

ROW CONSTRUCTION PROJECT NOTES

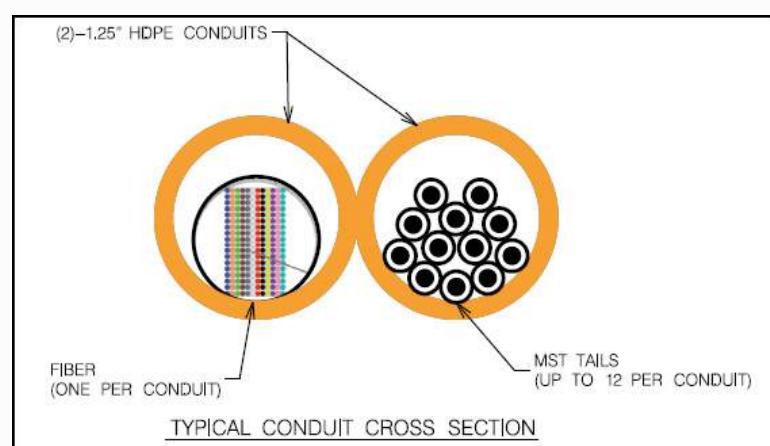
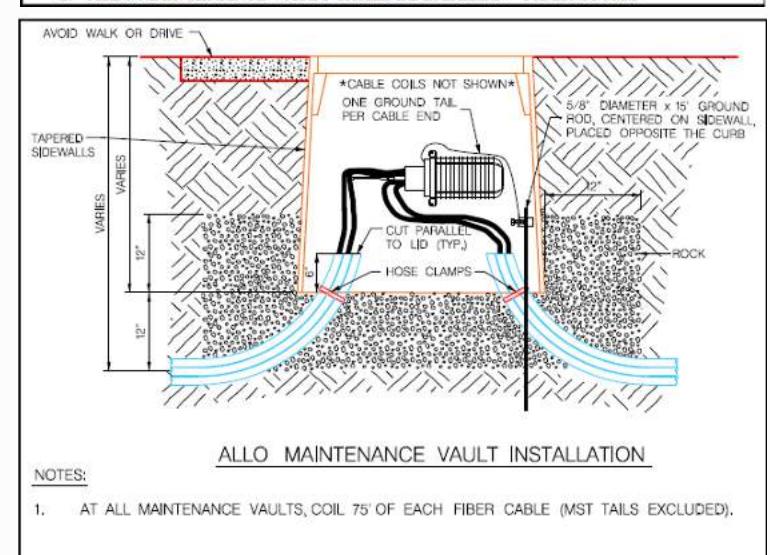
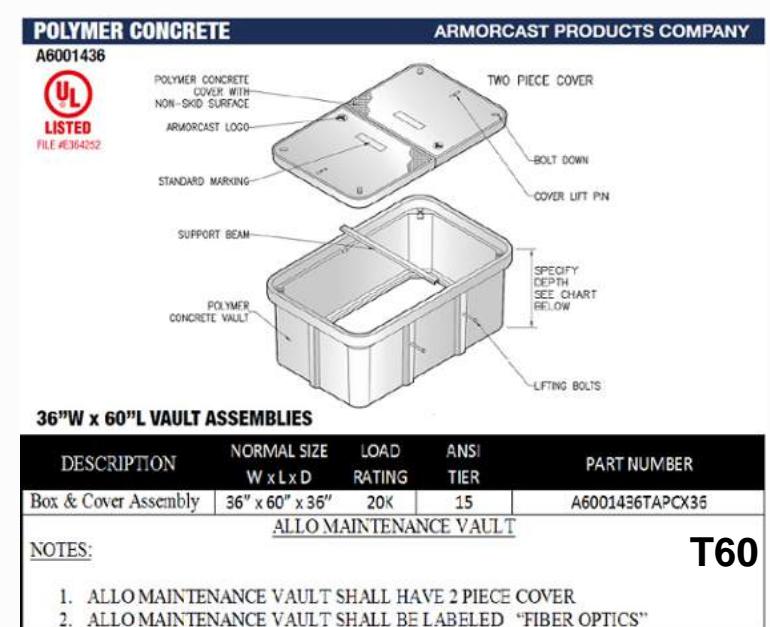
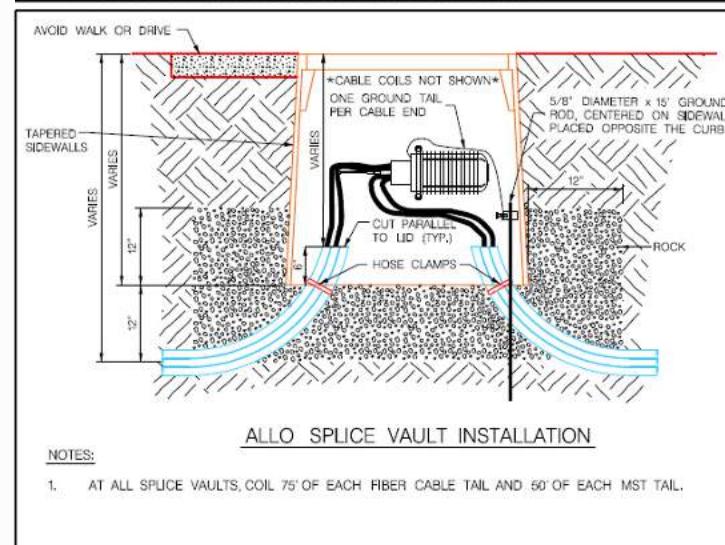
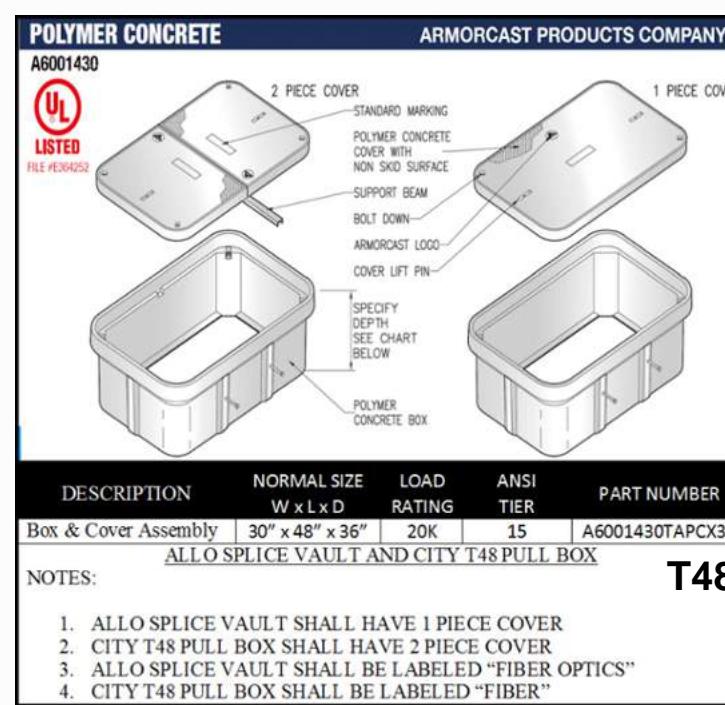
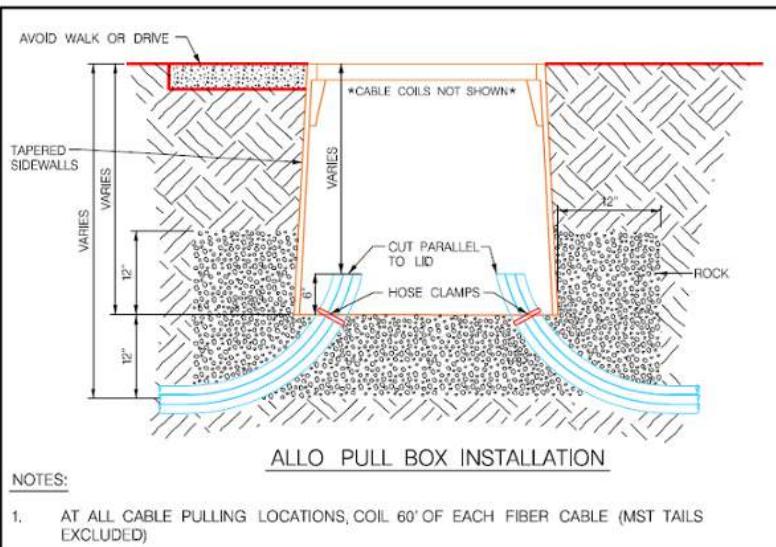
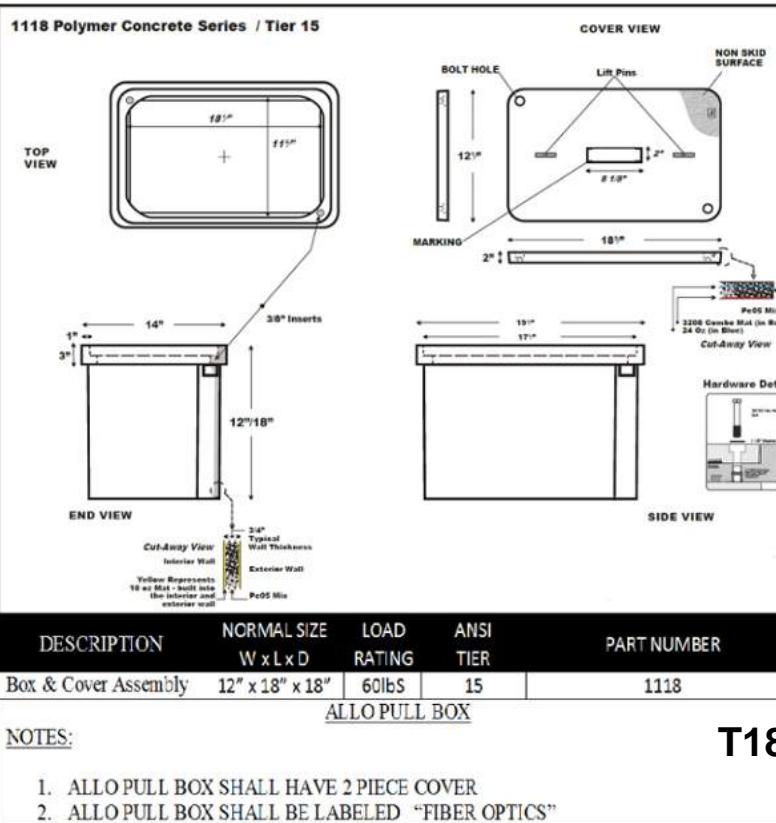
1. The City shall be notified a minimum of forty eight (48) hours in advance of initial project construction.
 2. The contractor shall adhere to the current City standard specifications, approved special provisions, City standard plans, right-of-way construction procedures manual.
 3. The locations of all aerial and underground utility facilities may not be indicated on the project plans. The contractor is required to contact the One Call 811 notification center (dial 811) forty-eight (48) hours prior to working in the city right of way. No excavation will be permitted in the area of the underground utilities until all facilities have been located and identified to the satisfaction of all parties. The contractor shall be responsible for protection of all underground and aerial utilities and infrastructure.
 4. Whenever underground facilities are in close proximity to the proposed pathway location or whenever the vertical location of the underground facility is unknown, the permittee shall use special measures to determine the locations of such underground facilities.
 - a. If the permittee is conducting the excavation by digging from the surface, when in a close proximity to the underground facilities, the permittee shall use hand digging, hydro excavating, air excavating, or any other techniques that are approved by the City to locate such facility.
 - b. If the permittee is conducting the excavation by tunneling or boring, the permittee shall determine the vertical location of the underground facility by potholing or any other method approved by the City.
 5. Project plans shall dimension new facilities being installed. Measurements shall be taken from existing adjacent visible structures (curbs, poles, cabinets, manholes, inlets, fire hydrants, etc.) clearly identifying location of such facility. The contractor shall verify dimensions taken from city files.
 6. Unless specified on the plan sets, the depth of installed facilities in city row shall be at a minimum as follows.
 - a. Thirty-two (30) inches in soil, if rock present and is an issue twenty-four (24) inches can be used.
 - b. Forty-two (42) inches below a projected slope from the flow line of a ditch at a three (3) horizontal and one (1) vertical slope.
 - c. Forty-eight (48) inches under a roadway measured from the surface of said roadway to the top of the installation.
 - d. Forty-eight (48) inches under a storm water or creek channel design bottom of pipe, and
 - e. Maintain a minimum of twenty-four (24) inches of vertical and horizontal spacing from existing utilities.
 - f. Be located as far from the existing or proposed curb line as possible to avoid potential future conflicts.
 7. All potholes in sidewalk panels will be filled unless directed by City inspector. If colored, textured or patterned concrete is existing, replacement patches, and panels will be replaced to match as practicable. Owner may be required to put money into escrow to cover all repairs prior to starting work.
 8. All non-street surface materials that are disturbed by excavation and backfilling operations shall be replaced and restored.
 9. City street surface materials disturbed shall be backfilled, tamped and repaved by city forces or approved paving contractor.
 10. All Conduit, vaults and Pedestals shall be located in the public ROW and in public utility easements.
 11. All Aerial shown on attached planset will be permitted separately by Pole Owners. All pole permits submitted to pole owners will follow NESC codes.
12. If sidewalk, wheel chair ramps or any portion of the pedestrian facilities are removed or closed, a pedestrian detour shall be established and maintained during the time of the closure and the entire pedestrian facility shall be restored within seventy-two (72) hours, unless the contractor provides a hard surface alternate route approved by the city.
 13. All pedestrian detours and any reconstruction of pedestrian facilities shall meet current Americans with Disability Act (ADA) standards and specifications.
 14. All pedestrian detours shall be part of an approved Traffic Control Plan (TCP).
 15. All holes made in city pavements for the purpose of performing vacuum excavations to locate underground utilities shall be restored to their original condition with the reinstated core flush with and in the original orientation as the existing surface matching existing pavement surface appearance.
 16. When the contractor is not actively working, all equipment, fencing, debris, etc, shall not be placed within the triangular area required for sight distance of vehicles exiting or entering an adjacent property or intersection.
 17. All excavations shall be adequately fenced and covered when contractor is not present or project site left unattended.
 18. No lane closures allowed on arterial streets during AM and PM peak hours unless approved by City Traffic and Right of Way Construction section(s) staff.
 19. All work zone traffic control, including pedestrian control measures, shall be in compliance with the MUTCD, ADA, and the City Standard Specifications.
 20. The contractor shall notify all affected owners of adjacent properties a minimum of forty-eight (48) hours prior to beginning of construction and provide updates to the affected owners when construction phases change that affect the areas of work associated with the permit.
 21. The contractor shall maintain a set of "as built" plans on site with dimensioning. These plans shall be presented upon request to any city representative.
 22. A current city right of way construction permit and city approved plan set shall be maintained on each work site by the contractor. The contractor shall present such permit and plan set upon request to any city representative.
 23. Any field adjustments to installation of facilities, which vary from the plans that have been submitted and approved during the permit application process, shall comply with the following:
 - a. The contractor must stop work immediately and contact the facility owner.
 - b. The facility owner's representative shall contact the city's construction inspector and provide him with the details of the proposed changes.
 - c. The City inspector will make a determination on how to proceed. This determination may range from approval over the phone or via email to delaying the project until plans can be updated and appropriate review can be conducted.

Special Notes

1. All conduit shall be bored unless specified otherwise.
2. Contractors shall notify land owner prior to work on all private developments.
3. A reminder to the reader. the drawings are scaled, thus dimension is available at all locations.
4. The contractor shall bypass all MST pedestals with distribution conduit where installed parallel to MST conduit. Similarly, bypass the T18 "Flowerpot" with MST conduit where installed parallel to future drop conduit.

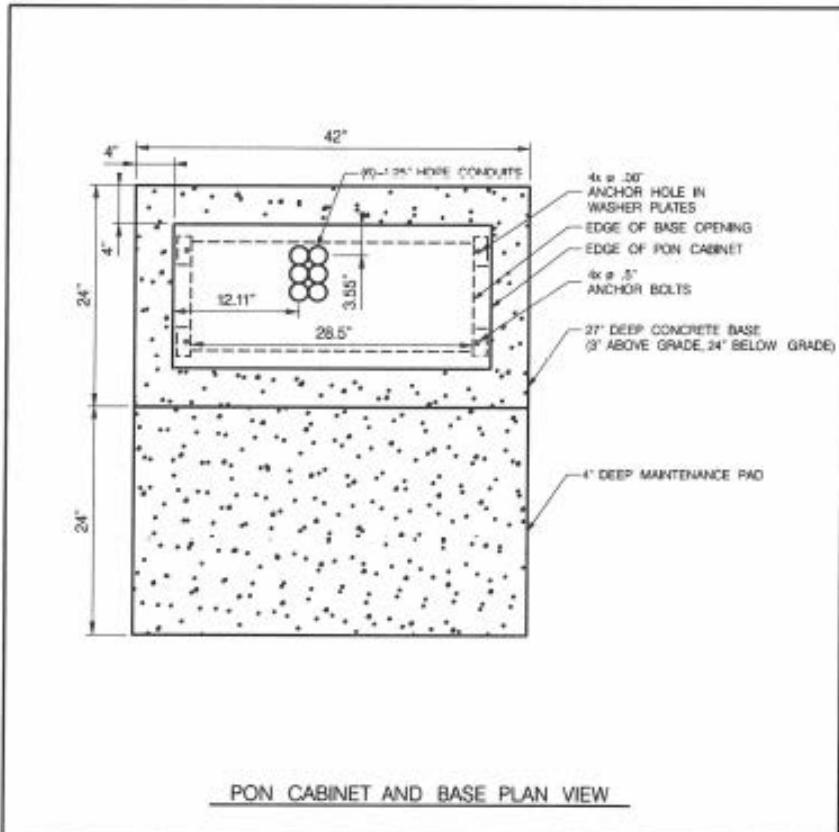
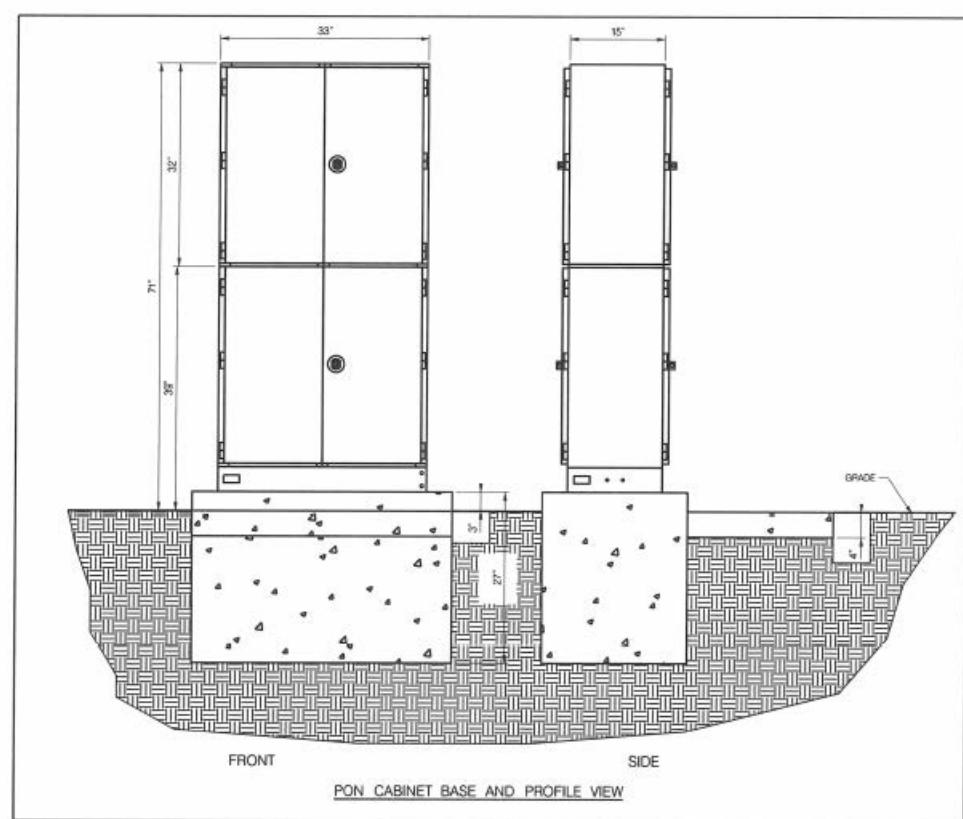


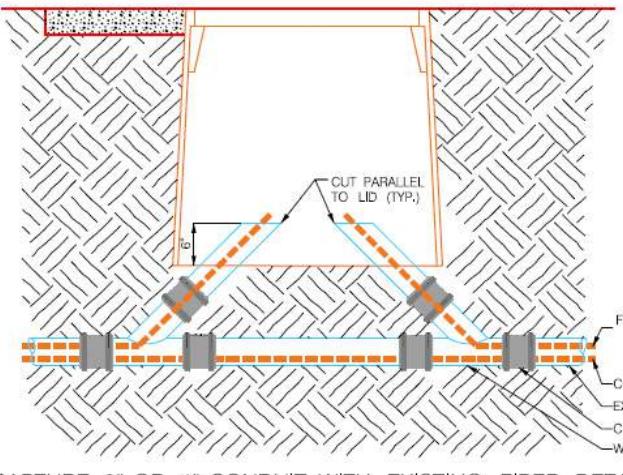
Typicals



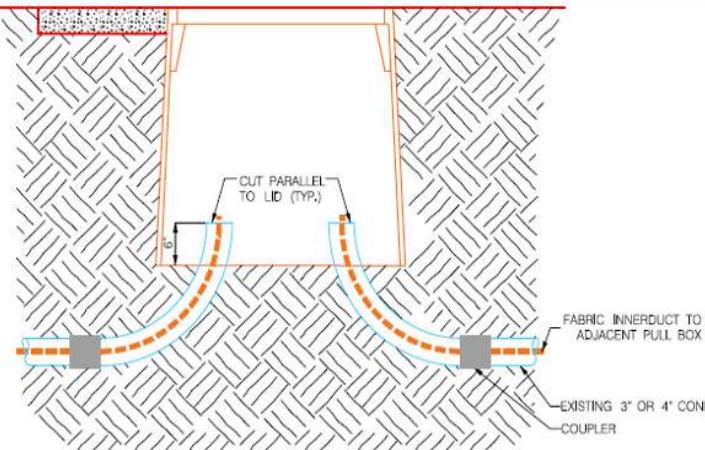
Nebraska 811
Know what's below.
811 before you dig.

