

## Detterman, Mark, Env. Health

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**From:** Detterman, Mark, Env. Health  
**Sent:** Friday, March 15, 2013 5:25 PM  
**To:** 'Bob Clark-Riddell'  
**Cc:** jerlich@albanyca.org; Tony Kershaw; Drogos, Donna, Env. Health; Roe, Dilan, Env. Health  
**Subject:** FW: 1187 Solano - Grading Permit  
**Attachments:** Fig 2 Site Map.pdf; Fig 3 PCE in Subslab Soil Gas.pdf; Fig 11 Excavation Extent.pdf; PCE in Soil 5 to 8 ft depth.pdf; Subslab Venting Layout.pdf; excavation sequence drawing-rev.pdf

**Importance:** High

Bob,  
Thanks for the phone call this afternoon, in addition to the attached limited information.

Not being familiar with the project and not having any recent documents, it's difficult to comment. At a minimum it is apparent that the vapor intrusion related construction or mitigation measures should utilize current DTSC guidance documents and protocols, and this is not clear with the documents forwarded. In general mitigation measures that do not meet DTSC guidance / protocols are not considered valid vapor barriers in the state of California. It appears that significantly elevated PCE concentrations are present outside the area of excavation. I also note that a geotextile fabric and a thick plastic layer is planned above the excavation. In general I don't believe DTSC generally has approved what may be a "moisture barrier" over say Liquid Boot (as a temporary mitigation measure while a sub-slab depressurization system works; and I think also approved as such by DTSC??). Similarly, along that line of thinking, DTSC guidance documents include construction quality assurance measures and long term O&M requirements. Those are not documented or mentioned in the attached figures. If these considerations have been or are to be incorporated into the construction you may be heading in the correct direction.

I'm not sure this helps, but hopefully these observations are not unanticipated, and regardless, it is always good to see an effort at remediation. I will look forward to seeing funds for the site so that we can review more detailed documents once submitted.

*Mark Detterman*  
*Senior Hazardous Materials Specialist, PG, CEG*  
*Alameda County Environmental Health*  
*1131 Harbor Bay Parkway*  
*Alameda, CA 94502*  
*Direct: 510.567.6876*  
*Fax: 510.337.9335*  
*Email: mark.detterman@acgov.org*

*PDF copies of case files can be downloaded at:*

*<http://www.acgov.org/aceh/lop/ust.htm>*

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**From:** Bob Clark-Riddell [mailto:briddell@pangeaenv.com]  
**Sent:** Friday, March 15, 2013 4:13 PM  
**To:** Detterman, Mark, Env. Health  
**Cc:** jerlich@albanyca.org; Tony Kershaw  
**Subject:** FW: 1187 Solano - Grading Permit  
**Importance:** High

Hello Mark,

Thank you for calling me back today. Below is some information about the Solano Group's recent aggressive investigation and remediation of the dry cleaning impact at 1187 Solano Avenue in Albany. The Solano Group has agreed to pay ACEH oversight fees to get current and to pursue case closure using the RWQCB's Assessment Tool for Closure of Low Threat Chlorinated Solvent Cases.

#### CITY OF ALBANY COMMUNICATION NEEDED

**At this stage, the City of Albany wants to touch base with the regulatory oversight agency before approving the final grading permit and conducting further inspections.** Our next inspection is scheduled for **this coming week**, when you said you'd be out, so a quick call or email today to John Erlich of the City of Albany would be greatly appreciated. **John Erlich can be reached at 510.528.5758 or via email [jerlich@albanyca.org](mailto:jerlich@albanyca.org).** I copied this email to John, and to Tony Kershaw of the Solano Group.

#### RECENT CORRECTIVE ACTION

The property owner only recently became aware that soil excavation was merited to improve site conditions, following subslab gas and soil testing performed by Pangea. Due to limited time to perform all work before the new restaurant tenant performed tenant improvements at the site, the Solano Group retained Pangea and ST to perform this corrective action work in a very expedited manner.

**Pangea is pleased to report that we have completed all excavation to the new residential soil target of 0.46 mg/kg.** Attached are some initial figures. Figure 2 shows the site map with sampling locations (boring, grab groundwater, and soil gas). Figure 3 shows PCE in subslab soil gas, which significantly exceeds the 210 ug/m<sup>3</sup> environmental screening level. Figure 11 shows the excavation extent. A draft figure showing PCE in soil from 5 to 8 ft depth based on initial Pangea borings is also included. More figures to follow in a technical report.

As shown on Figure 11, the excavation was completed down to at least 10 ft in some locations. Sidewall and compliance sampling was also performed. All excavation was performed by their licensed environmental remediation contractor (Sustainable Technologies, ST). An engineering drawing from structural engineers at JM Turner (attached) was obtained to ensure the adequacy of the excavation work, and associated underpinning of the load-bearing wall between 1187 Solano and the adjacent US Post Office. The bottom of the excavation (4 to 10 ft depth) and beneath the wall was filled with CDF (controlled density fill).

**Next week ST plans to commence backfilling and installation of subslab ventilation piping.** The remainder of the excavation (0-4 ft depth) will be backfilled with baserock followed by sand with vapor piping. Geotextile membrane and thick plastic sheeting are planned as well. The baserock backfill material will be compacted to a minimum 95% compaction.

#### CLOSING

**In closing, please call or send an email to John Erlich today, since you will be out next week.** Sorry for the late notice. The Solano Group looks forward to your oversight and will cover prior and future oversight costs to pursue case closure. If you have any questions I may be reached at 510.435.8664.

