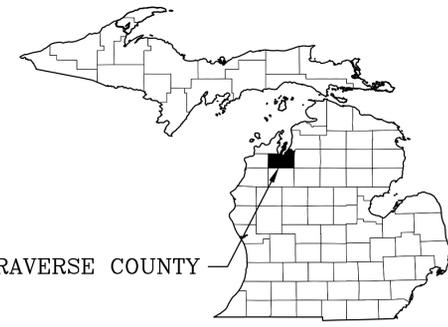


SITE/CIVIL PLANS OF PROPOSED WELLFIELD PIPING IMPROVEMENTS BLAIR TOWNSHIP GRAND TRAVERSE COUNTY, MICHIGAN

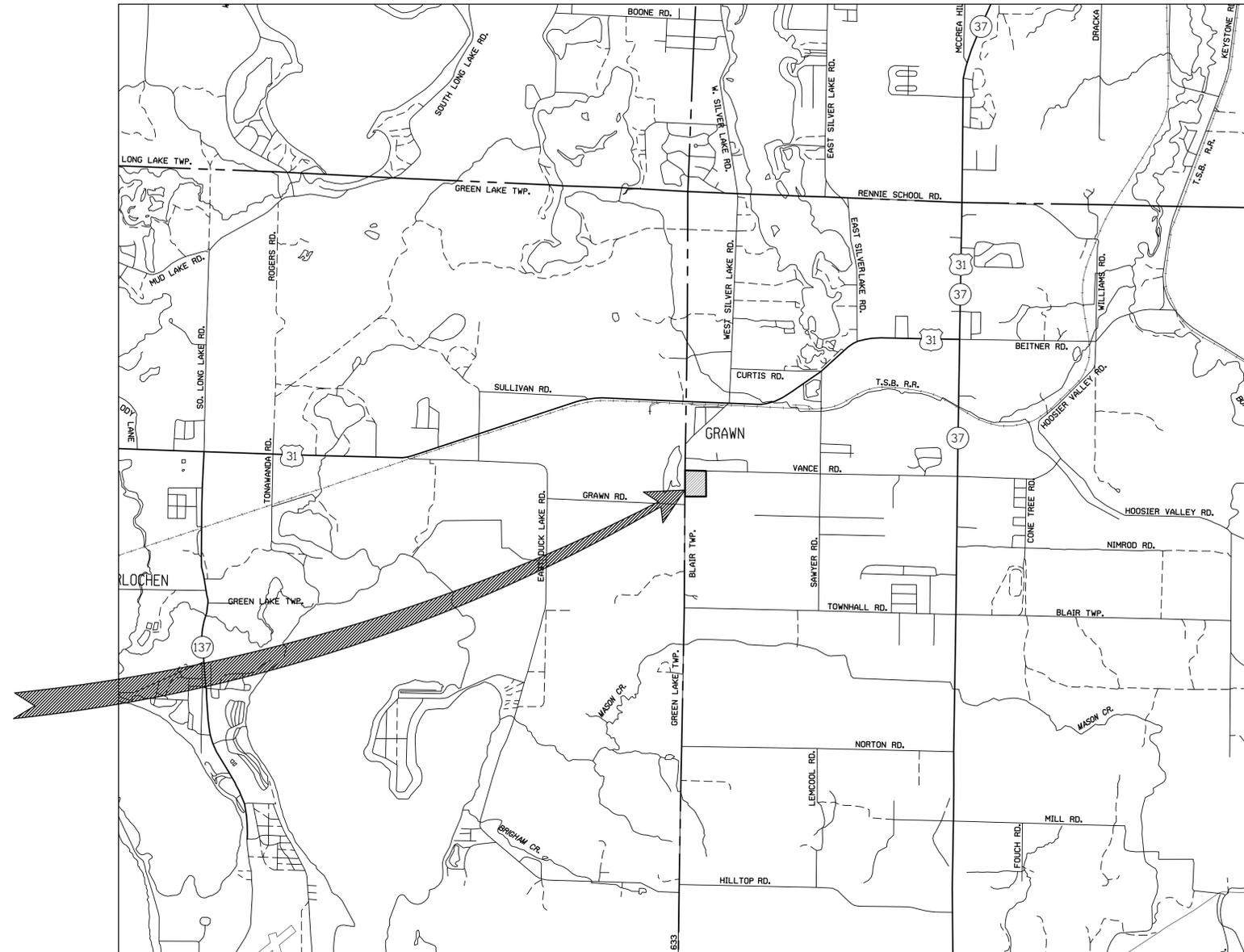


GRAND TRAVERSE COUNTY

KEY MAP
NOT TO SCALE

UTILITIES & MUNICIPALITIES

<p>BLAIR TOWNSHIP 2121 COUNTY ROAD 633 GRAWN, MI 49637 PHONE: (231) 276-9263</p>
<p>WATER SYSTEM OPERATOR ATTN: JORDAN COE PHONE: (231) 276-0374 EMAIL: DPWMAINT@BLAIRTOWNSHIPMI.GOV</p>
<p>CABLE TV CHARTER COMMUNICATIONS ATTN: DAN BIELACZYC PHONE: (231) 941-3819</p>
<p>ELECTRIC CHERRYLAND ELECTRIC CO-OP ATTN: JIM CARPENTER PHONE: (231) 486-9217</p>
