

SEE SHEET 2 FOR  
INDEX OF SHEETS,  
GENERAL NOTES,  
AND  
COMMITMENTS

**Project Description:**

Proposed residential network buildout.

**Geographic Information:**

State: Illinois  
County: McHenry  
City: Lake in the Hills

**List of Permitting Authorities:**

1. City of Lake in the Hills

i3Broadband - Engineering Department  
PHONE: (309) 670-0400 ext. 400  
EMAIL: [engineering@i3broadband.com](mailto:engineering@i3broadband.com)

Project Designer: **Joe Carrington**  
Const. Manager: **Laurie MacDonald**  
Market Manager: **Coty Keosprasa**

**811**  
FOR LOCATING SERVICES  
CALL: (800) 892-0123 (IL)  
(800) 344-7483 (MO)  
or 811 (US)



# PLANS FOR PROPOSED FIBER INSTALLATION

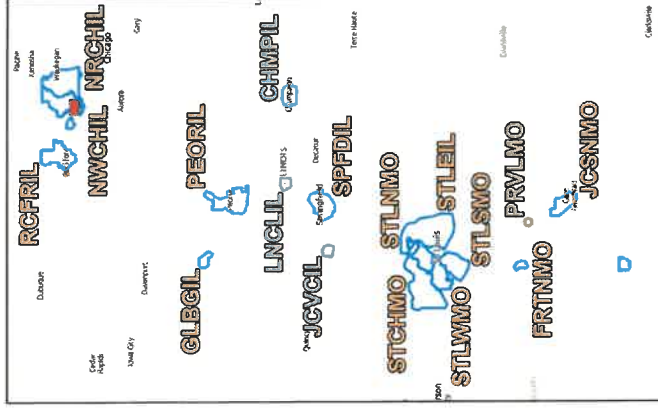
**Market:** NWCHIL

**Chassis:** NWCHILMXKC03

**Sector:** NWCHIL2052

**Bore Footage:** 9613

**Passings:** 208



**SUBMITTED  
FOR PERMITTING**

Printed: 12/17/2024  
Time: 9:55 PM

## INDEX OF SHEETS

CI	Cover Sheet
N1	Index, General Notes, and Commitments Sheet
DT1	Typical Vault Details Sheet
DT2	Typical Vault Installation Details Sheet
LI	Symbol Reference Legend Sheet
POL	Project Overview Map
DI - D4	Duct and Vault Installation Maps
FI - F4	Fiber Installation Maps
DDOT Highway Standards	
70101-02	Off-Road Operations, 24" 2W More Than 15ft Away
70105-05	Off-Road Operations, 24" 2W, 15ft to 24in from Pavement Edge
70101-09	Traffic Control Devices

## GENERAL PLAN NOTES

1. These notes shall be applicable to all operations performed under this contract, except when they conflict with any SPECIAL PERMIT COMMITMENTS (SEE THIS SHEET). In such cases, the notes in that section shall supercede these notes.
2. All care should be taken to mitigate damage to existing utilities. OneCall shall be contacted before any boring or excavation.
3. Note that handholes drawn on the shared lot line can be adjusted to either side of the lot line as necessary, which is standard on i3Broadband prints. Handholes that are shifted to one side of a lot line need to be placed on that side of the lot line, generally to comply with an easement, or to avoid a driveway or large tree.
4. Construction change order requests shall be coordinated with the appropriate i3 Construction Department Representative and CLEARLY DOCUMENTED ON THESE PLANS AS RED-LINED AS-BUILT DRAWINGS.
5. Any damage to adjacent properties caused by construction operations within the work area shall be fully restored to their ORIGINAL CONDITION.
6. Dimensions (approximate, in feet) shown generally indicate total Right-of-Way width, or Utility Easement width relative to nearest lot line. Rights-of-Way and Utility Easements are not necessarily uniform (i.e. not split evenly a cross street centerline or property line). Contact i3 as needed for clarity.
7. SLACK NOTES:
  - All taps are to have 4' of slack at the head, 55' at the splice case, and no slack storage anywhere else.
  - Mainline cable to have 55' at all ends/cut points and 110' at all #3 or larger handholes where cable is uncut.
  - Any other abnormalities will be noted on prints.
8. The CONTRACTOR shall be required to comply with all Federal, State, and Local laws/ordinances, in addition to all i3Broadband contract documents.