Typicals

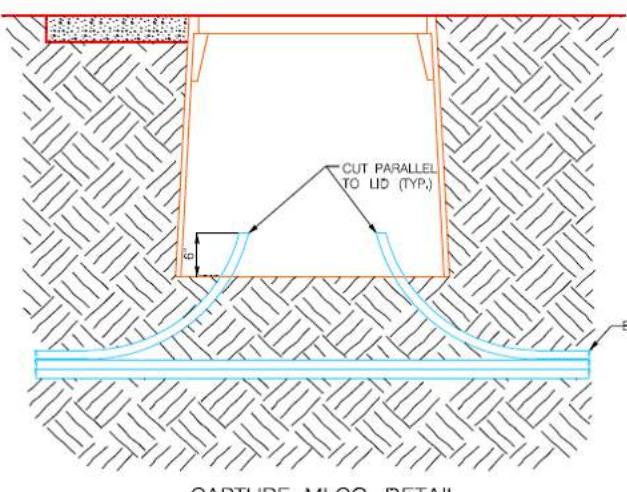




CAPTURE 3" OR 4" CONDUIT WITH EXISTING FIBER DETAIL

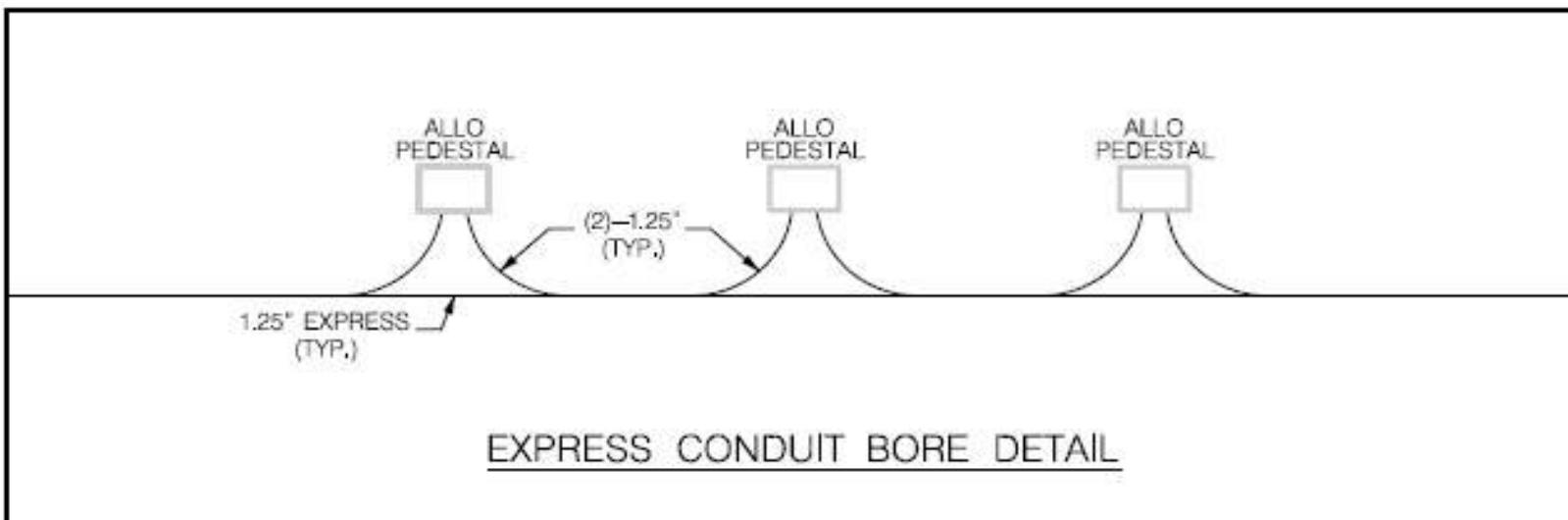


CAPTURE EMPTY 3" OR 4" CONDUIT DETAIL



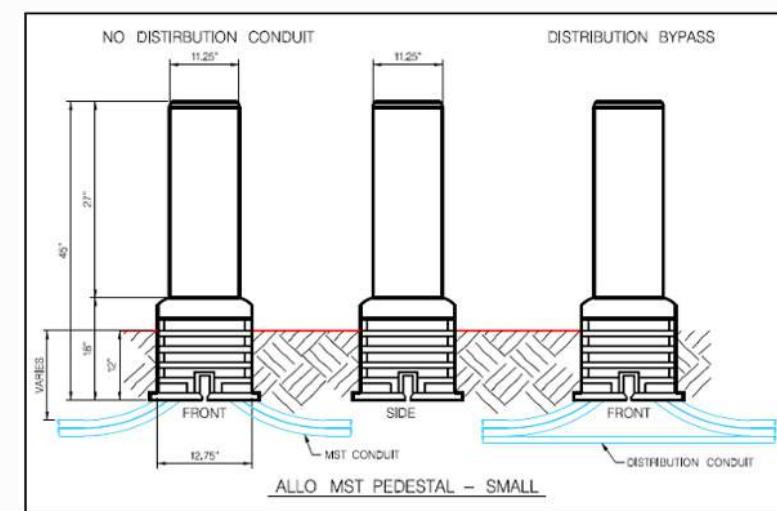
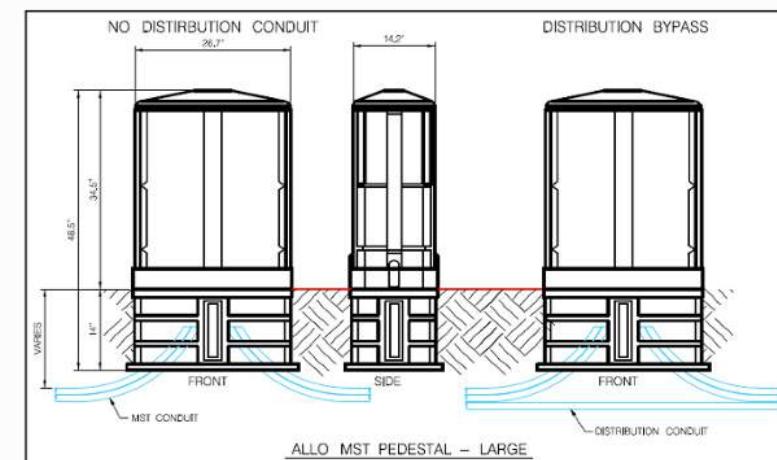
CAPTURE MLCG DETAIL

Express Conduit are detailed by midspan call outs.
48f - 288f, 1 - 1.25" per cable Should be expressed to T36, T48, T60 boxes bypassing pedestals.
432f - 864, 1 - 2.0" per cable Should be expressed to T36, T48, T60 boxes bypassing pedestals.



EXPRESS CONDUIT BORE DETAIL

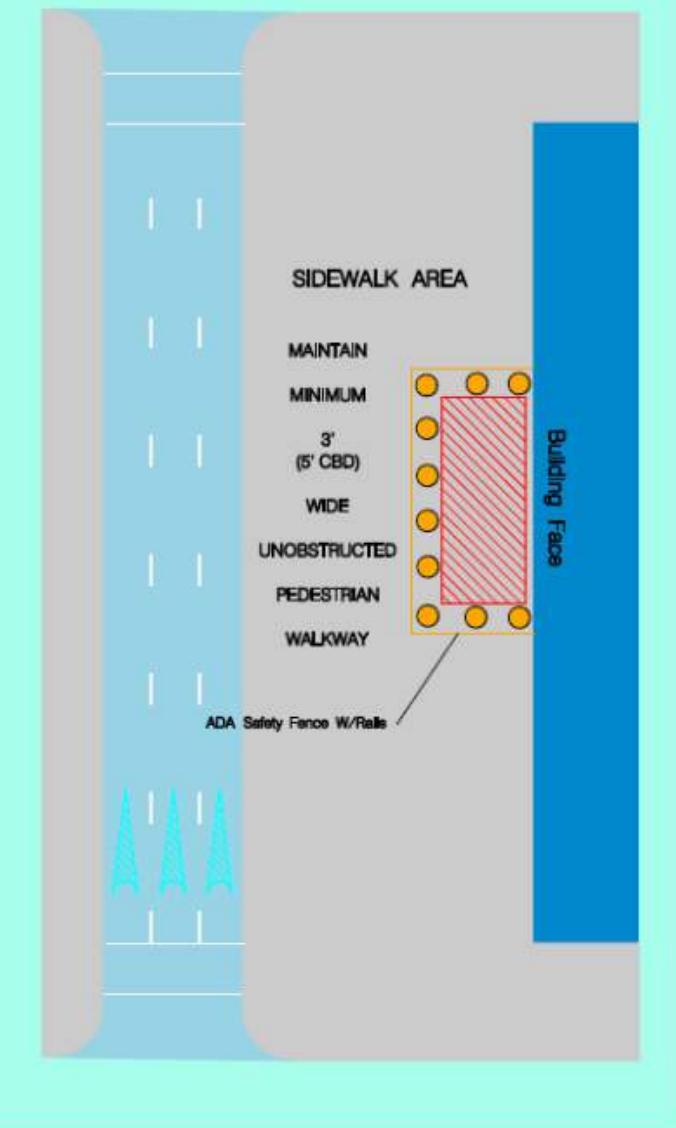
Typicals here represent various sweeps of conduit.
Follow City standards for bedding.
MLCG stands for Main Line Conduit Group, any
bundle of conduit placed in the ground together.



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WORK IN THE PEDESTRIAN AREAS

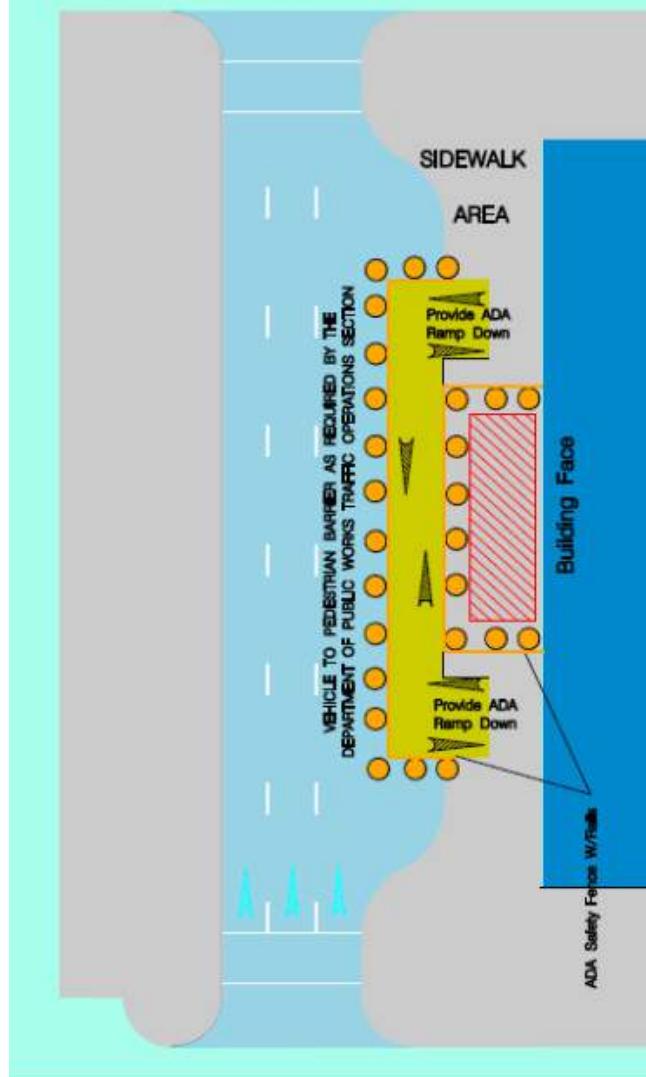
Maintain a clear and unobstructed pedestrian walkway around the work zone, or post warning signs for closures at adjoining intersections.

**13**

WORK IN THE PEDESTRIAN AREAS

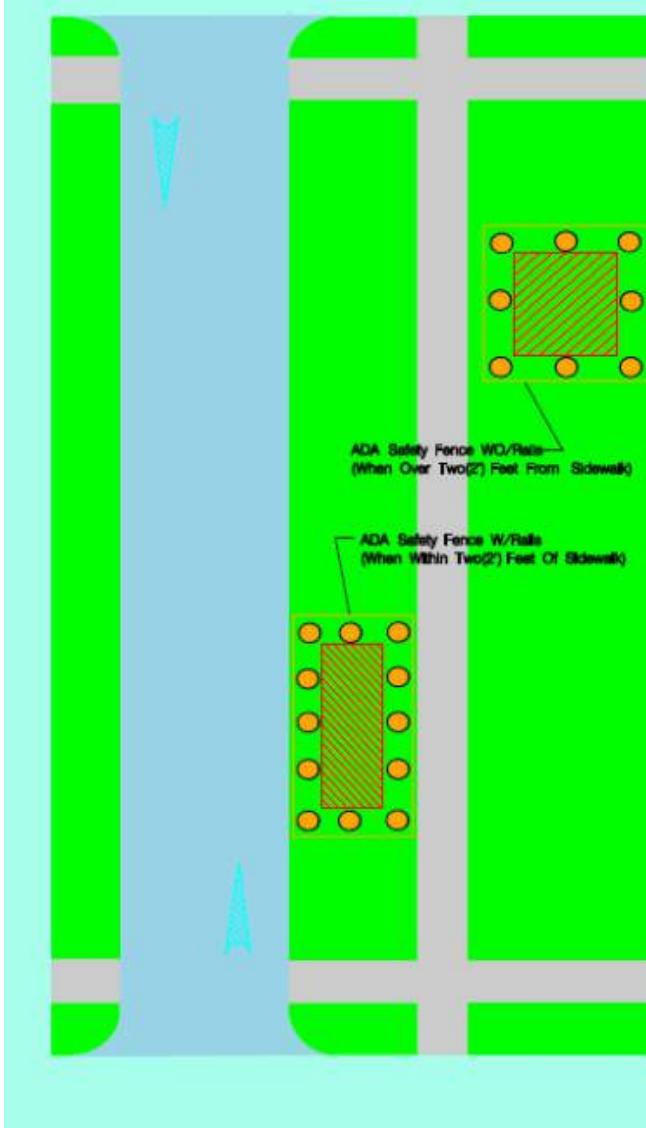
PEDESTRIAN DETOUR IN CENTRAL BUSINESS DISTRICT (CBD)

Maintain a minimum of 5' unobstructed pedestrian walkway around the work zone using constructed walkway or protected area as designated by the Department of Public Works Traffic Operations Section.

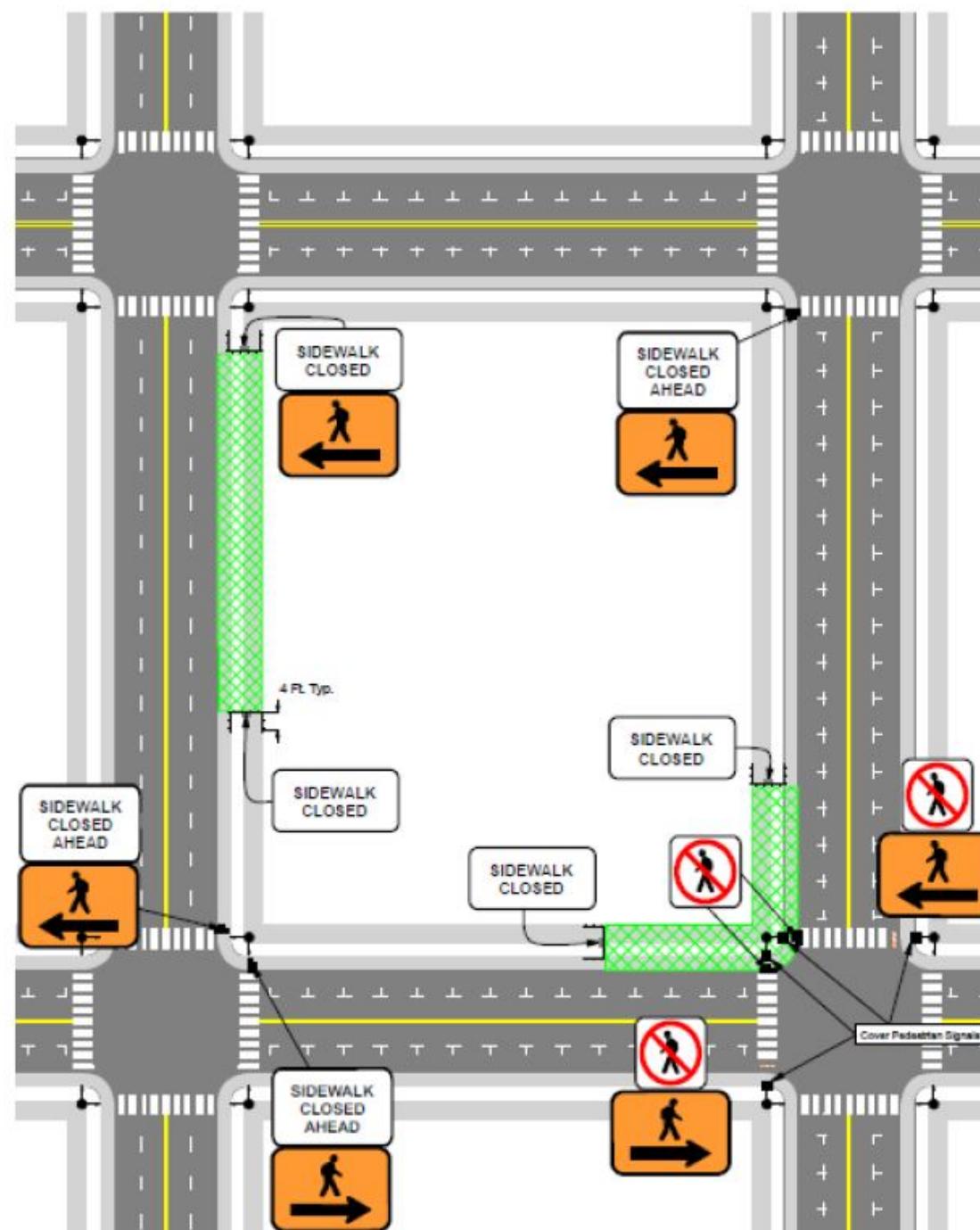
**14**

WORK IN THE PEDESTRIAN AREAS

Protection of Excavations & Hazards not in roadways or sidewalks

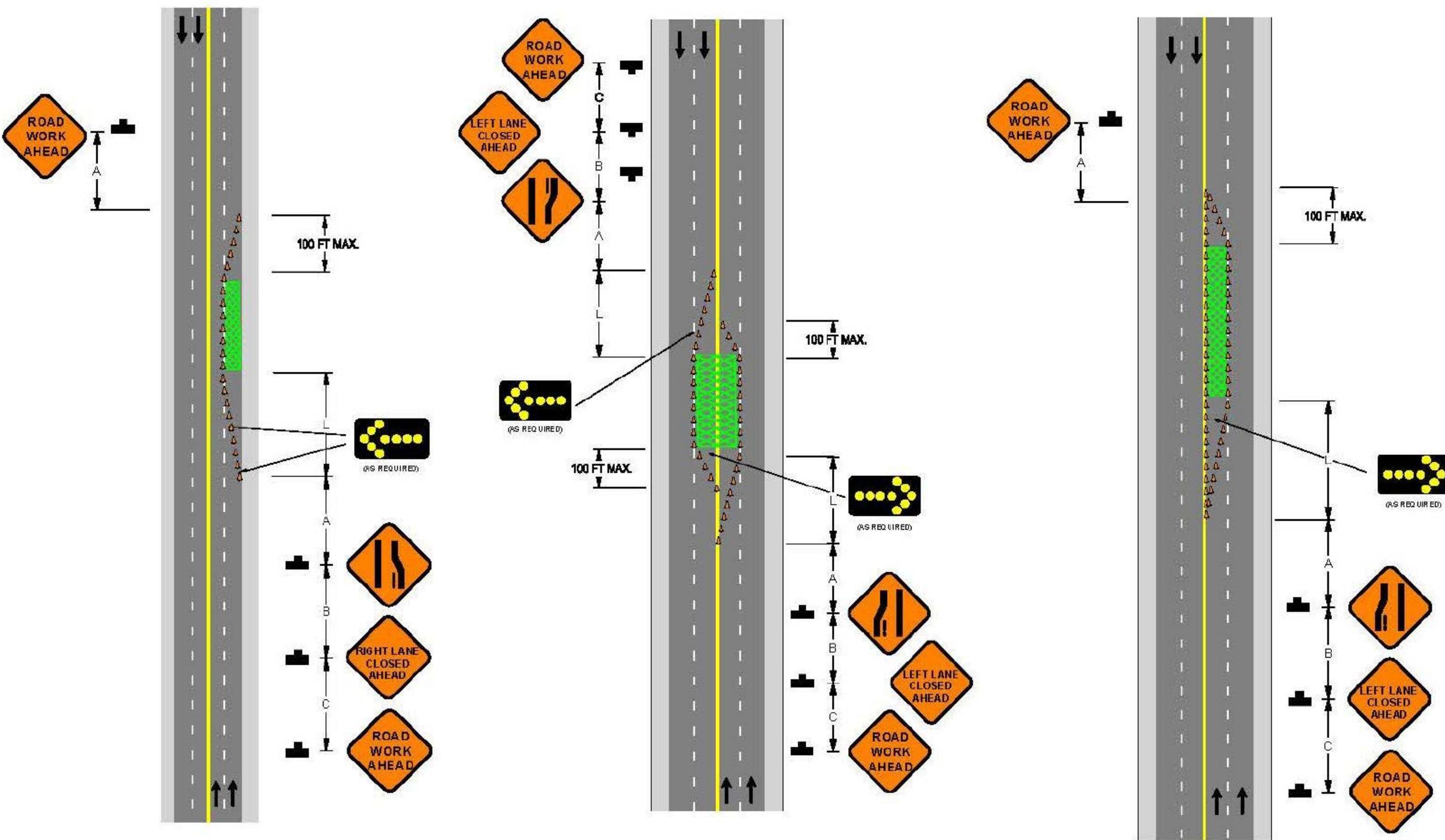


1) This plan shows the pedestrian traffic control measures only. Additional traffic control measures may be required to manage vehicular traffic.



