



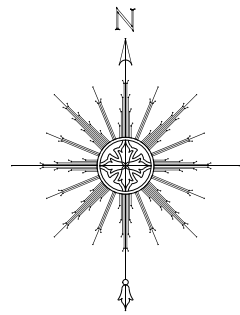
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KEPS Technologies, Inc. d/b/a ACD.net
FIBER OPTIC CABLE ROUTE

Project Number
LC089548FO35464

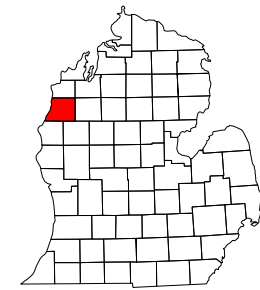
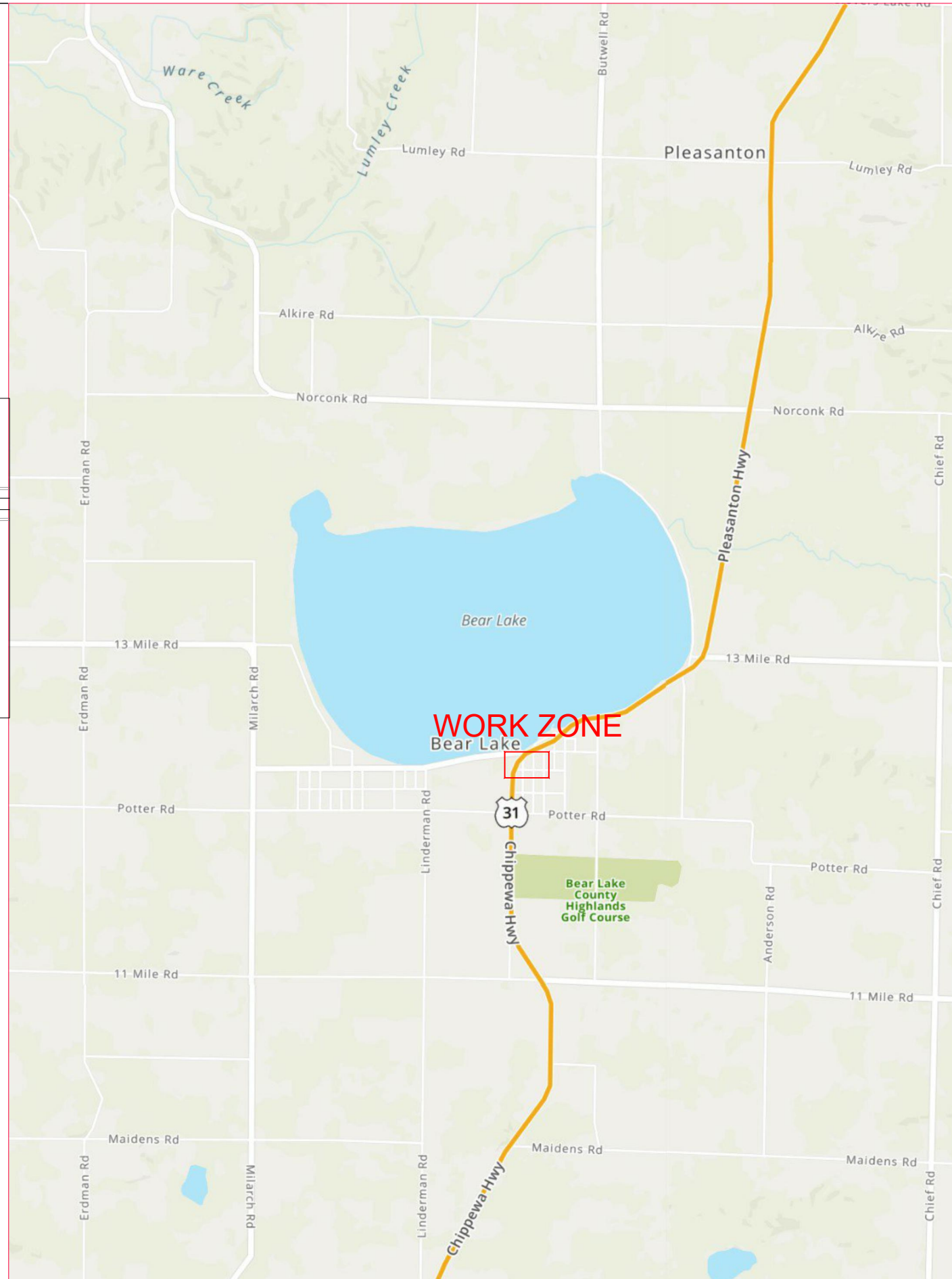
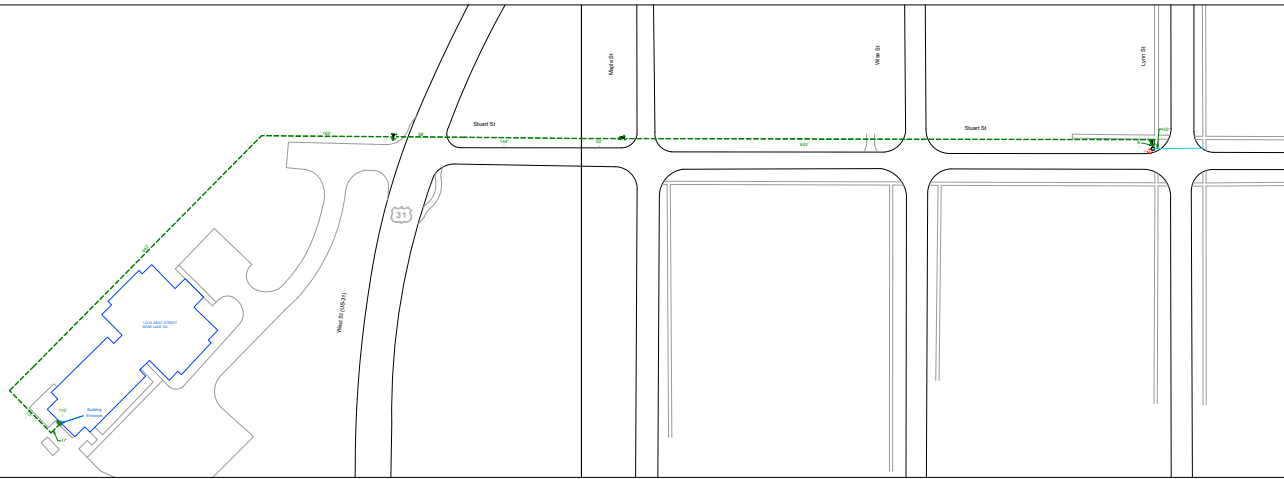
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PAGE 1