**SUBMITTED  
FOR PERMITTING**

## SPECIAL PERMITTING COMMITMENTS



RESERVED  
FOR SHEET  
NORTH ARROW  
AND SCALE

### PROJECT ENGINEER:

Joe Carrington

### REVISIONS

/ /24 | No. \_\_\_\_\_

/ /24 | No. \_\_\_\_\_

/ /24 | No. \_\_\_\_\_

/ /24 | No. \_\_\_\_\_

/ /24 | No. \_\_\_\_\_

PROPOSED FIBER INSTALLATION PLANS

INDEX, GENERAL NOTES, AND COMMITMENTS

SECTOR: NWC/HIL2052

Printed: 12/17/2024  
Time: 10:08 PM

SHEET:

**N1**



RESERVED  
 FOR SHEET  
 NORTH ARROW  
 AND SCALE

PROJECT ENGINEER:  
 Joe Carrington

REVISIONS

/	/	24		No.
/	/	24		No.
/	/	24		No.
/	/	24		No.
/	/	24		No.

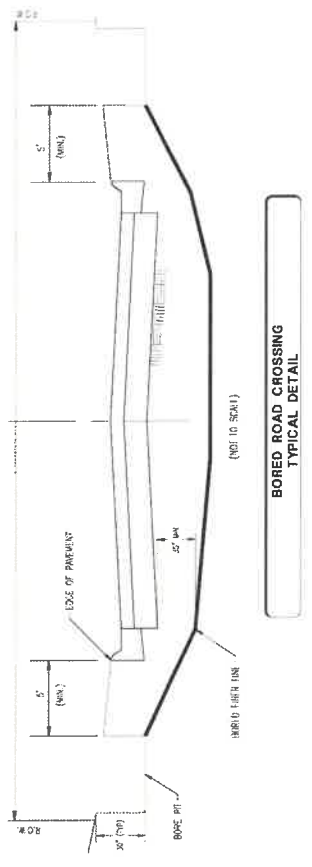
Time: 10:10 PM  
 Printed: 12/17/2024

SECTOR: NWCHIL2052

SHEET: DT2

PROPOSED FIBER INSTALLATION PLANS  
 TYPICAL VAULT INSTALLATION DETAILS

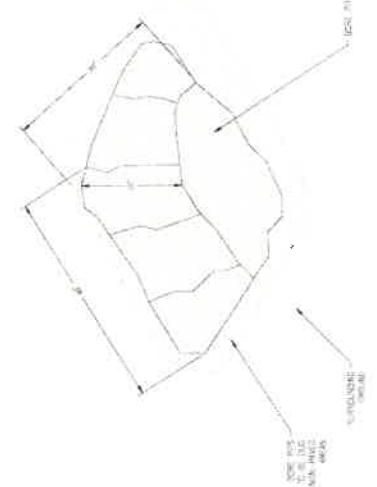
**SUBMITTED FOR PERMITTING**



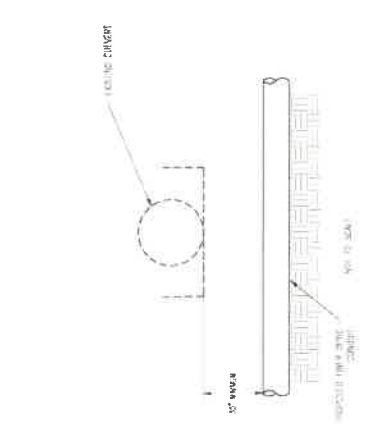
**BORED ROAD CROSSING  
 TYPICAL DETAIL**

- NOTES
1. DUCT TO BE CONCRETE WITH SLOPE ABOVE A MINIMUM OF 1% TO THE RIGHT OF ROAD CROSSING. FIBER OPTIC CABLES TO BE PROTECTED BY 2" POLYETHYLENE GLASS FIBER REINFORCED CONCRETE (FRCC) OVER THE ENTIRE LENGTH OF THE DUCT.
  2. DISTANCE FROM PAVEMENT TO CENTER OF DUCT SHALL BE 18" MIN.
  3. DISTANCE FROM PAVEMENT TO CENTER OF DUCT SHALL BE 18" MIN.

