



**WISCONSIN INDEPENDENT NETWORK**  
**PROJECT ID # 01-788**  
**PLACE 48 COUNT FIBER TO MAYO CLINIC**  
**212 11TH ST S., LA CROSSE**  
**LA CROSSE COUNTY, WISCONSIN**

UNIT SUMMARY  
CONTRACTOR TO COMPLETE

<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>
DIRECTIONAL BORE TO PLACE (1) 1.25" DUCT	BMDB1	1050'
REMOVE & REPLACE SIDEWALK (SQUARE FEET)	UGRC	125 SQ.FT.
REMOVE & REPLACE ASPHALT (SQUARE FEET)	UGRA	4 SQ.FT.
PLACE (1) 24" x 36" x 36" COMPOSITE HAND HOLE	UH36	2
WARNING MARKER POST WITH TEST STATION	BM53 (TS)	2
BLOWING CABLE - 48 STRAND	UFOB(48)	1155'
PULLING CABLE - 12 STRAND	UFOP(12)	450'
PULLING CABLE - TRACER WIRE	UFOP(TRACER)	200'
BURIED FILLED FIBER OPTIC CLOSURE	HBFO(96)	1
BURIED FILLED FIBER OPTIC CLOSURE	HBFO(48)	1
FUSION SPLICE	HO1	18
ENTER EXISTING SPLICE HAND HOLE	WUH	3
PULL CABLE SLACK WITHIN EXISTING DUCT	WUD	100'
ABOVE GRADE BUILDING ENTRANCE	BM21	1
FIBER DISTRIBUTION PANEL	FDP	1

WIN Project Engineer:  
 John Louis  
 Outside Plant Engineer  
 Cell: 715-864-2918

Contract Engineer  
 Shera Purdy  
 Mi-Tech Services  
 Office: (608) 244-4140  
 Cell: (608) 438-4139

Construction Contractor Information

Name: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Foreman: \_\_\_\_\_  
 Cell: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_

AS STAKED

AS BUILT DATE:

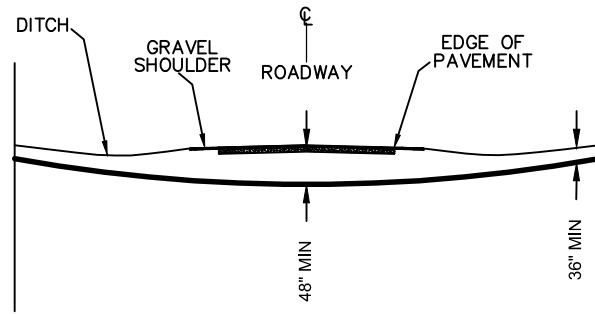
SOC CODE \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

## GENERAL CONSTRUCTION NOTES

- 1) Wisconsin State Law requires excavators to notify Diggers Hotline a minimum of three (3) business days prior to all excavations (excluding Saturdays, Sundays, and legal Holidays). Hand dig with care within the 18" safety zone when exposing underground utilities. Caution - Diggers Hotline does not mark all private lines.
- 2) Underground utilities have been plotted from available records and field observations but are not necessarily exact. It is the contractor's responsibility to field locate all underground obstructions and utilities prior to construction. Complete repair of any and all damages incurred shall be at the expense of the construction contractor. Fiber placement subject to change upon field locate completion.
- 3) Coordinate all construction activities with WIN Project Engineer prior to construction.
- 4) Contractor is responsible for any erosion control, which includes submitting erosion plans, related to this project, should it become necessary.
- 5) Construction contractor shall provide all information for as-built drawings, including but not limited to: Fiber sequential's at hand hole walls and end of fiber; Depths of fiber at a minimum of 200' intervals along with centerline of all hard surface crossings, ie: roads, alleys, drives, waterways pipelines, railroads; Actual GPS location of hand holes; Actual running line from right-of-way, back of curb, edge of pavement or other known landmarks shown on sheets; Actual location of warning markers; and any other information required to produce an accurate and permanent record of the project.
- 6) The top of all hand holes set shall match final grade.
- 7) The contractor shall comply with all Wisconsin Independent Network policies and procedures and all requirements from local permitting authorities. The various permits obtained for the project are on file in the office of the Wisconsin Independent Network engineer.
- 8) Miscellaneous structures and obstructions such as sign posts; mail boxes; meter boxes; or other obstructions shall be avoided or removed and reinstalled to original or better condition.
- 9) The contractor shall be responsible, at all times; for the maintenance of streets and other utilities affected by construction operations - debris shall not be permitted to accumulate and all premises shall be maintained in a neat and workmanlike condition.
- 10) The contractor shall take adequate precautions to protect existing facilities, sidewalks, curbs, pavements, utilities, foliage, and adjoining property and structures outside of right-of-way; and to avoid damage thereto.
- 11) The following special provisions shall apply to traffic regulation during the extent of this project:
  - a. There shall be, at all times, adequate vehicle and pedestrian access for ingress and egress for the properties adjacent to the project.
  - b. During non-working hours, the contractor shall keep the existing traffic lanes clear from interference including all approaches and intersections.
  - c. If lane blockage is unavoidable, the contractor shall notify the traffic engineering department, police department, fire department, ambulance services, school bus garages, and other agency operations as appropriate so these agencies may re-route their vehicles around the construction zone(s).
  - d. Contractor is responsible to adhere to the Wis DOT manual on traffic control along with submitting traffic plans if required by permitting authority.
- 12) If required, trenches in paved areas shall be saw-cut to the full depth of surfacing or as required by the permitting authority. Paved surfaces shall be repaired in accordance with the permitting authority's specifications.
- 13) The contractor shall comply with all current and applicable Occupational Safety and Health Administration (OSHA), federal, state, and local rules and regulations governing the safety of employees and material during excavation, trenching, ditching, and installation and backfilling operations on this project.
- 14) No trench or excavation site shall be left open overnight or unattended.
- 15) Right-of-way restoration and street and sidewalk repair/replacement shall be in compliance with the local permitting authority.
- 16) All fiber cable minimum depth must be 36". 48" minimum depth under roadways and waterways. See typical roadway and waterway crossing details.
- 17) Inner ducts occupied by cable shall be sealed at termination points using rubber plugs and compression bands. Foam sealant will not be used.
- 18) Brushing and trimming as-required. Brush, branches, and refuse from clearing operations shall, without delay, be removed from the vicinity of the right-of-way.
- 19) Construction contractor(s) shall have a copy of the permit(s) on-site and shall be available for inspection immediately upon request by the permitting authority or permitting authority representative.
- 20) No excavation, digging, tunneling, trenching, boring, plowing, installation of facilities, equipment or improvements above, on or beneath the surface of any right-of-way may begin without a signed permit from the governing permitting authority.