<p>TELEPHONE AT&T 142 EAST STATE STREET TRAVERSE CITY, MI 49684 ATTN: KATHY DOHM-BEISER PHONE: (231) 941-2707 EMAIL: KD1484@ATT.COM</p>



SITE LOCATION:
2121 COUNTY ROAD 633
GRAWN, MI 49637

LOCATION MAP
NOT TO SCALE

SHEET INDEX	
GENERAL SHEETS	SHEET NO.
COVER SHEET	G1.0
SITE PLAN OVERVIEW	C1.0
PROPOSED PLAN & PROFILE	C2.0-C2.1
PROPOSED PLAN ENLARGEMENT VIEWS	C3.0
STANDARD WATERMAIN DETAILS	C4.0

JOB NO. BLR2036.01C	SHEET G1.0
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10850 East Traverse Highway, Suite 2260
Traverse City, MI 49684
231.947.7400
www.wadetrtrim.com

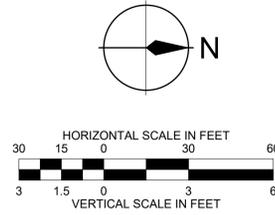
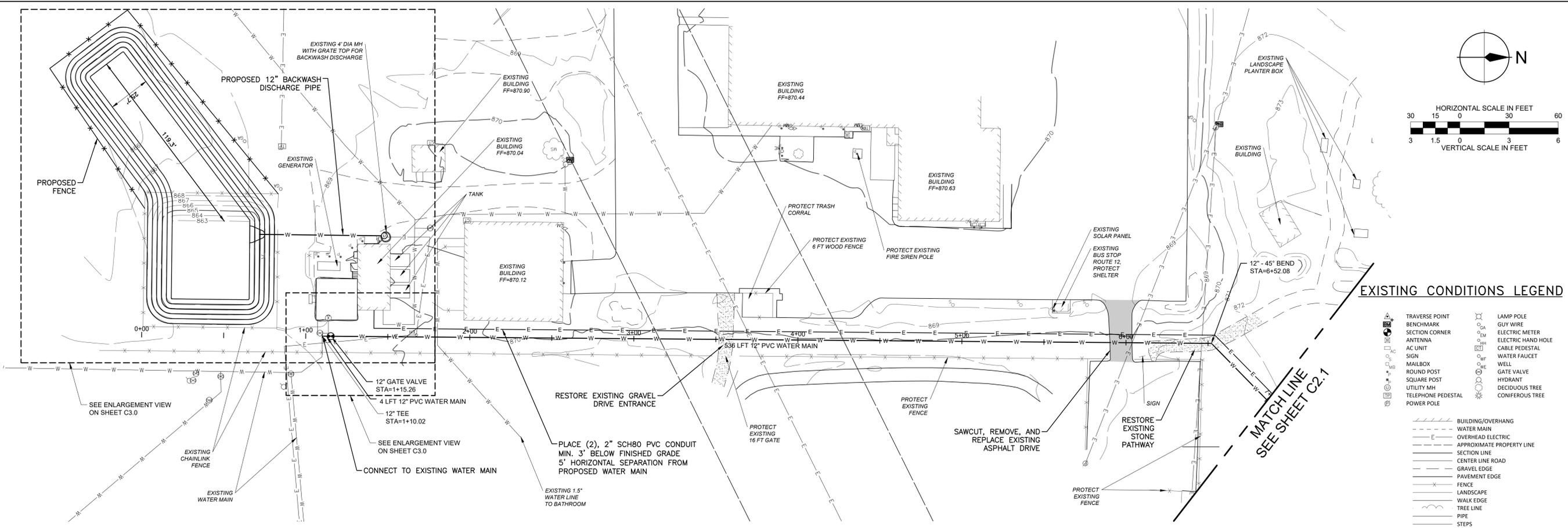
PREPARED UNDER THE SUPERVISION OF:



Know what's below.
Call before you dig.

PLAN DATE: 10/10/2025

PROJECT MANAGER: GARTH A. BOGART, PE
 C:\PW_WORK\GEOGARY\1376538\CSP-PROPOSED_EXTENSION.DWG - C2.0 - PLOTTED 10/10/2025 10:12 AM BY: BOGART, GARTH

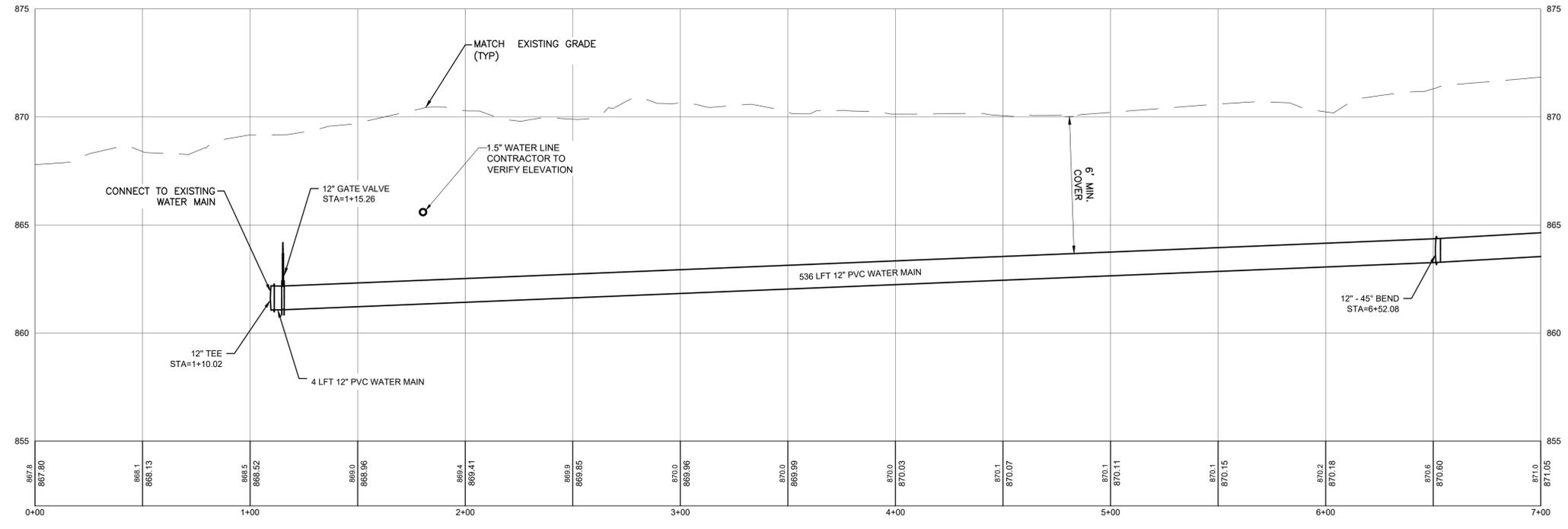


EXISTING CONDITIONS LEGEND

- | | | | |
|--|--------------------|--|--------------------|
| | TRAVERSE POINT | | LAMP POLE |
| | BENCHMARK | | GUY WIRE |
| | SECTION CORNER | | ELECTRIC METER |
| | ANTENNA | | ELECTRIC HAND HOLE |
| | AC UNIT | | CABLE PEDESTAL |
| | SIGN | | WATER FAUCET |
| | MAILBOX | | WELL |
| | ROUND POST | | GATE VALVE |
| | SQUARE POST | | HYDRANT |
| | UTILITY MH | | DECIDUOUS TREE |
| | TELEPHONE PEDESTAL | | CONIFEROUS TREE |
| | POWER POLE | | |

PROPOSED LEGEND

- | | | | |
|--|--------------------------|--|-----------------------------|
| | FIRE HYDRANT | | WATER VALVE IN BOX |
| | DOMESTIC WATER SHUT OFF | | FIRE DEPARTMENT CONNECTION |
| | BACK FLOW PREVENTER | | POST INDICATOR VALVE |
| | GATE VALVE & WELL | | METER PIT |
| | WATER MAIN | | SANITARY SEWER MANHOLE |
| | SANITARY SEWER CLEAN OUT | | SANITARY PUMP STATION |
| | SANITARY SEWER MAIN | | SANITARY SEWER FORCE MAIN |
| | STORM CATCH BASIN | | STORM CURB INLET |
| | STORM MANHOLE | | DOWNSPOUT |
| | STORM SEWER END SECTION | | STORM SEWER CLEAN OUT |
| | STORM SEWER LINE | | STORM SEWER UNDERDRAIN |
| | DRAINAGE SWALE | | TOP OF BANK |
| | TRANSFORMER BOX | | POWER POLE |
| | ELECTRIC METER | | ELECTRIC MANHOLE |
| | POWER PEDISTAL | | DECORATIVE LIGHT POLE |
| | SINGLE LIGHT POLE | | PARKING LOT LIGHT POLE |
| | OVERHEAD ELECTRIC | | UNDERGROUND ELECTRIC |
| | GAS METER | | GAS MAIN OR SERVICE |
| | TELEPHONE PEDESTAL | | OVERHEAD TELEPHONE |
| | UNDERGROUND TELEPHONE | | UNDERGROUND ELECTRIC & TELE |



