

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

**Project Description:**

Proposed residential network build-out

**Geographic Information:**

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

**List of Permitting Authorities:**

1. Lake in the Hills



# PLANS FOR PROPOSED FIBER INSTALLATION

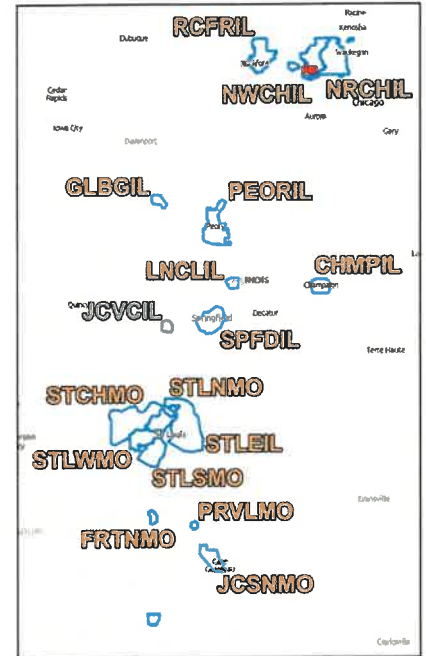
**Market:** NWCHIL

**Chassis:** NWCHILMXKC03

**Sector:** NWCHIL2054

**Bore Footage:** 6911

**Passings:** 127



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

Project Designer: **Sophie Gibson**  
Const. Manager: **Nemanja Stanojevic**  
Market Manager: **Coty Keosprasa**



Know what's below.  
Call before you dig.

FOR LOCATING SERVICES  
CALL: (800) 892-0123 (IL)  
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or 811 (US)

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## INDEX OF SHEETS

C1	Cover Sheet
N1	Index, General Notes, and Commitments Sheet
DT1	Typical Vault Details Sheet
DT2	Typical Vault Installation Details Sheet
L1	Symbol Reference Legend Sheet
PO1	Project Overview Map
D1 - D3	Duct and Vault Installation Maps
F1 - F3	Fiber Installation Maps

## SPECIAL PERMITTING COMMITMENTS

Lake in the Hills:

- 1.
- 2.
- 3.
- 4.
- 5.

## 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 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.

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602 High Point Lane  
East Peoria, Illinois  
(309) 670-0400 ext. 400  
i3broadband.com

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FOR SHEET  
NORTH ARROW  
AND SCALE

PROJECT ENGINEER:

Sophie Gibson

REVISIONS

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

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

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

**PROPOSED FIBER INSTALLATION PLANS**

**INDEX, GENERAL NOTES, AND COMMITMENTS**

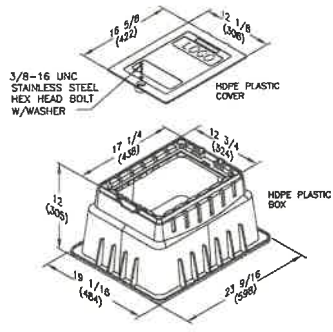
**SECTOR: NWCHIL2054**

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Time: 11:51 AM

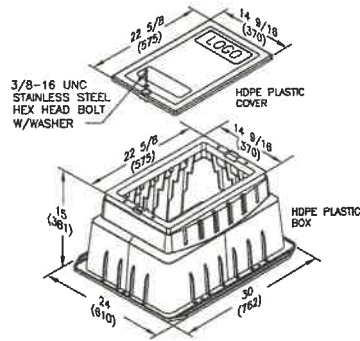
SHEET:

**N1**

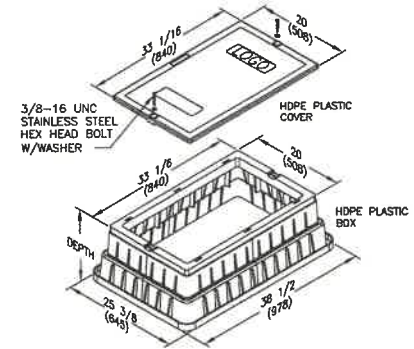
# TYPICAL VAULT (HANDHOLE) DETAILS



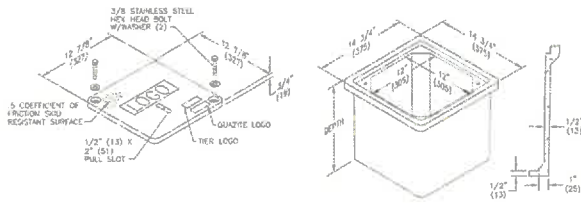
**HH1 (PED RATED) (PE-14 or Eq.)**



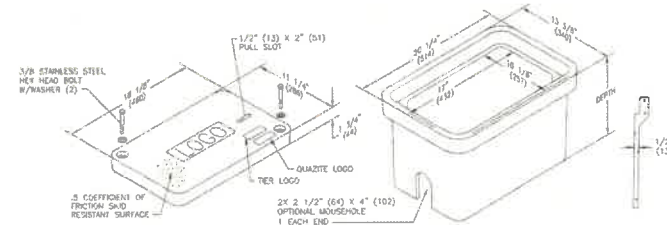
**HH2 (PED RATED) (PE-20 or Eq.)**



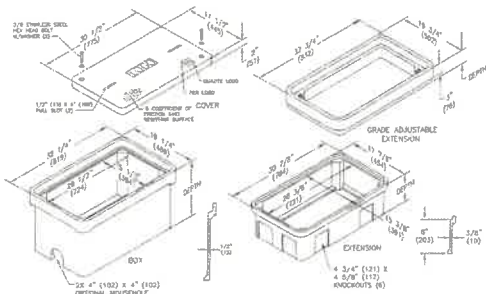
**HH3 (PED RATED) (PE-30 or Eq.)**



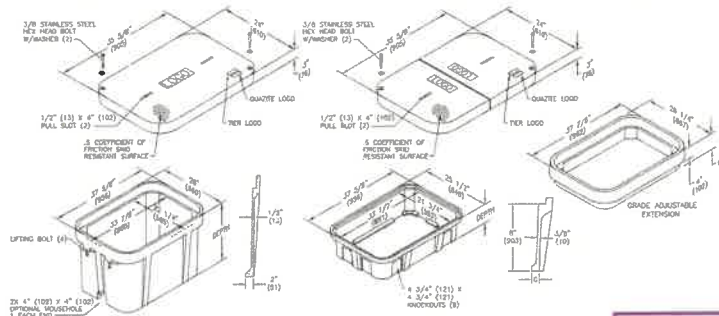
**HH0 (TIER15 RATED)**



**HH1 (TIER15 RATED) (QUAZITE 11x18 or Eq.)**



**HH3 (TIER15 RATED) (QUAZITE 17x30 or Eq.)**



**HH6 (TIER15 RATED) (QUAZITE 24x36 or Eq.)**

Note: Dimensions shown on this sheet represent typical vault/handhole configurations based on Broadband's preferred manufacturer specifications. Minor variations in dimensions may exist between various vault/handhole manufacturers.

**SUBMITTED FOR PERMITTING**

RESERVED FOR SHEET NORTH ARROW AND SCALE

PROJECT ENGINEER:  
Sophie Gibson

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

**PROPOSED FIBER INSTALLATION PLANS**

**TYPICAL VAULT (HANDHOLE) DETAILS**

Printed: 2/6/2025  
Time: 11:53 AM

SECTOR: NWCHEIL2054

SHEET:

**DT1**

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PROJECT ENGINEER:

Sophie Gibson

REVISIONS

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

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**PROPOSED FIBER INSTALLATION PLANS**

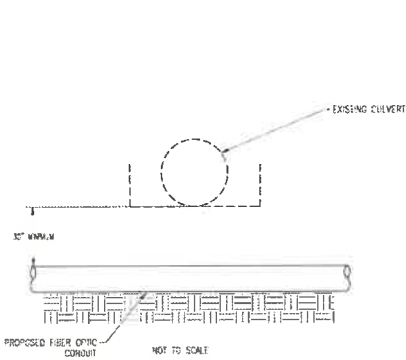
**TYPICAL VAULT INSTALLATION DETAILS**

Printed: 2/6/2025  
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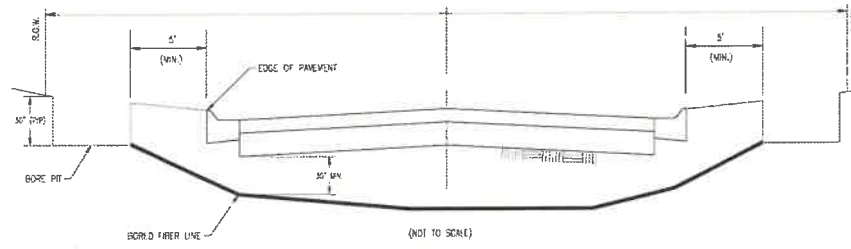
SECTOR: NWCHIL2054

SHEET:

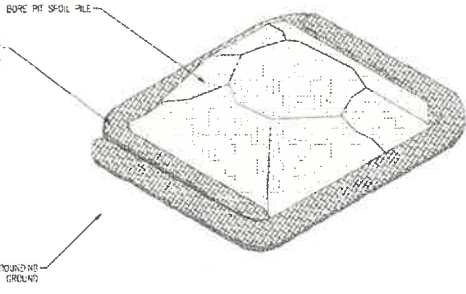
**DT2**



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



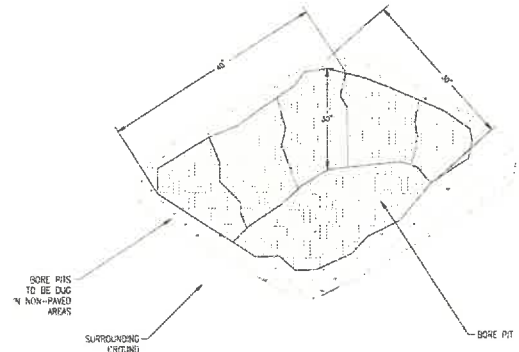
NOTES  
 1. DETAIL TO BE CONSULTED WHEN PLANS INDICATE A HANDHOLE ON EITHER SIDE OF A ROAD CROSSING. IF A HANDHOLE IS INDICATED ON ONLY ONE SIDE OF THE ROADWAY, THE BORE MAY CONTINUE BEYOND THE CROSSING. DISTANCES AND SETTINGS AS SHOWN ON THE DETAIL ARE STILL APPLICABLE.



