

## Detterman, Mark, Env. Health

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**From:** Philip McLaughlin <pmclaughlin@eis1.net>  
**Sent:** Thursday, August 24, 2017 4:00 PM  
**To:** Detterman, Mark, Env. Health  
**Cc:** Roe, Dilan, Env. Health; plittman@eis1.net; 'Tom Graf'; 'Bridget Galka'  
**Subject:** RE: 1228 - 1236 E. 17th Street Redevelopment (RO3243); Questions on Work Plan  
**Attachments:** Figure 3 - Proposed Boring Location Map.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Mark,

Below I've provided response and clarification to your comments in blue text. I've attached a revised Figure 3 depicting additional C- and D-series borings in the eastern half of the Site for collection of composite samples to be analyzed for additional contaminants as previously proposed for the western half. Please let me know if you have any further comments or questions. We are prepared to modify the existing Workplan to incorporate the clarification and revisions discussed below.

Best Regards,

Phil

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**From:** Detterman, Mark, Env. Health [mailto:Mark.Detterman@acgov.org]  
**Sent:** Wednesday, August 16, 2017 3:13 PM  
**To:** 'Philip McLaughlin' <pmclaughlin@eis1.net>; 'plittman@eis1.net' <plittman@eis1.net>; 'Tom Graf' <tom@grafcon.us>; 'Bridget Galka' <bgalka@Oakha.org>  
**Cc:** Roe, Dilan, Env. Health <Dilan.Roe@acgov.org>  
**Subject:** 1228 - 1236 E. 17th Street Redevelopment (RO3243); Questions on Work Plan

All,

I have had the opportunity to review the case file, including the recently submitted revised work plan (dated August 8<sup>th</sup>, received August 11<sup>th</sup>) and had a few questions relevant to the proposed scope of work. It seemed most reasonable to request this information by email; however, the responses will ultimately need to be documented in a written response. The questions are as follows:

1. **Site Cut / Fill and Surplus Soil Management** – I recall that soil from beneath lead contaminated soil in the central portion of the site will be excavated and either reused onsite, or off-hauled as potentially clean fill to another site, and that the overlaying lead contaminated soil will be replaced into the hole created, and subsequently capped beneath the proposed concrete slab for the redevelopment. Please clarify this. It is additionally understood that the A- and B-series soil bores which are proposed to be composited in the laboratory, will be analyzed for TPHg, TPHd, TPHmo, PAHs, and CAM17. What is the intended use of this soil? Will this be off-hauled, or used as fill beneath the proposed concrete slab cap? If we are concerned about the listed contaminants in one area of the site for onsite reuse, are we not interested in them below the future concrete slab cap at the remainder of the site?

The mat foundation at the site will require approximately 18 inches to 2 feet of cut below existing grade across a large portion of the site. Site grading will be designed to segregate and stockpile the relatively shallow lead-impacted soil (to a depth of 1 to 2 feet bgs or below current grade) scraped from the approximate eastern half of the Site. This stockpile will be temporarily staged in the western half during grading activities. The plan is

to excavate and off-haul sufficient soil in the eastern half from *below* the scraped-away, uppermost lead-impacted soil in this area to accommodate the total volume of lead-impacted soil to be moved over from the western half, including the segregated stockpile from the eastern half. It is assumed that once the upper 1 to 2 feet of lead impacted soil is scraped from the eastern half, excavation in this portion of the Site during grading activities may extend to depths of 5 to 6 feet bgs (i.e., below current grade) to accommodate lead-impacted soils “flopped-over” from the western half. Such lead-impacted soils will be graded across the Site and capped by the mat foundation and hardscape of the future development.

It is intended that the off-hauled soil from the eastern half would be characterized or profiled for disposal in a Class III sanitary landfill or perhaps as “clean fill” to be reused at another construction site. This material would be pre-profiled for landfill acceptance or reuse by subdividing the eastern half of the Site into quadrants and collecting 4-point composite samples from each of the four quadrants at depths of approximately 3.5 and 4.5 feet below current grade. The depth of the planned excavation in the eastern half is expected to be up to 5 to 6 feet below existing grade. This pre-profile sampling would be performed as part of the corrective action plan to be implemented during grading activities for the construction project.

