

## ROW CONSTRUCTION PROJECT NOTES

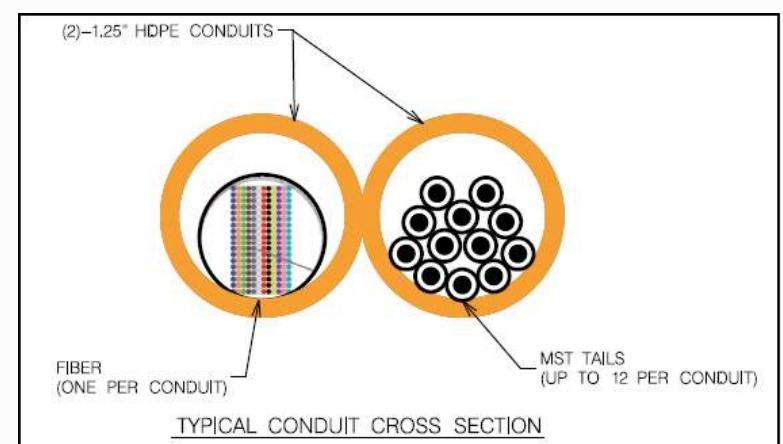
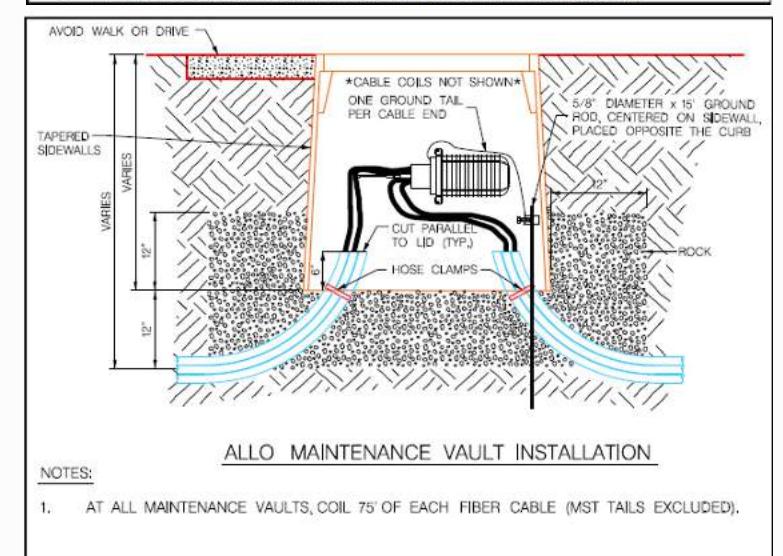
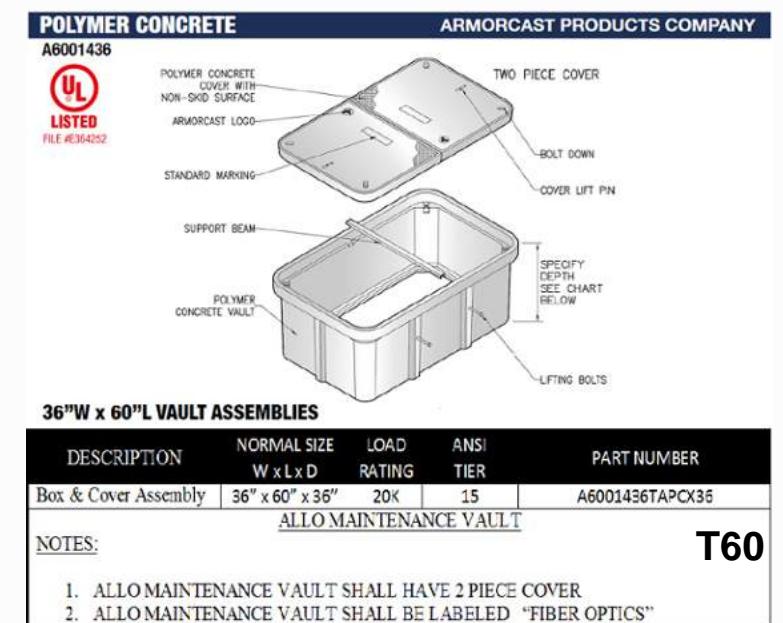
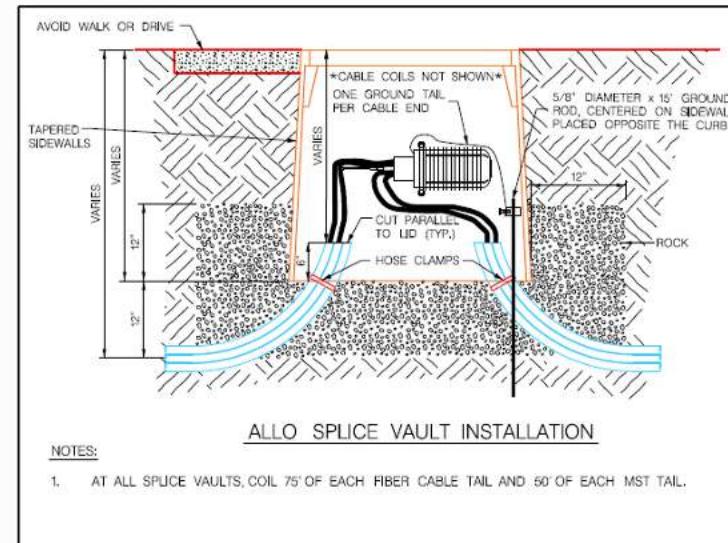
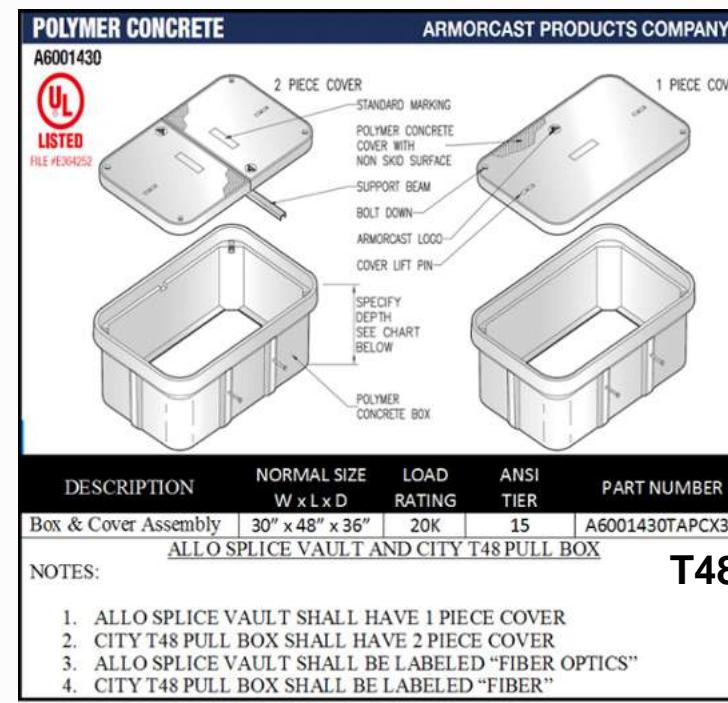
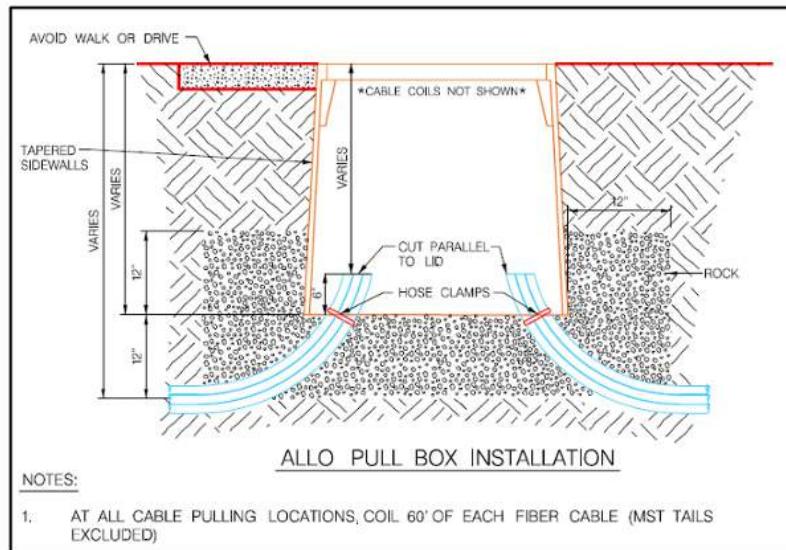
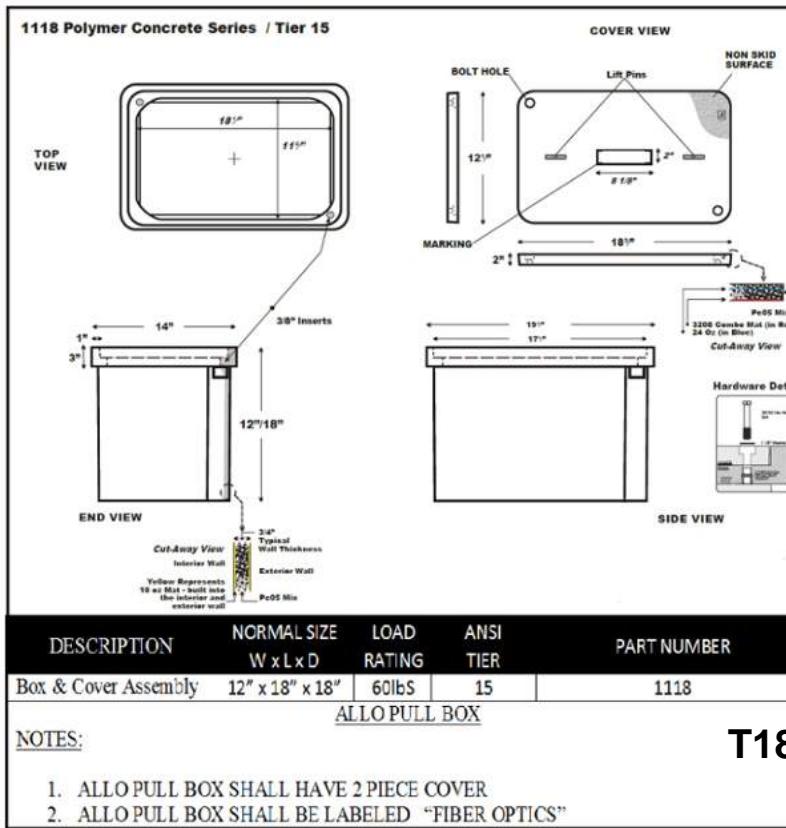
1. The City shall be notified a minimum of forty eight (48) hours in advance of initial project construction.
  2. The contractor shall adhere to the current City standard specifications, approved special provisions, City standard plans, right-of-way construction procedures manual.
  3. The locations 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.

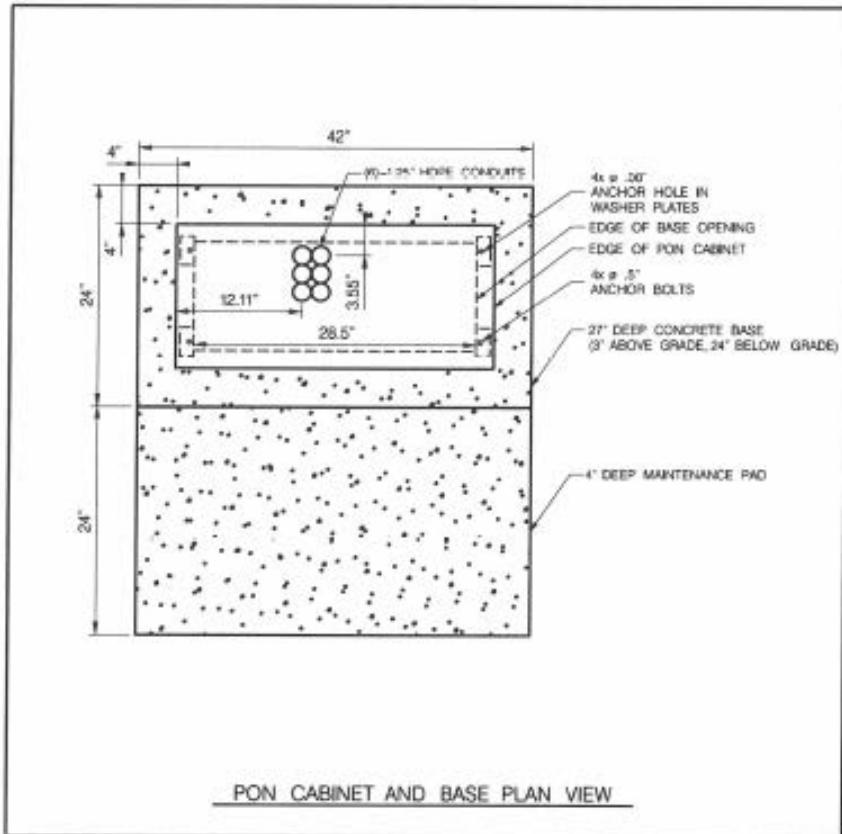
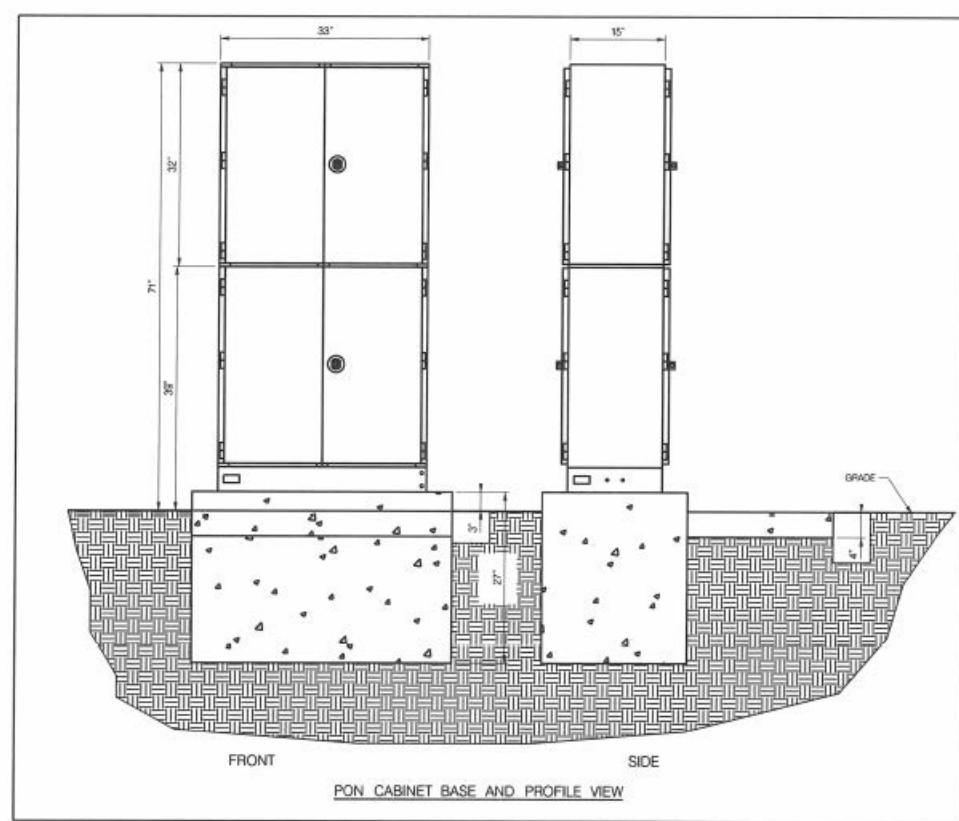


