

October 3, 2014

Via Electronic Mail

Ms. Maria Gillette
Senior Environmental Scientist
Cleanup Program Schools Evaluation & Brownfields Outreach Unit
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630

**RE: Soil Step-Out Sampling, Malibu High School (MHS)
30215 Morning View Drive, Malibu, California**

Dear Maria:

Per your request, ENVIRON has prepared this letter to document recent discussions, decisions, and actions related to the soil step-out sampling that has been conducted at Malibu High School (MHS), during implementation of the Department of Toxic Substances Control (DTSC) - approved Preliminary Environmental Assessment (PEA) Work Plan, and in accordance with procedures described in the PEA Work Plan. Soil step-out sampling has been conducted in three areas: (1) the area east of Building G, (2) the Cornucopia area, and (3) the planter east of Building H. Each of these areas is discussed in detail below.

Step-Out Sampling East of Building G

Soil sampling was conducted adjacent to buildings at MHS during implementation of the PEA fieldwork. Soil samples obtained from the area east of Building G, specifically soil borings MH-SB-10, MH-SB-76, MH-SB-77, and MH-SB-79, contained polychlorinated biphenyls (PCBs) at concentrations exceeding the United States Environmental Protection Agency (USEPA) residential soil Regional Screening Level (RSL). Based on discussions with DTSC on August 14, 2014, ENVIRON provided DTSC with a proposed scope of work for step-out sampling on the same day. The proposed scope of work included collecting soil samples at 10 additional boring locations (see Figure 1). DTSC approved the proposed step-out sampling in an email dated August 15, 2014, and at that time confirmed that: (1) all soil samples would be analyzed for PCBs using USEPA Method 8082, and; (2) the area would be fenced pending further evaluation. Subsequent to its initial approval, DTSC requested that ENVIRON collect a surface soil sample from the location of boring MH-SB-17 and analyze the soil sample for PCBs.

ENVIRON collected soil samples from the locations depicted on Figure 1 on August 15 and 18, 2014. During execution of the fieldwork, a few boring locations were modified slightly due to access constraints. In addition, ENVIRON added a soil sampling location (MH-SB-121) near the northern end of the step-out sampling area. Final soil sampling locations are depicted on Figure 2. This area was fenced on Monday, August 18, 2014. Soil samples were obtained from these locations at 0-0.5 feet and 1.5-2 feet below ground surface (bgs). At all locations, ENVIRON used the soil sampling methods described in the DTSC-approved PEA Work Plan. Collected soil samples were analyzed for PCBs using USEPA Method 8082. The results of the soil step-out sampling were discussed with DTSC and Malibu Unites consultant, Kurt Fehling, on September 10, 2014, and were included in ENVIRON's Final Data Transmittal for MHS, dated September 23, 2014.

Subsequent to the initial step-out sampling, per DTSC's request, ENVIRON obtained a surface (0-0.5 foot) soil sample from the location of MH-SB-17, at MH-SB-17A, on September 25, 2014. At this location, ENVIRON used the soil sampling methods described in the DTSC-approved PEA Work Plan. The collected soil sample was analyzed for PCBs using USEPA Method 8082. Analytical results for this sample are expected to be available toward the end of October 2014.

Step-Out Sampling at Cornucopia

Soil sampling was conducted in the Cornucopia area during execution of the PEA fieldwork. Four borings were advanced and eight soil samples collected from 0 to 0.5 feet bgs and 1.5 to 2 feet bgs were analyzed for pesticides, herbicides, and metals. Pesticides and herbicides were not detected in the soil. However, the metal arsenic was detected in two soil samples at levels slightly exceeding the California regional background level. Based on these arsenic detections, DTSC and ENVIRON discussed step-out sampling at the Cornucopia area on September 5, 2014. ENVIRON provided DTSC with a scope of work for the step out sampling on September 10, 2014. The proposed scope of work included incremental soil sampling in the planting beds and in the open areas outside the planting beds. Two decision units (DUs) were identified for the incremental sampling; proposed sampling locations are depicted on Figures 3 and 4.

DU-1 is comprised of the 12 planting beds within Cornucopia. Within this DU, each planting bed was divided into four grids, for a total of 48 grids, with 3 randomly selected incremental soil-sampling locations per grid, for a total of 144 borings. DU-2 is comprised of the remaining area within Cornucopia, and was divided into 31 grids, with 3 randomly selected incremental soil-sampling locations per grid, for a total of 93 borings.