REV#	DATE	DESCRIPTION	BY

10850 East Traverse Highway, Suite 2200
 Grawn, MI 49637
 231.847.7400
 www.wadetrims.com

BLAIR TOWNSHIP
2121 COUNTY ROAD 633
GRAWN, MI 49637
 WELLFIELD PIPING IMPROVEMENTS

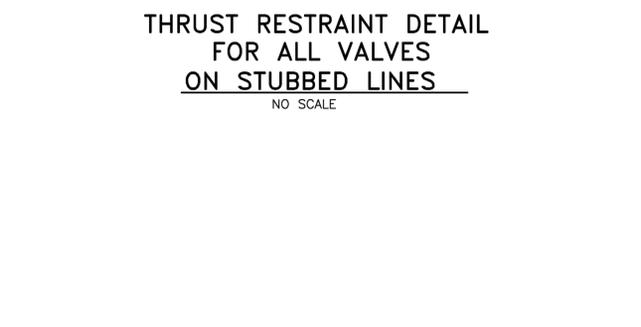
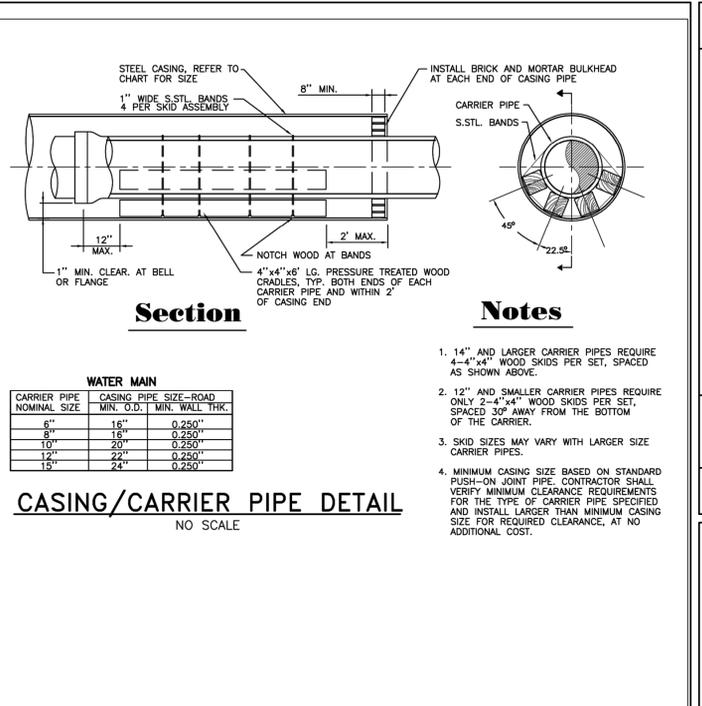
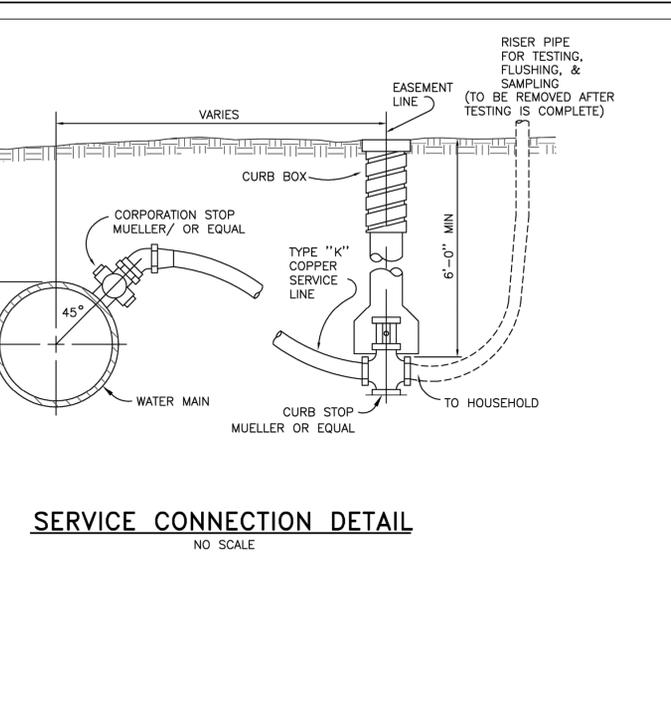
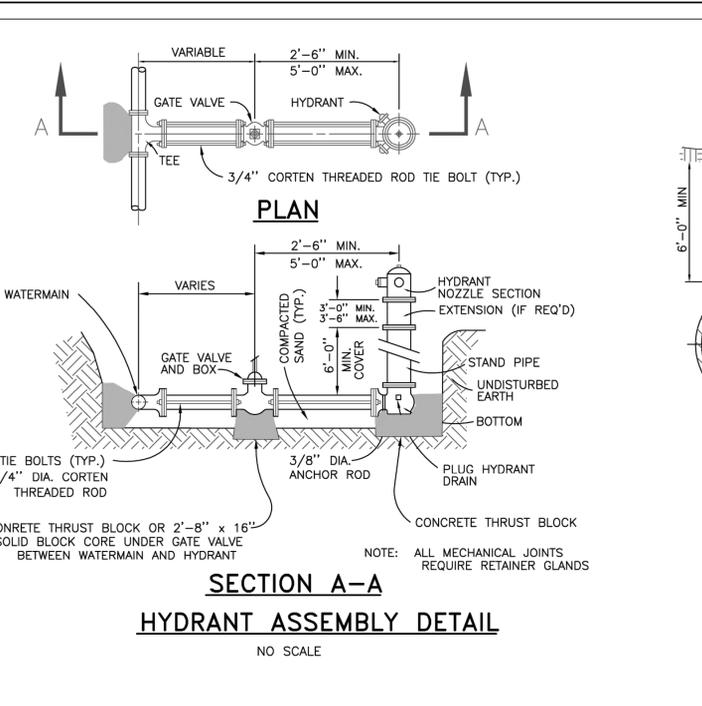
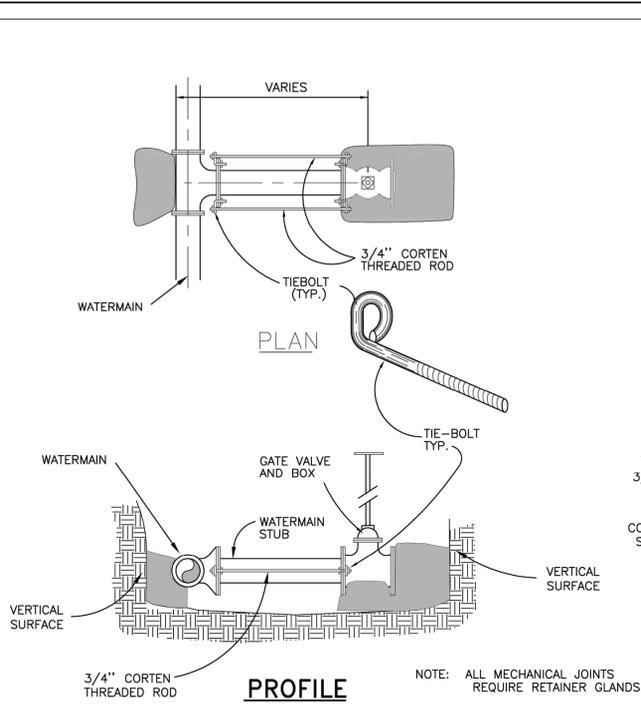
PROPOSED PLAN & PROFILE P.O.B. (STA. 0+00) TO STA. 7+00