## Typicals

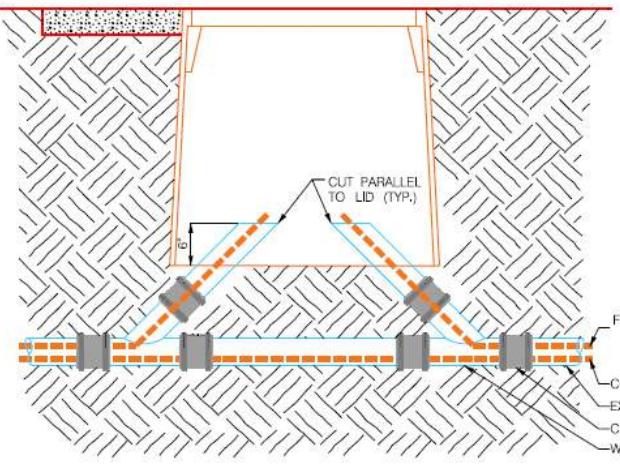


**Nebraska 811**  
Know what's below.  
811 before you dig.

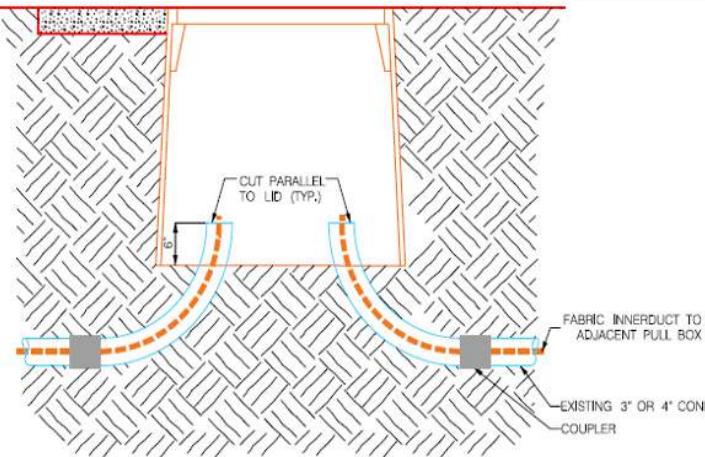
## Typicals



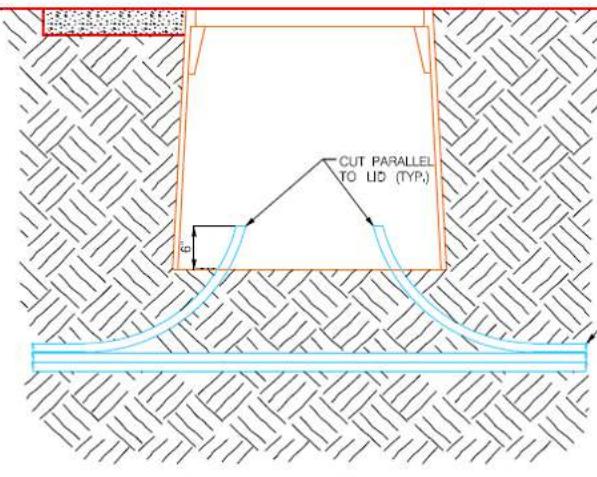
## Typicals



CAPTURE 3" OR 4" CONDUIT WITH EXISTING FIBER DETAIL

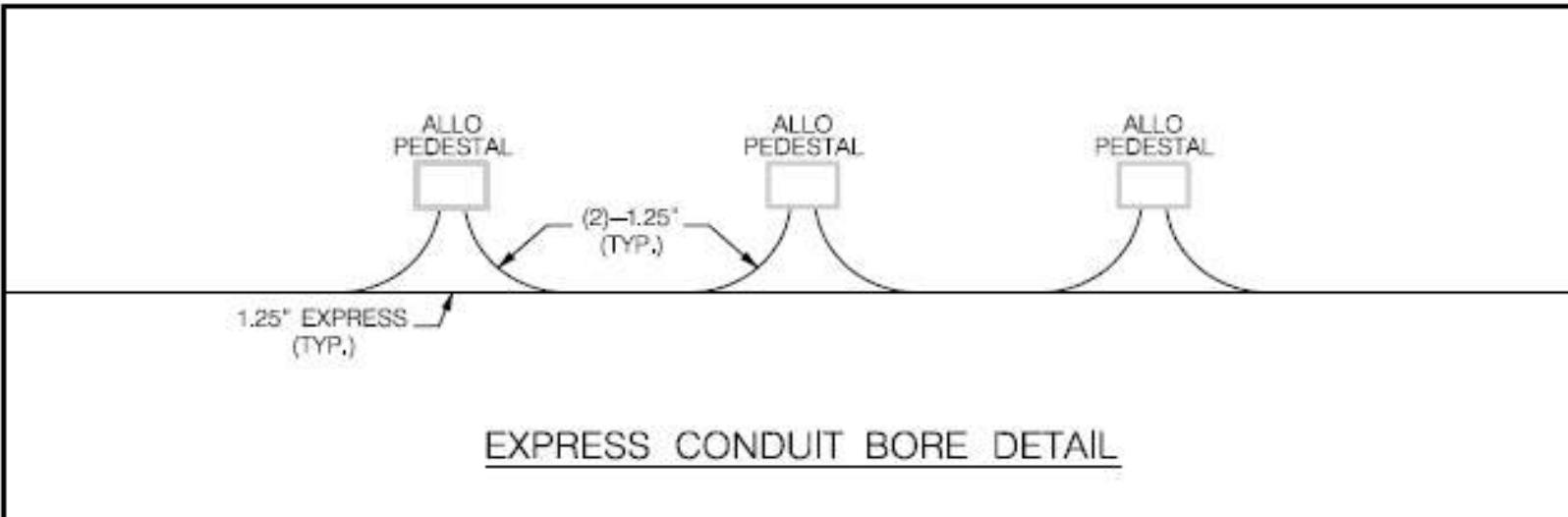


CAPTURE EMPTY 3" OR 4" CONDUIT DETAIL



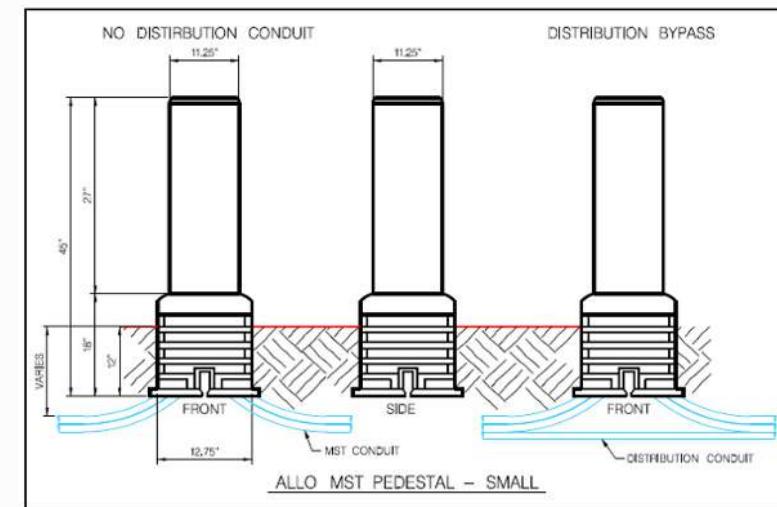
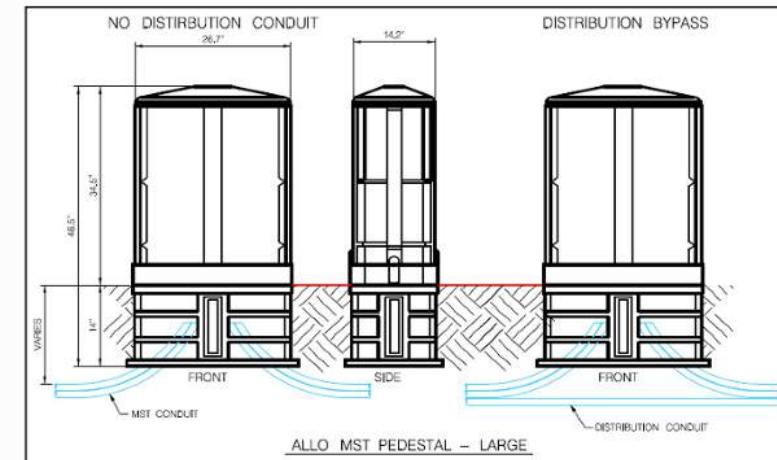
CAPTURE MLCG DETAIL

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.

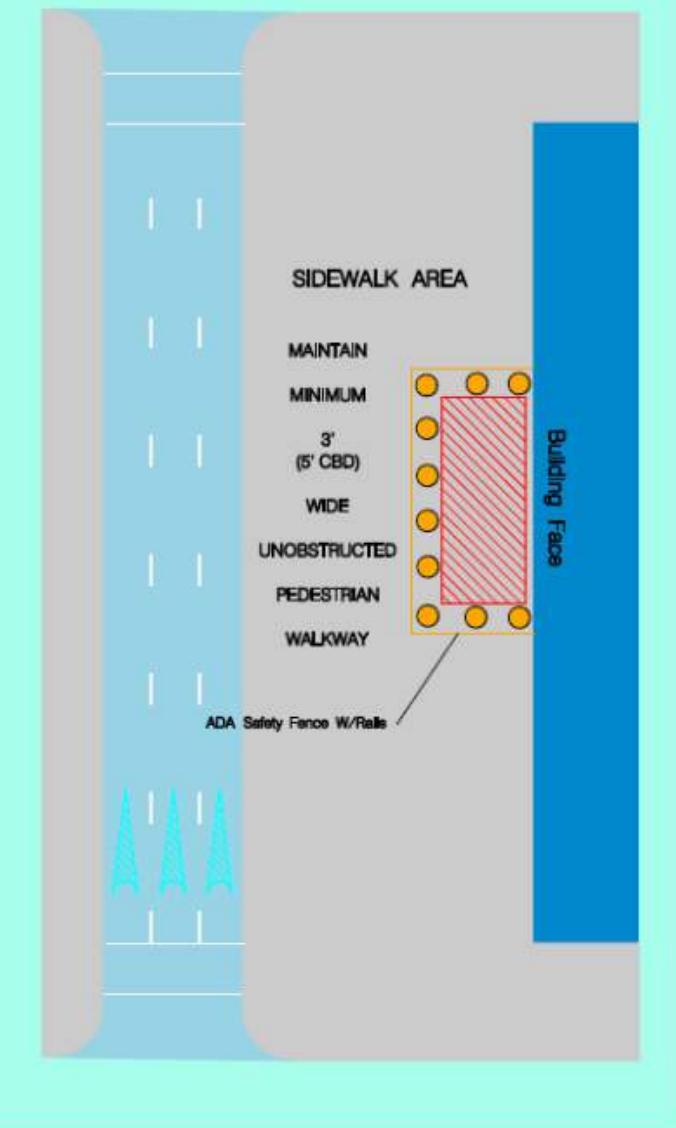


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**12**

### WORK IN THE PEDESTRIAN AREAS

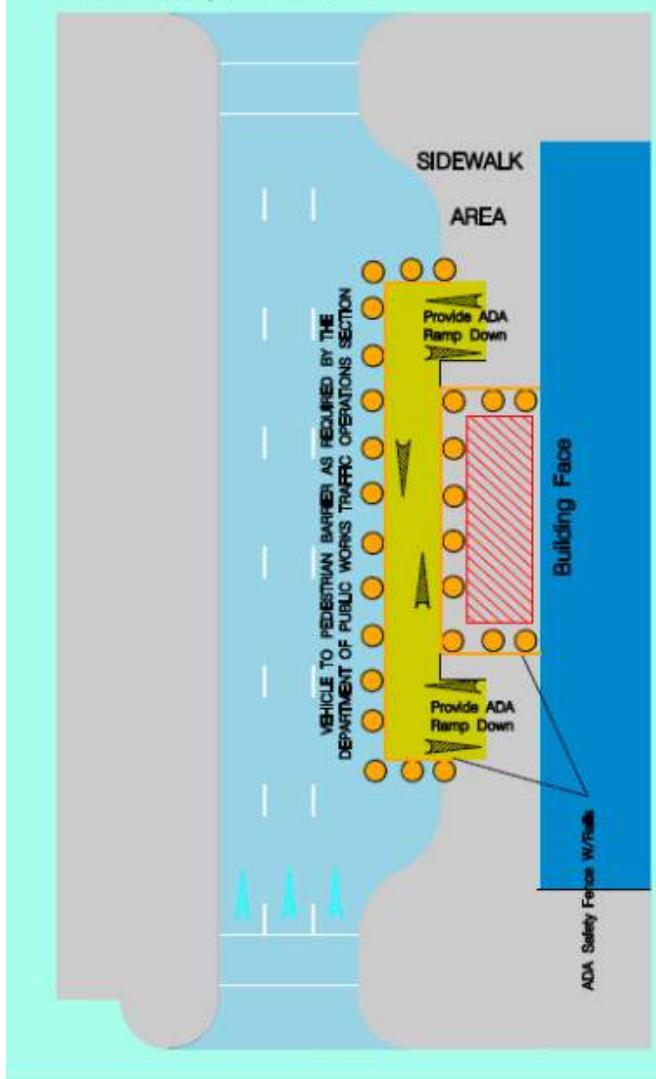
Maintain a clear and unobstructed pedestrian walkway around the work zone, or post warning signs for closures at adjoining intersections.

**13**

### WORK IN THE PEDESTRIAN AREAS

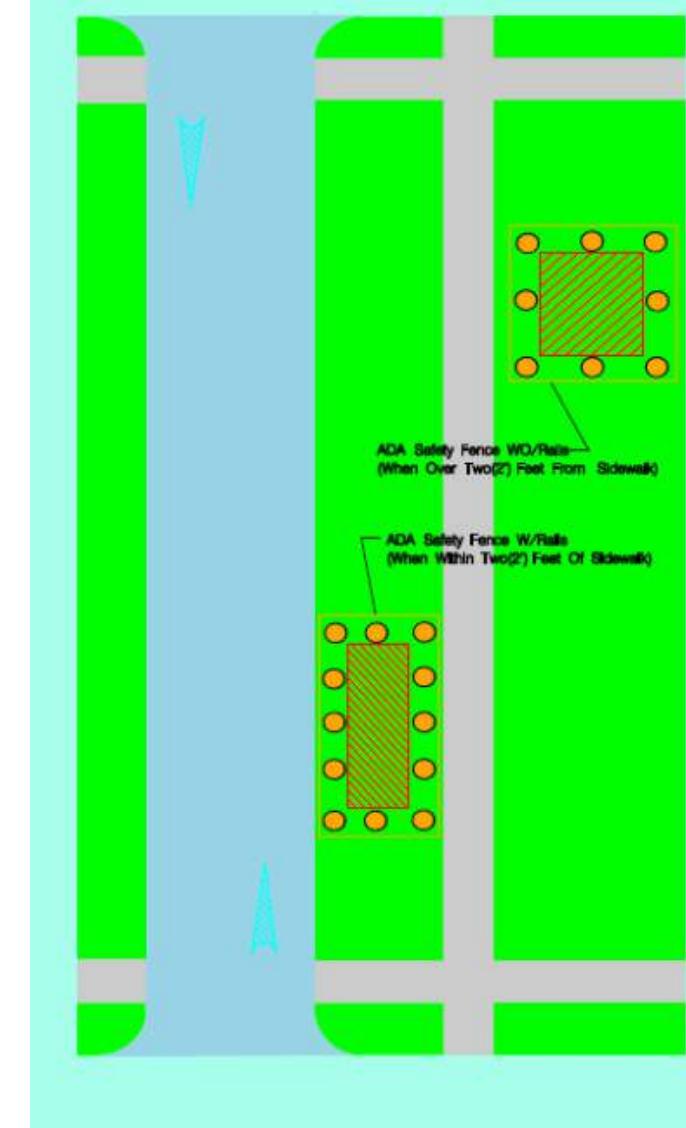
#### PEDESTRIAN DETOUR IN CENTRAL BUSINESS DISTRICT (CBD)

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

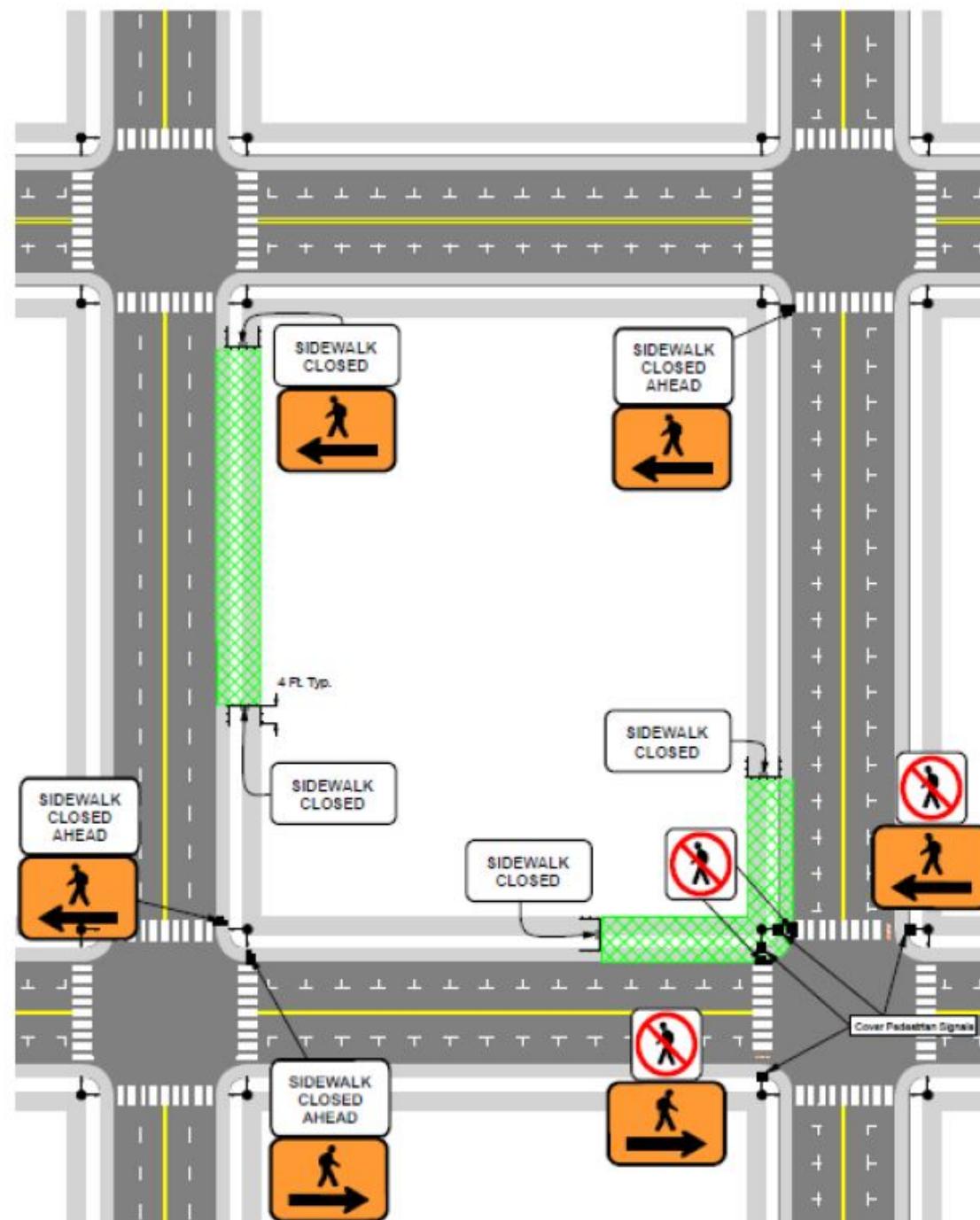
Protection of Excavations & Hazards not in roadways or sidewalks



## Sidewalk Closure

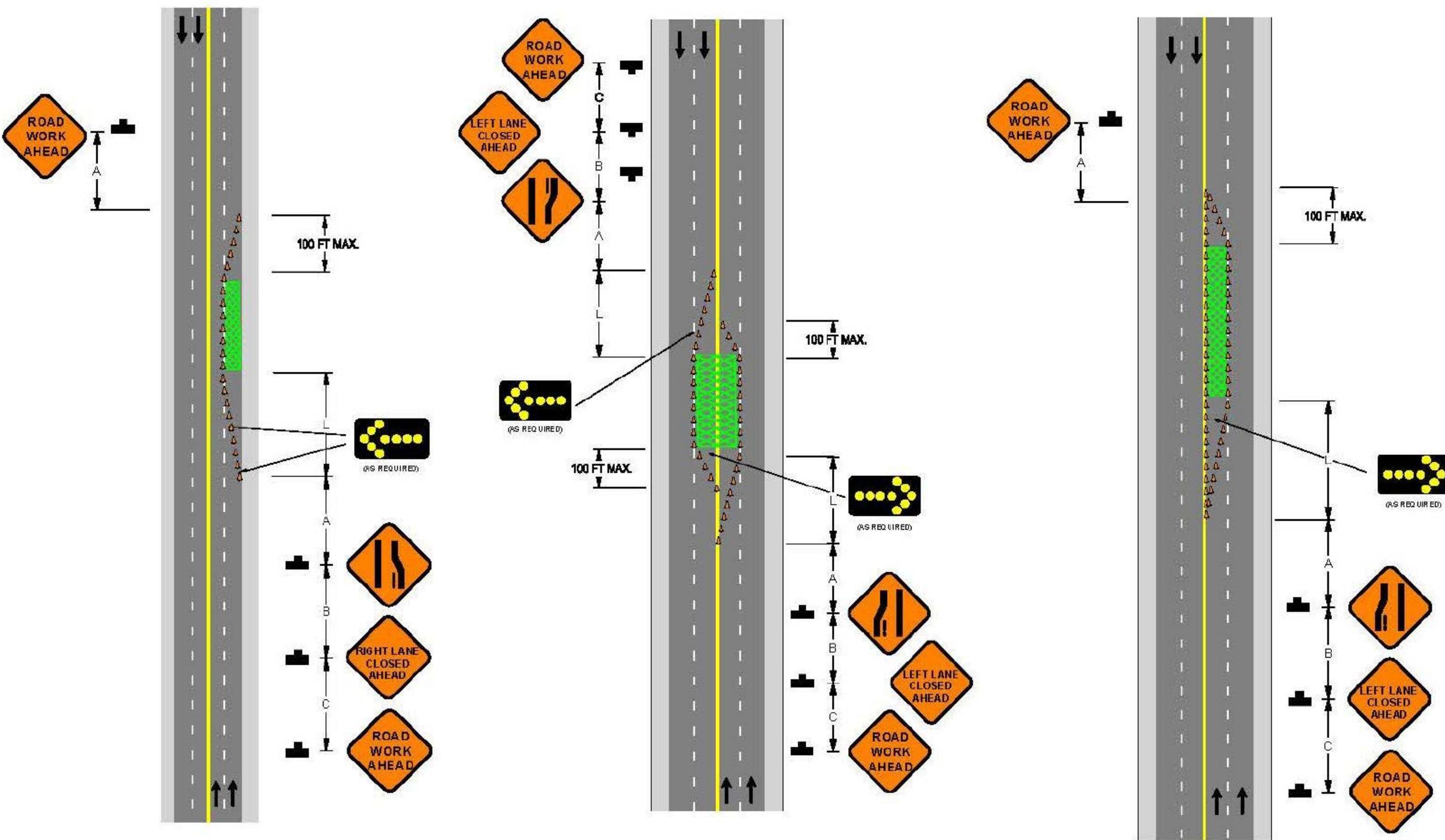
See Page A9 for A, B, C, L Distances

- 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..)