DTSC approved the proposed step-out sampling in an email dated September 12, 2014. At the time of approval, DTSC asked that the analytical laboratory collect a laboratory duplicate for one of the incremental samples.

As described in the DTSC September 23, 2014 Work Notice, ENVIRON conducted the step-out sampling from September 23 through 26, 2014 using the incremental soil sampling methods described in the DTSC-approved PEA Work Plan. At each boring location two soil samples were collected from 0-0.5 feet bgs and from 1.5-2 feet bgs. Soil samples were analyzed for arsenic using USEPA Method 6010. ENVIRON also requested that the laboratory collect a laboratory duplicate for one of the incremental samples.

During execution of the step-out sampling, ENVIRON discovered that the northern boundary of the Cornucopia area had been incorrectly delineated on the original plot plans, and the area was smaller than originally diagrammed (the fence line is actually 20 feet further south than marked on the original plot plans). This finding was discussed with DTSC prior to fieldwork and, after obtaining DTSC's concurrence; the sampling area was adjusted to stay within the actual Cornucopia area. The sampling grid was reduced from 31 to 24 grids. The revised sampling grid and locations are depicted on Figure 5. Step-out soil sampling results are anticipated to be available toward the end of October 2014.

Planter East of Building H

Soil sampling was conducted in the planter located east of Building H during execution of the PEA fieldwork. Two borings were advanced in this area and soil samples collected from 0 to 0.5 feet bgs and 1.5 to 2 feet bgs were analyzed for pesticides, herbicides, and metals. Pesticides and herbicides were not detected in the soil. One soil sample in the planter, MH-SB-93 at 1.5 feet bgs, contained lead at a concentration of 170 milligrams per kilogram (mg/kg), exceeding the DTSC-modified

residential RSL of 80 mg/kg. The surface sample collected from this same boring contained lead at a concentration of 47 mg/kg. On September 22, 2014, DTSC requested step out sampling in proximity to this boring. Therefore, on September 25, 2014, ENVIRON advanced two soil step-out borings in the planter area in proximity to MH-SB-93; one step-out boring was advanced to the southeast of SB-93 and a second step-out boring was advanced south of SB-93. At both step-out boring locations soil samples were collected from 0-0.5 feet bgs and from 1.5-2 feet bgs. ENVIRON also attempted to collect a soil sample at 3 feet bgs at soil boring MH-SB-93 and, due to drilling refusal, was unable to do so. All four soil samples were submitted for lead analysis using USEPA Method 6010. Step-out soil sampling results are anticipated to be available toward the end of October 2014.

We trust that this information is sufficient to document the step-out sampling. Please contact either of the undersigned should you have any questions.