Through Lane Closures on Higher Volume Streets (Collectors, Arterials Etc..)

See Page A9 for A, B, C, L Distances

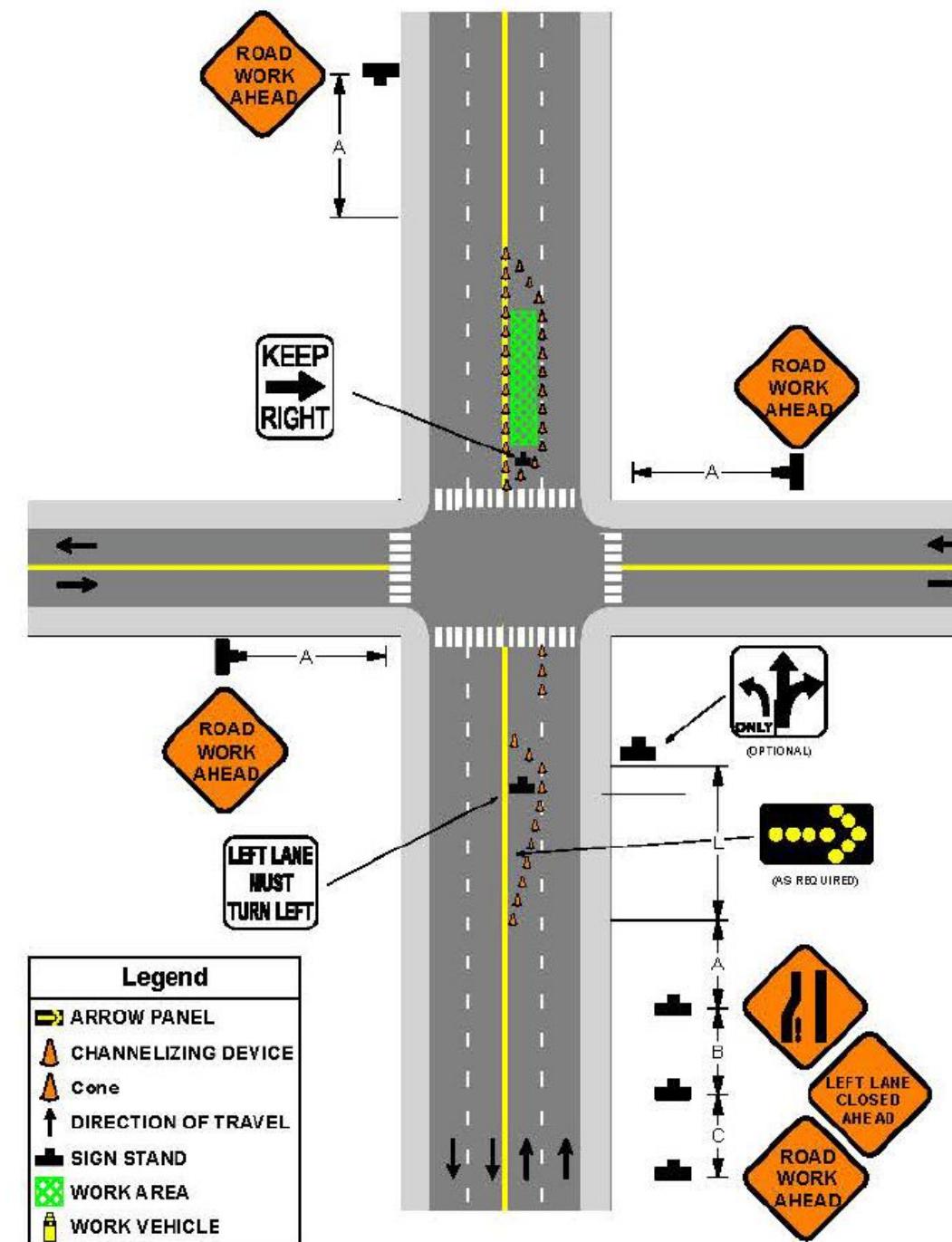
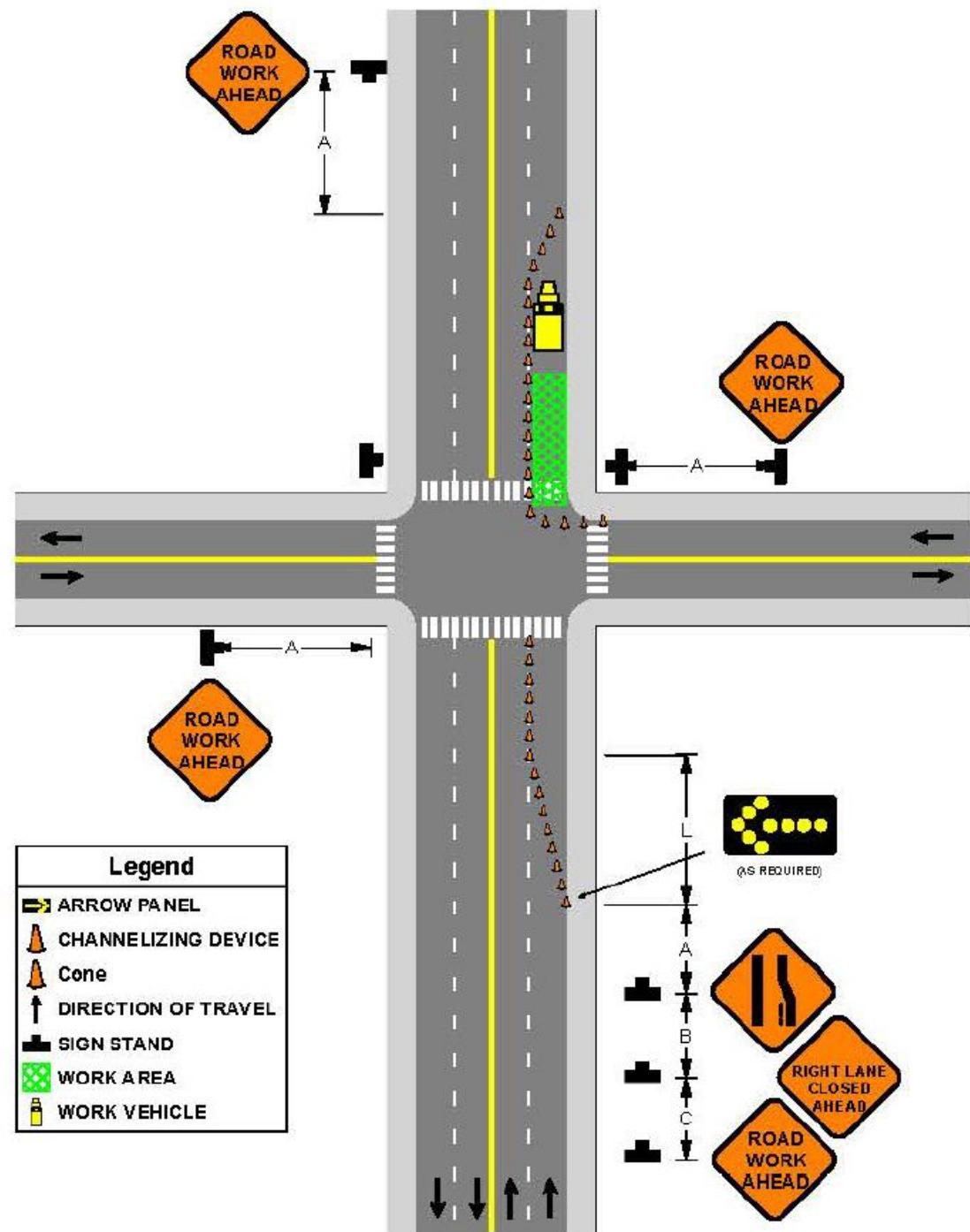


| Legend | |
|---------------------|--|
| ARROW PANEL | |
| CHANNELIZING DEVICE | |
| DIRECTION OF TRAVEL | |
| SIGN STAND | |
| WORK AREA | |

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

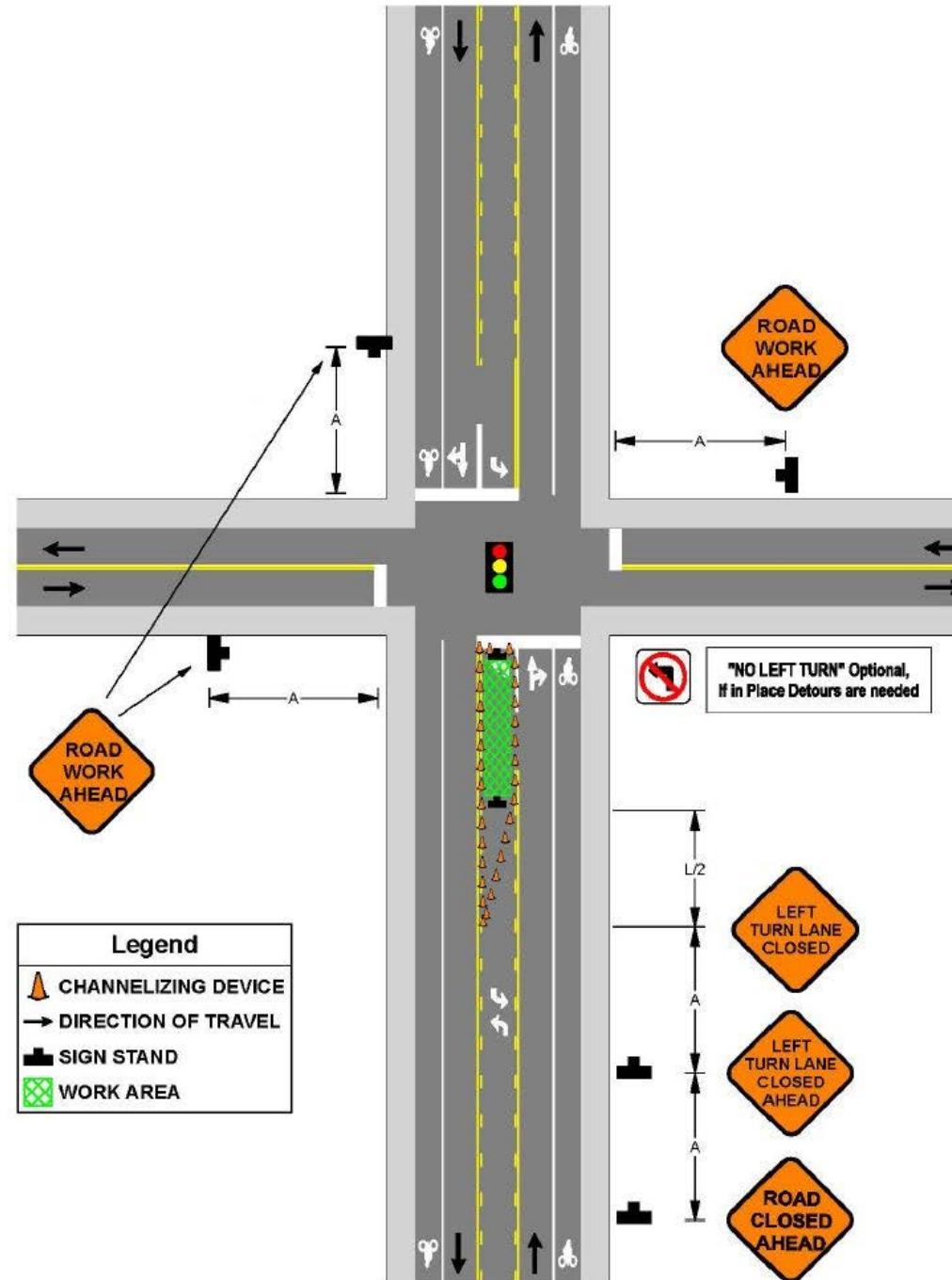
Through Lane Closures on Higher Volume Streets within Intersections (Collectors, Arterials Etc..)

See Page A9 for A, B, C, L Distances

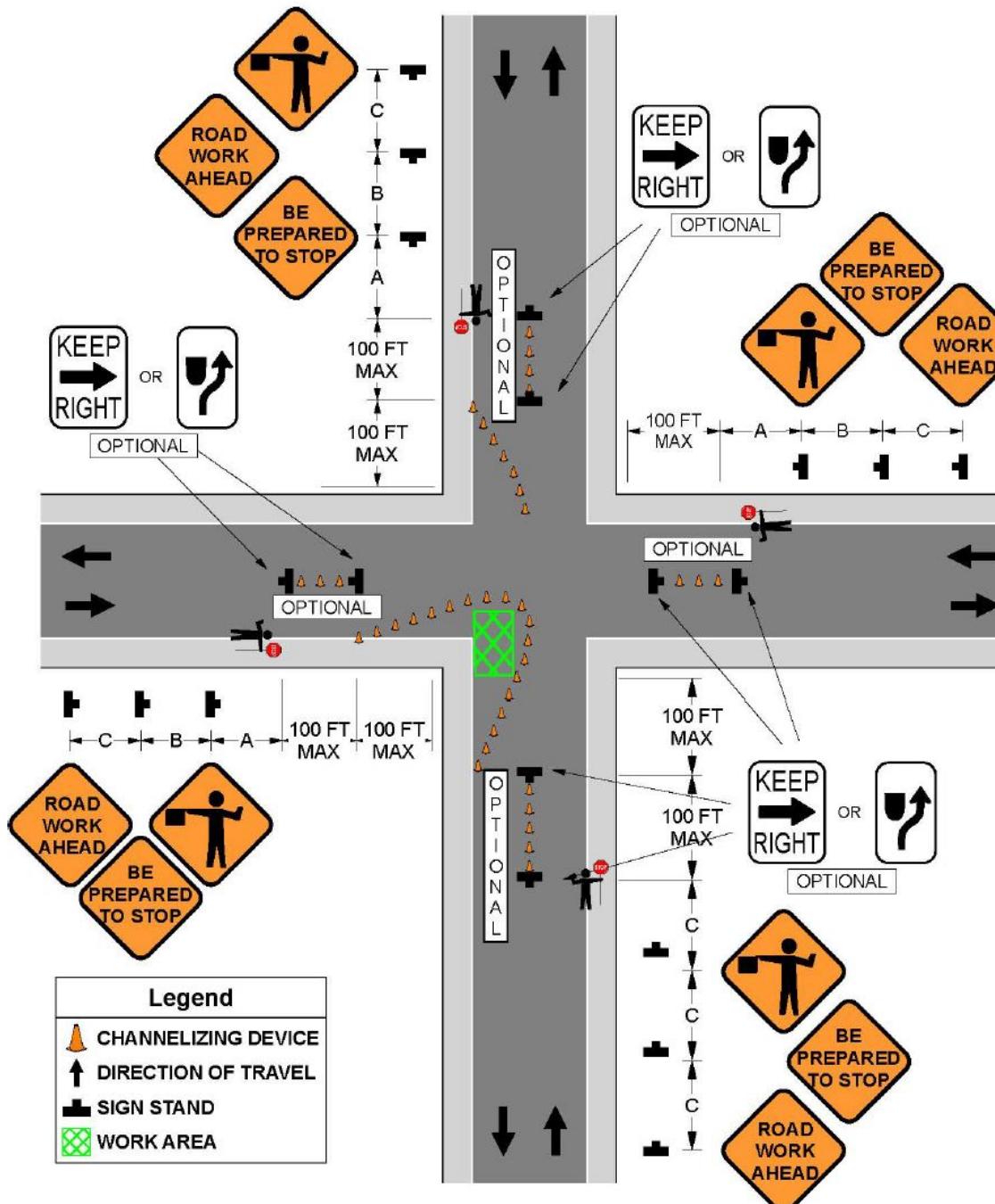


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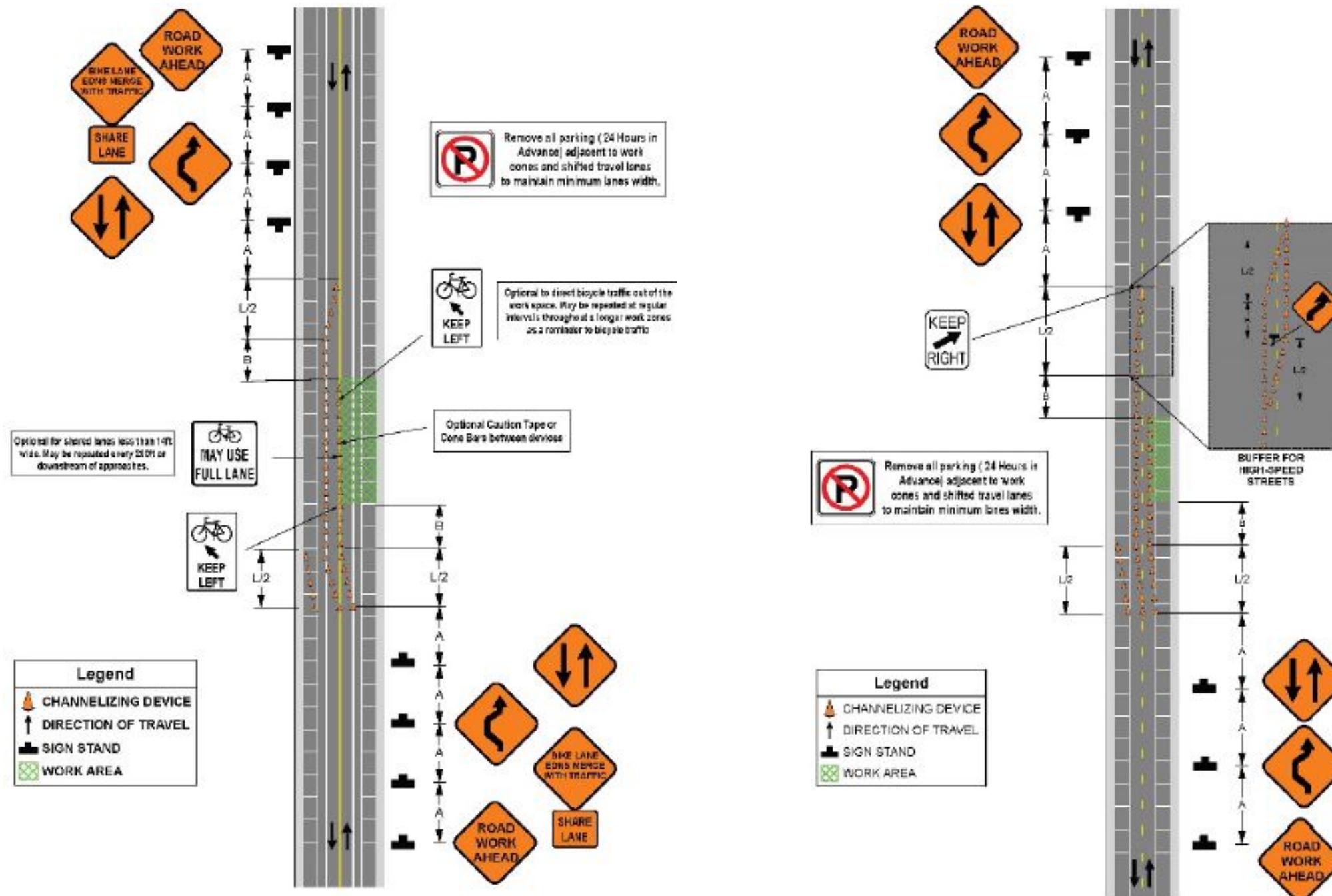
Left/Right Turn Lane Closures on Higher Volume Streets
(I.E. Collectors, Arterials, etc.) Within Signalized Intersections
(Contact Traffic Signal Staff)