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MISS DIG 1-800-482-7171	O.U.P.S. 1-800-362-2764	INDIANA811 1-800-382-5544
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CAD Standard Ver. 72919

Project Manager

C. SUNDEN

Permitting

C. SUNDEN

Transport Manager

G. GOULD

Drawn By Date

J. ANDERSON 01/14/22

As Built Date

Revisions

REV #	DESCRIPTION	BY	DATE
1	Moved HH to west side of 31 Added HH At Maple	DW	1-19-22

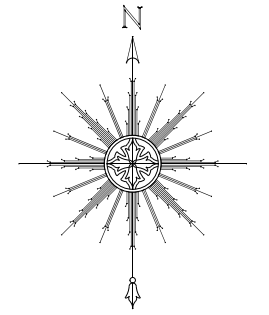
Exhibit: N/A

Remarks:			PEACHTREE ID: 35464		
SCALE: 1" = NTS		TRS:			
COUNTY: MANISTEE	TOWNSHIP:	CITY: BEAR LAKE	PROJECT ID: LC089548FO35464	CUSTOMER NUMBER: 089548	

GRID KEY

CONSTRUCTION NOTES

1. CONTRACTOR SHALL EMAIL SUNDEN.COLIN@ACD.NET WITH DAILY STATUS UPDATES AND ONCE WORK IS COMPLETE
2. MUNICIPALITY MUST BE NOTIFIED AT LEAST 48 HOURS BEFORE ANY WORK COMMENCES
3. ALL APPROPRIATE PERMITS AND ASSOCIATED DRAWINGS SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION
4. NOTIFY THE APPROPRIATE UTILITY NOTIFICATION SERVICE 72 HOURS PRIOR TO CONSTRUCTION.
MICHIGAN- MISS DIG (1-800-482-1711), OHIO- O.U.P.S. (1-800-362-2764) OR INDIANA- INDIANA811 (1-800-382-5544)
5. ALL UTILITIES MUST BE FIELD VERIFIED
6. ALL HANDHOLES ARE TO INCLUDE 150' OF COILED FIBER FOR STORAGE
7. NEW INSTALLATION SHALL MAINTAIN 18" CLEARANCE FROM ALL EXISTING UTILITIES UNLESS NOTED OTHERWISE
8. ALL ROAD AND DRIVEWAY CROSSINGS WILL BE DIRECTIONAL BORED
9. CONSTRUCTION SHALL NOT DEVIATE FROM APPROVED PLANS WITHOUT WRITTEN CONSENT FROM BOTH THE MUNICIPALITY AND AN AUTHORIZED ACD.NET REPRESENTATIVE
10. PROPER SIGNAGE AND TRAFFIC CONTROL IS REQUIRED BEFORE STARTING ANY WORK WITHIN THE PUBLIC RIGHT OF WAY
11. ALL BACKFILL MATERIAL WITHIN THE ROAD RIGHT OF WAY OR NEAR SIDEWALKS AND PATHWAYS SHALL MEET THE REQUIREMENTS OF MDOT CLASS II MATERIAL, COMPACTED TO 95% OF ITS MAXIMUM DENSITY IN SUCCESSIVE LAYERS THAT ARE NO MORE THAN 12" THICK, UNLESS OTHERWISE AUTHORIZED
12. ALL SODDED AREAS THAT MAY DISTURBED DURING CONSTRUCTION ARE TO BE RESTORED WITH 3" QUALITY TOP SOIL, SEED AND MULCH
13. CONTRACTOR SHALL PROVIDE AS-BUILTS ON ALL WORK WITHIN 5 BUSINESS DAYS OF COMPLETION



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Project Manager
C. SUNDEN
Permitting
C. SUNDEN
Transport Manager
G. GOULD

Drawn By	Date
J.ANDERSON	01/14/22

As Built	Date

Revisions

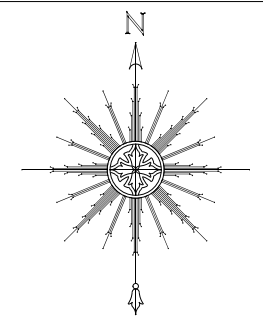
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Exhibit: N/A

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COUNTY: MANISTEE	TOWNSHIP:	CITY: BEAR LAKE	PROJECT ID: LC089548FO35464	CUSTOMER NUMBER: 089548	

NOTES

Proposed Anchor Distance and Direction	Reg Sidewalk 	Fiber Count W/ Segment Number 	Man Hole 	Typical Line Types Rail Road Tracks Proposed Underground Fiber Existing Underground Fiber Right Of Way Boundary Side Walk and Driveway Fiber Design Line Aerial Fiber Center Line Water Main Forced Water Main Storm Sewer Sanitary Sewer Gas Main Foreign UG Fiber AT&T UG Fiber UG Electric Oil Line Fence TRS Boundary Civil Boundary Property Boundary Water Boundary
Proposed ACD Communications Poles		Fiber Termination Point 	Storm Drain 	
Proposed ACD NON Communications Pole		ACD Splice Case Six Way 	ACD Regen Cabinet 	
Colocation Poles (ACD Communication Equipment on Existing Poles)		ACD Splice Case Four Way 	TRS Section Corner 	
Joint Use Pole NON Transformer		ACD Splice Case Three Way 	Fire Hydrant 	
Joint Use Pole Transformer		ACD Splice Case Two Way 	Location Address 	
Foreign Pole Indicator		ACD Fiber Tap Capsule 	Foliage 	
Joint Use Pole NON Transformer- UNUSED		ACD RE-Box 	Centerline Marker 	
Joint Use Pole Transformer- UNUSED		Foreign Splice Case 	Station Marker 	
Street Light		Storage Loop w/ Footage and Segment 	Use of Double Dead End 	
Existing Traffic Signal Pole		ACD Buried Cable Marker 		
Pole Number Marker		ACD Hand Hole 17" x 12" 		
Proposed Riser		ACD Hand Hole 24" x 13" 		
Make Ready Symbol w/ Attachment and Sag Heights		ACD Hand Hole 24" x 36" 		
Down Ground		ACD Hand Hole 30" x 48" 		
Bonding Clamp		Foreign Hand Hole 		
Fiber Overlash		Proposed Bore Pit Location 	Bore Pit (size)	
Overhead Guy Marker		Communications Tower 		
Span Length and Segment ID				