Sincerely,



Carol Serlin, PG, CPG
Principal



Safaa Dergham, PG
Senior Manager



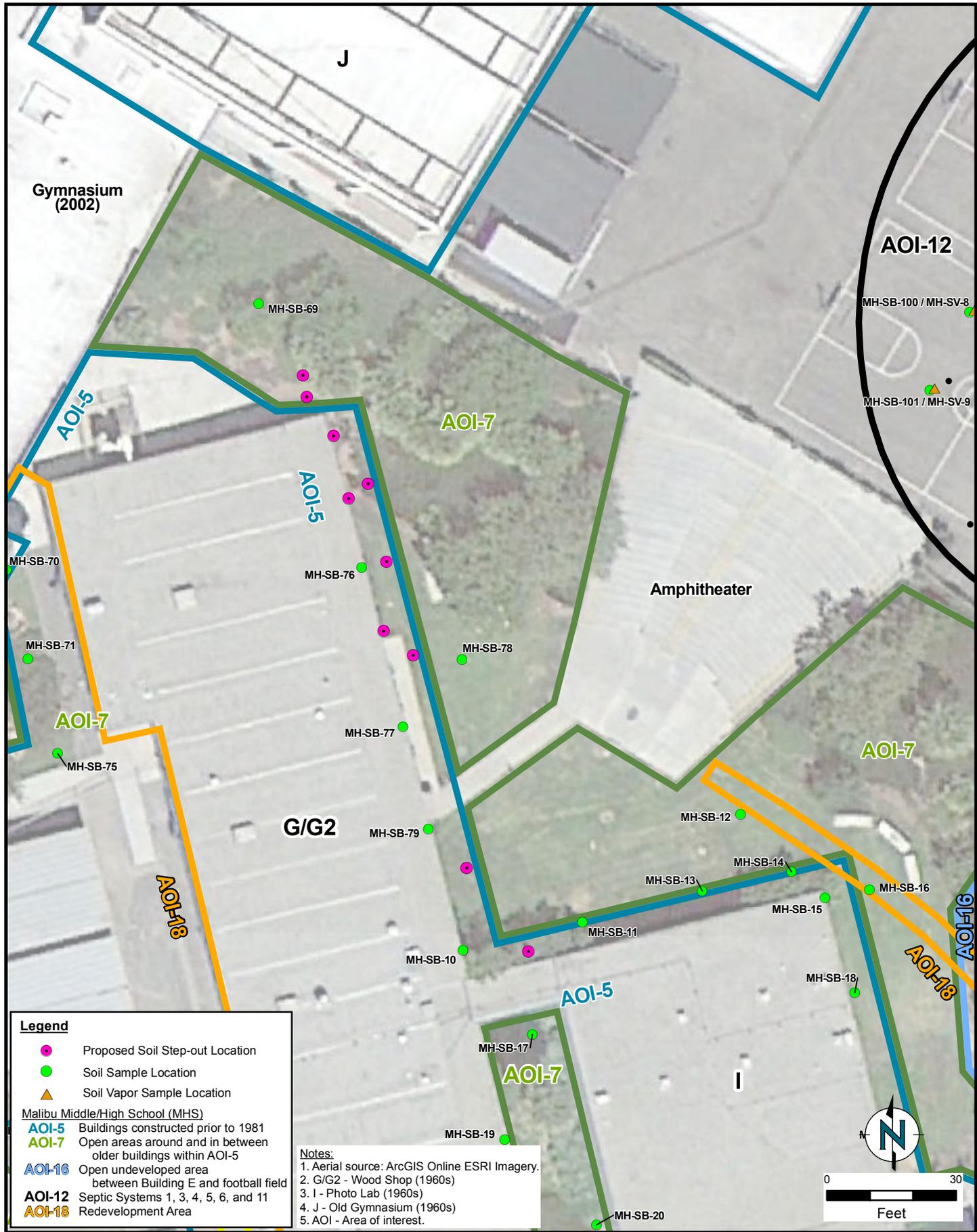
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P:\S\SMMUSD\0433980J PEA Execution\Letter to DTSC-Step-Out Sampling Documentation\Letter to DTSC re Step Out Sampling Scope.docx

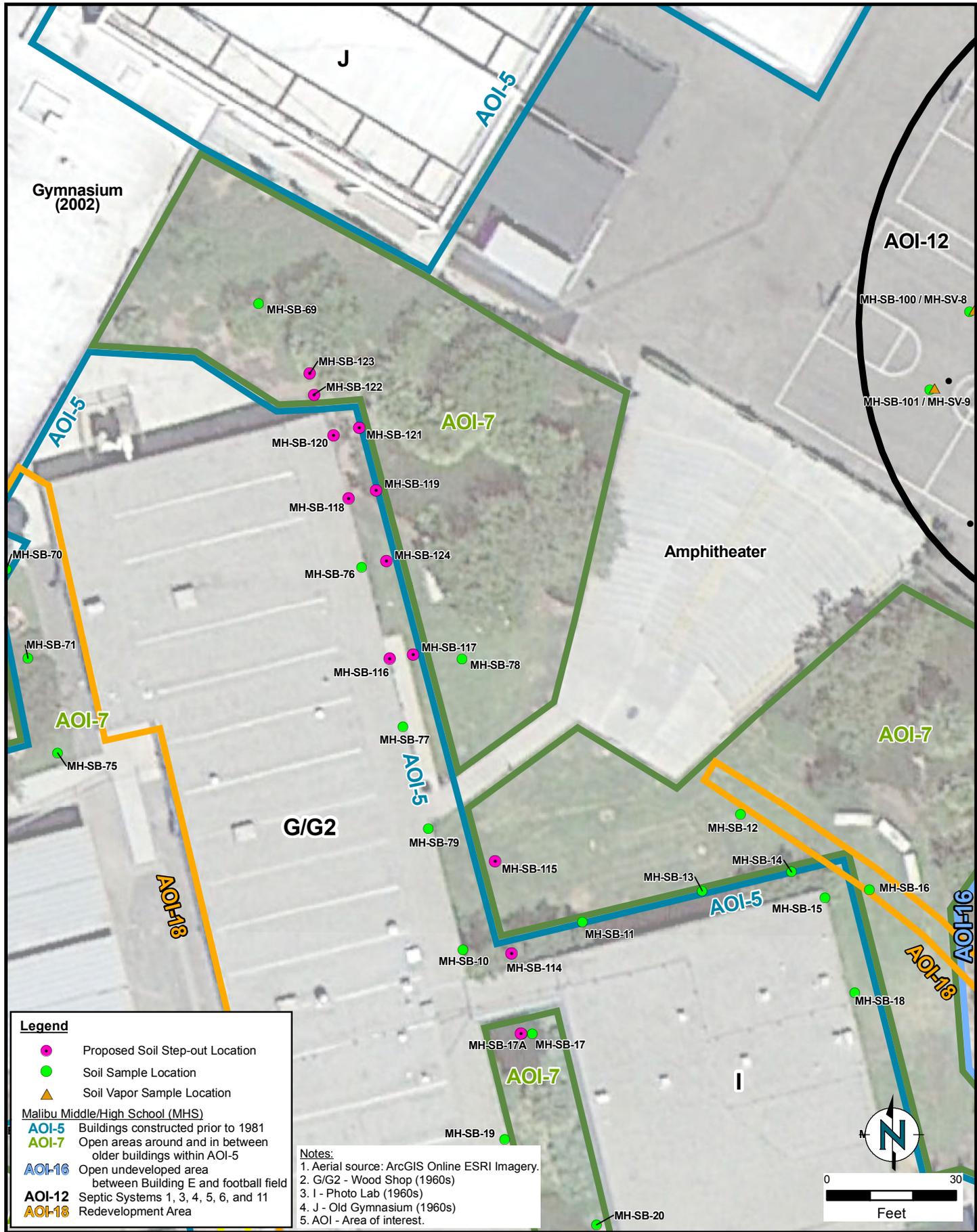
cc: Jan Maez, SMMUSD
Sandra Lyon, SMMUSD

Attachments

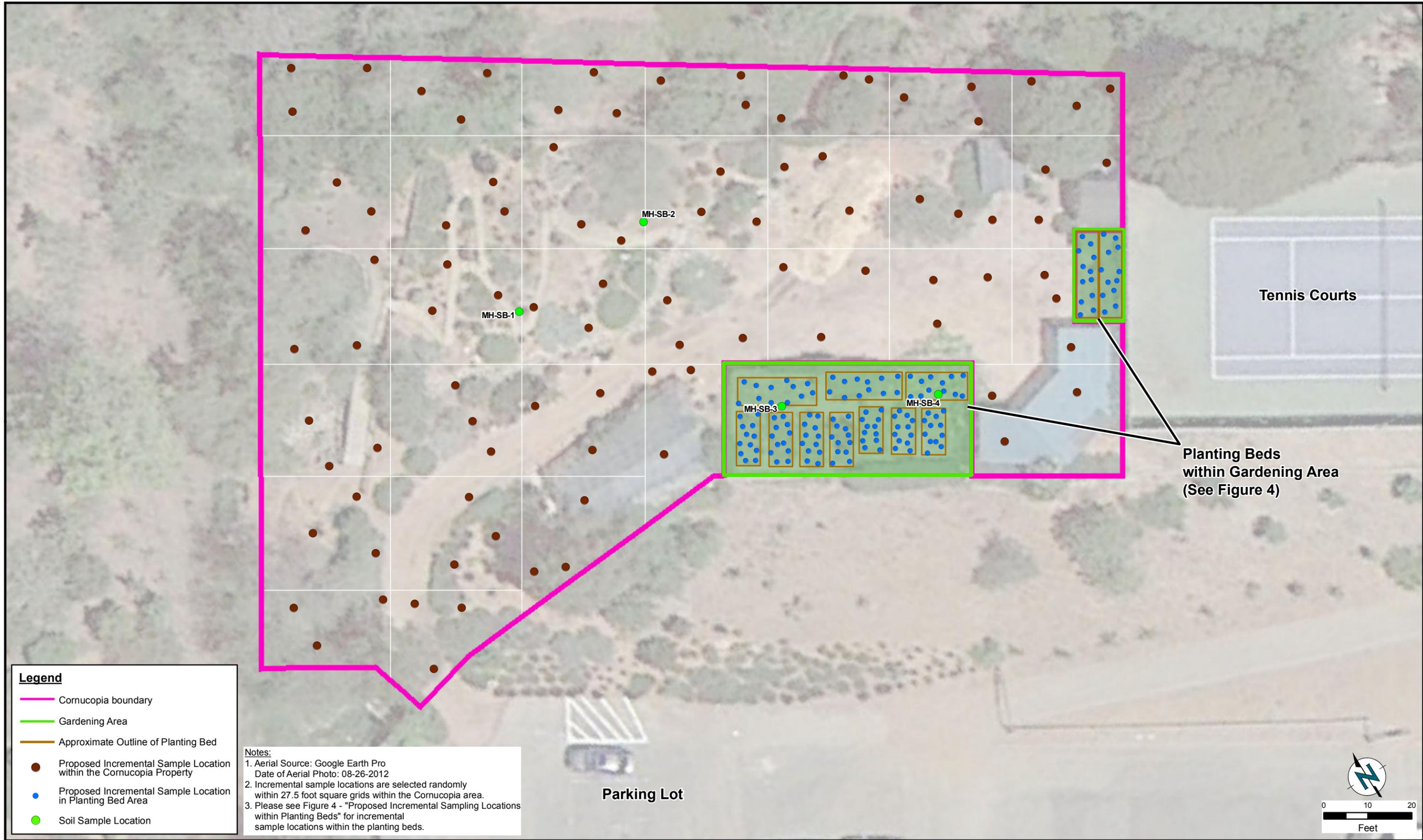
Figures



Path: Z:\01_Projects\Malibu High School\03_GIS\Sampling Conducted on MHS - 2014-08\Figure 1 - Malibu High School - Proposed Soil Step Out Locations - 20141003.mxd



Path: Z:\01_Projects\Malibu High School\GIS\Sampling Conducted on MHS - 2014-08\Figure 2 - Malibu High School - Soil Step Out Locations - 20141003.mxd



Legend

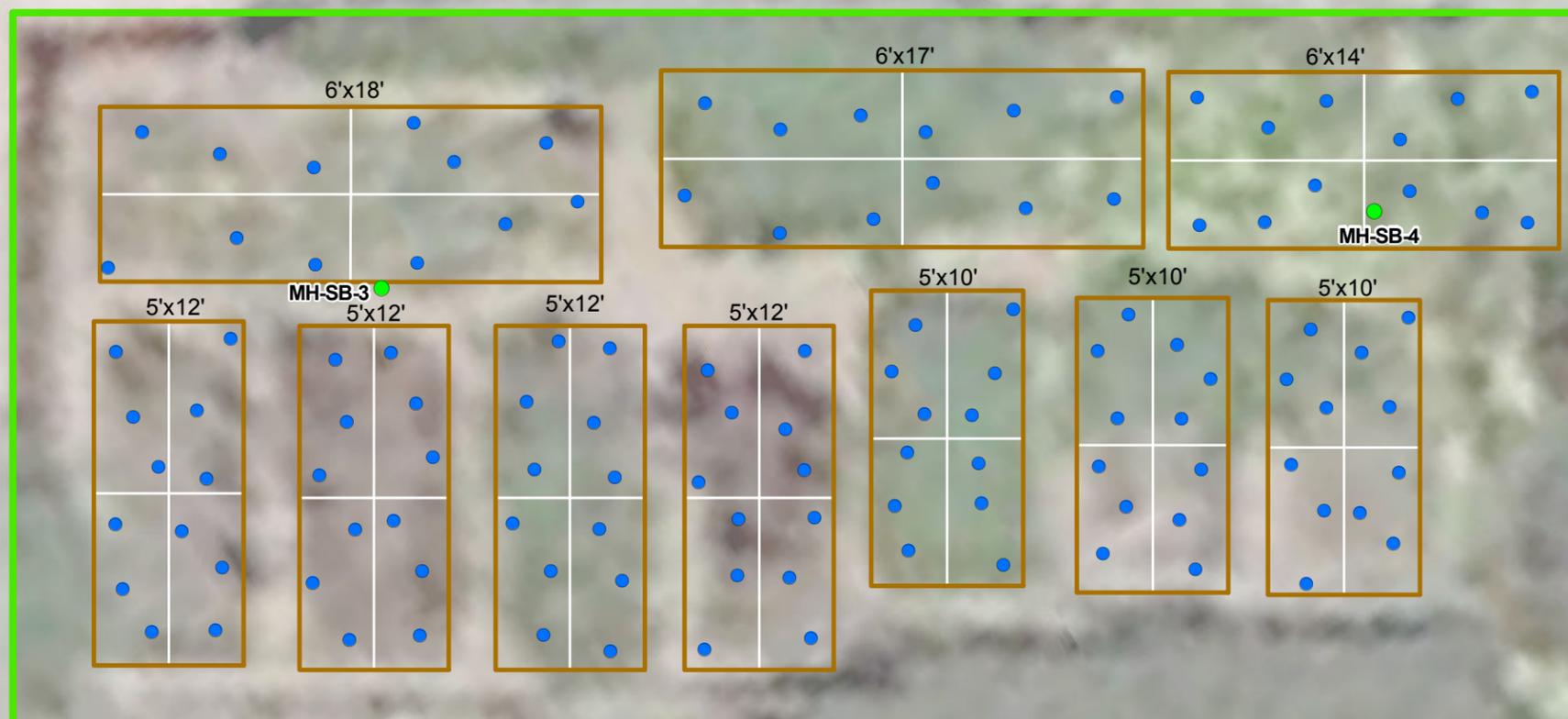
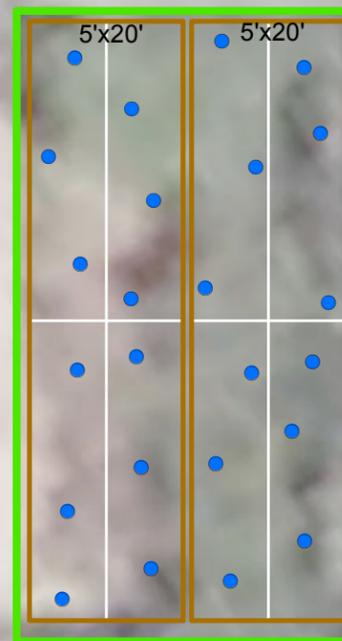
- Cornucopia boundary
- Gardening Area
- Approximate Outline of Planting Bed
- Proposed Incremental Sample Location within the Cornucopia Property
- Proposed Incremental Sample Location in Planting Bed Area
- Soil Sample Location

Notes:

1. Aerial Source: Google Earth Pro
Date of Aerial Photo: 08-26-2012
2. Incremental sample locations are selected randomly within 27.5 foot square grids within the Cornucopia area.
3. Please see Figure 4 - "Proposed Incremental Sampling Locations within Planting Beds" for incremental sample locations within the planting beds.

Path: Z:\01_Projects\Malibu High School\03_GIS\Cornucopia\Figure 3 - Proposed Incremental Sampling Locations on the Cornucopia Property - 20141003.mxd

Cornucopia Overview
(see Figure 3)



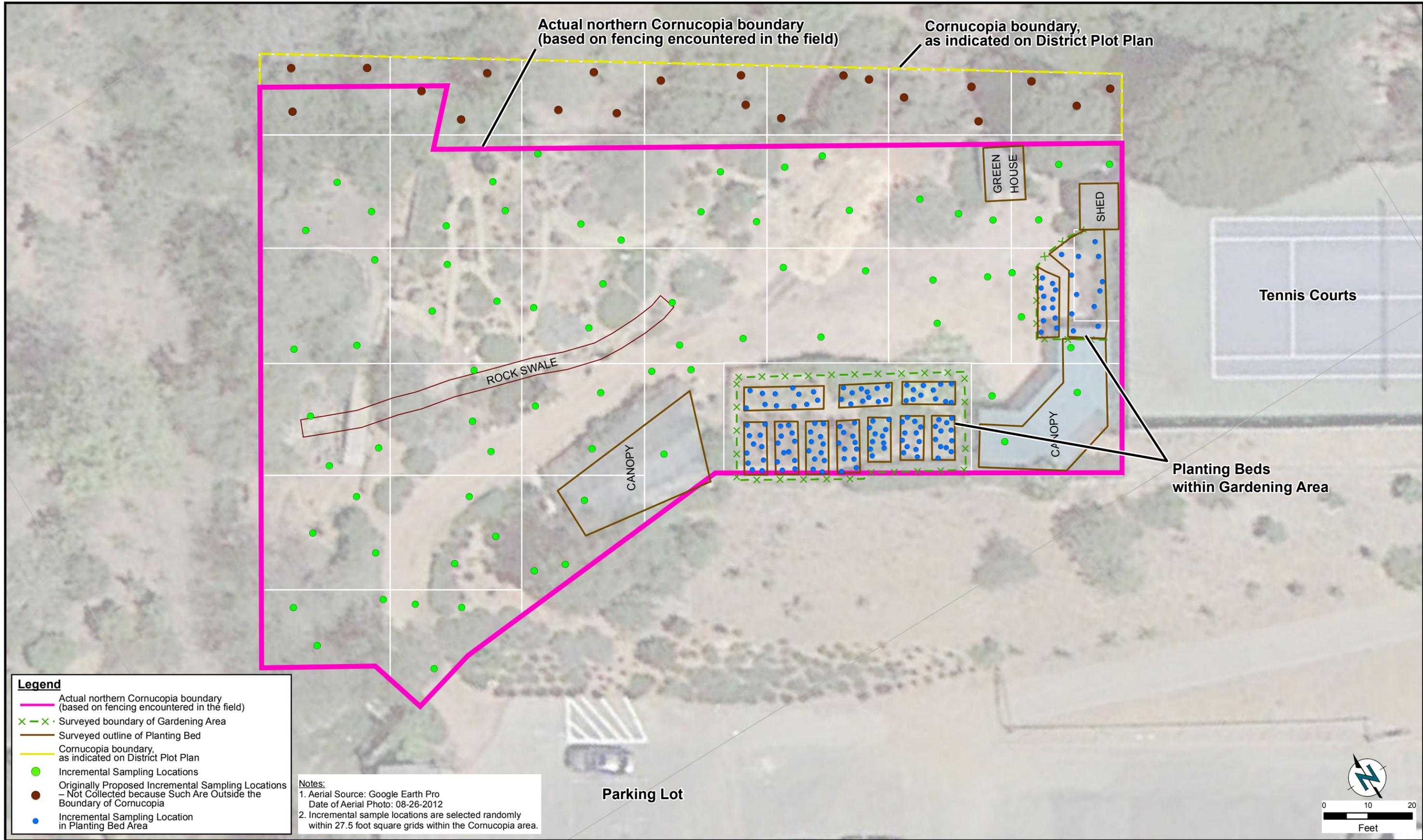
Notes:
 1. Aerial Source: Google Earth Pro
 Date of Aerial Photo: 08-26-2012
 2. Incremental sample locations are selected randomly within quarter sections of each of the 12 planting beds on the Cornucopia area.
 3. Please see Figure 3 - "Proposed Incremental Sampling Locations" for incremental sample locations placed within the Cornucopia area.



Legend

- Cornucopia boundary
- Gardening Area
- Approximate Outline of Planting Bed
- Proposed Incremental Sample Location in Planting Bed Area

Path: Z:\01_Projects\Malibu High School\03_GIS\Cornucopia\Figure 4 - Proposed Incremental Sampling Locations within the Planting Beds in the Cornucopia Property - 20141003.mxd



Actual northern Cornucopia boundary
(based on fencing encountered in the field)

Cornucopia boundary,
as indicated on District Plot Plan

GREEN
HOUSE

SHED

Tennis Courts

ROCK SWALE

CANOPY

CANOPY

Planting Beds
within Gardening Area

Parking Lot

Legend

- Actual northern Cornucopia boundary (based on fencing encountered in the field)
- - x - - Surveyed boundary of Gardening Area
- Surveyed outline of Planting Bed
- - - - - Cornucopia boundary, as indicated on District Plot Plan
- Incremental Sampling Locations
- Originally Proposed Incremental Sampling Locations - Not Collected because Such Are Outside the Boundary of Cornucopia
- Incremental Sampling Location in Planting Bed Area

Notes:
 1. Aerial Source: Google Earth Pro
 Date of Aerial Photo: 08-26-2012
 2. Incremental sample locations are selected randomly within 27.5 foot square grids within the Cornucopia area.

Incremental Sampling Locations

Malibu High School - Cornucopia
 30215 Morning View Drive, Malibu, California

Path: Z:\01_Projects\Malibu High School\03_GIS\Cornucopia\Figure 5 - Incremental Sampling Locations - 20141003.mxd