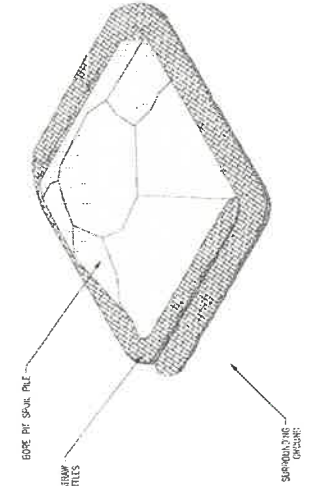
- ADDITIONAL NOTES
1. CONTRACTOR TO APPLY FOR PERMITS FROM CITY PRIOR TO CONSTRUCTION.
  2. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH SPECIFICATIONS.
  3. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH SPECIFICATIONS.
  4. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH SPECIFICATIONS.
  5. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH SPECIFICATIONS.



- NOTES
1. EROSION CONTROL SHALL BE INSTALLED WITHIN 10' OF THE PERIMETER OF THE VAULT.
  2. SURROUNDING DRAINAGE SHALL BE MAINTAINED AND NOT OBSTRUCTED.
  3. DISTANCE FROM PAVEMENT TO CENTER OF VAULT SHALL BE 18" MIN.
  4. DISTANCE FROM PAVEMENT TO CENTER OF VAULT SHALL BE 18" MIN.
  5. DISTANCE FROM PAVEMENT TO CENTER OF VAULT SHALL BE 18" MIN.



**FIBER OPTIC CONDUIT AND CULVERT SEPARATION  
 TYPICAL VERTICAL SEPARATION**



- NOTES
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
  2. FIBER OPTIC CABLES SHALL BE PROTECTED BY 2" POLYETHYLENE GLASS FIBER REINFORCED CONCRETE (FRCC) OVER THE ENTIRE LENGTH OF THE DUCT.
- SPECIFICATIONS
1. THE VAULT SHALL BE CONSTRUCTED OF 12" DIA. PRECAST CONCRETE RINGS WITH 1" DIA. REINFORCING BARS AT 12" ON CENTER. THE VAULT SHALL BE 20' DIA. AND 4' HIGH. THE VAULT SHALL BE 20' DIA. AND 4' HIGH. THE VAULT SHALL BE 20' DIA. AND 4' HIGH.

**EROSION & SEDIMENT CONTROL  
 BORE PIT SPOIL PILE**

# SYMBOL REFERENCE LEGEND

## CONSTRUCTION

- Duct/Conduit**
- Primary
  - Secondary
  - Third Order
  - Fourth Order
  - In Building
  - Call other notes
- Shelters**
- Shelters

- Cabinets**
- Cabinets
- Vaults/Handholes**
- Pedestrian Rated**
- Unknown Size (Pedestrian)
  - HH 1 (12x12 or eq.)
  - HH 1 (16x14 or eq.)
  - HH 2 (16x20 or eq.)
  - HH 3 (16x30 or eq.)
  - HH 4 (24x30 or eq.)
- Tier 15 Rated**
- Unknown Size (Tier Rated)
  - HH 1 (16x14 or eq.)
  - HH 2 (16x20 or eq.)
  - HH 3 (16x30 or eq.)
  - HH 4 (24x30 or eq.)
  - HH 5 (24x36 or eq.)
  - HH 6 (36x36 or eq.)
  - HH 12 (36x48 or eq.)
  - HH 15 (48x48 or eq.)
  - HH 16 (64x48 or eq.)