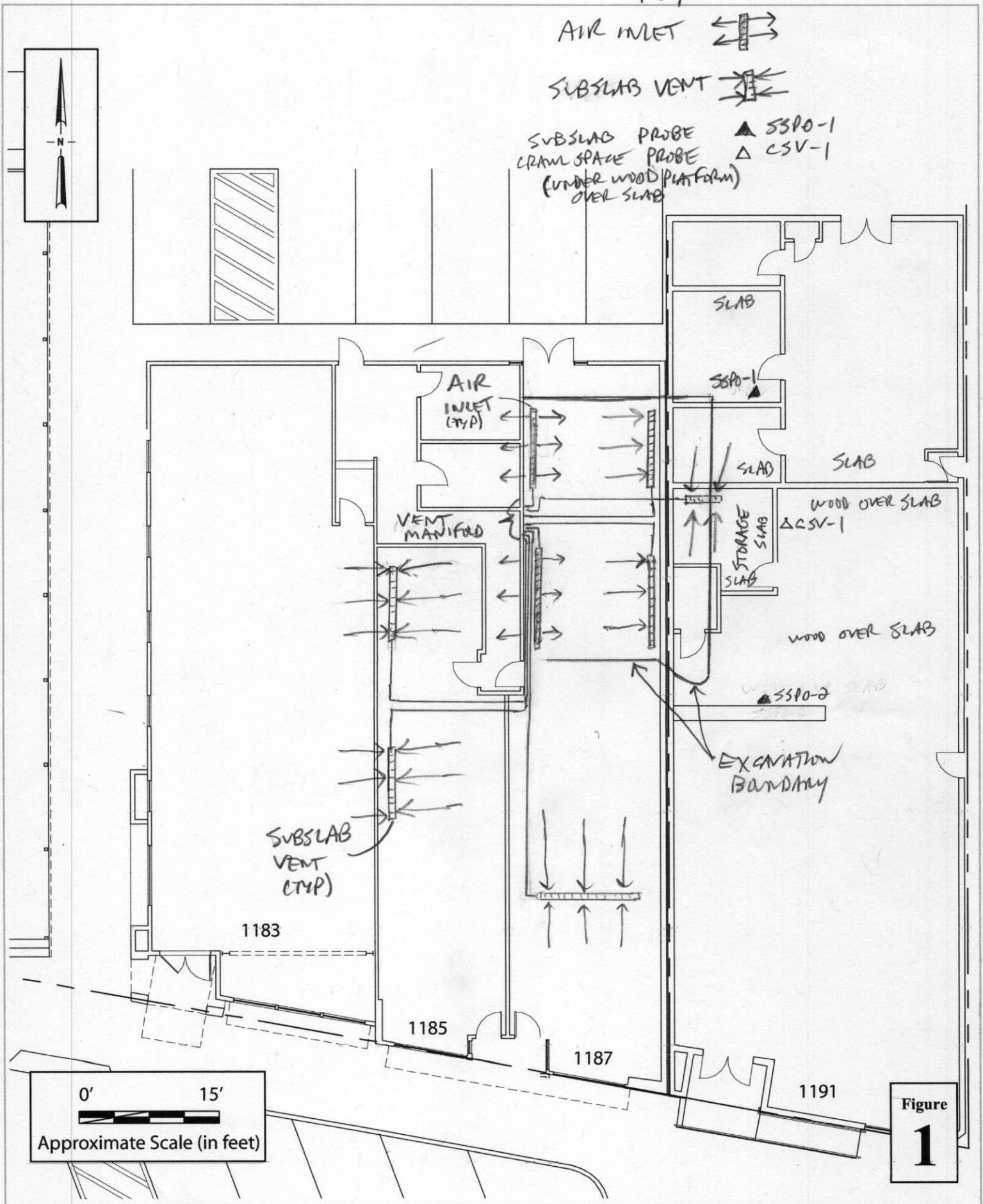
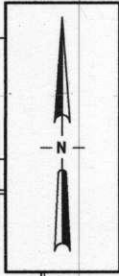
Bob Clark-Riddell, PE  
Pangea Environmental Services, Inc.  
510.435.8664

KEY

AIR INLET

SUBSLAB VENT

SUBSLAB PROBE SSPO-1  
CRAWL SPACE PROBE CSV-1  
(UNDER WOOD PLATFORM)  
OVER SLAB



1183

1185

1187

1191

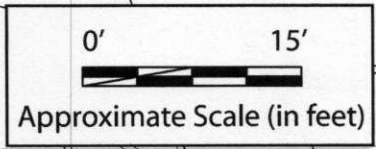
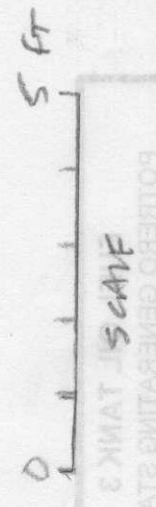
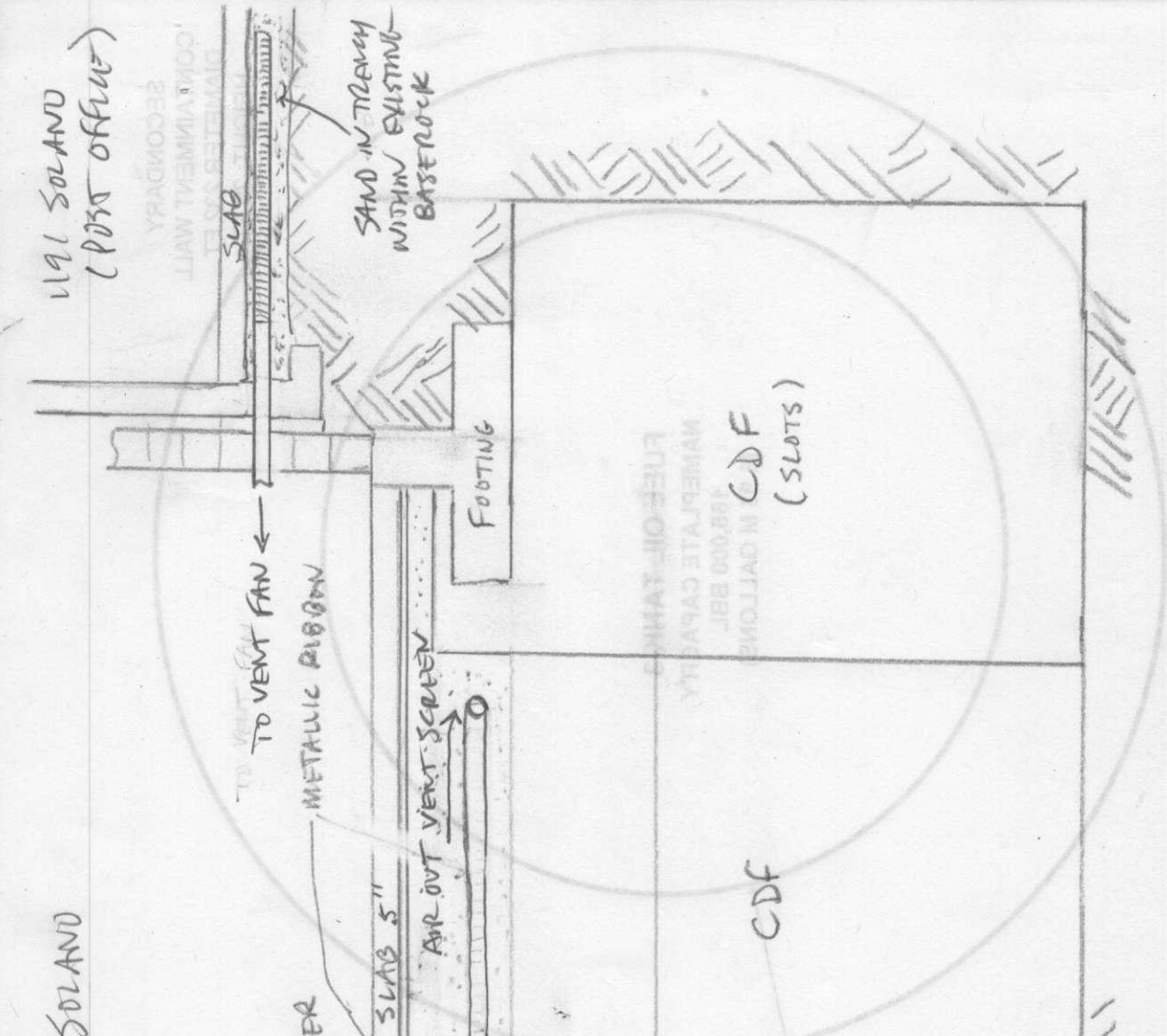