Closures on Lower Volume Streets for Workzones within Intersections



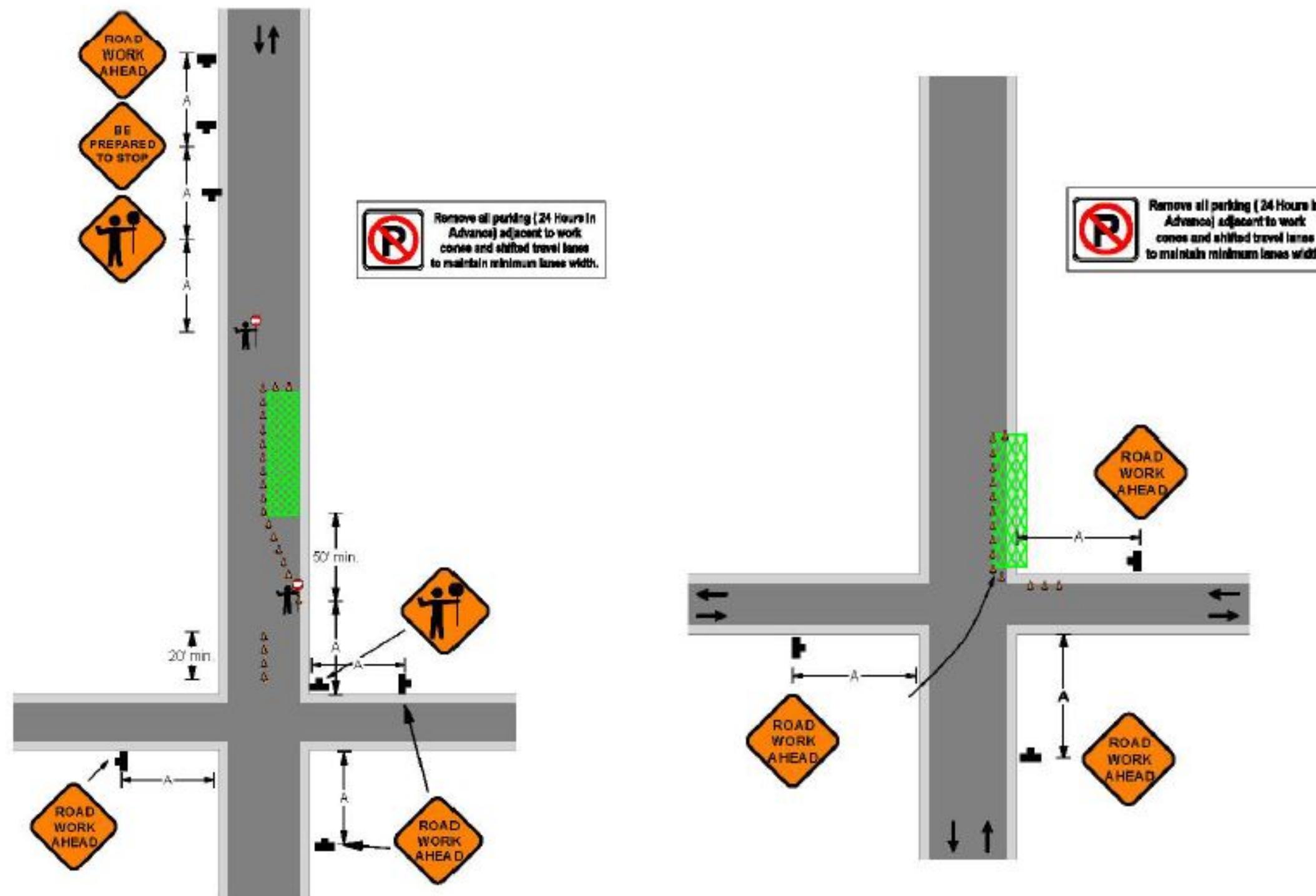
See Page A9 for A, B, C, L Distances



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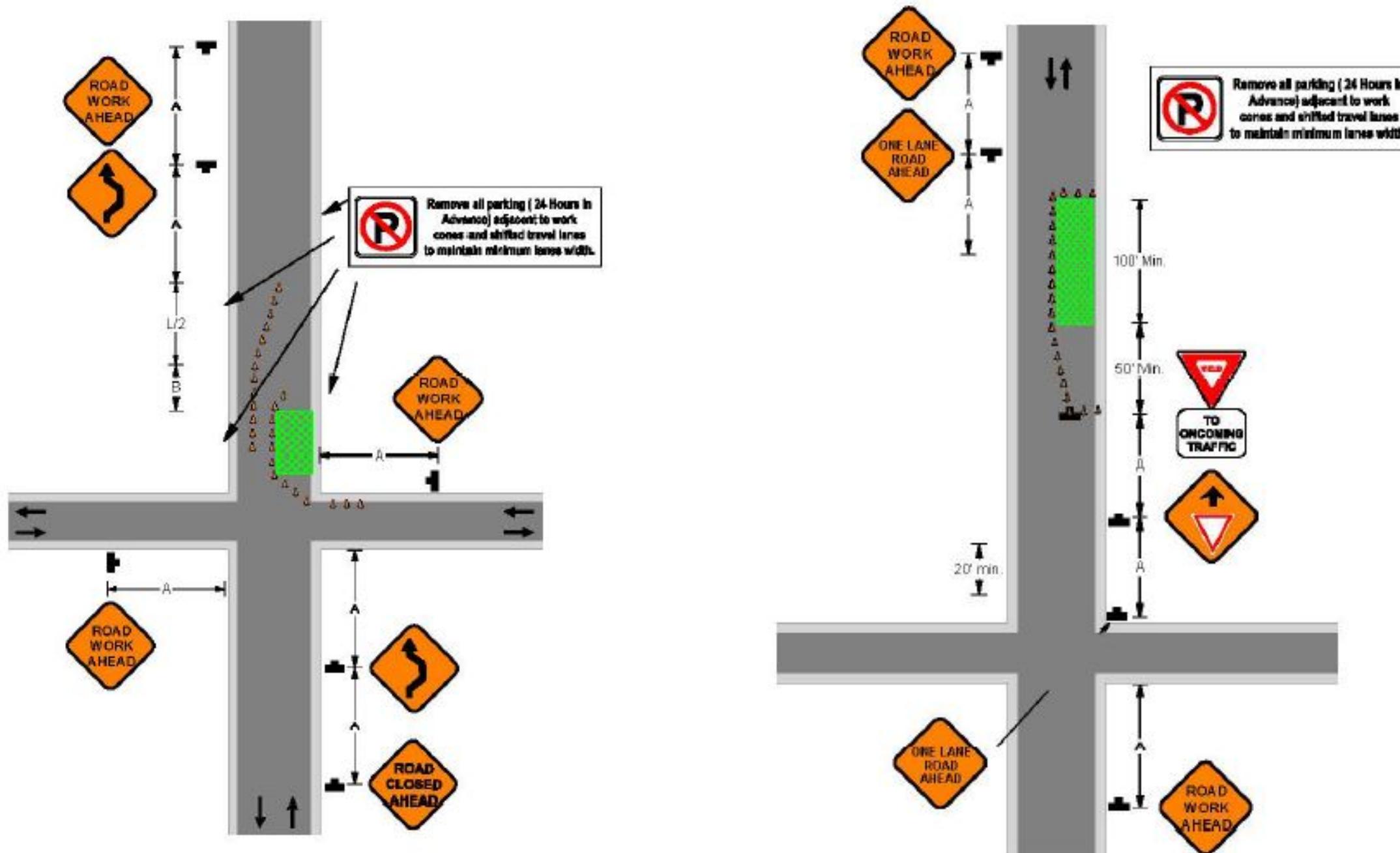
Partial street Closures on Lower Volume Streets

See Page A9 for A, B, C, L Distances



Partial street Closures on Lower Volume Streets

See Page A9 for A, B, C, L Distances



| Road Type | Distance Between Signs** | | |
|----------------------|--------------------------|------------|------------|
| | A | B | C |
| Urban (low speed)* | 100 feet | 100 feet | 100 feet |
| Urban (high speed)* | 350 feet | 350 feet | 350 feet |
| Rural | 500 feet | 500 feet | 500 feet |
| Expressway / Freeway | 1,000 feet | 1,500 feet | 2,640 feet |

| Type of Taper | Taper Length (L) |
|---------------------------------|------------------------|
| Merging Taper | At least L |
| Shifting Taper | At least 0.5 L |
| Shoulder Taper | At least .33 L |
| One-Lane, Two Way Traffic Taper | 100 Ft. (30m) Maximum |
| Downstream Taper | 100 Ft. (30m) per Lane |

| Speed (S) | Taper Length (L) in feet |
|----------------|--------------------------|
| 40 mph or less | $L = \frac{WS^2}{60}$ |
| 45 mph or more | $L = WS$ |

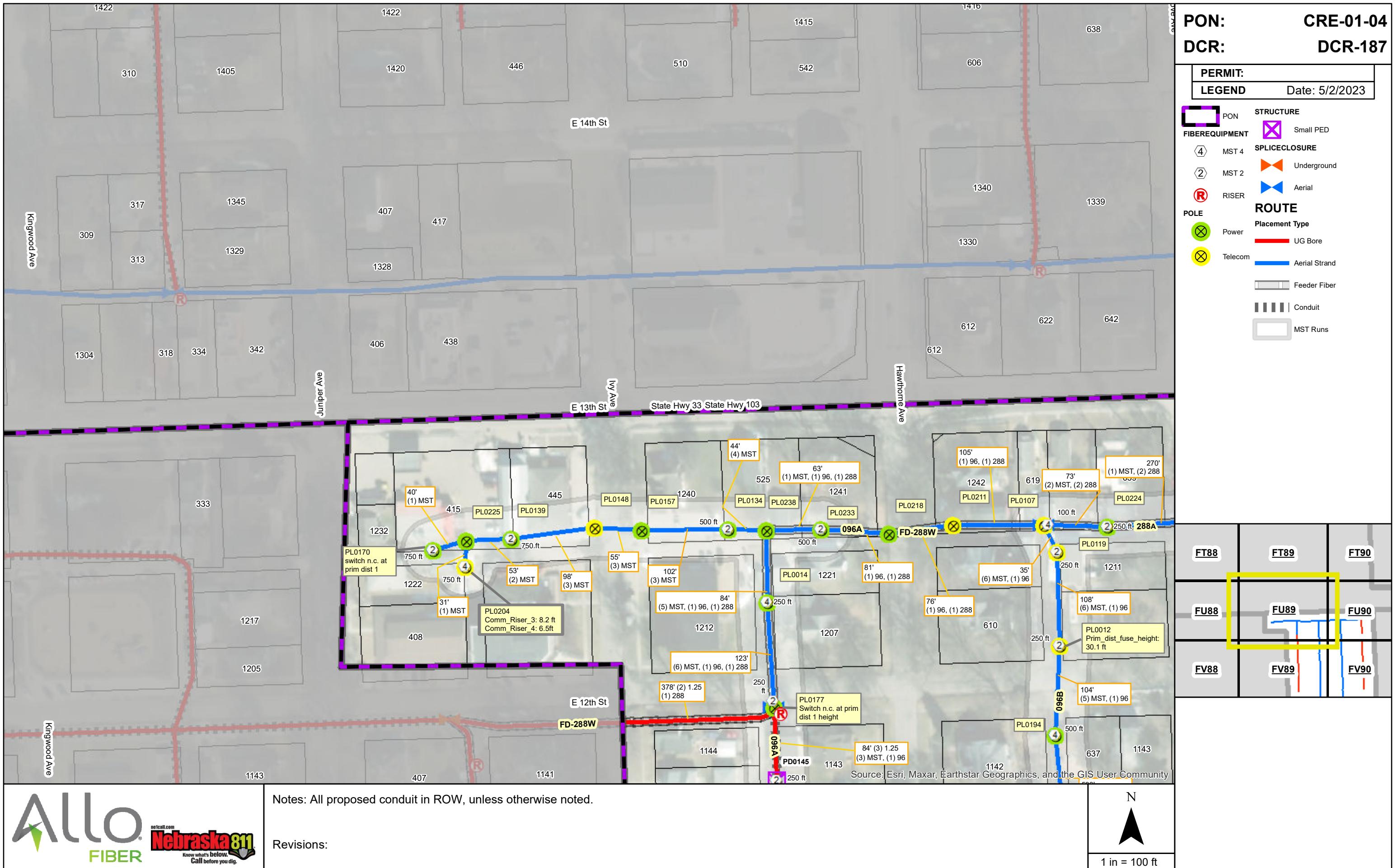
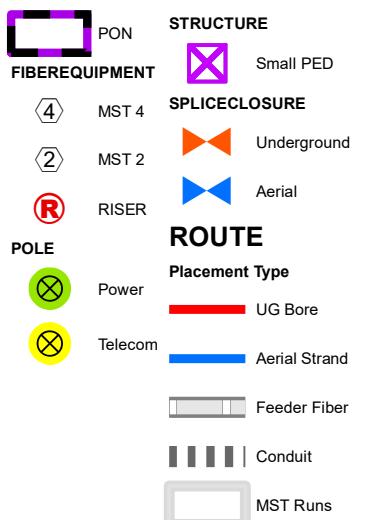
Where: L = taper length in feet
 W = width of offset in feet
 S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

| Lane Width | Speed in MPH | 25 MPH | 30 MPH | 35 MPH | 40 MPH | 45 MPH | 50 MPH | 55 MPH | 60 MPH | 65 MPH |
|------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 10 Ft. | Merging Taper | 105' | 150' | 205' | 270' | 450' | 500' | 550' | 600' | 650' |
| 11 Ft. | Merging Taper | 115' | 165' | 225' | 294' | 495' | 550' | 605' | 660' | 715' |
| 12 Ft. | Merging Taper | 125' | 180' | 245' | 320' | 540' | 600' | 660' | 720' | 780' |



PON: CRE-01-04
DCR: DCR-187

| | |
|----------------|----------------|
| PERMIT: | LEGEND |
| | Date: 5/2/2023 |

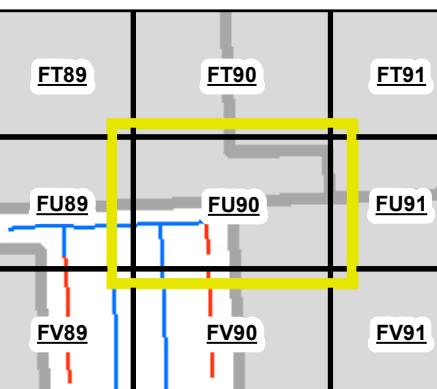
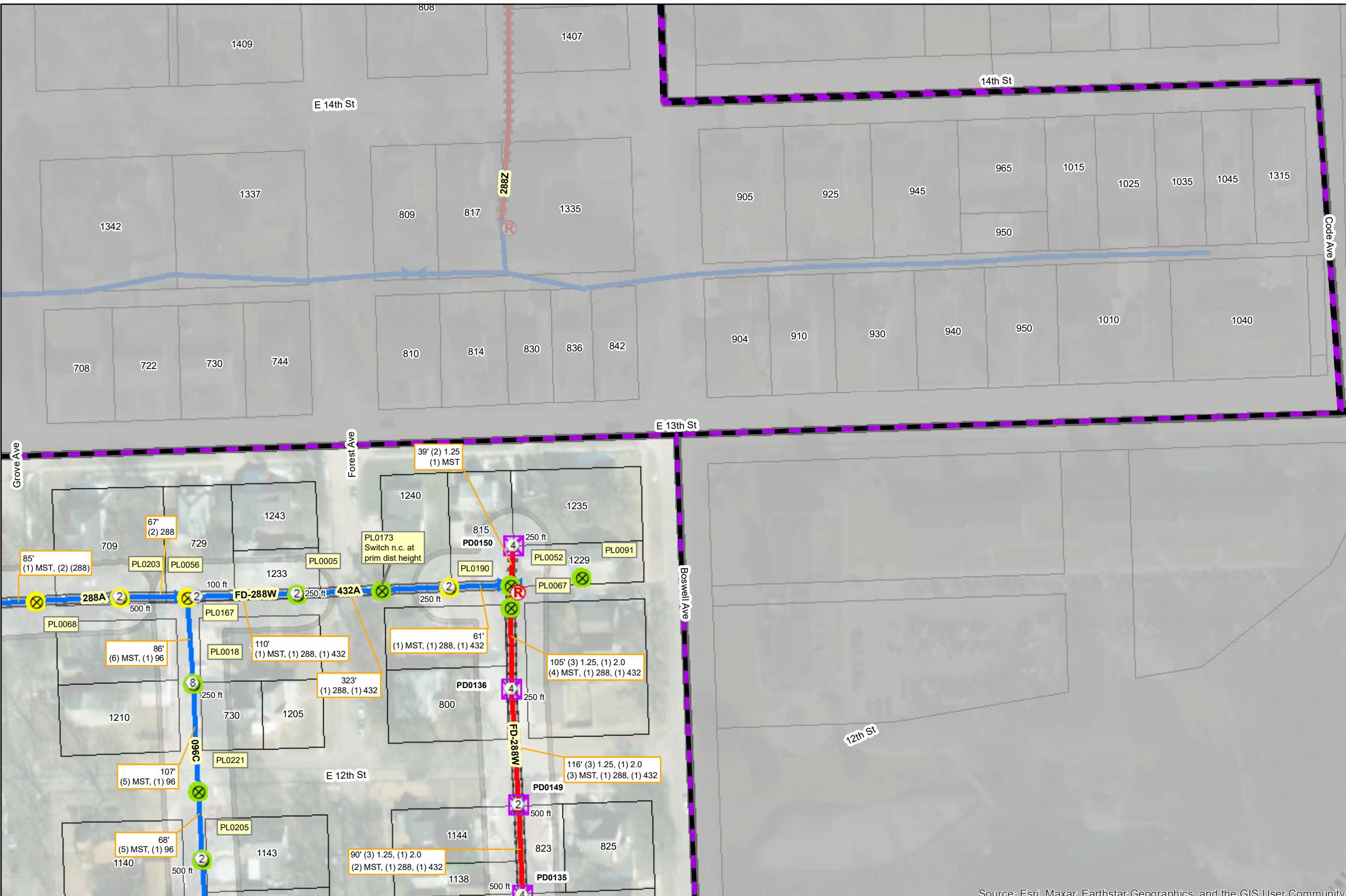


PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | |
|--|-----------------------|
| | STRUCTURE |
| | FIBEREQUIPMENT |
| | SPlicinglosure |
| | ROUTE |
| | POLE |
| | Power |
| | Telecom |

| | |
|--|-----------------------|
| | Placement Type |
| | RISER |
| | UG Bore |
| | Aerial Strand |
| | Aerial |
| | MST 8 |
| | MST 4 |
| | MST 2 |
| | Conduit |
| | Feeder Fiber |
| | MST Runs |



Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

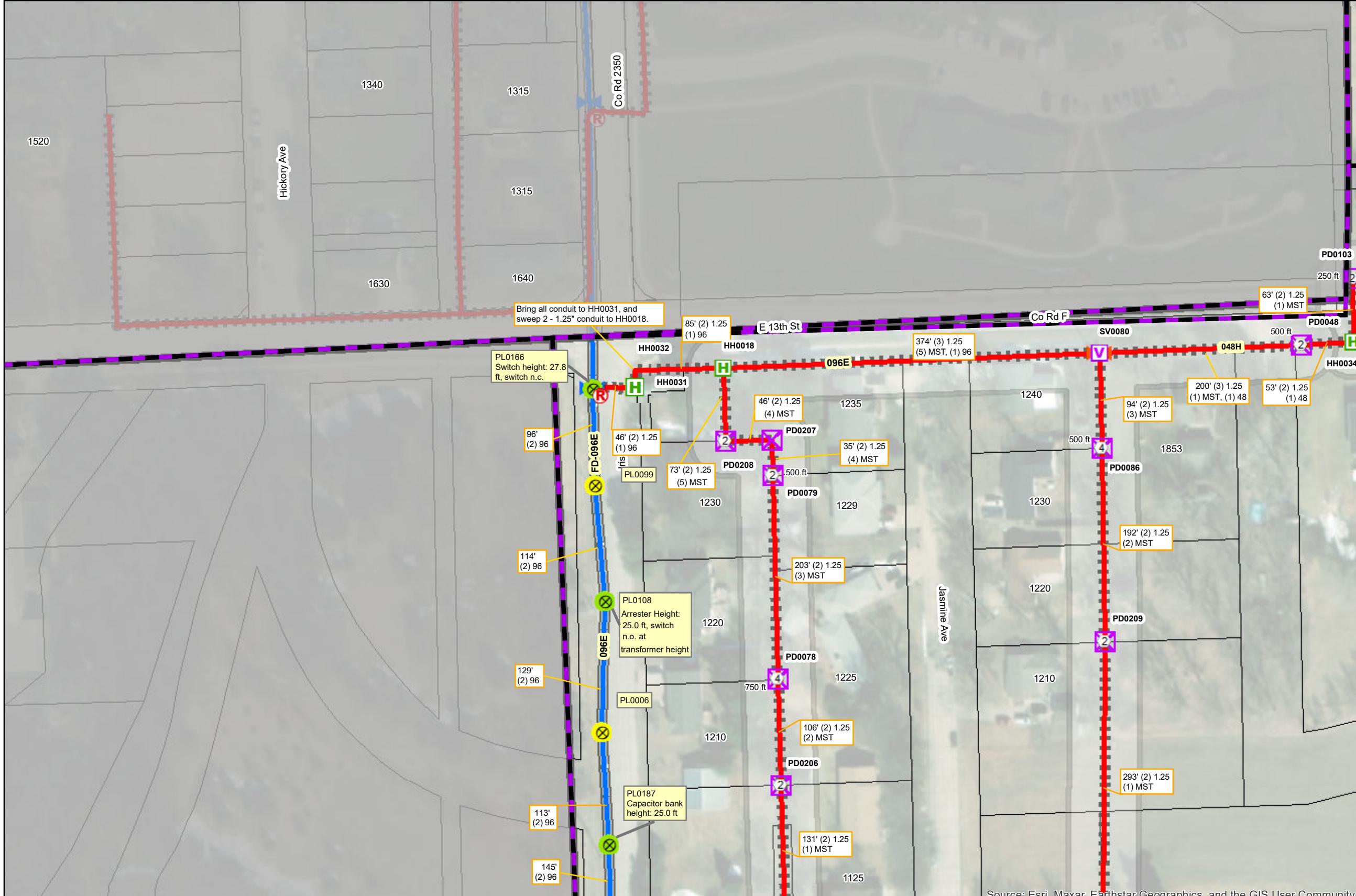
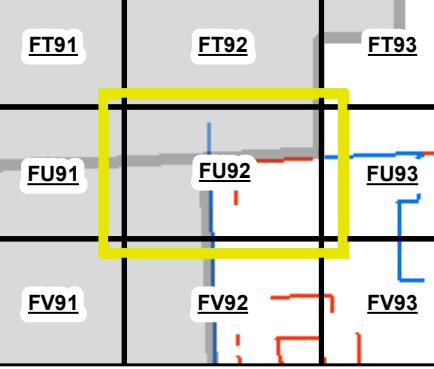
N