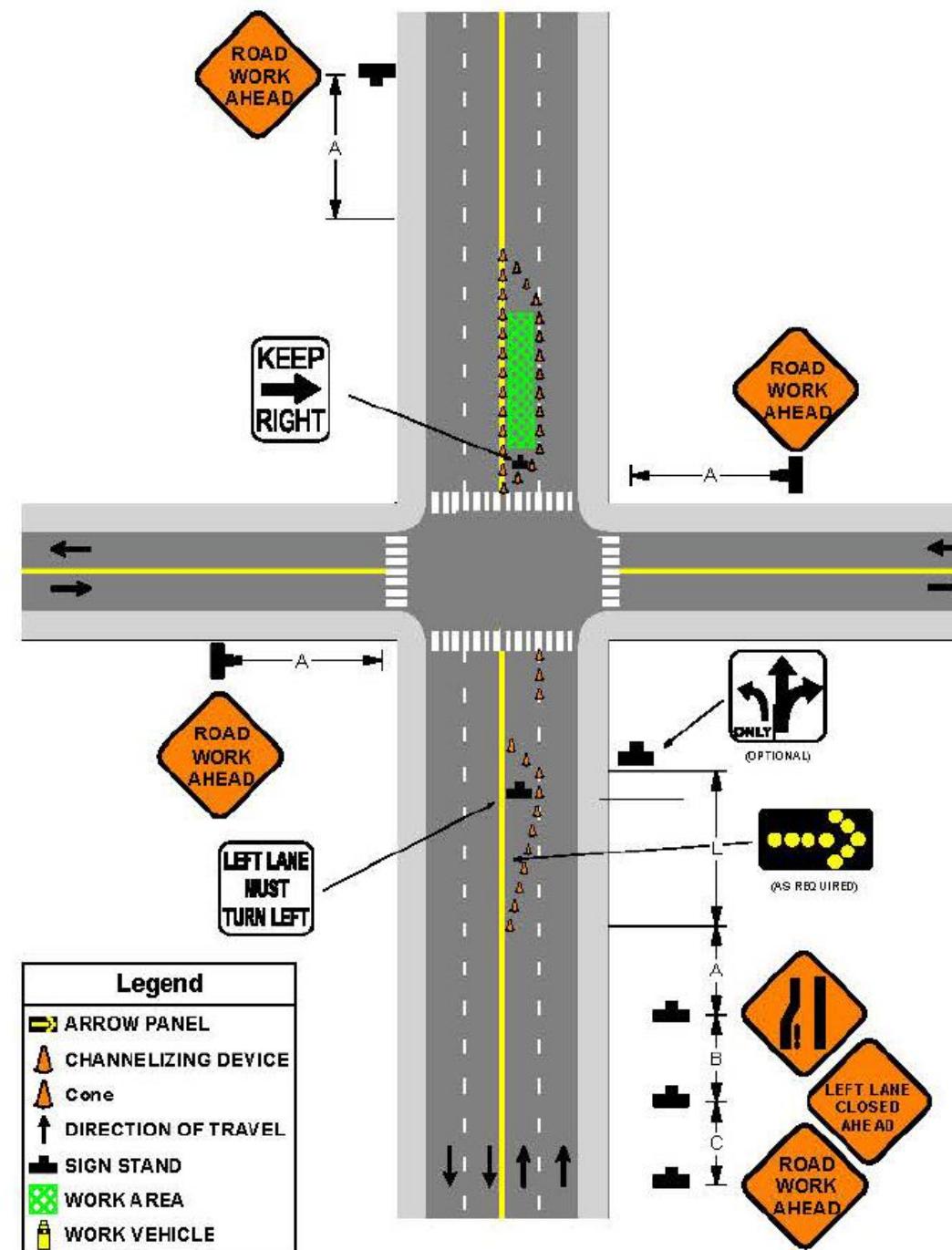
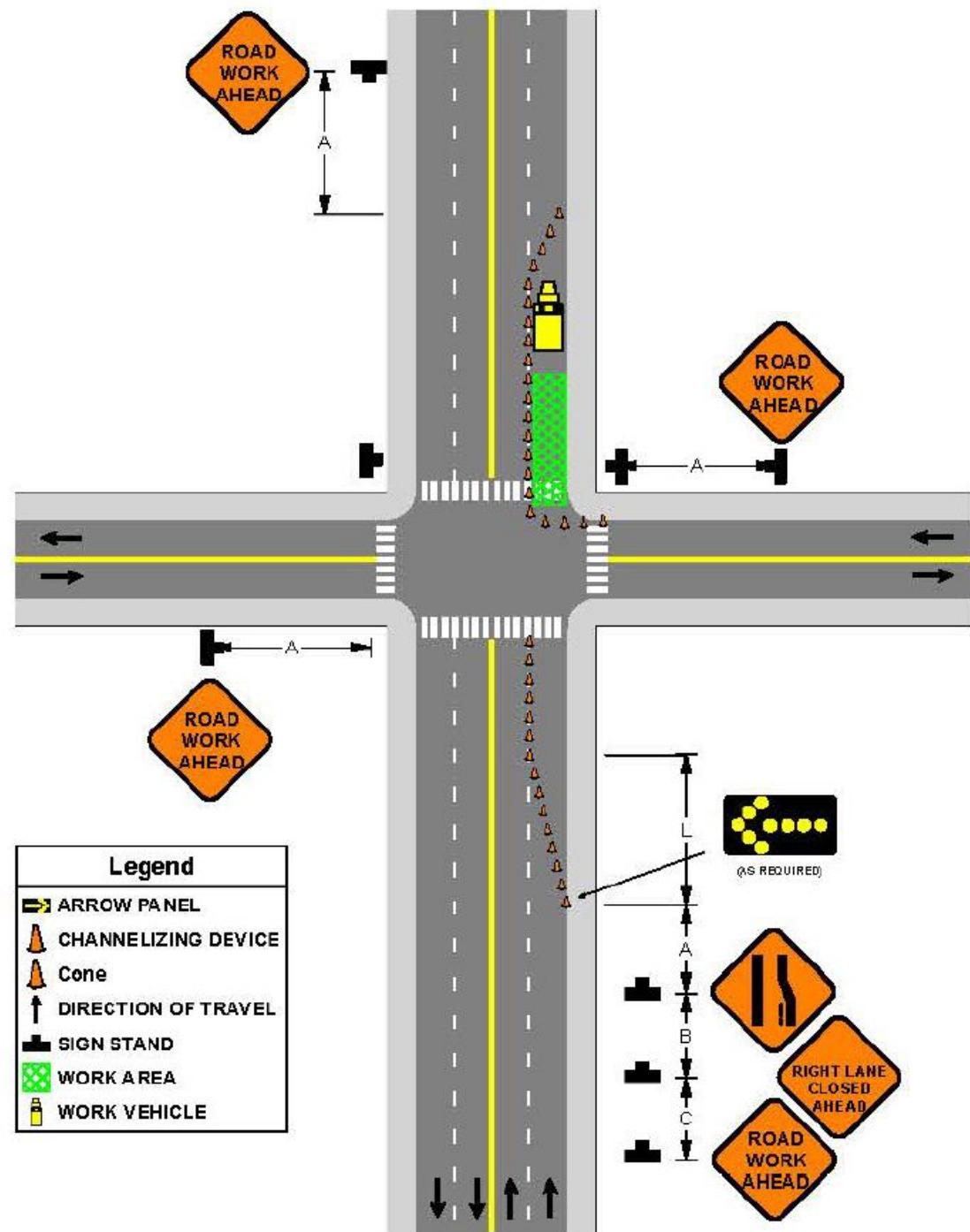
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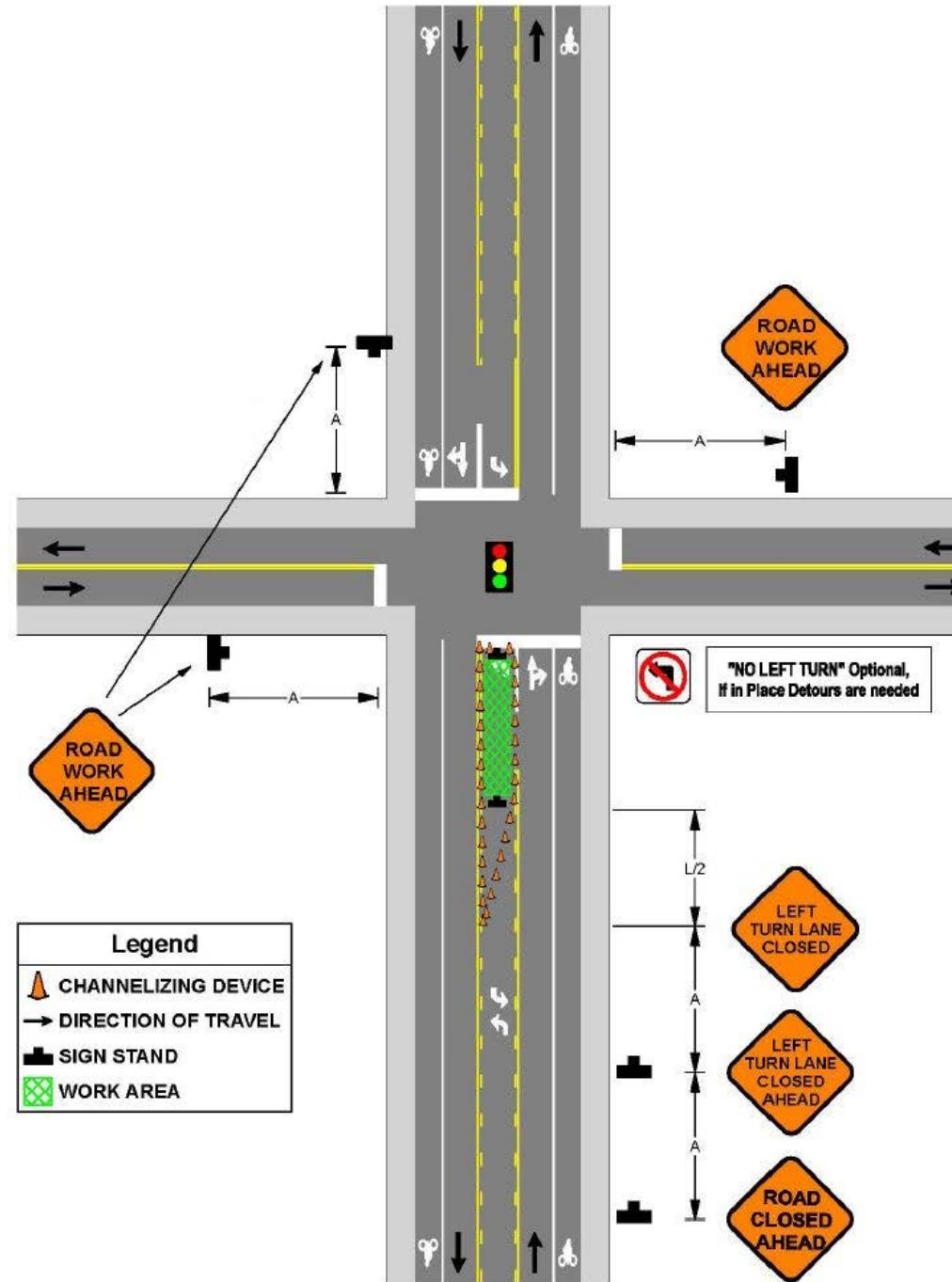
Through Lane Closures on Higher Volume Streets within Intersections (Collectors, Arterials Etc..)

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

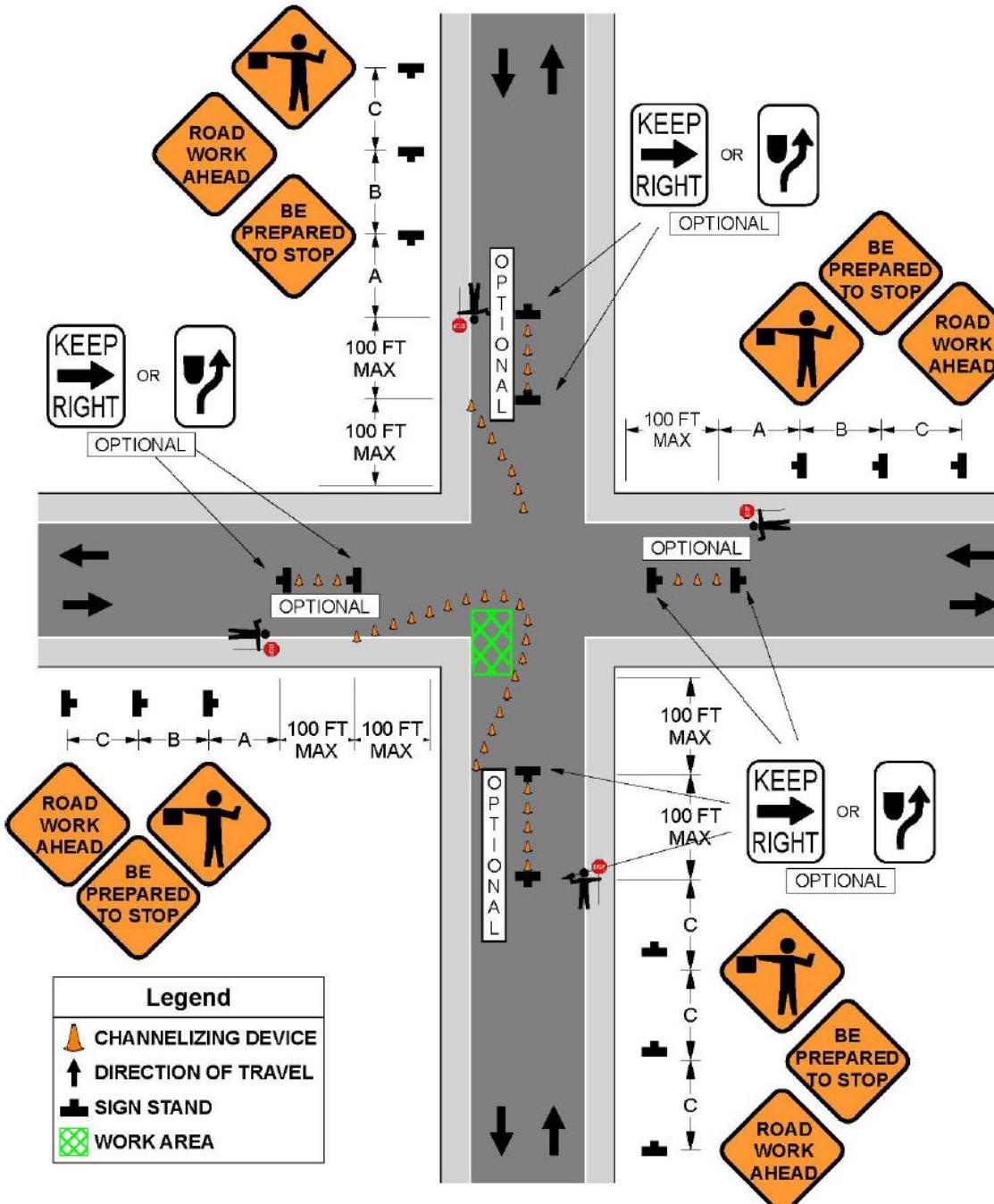


**Nebraska 811**  
Know what's below.  
811 before you dig.

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



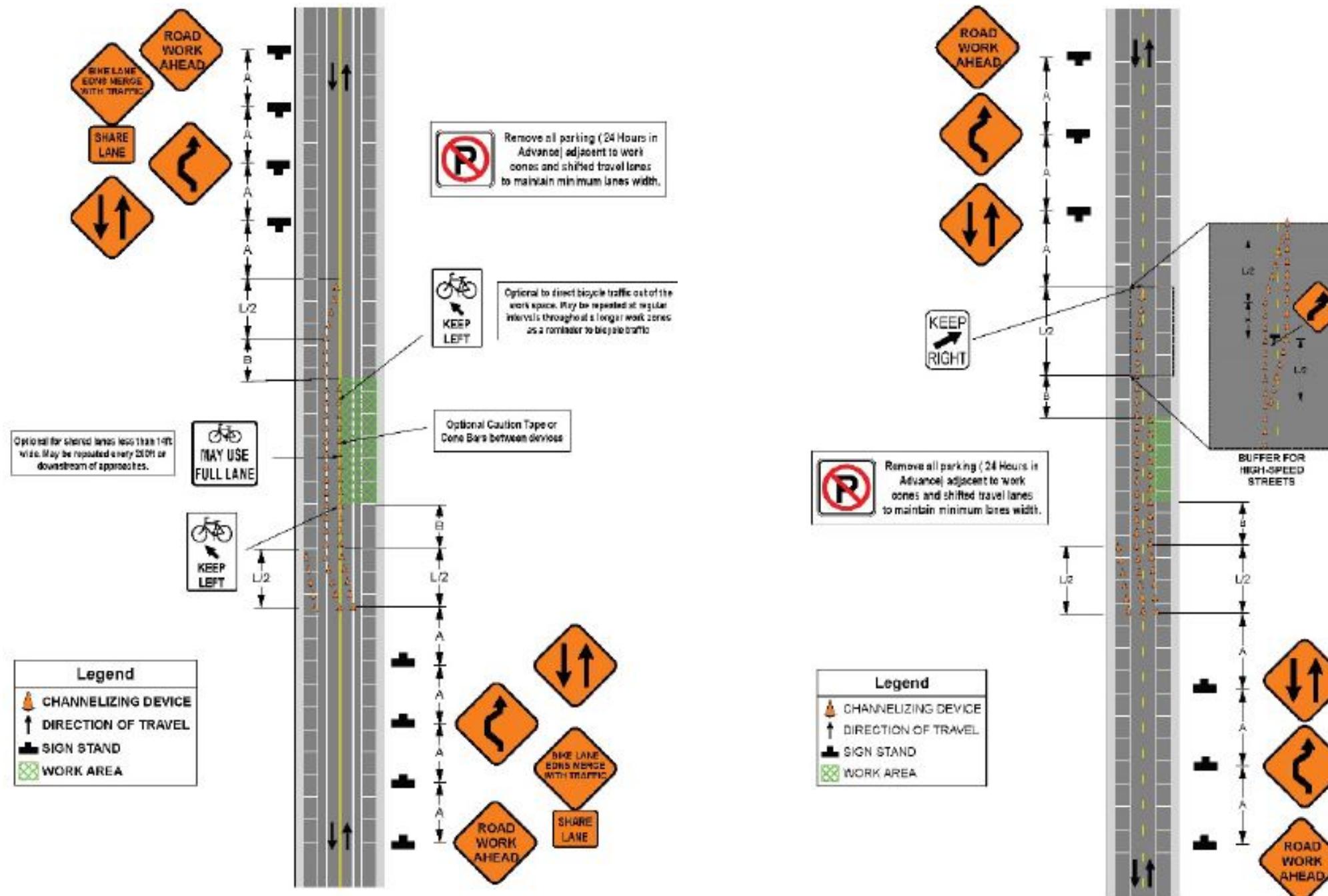
Closures on Lower Volume Streets for Workzones within Intersections