Figure  
**1**

Item	Quantity	Unit	Notes
1185 SOLANO	362.538	cu yd	5' x 6' x 4' R
1187 SOLANO	2,093.394	cu yd	7' x 6' x 3' R
1188 SOLANO	1,027.389	cu yd	6' x 2' x 3' R
1189 SOLANO	6,000.000	cu yd	6' x 2' x 3' R



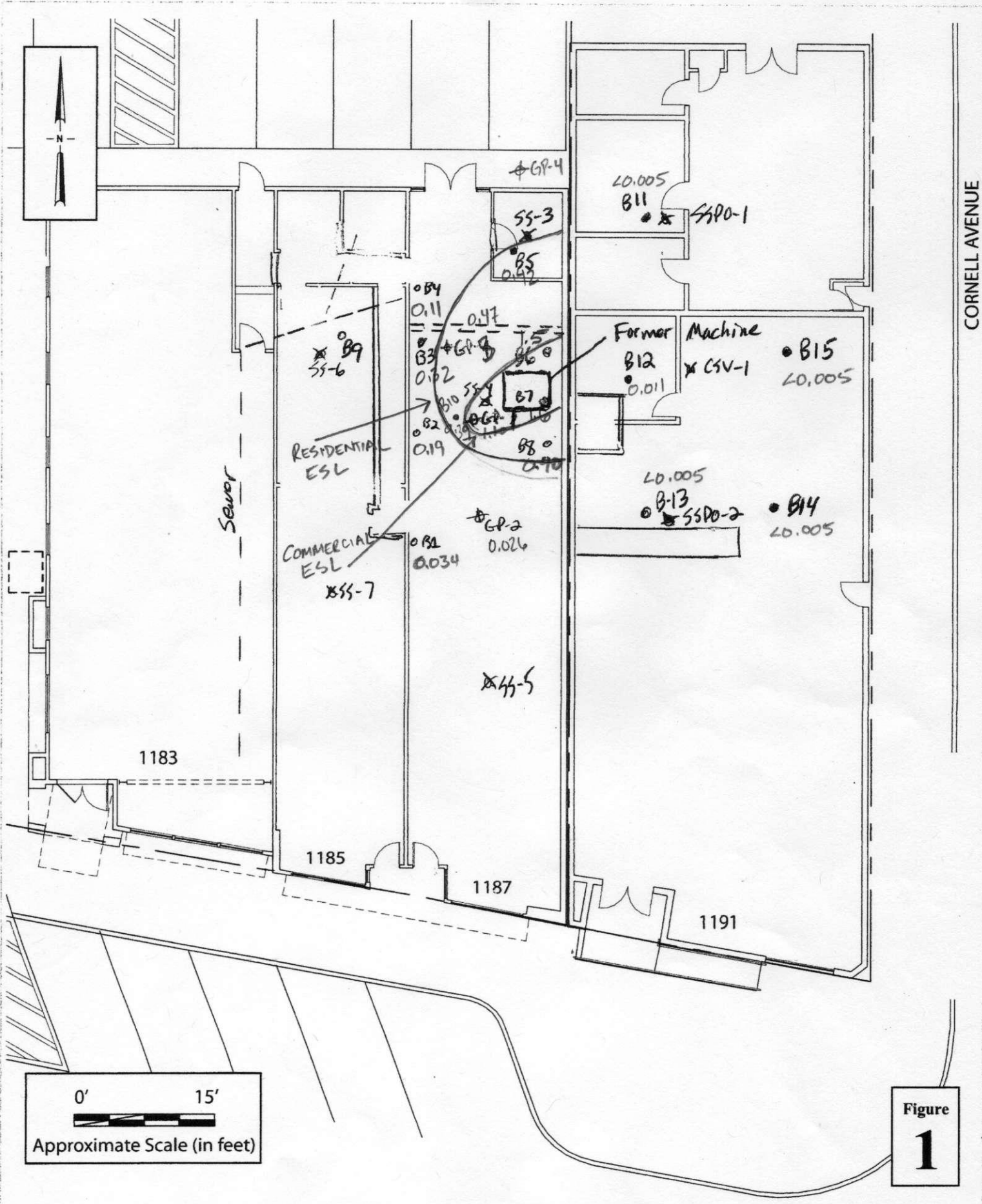
1187 SOLANO BACKFILL PLAN

SCALE (APPROX)

MAY 2015 A1-1

POTRERO GENERATING STATION  
WELCHER CONSULTANTS INC.