1 in = 100 ft

PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | |
|--|-----------------------|
| | STRUCTURE |
| | FIBER |
| | EQUIPMENT |
| | RISER |
| | POLE |
| | ROUTE |
| | Placement Type |
| | UG Bore |
| | Aerial Strand |
| | Feeder Fiber |
| | Future MDU Drop |
| | Future MDU Drop |
| | Conduit |
| | MST Runs |



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

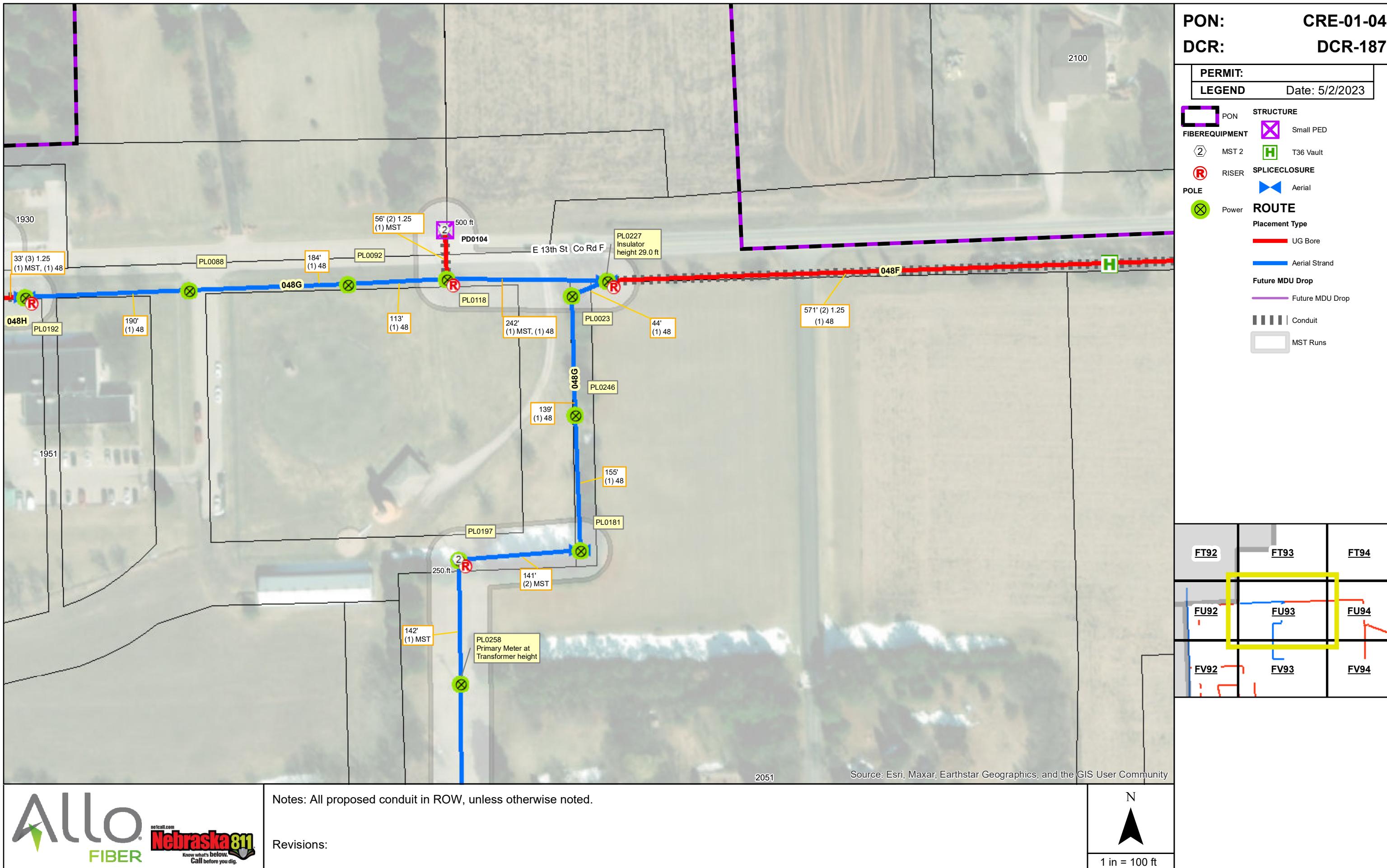


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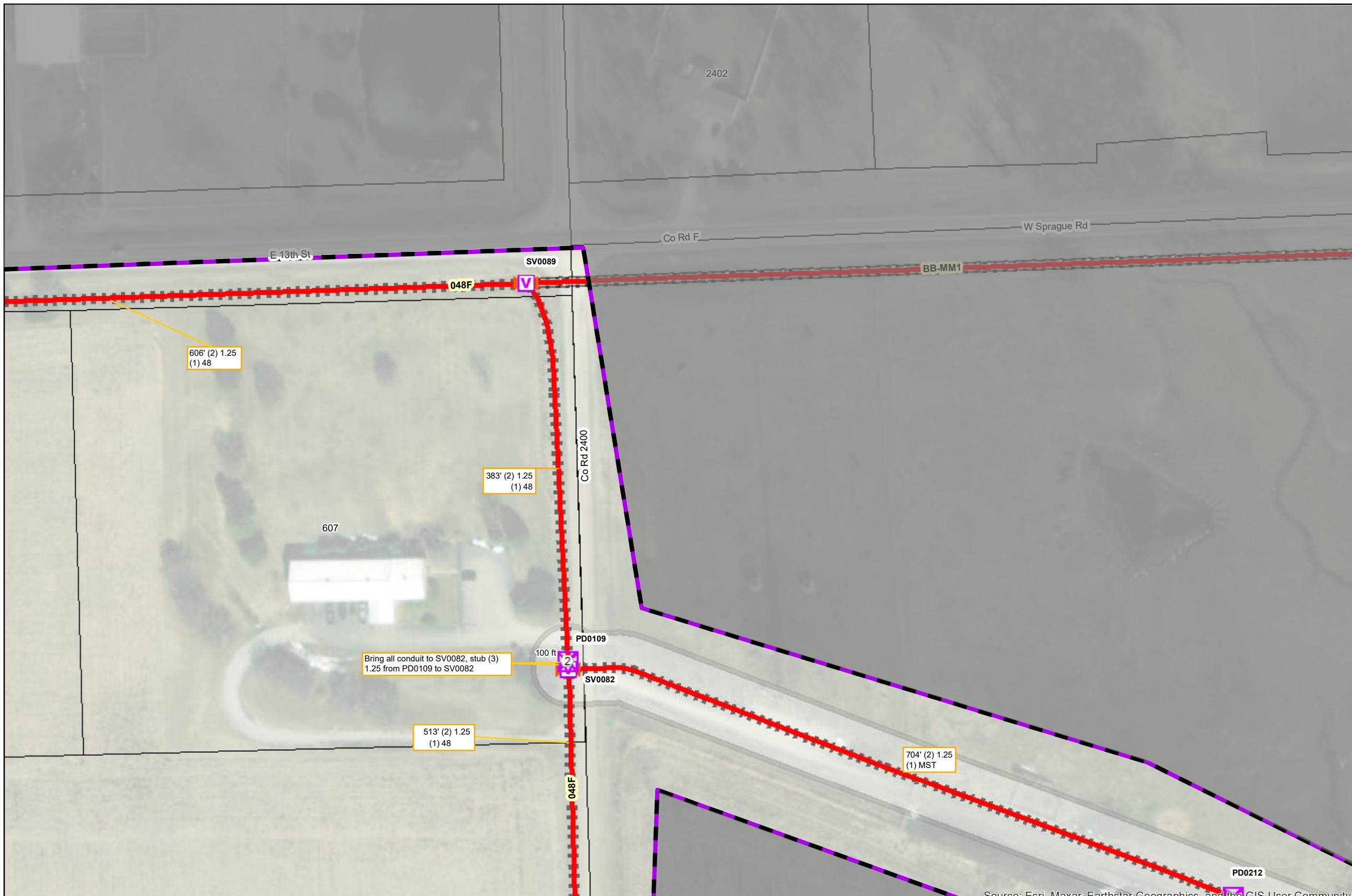
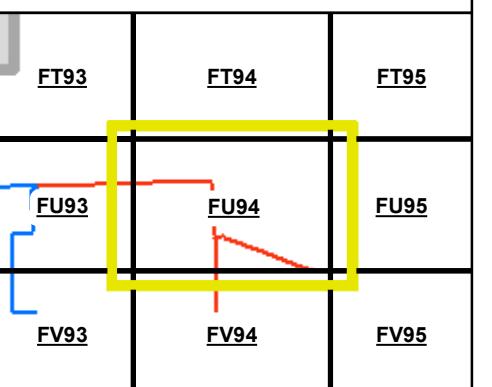
PON: CRE-01-04
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PERMIT:
LEGEND Date: 5/2/2023

PON STRUCTURE
FIBEREQUIPMENT Small PED
② MST 2 T48 Vault
SPLICECLOSURE Underground

ROUTE

Placement Type
UG Bore
Feeder Fiber
Future MDU Drop
Future MDU Drop
Conduit
MST Runs



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

N

1 in = 100 ft



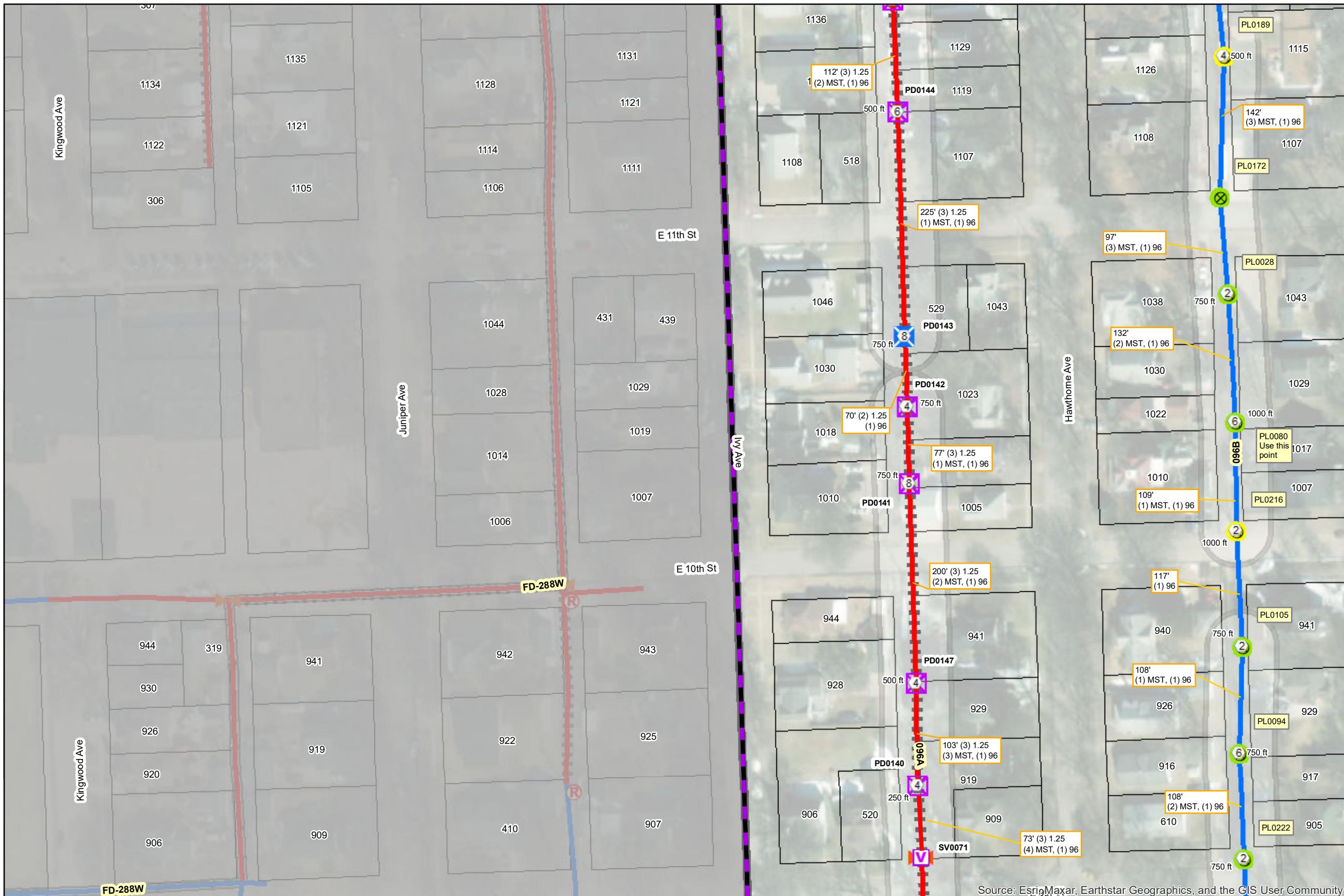
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DCR: DCR-187

PERMIT:
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| | |
|--|------------------|
| | STRUCTURE |
| | FIBER |
| | EQUIPMENT |
| | MST 8 |
| | MST 6 |
| | MST 4 |
| | MST 2 |
| | ROUTE |
| | Placement Type |
| | UG Bore |
| | Aerial Strand |
| | Feeder Fiber |
| | Conduit |
| | MST Runs |



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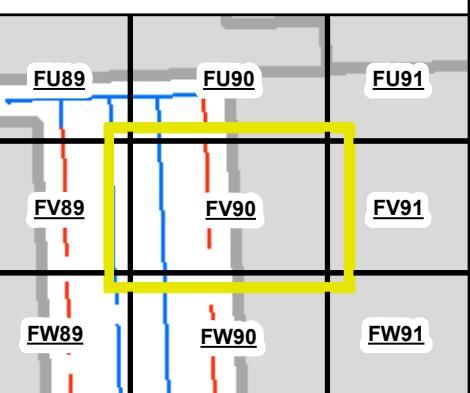
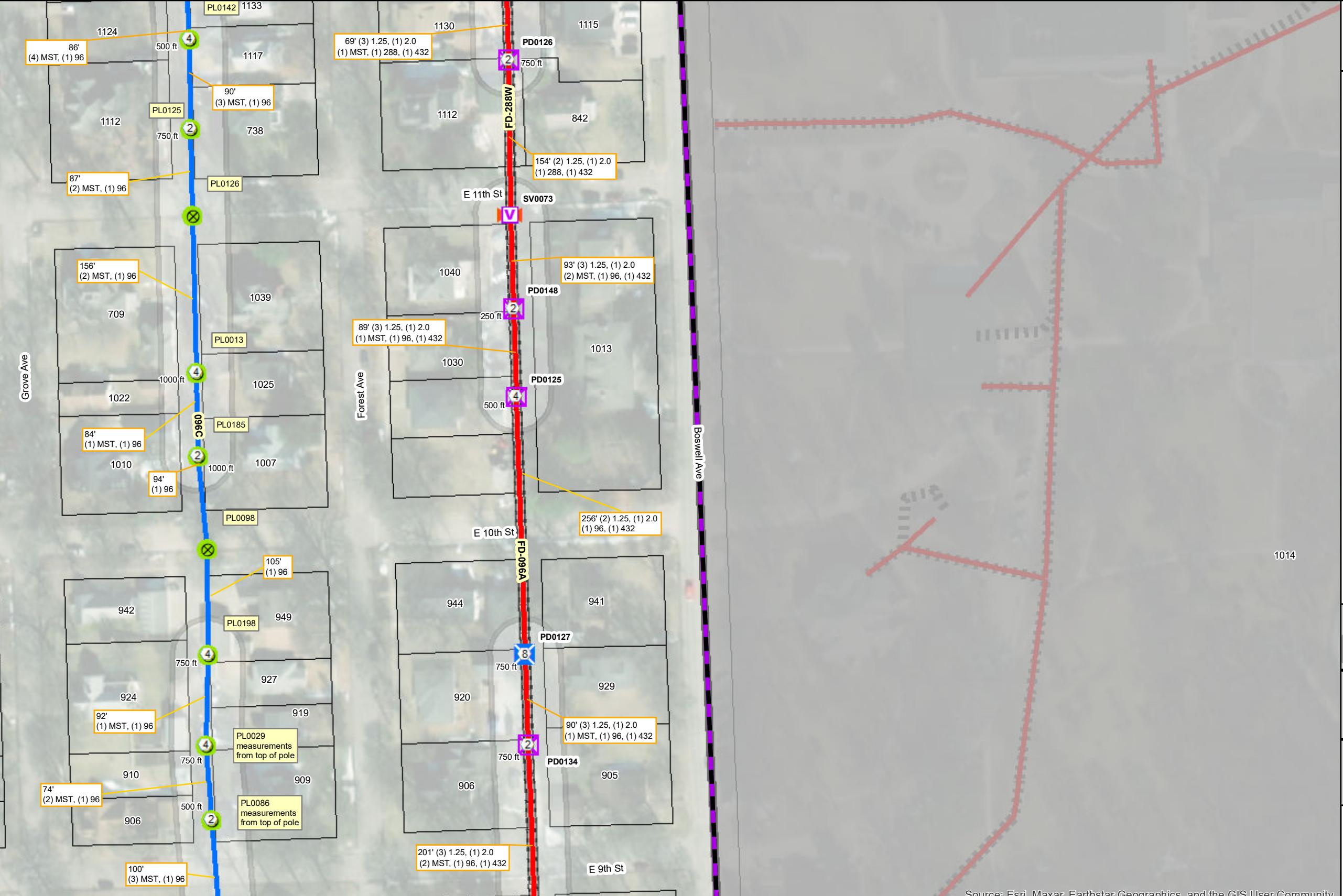
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PERMIT:
LEGEND Date: 5/2/2023

| | |
|----------------|----------------|
| PON | STRUCTURE |
| FIBEREQUIPMENT | Aerial Strand |
| ⑧ MST 8 | Large PED |
| ④ MST 4 | Small PED |
| ② MST 2 | T48 Vault |
| SPLICECLOSURE | Underground |
| POLE | ROUTE |
| Power | Placement Type |
| | UG Bore |
| | Aerial Strand |
| | Feeder Fiber |
| | Conduit |
| | MST Runs |



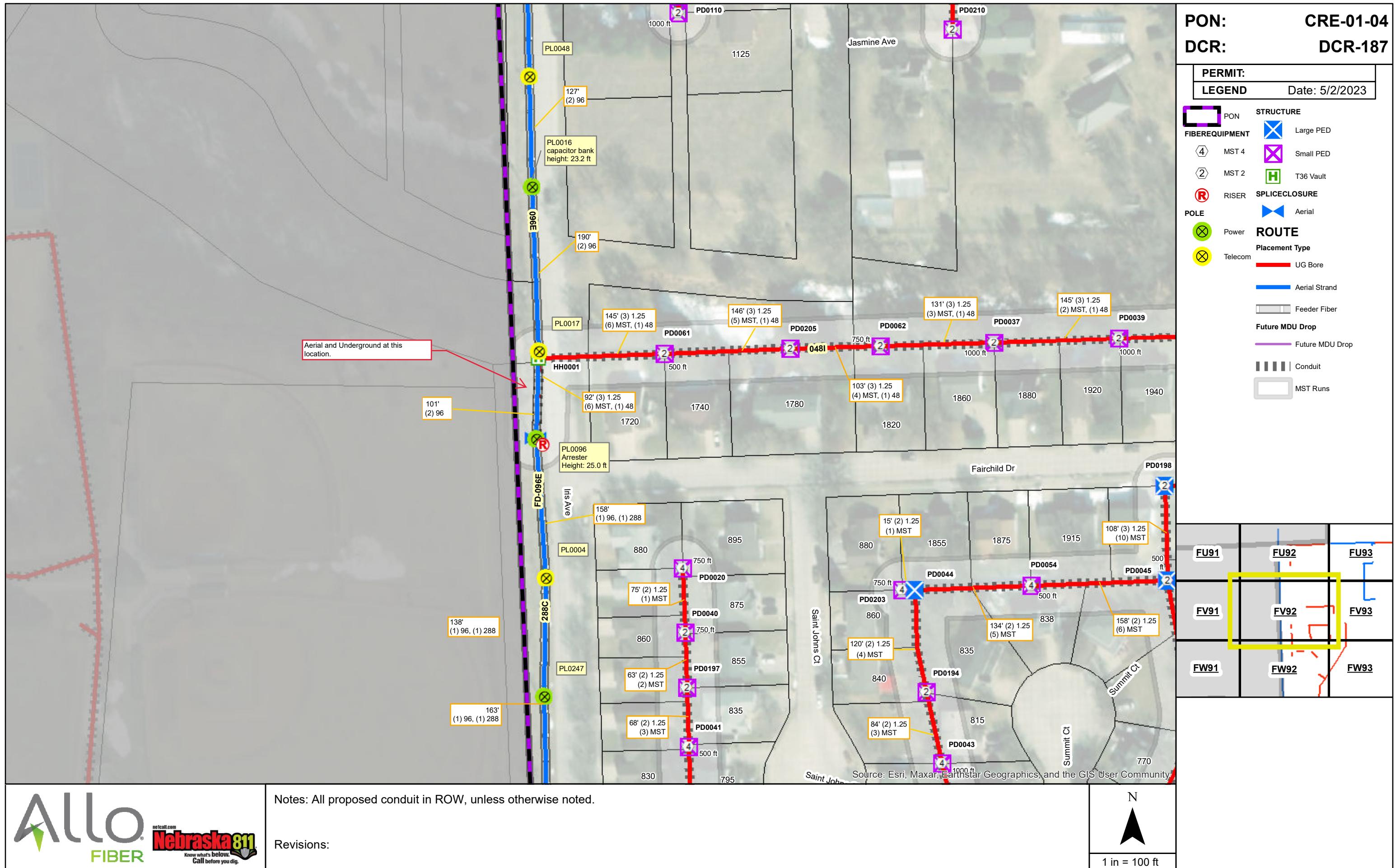
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1 in = 100 ft



PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | |
|------------------------|-----------------|
| PON: | STRUCTURE |
| FIBEREQUIPMENT: | Large PED |
| ④ | MST 4 |
| ② | MST 2 |
| H | T36 Vault |
| R | RISER |
| ROUTE: | SPLICECLOSURE |
| Power | Aerial |
| Telecom | UG Bore |
| ROUTE: | Placement Type |
| | Aerial |
| | Feeder Fiber |
| | Future MDU Drop |
| | Future MDU Drop |
| | Conduit |
| | MST Runs |



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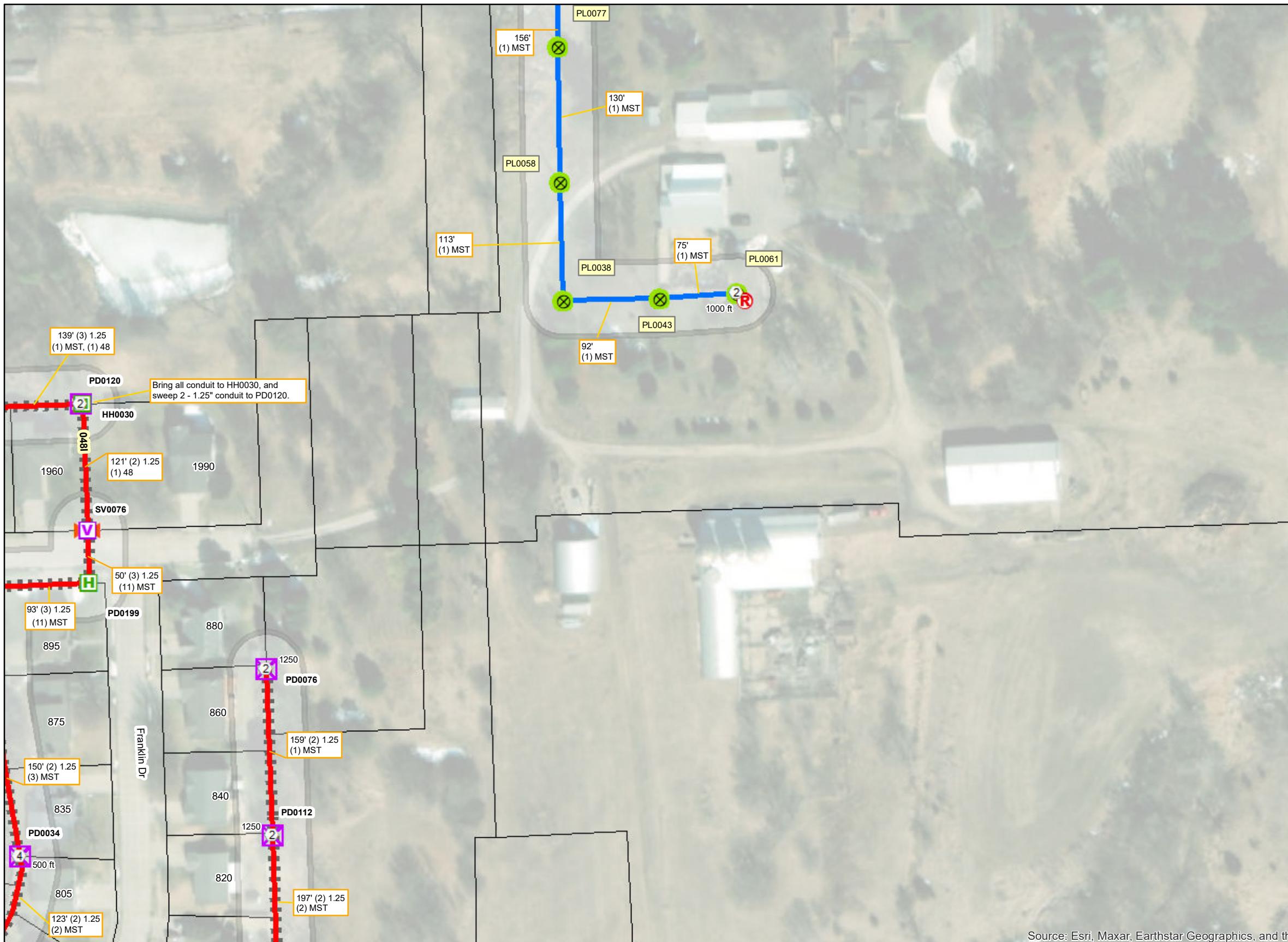
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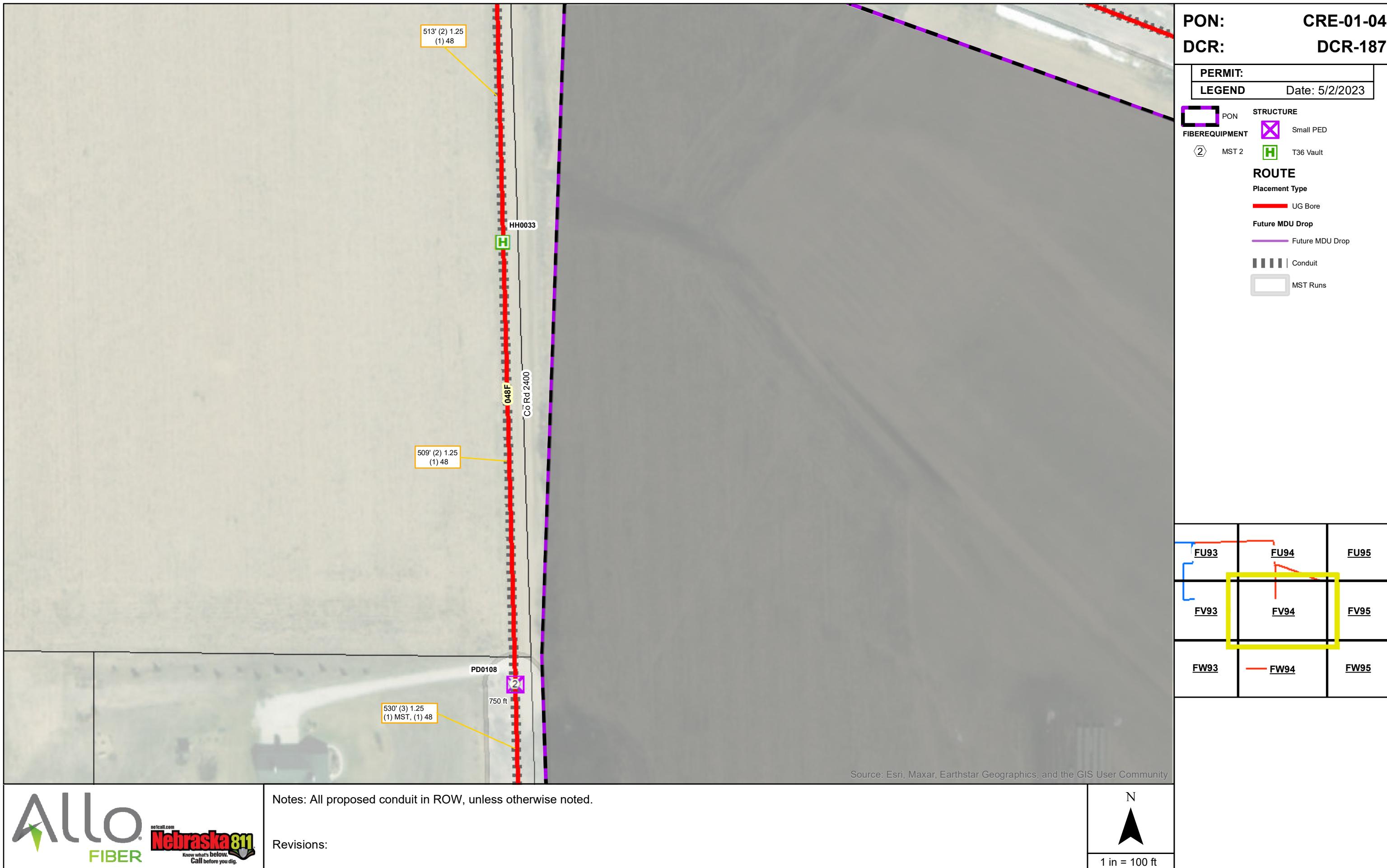
| | | |
|--|----------------|----------------|
| | PON | STRUCTURE |
| | FIBEREQUIPMENT | Large PED |
| | MST 4 | Small PED |
| | MST 2 | T36 Vault |
| | RISER | T48 Vault |
| | POLE | SPlicinglosure |
| | ROUTE | Power |

| | |
|--|-----------------|
| | UG Bore |
| | Aerial Strand |
| | Future MDU Drop |
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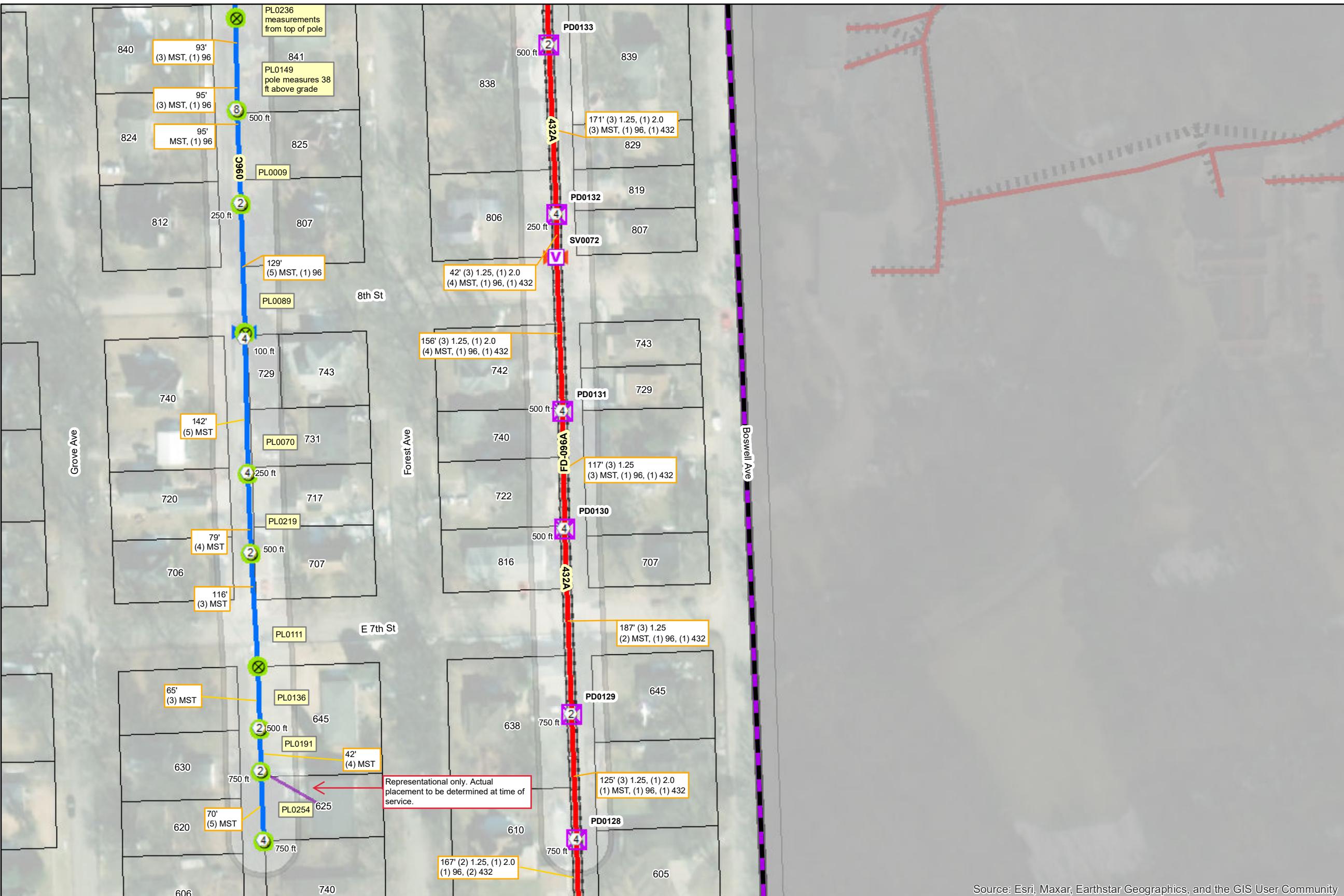
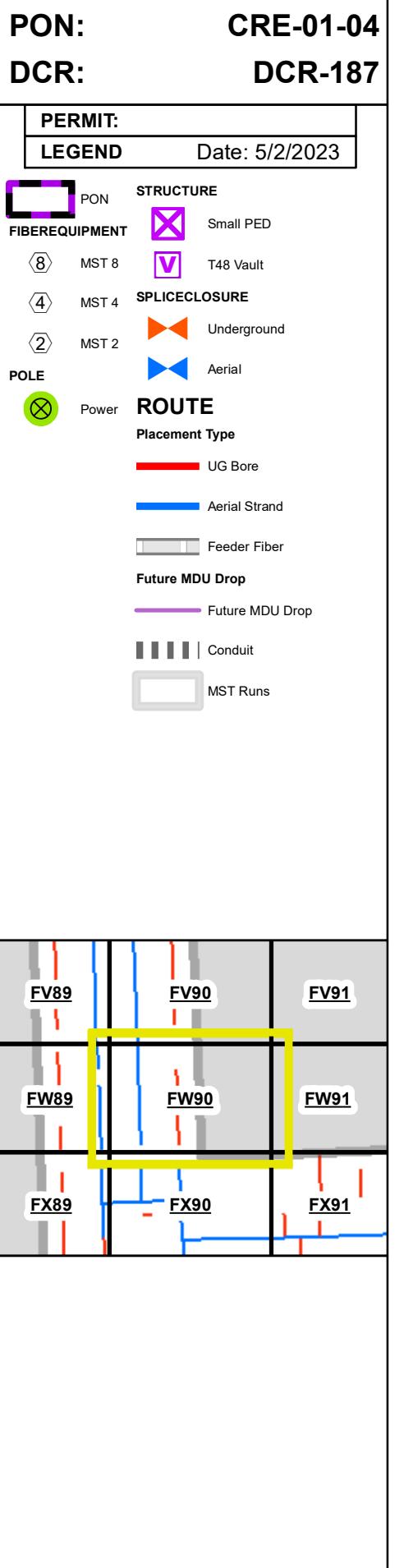


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LEGEND Date: 5/2/2023

| | |
|--|-----------------------|
| | STRUCTURE |
| | FIBEREQUIPMENT |
| | SPLICECLOSURE |
| | Aerial |
| | ROUTE |
| | RISER |
| | POLE |
| | Power |
| | Telecom |
| | Feeder Fiber |
| | Conduit |
| | MST Runs |





Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

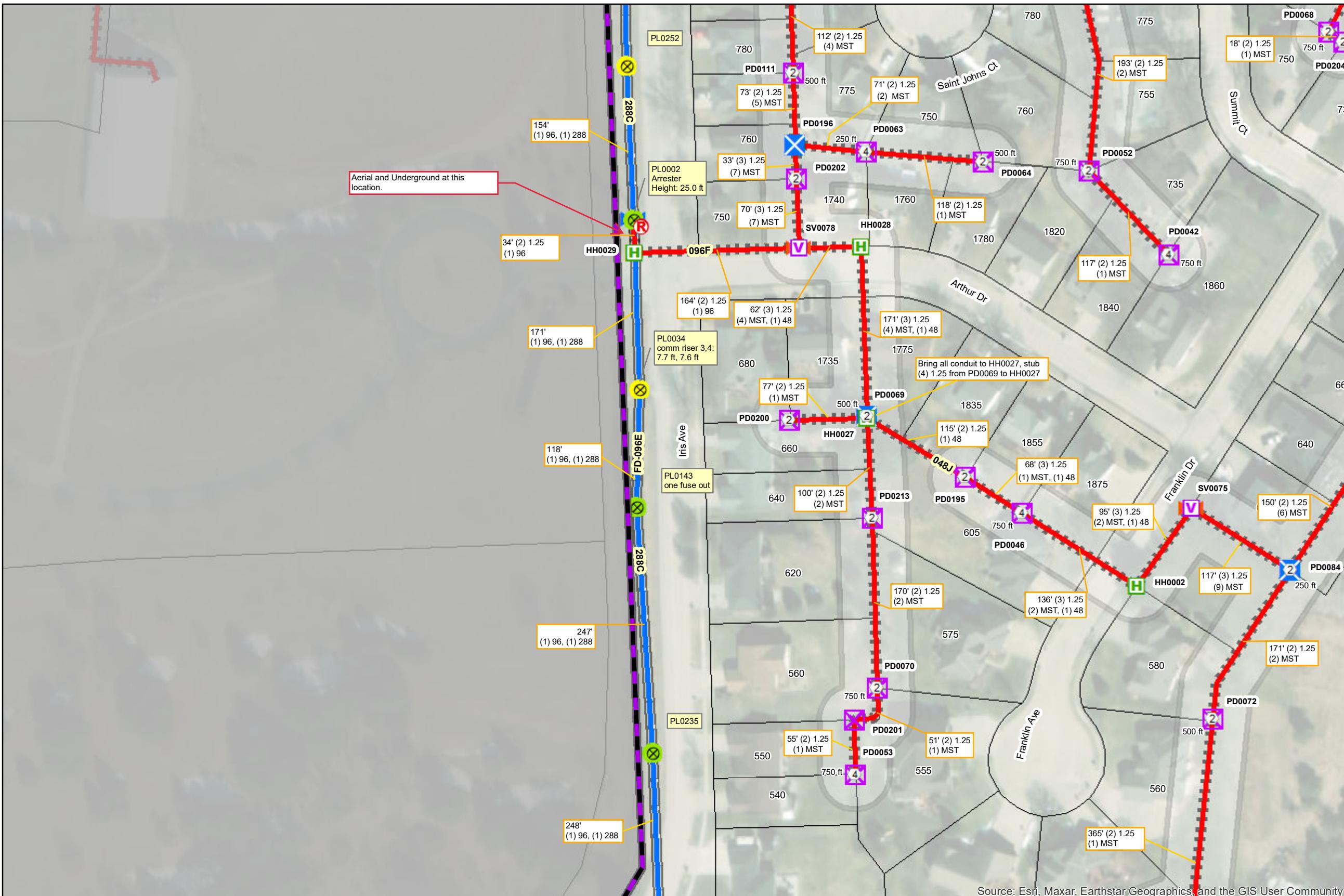
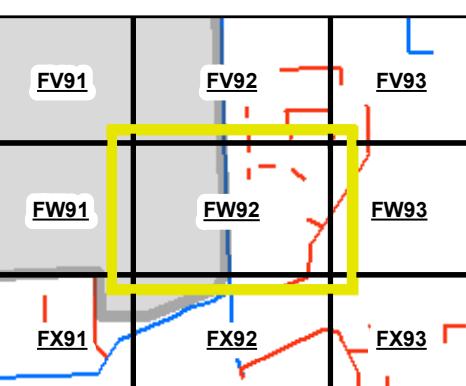
N
1 in = 100 ft

PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | |
|-----------------|-------------|
| PON | STRUCTURE |
| FIBER EQUIPMENT | LARGE PED |
| MST 4 | SMA PED |
| MST 2 | T36 Vaul |
| RISER | V |
| SPlice CLOSURE | Underground |
| POLE | Aerial |
| Power | |
| Telecom | |

| | |
|-----------------|----------------|
| ROUTE | Placement Type |
| UG Bore | |
| Aerial Strand | |
| Feeder Fiber | |
| Future MDU Drop | |
| Future MDU Drop | |
| Conduit | |
| MST Runs | |



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

N

1 in = 100 ft





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| | |
|-----------------------|-------------|
| STRUCTURE | 576 Cabinet |
| FIBEREQUIPMENT | Small PED |
| ⑥ MST 6 | T48 Vault |
| ④ MST 4 | T60 Vault |
| ② MST 2 | |
| ⑧ RISER | |
| SPLICECLOSURE | Underground |
| POLE | Aerial |
| Power | Telecom |
| ROUTE | |
| Placement Type | |
| UG Bore | |
| Aerial Strand | |
| Feeder Fiber | |
| Future MDU Drop | |
| Future MDU Drop | |
| Conduit | |
| MST Runs | |



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

N
1 in = 100 ft



Notes: All proposed conduit in ROW, unless otherwise noted.

