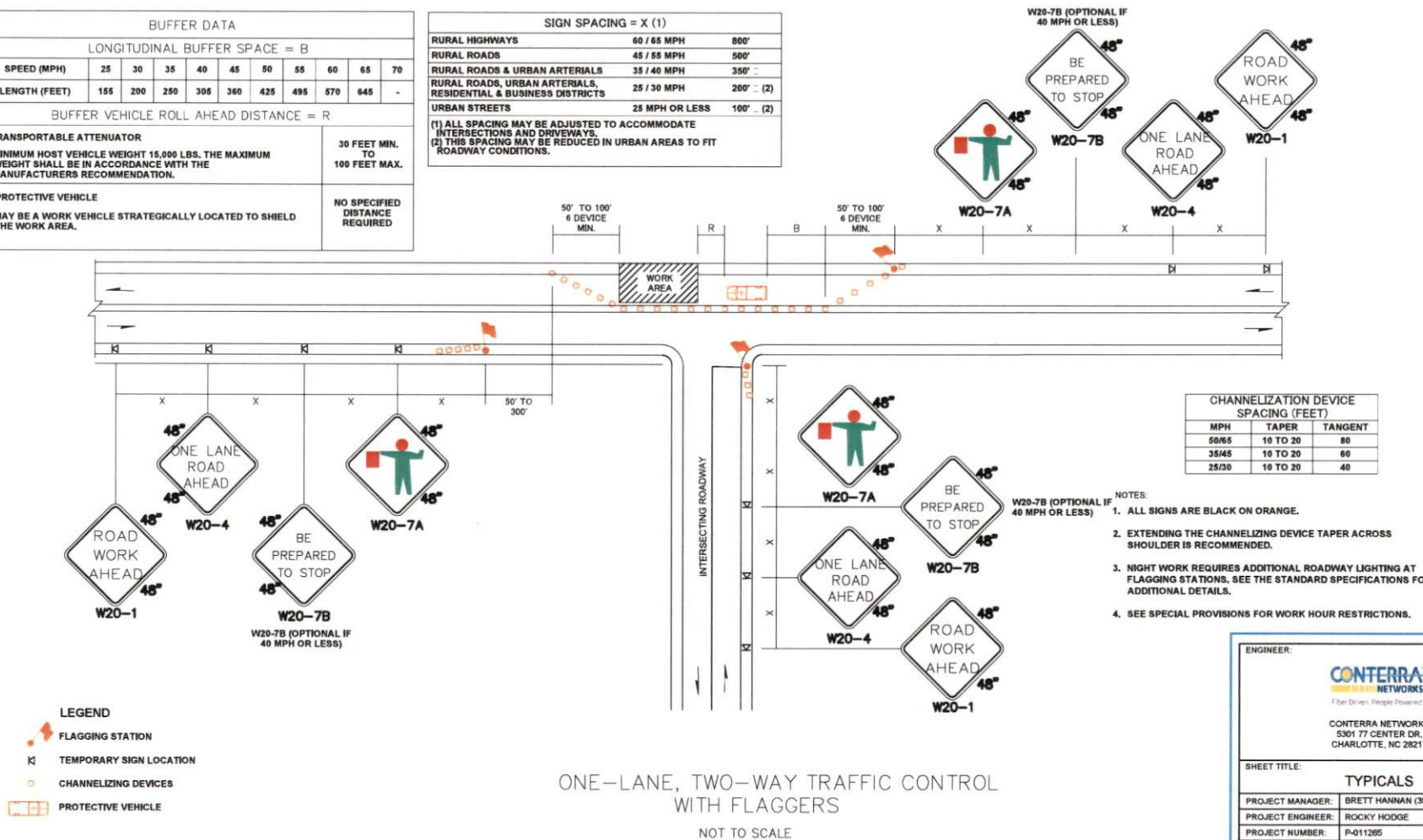
CONFIDENTIAL/PROPRIETARY

TYPICALS


| BUFFER DATA | | | | | | | | | | |
|--|-----|-----|-----|-----|-----|--------------------------------|-----|-----|-----|----|
| LONGITUDINAL BUFFER SPACE = B | | | | | | | | | | |
| SPEED (MPH) | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
| LENGTH (FEET) | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | - |
| BUFFER VEHICLE ROLL AHEAD DISTANCE = R | | | | | | | | | | |
| TRANSPORTABLE ATTENUATOR | | | | | | 30 FEET MIN. TO 100 FEET MAX. | | | | |
| MINIMUM HOST VEHICLE WEIGHT 15,000 LBS. THE MAXIMUM WEIGHT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. | | | | | | | | | | |
| PROTECTIVE VEHICLE | | | | | | NO SPECIFIED DISTANCE REQUIRED | | | | |
| MAY BE A WORK VEHICLE STRATEGICALLY LOCATED TO SHIELD THE WORK AREA. | | | | | | | | | | |