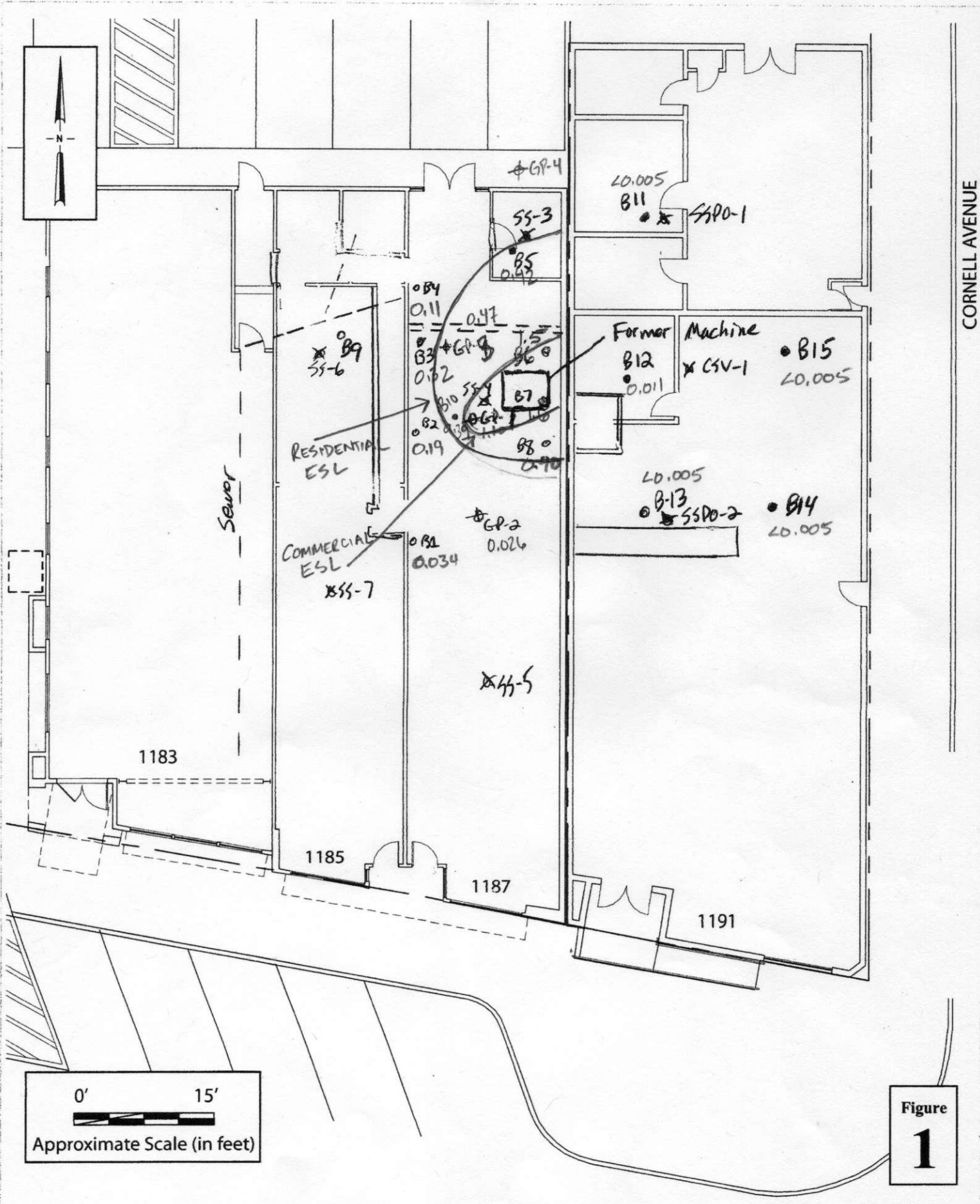
CORNELL AVENUE

Solano Group  
 1187 Solano Avenue  
 Albany, California



Site Map

PCE IN SOIL  
 4 to 8 ft Depth

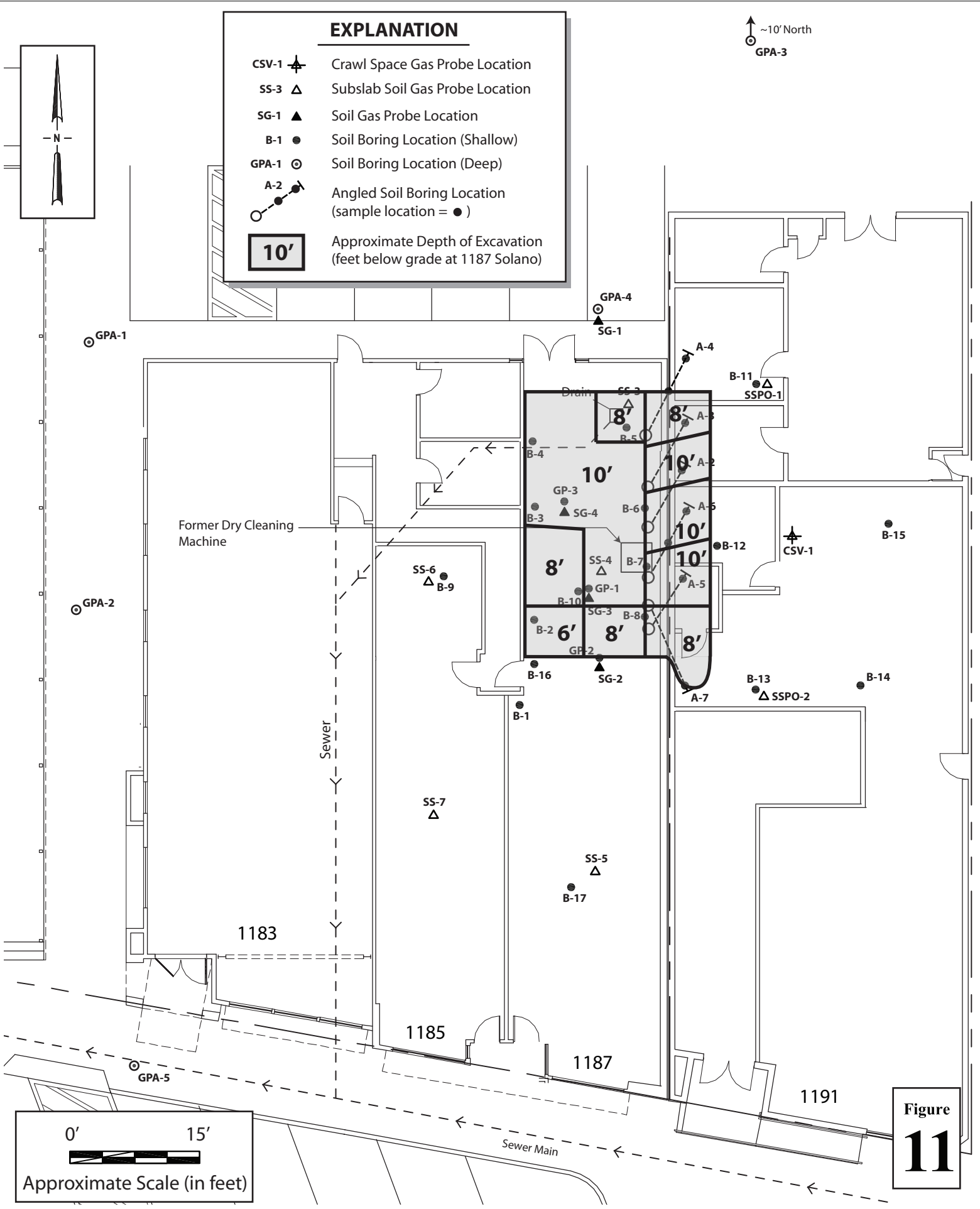


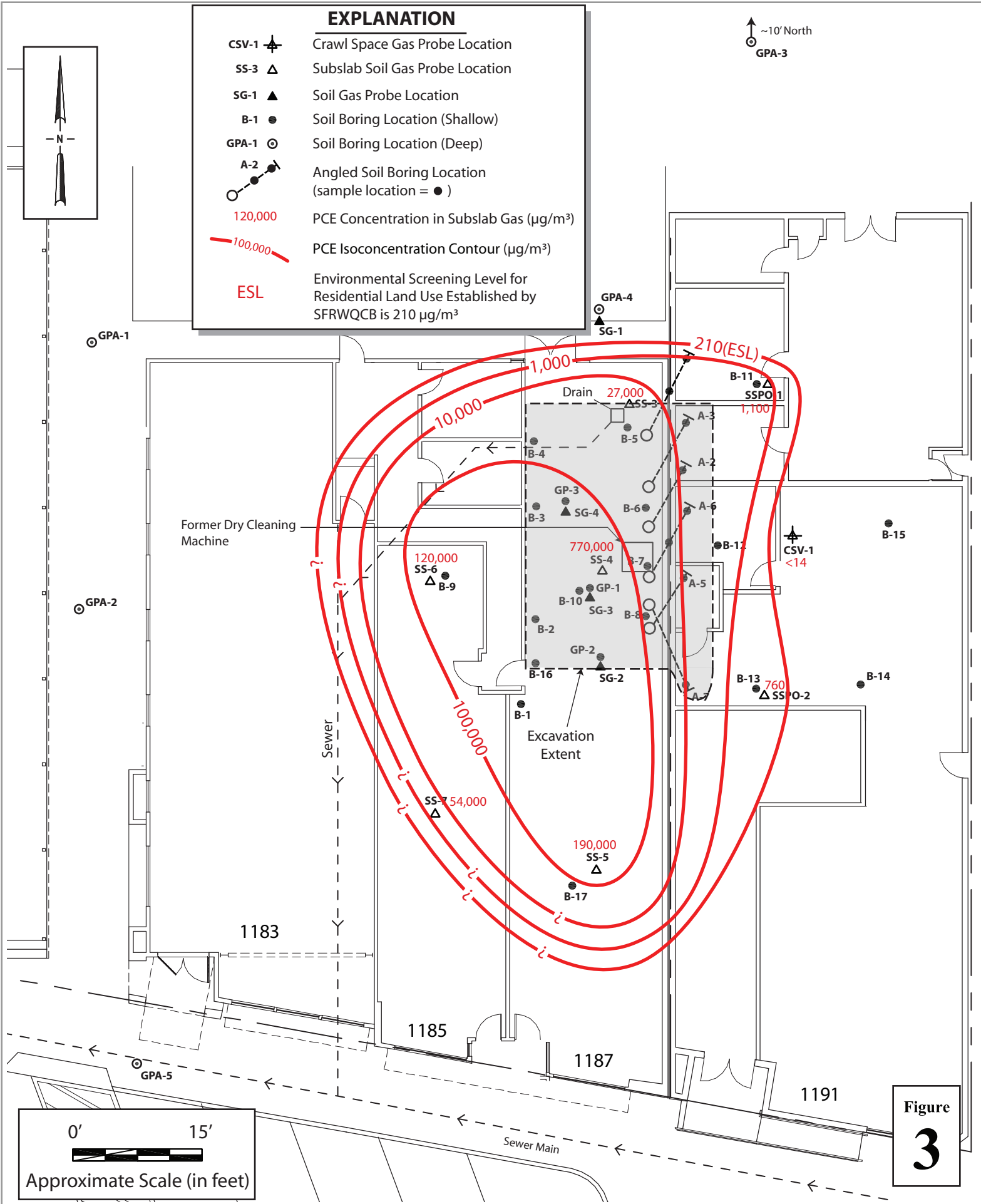
Solano Group  
 1187 Solano Avenue  
 Albany, California



Site Map

PCE IN SOIL  
 4 to 8 ft Depth





### EXPLANATION

- CSV-1 Crawl Space Gas Probe Location
- SS-3 Subslab Soil Gas Probe Location
- SG-1 Soil Gas Probe Location
- B-1 Soil Boring Location (Shallow)
- GPA-1 Soil Boring Location (Deep)
- A-2 Angled Soil Boring Location (sample location = ●)
- 120,000 PCE Concentration in Subslab Gas ( $\mu\text{g}/\text{m}^3$ )
- 100,000 PCE Isoconcentration Contour ( $\mu\text{g}/\text{m}^3$ )
- ESL Environmental Screening Level for Residential Land Use Established by SFRWQCB is  $210 \mu\text{g}/\text{m}^3$

~10' North  
GPA-3

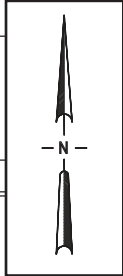


Figure  
**3**



### EXPLANATION

CSV-1		Crawl Space Gas Probe Location
SS-3		Subslab Soil Gas Probe Location
SG-1		Soil Gas Probe Location
B-1		Soil Boring Location (Shallow)
GPA-1		Soil Boring Location (Deep)
A-2		Angled Soil Boring Location (sample location = ●)