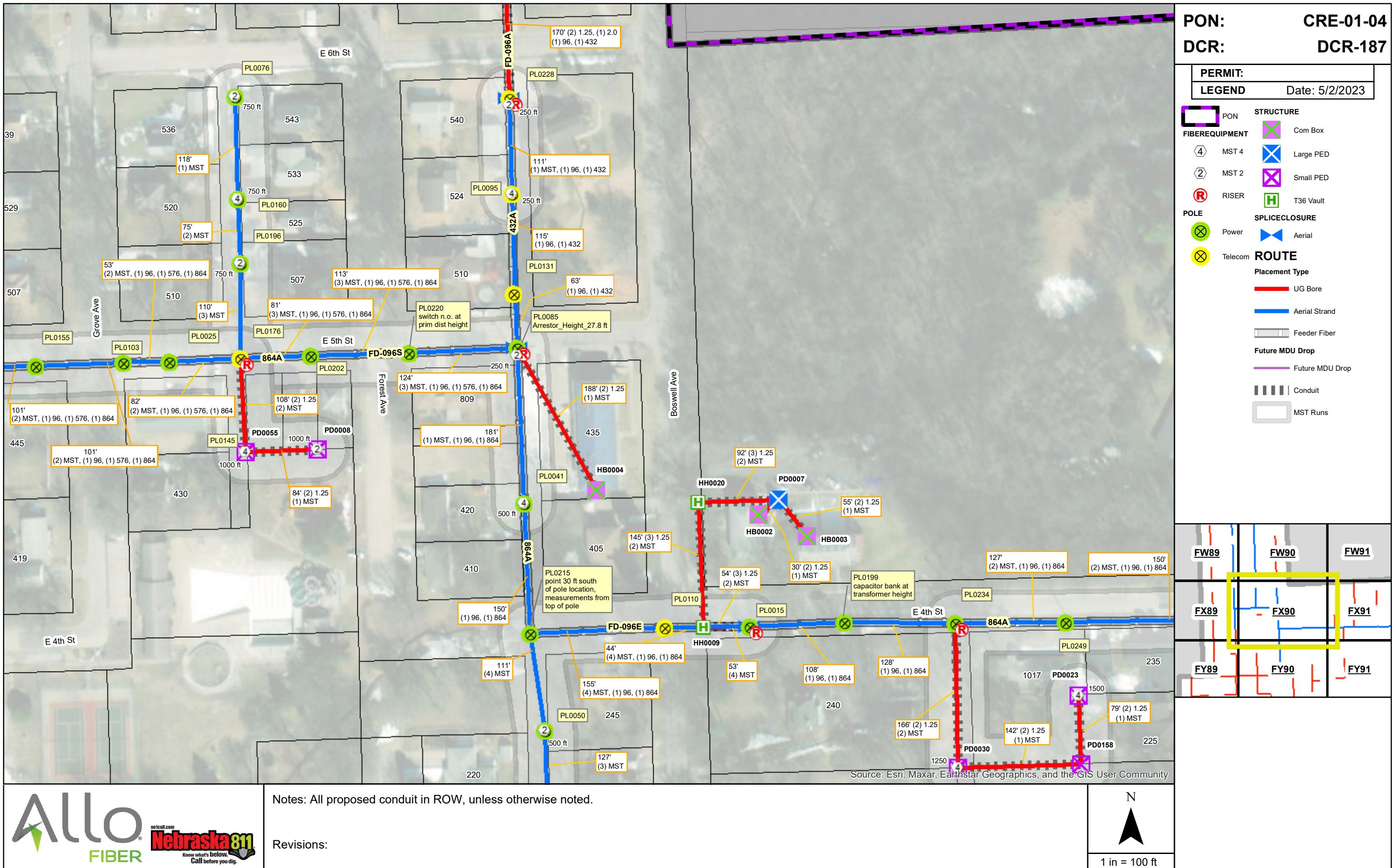
Revisions:



PON: CRE-01-04
DCR: DCR-187

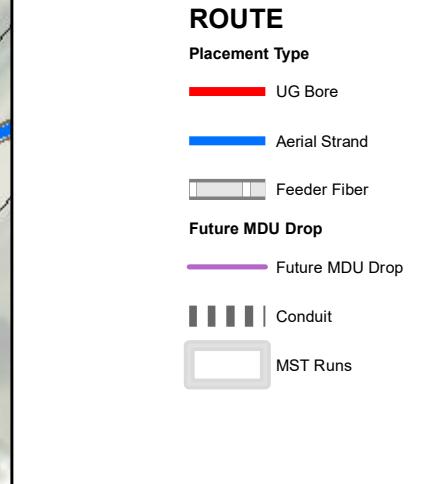
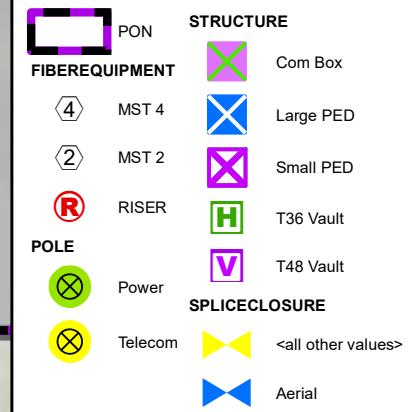
PERMIT:
LEGEND Date: 5/2/2023

| | |
|--|-----------------|
| | STRUCTURE |
| | EQUIPMENT |
| | ROUTE |
| | POWER |
| | TELECOM |
| | MST 4 |
| | MST 2 |
| | RISER |
| | T36 VULT |
| | AERIAL |
| | POWER |
| | TELECOM |
| | ROUTE |
| | Placement Type |
| | UG BORE |
| | AERIAL STRAND |
| | Feeder Fiber |
| | Future MDU Drop |
| | Future MDU Drop |
| | Conduit |
| | MST RUNS |



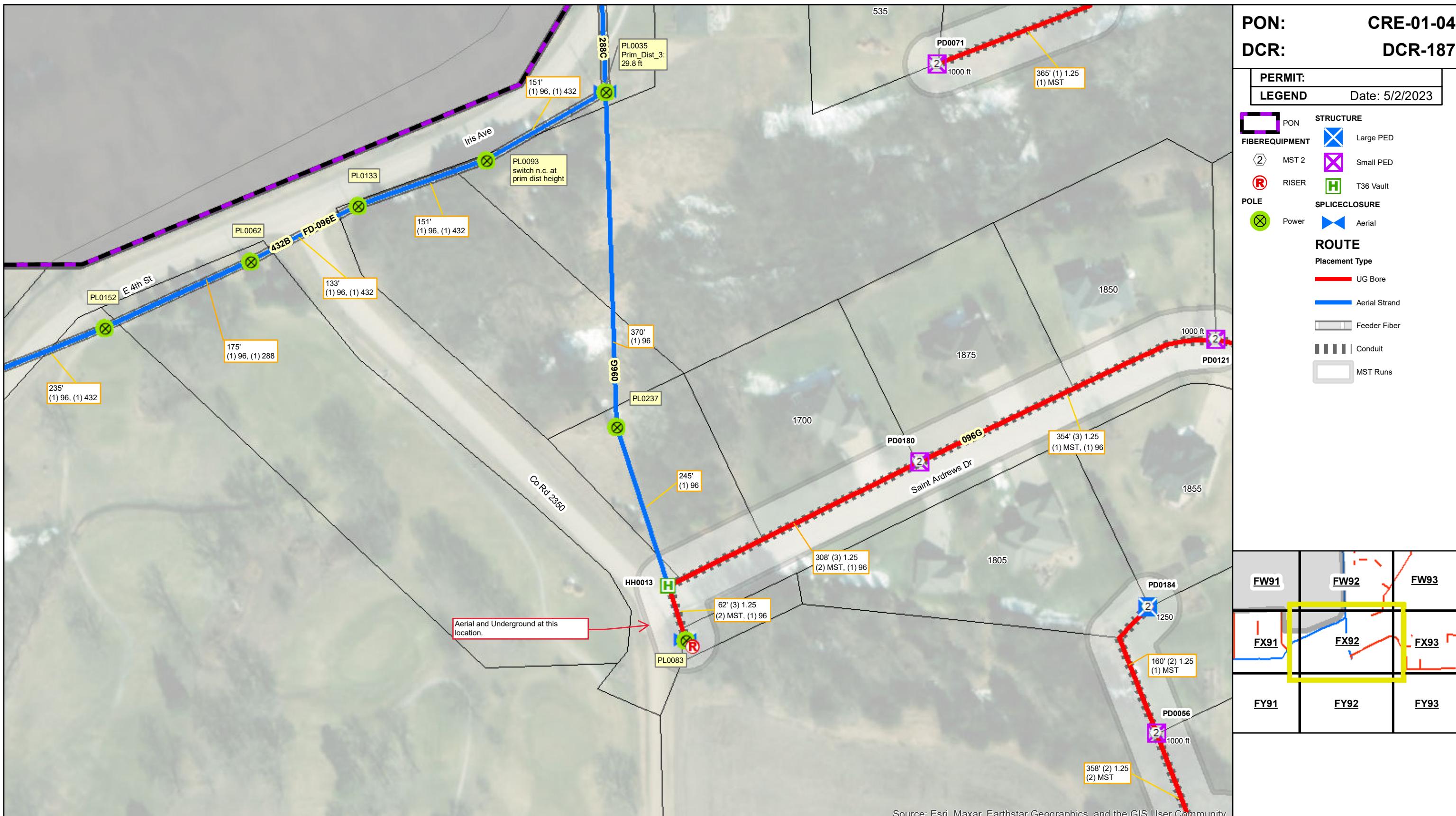
PON: CRE-01-04
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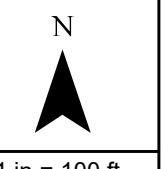
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community





Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

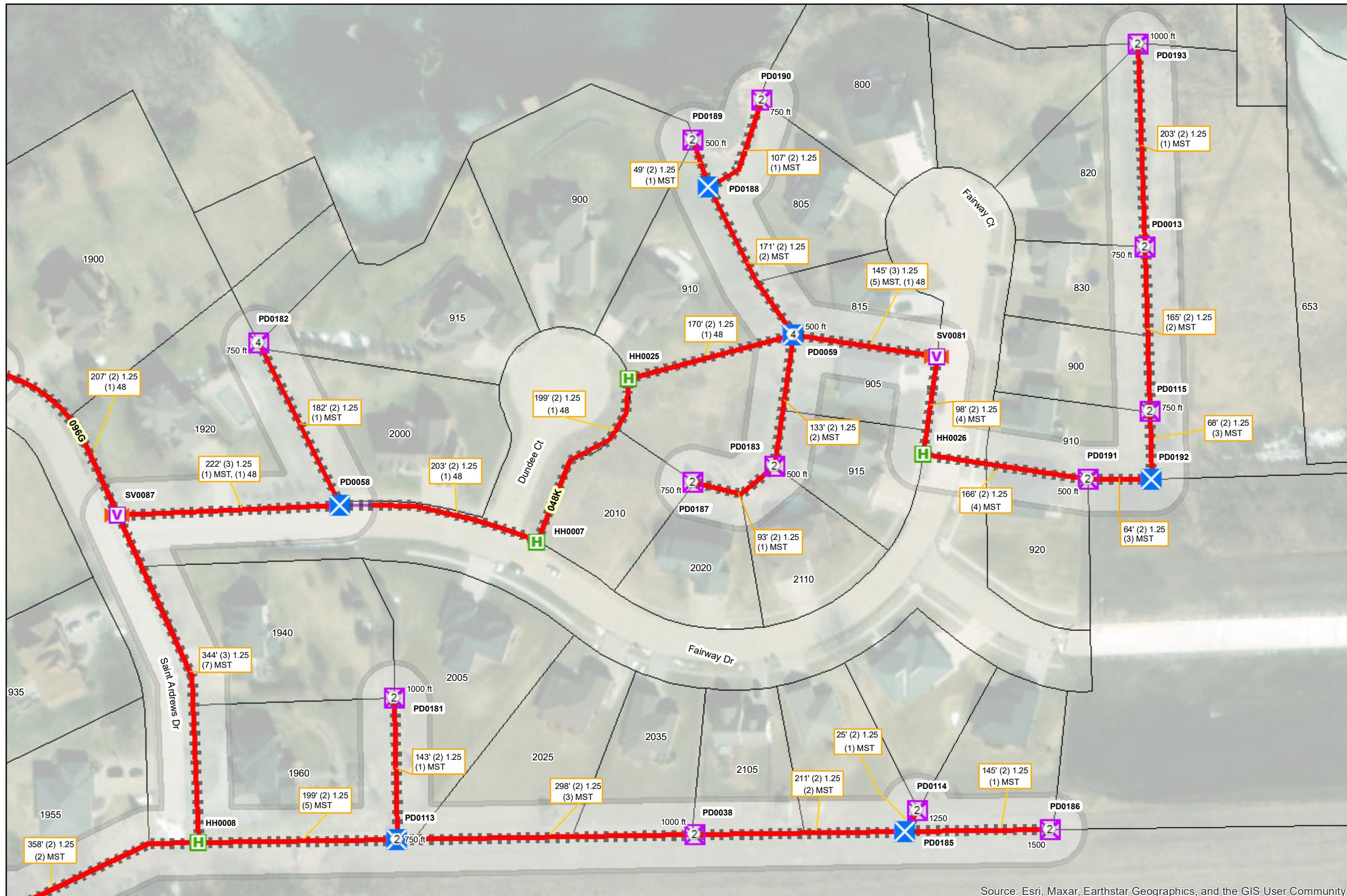
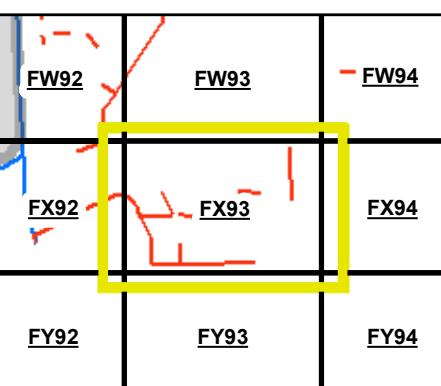


PON: CRE-01-04
DCR: DCR-187

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| | | |
|--|--------------|------------------|
| | PON | STRUCTURE |
| | FIBER | EQUIPMENT |
| | MST 4 | |
| | MST 2 | |
| | T36 Vault | |
| | T48 Vault | |
| | SPlicing | Closure |

| | |
|-----------------|-----------------------|
| ROUTE | Placement Type |
| UG Bore | UG Bore |
| Future MDU Drop | Future MDU Drop |
| Future MDU Drop | Future MDU Drop |
| Conduit | MST Runs |



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

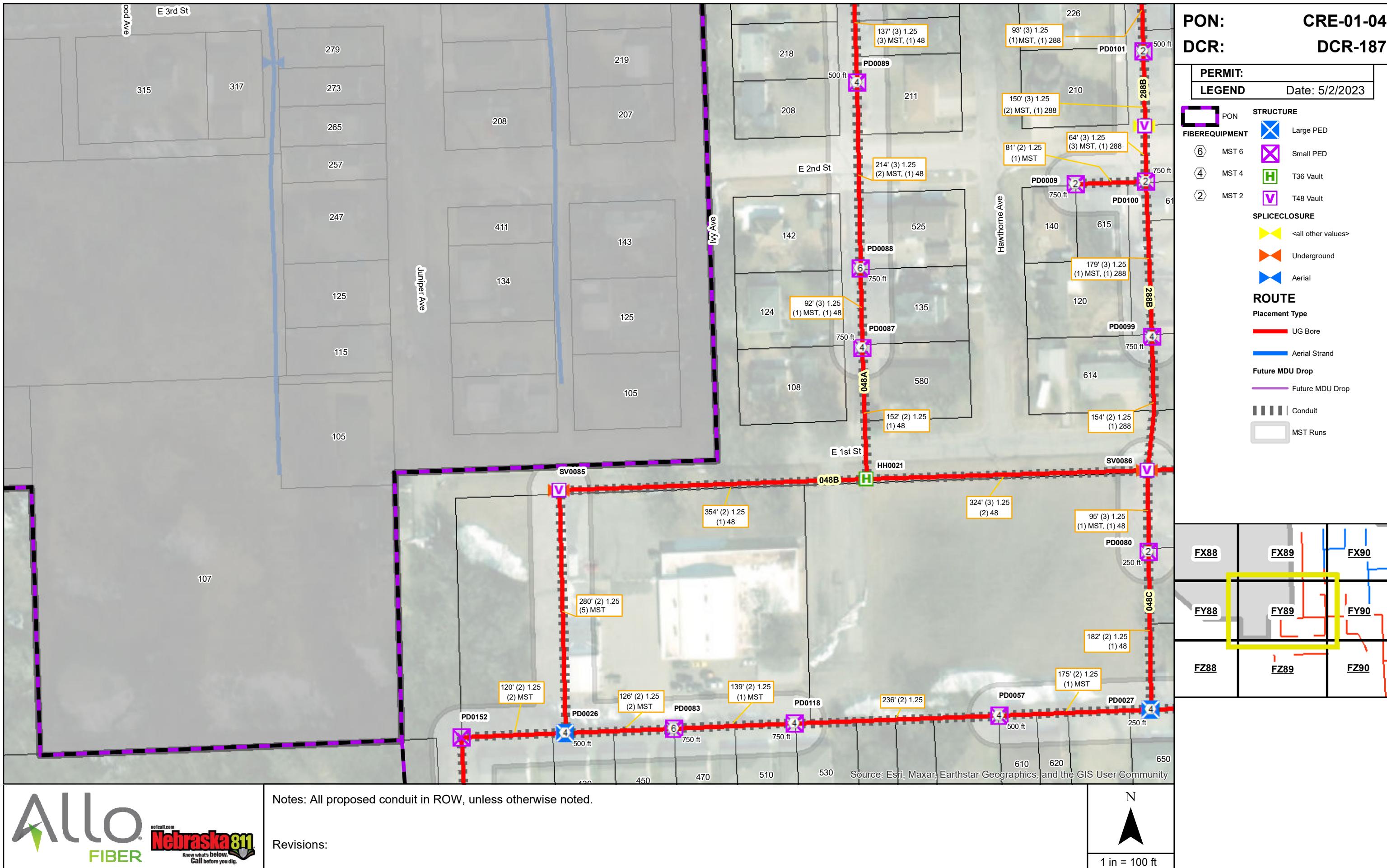


Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

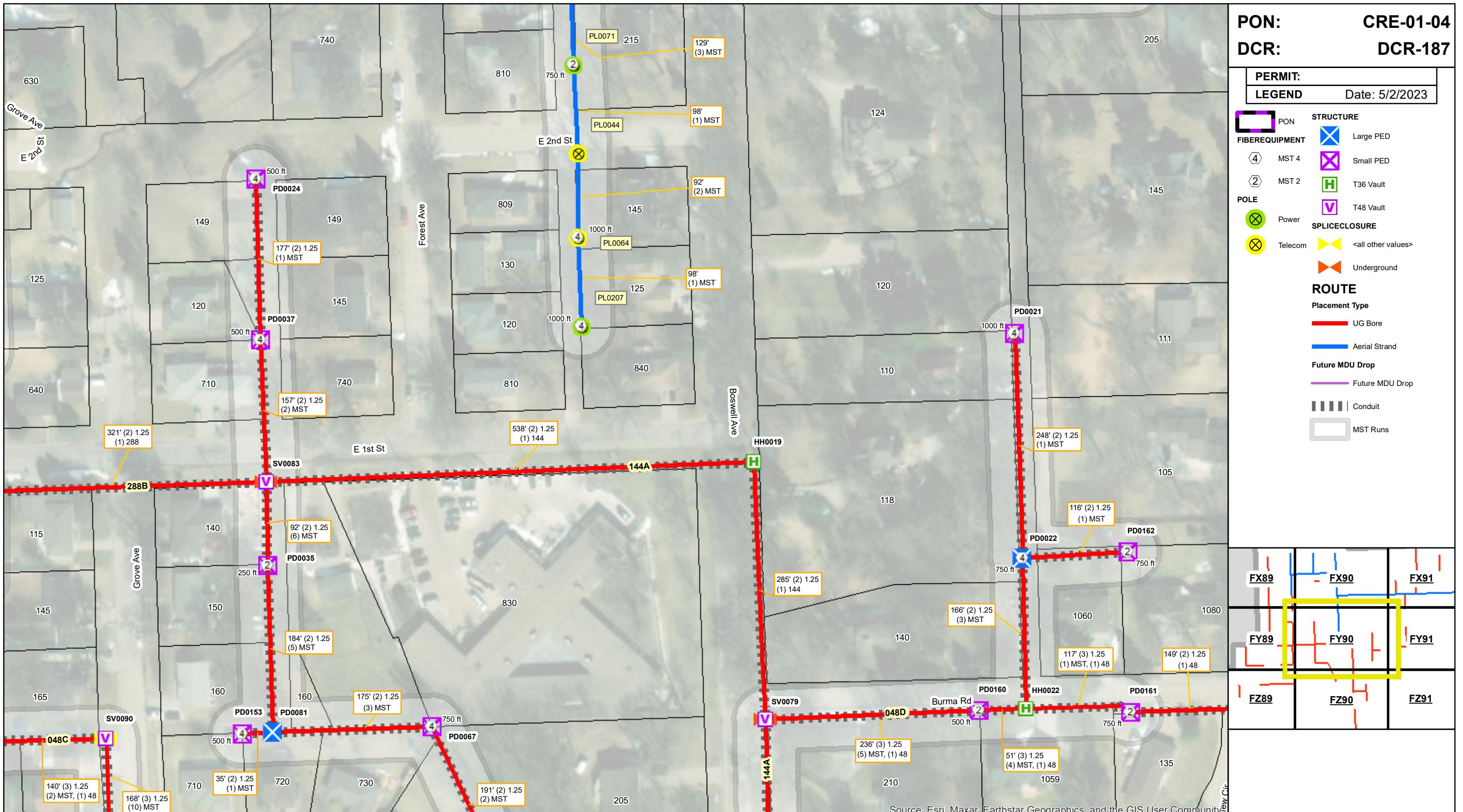
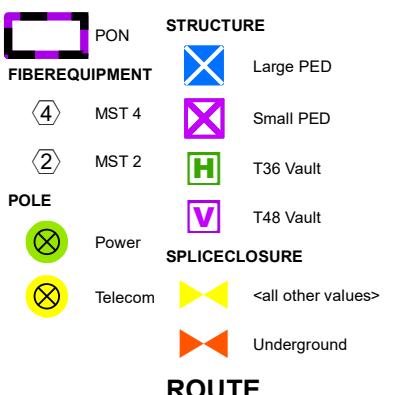
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1 in = 100 ft



PON: CRE-01-04
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Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