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

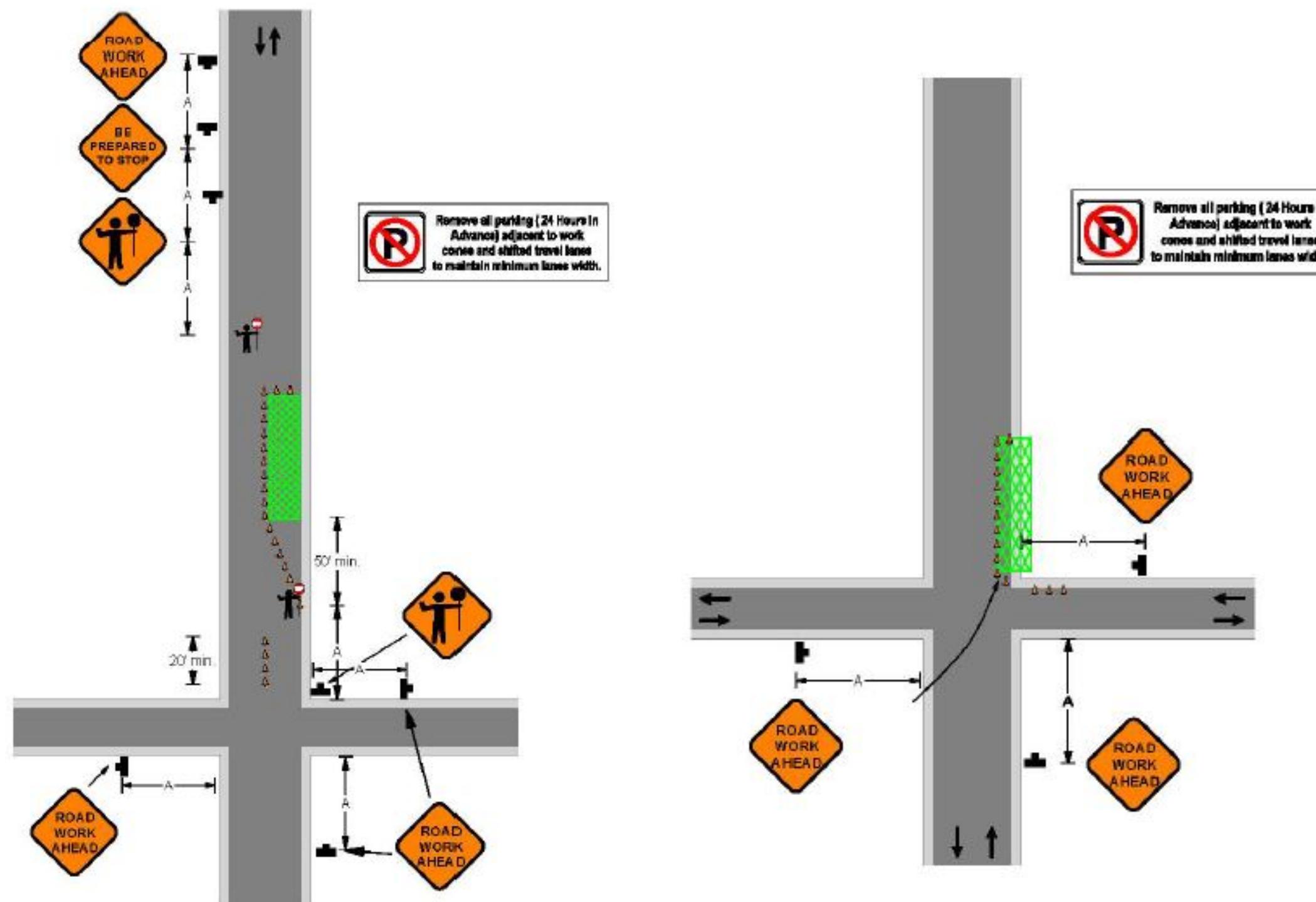
Lane Closures on Lower Volume Streets for Workzones along Corridors with Bike Lanes and On-Street Parking

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



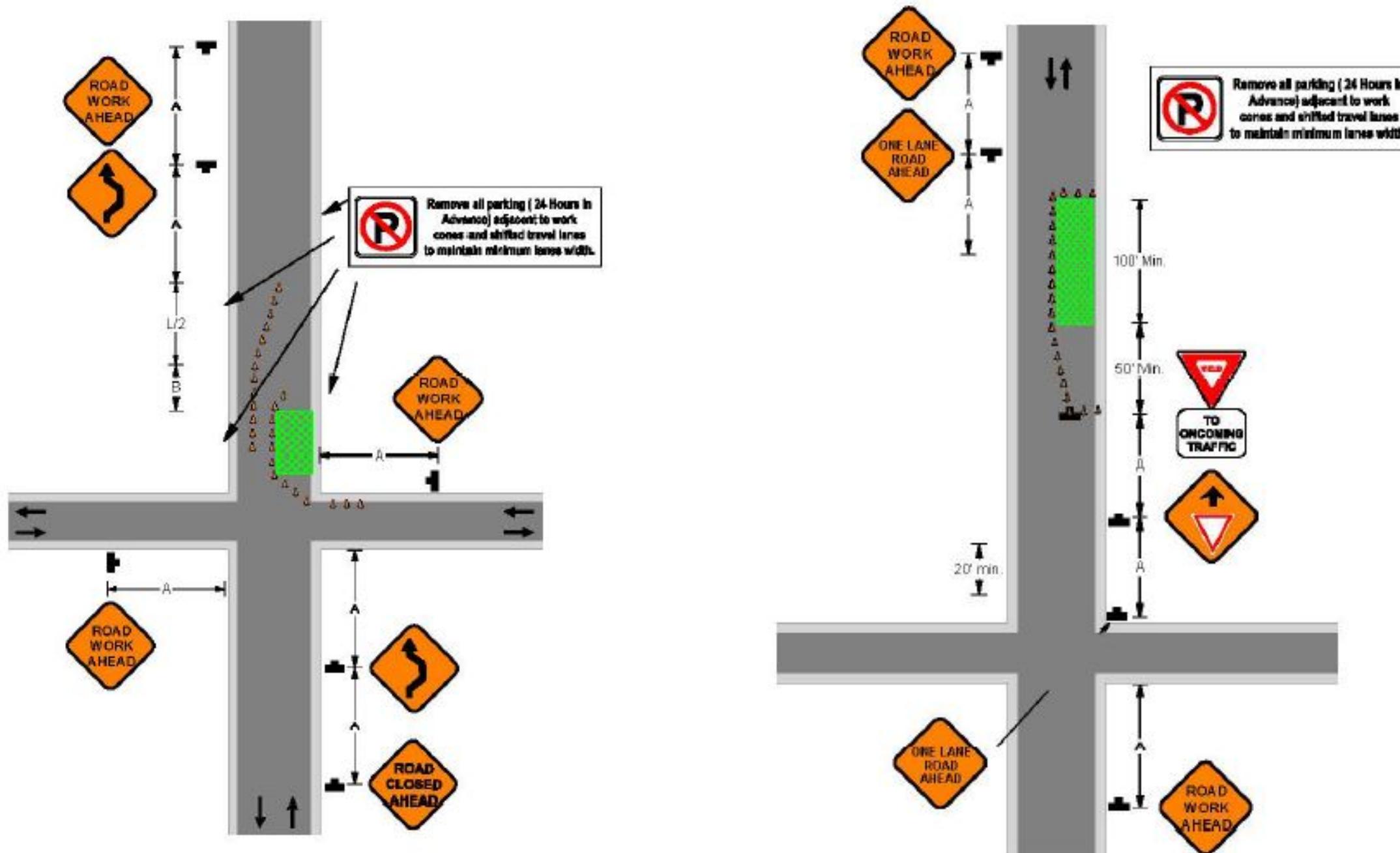
Partial street Closures on Lower Volume Streets

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



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	$L = WS$

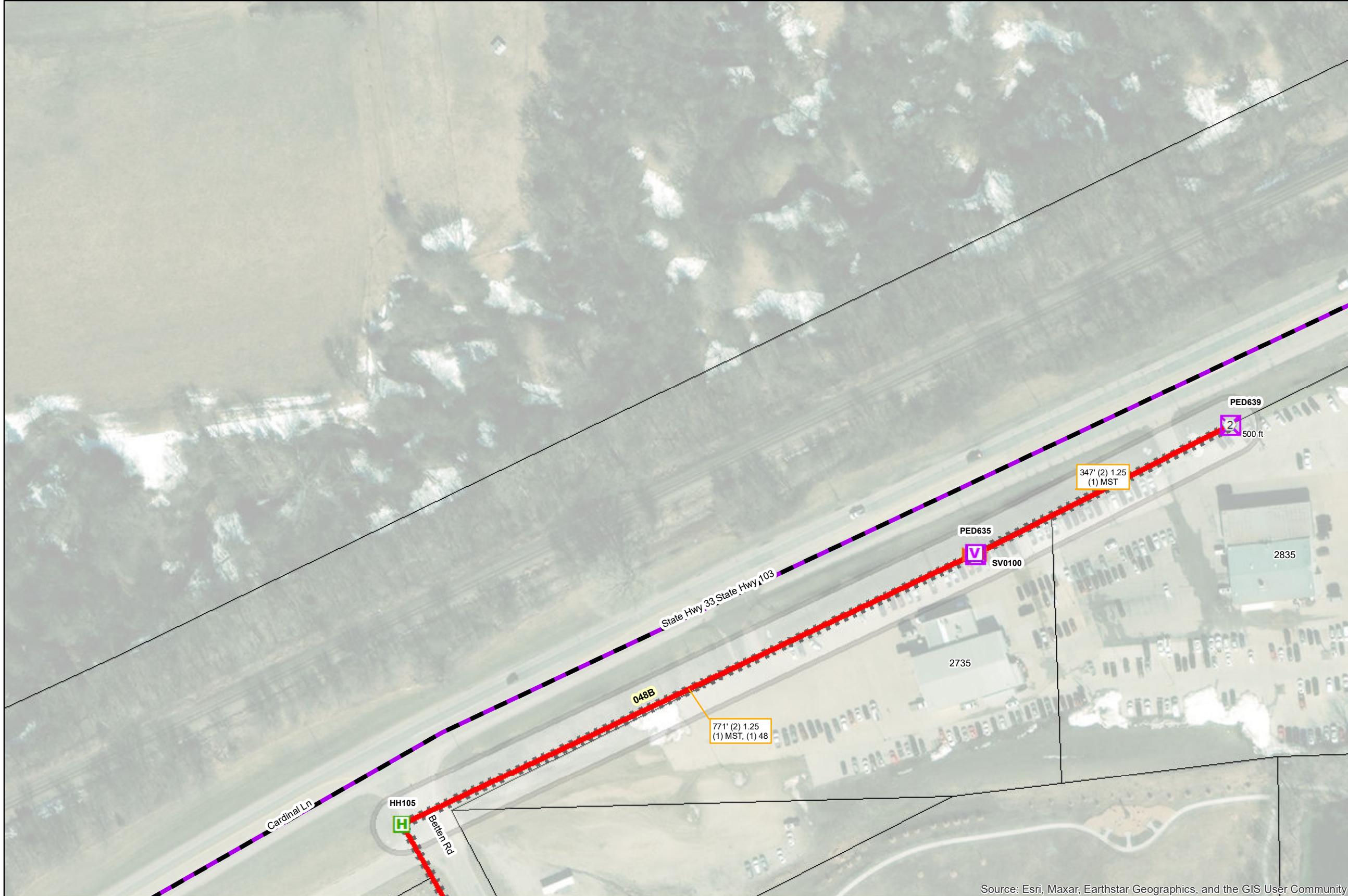
Where: L = taper length in feet  
 W = width of offset in feet  
 S = posted speed limit, or off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

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-01-02
DCR:	DCR.number
PERMIT:	
LEGEND	Date: 7/21/2023
PON	STRUCTURE
FIBEREQUIPMENT	Small PED
② MST 2	T36 Vault
V	T48 Vault
SPLICECLOSURE	
Underground	
ROUTE	
Placement Type	
UG Bore	
Future MDU Drop	
Future MDU Drop	
Conduit	
MST Runs	

FL92	FL93	FL94
FM92	FM93	FM94
FN92	FN93	FN94



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

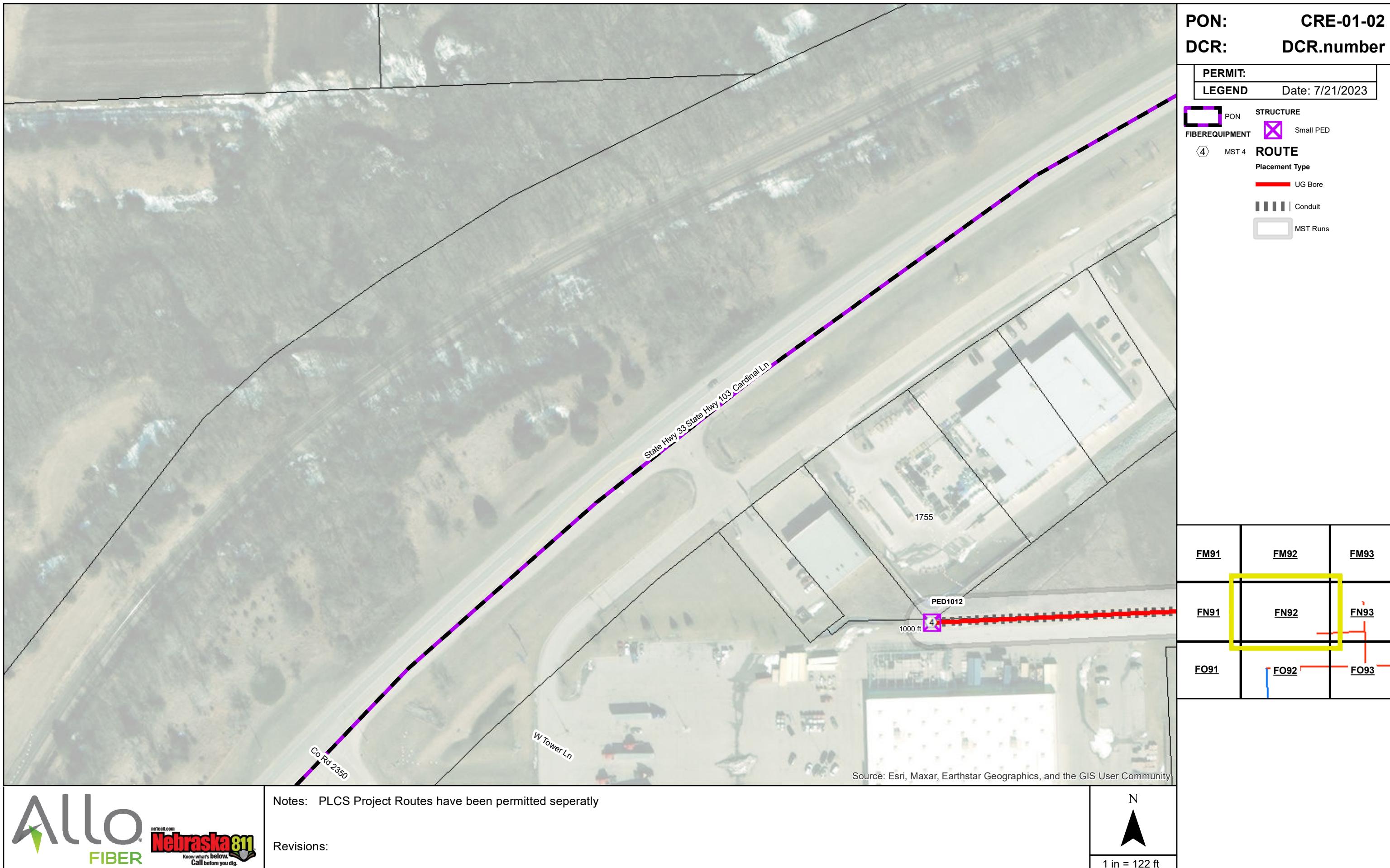


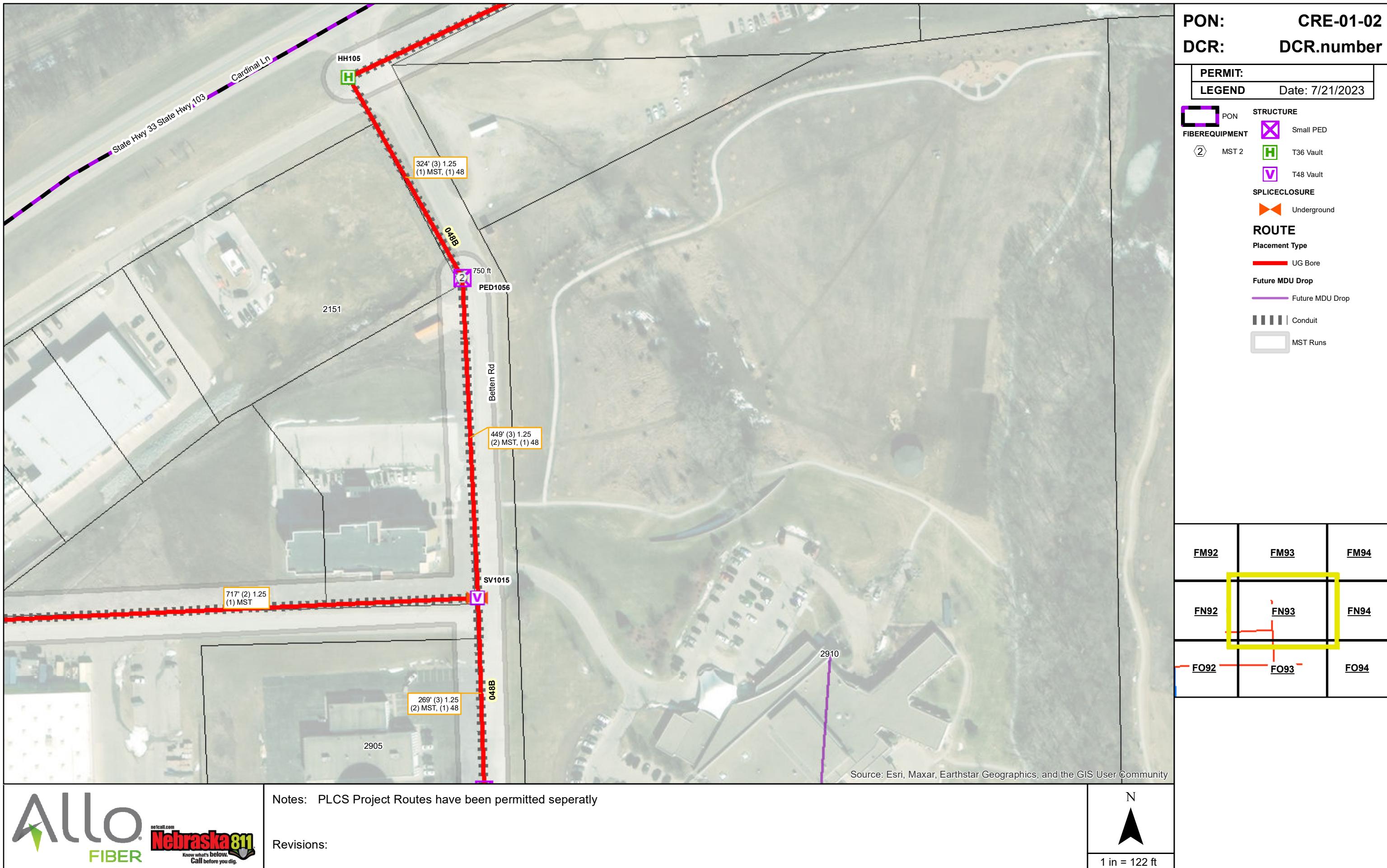
Notes: PLCS Project Routes have been permitted separately