~10' North  
GPA-3

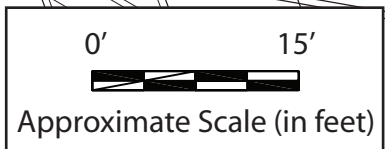
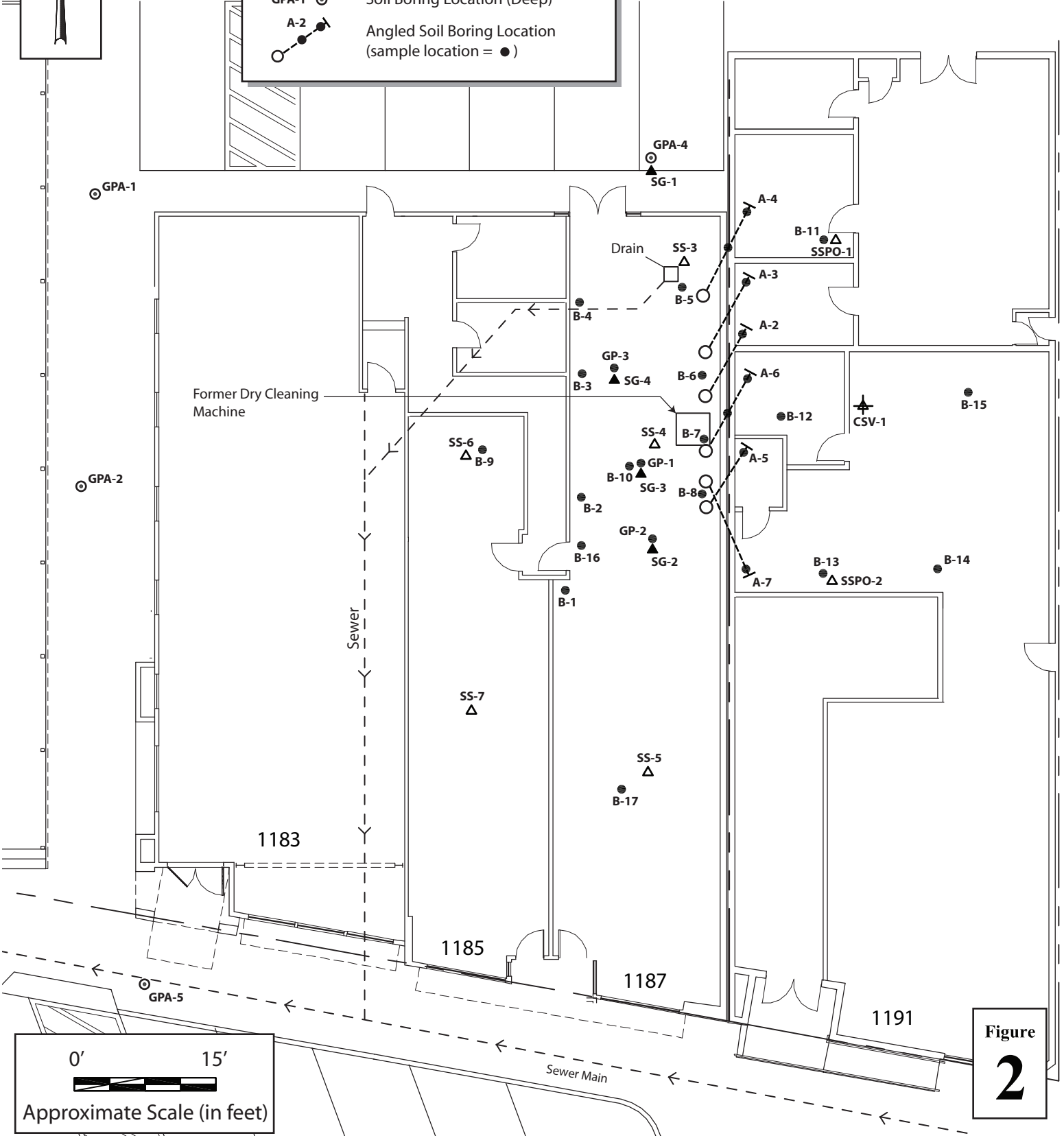
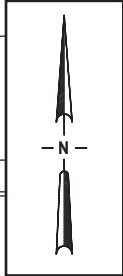
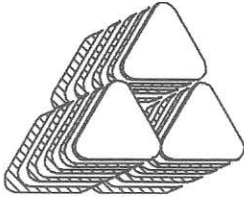


Figure  
**2**



# J.M. TURNER ENGINEERING, INC. CONSULTING ENGINEERS

CIVIL, STRUCTURAL, & CONSTRUCTION ENGINEERING

1325 College Avenue \* Santa Rosa, CA 95404 \* Phone (707) 528-4503 \* Fax (707) 528-4505

## E-MAIL TRANSMITTAL COVER SHEET

TO: Bob Clark-Riddell  
COMPANY: Pangea Environmental Svcs  
PHONE: 510-435-8664  
E-MAIL: briddell@pangeaenv.com

FROM: Hans Vermeulen  
DATE: 02/22/2012  
PAGES: 03 including cover sheet  
RE: Excavation Plan

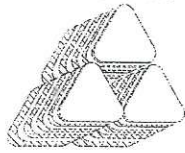
E-MAILED BY: LS TIME: 1:15 PM

### MESSAGE:

CC: james@sustainabletech.cc

Please note that mailed copies can be provided upon request.

Thank you.



# J.M. TURNER ENGINEERING, INC.

CONSULTING ENGINEERS

CIVIL ENGINEERING  
STRUCTURAL ENGINEERING  
CONSTRUCTION ENGINEERING

Mr. Bob Clark-Riddell  
Pangea Environmental Services, Inc.  
1710 Franklin Street, Suite 200  
Oakland, CA 94612

February 22, 2013

Re: **1187 Solano Avenue**  
**Soil Remediation**  
Albany, CA  
Excavation Plan

Attn: Mr. Clark-Riddell,

**This letter serves to address the following requests from Pangea Environmental Services:**

1. To widen the Stage 1 slots from 4' to 6' max.
2. To clarify the acceptable backfill.
3. To combine Stage 2 and Stage 3 excavations.
4. To use 3-1/2 sack CDF for the backfill of Stage 1 excavation in lieu of 2 sack cement slurry as stated in the Excavation Plan.

