

Werner, Elizabeth

From: Andrew W. Alexander <andy@blecorp.com>
Sent: Thursday, October 01, 2015 11:59 AM
To: Werner, Elizabeth
Cc: Preddy, Mark (blecorp)
Subject: FFLF LFG Well Construction
Attachments: Fig 4 FFLF-53 LFG Probe Detail.pdf; Fig 3 FFLF-53 LFG Well Detail.pdf

Hello Elizabeth,

Thanks for talking to me today about landfill gas well construction issues at FFLF. As we discussed, BLE is in the process of preparing a Landfill Gas Monitoring Plan (LFGMP) for FFLF which will include installation of ten (10) new monitoring wells MM-14 through MM-23 (shown on our conceptual plan which you reviewed and approved in March).

Two of the new wells (MM-14 and MM-20) have sufficient vadose zone to be installed per the NCDENR guidance with stickup covers (reference attached Figure 3).

Three of the new wells (MM-21, MM-22, and MM-23) have sufficient vadose zone to be installed per the NCDENR guidance except they will require flush mount covers since they will be installed in the single lane asphalt road on the western facility boundary.

The remaining 5 wells (MM-15, MM-16, MM-17, MM-18, and MM-19) have limited vadose zone (1.9 to 6 feet) and will require an alternate well construction shown on the attached Figure 4.

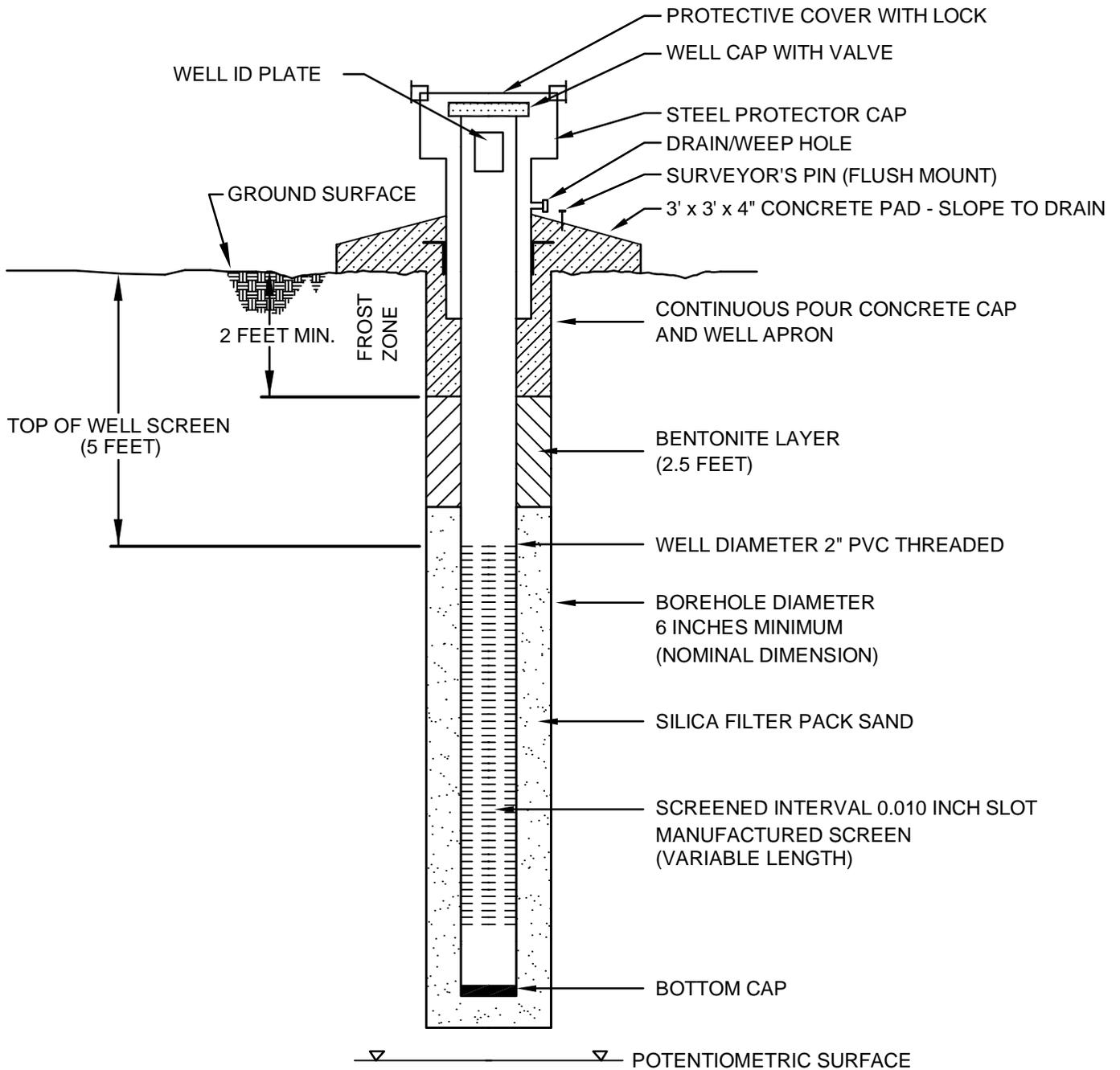
We request that you review the proposed construction for the wells which require a variance and provide a regulatory opinion before we submit the LFGMP to you for your review and approval.