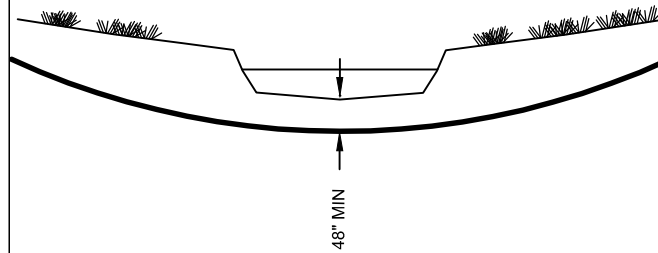
# TYPICAL DETAIL DRAWINGS

## TYPICAL ROADWAY CROSSING



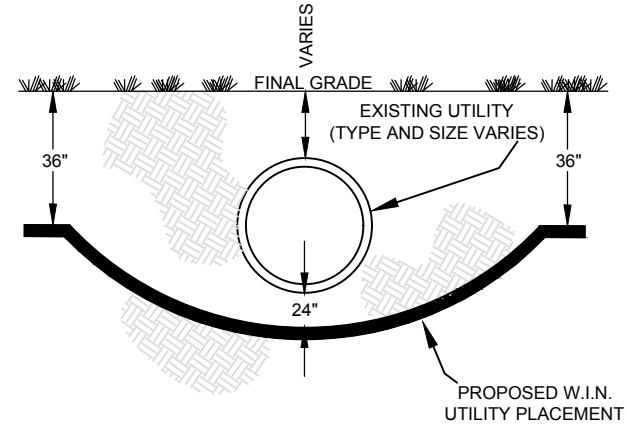
ALL DIMENSIONS SHOWN ARE MINIMUM DEPTHS  
 PROPOSED FACILITIES PLACEMENT SHALL CROSS ALL EXISTING STREETS AT 48" MINIMUM DEPTH  
 PERMITTING AUTHORITIES MAY REQUIRE GREATER THAN 48" MINIMUM DEPTH ROAD CROSSINGS

## TYPICAL WATERWAY CROSSING



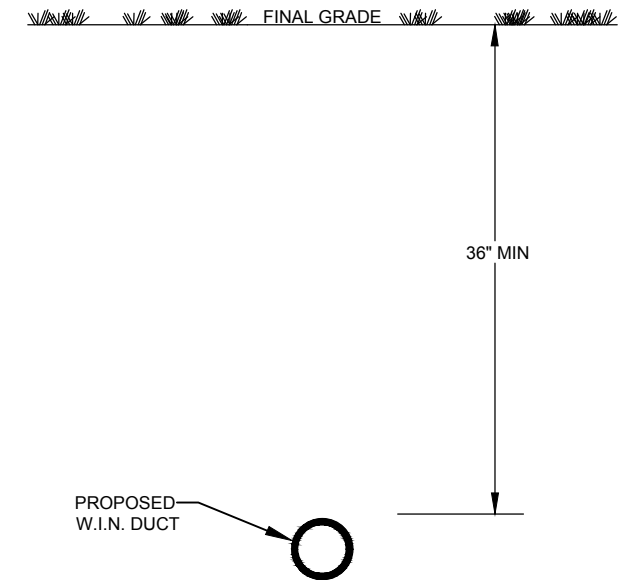
ALL DIMENSIONS SHOWN ARE MINIMUM DEPTHS  
 PROPOSED FACILITIES PLACEMENT SHALL CROSS ALL WATERWAYS AT 48" MINIMUM DEPTH FROM BASE OF WATERWAY  
 PERMITTING AUTHORITIES MAY REQUIRE GREATER THAN 48" MINIMUM DEPTH

## TYPICAL UTILITY CROSSING



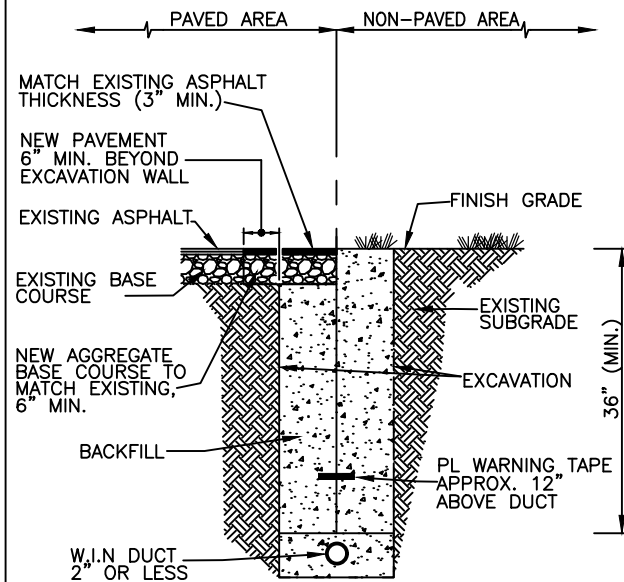
ALL DIMENSIONS SHOWN ARE MINIMUM DISTANCES  
 PROPOSED FACILITIES PLACEMENT SHALL CROSS ALL EXISTING UTILITIES WITH A 24" MINIMUM VERTICAL AND HORIZONTAL SEPARATION  
 FOREIGN UTILITY OWNERS AND/OR PERMITTING AUTHORITIES MAY REQUIRE GREATER THAN 24" SEPARATIONS