**The following are J.M. Turner Engineering's responses to the above requests:**

1. Due to the conditions of the site it is acceptable to widen the Stage 1 slots to a maximum of 6'.
2. Crushed rock is an acceptable backfill material provided compaction via vibration equipment is used at approximately 4' lifts. Verify backfill & compaction requirements with the City of Albany Standards or Geotechnical requirements.
3. It is acceptable to combine Stage 2 and Stage 3 excavations provided the maximum excavation depth does not exceed 10'.
4. It is acceptable to use 3-1/2 sack CDF that meets EBMUD specifications in lieu of 2 sack cement slurry.

The excavation plan drawings have been revised to reflect these changes.

Please call with any questions or comments.

Sincerely,

Adrianus Vermeulen, P.E.  
J.M. Turner Engineering, Inc.





**SOIL TYPES ANTICIPATED**  
 SILTY CLAY

SOILS ARE BASED ON BORING LOGS FROM THE GEOTECHNICAL REPORT PREPARED BY AVALON ENVIRONMENTAL CONSULTANTS DATED MAY 4, 2005 PROJECT No. 0420-458-3.

**EXCAVATION SEQUENCE**

1. EXCAVATE EVERY OTHER 6' WIDE SLOT (LABELED "A" ON THE PLAN VIEW).
2. REMOVE CONTAMINATED SOIL AS NECESSARY.
3. COMPLETELY BACKFILL WITH 2 SACK CEMENT SLURRY OR 3-1/2 SACK CDF TO BACKFILL LINE AS SHOWN (STAGE 1 ONLY). BACKFILL ABOVE BACKFILL LINE WITH APPROVED BACKFILL MATERIAL
4. REPEAT STEPS 1-3 FOR SLOTTED CUTS LABELED "B" ON THE PLAN VIEW.
5. EXCAVATE STAGE 2 EXCAVATION AS SHOWN.
6. REMOVE CONTAMINATED SOIL AS NECESSARY
7. BACKFILL STAGE 2 EXCAVATION TO FINISHED GRADE WITH CRUSHED ROCK AND PROVIDE COMPACTION VIA VIBRATION EQUIPMENT AT APROXIMATELY 4' LIFTS. VERIFY BACKFILL & COMPACTION REQUIREMENTS WITH THE CITY OF ALBANY STANDARDS OR GEOTECHNICAL REQUIREMENTS.

**1187 SOLANO AVENUE  
 ALBANY, CA  
 SOIL REMEDIATION  
 EXCAVATION PLAN**

**GENERAL NOTES**

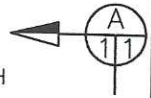
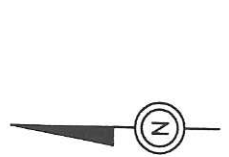
1. THESE PLANS ARE NOT INTENDED TO SHOW THE METHOD AND MEANS OF EXCAVATION OF THE WORK, WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. CONTRACTOR SHALL HAVE A COMPETENT PERSON AT THE SITE WHERE THIS PLAN IS IN USE. HE/SHE SHALL BE RESPONSIBLE MAKING SURE THAT ALL ELEMENTS OF THIS PLAN ARE ADHERED TO AND SHALL NOTIFY THE ENGINEER IF CONDITIONS ENCOUNTERED ARE DIFFERENT THAN ANTICIPATED AND SHOWN ON THIS PLAN. IF CONDITIONS ARE DIFFERENT, THIS PLAN MUST BE MODIFIED TO COVER THOSE CONDITIONS OR A NEW PLAN SHALL BE USED.
3. CONTRACTOR TO VERIFY THAT REQUIRED CLEARANCES ARE OBTAINED.
4. NO WORKERS ARE ALLOWED INSIDE THE EXCAVATION AT ANY TIME UNLESS EXCAVATION IS SHORED (i.e. HYDRAULIC TRENCH JACKS).
5. DESIGN IS BASED ON SITE VISIT PERFORMED BY J.M. TURNER ENGINEERING ON 1/29/2013.
6. IF SLOUGHING OR RAVELING OCCURS IMMEDIATELY STOP EXCAVATION AND NOTIFY J.M. TURNER ENGINEERING FOR POSSIBLE PLAN REVISION.
7. SOILS ARE BASED ON BORING LOGS FROM THE GEOTECHNICAL REPORT PREPARED BY AVALON ENVIRONMENTAL CONSULTANTS DATED MAY 4, 2005 PROJECT No. 0420-458-3.