The composite analyses for the proposed A- and B- series borings located in the western half of the Site are designed to further characterize the soil in this area for potential additional contaminants (beyond existing lead data). The lead-impacted soil in the western half (including that scraped, segregated and stockpiled from the eastern half) will be regraded across the Site, including backfilling the excavated area in the eastern half. Final grade across most of the Site would be approximately 18 inches to 2 feet below existing grade to accommodate the mat foundation. The regraded fill surface across the Site would contain elevated lead concentrations (i.e., above both the residential ESL), which would be capped by the mat foundation and the hardscape of the driveway, courtyard and concrete-lined, raised planter of the community garden. The intent is to keep the lead-impacted soil onsite beneath the mat foundation and hardscape to avoid the high cost of disposing such material in a Class I Hazardous Waste landfill.

Regarding your question about our sampling for potential additional contaminants (TPH-g/d/mo PAHs, CAM 17 metals) in the western half (composite samples from A- and B-series borings), but not in the eastern half, upon further consideration we will revise our sampling plan to collect similar samples in the eastern half for consistency across the Site. The analysis of screening-level composite samples is intended as an additional level of assurance that other potential contaminants are not present in soils to be graded across the site. We propose to advance four C-series borings in the northeastern quadrant of the Site and four and D-series borings in the southeastern quadrant (see attached figure). Single samples will be collected from each of the borings at a depth of approximately 1.0 feet bgs, with the samples organized in the laboratory into two 4-point composite samples representative of the uppermost soils in the eastern half. As noted above, during grading activities the uppermost 1 to 2 feet of soil having lead impacts will be scraped away from the eastern half and temporarily stockpiled on the western half to await over-excavation of the eastern half, after which lead-impacted soils will be flopped over into the excavation from the western half.

- 2. Clean Fill Characterization** – As indicated, potentially clean soil beneath lead contaminated soil in the central portion of the site will be excavated for one of several reasons. How will the limits of that soil be defined? At present the majority of three foot soil samples contain lead above the residential lead ESL of 80 milligrams per kilogram (mg/kg), and thus the lower extent of soil contaminated with lead has not been defined. Do you intend on defining upper and lower (depth) low lead concentrations prior to excavation (preferred), or with clean upper confirmation samples concurrent with excavation, and post-excavation lower confirmation samples? The addition of soil bores to characterize this now would be one way to proceed. (I can request in an approval letter, if this is how you would like to proceed, rather than another work plan modification, but if you intend to do another way, let me know.)

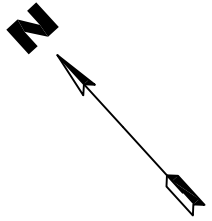
Based on soil data collected to-date, the soil beneath the lead-impacted soil in the eastern half appears to be "clean" below a depth of approximately 2 feet bgs (3-foot bgs samples have low, below-ESL lead concentrations). Once the uppermost lead-impacted soil is scraped-away and stockpiled separately on the western half, a grid of discrete subsurface samples would be collected and composited from the eastern half as described above, with the samples analyzed for appropriate parameters to pre-profile the soil to be excavated for ultimate landfill acceptance. EIS is considering using an XFR lead analyzer during grading activities to confirm that the cut is deep enough to remove soils with significant lead impacts and thereby assure that off-hauled soil can be disposed in a Class III landfill, or if suitable, reused as clean fill at another construction site. Use of the XRF analyzer concurrent with the excavation is proposed instead of actual confirmation samples to define the upper boundary of soils to be disposed in a Class III sanitary landfill, or if suitable, reused as clean fill on another construction site. Post-excavation confirmation samples from the bottom of the excavation are not considered appropriate to confirm vertical attenuation of lead to below ESL (or background levels), as the entire site is to be capped by the mat foundation and hardscape. As noted above, pre-profile sampling of the soil to be off-hauled would be performed as part of a corrective action plan to be implemented during grading activities.