NOTES:  
 1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.  
 2. FIBER ROLLS SHOULD BE INSTALLED AFTER EVERY SIGNIFICANT STORM EVENT TO CLEAR AND DISPOSE OF SEDIMENT AND DEBRIS.

SPECIFICATIONS:  
 WATTLE SHALL BE A STRAW-FILLED TUBE OF FLEXIBLE NETTING MATERIAL. IT SHALL BE A MACHINE PRODUCED TUBE OF COMPACTED HIGH STRENGTH THAT IS CLOTHED WITH FIBER FORMED BY A MANUFACTURER WHOSE PRODUCT BEING USED IS WATTLE MANUFACTURED THE NETTING SHALL CONSIST OF SEAMLESS, HIGH DENSITY POLYETHYLENE, AND 100% 100% AGRI-FIBER AND CONTAIN ULTRAVIOLET LIGHT INHIBITORS. THE WATTLE SHALL HAVE A MINIMUM MASS PER UNIT VOLUME OF 1.6 LBS/FT<sup>3</sup>, A MINIMUM DIAMETER OF 2.0 - 9.0 INCHES, A MINIMUM NET STRAND THICKNESS OF 0.025 INCHES, A MINIMUM NET HOLE THICKNESS OF 0.025 INCHES AND A MINIMUM NETTING LINE WEIGHT OF 0.35 LBS/SPYD. THE SEDIMENT RETENTION CAPACITY OF THE WATTLE SHALL BE 30 LBS/SPYD. FIBER CONTENT SHALL BE 100 PERCENT CERTIFIED RICE STRAW WITH A MINIMUM LENGTH OF 3.0.

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



NOTES:  
 1. BORE PITS TO BE REQUIRED ON HH3 (PE-30 OR EO) AND LARGER HANDHOLES  
 2. EROSION AND SEDIMENT CONTROL, FOR BORE PITS PER STANDARD DETAIL.  
 3. BORE PITS TO BE DUG IN NON-PAVED AREAS ONLY. DISTANCE FROM PAVEMENT PER CITY ORDINANCE, NOT TO BE LESS THAN 5 FEET. NO CURB RAISES MAY BE DISRUPTED.  
 4. IF BORE PITS IN PAVED AREAS ARE UNAVOIDABLE, CONTRACTOR TO COORDINATE WITH ENGINEER AND CITY ON EROSION AND RESTORATION REQUIREMENTS.  
 5. BORE PIT TO BE EXCAVATED NO MORE THAN 48 HOURS IN ADVANCE OF BORING OPERATIONS. BORE PIT SHALL BE BACKFILLED WITHIN 48 HOURS OF COMPLETION OF BORING OPERATION AND INSTALLATION OF HANDHOLE.

ADDITIONAL NOTES  
 1. CONTRACTOR TO APPLY FOR EROSION CONTROL PERMITS TO CITY PRIOR TO CONSTRUCTION.  
 2. ALL AREAS DISTURBED BY CONSTRUCTION TO BE REHABILITATED AS SHOWN WITH LINE MARKINGS.  
 3. RESTORATION TO UNPAVED/GRASSY AREAS SHALL BE AS FOLLOWS:  
 1. TOPSOIL REMOVED DURING DISTURBANCE SHALL BE SALVAGED.  
 2. UPON BACKFILLING OF EXCAVATION, PROVIDE 4" TOPSOIL AT SURFACE.  
 3. PROVIDE CLASS A SEED AND FERTILIZER PER DOT ROAD AND BRIDGE CONSTRUCTION SPECIFICATIONS.  
 4. COVER AREAS WITH NAD DS 75 EROSION CONTROL BLANKET, OR APPROVAL EQUAL.  
 A. BLANKET TO EXTEND MINIMUM OF 6' BEYOND AREA TO BE RESTORED.  
 B. BLANKET TO BE ANCHORED PER MANUFACTURER'S REQUIREMENTS.  
 C. ANY BLANKET OVERLAPS SHALL BE A MINIMUM OF 12".  
 D. WHEN BLANKET IS PLACED ON A SLOPE, THE DOWNSTREAM BLANKET SHALL BE BENEATH THE UPSTREAM.  
 4. DISTURBANCE OF PAVEMENT/HARD SURFACES IS TO BE AVOIDED. IF THIS IS UNAVOIDABLE, CONTRACTOR TO COORDINATE WITH UTILITY ENGINEER AND CITY ON THE PROPER PLACEMENT OF SPA UTILITY AND REPAIRS PRIOR TO INSTALLATION. SPA-54-G-016. ADDITIONAL DETAILS WILL BE PROVIDED TO CITY BY UTILITY AND ENGINEER IN THESE INSTANCES.