- Additional Cable Slack**
- Additional Cable Slack
- Taps**
- 2 Ports
  - 4 Ports
  - 6 Ports
  - 8 Ports
  - 12 Ports
- Unknown/Other**
- Unknown Type/Size (To Demat, See Notes)

## Building Terminations (OFDCs)

- Building Terminations (OFDC)

## Cable Terminations

- Cable Terminations

## Duct Terminations

- Buried Endcap
- Subbed Above Ground (Bkg, Termination)
- Well Box
- Other/Unknown

## INSTALLED

- Duct/Conduit**
- Primary
  - Secondary
  - Third Order
  - Fourth Order
  - In Building
  - Call other notes
- Shelters**
- Shelters

- Cabinets**
- Cabinets
- Vaults/Handholes**
- Pedestrian Rated**
- Unknown Size (Pedestrian)
  - HH 0 (12x12 or eq.)
  - HH 1 (16x14 or eq.)
  - HH 2 (16x20 or eq.)
  - HH 3 (16x30 or eq.)
  - HH 4 (24x30 or eq.)
  - HH 6 (24x36 or eq.)
- Tier 15 Rated**
- Unknown Size (Tier Rated)
  - HH 0 (12x12 or eq.)
  - HH 1 (16x14 or eq.)
  - HH 2 (16x20 or eq.)
  - HH 3 (16x30 or eq.)
  - HH 4 (24x30 or eq.)
  - HH 12 (36x48 or eq.)
  - HH 15 (48x48 or eq.)
  - HH 16 (64x48 or eq.)

- Additional Cable Slack**
- Additional Cable Slack
- Taps**
- 2 Ports
  - 4 Ports
  - 6 Ports
  - 8 Ports
  - 12 Ports
- Unknown/Other**
- Unknown Type/Size (To Demat, See Notes)

## Building Terminations (OFDCs)

- Building Terminations (OFDC)

## Cable Terminations

- Cable Terminations

## Duct Terminations

- Buried Endcap
- Subbed Above Ground (Bkg, Termination)
- Well Box
- Other/Unknown

## MISC.

- Utility Easement**
- Utility Easement
- Parcels**
- Duct and Vault Installation Maps
  - Fiber Installation Maps
- Sector Boundaries**
- Cover & Index Map (Project)
  - Index Map (All)
  - Project Sector
  - Non Project Sector

- Drop Arrows**
- Drop Arrow (table)
- Index Sheet Borders**
- Project Sheet Boundaries

**Splice Cases**

- Type A
- Starlighter 2000
- 3M
- Type B
- Type B (No Grounding)
- Type C
- Coyote
- Type D
- Type D (No Grounding)
- Gear (Field Repair)

**Internal Taps**

- 2 Ports
- 4 Ports
- 6 Ports
- 8 Ports
- 12 Ports

**Splitters**

- Cells
- Zone
- Unknown

**Additional Cable Slack**

- Additional Cable Slack

**Taps**

- 2 Ports
- 4 Ports
- 6 Ports
- 8 Ports
- 12 Ports

**Mainline Cables**

- 1F
- 4F
- 8F
- 12F
- 24F
- 48F
- 72F
- 96F
- 144F
- 216F
- 288F
- 432F

**SUBMITTED FOR PERMITTING**



Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



**13 Broadband**  
 602 High Point Lane  
 East Peoria, Illinois  
 (309) 670-0400 ext. 400  
 lbroadband.com



SCALE: 1 INCH = 50 FEET  
 1" = 50'  
 1/4" = 12.5'  
 1/8" = 6.25'  
 1/16" = 3.125'

1. See Sheet D71 for typical road crossing and box pit details.  
 2. Method of grade installation shall be either Directional Bore or Auger Bore, UNLESS otherwise specified. ALL TRENCHES OR SPECIAL INSTALLATIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE ILLINOIS STATE SPECIFICATIONS FOR CONSTRUCTION (2019 Edition) (Sheet N1).  
 3. Additional conduit locations (other than fiber) are shown offset for representation purposes only. All other utilities shall be shown as they exist on the ground. All utility lines shall be shown as they exist on the ground. All utility lines shall be shown as they exist on the ground.

PROJECT ENGINEER:  
 Joe Carrington

REVISIONS	
/ 724 / No.	
/ 724 / No.	
/ 724 / No.	
/ 724 / No.	
/ 724 / No.	

PROPOSED FIBER INSTALLATION PLANS  
 FIBER INSTALLATION PLAN MAPS  
 Printed: 12/17/2024  
 Time: 9:57 PM

SECTOR: NWCHILL2052

SHEET: D1

**SUBMITTED FOR PERMITTING**

Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.