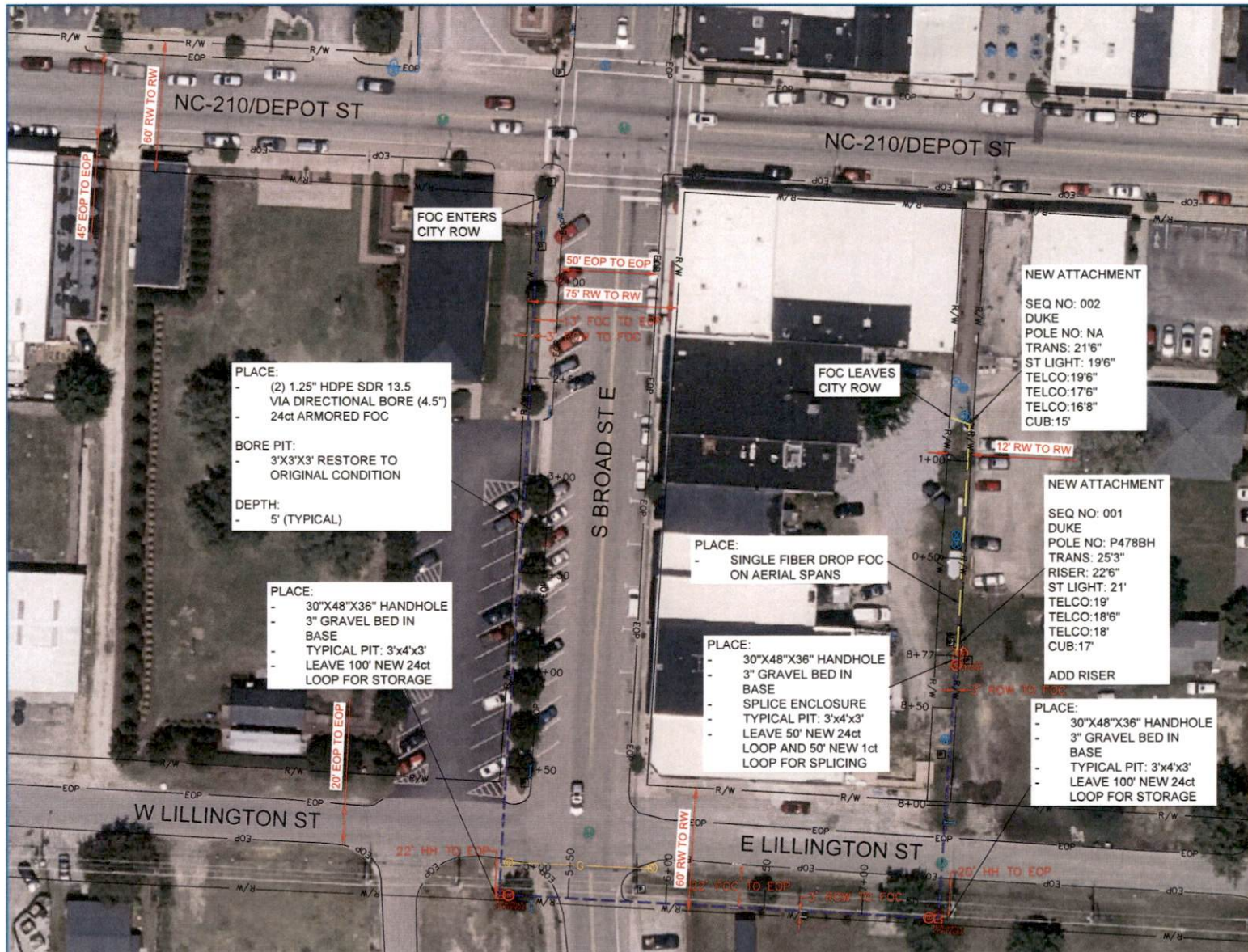
| SIGN SPACING = X (1) | | |
|--|----------------|----------|
| RURAL HIGHWAYS | 60 / 65 MPH | 800' |
| RURAL ROADS | 45 / 55 MPH | 500' |
| RURAL ROADS & URBAN ARTERIALS | 35 / 40 MPH | 350' |
| RURAL ROADS, URBAN ARTERIALS, RESIDENTIAL & BUSINESS DISTRICTS | 25 / 30 MPH | 200' (2) |
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(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.



ONE-LANE, TWO-WAY TRAFFIC CONTROL WITH FLAGGERS
NOT TO SCALE

| | |
|--|-----------------------------|
| ENGINEER: | |
|  Fiber Driven. People Powered. CONTERRA NETWORKS 5301 77 CENTER DR. CHARLOTTE, NC 28217 | |
| SHEET TITLE: | |
| TYPICALS | |
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011265 |
| DESCRIPTION: | FREEDOMTECH_P-011265 |
| DRAWING NAME: | FreedomTech_P-011265.dwg |
| SHEET: | |
| 11 of 12 | |
| CONFIDENTIAL/PROPRIETARY | |



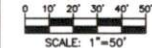
UTILITY OWNER:



Fiber Driven. People Powered.

CONTERRA NETWORKS
5301 77 CENTER DR.
CHARLOTTE, NC 28217

CONSTRUCTION NOTES



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

| REV | DESCRIPTION | DATE |
|-----|-------------|------|
| | | |
| | | |
| | | |

SHEET TITLE: PROJECT SHEET

| | |
|-------------------|-------------------------------|
| PROJECT MANAGER: | BRETT HANNAN (352) 302-5410 |
| PROJECT ENGINEER: | ROCKY HODGE |
| PROJECT NUMBER: | P-011265 |
| DESCRIPTION: | FREEDOMTECH_P-011265 |
| DRAWING NAME: | FreedomTech_P-011265 CITY.dwg |

SHEET:

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CONFIDENTIAL/PROPRIETARY