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# SYMBOL REFERENCE LEGEND

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 AND SCALE

PROJECT ENGINEER:

Sophie Gibson

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PROPOSED FIBER INSTALLATION PLANS

SYMBOL REFERENCE LEGEND

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SHEET:

1

## CONSTRUCTION

### Duct/Conduit

- Primary
- Secondary
- Third Order
- Fourth Order
- - - In Building

### Shelters



### Cabinets



### Vaults/Handholes

#### Pedestrian Rated

- Unknown Size (Pedestrian)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

#### Tier 15 Rated

- Unknown Size (Tier Rated)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)
- HH 12 (3x4 or eq.)
- HH 15 (3x5 or eq.)
- HH 16 (4x4 or eq.)

#### Unknown/Other

- Unknown Type/Size (3 Dirmed, See Notes)

### Building Terminations (OFDCs)

- Building Terminations (OFDCs)

### Cable Terminations

- Cable Terminations

### Duct Terminations

- Buried Endcap
- Stubbed Above Ground (Bldg. Termination)
- Wall Box
- Other/Unknown

### Splice Cases

- Typo A
- Starfighter 3000
- 3M
- Typo B
- Typo B (No Grounding)
- Typo C
- Coyote
- Typo D
- Typo D (No Grounding)

### Internal Taps

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

### Splitters

- Calix
- Zhone
- Unknown

### Additional Cable Slack

- Additional Cable Slack

### Taps

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

### Mainline Cables

- 1F
- 4F
- 6F
- 8F
- 12F
- 24F
- 48F
- 96F
- 144F
- 216F
- 288F
- 432

## INSTALLED

### Duct/Conduit

- Primary
- Secondary
- Third Order
- Fourth Order
- In Building
- <all other values>

### Shelters



### Cabinets



### Vaults/Handholes

#### Pedestrian Rated

- Unknown Size (Pedestrian)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)

#### Tier 15 Rated

- Unknown Size (Tier Rated)
- HH 0 (12x12 or eq.)
- HH 1 (PE-14 or eq.)
- HH 2 (PE-20 or eq.)
- HH 3 (PE-30 or eq.)
- HH 6 (2x3 or eq.)
- HH 12 (3x4 or eq.)
- HH 15 (3x5 or eq.)
- HH 16 (4x4 or eq.)

#### Unknown/Other

- Unknown Type/Size (3 Dirmed, See Notes)

### Third Party Vaults/Handholes

- BSN (Formerly FEG) Handhole
- Stratus Handhole
- 3rd Party (All Other)

### Fiber Manholes

- AT&T Manhole
- Fiber Optic Manhole

### Building Terminations (OFDCs)

- Building Terminations (OFDCs)

### Cable Terminations

- Cable Terminations

### Duct Terminations

- Buried Endcap
- Stubbed Above Ground (Bldg. Termination)
- Wall Box
- Other/Unknown

### Duct Field Repairs

- Duct Field Repairs

### Splice Cases

- Typo A
- Starfighter 3000
- 3M
- Typo B
- Typo B (No Grounding)
- Typo C
- Coyote
- Typo D
- Typo D (No Grounding)
- Gator (Field Repair)

### Internal Taps

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

### Splitters

- Calix
- Zhone
- Unknown

### Additional Cable Slack

- Additional Cable Slack

### Taps

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

### Mainline Cables

- 1F
- 4F
- 6F
- 8F
- 12F
- 24F
- 48F
- 96F
- 144F
- 216F
- 288F
- 432

## MISC.

### Utility Easement

- Utility Easement

### Panels

- Duct and Vault Installation Maps
- Fiber Installation Maps

### Sector Boundaries

- Cover & Index Map (Project)
- Index Map (All)

