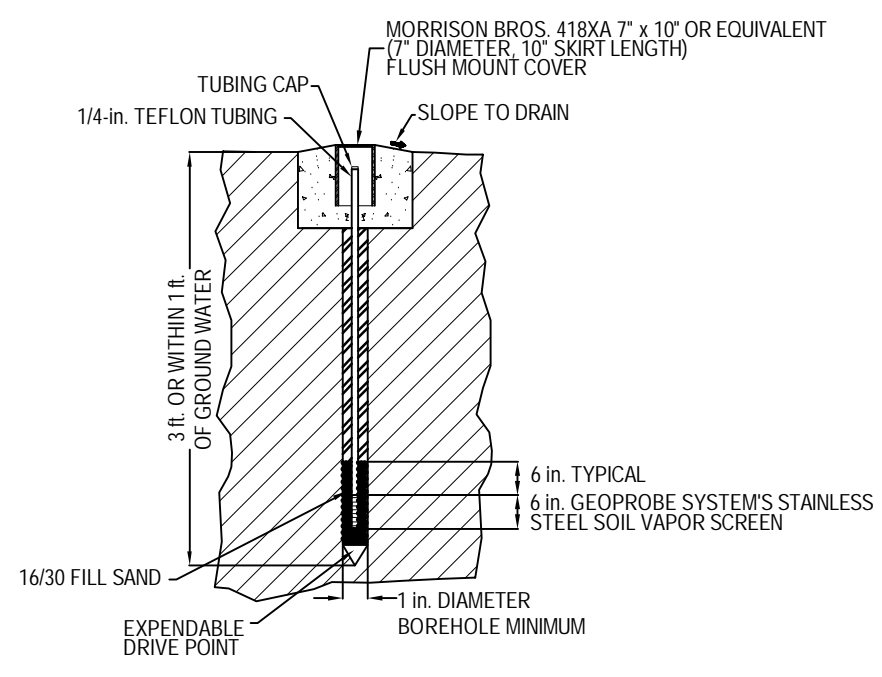
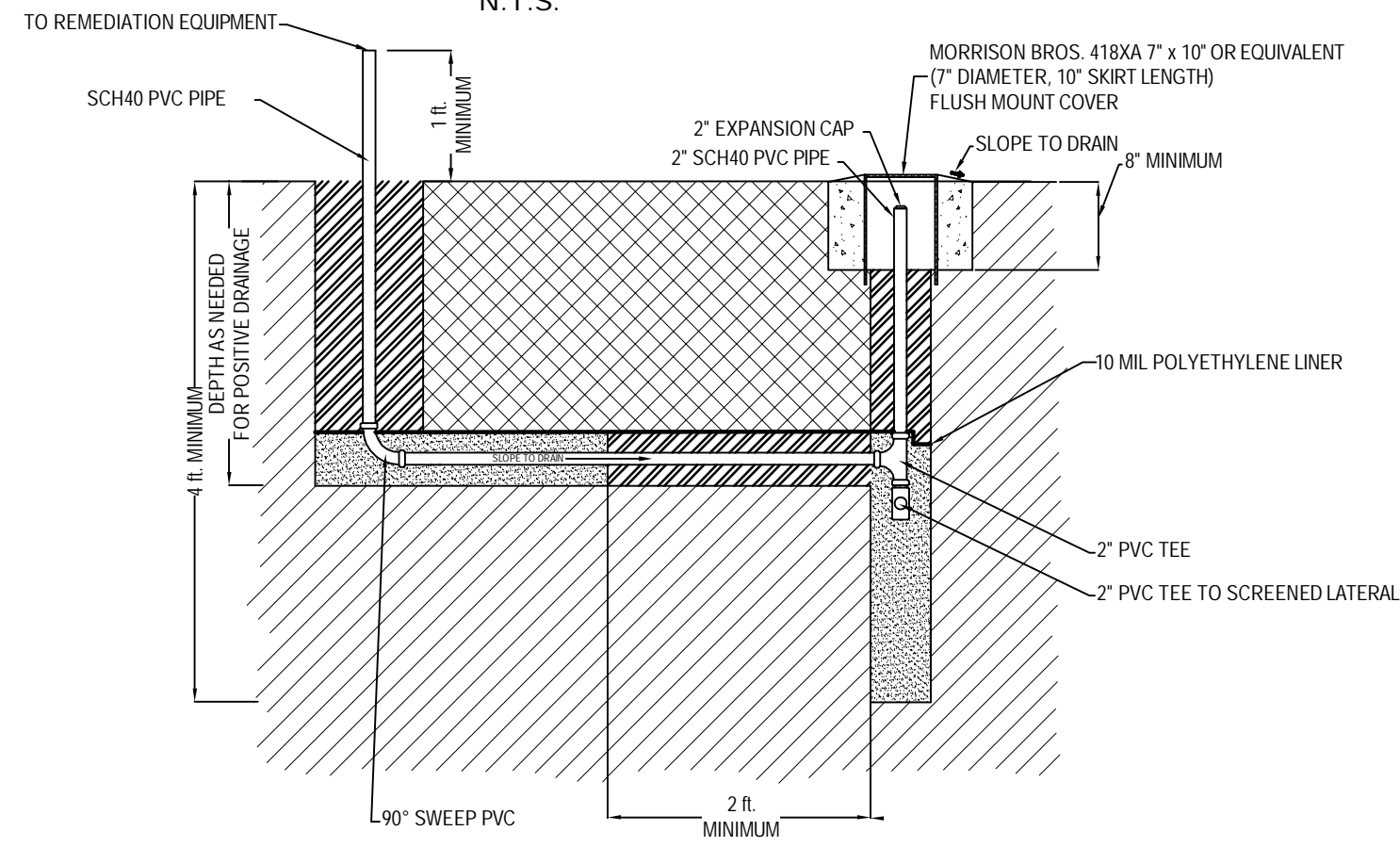