## TYPICAL BORE DETAIL



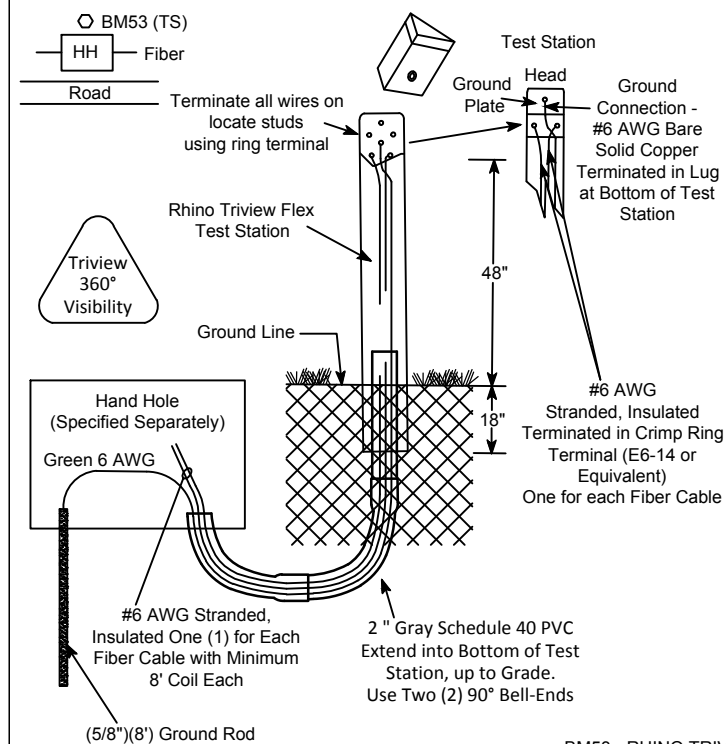
MAINTAIN MINIMUM HORIZONTAL AND VERTICAL SEPARATION OF EXISTING UTILITIES; REVIEW PERMITTING AUTHORITIES SPECIFICATIONS AND DETAILS FOR SEPARATION REQUIREMENTS  
 NOT TO SCALE

## TYPICAL TRENCH DETAIL BMT1 (ONE DUCT - 2" OR LESS) 1 DUCT HORIZONTALLY BY 1 DUCT VERTICALLY



MAINTAIN MINIMUM HORIZONTAL AND VERTICAL SEPARATION OF EXISTING UTILITIES; REVIEW PERMITTING AUTHORITIES SPECIFICATIONS AND DETAILS FOR SEPARATION REQUIREMENTS  
 NOT TO SCALE

## TYPICAL WARNING SIGN MARKER POST

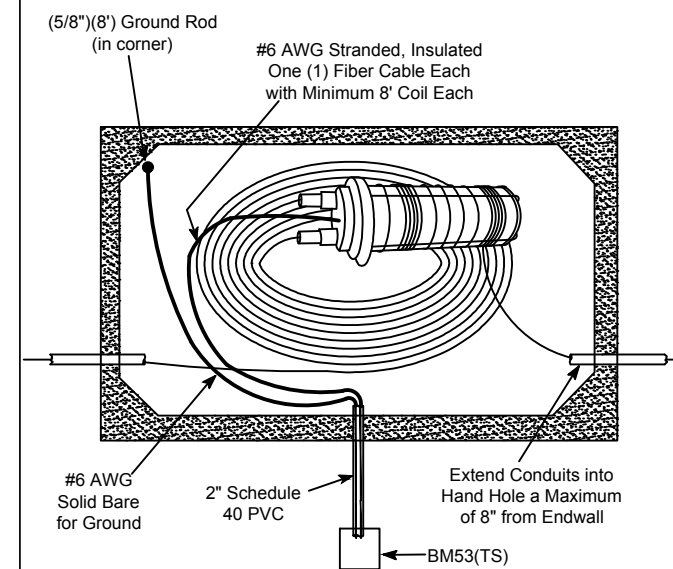


-- NOTES --

- Cap Colors:
  - Black: Warning Post Only
  - White: Hand Hole with Slack
  - Green: Test Station at Splice Locations
- Test Station to be Installed in Center of Long Side of Hand Hole Away from Roadway
- Contractor Supplied Conduit from Hand Hole to Test Station will be 2" Gray Schedule 40 PVC Extended into Bottom of Test Station Above Grade Level
- Test Station Conductors:
  - Ground Rod to Locate Plate - #6 Bare Solid
  - Test Station to Hand Hole for Each Cable - #6 Stranded, Insulated
  - #6 Bare Solid Terminated in Lug at Top of Test Station for Ground
  - Stranded #6 to be Terminated in Crimp Ring Terminal T&B E-6-14 or Equivalent

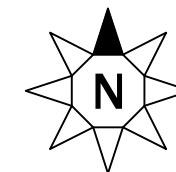
BM53 - RHINO TRIVIEW 72"  
 BM53(TS) - RHINO TRIVIEW 84" (TEST STATION POST)

## TYPICAL HANDHOLE DETAIL VIEW FROM TOP



6" COMPACTED #1 Washed Stone (not shown)  
 1/4" SCREEN MESH (not shown)  
 NOT TO SCALE