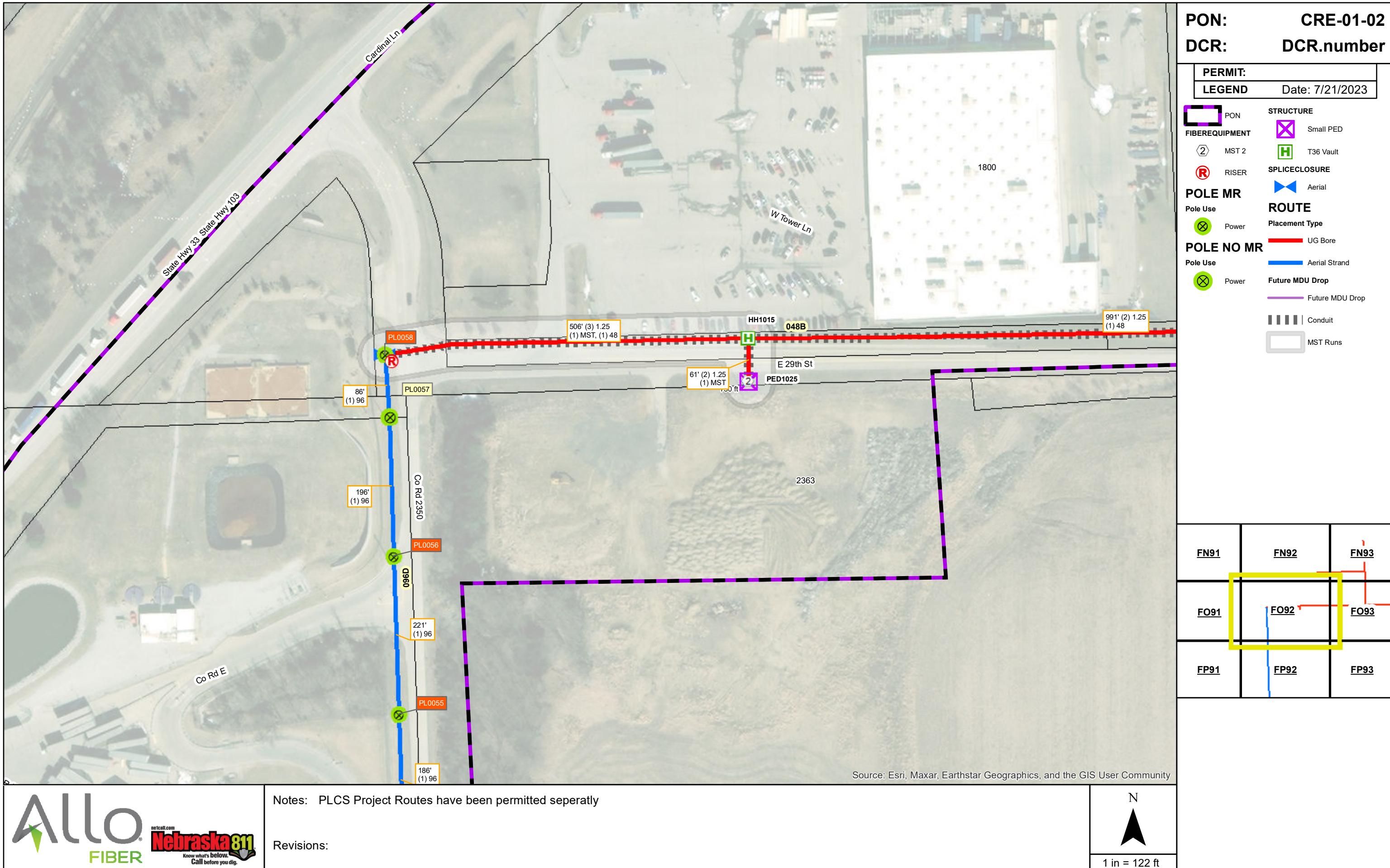
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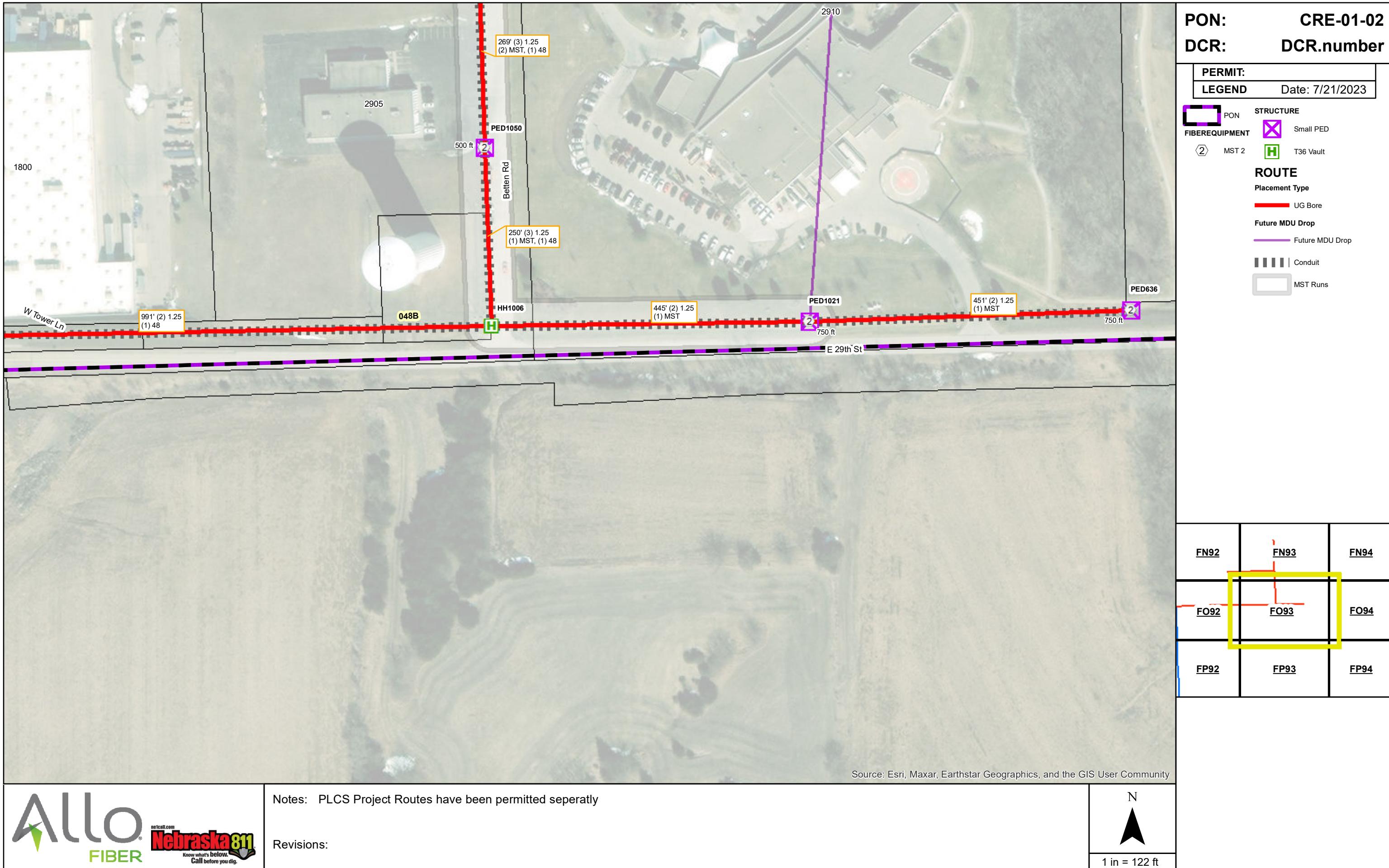




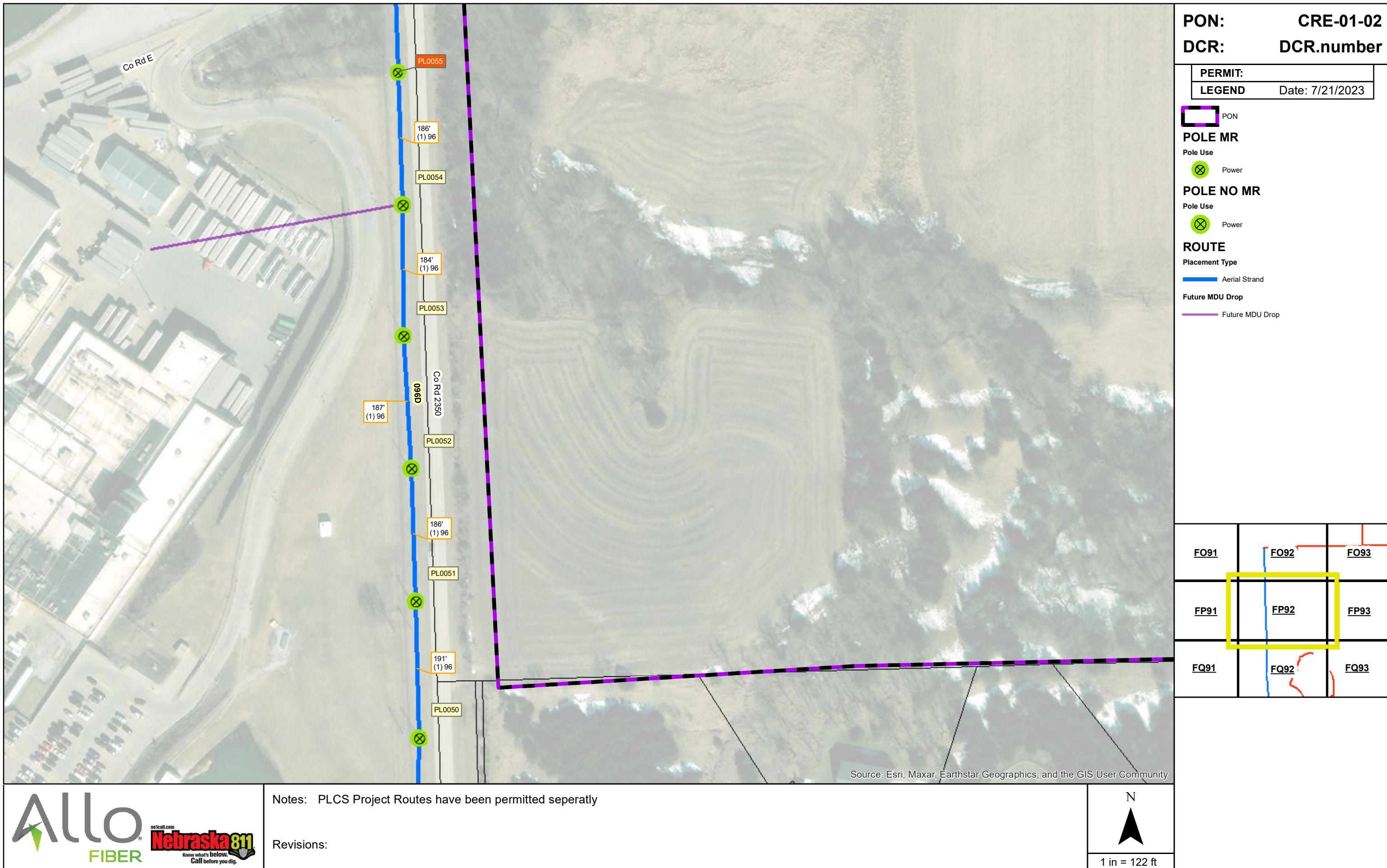








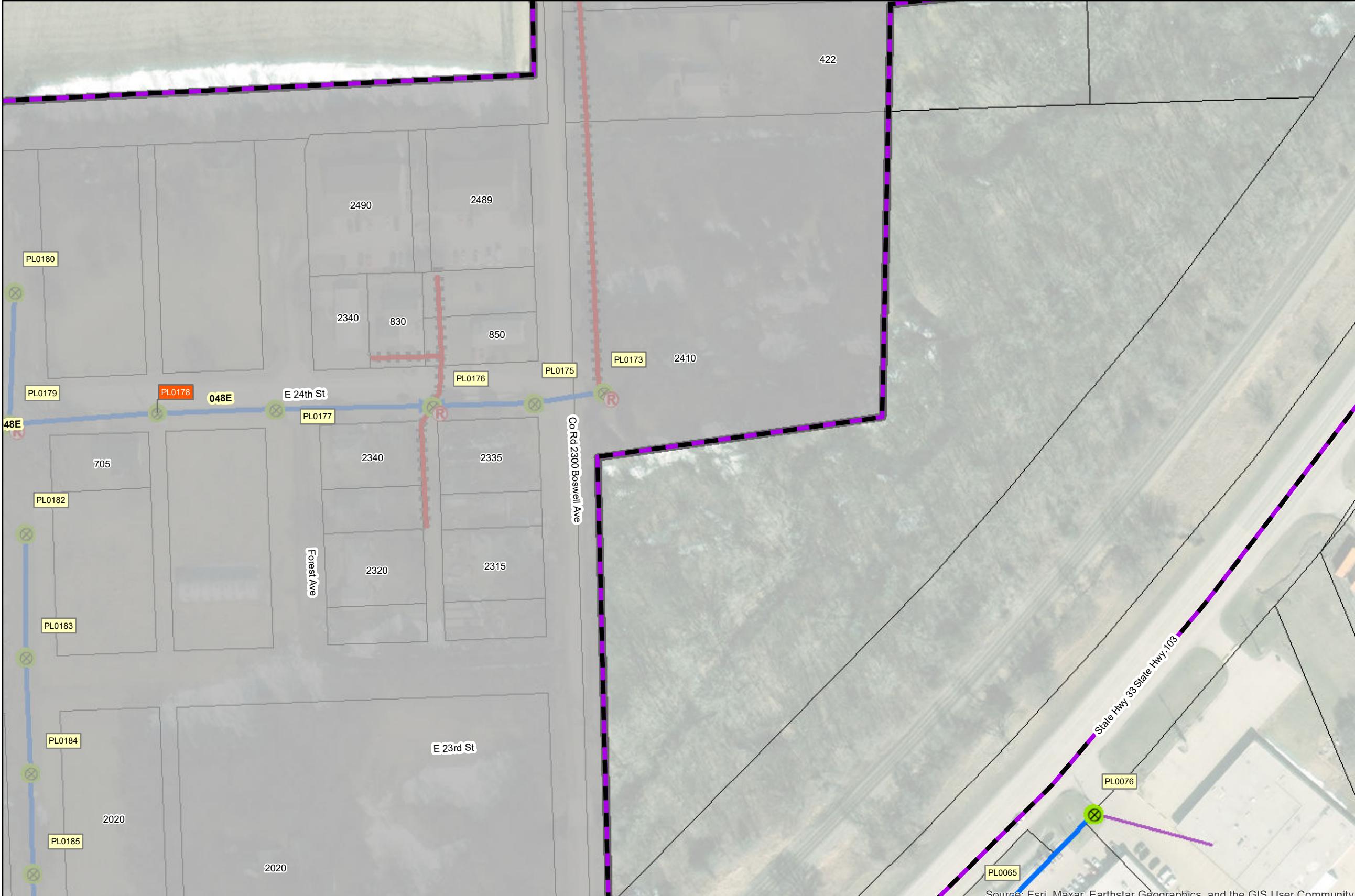
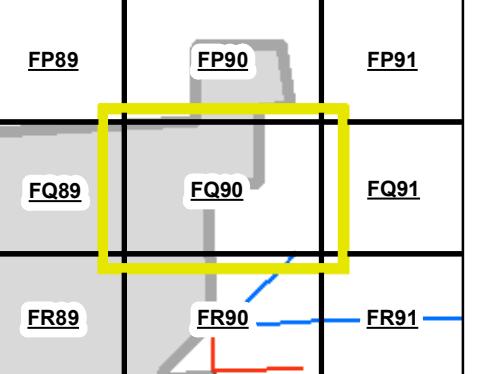
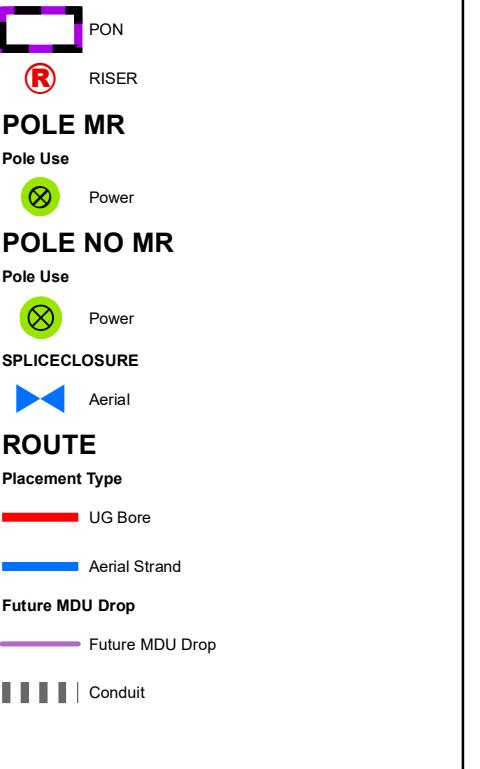




PON: CRE-01-02

DCR: DCR.number

PERMIT:	
LEGEND	Date: 7/21/2023



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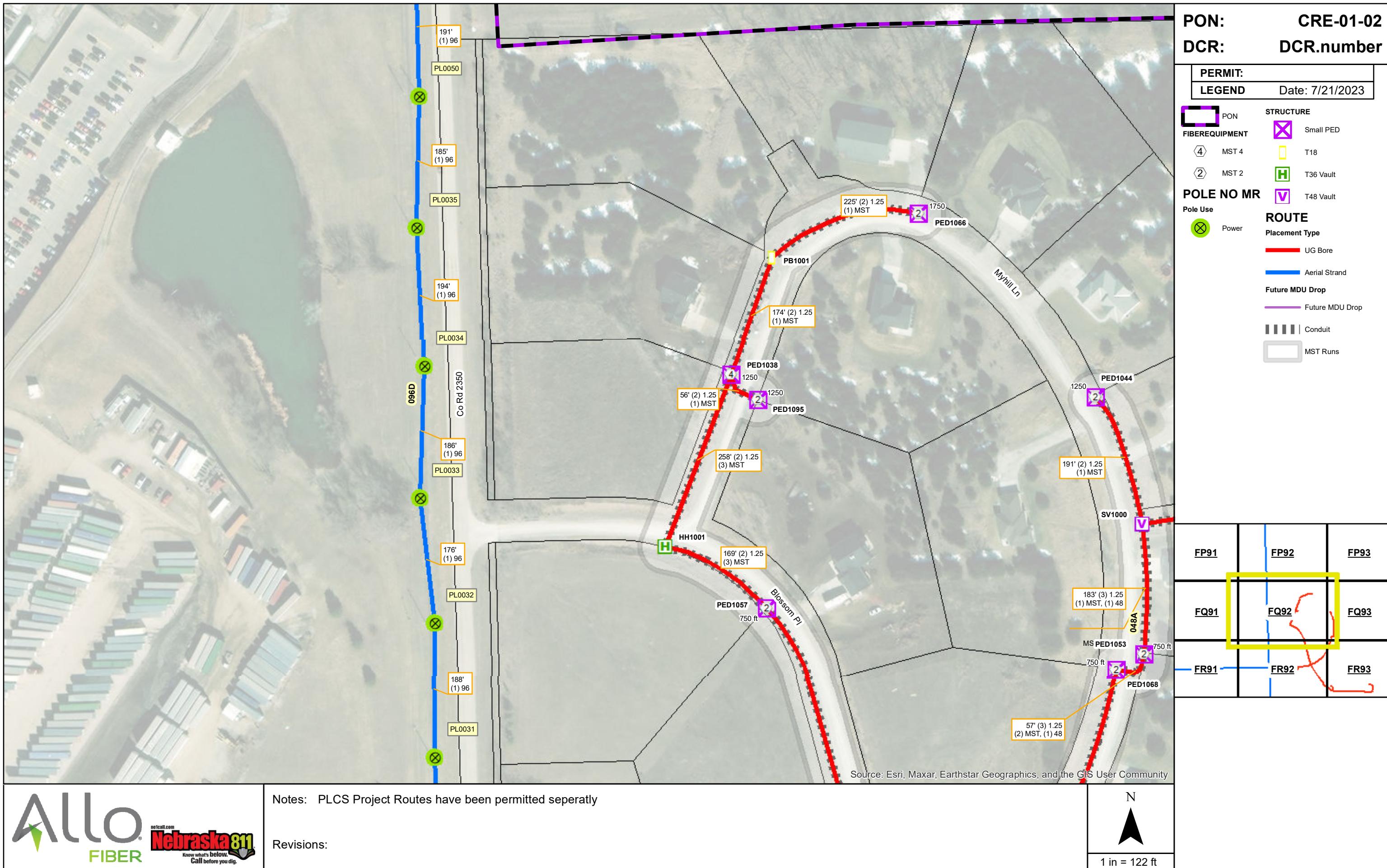


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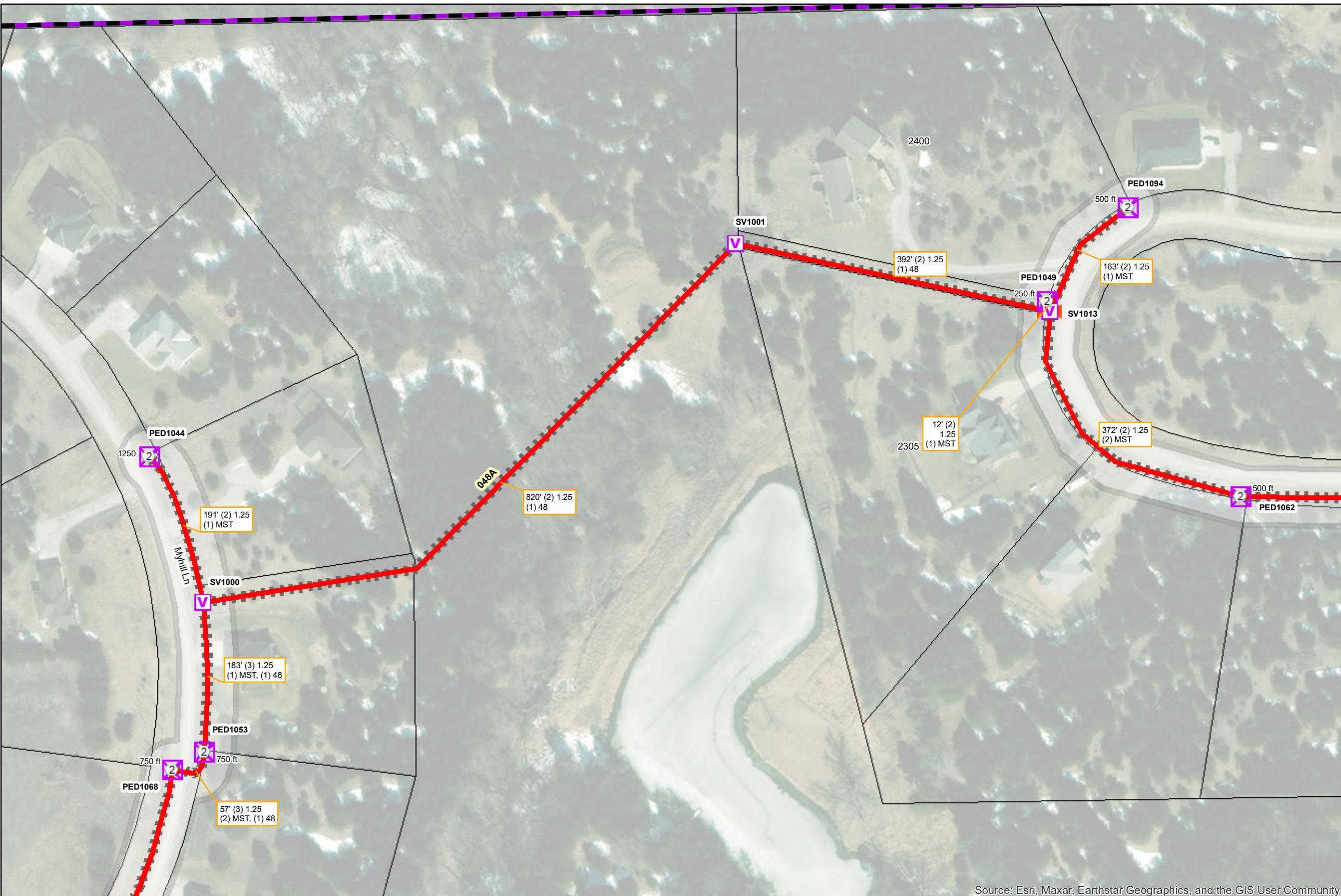
N

1 in = 122 ft



PON:	CRE-01-02
DCR:	DCR.number
PERMIT:	
LEGEND	Date: 7/21/2023
PON	STRUCTURE
FIBEREQUIPMENT	Small PED
(2) MST 2	T48 Vault
SPLICECLOSURE	Underground
ROUTE	
Placement Type	
UG Bore	
Future MDU Drop	
Future MDU Drop	
Conduit	
MST Runs	

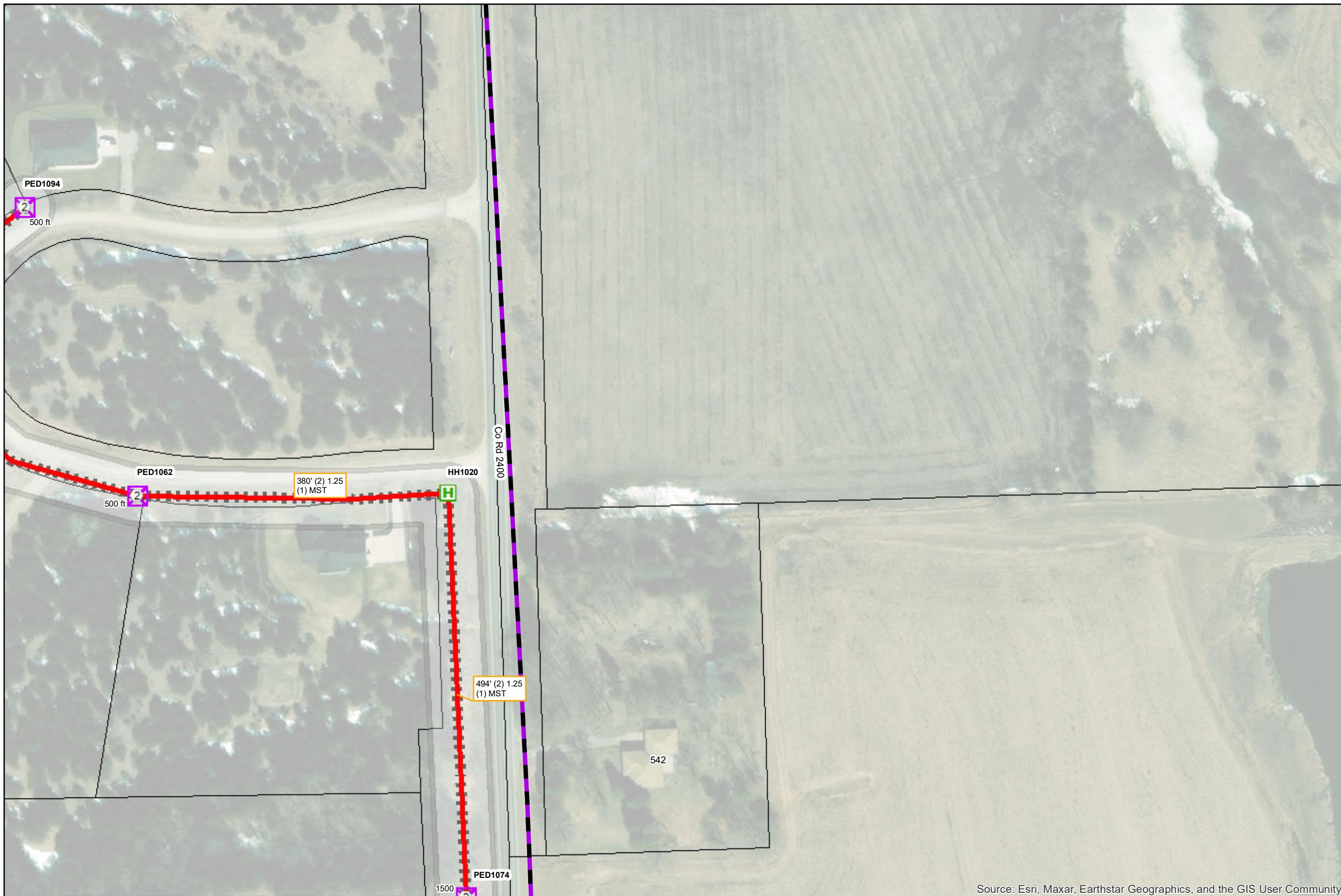
FP92	FP93	FP94
FQ92	FQ93	FQ94
FR92	FR93	FR94



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Revisions:





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DCR:	DCR.number	
PERMIT:		
LEGEND	Date: 7/21/2023	
PON	STRUCTURE	
FIBEREQUIPMENT	Small PED	
(2) MST 2	T36 Vault	
ROUTE		
Placement Type		
	UG Bore	
	Conduit	
	MST Runs	
FP93	FP94	FP95
FQ93	FQ94	FQ95
FR93	FR94	FR95

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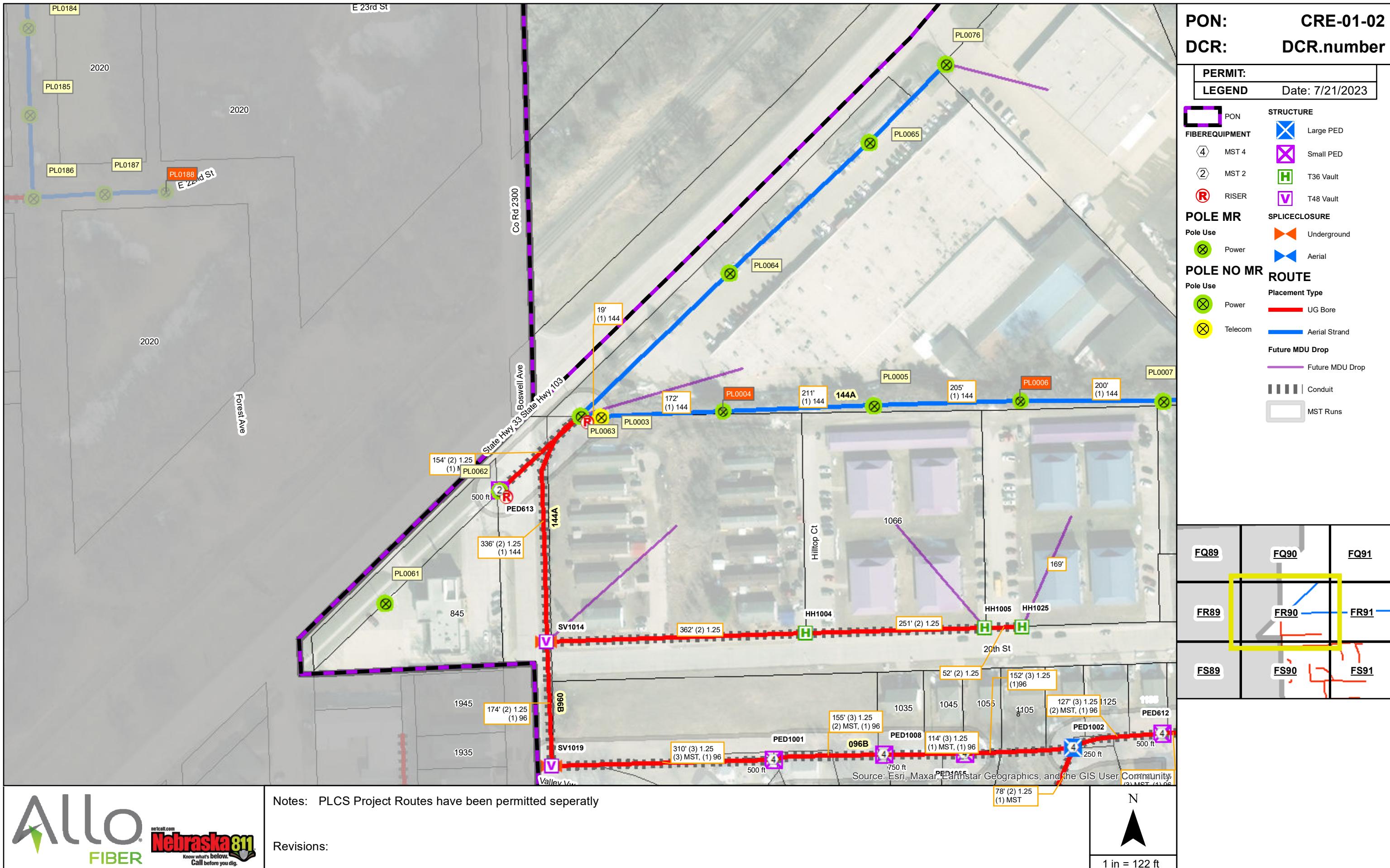


