# OPERATIONS AND MAINTENANCE PLAN



## Vista Del Lago High School
## 1970 Broadstone Parkway
## Folsom, California

***PREPARED FOR:***

**FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT**
**1965 BIRKMONT DRIVE**
**RANCHO CORDOVA, CALIFORNIA 95742**

***PREPARED BY:***

**GEOCON CONSULTANTS, INC.**
**3160 GOLD VALLEY DRIVE, SUITE 800**
**RANCHO CORDOVA, CALIFORNIA 95742**

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**GEOCON PROJECT NO. S9460-06-01** **JULY 2014**

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GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S9460-06-01
July 3, 2014

Matt Washburn, Director of Facilities and Planning
Folsom Cordova Unified School District
1965 Birkmont Drive
Rancho Cordova, California 95742

Subject: OPERATIONS AND MAINTENANCE PLAN
VISTA DEL LAGO HIGH SCHOOL
1970 BROADSTONE PARKWAY
FOLSOM, CALIFORNIA

Dear Mr. Washburn:

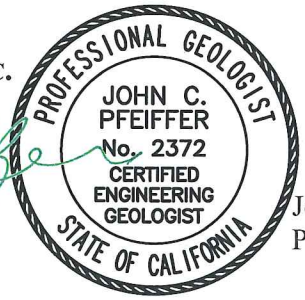
We have prepared this updated Operations and Maintenance Plan (O&M Plan) for the Vista Del Lago High School (the Site) located at 1970 Broadstone Parkway in Folsom, California. This O&M Plan has been prepared in conjunction with a required five-year review of mitigation measures that were implemented under California Department of Toxic Substances Control (DTSC) oversight to minimize potential future exposures to NOA-containing soil at the Site.

This O&M Plan specifies measures that will be taken for maintenance of engineering controls and implementation of best management practices for the Site, as required by DTSC. Folsom Cordova Unified School District has entered into a formal agreement with DTSC to assure that the necessary O&M measures are implemented and followed.

Please contact us if you have questions about this O&M Plan or if you need additional assistance.

Sincerely,

**GEOCON CONSULTANTS, INC.**




John C. Pfeiffer, PG, CEG
Senior Geologist

John E. Juhrend, PE, CEG
Principal/Senior Engineer

(1) Addressee
(1) DTSC, Mellan Songco
(1) FCUSD Maintenance and Operations, Jim Bonovich
(1) Vista del Lago High School, Ann Botsford

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# OPERATIONS AND MAINTENANCE PLAN

## 1.0 OPERATIONS AND MAINTENANCE OVERVIEW

### 1.1 Introduction

We have prepared this updated Operations and Maintenance Plan (O&M Plan) for the Folsom Cordova Unified School District (FCUSD) to document policies and procedures that will be followed to maintain the naturally occurring asbestos (NOA) mitigation measures installed at Vista del Lago High School (the Site) at 1970 Broadstone Parkway in Folsom, Sacramento County, California. The approximate location of the Site is shown on the Vicinity Map, Figure 1. An Assessor's Parcel Map including a legal description is in Appendix A.

This updated O&M Plan has been prepared in conjunction with a required five-year review of mitigation measures that were originally implemented under California Department of Toxic Substances Control (DTSC) oversight to minimize potential future exposures to NOA-containing soil at the Site. This O&M Plan has been prepared in accordance with DTSC's guidance document, *Operation and Maintenance (O&M) Plan Template, Naturally Occurring Asbestos Response Actions at Schools* (DTSC 2005). It presents the policies, procedures, and best management practices (BMPs) that will be followed by the FCUSD for long-term operation, maintenance, and monitoring of engineering controls and the management of NOA-containing soil at the Site.

Unacceptable concentrations of NOA were identified in soil at the Site. As a result, engineering controls in the form of caps were placed over the NOA-containing soil to create barriers, preventing or greatly reducing exposures. Long-term O&M activities are required to monitor and protect the caps. Accordingly, FCUSD and DTSC have entered into a formal agreement which requires the FCUSD to implement an O&M Plan under DTSC oversight. NOA-intrusive activities, as defined in Section 7, are prohibited at the Site unless conducted in accordance with applicable provisions of this O&M Plan.

An *Operations and Maintenance Plan for Naturally Occurring Asbestos (NOA) Removal Action* was implemented upon completion of mitigation measures in 2008. Response actions and long-term O&M activities will continue to be conducted under DTSC oversight, as required under the California Education Code (CEC), §17213.1 and §17213.2, and Health and Safety Code (H&SC), Division 20, Chapter 6.8, commencing with § 25300 et. seq. The original or a subsequent O&M Plan, as modified and/or approved by DTSC, will remain in effect until DTSC has released the school district in writing from the required O&M Plan, as specified in Section 10.3.

## 1.2 O&M Plan Goal and Objectives

The primary goal of the O&M Plan is to minimize NOA exposures and to protect the health of students, faculty, staff, O&M personnel, and visitors at the Site. In order to accomplish this goal, the O&M Plan addresses the following:

- Minimization of disturbances to potentially NOA-containing soil;
- A description of the mitigation methods implemented on the Site, including installed cap systems;
- The establishment of an inspection and monitoring program to identify areas of exposed NOA-containing soil or damaged cap systems, and the evaluation of ongoing remedy effectiveness;
- Provision for timely repair or replacement, as needed, to restore damaged cap systems;
- Training of O&M inspectors and other staff, as needed, in personal health and safety protection and proper methods for inspection and repair of cap systems;
- Providing for record-keeping of training, inspections and repairs, and reporting to DTSC; and
- Making the O&M Plan available for public review, with copies maintained at the Site and the FCUSD office.

## 1.3 Naturally Occurring Asbestos Hazard Summary

Asbestos is the common name for a series of naturally occurring iron-magnesium-silicate minerals. Six asbestos minerals are currently referenced in State regulations; see Title 22 California Code of Regulations (CCR), §66261.24(a)(2) and Appendix X to Chapter 11, Title 22, Division 4.5 CCR. These six minerals are classified in two different groups based on their mineralogical characteristics: a) the "serpentine" mineral group which contains the mineral chrysotile; and b) the amphibole asbestos minerals (amosite, crocidolite, actinolite, anthophyllite and tremolite). The six regulated forms of asbestos are considered hazardous and classified as known human carcinogens by State, Federal, and international agencies. As defined in Health & Safety Code §25316 and §25260 respectively, asbestos is both a hazardous substance and a hazardous material.

Human health effects of asbestos are dependent primarily upon exposure to airborne asbestos fibers, which can be inhaled deep into the lungs. Exposure to asbestos through inhalation can result in health impacts, including respiratory disease (asbestosis, a non–cancerous fibrosis of the lungs) and lung cancer (mesothelioma, cancer of the lung lining). Breathing of asbestos dust has been related to scarring of lung tissue (asbestosis). In addition, asbestos and tobacco smoke have a strong interactive synergism, which can produce a higher incidence of lung cancer than the sum of the agents independently. The longer a person is exposed to asbestos, and the greater the intensity of exposure, the greater the chances for development of health problems.

## 1.4 O&M Personnel Roles and Responsibilities

The FCUSD employs and designates the following key personnel associated with implementation of the O&M Plan at the Site: Project Coordinator; O&M Project Professional (consultant); and School Site Designee. The FCUSD will retain a qualified professional to conduct inspection training and a Competent Person (see Sections 4.2 and 7.4) to conduct asbestos awareness training. When necessary, the school district will employ qualified contractors who will follow the Standard Operating Procedures (SOPs) or a DTSC-approved revised SOP (as described in Section 7.3) to perform NOA-intrusive work impacting the installed cap systems at the Site. A matrix identifying O&M personnel roles and responsibilities is presented in Appendix B. The FCUSD will notify DTSC within 14 days of any changes in the names, addresses, or telephone numbers for the key O&M personnel.

### 1.4.1 Project Coordinator

Mr. Jim Bonovich, Director of Maintenance and Operations
Folsom Cordova Unified School District
11458 Elks Circle, Rancho Cordova, CA 95742
Office: 916.631.0501
Mobile: 916.870.0224
E-mail: jbonovic@fcusd.org

The responsibilities of the Project Coordinator are to:

- Implement the O&M Plan;
- Be familiar with site conditions and cap systems installed at the Site;
- Evaluate work orders to determine if work will be NOA-intrusive work;
- Oversee implementation of DTSC-approved SOPs for NOA-intrusive work and ensure identified repairs are completed on schedule;
- Receive and submit all notices, comments, documents, reports, approvals, decisions and other communications to and from DTSC on behalf of the FCUSD for the Site;
- Identify and oversee provisions of inspection training and asbestos awareness training and ensure that training is conducted within the designated time frames;
- Accompany the O&M Project Professional during annual inspections;
- Submit the O&M Plan and subsequent reports, including O&M Inspection Summary Reports, Five-Year Review Reports, and NOA-Intrusive Work Completion/Incident Reports;
- Ensure preservation of reports, forms, and records (e.g., O&M Inspection Summary Reports, completed inspection forms, training records); and
- Ensure that issues pertaining to O&M are brought to the attention of the FCUSD's Board as appropriate, including requests for ongoing appropriations of funds and notification in the event that exposures to onsite NOA-containing soil occur at the Site.