### Project Sector

- Project Sector
- Non Project Sectors

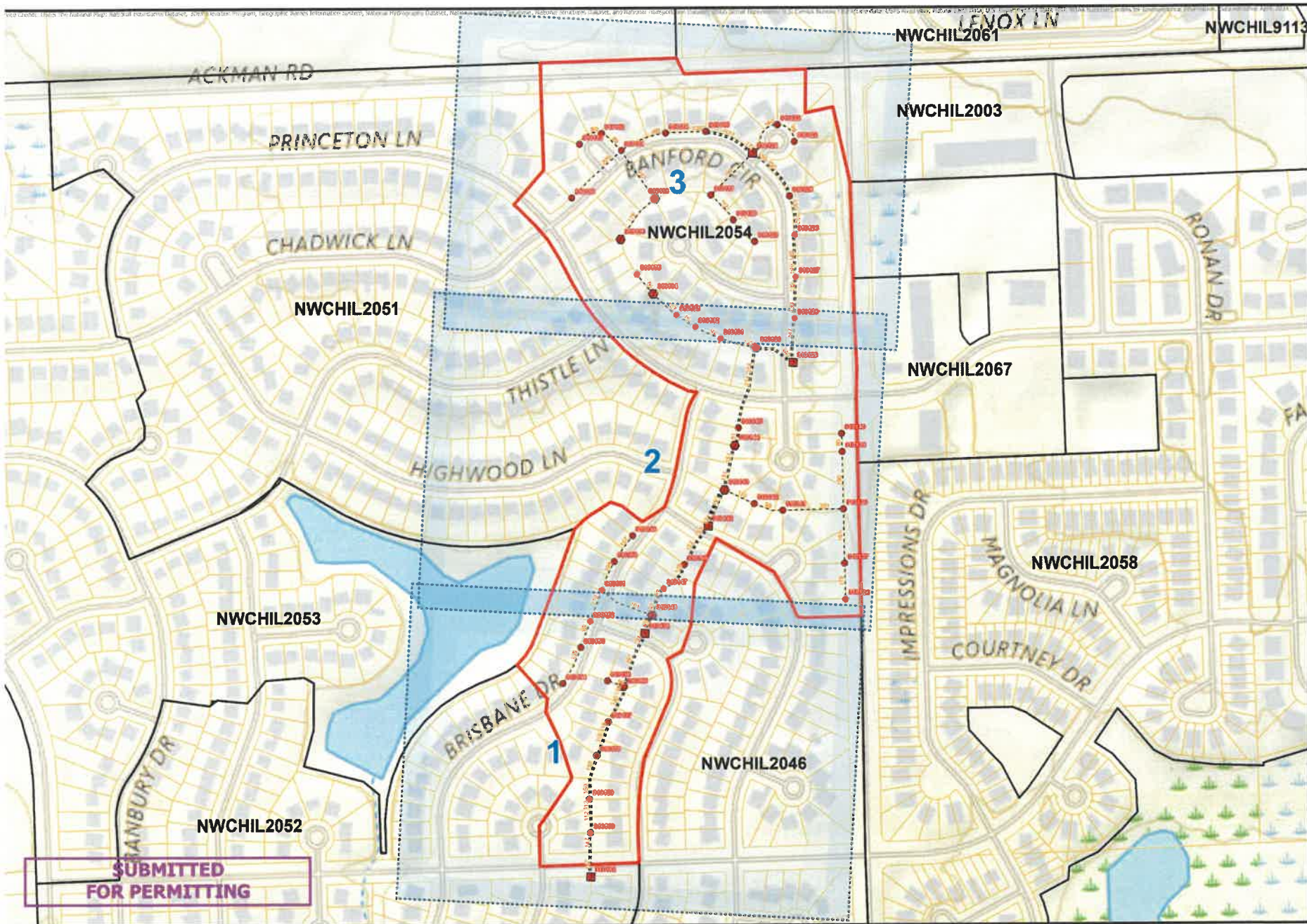
### Drop Arrows


- Drop Arrow (Visible)

### Index Sheet Borders

- Project Sheet Boundaries


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**Broadband**

602 High Point Lane  
East Peoria, Illinois  
(309) 670-0400 ext. 400  
ibroadband.com



0 70 140 210 280 Feet  
SCALE: 1 INCH = 145 FEET  
PCS: USA Contiguous (No Alaska/No HI)

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**PROJECT ENGINEER:**  
Sophie Gibson

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**REVISIONS**

/	24	No.	_____
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**PROPOSED FIBER INSTALLATION PLANS**

**PROJECT OVERVIEW (INDEX) MAP**

Printed: 2/6/2025  
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**SECTOR: NWCHIL2054**


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**PO1**




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.





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



0 25 50 75 100 Feet  
SCALE 1 INCH = 50 FEET  
PCS: USA Contiguous Equidistant Conic

**SHEET NOTES:**

1. See Sheet 012 for typical road crossing and bore pit details.
2. Method of conduit installation shall be either Directional Bore or Pile-It-Bore, UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (See Sheet M1).
3. Additional conduit locations (other than Primary) are shown offset for representation ONLY. Additional ducts shall follow the same general bore-path as the Primary Duct.

**PROJECT ENGINEER:**  
Sophie Gibson

REVISIONS	
/	7/24   No. _____
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/	7/24   No. _____
/	7/24   No. _____
/	7/24   No. _____

**PROPOSED FIBER INSTALLATION PLANS**

**FIBER INSTALLATION PLAN MAPS**


**SECTOR: NWCHIL2054**

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SHEET: **D2**

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East Peoria, Illinois  
(309) 670-0400 ext. 400  
b3broadband.com

  
 0 25 50 75 100 Feet  
 SCALE: 1 INCH = 50 FEET  
 PCS: USA Contiguous Equidistant Conic

**SHEET NOTES:**

1. See Sheet D72 for typical road crossing and bore pit details.
2. Method of conduit installation shall be per Directional Bore or Plastic Bore, UNLESS OTHERWISE NOTED ON THE PLANS OR SPECIAL PERMITTING COMMITMENTS (See Sheet A1).
3. Additional conduit locations (other than Primary) are shown offset for representation ONLY. Additional ducts shall follow the same general bore-path as the Primary Duct.