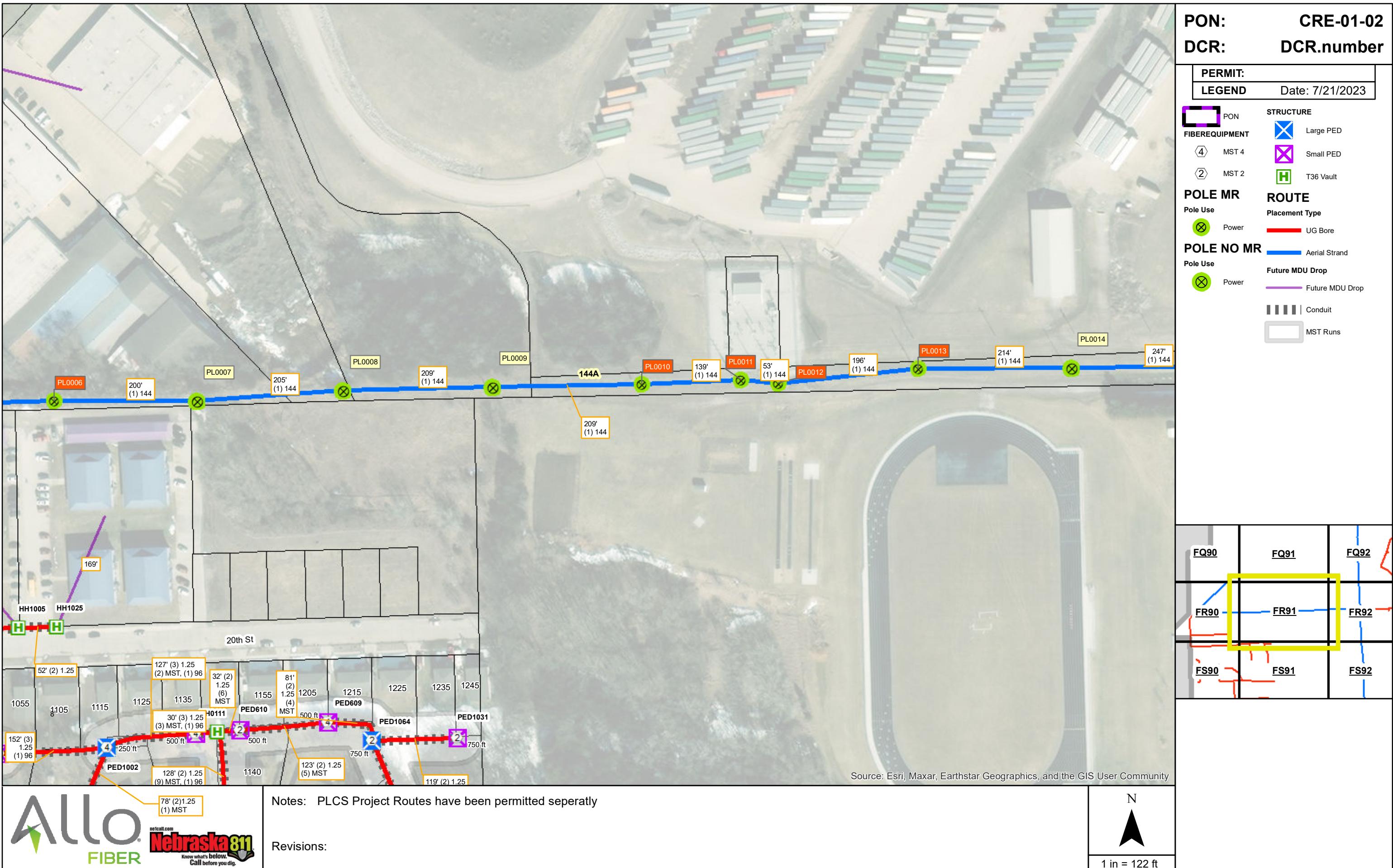
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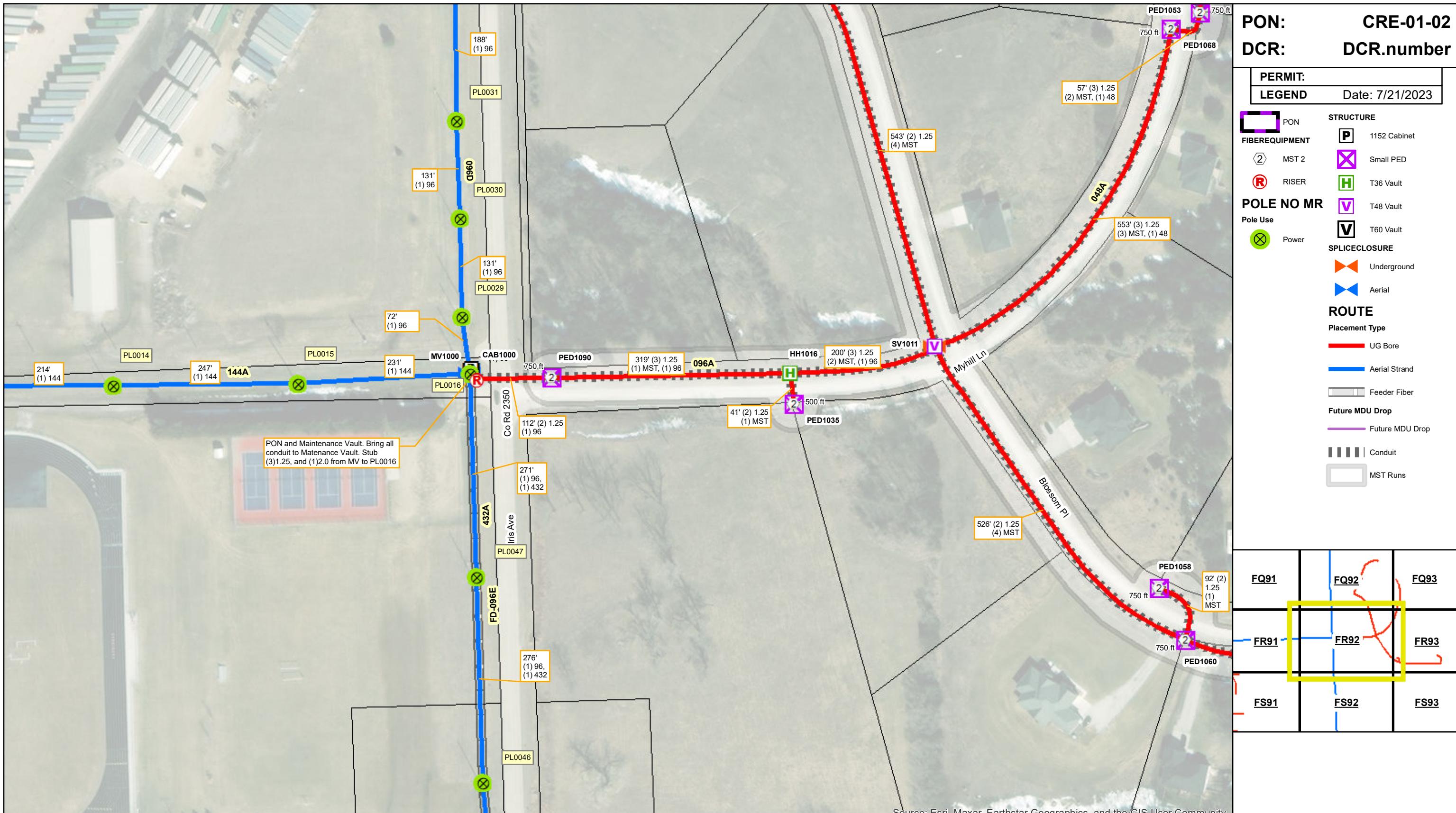
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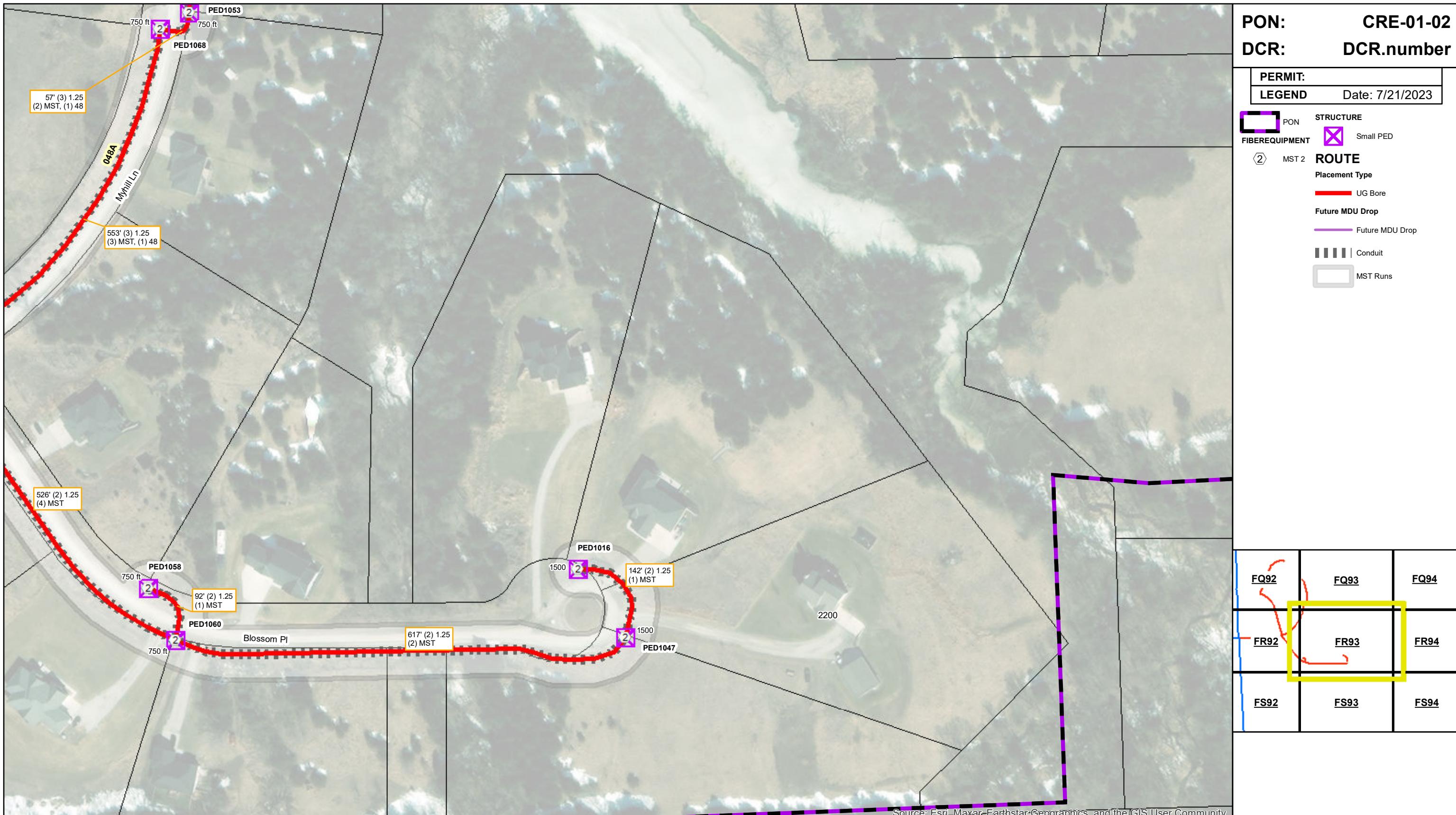
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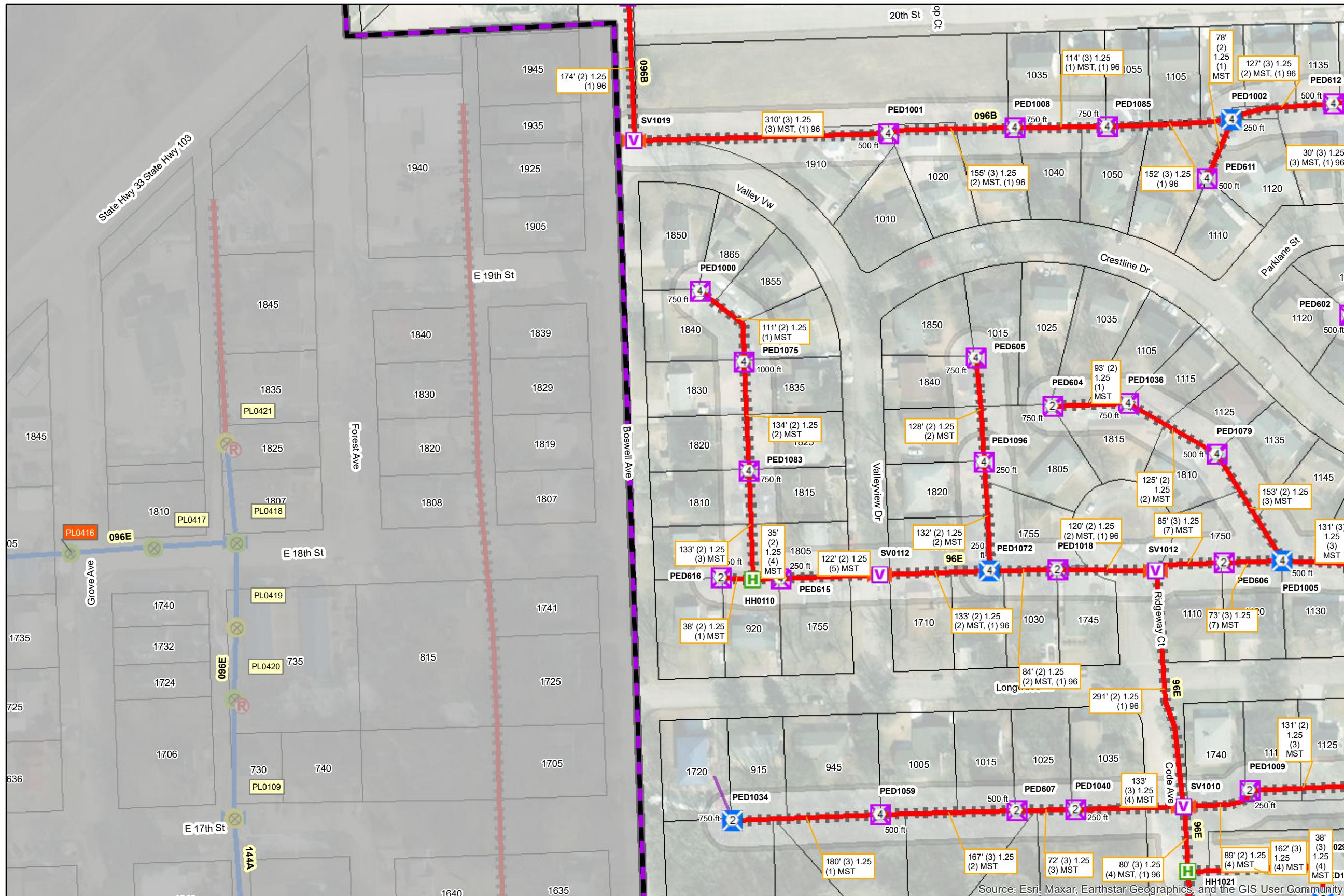
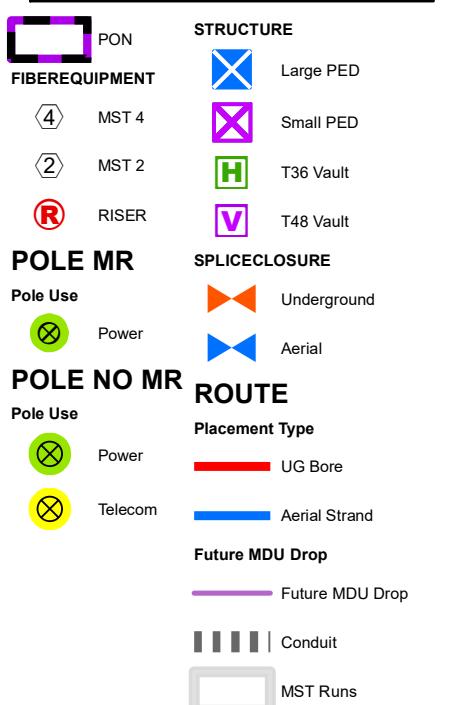
Revisions:



PON: CRE-01-02

DCR: DCR.number

PERMIT:	Date: 7/21/2023
LEGEND	



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Revisions:



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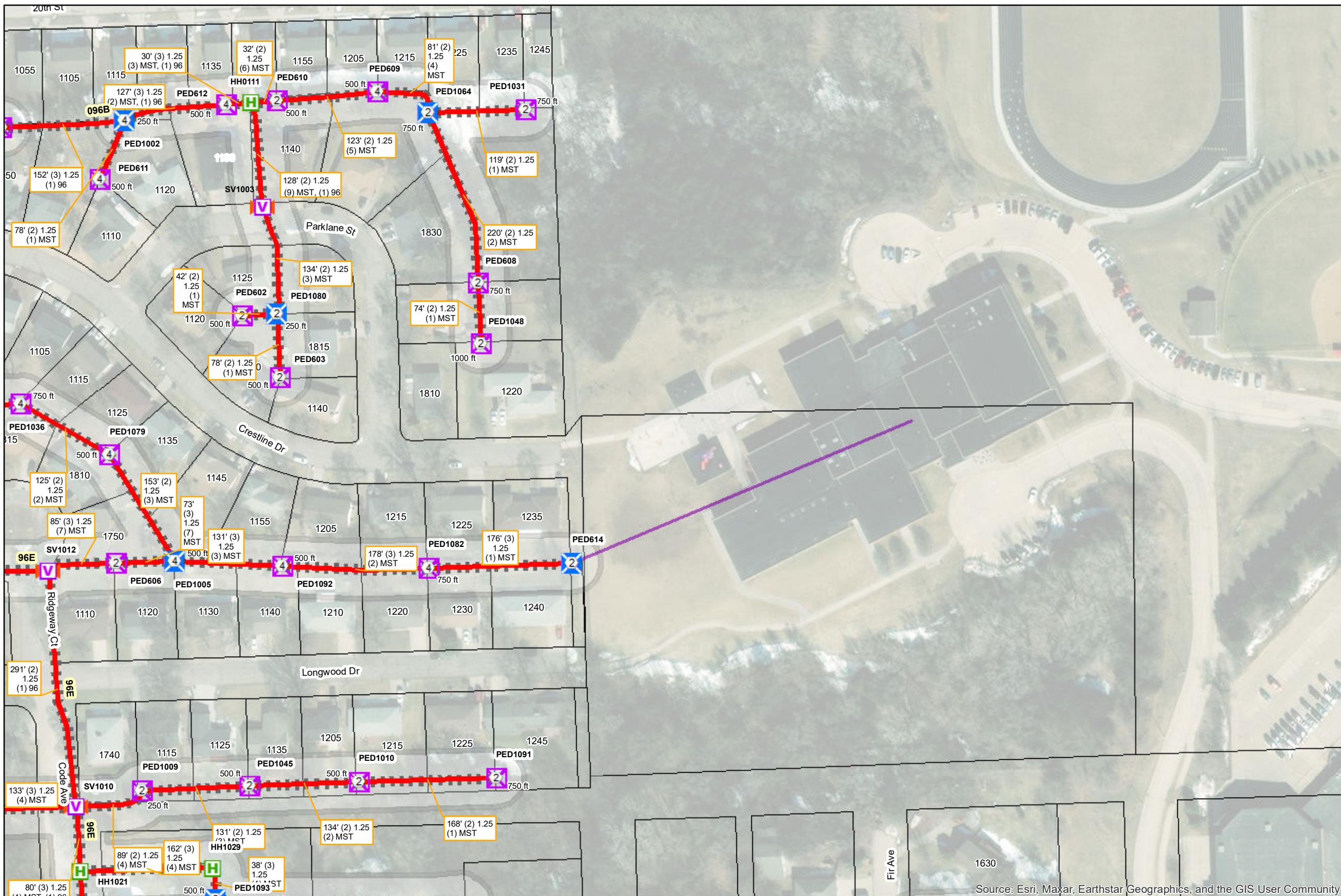
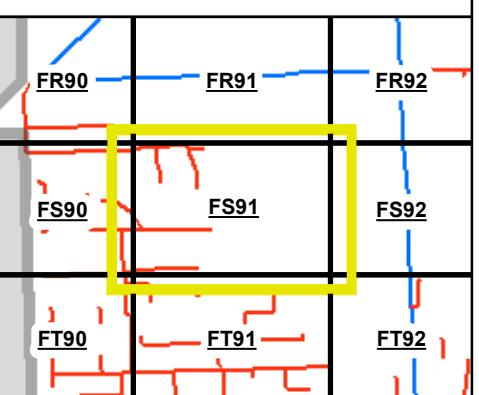
PON: CRE-01-02  
DCR: DCR.number

PERMIT:  
LEGEND Date: 7/21/2023

**FIBER** PON STRUCTURE  
EQUIPMENT Large PED  
MST 4 Small PED  
MST 2 T36 Vault  
T48 Vault

**SPlicing** CLOSURE  
Underground

**ROUTE**  
Placement Type  
UG Bore  
Future MDU Drop  
Future MDU Drop  
Conduit  
MST Runs



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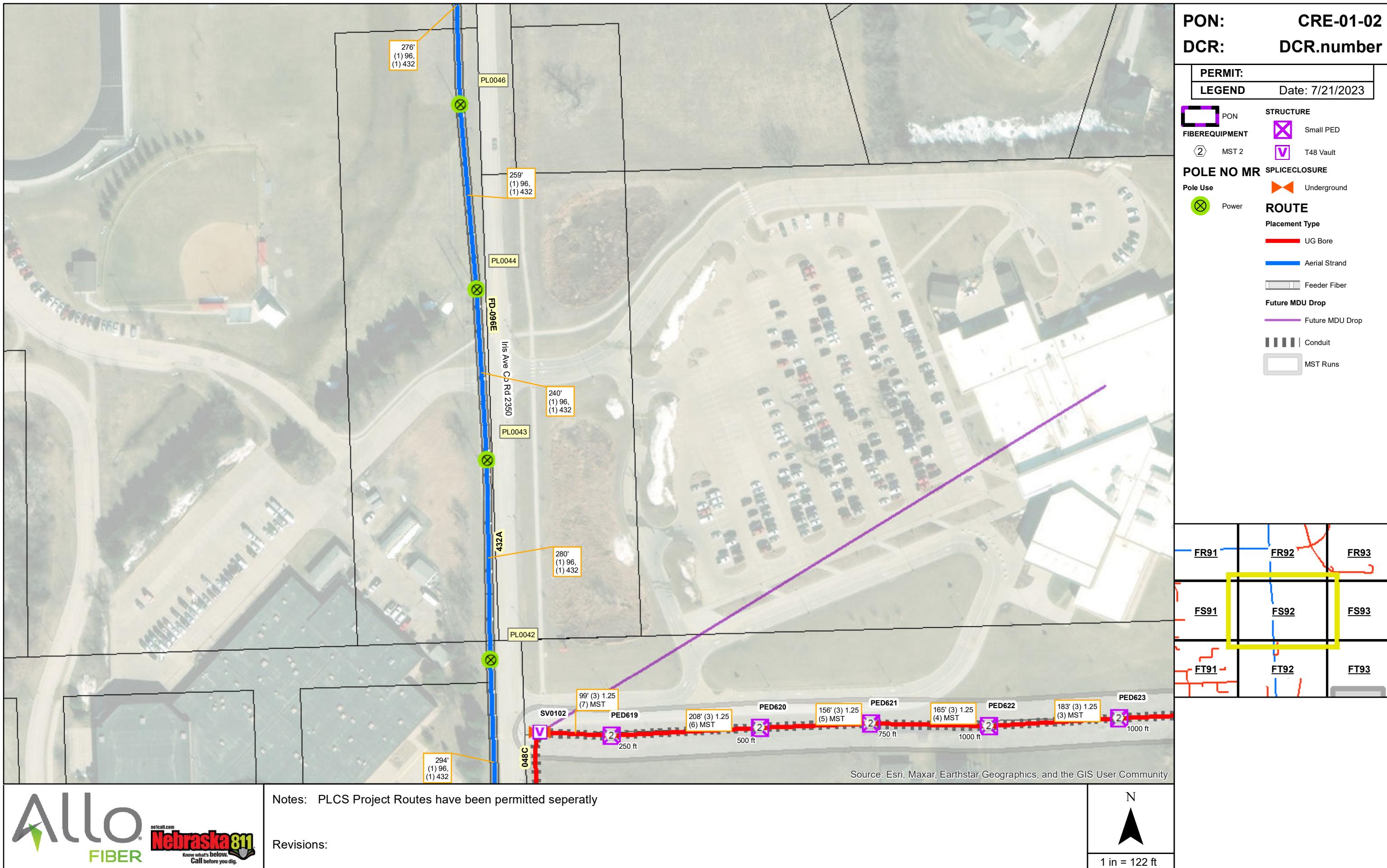