SHEET LEGEND



COUNTY:  
LA CROSSE

TOWNSHIP:  
LA CROSSE

TOWN:  
T16N / T15N

RANGE:  
R7W

SECTION:  
S32 / S5

MUNICIPALITY:  
CITY OF LA CROSSE

ROAD NAME:  
10TH ST SOUTH



WISCONSIN INDEPENDENT  
NETWORK

PROJECT ID # 01-788

PROJECT DESCRIPTION:  
PLACE 48 COUNT FIBER TO  
MAYO CLINIC  
212 11TH ST S., LA CROSSE

ENGINEERING DATE

COMPLETED: 04/2019

REVISIONS

W.I.N. PROJECT ENGINEER  
JIM BIRKENHEIER  
OUTSIDE PLANT ENGINEER  
715-838-4007

REDLINE

AS BUILT

SCALE NO SCALE



Mi-Tech  
6484 Ronald Reagan Ave.  
Madison, WI 53704  
(800) 465-8050

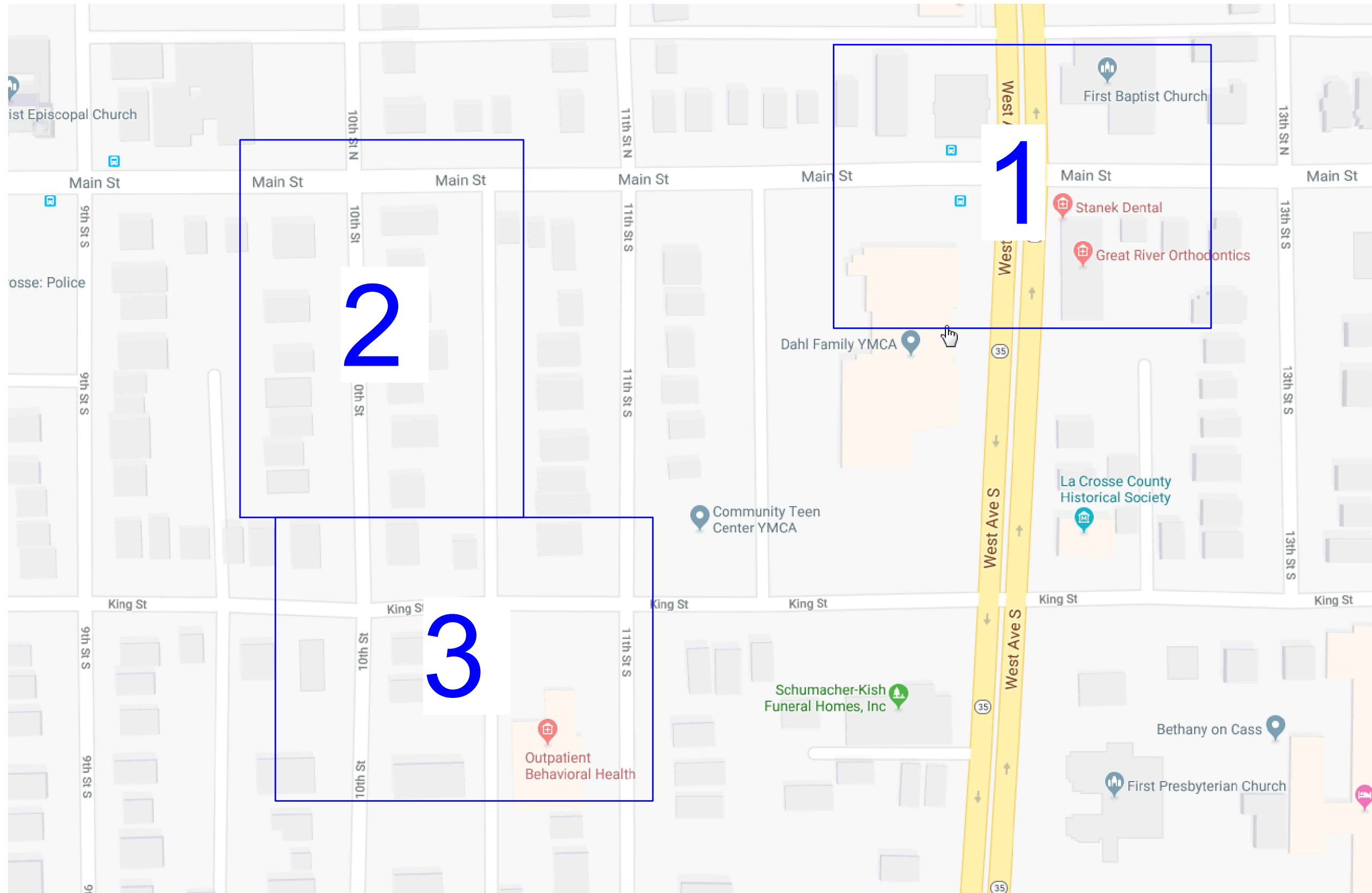
LINETYPES

	FO	UG FIBER - EXISTING
	FO	UG FIBER - PROPOSED
	FO	UG FIBER - PROPOSED BORE
	FO	UG DUCT - PROPOSED
	OP	FIBER - PULL THRU EXISTING (OVERPULL)
	X	UG FIBER - ABANDON-IN-PLACE
	DE	DISTRICT ENERGY
	G	GAS
	W	WATER
	T	TELEPHONE
	E	ELECTRIC
	SEW	SANITARY SEWER (SEW)
	SD	STORM DRAIN
	○	FENCE
	FO	FIBER OPTIC
	STM	STEAM
		RAILROAD
		ROAD CENTERLINE
	R/W	RIGHT OF WAY
	P/L	PROPERTY LINE
	SL/TS	STREET LIGHT/TRAFFIC SIGNAL
	F of C	EDGE OF PAVEMENT

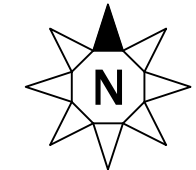
SYMBOL DESCRIPTION

ASW	ASPHALT SIDEWALK
BIP	BLACK IRON PIPE
BSP	BLACK STEEL PIPE
CSW	CONCRETE SIDEWALK
EOP	EDGE OF PAVEMENT
EOTW	EDGE OF TRAVEL WAY
F of C	FACE OF CURB
HDPE	HIGH DENSITY POLYETHYLENE
HH	HANDHOLE
JB	JUNCTION BOX
MH	MANHOLE
MP	MILE POST
O/S	OFFSET
BOC	BACK OF CURB
RGS	RIGID GALVANIZED STEEL CONDUIT
R/W	RIGHT OF WAY
STA.	STATION