Thanks again for your help on this project. Please contact me if we need to have further discussions. --Andy

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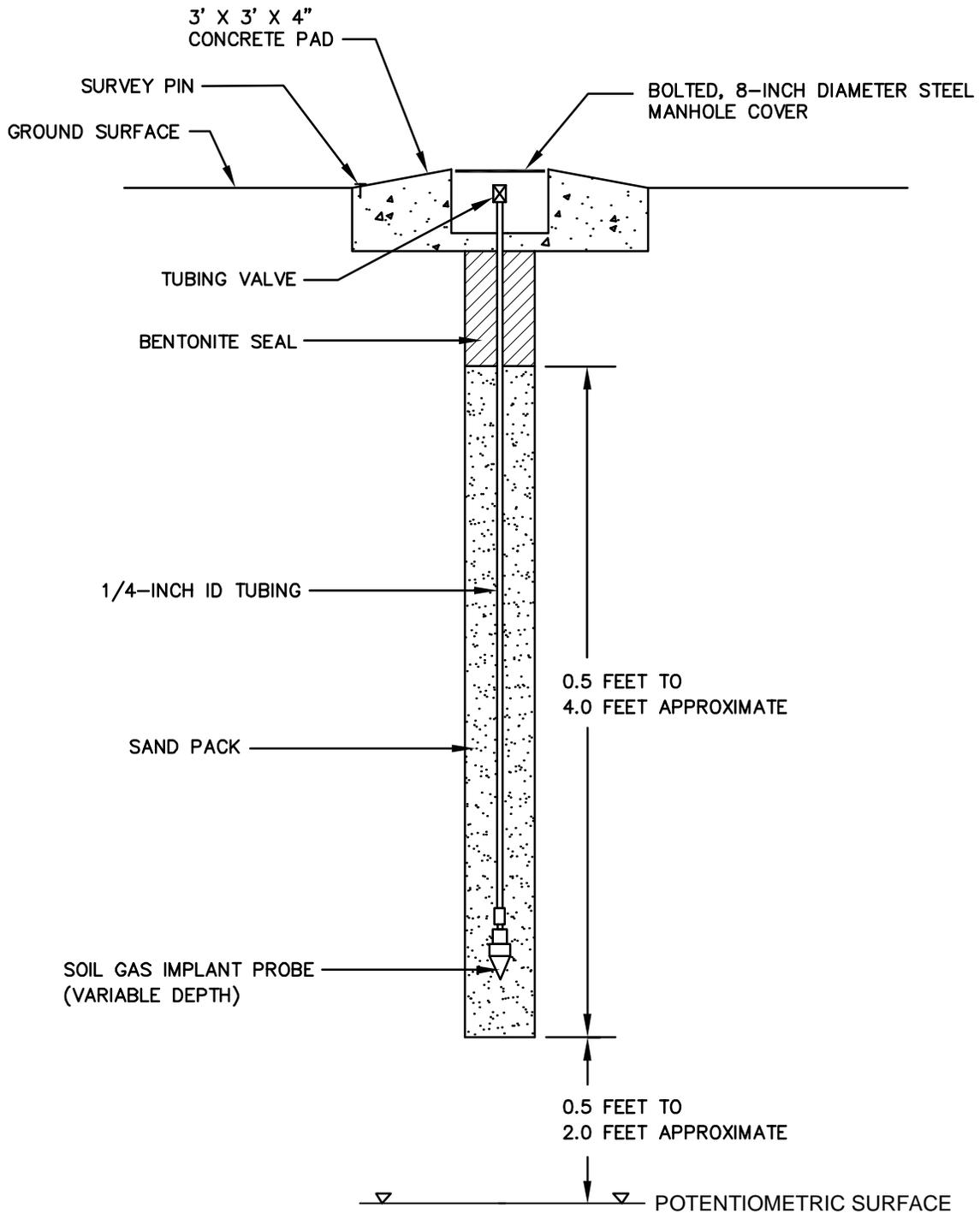
- NOTES:
1. THE TOP OF THE SCREENED SECTION OF THE LFG WELL WILL BEGIN AT APPROXIMATELY 5 FEET BELOW GROUND SURFACE. THE BOTTOM OF THE SCREENED SECTION OF THE LFG WELL WILL BE CONTROLLED BY THE FOLLOWING SITE-SPECIFIC FIELD CONDITIONS AT THE TIME OF INSTALLATION: THE DEPTH TO 5 FEET ABOVE THE STABILIZED GROUNDWATER LEVEL OR THE DEPTH TO BEDROCK (AUGER REFUSAL), WHICHEVER IS SHALLOWER.
 2. PLACE PEA GRAVEL IN ANNULAR SPACE BETWEEN PVC STICK UP AND STEEL PROTECTIVE CASING.

LANDFILL GAS (LFG) MONITORING WELL (TYP.)

JOB NO.:	J15-1957-53
DATE:	09-08-15
SCALE:	NOT TO SCALE

IBLE INC.
BUNNELL-LAMMONS ENGINEERING, INC.
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LANDFILL GAS MONITORING WELL DETAIL
 HAYWOOD COUNTY LANDFILL
 CLOSED FRANCIS FARM LANDFILL
 HAYWOOD COUNTY, NORTH CAROLINA



NOTE:

1. THE TOP OF THE SAND PACK OF THE LFG PROBE WILL BEGIN WITHIN 1 FOOT BELOW GROUND SURFACE. THE BOTTOM OF THE SAND PACK OF THE LFG PROBE WILL BE CONTROLLED BY STABILIZED GROUNDWATER LEVEL .

LANDFILL GAS (LFG) MONITORING PROBE (TYP.)

JOB NO.:	J15-1957-53
DATE:	10-1-15
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LANDFILL GAS MONITORING PROBE DETAIL
 HAYWOOD COUNTY LANDFILL
 CLOSED FRANCIS FARM LANDFILL
 HAYWOOD COUNTY, NORTH CAROLINA

FIGURE

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