**Broadband**  
 602 High Point Lane  
 East Peoria, Illinois  
 (309) 670-9400 ext. 400  
 ibroadband.com

**SCALE: 1"=50' @ 11" X 17" SHEET**  
 0 25 50 75 100 FEET

- SHEET NOTES:**  
 1. See Sheet 017 for typical road crossing and bore pit details.  
 2. Method of conduit installation shall be determined by field conditions. UTILITIES shown on this plan are for informational purposes only. UTILITIES NOT SHOWN ON THIS PLAN ARE THE RESPONSIBILITY OF THE CLIENT. SPECIAL PERMITTING REQUIREMENTS (See Sheet 017).  
 3. Additional conduit locations (other than those shown) shall be determined by field conditions. UTILITIES NOT SHOWN ON THIS PLAN ARE THE RESPONSIBILITY OF THE CLIENT. SPECIAL PERMITTING REQUIREMENTS (See Sheet 017).

**PROJECT ENGINEER:**  
 Joe Carrington

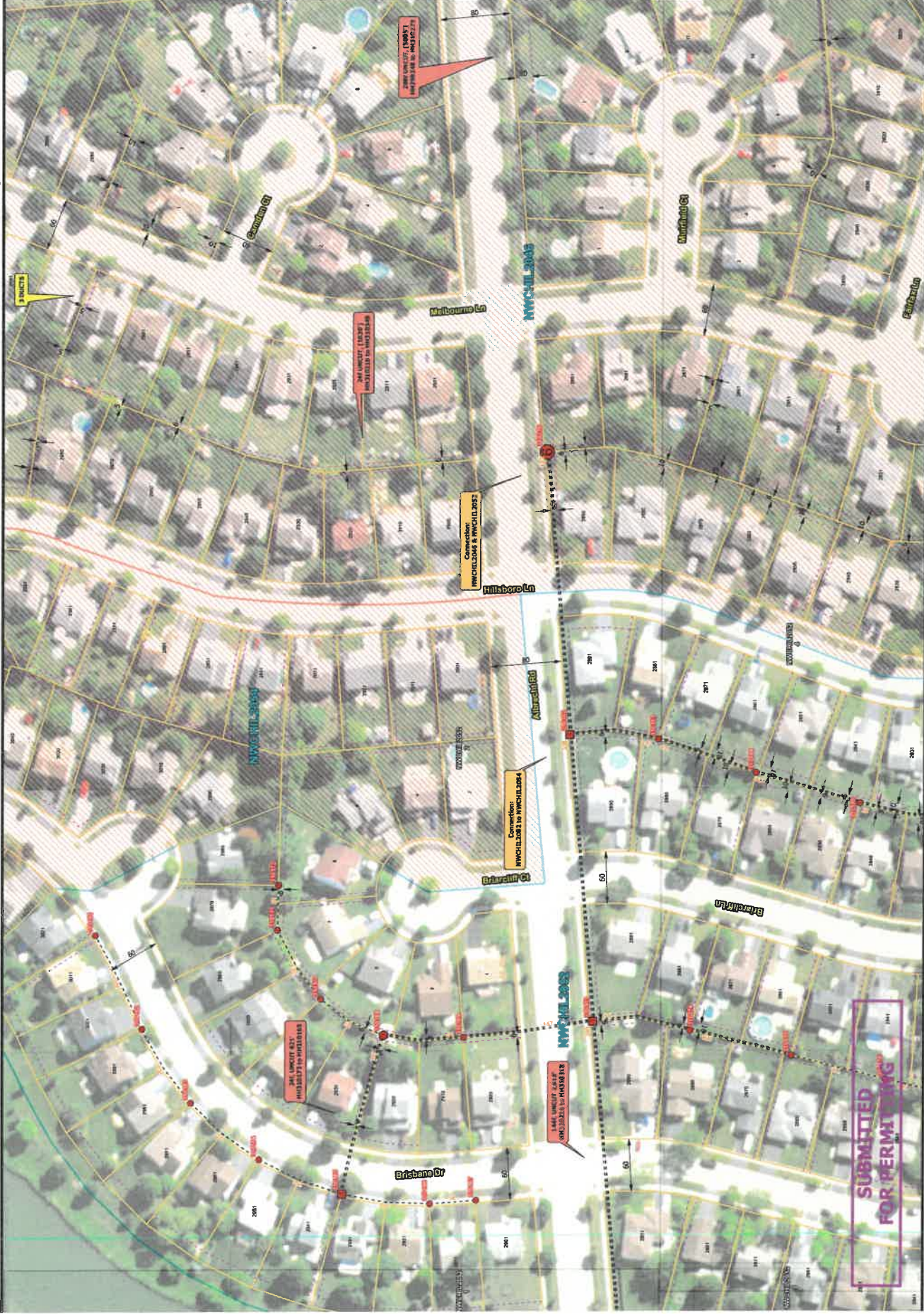
REVISIONS	
/ 24   No.	
/ 24   No.	
/ 24   No.	
/ 24   No.	
/ 24   No.	