BLAIR TOWNSHIP HALL WELLFIELD PIPING IMPROVEMENTS

ISSUED FOR: PERMITS BIDS DATE: 8/22/25 BY: KDS GAB

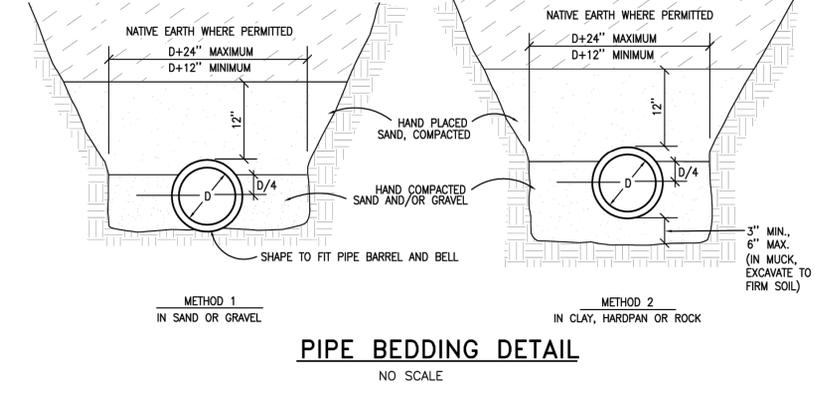
JOB NO. **BLR2036.01C**