Thanks,

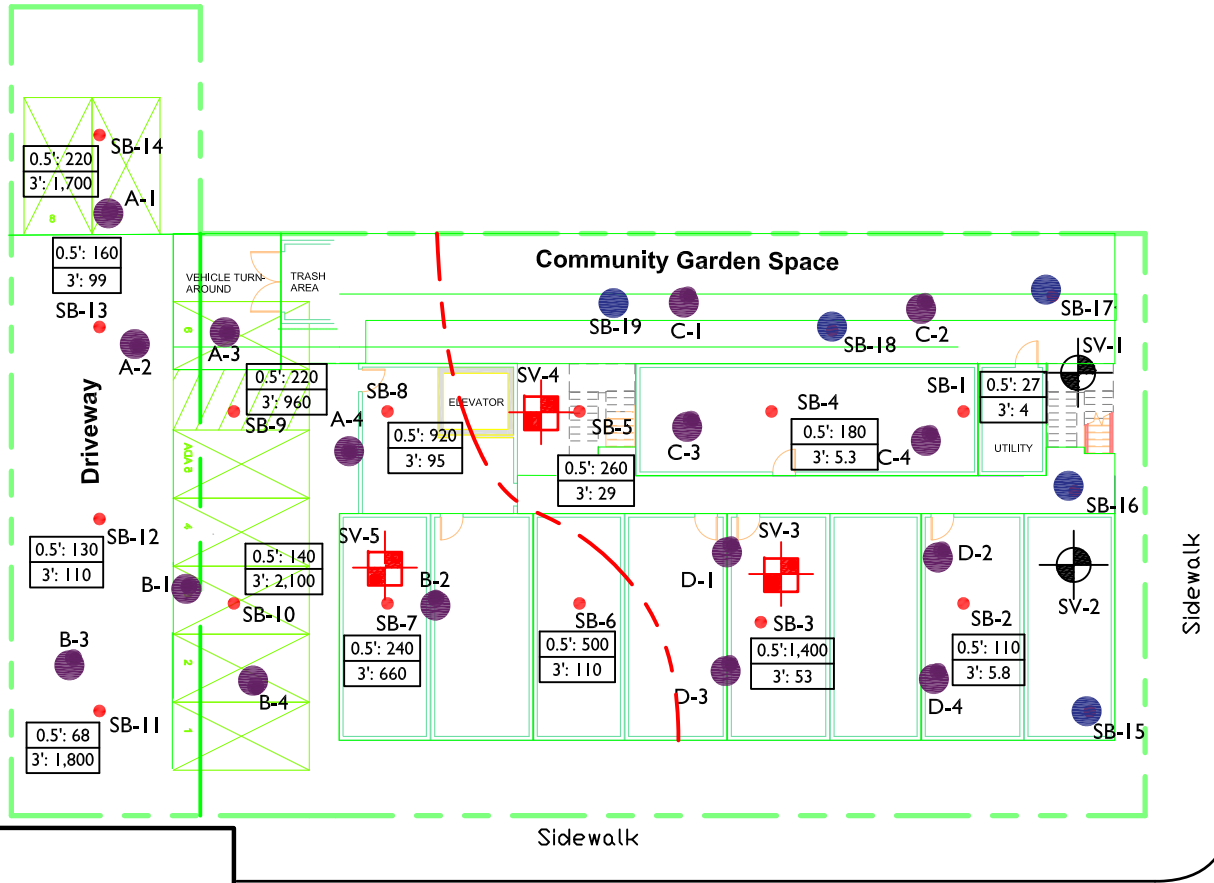
*Mark Detterman  
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*PDF Copies of case files can be downloaded at:  
<http://www.acgov.org/aceh/lop/ust.htm>*

Approximate Scale: 1" = 25'



1720 12th Avenue  
(Neighboring Property)



- LEGEND:**
- SV-1 Prior Soil Vapor Well
  - SB-1 Prior Soil Boring
  - B-1 Proposed Additional Characterization Boring
  - SB-15 Proposed Soil Boring
  - SV-5 Proposed Soil Vapor Well

SB-2	← Boring ID
0.5': 200	← Lead concentration at 0.5 ft. bgs
3': 10	← Lead concentration at 3 ft. bgs

Tables display chemical concentration data from soil samples collected on November 17, 2016. All chemical concentration data displayed are in milligrams per-kilogram (mg/kg).

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Los Gatos, CA 95032  
Ph: (408) 402-9800 Fax: (408) 402-9830



**Soil Boring Location Map**

1228, 1232, and 1236 E. 17th Street, Oakland, California

**Figure: 3**  
EIS Project: I652-2A  
June 27, 2017