	TELEPHONE		VAULT - EXISTING
	POWER TRANSFORMER		VAULT - PROPOSED
	CATCH BASIN/INLET		AERIAL STORAGE - EXISTING
	FIRE HYDRANT		AERIAL STORAGE - PROPOSED
	GROUND/BOND		VAULT/BUILDING STORAGE - EXISTING
	STREET LIGHT		VAULT/BUILDING STORAGE - PROPOSED
	TREE		POLE ANCHOR/DOWN GUY - EXISTING
	CULVERT		POLE ANCHOR/DOWN GUY - PROPOSED
	WING WALL		PROPOSED DOWN GUY ON EXISTING ANCHOR
	BRIDGE		MANHOLE
	LOCATABLE POLY DOME MARKER		UTILITY POLE - EXISTING
	HANDHOLE - EXISTING		POLE - PROPOSED
	HANDHOLE - PROPOSED		TERMINATION - EXISTING
	MANHOLE - EXISTING		TERMINATION - PROPOSED
	MANHOLE - PROPOSED		SPLICE POINT - EXISTING
	PULLBOX - EXISTING		SPLICE POINT - PROPOSED
	PULLBOX - PROPOSED		
	BUILDING CALLOUT - PROPOSED		



SHEET OVERVIEW



COUNTY:  
LA CROSSE

TOWNSHIP:  
LA CROSSE

TOWN:  
T16N / T15N

RANGE:  
R7W

SECTION:  
S32 / S5

MUNICIPALITY:  
CITY OF LA CROSSE

ROAD NAME:  
10TH ST SOUTH



WISCONSIN INDEPENDENT  
NETWORK

PROJECT ID # 01-788

PROJECT DESCRIPTION:  
PLACE 48 COUNT FIBER TO  
MAYO CLINIC  
212 11TH ST S., LA CROSSE

ENGINEERING	DATE
-------------	------

COMPLETED:	04/2019
------------	---------

REVISIONS

W.I.N. PROJECT ENGINEER  
JIM BIRKENHEIER  
OUTSIDE PLANT ENGINEER  
715-838-4007

REDLINE

AS BUILT

SCALE NO SCALE



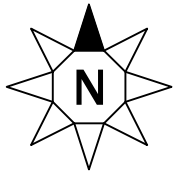
Mi-Tech  
6484 Ronald Reagan Ave.  
Madison, WI 53704  
(800) 465-8050

**NOTES:**

ALL UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR THE EXACT LOCATION OF MUNICIPAL AND PRIVATE UTILITIES; COMPLETE REPAIR OF ANY AND ALL DAMAGES INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FACILITY PLACEMENT SUBJECT TO CHANGE UPON FIELD LOCATE COMPLETION.

RIGHTS-OF-WAY ARE DEPICTED BASED ON FIELD OBSERVATIONS AND THE LATEST STATE AND COUNTY RECORDS AVAILABLE. IF FURTHER ACCURACY IS REQUIRED; LAND SURVEYS WILL BE NECESSARY.