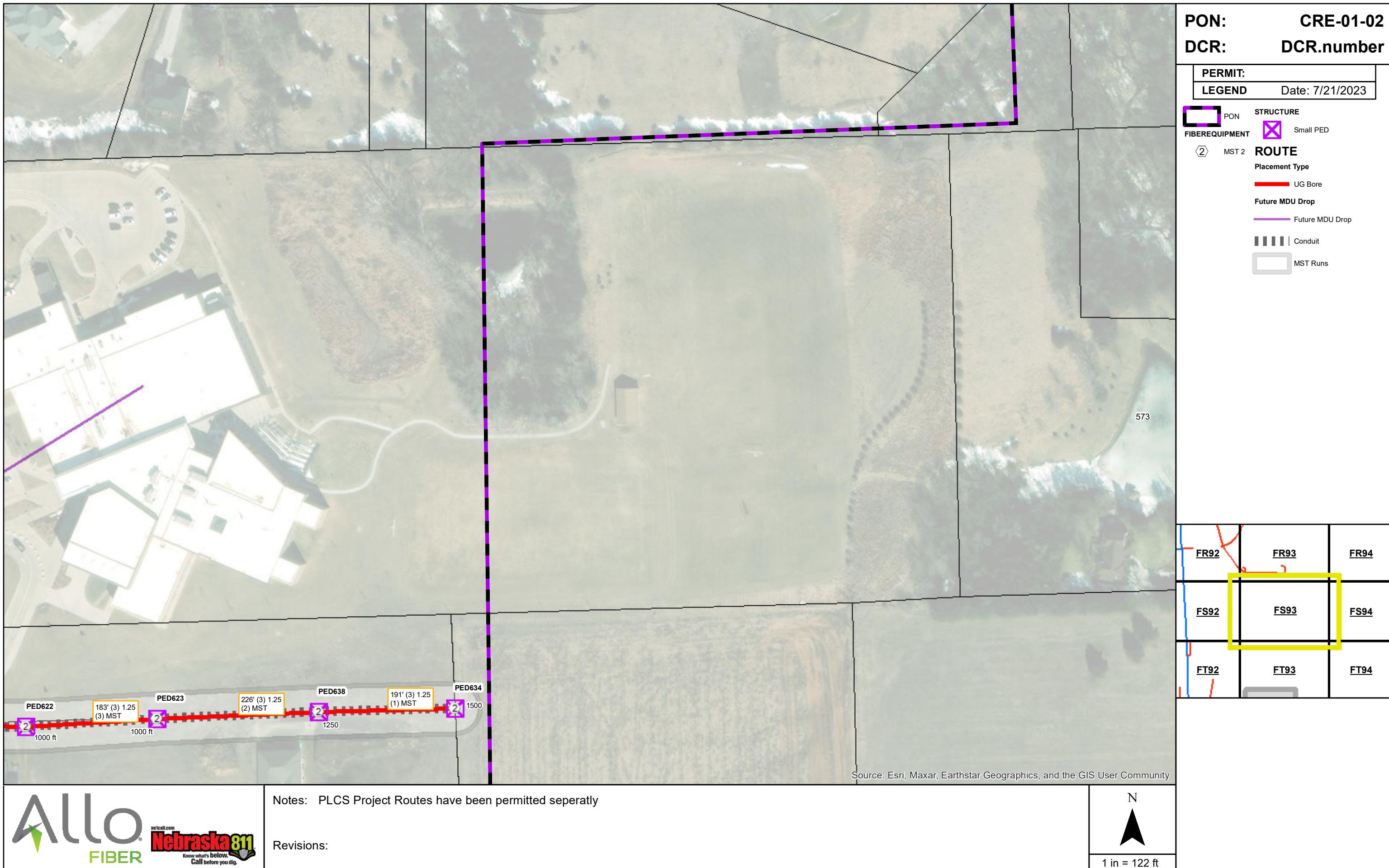
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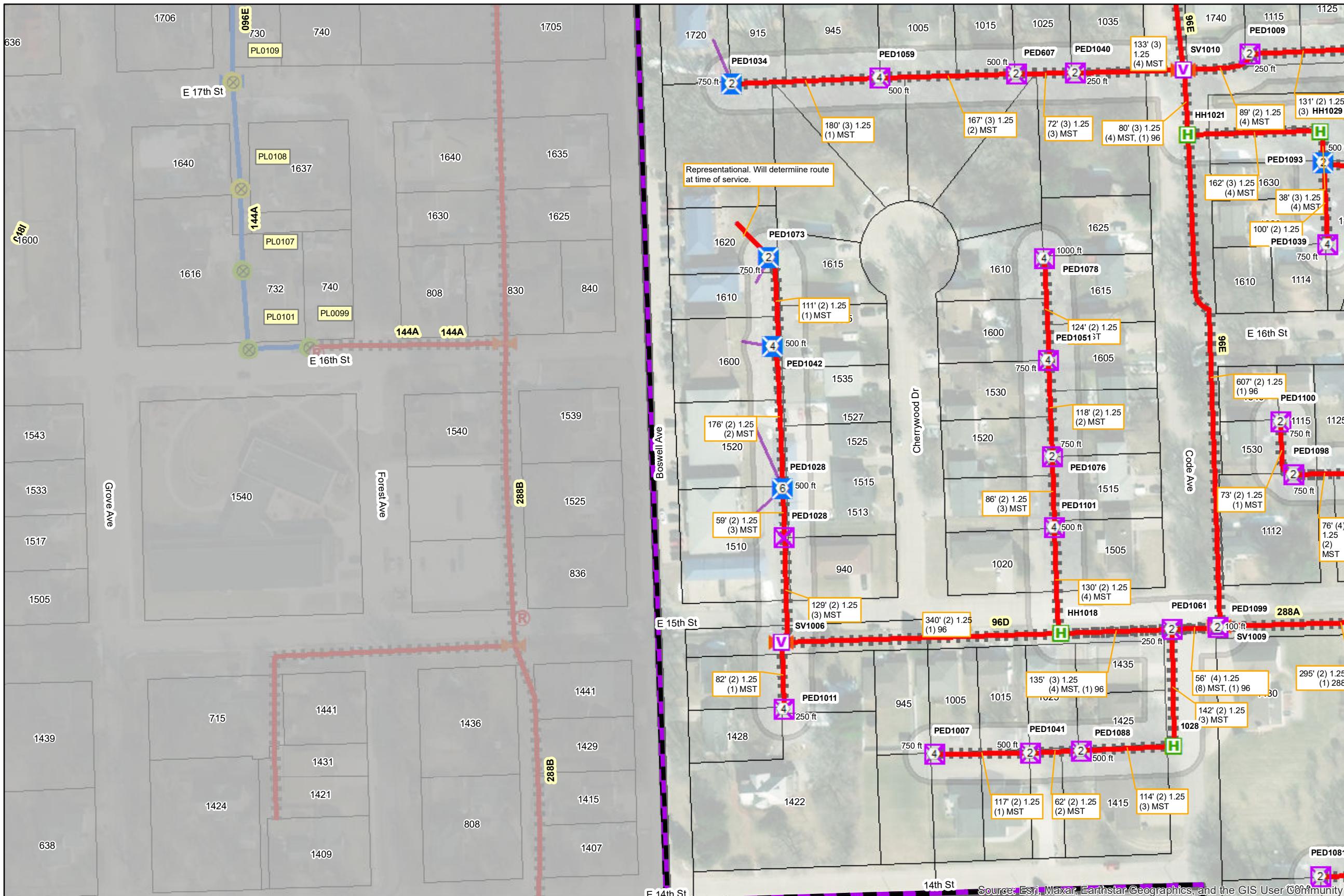
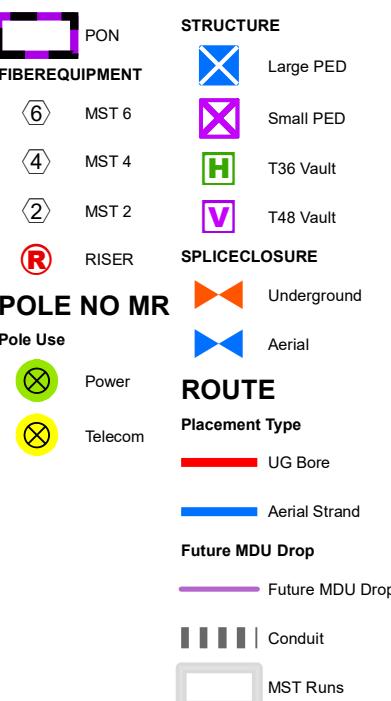
1 in = 122 ft





**PON:** CRE-01-02  
**DCR:** DCR.number

**PERMIT:**  
**LEGEND** Date: 7/21/2023



PON: CRE-01-02  
DCR: DCR.number

PERMIT: LEGEND Date: 7/21/2023

STRUCTURE	
	PON
	FIBER
	EQUIPMENT

MST	
④	MST 4
②	MST 2
11	MST 1

T36 Vault

T48 Vault

Underground

#### ROUTE

Placement Type

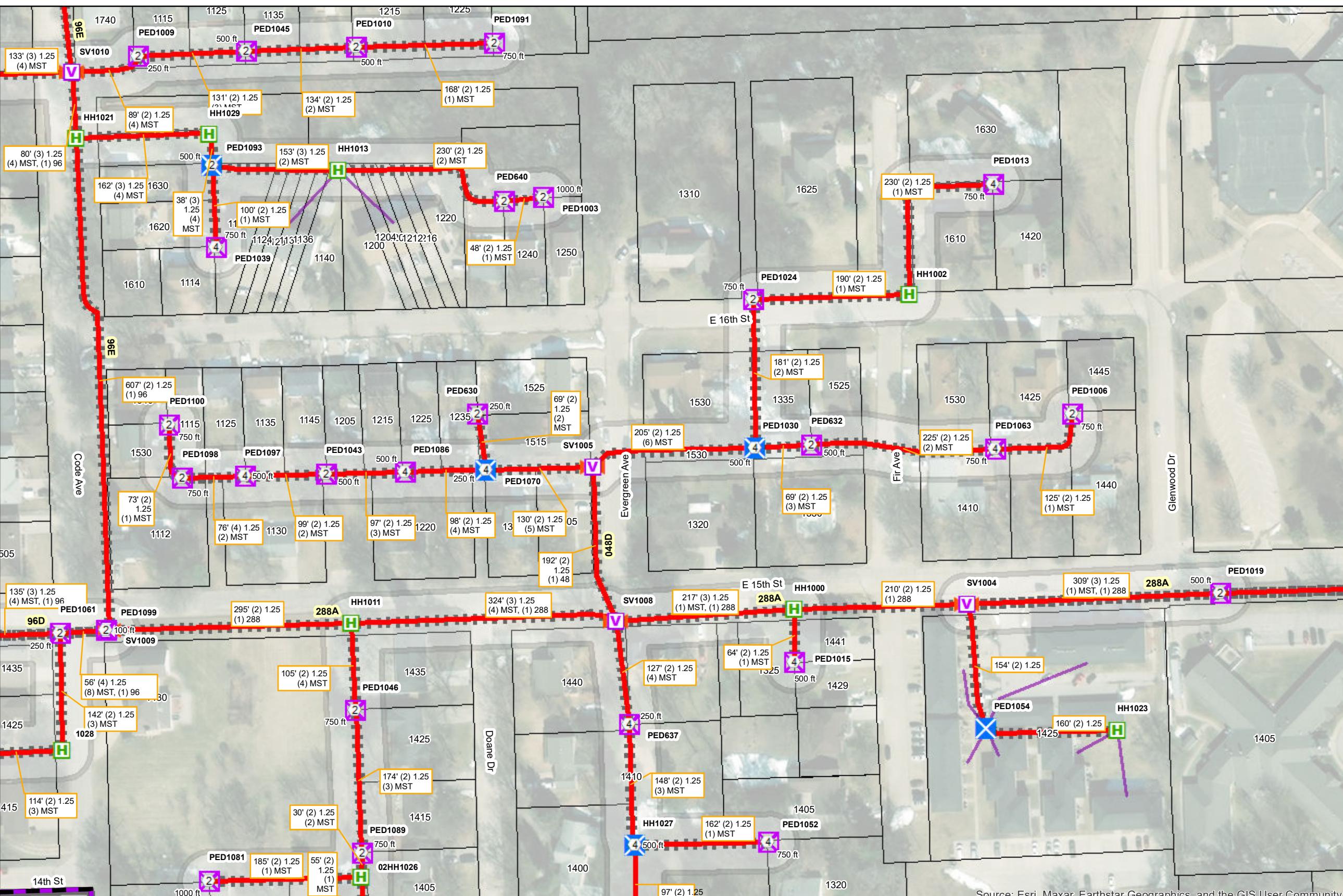
UG Bore

Future MDU Drop

Future MDU Drop

Conduit

MST Runs



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



Notes: PLCS Project Routes have been permitted separately

Revisions:

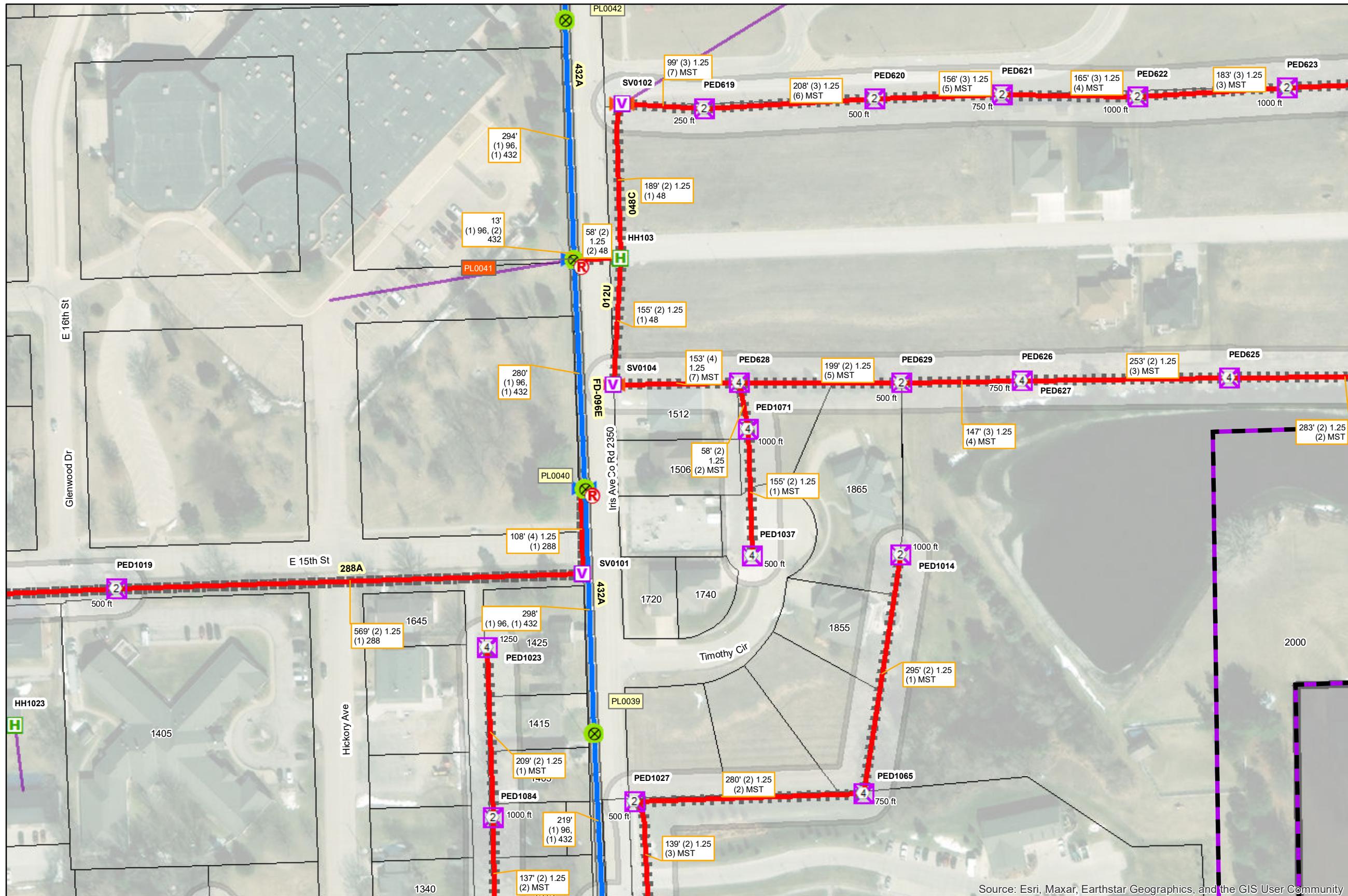


1 in = 122 ft

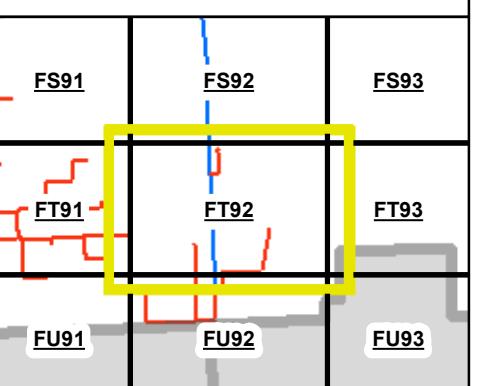
**PON:** CRE-01-02  
**DCR:** DCR.number

**PERMIT:**  
**LEGEND** Date: 7/21/2023

	<b>PON</b>	<b>STRUCTURE</b>
	<b>FIBER</b>	Small PED
	<b>EQUIPMENT</b>	MST 4 MST 2 RISER
	<b>ROUTE</b>	Underground Aerial
	<b>POLE MR</b>	<b>POLE NO MR</b> Placement Type
	<b>ROUTE</b>	<b>POLE NO MR</b> Placement Type
	<b>POLE USE</b>	<b>POLE NO MR</b> Placement Type
	<b>POWER</b>	UG Bore Aerial Strand
	<b>FEEDER</b>	Feeder Fiber
	<b>FUTURE MDU DROP</b>	Future MDU Drop
	<b>CONDUIT</b>	Conduit
	<b>MST RUNS</b>	MST Runs



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



PON: CRE-01-02  
DCR: DCR.number

PERMIT:  
LEGEND Date: 7/21/2023

**STRUCTURE**  
PON (Purple Box)  
FIBER/EQUIPMENT (Purple Box with H)  
SPLICING CLOSURE (Blue Box with H)

**FIBER/EQUIPMENT**  
MST 4 (4)  
MST 2 (2)  
RISER (R)  
ROUTE (Blue Line)

**SPlicing CLOSURE**  
Aerial (Blue Arrow)

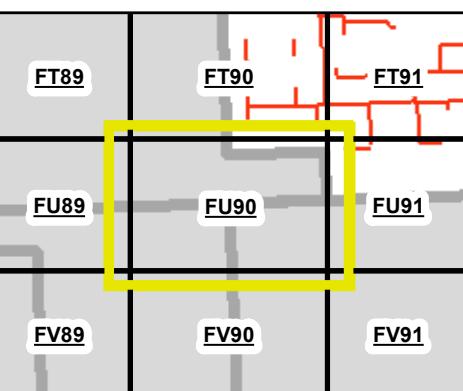
**ROUTE**  
Placement Type  
Unknown (Orange Dot)  
UG Bore (Red Line)  
Aerial Strand (Blue Line)

**POLE MR**  
Pole Use  
Power (Green Circle with X)  
Telecom (Yellow Circle with X)

**POLE NO MR**  
Pole Use  
Power (Green Circle with X)  
Telecom (Yellow Circle with X)

**ROUTE**  
Feeder Fiber (Gray Line)  
Conduit (Dashed Line)  
MST Runs (Gray Box)

**ROUTE**  
Power (Green Circle with X)  
Telecom (Yellow Circle with X)



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

Notes: PLCS Project Routes have been permitted separately

Revisions:



N

1 in = 122 ft