REVISIONS	BY
02/22/13	PM

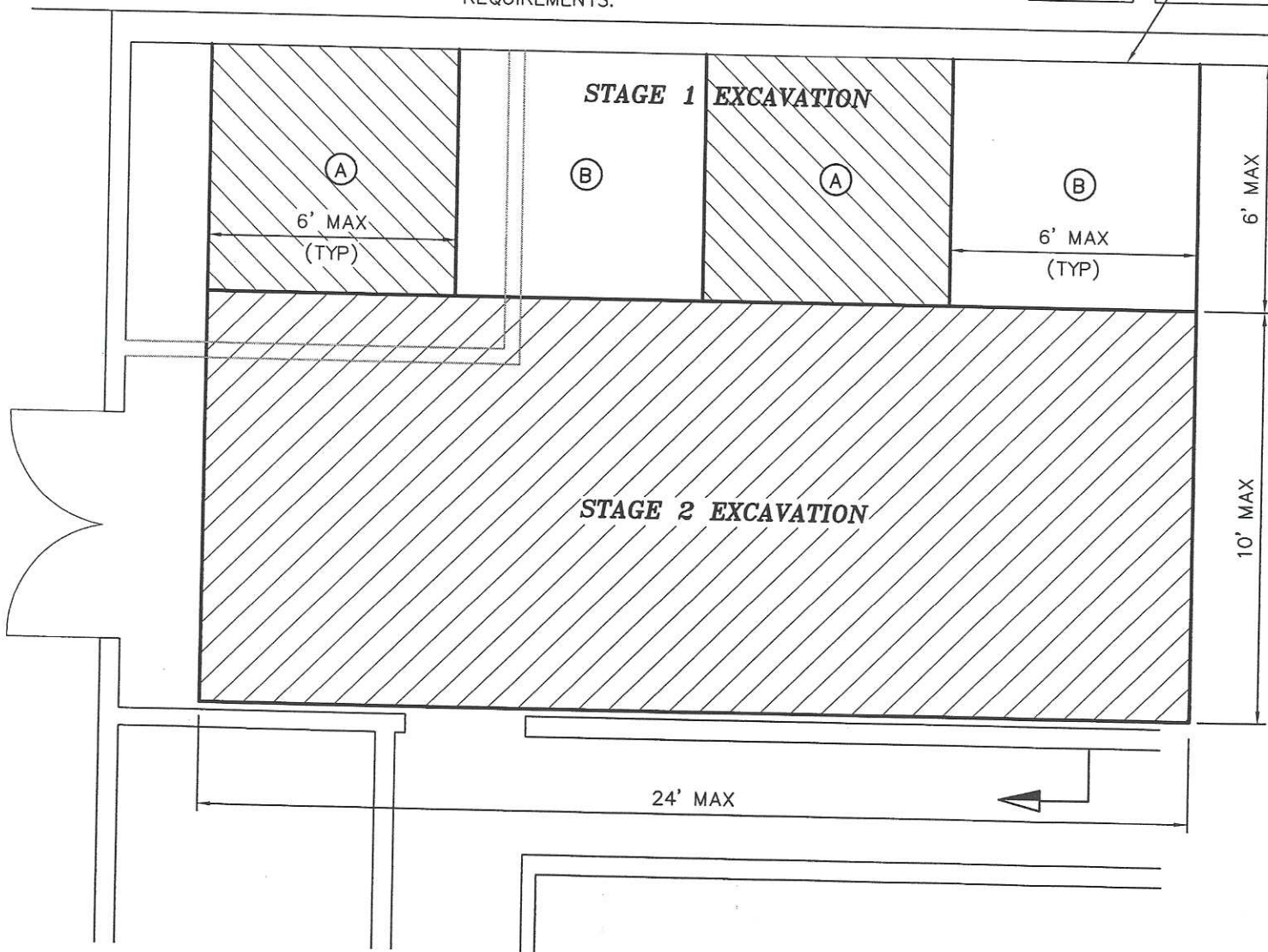
1187 SOLANO AVENUE  
 ALBANY, CA  
 SOIL REMEDIATION  
 EXCAVATION PLAN

**SUSTAINABLE TECHNOLOGIES**  
 1800 ORION STREET, SUITE 101  
 ALAMEDA, CA 94501

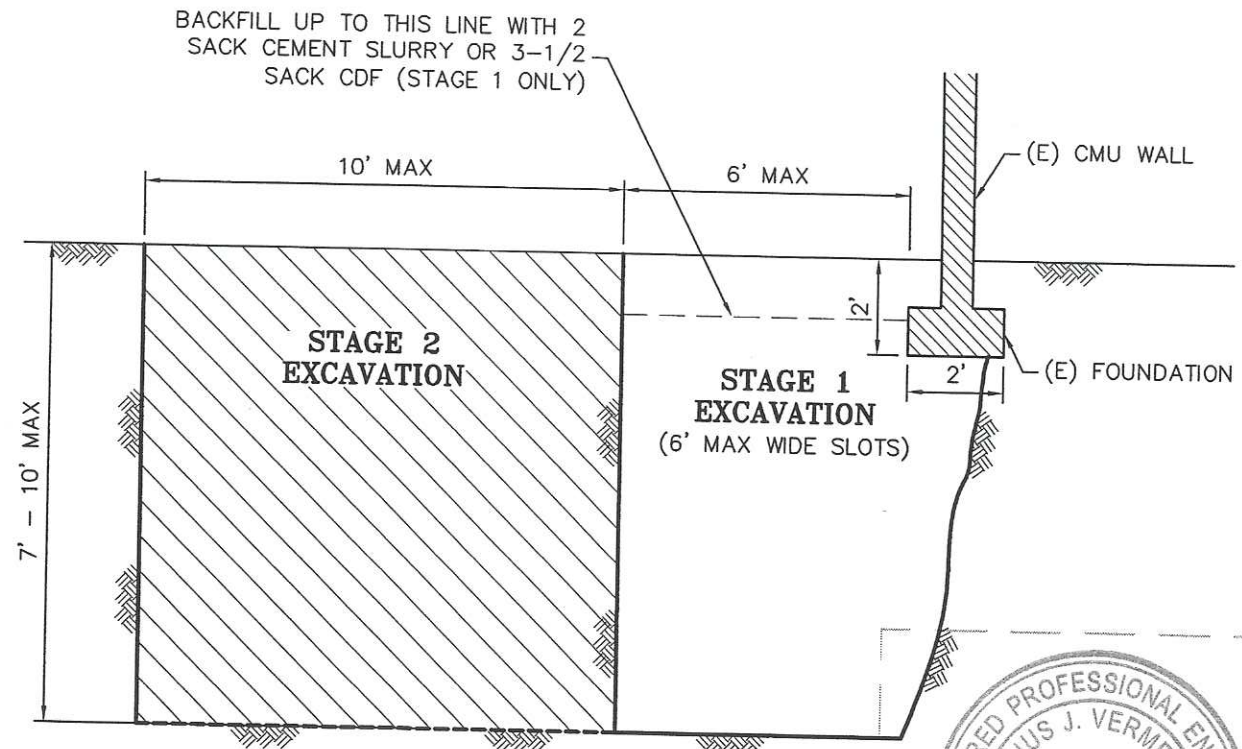
**J.M. TURNER ENGINEERING, INC.**  
**CONSULTING ENGINEERS**  
 1325 COLLEGE AVE., SANTA ROSA, CA 95404  
 (707) 528-4503 FAX (707) 528-4505



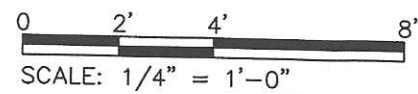
(E) CMU WALL



**PLAN VIEW**



SECTION **A**  
 111



SCALE: 1/4" = 1'  
 DATE: 01/30/13  
 DRAWN BY: P.P.M.  
 CHECKED BY: A.J.V.  
 DRAWING NO: 13440-1/S1  
 SHEET: 1 OF 1