PERMITS REQUIRED THIS PRINT:  
NONE



COUNTY:  
LA CROSSE

TOWNSHIP:  
LA CROSSE

TOWN:  
T16N

RANGE:  
R7W

SECTION:  
S32

MUNICIPALITY:  
CITY OF LA CROSSE

ROAD NAME:  
MAIN ST



WISCONSIN INDEPENDENT NETWORK

PROJECT ID # 01-788

PROJECT DESCRIPTION:  
PLACE 48 COUNT FIBER TO  
MAYO CLINIC  
212 11TH ST S., LA CROSSE

ENGINEERING	DATE
COMPLETED:	04/2019

REVISIONS

W.I.N. PROJECT ENGINEER  
JOHN LOUIS  
OUTSIDE PLANT ENGINEER  
715-864-2918

REDLINE

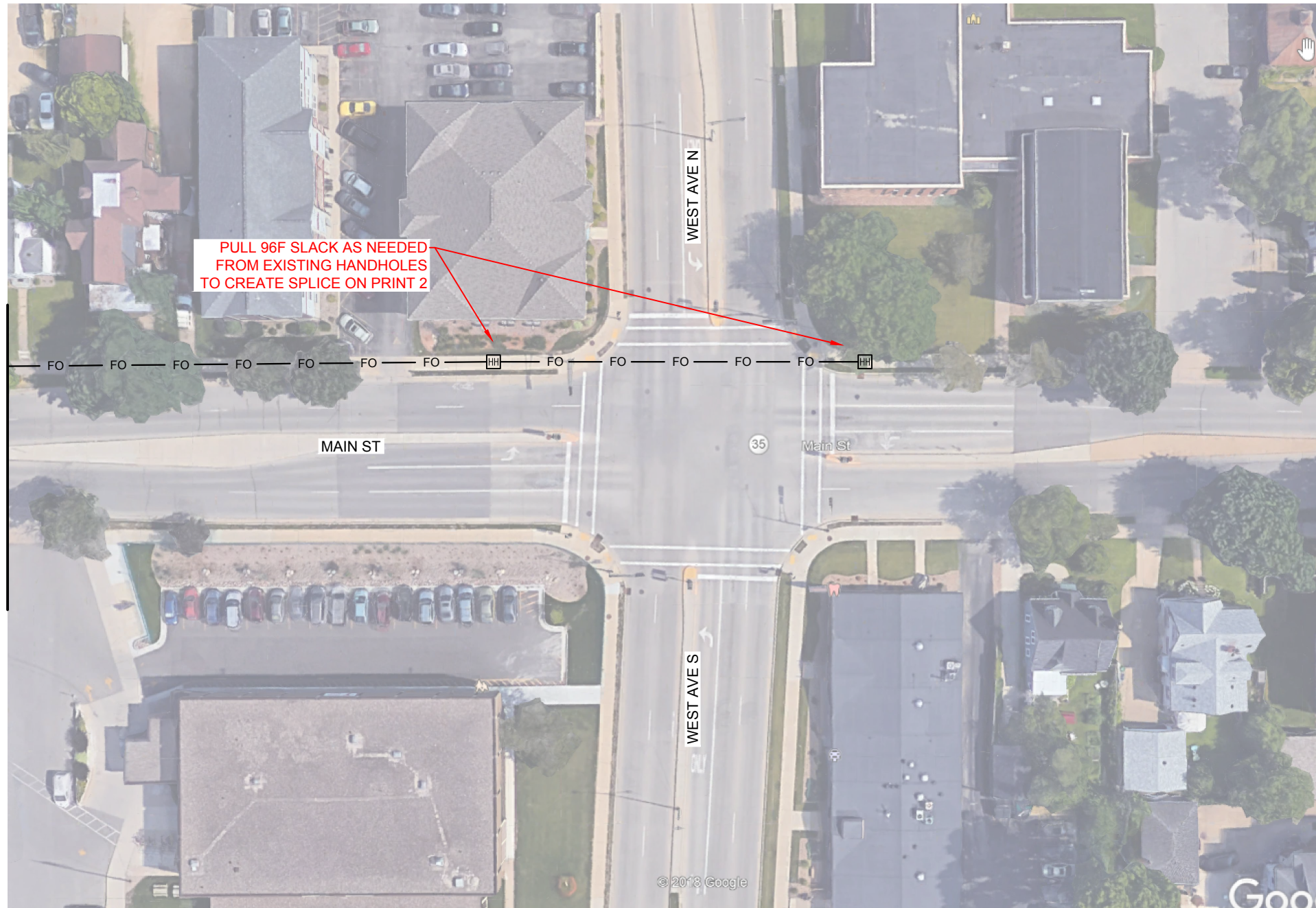
AS BUILT

SCALE NO SCALE



Mi-Tech  
6484 Ronald Reagan Ave.  
Madison, WI 53704  
(800) 465-8050

AT MAIN ST & 10TH ST S INTERSECTION - PRINT 2  
APPROXIMATELY 1,000' TO INTERSECTION



WISCONSIN STATUTE 182.0175 (1974) REQUIRES CONTRACTORS TO NOTIFY DIGGERS HOTLINE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO EXCAVATION AT 811 OR (800) 242-8511 OR (262) 432-7910. EMAIL-A-LOCATE IS AVAILABLE AT: WWW.DIGGERSHOTLINE.COM

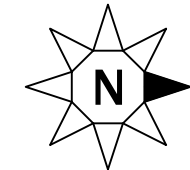
**2 SHEET 2**  
**WUD = 100'**  
**BMDB1 = 540'**  
**UGRC = 25 SQ.FT.**  
**UFOB(48) = 765' (COILS 225')**  
**UH36 = 1**  
**BM53(TS) = 1**  
**WUH = 1**  
**HBFO(96) = 1**  
**HO-1 = 6**

**NOTES:**

ALL UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR THE EXACT LOCATION OF MUNICIPAL AND PRIVATE UTILITIES; COMPLETE REPAIR OF ANY AND ALL DAMAGES INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FACILITY PLACEMENT SUBJECT TO CHANGE UPON FIELD LOCATE COMPLETION.

RIGHTS-OF-WAY ARE DEPICTED BASED ON FIELD OBSERVATIONS AND THE LATEST STATE AND COUNTY RECORDS AVAILABLE. IF FURTHER ACCURACY IS REQUIRED; LAND SURVEYS WILL BE NECESSARY.

PERMITS REQUIRED THIS PRINT:  
 CITY OF LA CROSSE



COUNTY:  
 LA CROSSE  
 TOWNSHIP:  
 LA CROSSE  
 TOWN:  
 T16N / T15N  
 RANGE:  
 R7W  
 SECTION:  
 S32 / S5  
 MUNICIPALITY:  
 CITY OF LA CROSSE  
 ROAD NAME:  
 10TH ST SOUTH