**PROJECT ENGINEER:**  
Sophie Gibson

REVISIONS	
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/	/ 24   No. _____
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PROPOSED FIBER INSTALLATION PLANS  
 FIBER INSTALLATION PLAN MAPS

SECTOR: NWCHIL2054

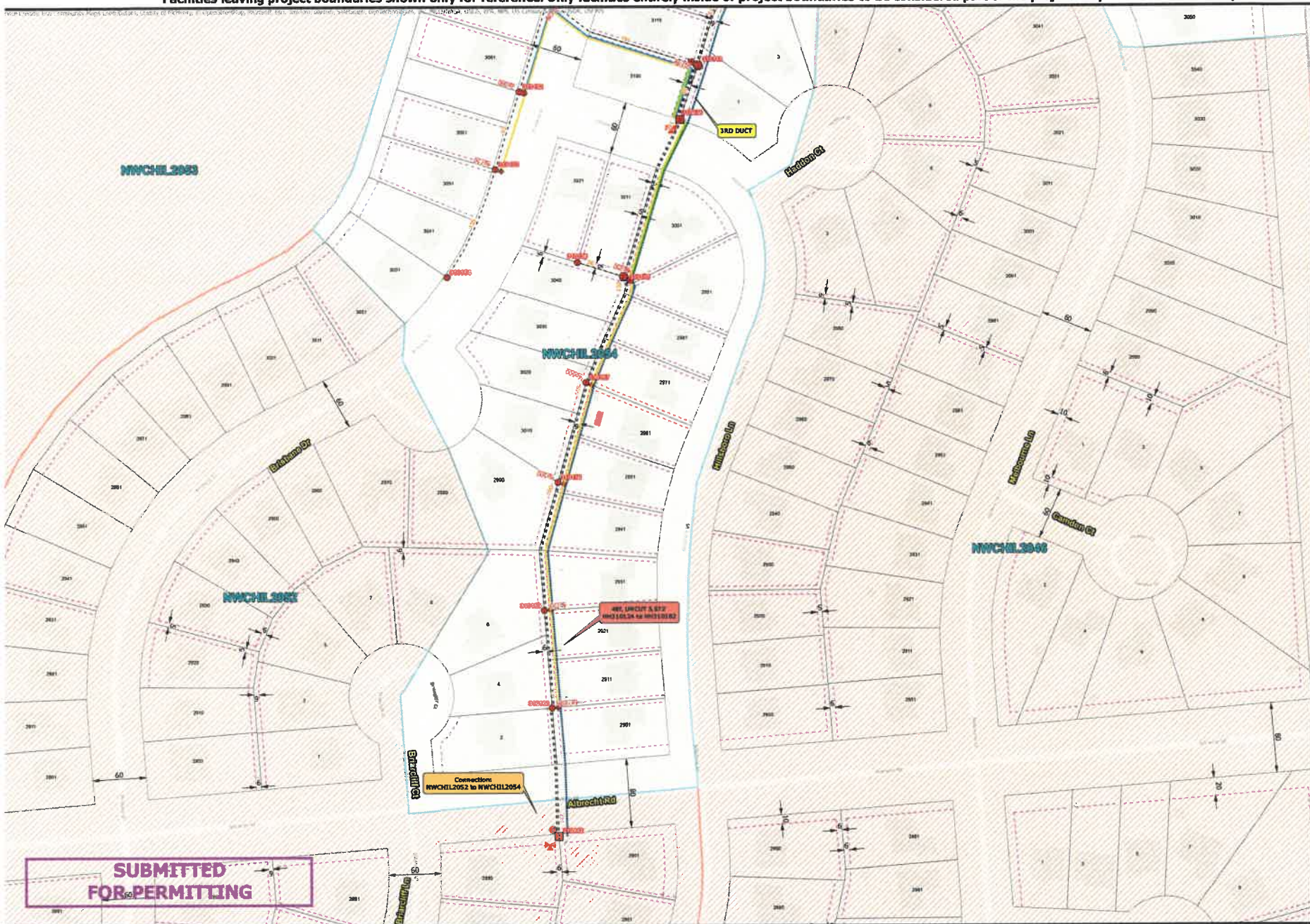
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D3

SHEET:


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lbroadband.com



0 25 50 75 100 Feet  
SCALE: 1"=50 FEET  
PCS: USA Contiguous Equal-Area Conic

**SHEET NOTES:**

- Fiber curves and taps are shown as offset from proposed conduit for cartographic representation ONLY. Fiber shall be located within proposed conduit.
- Contractor shall field verify all dimensions prior to installing fiber cable.
- See Sheet N1 for installed fiber cable stack requirements.