**PROPOSED FIBER INSTALLATION PLANS**  
**FIBER INSTALLATION PLAN MAPS**  
 Printed: 12/17/2024  
 Time: 9:57 PM

SECTOR: NWCHIL2052

D2

SHEET:



**SUBMITTED FOR PERMITTING**

© 2024 Broadband. All rights reserved. This document is the property of Broadband and is not to be distributed, copied, or reproduced without the written permission of Broadband.

Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



**Broadband**  
 602 High Point Lane  
 East Peoria, Illinois  
 (309) 670-9400 ext. 400  
 info@broadband.com

SCALE: 1"=20' (AS SHOWN)  
 PCS USA CONSULTING ENGINEERS

**SHEET NOTES:**  
 1. Method of conduit installation shall be as shown on the drawings.  
 2. See Sheet DT for typical road crossing and bore pit details.  
 3. Additional conduit locations (other than those shown) shall be approved by the City Engineer. Additional ducts shall follow the same general bore-path as the Primary Duct.  
 SPECIAL PERMITTING CONSIDERATIONS (SEE SHEET 02)

**PROJECT ENGINEER:**  
 Joe Carrington

**REVISIONS**

/	7/24	No.	
/	7/24	No.	
/	7/24	No.	
/	7/24	No.	

**PROPOSED FIBER INSTALLATION PLANS**  
**FIBER INSTALLATION PLAN MAPS**  
 Printed: 12/17/2024  
 Time: 9:58 PM

SECTOR: NWCHILL2052

SHEET: **D3**

**SUBMITTED FOR PERMITTING**

\\P01\BATH: C:\Users\joe@carrington.com\Documents\10 - NWCHILL2052\01\_Template\_V1.dwg (12/17/2024)



Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.

**b3 Broadband**  
 602 High Point Lane  
 East Peoria, Illinois  
 (309) 670-0400 ext. 400  
 lbroadband.com

SCALE: 1" = 30' FEET  
 0 30 60 90 120 Feet

- NOTES:  
 1. Fiber cables and splices are shown as offset from proposed conduit for drainage considerations. Fiber shall be located in accordance with manufacturer's instructions.  
 2. Conduit shall be installed in accordance with manufacturer's instructions.  
 3. See Sheet #11 for installed fiber cable sizes and requirements.

PROJECT ENGINEER:  
 Joe Carrington

REVISIONS
/ 7/4   No. _____
/ 7/4   No. _____
/ 7/4   No. _____
/ 7/4   No. _____

PROPOSED FIBER INSTALLATION PLANS  
 FIBER INSTALLATION PLAN MAPS  
 Printed: 12/17/2024  
 Time: 10:34 PM

SECTOR: NWCHIL2052

SHEET: **F1**



**SUBMITTED FOR PERMITTING**





Facilities leaving project boundaries shown only for reference. Only facilities entirely inside of project boundaries to be considered part of the project scope unless otherwise specified.



**SUBMITTED FOR PERMITTING**

PROJECT: C:\Users\jcamp\Desktop\07\_Terrace\_M\_VF\_NWCHILL2052\07\_Terrace\_M\_VF\03\_Terrace\_M\_VF.dwg