TYPICAL SCREENED LATERAL TRENCH AND PIPING DETAIL  
N.T.S.



TYPICAL PILOT TEST VACUUM MONITORING POINT DETAIL  
N.T.S.



TYPICAL VACUUM SUPPLY PIPING CONNECTIONS DETAIL  
N.T.S.

**LEGEND**

	CONCRETE
	BENTONITE
	FLOWABLE FILL
	GRANULAR PIPE BEDDING
	NATIVE SOILS

CON 12-15  
Doc #35276

DESIGNED BY: RWF	PAI
DRAWN BY: PAI	MEH
APPVD BY: MEH	AS SHOWN
SCALE: AS SHOWN	8/2/16
DATE: 8/2/16	JOB NO. 05147197
JOB NO. 05147197	ACAD NO. 05147197C06
ACAD NO. 05147197C06	EXHIBIT: 4
EXHIBIT: 4	1/16/2019 3:19 PM

**LATERAL AND MONITORING POINT DETAILS**

SOIL & GROUNDWATER ASSESSMENT  
**UNITED FARMERS MERCANTILE COOP**  
401 North U Avenue  
VILLISCA IOWA

**Terracon**  
Consulting Engineers and Scientists

15080 A CIRCLE  
PH. (402) 330-2202  
OMAHA, NE 68144  
FAX. (402) 330-7606

REV	DATE	BY	DESCRIPTION

Table 2

**UNITED FARMERS MERCANTILE COOPERATIVE  
VILLISCA, IOWA  
PROJECT NO. 05147197**

**GROUNDWATER ANALYTICAL RESULTS**

Sample ID	Sample Date	Ammonia (mg/L)	Nitrate-Nitrite as Nitrogen (mg/L)
B-1	1/9/2015	<b>75.4</b>	<b>20.7</b>
B-2	1/9/2015	<b>206</b>	<b>143</b>
B-3	1/9/2015	<b>2730</b>	<b>627</b>
B-4	1/9/2015	<b>830</b>	2.06
B-5	1/9/2015	<b>609</b>	<b>1000</b>
B-6	1/9/2015	<b>4260</b>	<b>205</b>
B-7	1/9/2015	<0.200	<b>28.2</b>
MW-1	8/13/2015	<b>40300</b>	<b>212</b>
	5/8/2017	<b>22500</b>	<b>276</b>
	12/20/2018	<b>13200</b>	<b>217</b>
MW-2	8/13/2015	<b>980</b>	<b>4570</b>
	5/8/2017	<b>1790</b>	<b>726</b>
	12/20/2018	<b>943</b>	<b>558</b>
MW-3	8/13/2015	<0.200	<b>49.7</b>
	5/8/2017	<0.200	<b>85.2</b>
	12/20/2018	<0.200	<0.100
MW-4	8/13/2015	<0.200	<b>18.1</b>
	5/8/2017	<0.200	2.31
MW-5	5/8/2017	<0.200	0.539
	12/20/2018	<0.200	<b>95.5</b>
MW-1E	8/13/2015	<b>5180</b>	<b>11.2</b>
	5/8/2017	<b>207</b>	0.305
	12/20/2018	<b>4340</b>	<b>29.2</b>
MW-4E	8/13/2015	6.50	5.08
	5/8/2017	<b>644</b>	<b>58.8</b>
City Well #9	8/13/2015	0.241	1.96
	5/8/2017	<0.200	6.68
	12/20/2018	City unavailable to grant access	
IDNR Statewide Standards for Protected Groundwater Source		30	10*
IDNR Statewide Standards for Non-Protected Groundwater Source		170	56*

**Notes:**

mg/L = milligrams per Liter

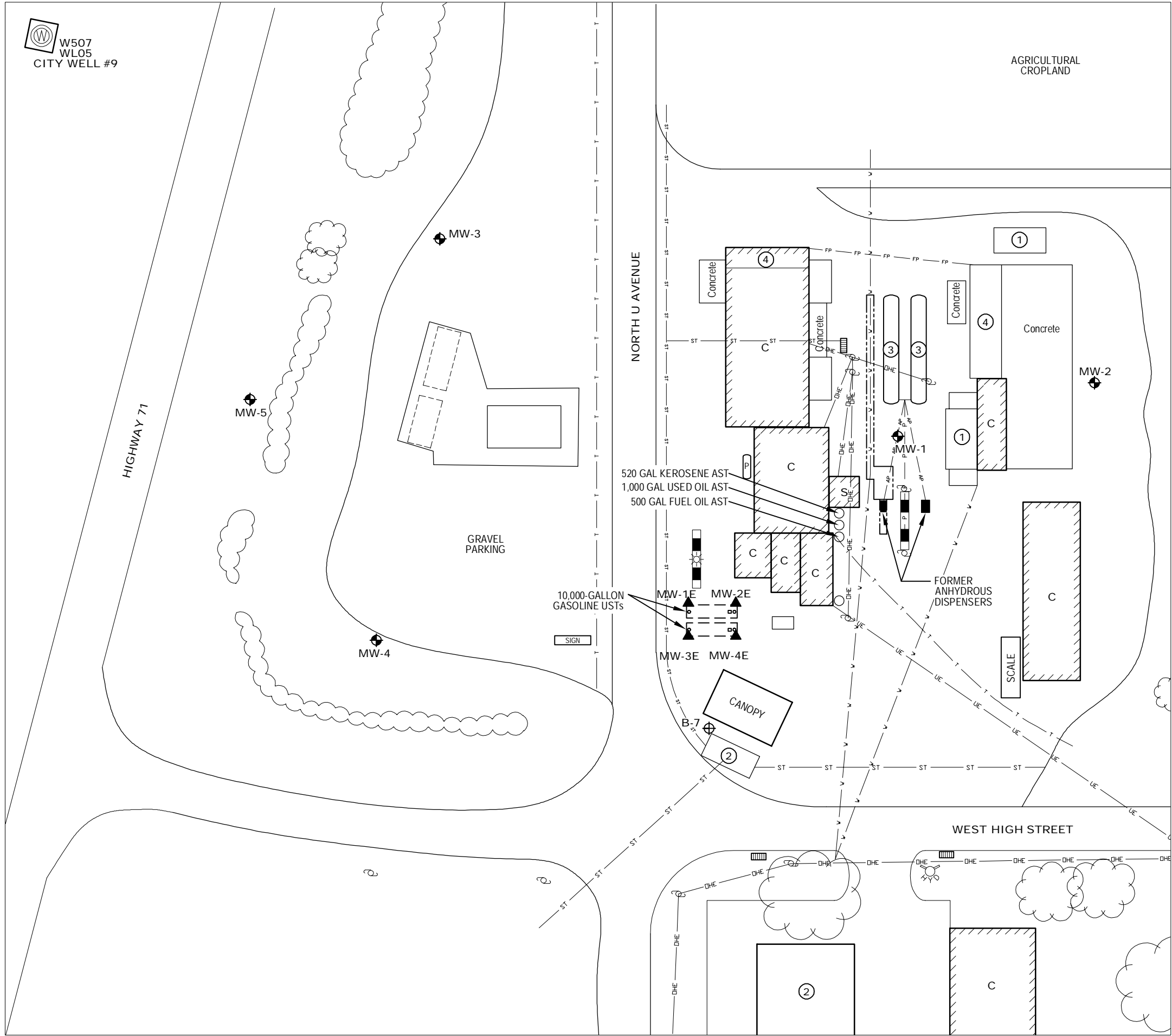
&lt; = less than

\*Nitrate-Nitrite as Nitrogen is compared to the IDNR Statewide Standard for Nitrate as Nitrogen.

Bold numbers exceed the IDNR Statewide Standards for either Protected and/or Non-Protected Groundwater Sources.



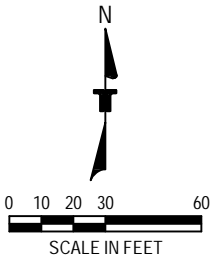
W507  
WLO5  
CITY WELL #9



- BUILDING WITH NO BASEMENT
- BUILDING WITH BASEMENT
- UTILITY POLE
- LIGHT POLE
- STORM WATER INLET
- PROPANE TANK
- MONITORING WELL
- EXISTING WELL FOR UST SYSTEM
- FIRE HYDRANT
- CURRENT DISPENSER ISLAND
- ST STORM SEWER
- DHE OVERHEAD ELECTRIC
- FP FORMER UNDERGROUND LIQUID FERTILIZER SUPPLY PIPELINE
- AP FORMER UNDERGROUND ANHYDROUS SUPPLY PIPELINE
- P ABOVEGROUND ANHYDROUS SUPPLY PIPELINE
- APPROXIMATE EXTENT OF FORMER EXCAVATION BOUNDARY