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C. SUNDEN

Permitting

C. SUNDEN

Transport Manager

G. GOULD

Drawn By **Date**

J. ANDERSON 01/14/22

As Built **Date**

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Our Match Lines can be found in the lower right hand corner and represents the neighboring page numbers.

WEST PAGE	NORTH PAGE	EAST PAGE
	PAGE	
	SOUTH PAGE	

Exhibit: N/A

Remarks:				PEACHTREE ID: 35464			
SCALE: 1" = NTS		TRIS:					
COUNTY: MANISTEE		TOWNSHIP:		CITY: BEAR LAKE		PROJECT ID: LC089548FO35464	
				CUSTOMER NUMBER: 089548			
				SYMBOLS			
				LEGEND			

General Site Preparation For Installing Hand Holes (All Sizes)

These guidelines for installing ACD Hand holes are provided as a general guide and actual site conditions may warrant the use of additional installations procedures not covered here. Follow all project specifications when installing ACD Hand holes.

1. Excavate the earth approximately 12" wider and longer than the hand hole as well as 6" deeper than the depth of the hand hole. Fill the excavation with a 6" base of pea stone or crushed rock to ensure proper drainage. Tamping is recommended to provide a compact and level surface for the hand hole to be placed upon.
2. Wood bracing should be used inside the hand hole to ensure minimal sidewall deflection when backfilling. Temporary bracing can be constructed out of construction grade lumber. Start by using (1) 2x4 to brace the end walls and (2) 2x4s to brace the side walls, finish with (1) 2x4 from one side of the ring to the other. Do not install the bracing to tight to prevent damage.
3. Lift the Hand hole into the excavation using the lifting bolts or lifting wires. Check the top of the box is flush with the finished grade. Any necessary adjustments should be made to bring it to finished grade.
4. Backfill with clean, loose soil and compact to a minimum of 90%-95% compaction. Remove bracing materials and secure cover using included hardware.

General Hand Hole Notes (All Sizes)

1. All Hand holes are to contain 150' of coiled up storage.
2. All Conduits are to be brought up through the bottom of the hand hole. No Conduits are to penetrate the sides of the enclosure. All conduits are to be tagged with the colored zip ties following this system:
 Red= Riser
 Blue= North
 Yellow= West
 Green= South
 Black= East
3. All Hand holes are to contain a 5/8" DIA x 8' grounding rod to be placed in a corner 3" away from each side and 18" above tamped earth.

Underground Coupler Detail

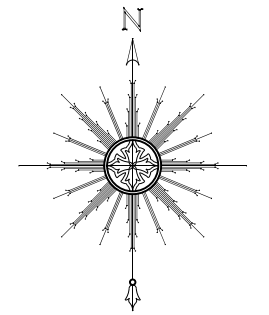
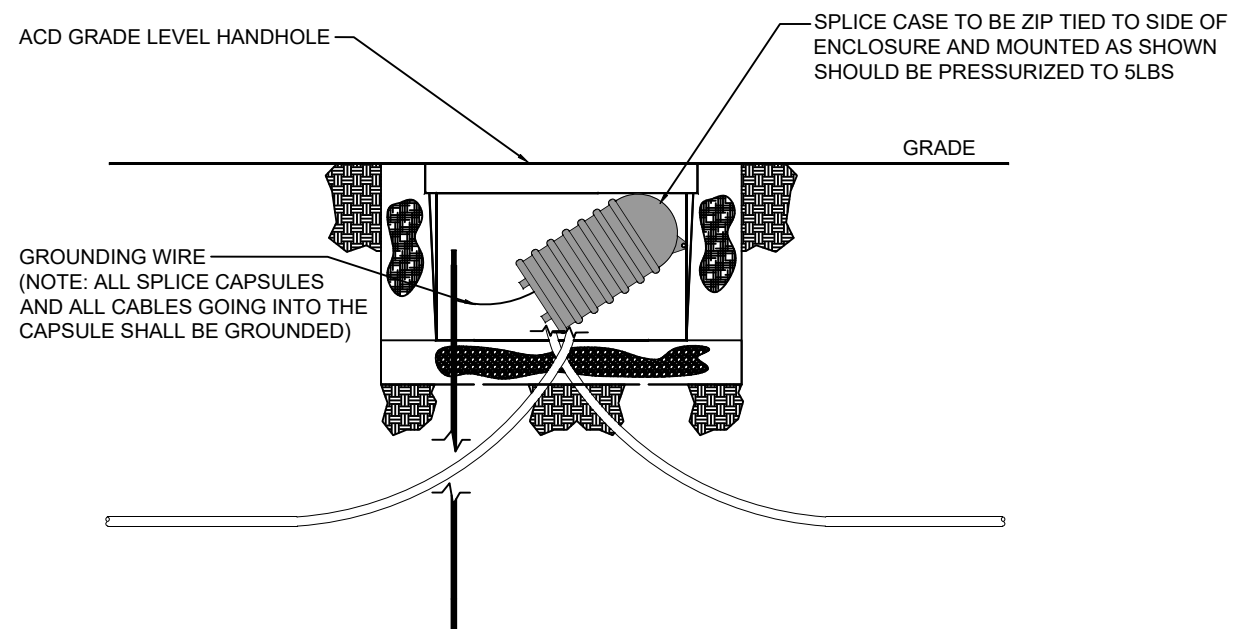
