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November 24, 2014

Mr. Mike Kiger, President
Mr. David L. Levacy
Mr. Steven A. Davis
Fairfield County Board of Commissioners
210 E. Main Street
Lancaster, Ohio 43130

Re: Updated Recommendations
Proposed Fairfield County Jail/Public Safety
Facility and Existing Sheriff's Office and
MSMJ
334 West Wheeling Street
Lancaster, Ohio 43130

Dear Mr. Kiger:

As you are aware, our report dated July 7, 2014 titled "*Limited Phase II Environmental Site Assessment for the Proposed Fairfield County Jail/Public Safety Facility, 334 West Wheeling Street, Lancaster, Ohio 43130*" contained nine recommendations for actions relating to the construction of the proposed Fairfield County Jail/Public Safety Facility. Because additional data collection activities have been undertaken pursuant to these recommendations, there are five recommendations that should be addressed prior to and during construction activities. Our five remaining recommendations are as follows:

- 1) Due to the concentrations of constituents in the fill and the proximity of the Miller Park Wellfield, the direct transport of fill materials downward into underlying natural materials should be minimized. If foundation depths exceed the depth of the fill, it is recommended that the fill materials be "cased off" prior to deeper subsurface penetration.
- 2) A qualified environmental professional should be present onsite during excavation activities to confirm that the fill does not contain industrial waste, residual waste, or municipal waste that may make the fill subject to additional regulation.

- 3) In order to minimize future liabilities, onsite soils should be managed within the footprint of the current filled area (the whole site). If soils must be disposed offsite, the soils should be disposed at a solid waste landfill.
- 4) Because Ohio EPA has taken the position that spent nontoxic foundry sand is regulated as a waste under R.C. 6111, it is recommended that unless all stormwater from the site will enter a combined sewer, the general stormwater permit for construction activities address the management of stormwater that has come into contact with the fill materials.
- 5) Due to the calculation of an increased risk for workers due to dermal exposure to arsenic and inhalation exposure to mercury, bid specifications should require contractors to develop a health and safety plan that addresses mitigation of the risks where workers are anticipated to be onsite for more than 90 days. (According to the risk assessment, acceptable mitigation of dermal exposure can be accomplished by wearing gloves and long sleeves and by encouraging workers to shower. Similarly, acceptable mitigation of inhalation exposure can be accomplished by limiting the number of fulltime days on site to less than 200.)

Recommendations from the July 7, 2014 report that were addressed by subsequent data gathering activities are discussed below:

Original recommendation #9 stated *“The County has initiated soil gas sampling to confirm or deny if the vapor intrusion pathway to indoor air will pose an increased risk in the new building to residents and workers. If an increased risk is indicated, we recommend that the building design include the installation of a vapor barrier between the fill and the building slab (accompanied by either a passive or active gas venting system). We also recommend that an air permit be obtained for the associated venting system.”*

Soil gas sampling was conducted under the proposed building footprint and confirmed that soil to indoor air pathway for mercury and naphthalene will not pose an unacceptable risk to either workers or residents when the new Fairfield County Jail/Public Safety Facility is constructed. The results of the sampling events that lead to this conclusion was presented in our reported dated October 2, 2014 titled *“Vapor Intrusion Assessment Proposed Fairfield County Jail/Public Safety Facility and Existing Sheriff’s Office and MSMJ, 334 West Wheeling Street, Lancaster, Ohio 43130”*. This report further concluded that the proposed building design did not need to include a vapor barrier. Therefore, as a result of these actions and conclusions, this recommendation was addressed.

Original recommendations #6, #7, and #8 stated:

- 6) *Bid specifications should require contractors to develop an OSHA compliance plan for protection of workers from lead exposure during construction/excavation.*

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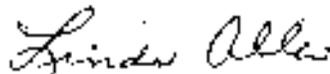
7) *Bid specifications should require contractors to conduct an initial air monitoring program to determine whether lead concentrations in onsite air exceed the OSHA lead action level of 30 $\mu\text{g}/\text{m}^3$ for onsite workers during construction. If the action level is not exceeded, no further air exposure monitoring is needed. If the action level is exceeded, administrative and/or engineering controls must be implemented to minimize worker exposure to lead and a medical surveillance program must also be implemented to assure that worker's lead blood concentrations do not exceed 50 $\mu\text{g}/\text{dl}$.*

8) *Although most site construction plans include plans for the minimization of dust, we recommend that the bid specifications include specific requirements for site dust control to assist in the reduction of exposure of onsite workers to lead and other particulates.*

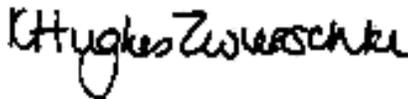
These recommendations addressed OSHA requirements for initial sampling of airborne lead based on concentrations of lead measured in the fill materials during the initial investigation. As you are aware, the County chose to have the initial air monitoring for lead conducted during excavation into the fill materials prior to the initiation of full-scale construction activities. The results of this initial air monitoring for lead were reported in our report dated November 10, 2014 titled "*Initial Air Sampling for Lead at the Proposed Fairfield County Jail/Public Safety Facility and Existing Sheriff's Office and MSMJ, 334 West Wheeling Street, Lancaster, Ohio 43130*". This report concluded that because the initial monitoring did not exceed the OSHA air action level for lead, no further air monitoring during excavation and construction activities needs to be performed and no air program must be established. Therefore, as an outcome of these actions and conclusions, these three recommendations were addressed.

We appreciate the opportunity to be of continued service to the County. If you have any questions, please do not hesitate to contact us.

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ENVIRONMENTAL CONSULTANTS, INC.



Linda Aller, R.S., CPG



Kerry Zwierschke, Ph.D., P.E.

LA/lka

I:Projects:14-04: Correspondence:11-24-14 Recommendation Update letter

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