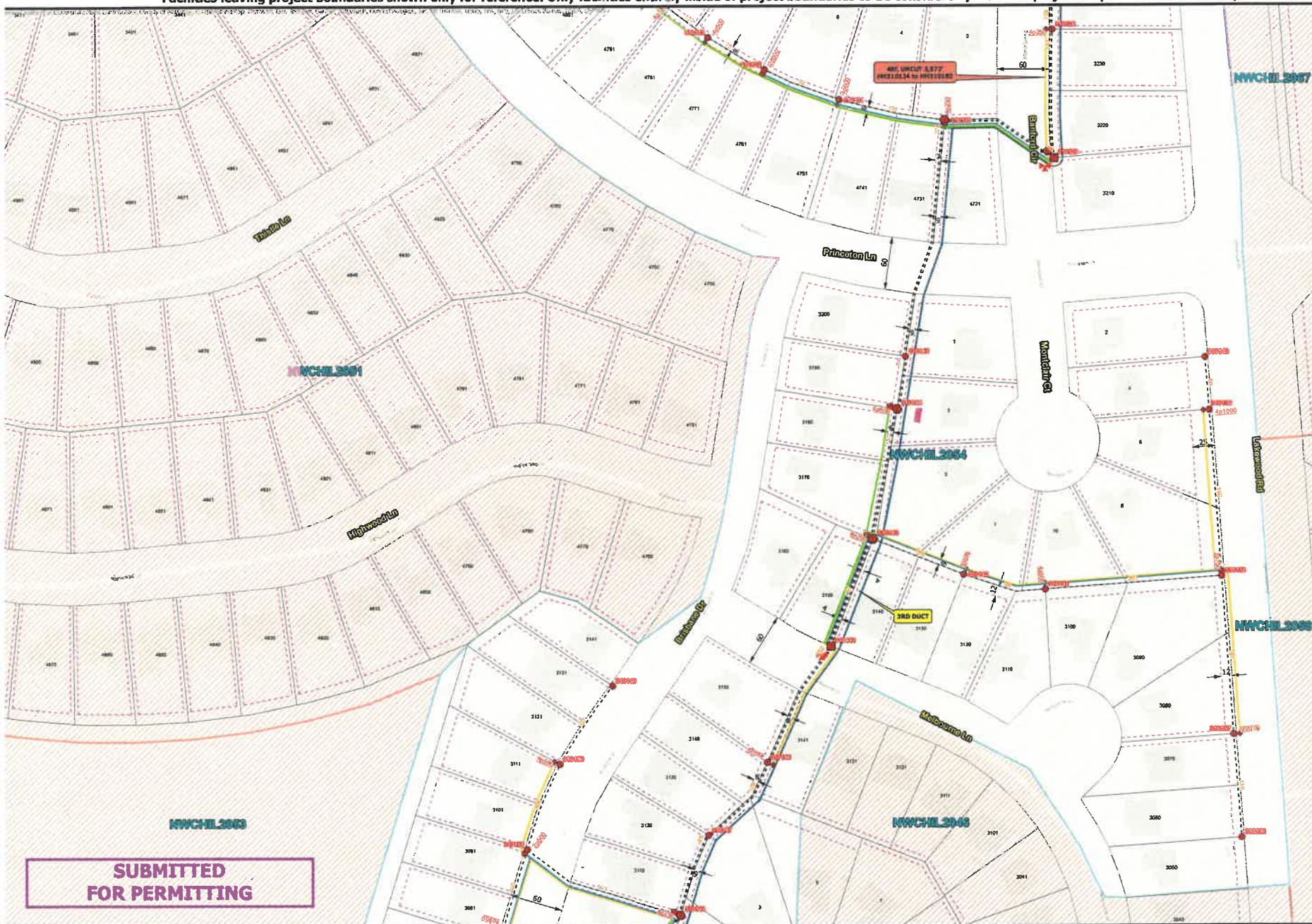
**PROJECT ENGINEER:**  
Sophie Gibson

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<b>PROPOSED FIBER INSTALLATION PLANS</b>	<b>FIBER INSTALLATION PLAN MAPS</b>	Printed: 2/6/2025
<b>SECTOR: NWCHIL2054</b>		Time: 11:21 AM

**SHEET:**  
F1

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**3 Broadband**  
 602 High Point Lane  
 East Peoria, Illinois  
 (309) 670-0400 ext. 400  
 3broadband.com

0 25 50 75 100 Feet  
 SCALE: 1 INCH = 50 FEET  
 PCS: USA Contiguous Equidistant Conic

- SHEET NOTES:**
1. Fiber cables and taps are shown as offset from proposed conduit for cartographic representation ONLY. Fiber shall be installed within proposed conduit.
  2. Contractor shall field verify all dimensions prior to installing fiber cable.
  3. See Sheet N1 for installed fiber cable slack requirements.