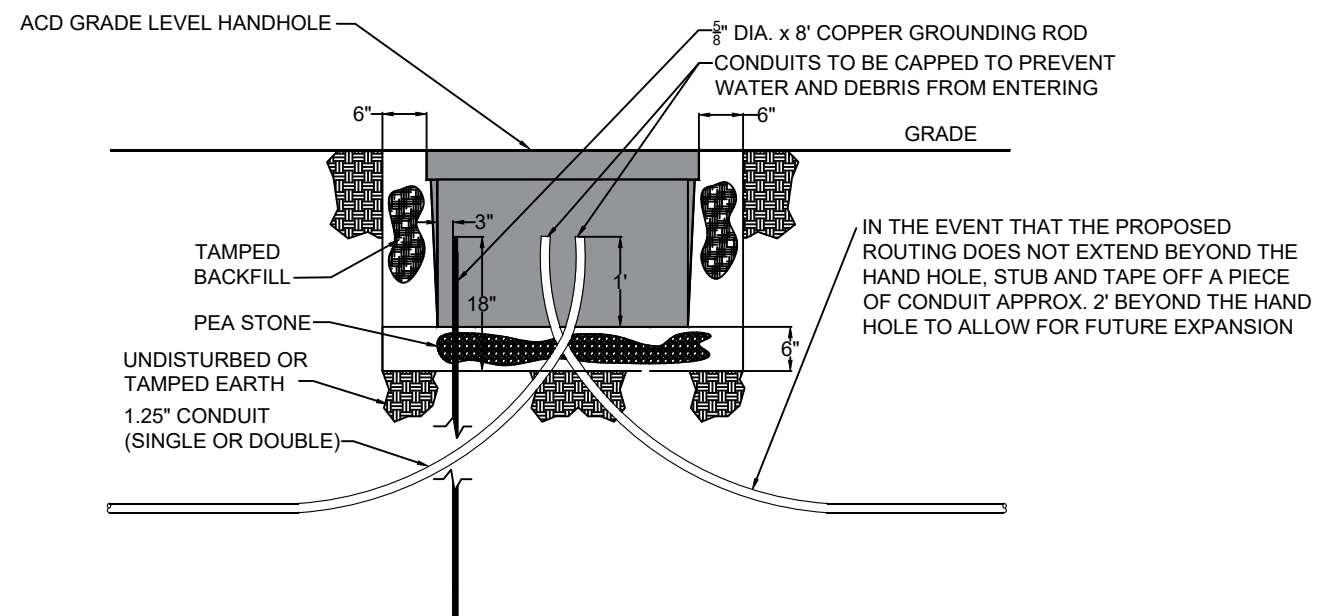
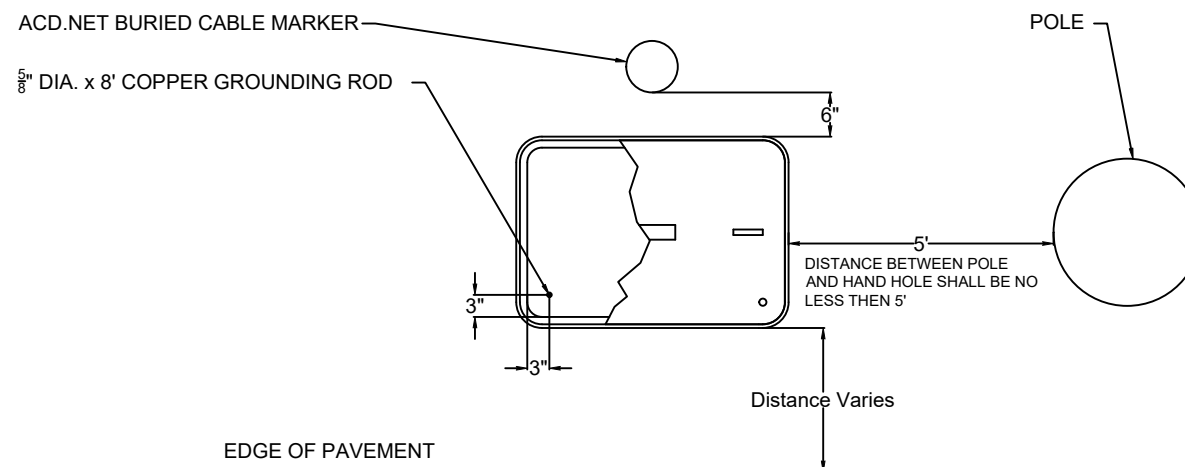
PUSH2CONNECT™ Coupler