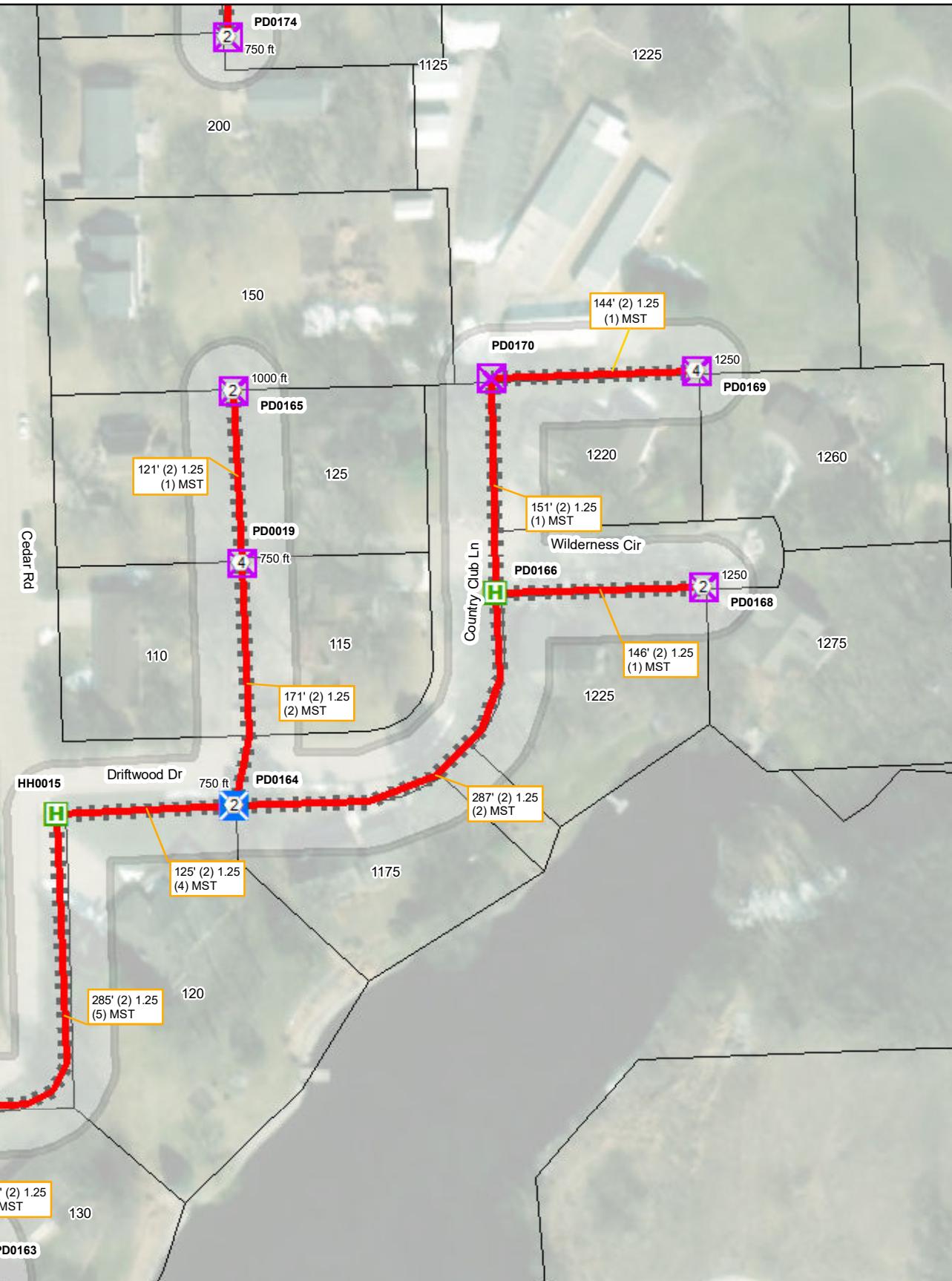
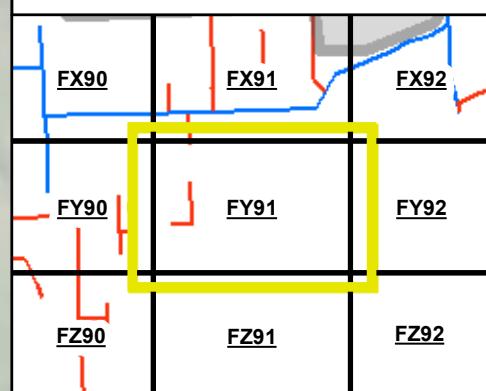


PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | | |
|--|-----------------------|--------------------|
| | PON | STRUCTURE |
| | FIBEREQUIPMENT | Large PED |
| | MST 4 | Small PED |
| | MST 2 | T36 Vault |
| | | T48 Vault |
| | | <all other values> |

| | |
|--|-----------------------|
| | ROUTE |
| | Placement Type |
| | UG Bore |
| | Future MDU Drop |
| | Future MDU Drop |
| | Conduit |
| | MST Runs |



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



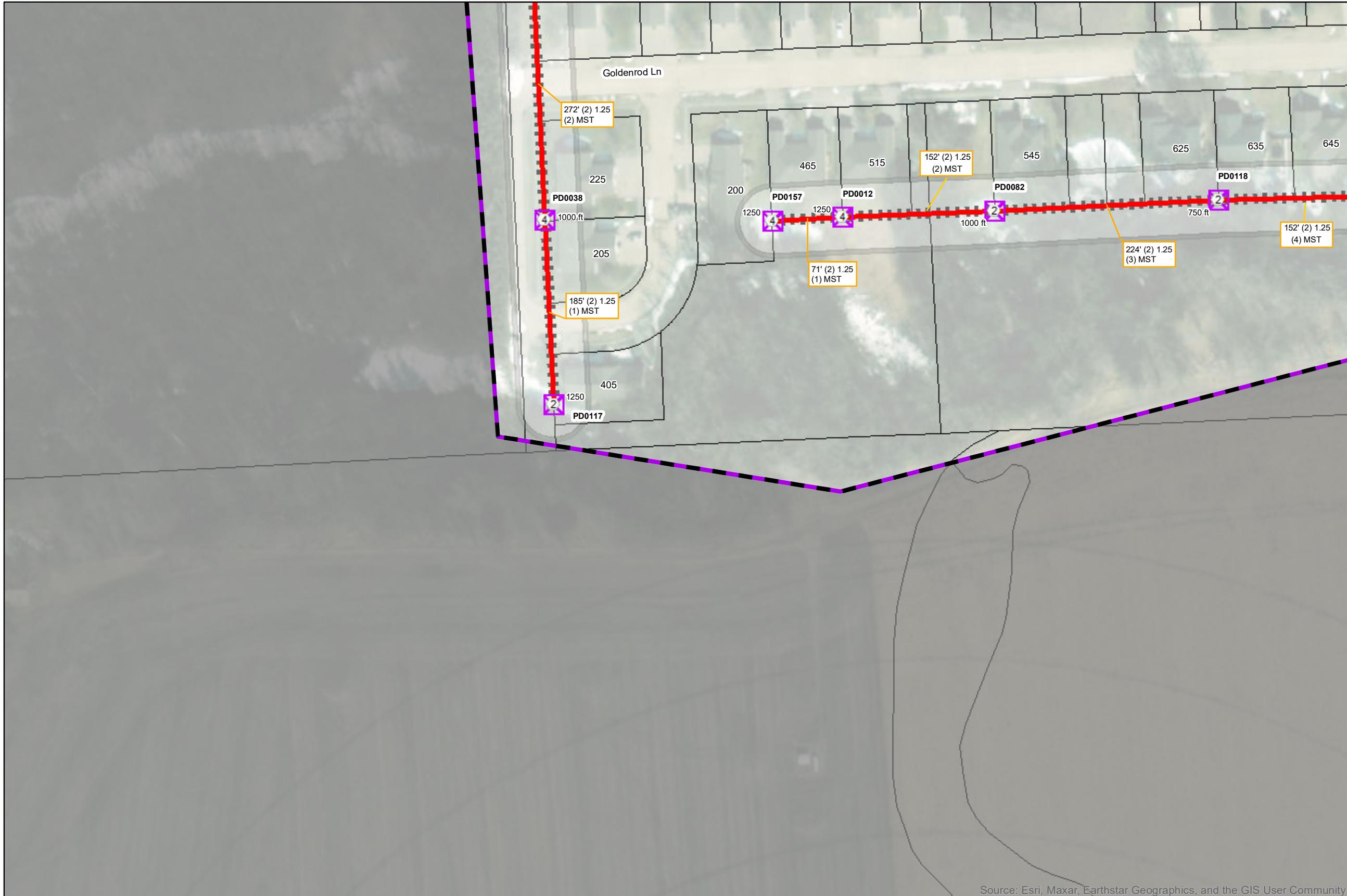
Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

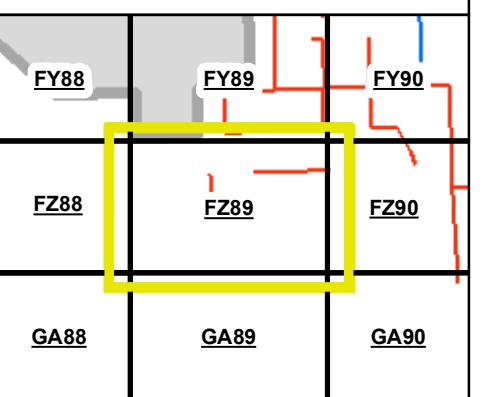
N
1 in = 100 ft

PON: CRE-01-04
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| | | |
|-----|-----------------|----------------|
| | PON | STRUCTURE |
| | FIBER EQUIPMENT | Small PED |
| | ROUTE | Placement Type |
| (4) | MST 4 | UG Bore |
| (2) | MST 2 | |
| | | Conduit |
| | | MST Runs |



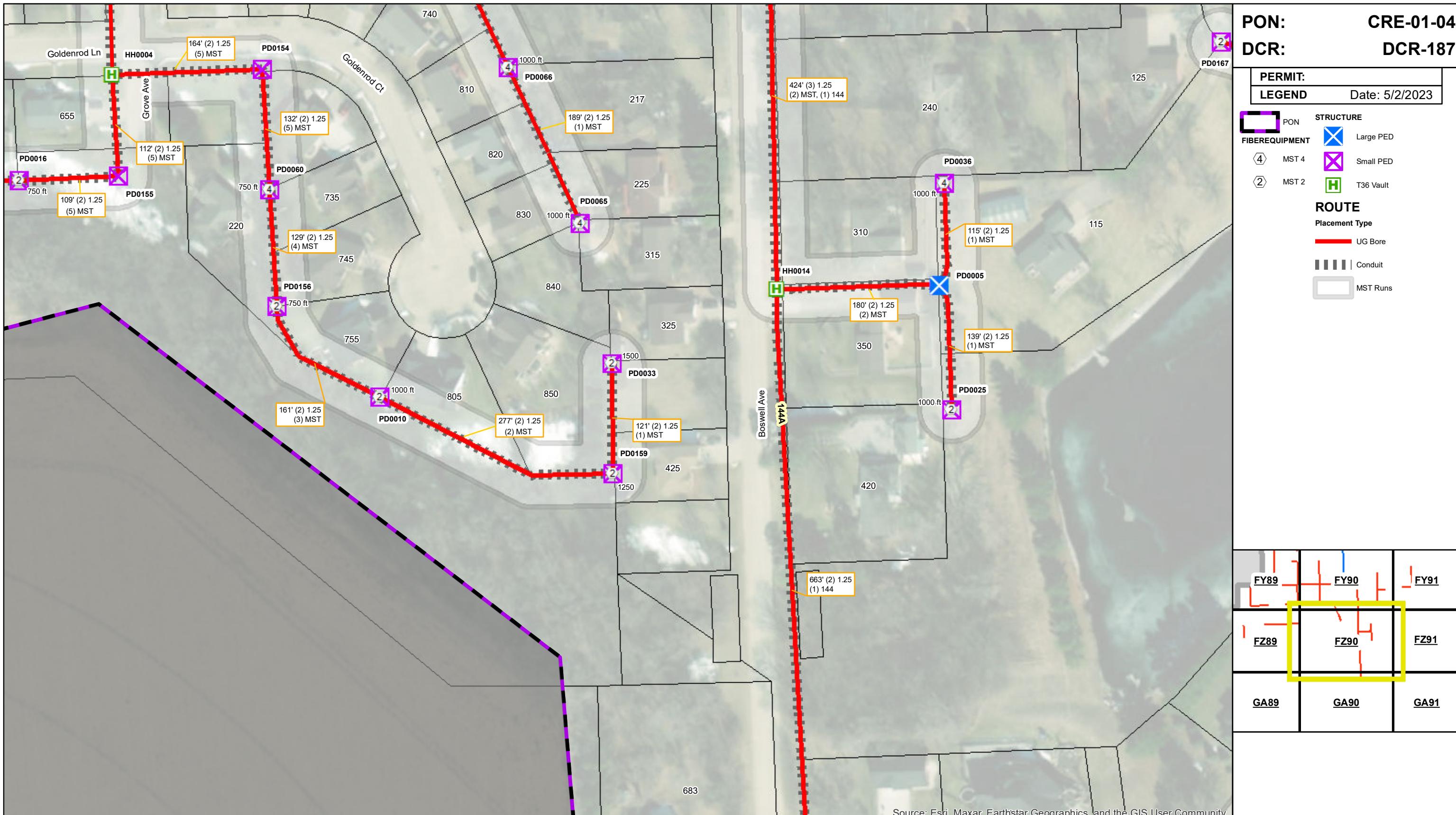
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Notes: All proposed conduit in ROW, unless otherwise noted.

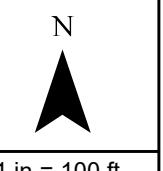
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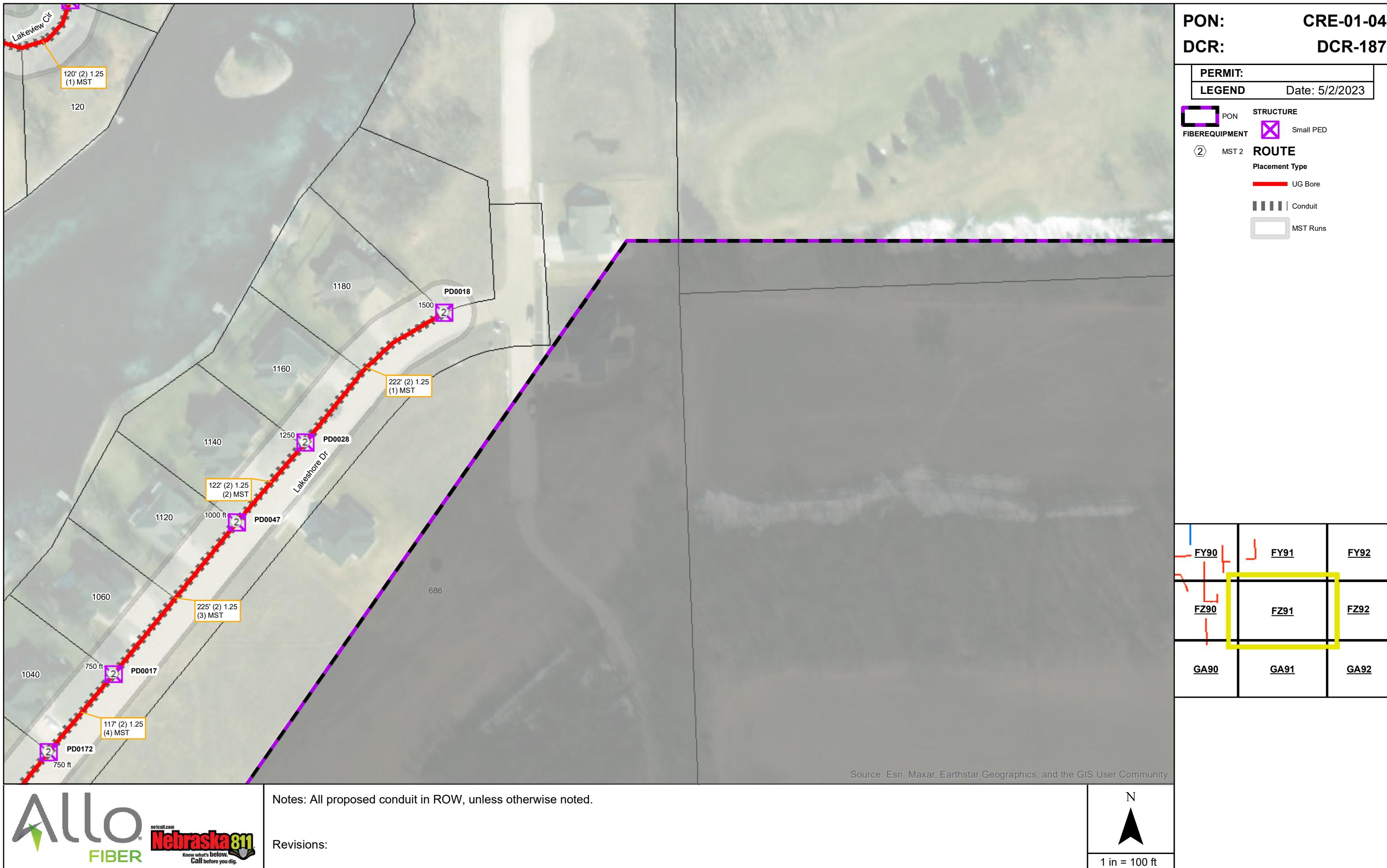




Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

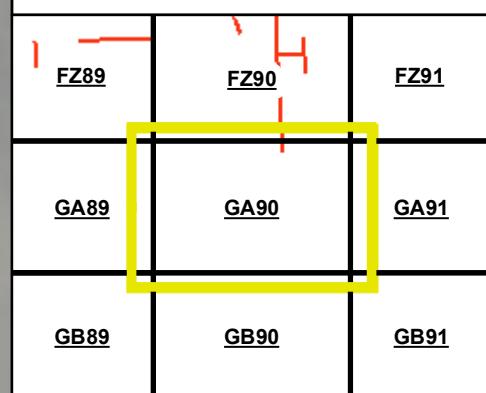
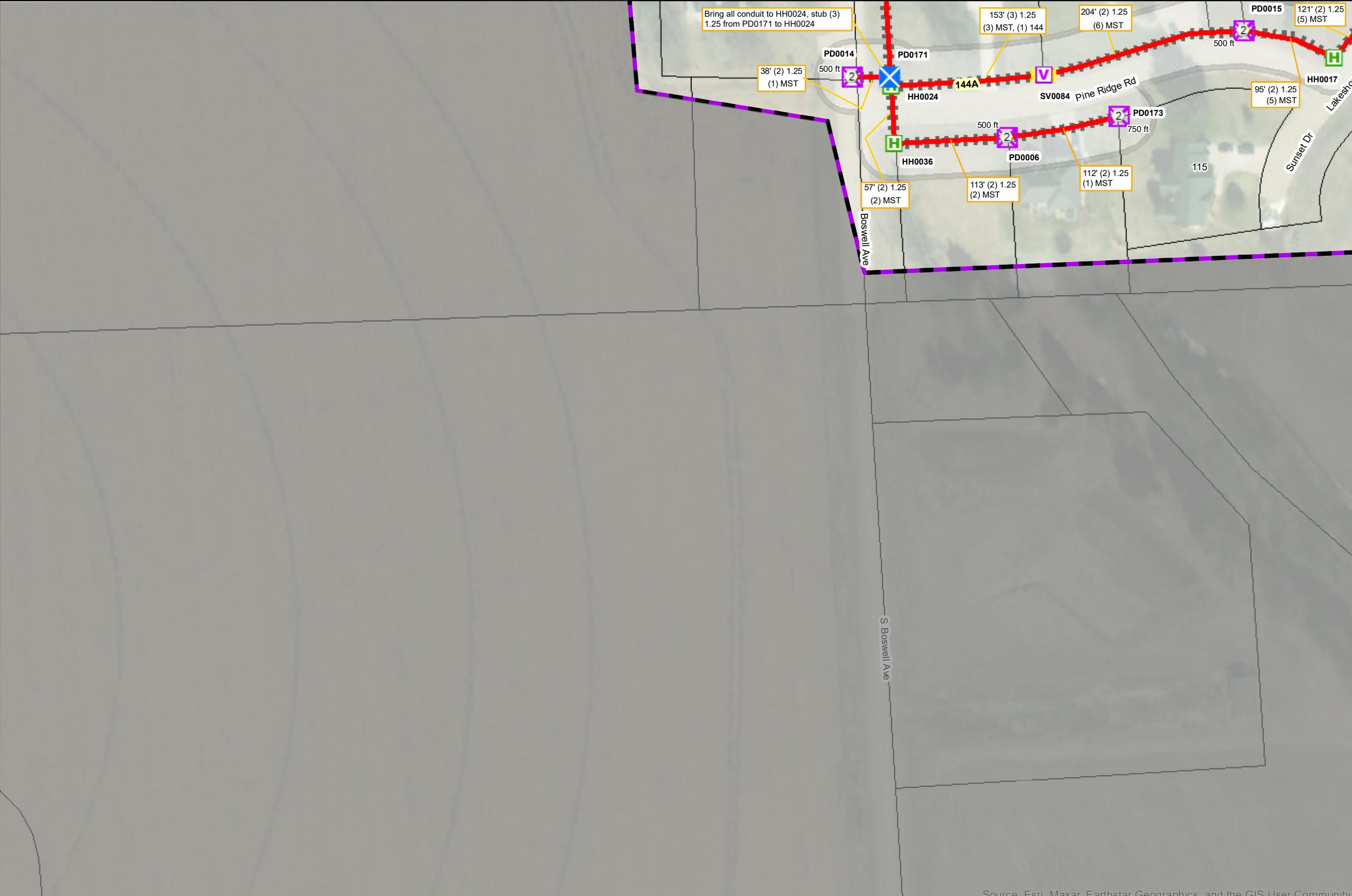




PON: CRE-01-04
DCR: DCR-187

PERMIT:
LEGEND Date: 5/2/2023

| | |
|--|---|
|  PON | STRUCTURE |
|  FIBEREQUIPMENT |  Large PED |
|  MST 2 |  Small PED |
|  H | T36 Vault |
|  V | T48 Vault |
|  <all other values> | SPliceClosure |
|  ROUTE | ROUTE |
| | Placement Type |
|  UG Bore | UG Bore |
|  Conduit | Conduit |
|  MST Runs | MST Runs |



Notes: All proposed conduit in ROW, unless otherwise noted.

Revisions:

