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**ADDENDUM NUMBER ONE  
TO  
PLANS AND SPECIFICATIONS FOR  
WELL #3 CONSTRUCTION - PHASE 1  
FREDERICKSBURG, IOWA  
Project No. 060281.MS**

A. SECTION 9010 - 1.02 - C

The following is added to Section 9010-1.02-C:

Contractor shall not seed the following areas: a 15-foot radius around the new well, and a 15-foot wide path centered on the future water main, as these areas will be disturbed by Phase 2. However, Contractor shall rough grade the areas. Contractor shall seed all other areas disturbed during construction of the well.

B. SECTION 9040 - 1.08 - W

The following is added to Section 9040-1.08-W:

Contractor is required to handle all water discharge related to drilling and test pumping in a manner that complies with all current DNR and EPA requirements.

C. WCDS 1.01 - GENERAL

The following is added to WCDS 1.01:

All drill cuttings shall be removed and disposed of by Contractor. Removal and disposal shall be incidental to well construction.

D. WCDS 1.15 - WELL DEVELOPMENT

The following is added to WCDS 1.15:

The target design capacity of the well is 400 gpm, but well development of at least 800 gpm is required. Contractor shall be prepared to set the airlifting piping to at least 1,000 feet in depth, and shall use a minimum of air capable of producing at least 5,000 feet per minute of up hole velocity.

E. WCDS 1.16 - TEST PUMP SETUP

The following is added to WCDS 1.16:

Test pump setup shall also include a Rossum Sand Tester to determine the quantity of sand (in parts per million) produced during test pumping of the well. Contractor shall also be prepared to place the test pump at a depth of 400 feet.

Because test pumping will discharge over 25,000 gallons of water in a single day, Contractor shall obtain a temporary non-recurring use permit before test pumping the well and pay all fees associated with the permit. Contractor shall submit a copy of this permit as part of their submittals. Permits can be obtained from the water use section of the Iowa Department of Natural Resources in Des Moines.

F. WCDS 1.17 - TEST PUMP WELL AND SAMPLES

The following is added to WCDS 1.17:

Test pumping the well shall be completed as a step test in order to determine the quantity of sand pumped from the well at various pumping rates. Contractor shall record with each reading the sand content of the water in parts per million. Exact pumping rates and times will be field determined based on drawdown and sand quantity, but are estimated to be as follows. Test pumping rate would start at 250 gpm. After drawdown slows to nearly stable (estimated 1 to 2 hours), and if the sand content is low the test pumping rate is increased to 400 gpm. After drawdown slows, and if the sand content is low, the test pumping rate is increased to 500 gpm. If sand content remains low test pumping rate shall be increased in a similar manner to a maximum of 800 gpm. To end the test, the pump shall be set to 400 gpm for at least 6 hours. Sand content shall continue to be recorded through completion of test pumping.


G. WCDS 1.22 - SAMPLES AND RECORDS

The following is added to WCDS 1.22:

Before final payment will be made, Contractor shall submit drilling samples to the Iowa Geological Survey (IGS) and provide to the Engineer a copy of a receipt from the IGS indicating the drilling samples have been received.

H. ADDENDUM ACKNOWLEDGEMENT

Bidders are reminded to acknowledge this addendum in Part B on the first page of the Form of Proposal.

	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <hr/> <p>Lucas J. Elsbernd, P.E. <span style="float: right;">Date</span> License Number 18968 My license renewal date is December 31, 2011. Pages covered by this seal: All Sheets</p>
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