**PROJECT ENGINEER:**  
 Sophie Gibson

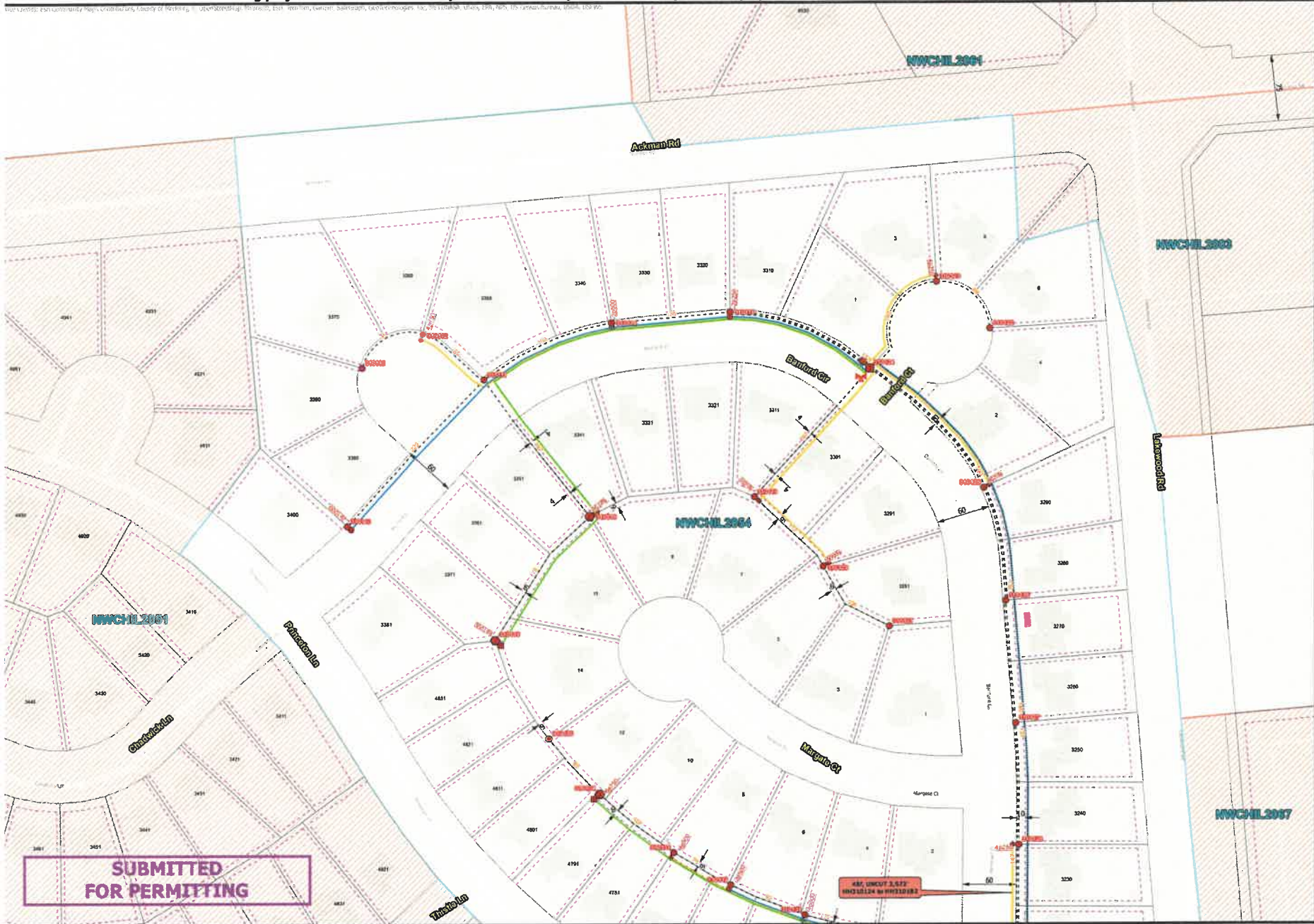
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**PROPOSED FIBER INSTALLATION PLANS**  
**FIBER INSTALLATION PLAN MAPS**  
 SECTOR: NWCHIL2054

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SHEET:  
**F2**

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.





602 High Point Lane  
East Peoria, Illinois  
(309) 670-0400 ext. 400  
fbroadband.com



0 25 50 75 100 Feet  
SCALE: 1" (NCL) = 50 FEET  
PCS: USA Contiguous Equalized Cont.

**SHEET NOTES:**

1. Fiber cables and taps are shown as offset from proposed conduit for cartographic representation ONLY. Fiber shall be installed within proposed conduit.
2. Contractor shall field verify all dimensions prior to installing fiber cable.
3. See Sheet #11 for installed fiber cable stack requirements.

**PROJECT ENGINEER:**  
Sophie Gibson

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

<b>PROPOSED FIBER INSTALLATION PLANS</b>	
<b>FIBER INSTALLATION PLAN MAPS</b>	Printed: 2/6/2025 Time: 11:22 AM
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**SHEET:**  
F3