- T TELEPHONE / COMMUNICATION LINE
- W WATER
- UE UNDERGROUND ELECTRIC

- 1 CONCRETE PADS WITH CURBS FOR LOAD IN/OUT AREAS
- 2 STORMWATER STRUCTURE
- 3 ABOVE-GROUND ANHYDROUS FERTILIZER TANK
- 4 CONCRETE SECONDARY CONTAINMENT AREA
- C COMMERCIAL BUILDING
- S SHED
- TREE / SHRUB

NOTES:  
1. SITE FEATURES WERE DIGITIZED FROM AERIAL PHOTOGRAPHS AND SITE MEASUREMENTS. UTILITY LOCATIONS ARE BASED ON THE LOCATIONS MARKED BY UTILITY COMPANIES OR FROM UFMC PERSONNEL INTERVIEW. LOCATIONS ARE APPROXIMATE AND SHOULD NOT BE USED FOR CONSTRUCTION PURPOSES.



DESIGNED BY:	RWF
DRAWN BY:	PAI
APPVD BY:	MEH
SCALE:	AS SHOWN
DATE:	5/23/17
JOB NO.	05147197
ACAD NO.	05147197C08
EXHIBIT:	2

SITE DIAGRAM	
SOIL AND GROUNDWATER ASSESSMENT	
UNITED FARMERS MERCANTILE COOP	
401 North U Avenue	IOWA
VILLISCA	

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