Do Not Unscrew!

Push-On-Only!
 (Loosening collars prior to installing can cause improper installation, create air loss, or coupler failure)

Air Tight - Water Tight
 Tested to **GREATER THAN 1500#**
Pull-Out
GREATER THAN 450 (psi) air pass-through

Couplers for the Following Sizes	Duct OD	Color	Box Qty	Part Number
1" Smoothwall HDPE	1.315	Yellow	85	P2C-1.315
1.25" Smoothwall HDPE	1.66"	Blue	100	P2C-1.66
1.25" Smoothwall HDPE True Sized	1.58"	Black	100	P2C-1.58
2" Smoothwall HDPE	2.375"	Orange	24	P2C-2.375
Transition Coupler 1.25" to 1.25"	1.58" to 1.66"	Black AND Blue	100	P2C-1.66-1.58trans



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C. SUNDEN

Permitting

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Transport Manager

G. GOULD

Drawn By Date

J. ANDERSON 010/14/22

As Built Date

Revisions

REV #	DESCRIPTION	BY	DATE
1	Moved HH to west side of 31 Added HH At Maple	DW	1-19-22

Exhibit: N/A

Remarks:

PEACHTREE ID: 35464

SCALE: 1" = NTS

TRS:

COUNTY: MANISTEE

TOWNSHIP:

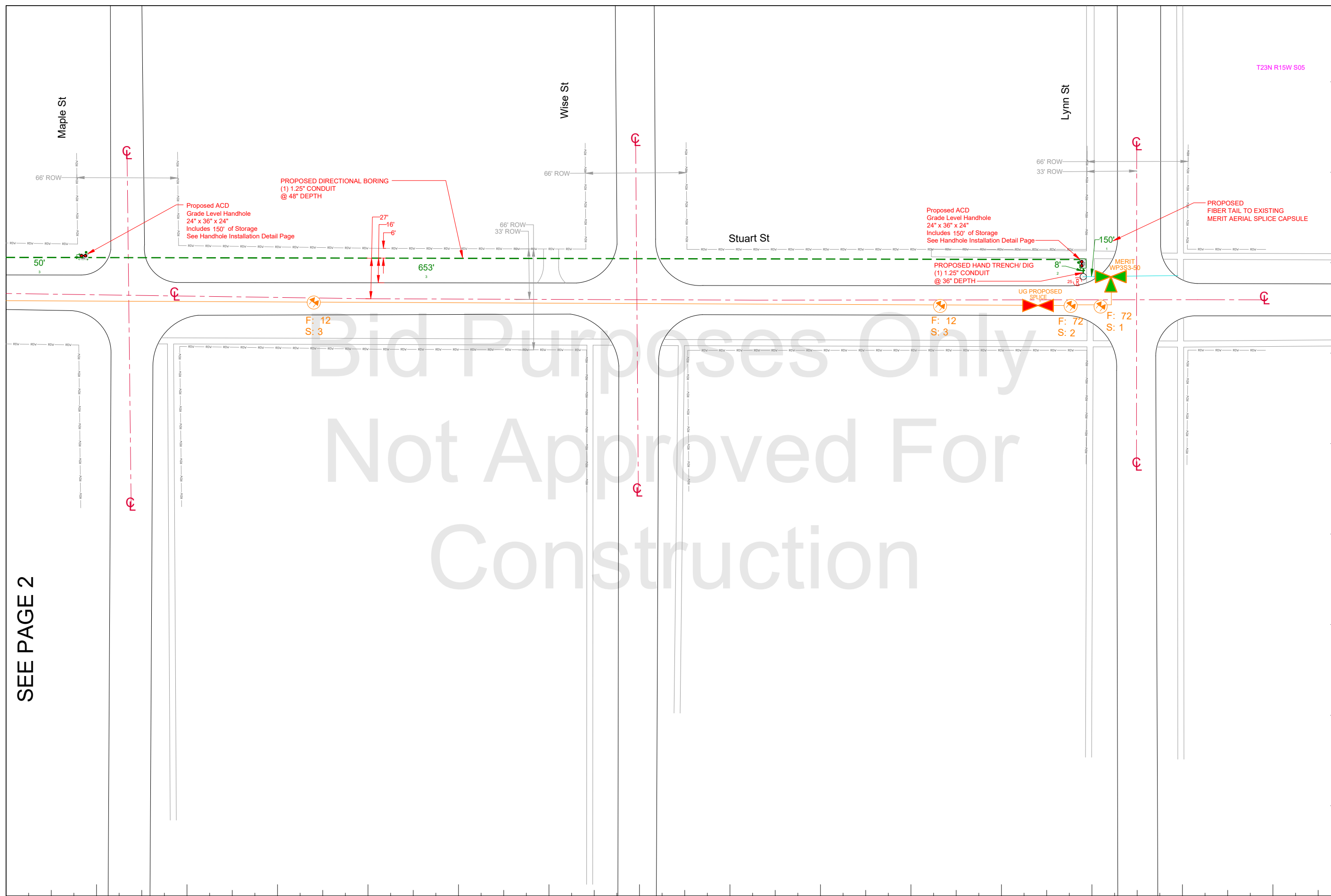
CITY: BEAR LAKE

PROJECT ID: LC089548FO35464

CUSTOMER NUMBER: 089548

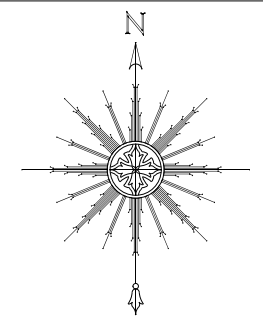
HANDHOLE INSTALL

DETAIL



SEE PAGE 2

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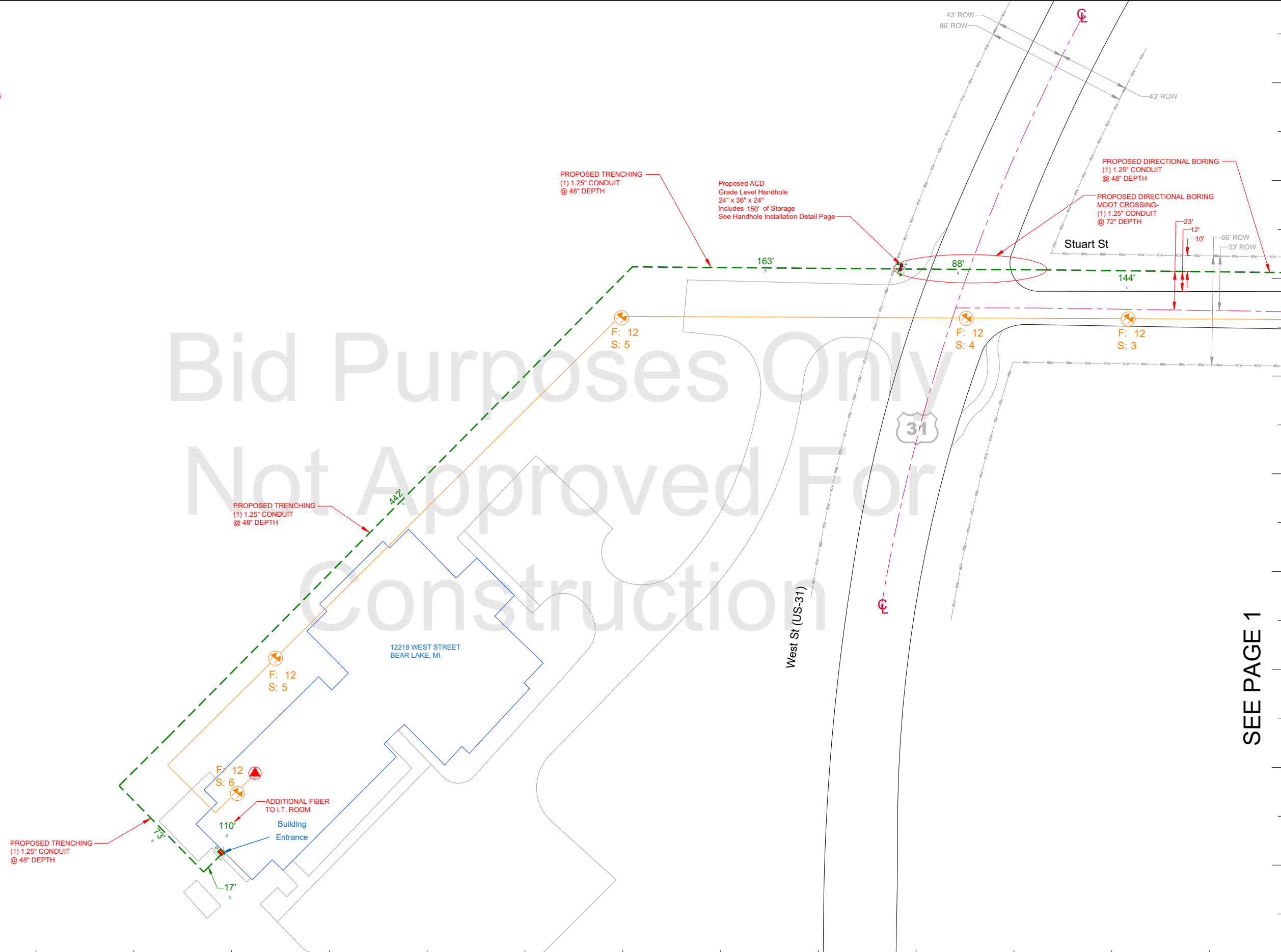
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1	Moved HH to west side of 31 Added HH At Maple	DW	1-19-22
2	Moved Merit Capsule to Aerial and Revised Route	JA	01/21/22

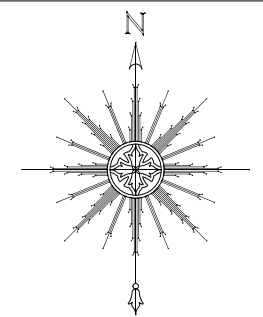
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Remarks:	PEACHTREE ID: 35464
SCALE: 1" = 60'	TRIS: T23N R15W S05
COUNTY: MANISTEE	TOWNSHIP:
CITY: BEAR LAKE	PROJECT ID: LC089548FO35464
CUSTOMER NUMBER: 089548	

T23N R15W S05



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