In the event of the absence of the Project Coordinator, his/her authority and responsibilities are delegated to the School Site Designee.

### 1.4.2 O&M Project Professional

John C. Pfeiffer, Senior Geologist
Professional Geologist No. 6984; Certified Engineering Geologist No. 2372
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800, Rancho Cordova, California 95742
Office: 916.852.9118
Mobile: 916.626.2387
E-Mail: pfeiffer@geoconinc.com
Pursuant to Business and Professions Code, Chapters 7 and 12.5, and CCR, Title 16, Chapters 5 and 29, the O&M Project Professional is a California-registered Professional Geologist with expertise in NOA investigation and remediation and is familiar with the O&M Plan and with the cap systems installed at the Site. To demonstrate expertise in NOA investigation and remediation, John Pfeiffer's resume is in Appendix C.

The responsibilities of the O&M Project Professional are to:

- Conduct annual inspections (including five-year reviews);
- Prepare and sign O&M Inspection and Summary Reports and Five-Year Review Reports;
- Other environmental professional work related to NOA matters at the Site; and
- Evaluate cap system performance, maintenance, and repair in coordination with the Project Coordinator.

In the event of the absence of the O&M Project Professional, his/her authority and responsibilities are delegated to John Juhrend, PE, CEG, Principal with Geocon Consultants, Inc.

### 1.4.3 School Site Designee

Ann Botsford, Vice Principal
Vista del Lago High School
1970 Broadstone Parkway, Folsom, CA 95630
Office: 916.294.2410
E-mail: abotsfor@fcusd.org

The responsibilities of the School Site Designee are to:

- Ensure that all school staff with O&M roles have received appropriate training and direction;
- Ensure that activities which may potentially disturb NOA-containing soils will not be conducted at the Site without the knowledge and approval of the Project Coordinator;
- Provide, as necessary, information to staff and parents concerning releases of NOA on the Site; and
- Ensure cap system performance, maintenance, and repair in coordination with the Project Coordinator.

## 1.5 O&M Cost Estimates

The estimated routine annual O&M costs in 2014 dollars are summarized in Table 1.

# 2.0 SITE DESCRIPTION

Vista del Lago High School consists of approximately 52 acres of land located at 1970 Broadstone Parkway in Folsom, California, latitude 38.66° north and longitude of 121.11° west. It is identified by Sacramento County Assessor's Parcel Number (APN) 072-117-124 and is owned by the FCUSD. The irregularly shaped property lies at the southeasterly corner of the intersection of Golf Links Drive and Broadstone Parkway. The Site is bounded by single-family residences and Caversham Way to the west and south, Broadstone Parkway to the north and east, and undeveloped City of Folsom-owned park-land to the southeast. A Parcel Map with a legal description of the Site is in Appendix A.

The Site is located in the western foothills of California's Sierra Nevada geomorphic province. The Sierra Nevada's western foothills are characterized by northwest-trending belts of metasedimentary, metavolcanic, and intrusive igneous rocks that have been sheared, deformed, and intruded during periods of tectonic and volcanic activity.

The site geology is mapped as Jurassic-age Copper Hill Volcanics, which are described as mostly mafic to andesitic pyroclastic rocks, metavolcanic rocks, lava, and pillow lava with subordinate felsic, porphyritic, and pyroclastic rocks (Loyd 1984, Wagner et al. 1987). The Copper Hill Volcanics are bounded to the east by the Bear Mountains Fault Zone and to the west by the Mormon Island Shear Zone.

Soils are derived from the underlying Copper Hill Volcanics, which is the result of continental accretion along an ancient subduction zone, now represented by the Bear Mountains Fault Zone to the east. Some of the rocks have been metamorphosed in varying degrees to amphibolite schist, a rock with a finely laminated texture resulting from pressure and heat and is dominated by amphibole minerals such as hornblende. Shearing associated with the Bear Mountains Fault Zone may have provided a pathway for fluids, causing hydrothermal alteration of the metavolcanic rocks and formation of asbestiform actinolite.