SHEET **C2.0**

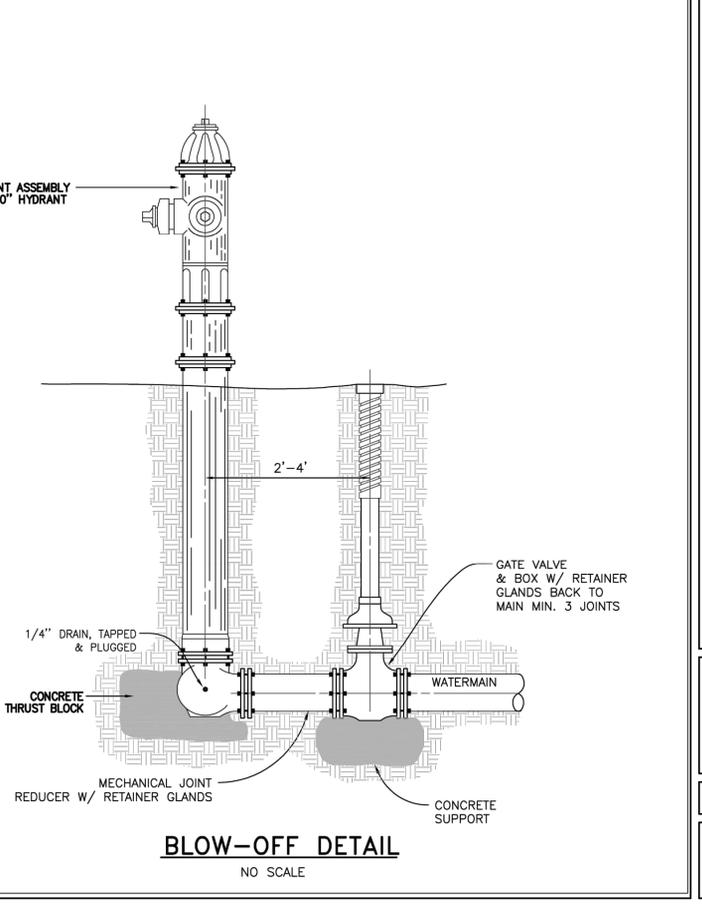
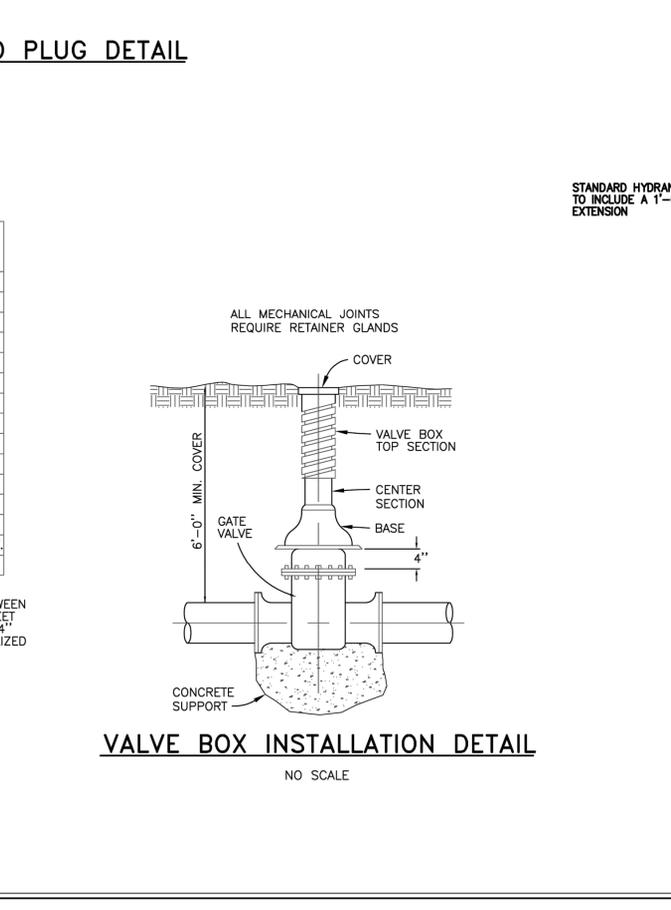
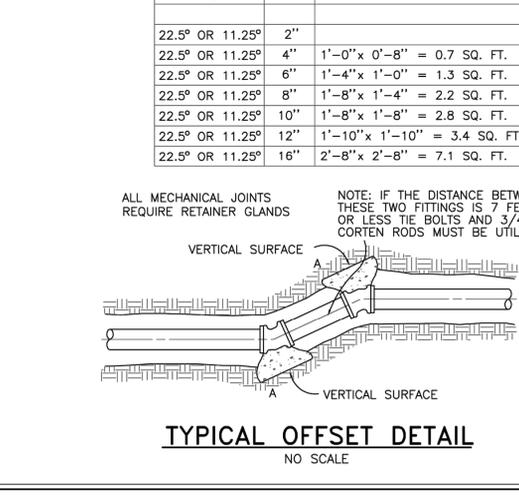
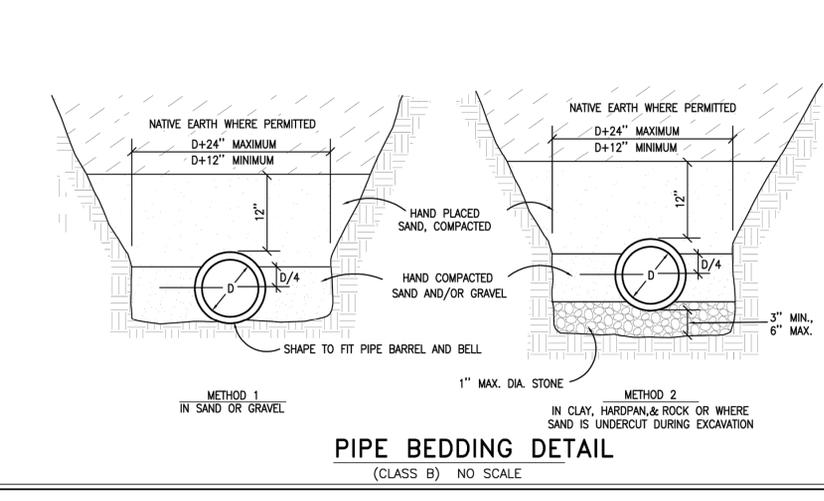


PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS	
	SURFACE A	
4"	1'-0" x 1'-0"	= 1.0 SQ. FT.
6"	1'-4" x 1'-0"	= 1.8 SQ. FT.
8"	2'-0" x 1'-4"	= 2.7 SQ. FT.
10"	1'-10" x 1'-10"	= 3.4 SQ. FT.
12"	2'-4" x 2'-4"	= 5.4 SQ. FT.
16"	2'-10" x 2'-10"	= 8.0 SQ. FT.

ALL MECHANICAL JOINTS REQUIRE RETAINER GLANDS



DEGREE OF BEND IN ELBOW	PIPE SIZE	MIN. BEARING SURFACE ON UNDISTURBED SOIL FOR THRUST BLOCKS	
		SURFACE A	
45°	4"	1'-4" x 1'-0"	= 1.3 SQ. FT.
45°	6"	1'-8" x 1'-4"	= 2.2 SQ. FT.
45°	8"	2'-0" x 2'-0"	= 4.0 SQ. FT.
45°	10"	2'-4" x 2'-4"	= 5.4 SQ. FT.
45°	12"	2'-8" x 2'-8"	= 7.1 SQ. FT.
45°	16"	3'-8" x 3'-8"	= 13.5 SQ. FT.



PROJECT MANAGER: GARTH A. BOGART, PE
 C:\PW_MORRIS\WADE-TRIM\SMITH\1716818\CSF-PLTS-PROPOSED_EXTENSION\DWG - C4.0 - PLOTTED 10/7/2025 3:24 PM BY SMITH, NATHAN
 FIELD BOOK INFORMATION:
 10850 East Traverse Highway, Suite 2200
 Grawn, MI 49637
 231.847.7400
 www.wadetrtrim.com

BLAIR TOWNSHIP
 2121 COUNTY ROAD 633
 GRAWN, MI 49637
 WELLFIELD PIPING IMPROVEMENTS
 STANDARD WATERMAIN DETAILS
 BLAIR TOWNSHIP HALL WELLFIELD PIPING IMPROVEMENTS

WADE TRIM

REV#	DATE	DESCRIPTION

ISSUED FOR: PERMITS BIDS
 DATE: 8/22/25
 BY: KDS GAB
 10/10/25

JOB NO. BLR2036.01C
 SHEET C4.0