WISCONSIN INDEPENDENT NETWORK

PROJECT ID # 01-788

PROJECT DESCRIPTION:  
 PLACE 48 COUNT FIBER TO  
 MAYO CLINIC  
 212 11TH ST S., LA CROSSE

ENGINEERING DATE

COMPLETED: 04/2019

REVISIONS

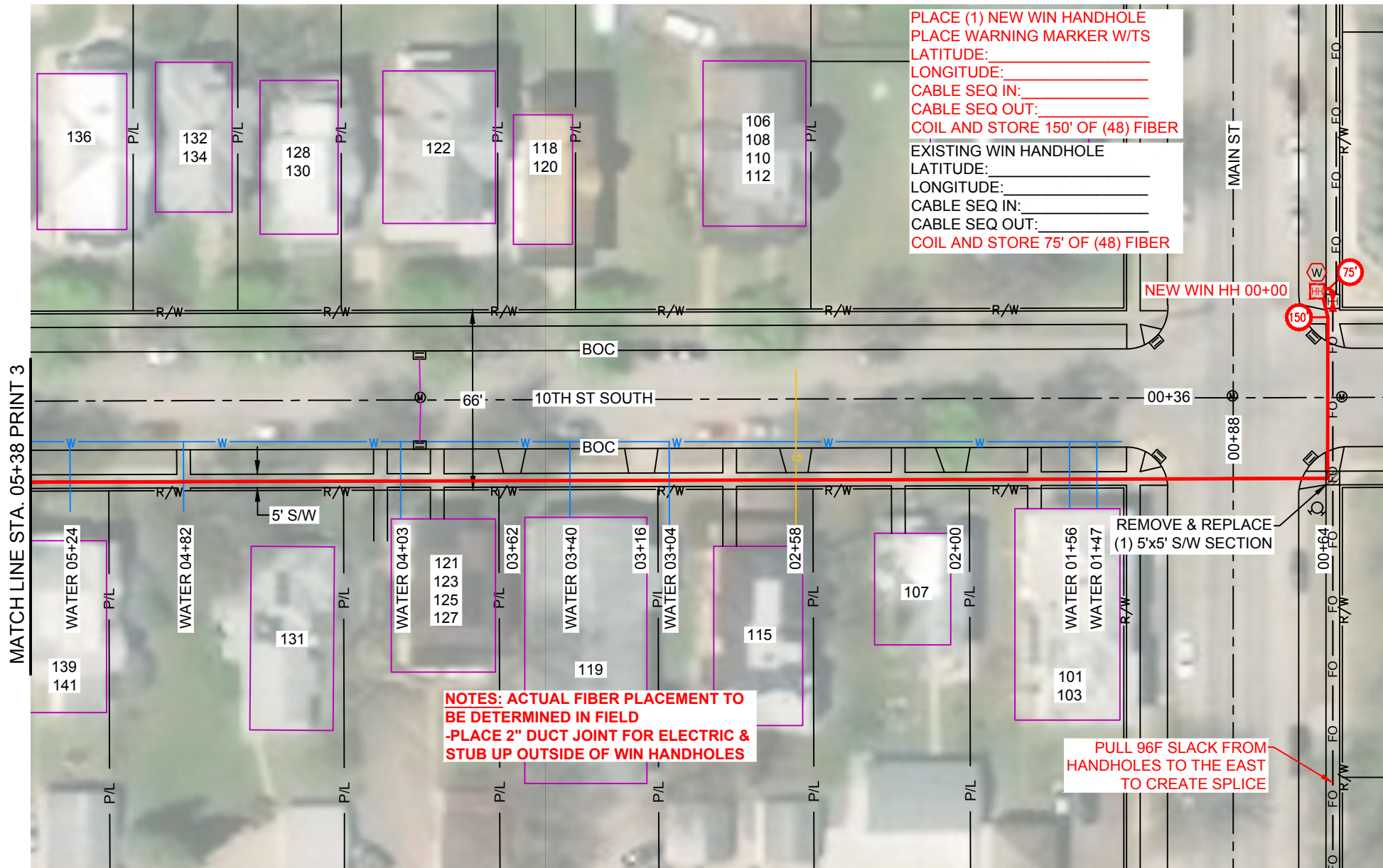
REVISED 5/16/16

W.I.N. PROJECT ENGINEER  
 JOHN LOUIS  
 OUTSIDE PLANT ENGINEER  
 715-864-2918

REDLINE

AS BUILT

SCALE 1" = 50'

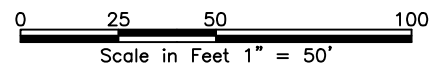
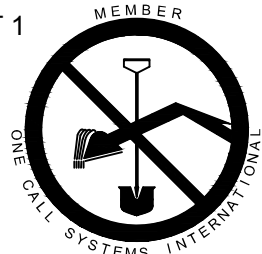


PLACE (1) NEW WIN HANDHOLE  
 PLACE WARNING MARKER W/TS  
 LATITUDE: \_\_\_\_\_  
 LONGITUDE: \_\_\_\_\_  
 CABLE SEQ IN: \_\_\_\_\_  
 CABLE SEQ OUT: \_\_\_\_\_  
 COIL AND STORE 150' OF (48) FIBER  
 EXISTING WIN HANDHOLE  
 LATITUDE: \_\_\_\_\_  
 LONGITUDE: \_\_\_\_\_  
 CABLE SEQ IN: \_\_\_\_\_  
 CABLE SEQ OUT: \_\_\_\_\_  
 COIL AND STORE 75' OF (48) FIBER

NOTES: ACTUAL FIBER PLACEMENT TO  
 BE DETERMINED IN FIELD  
 -PLACE 2" DUCT JOINT FOR ELECTRIC &  
 STUB UP OUTSIDE OF WIN HANDHOLES

PULL 96F SLACK FROM  
 HANDHOLES TO THE EAST  
 TO CREATE SPLICE

AT MAIN ST & WEST AVE S INTERSECTION - PRINT 1  
 APPROXIMATELY 1,000' TO INTERSECTION



WISCONSIN STATUTE 182.0175 (1974) REQUIRES CONTRACTORS TO  
 NOTIFY DIGGERS HOTLINE A MINIMUM OF THREE BUSINESS DAYS  
 PRIOR TO EXCAVATION AT 811 OR (800) 242-8511 OR (262) 432-7910.  
 EMAIL-A-LOCATE IS AVAILABLE AT: WWW.DIGGERSHOTLINE.COM

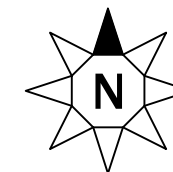
- 3 SHEET 3
- BMDB1 = 510'
- UGRC = 100 SQ.FT.
- UGRA = 4 SQ.FT.
- UFOB(48) = 390' (COIL 75')
- UFOP(12) = 450' (COIL 75')
- UFOP(TRACER) = 200'
- UH36 = 1
- BM53(TS) = 1
- HBFO(48) = 1
- HO-1 = 12
- BM21 = 1
- FDP = 1

NOTES:

ALL UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE. CONSTRUCTION CONTRACTOR IS RESPONSIBLE FOR THE EXACT LOCATION OF MUNICIPAL AND PRIVATE UTILITIES; COMPLETE REPAIR OF ANY AND ALL DAMAGES INCURRED SHALL BE AT THE EXPENSE OF THE CONTRACTOR. FACILITY PLACEMENT SUBJECT TO CHANGE UPON FIELD LOCATE COMPLETION.

RIGHTS-OF-WAY ARE DEPICTED BASED ON FIELD OBSERVATIONS AND THE LATEST STATE AND COUNTY RECORDS AVAILABLE. IF FURTHER ACCURACY IS REQUIRED; LAND SURVEYS WILL BE NECESSARY.

PERMITS REQUIRED THIS PRINT:  
CITY OF LA CROSSE



COUNTY:  
LA CROSSE

TOWNSHIP:  
LA CROSSE

TOWN:  
T15N

RANGE:  
R7W

SECTION:  
S5

MUNICIPALITY:  
CITY OF LA CROSSE

ROAD NAME:  
10TH ST SOUTH



WISCONSIN INDEPENDENT NETWORK

PROJECT ID # 01-788

PROJECT DESCRIPTION:  
PLACE 48 COUNT FIBER TO  
MAYO CLINIC  
212 11TH ST S., LA CROSSE

ENGINEERING	DATE
COMPLETED:	04/2019

REVISIONS

W.I.N. PROJECT ENGINEER  
JOHN LOUIS  
OUTSIDE PLANT ENGINEER  
715-864-2918

REDLINE

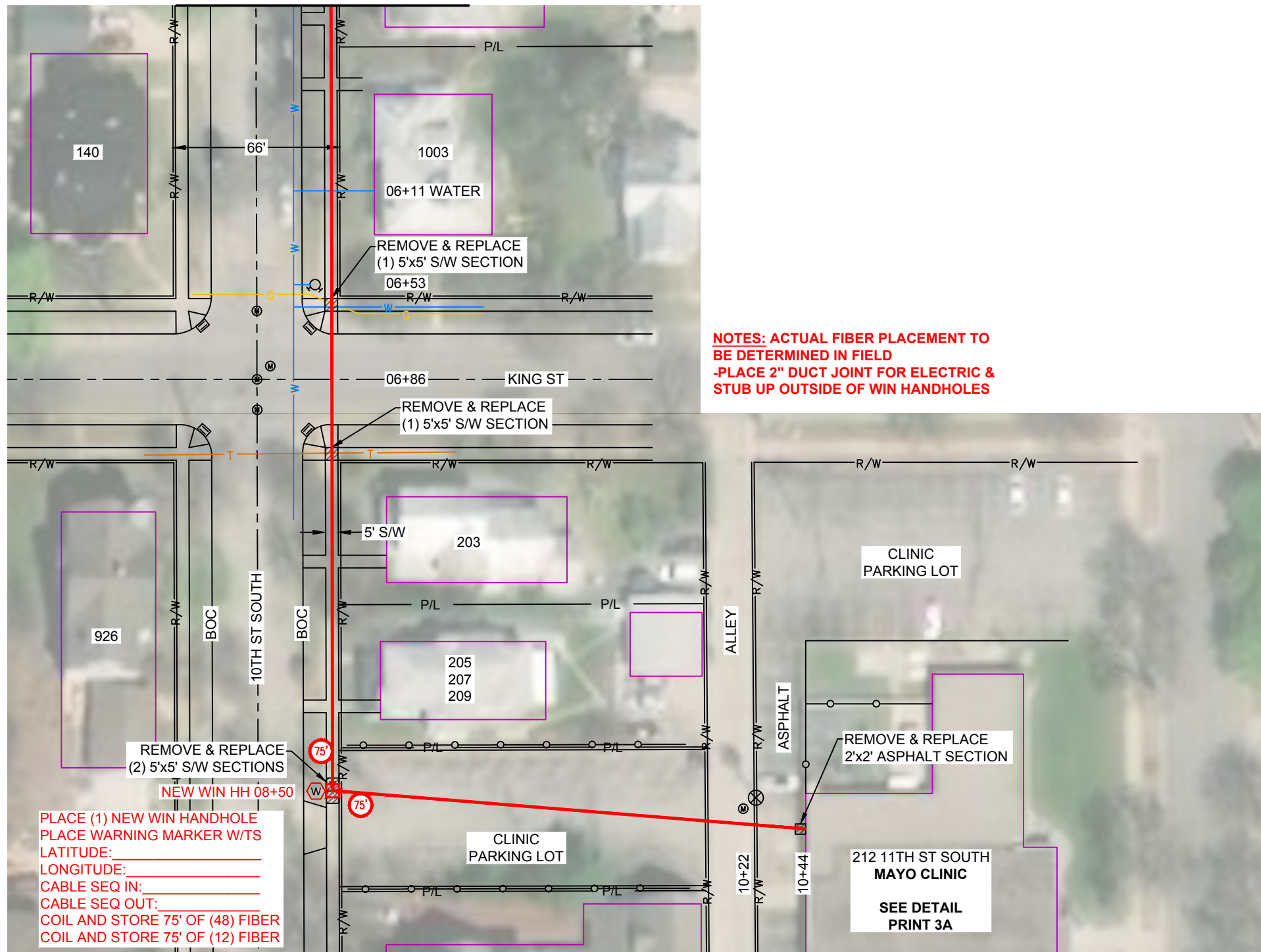
AS BUILT

SCALE 1" = 50'



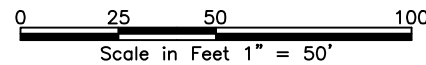
Mi-Tech  
6484 Ronald Reagan Ave.  
Madison, WI 53704  
(800) 465-8050

MATCH LINE STA. 05+38 PRINT 2



NOTES: ACTUAL FIBER PLACEMENT TO BE DETERMINED IN FIELD  
-PLACE 2" DUCT JOINT FOR ELECTRIC & STUB UP OUTSIDE OF WIN HANDHOLES

PLACE (1) NEW WIN HANDHOLE  
PLACE WARNING MARKER W/TS  
LATITUDE: \_\_\_\_\_  
LONGITUDE: \_\_\_\_\_  
CABLE SEQ IN: \_\_\_\_\_  
CABLE SEQ OUT: \_\_\_\_\_  
COIL AND STORE 75' OF (48) FIBER  
COIL AND STORE 75' OF (12) FIBER



WISCONSIN STATUTE 182.0175 (1974) REQUIRES CONTRACTORS TO NOTIFY DIGGERS HOTLINE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO EXCAVATION AT 811 OR (800) 242-8511 OR (262) 432-7910. EMAIL-A-LOCATE IS AVAILABLE AT: WWW.DIGGERSHOTLINE.COM