## 2.1 Previous Site Investigations and Mitigation

Pursuant to the requirements of CEC §17213.1, the FCUSD conducted a Phase I Environmental Site Assessment (Phase I) in 2003 and a Preliminary Endangerment Assessment (PEA) of the Site under DTSC oversight in 2004. As discussed in Section 2.0, review of geological maps for the Site during these studies revealed that the Site is underlain by the Jurassic-age Copper Hills Volcanics.

NOA results for 31 soil samples collected from the Site and analyzed by California Air Resources Board (CARB) Method 435 ranged from 0.24 to 5.99 percent actinolite asbestos structures. Five of the soil samples were additionally analyzed for NOA by the United States Environmental Protection Agency (USEPA) Bulk Method using transmission electron microscopy (TEM) as described in USEPA Method 600/R-93/116, and the results ranged from 0.10 to 2.07 percent actinolite by weight. The NOA sampling locations and analytical results are included on the Site Plan, Figure 2.

The analytical results suggested that NOA was evenly distributed across the Site and posed a potential threat to human health. Therefore, DTSC issued a determination that further action was required at the Site to mitigate the potential hazard posed by NOA-containing soils before the Site could be developed as a school. Pursuant to the requirements of CEC, §17213.1, and H&SC, Chapter 6.8 of Division 20, the FCUSD conducted mitigation activities for the Site in accordance with a 2005 DTSC-approved Removal Action Workplan (RAW). As part of the approval process for the RAW, DTSC prepared a Notice of Exemption (NOE) pursuant to the California Environmental Quality Act (CEQA), Public Resources Code §2100 et. seq.

The FCUSD conducted mitigation activities in accordance with the approved RAW under DTSC oversight, concurrent with school construction which began in June 2006 and was completed in April 2008. Mitigation activities at the Site included grading and capping native NOA-containing soil with imported non-NOA-containing fill material (cap) to prevent future exposure to NOA-containing soil.

## 2.2 Post Mitigation Site Conditions

The Site consists of an administration building, multipurpose building, two gymnasiums with a dance/wrestling room, a separate locker room building, joint-use library, three classroom buildings (one is a full two-story building and two are partial multistory buildings built into the hillside) and a pool/concessions building. The total building area is approximately 168,000 square feet. The buildings at the Site are labeled A, B, C, D, E, F, G, H, and J (Figure 2). None of the buildings at the Site were labeled “Building I” because the architect wanted to avoid any potential confusion between the letter “I” and the number “1”. Playfields include two softball fields, two baseball fields, track and field, soccer field and associated landscaping and parking.

Construction of the school was conducted in two phases, and Phase 1 was divided into seven sub-phases (Phase 1A through Phase 1G). DTSC authorized FCUSD to occupy Phases 1A (Main Campus Area), 1B (Northern Embankment), 1C (Southern and Western Embankments), 1E (Softball Fields), 1F (Football Field/Track), and 1G (Baseball Fields) in August 2007. Phase 1D (Soccer Field) was the last area of Phase 1 to be completed and was approved for occupancy by DTSC in November 2007. Phase 2 of the project consisted of the swimming pool area, Building J, Building F, and Building G and the two northwest parking lots (Parking Lots 1 and 2) and was completed and approved for occupancy by DTSC in April 2008.

DTSC approved the December 16, 2008, Final Removal Action Completion Report (RACR) (WKA, 2008) prepared for the site in a letter dated December 24, 2008. The Final RACR summarizes the site management and mitigation activities and presents the outcome of the objectives described in the Final RAW.

The cap system components are summarized in Table 2. A Site Plan that depicts the locations of various cap system components at the Site is presented on Figure 2. Cross-sections of the cap system components are presented on Figure 3.

# 3.0 SUMMARY OF ENGINEERING CONTROLS – CAP SYSTEMS

The remedy selected in the RAW was onsite containment of NOA-containing soil and construction of engineering controls in the form of "caps" placed over the NOA-containing soils to create barriers to prevent or greatly reduce exposures. Caps include placement of buildings or other barrier materials including concrete, asphalt, clean fill, or landscaping. Hardscape and landscape engineering cap systems utilized at the Site are presented in Table 2 and are described in sections 3.1 and 3.2 below. A complete set of as-built drawings is included on a compact disc (CD) in Appendix D.

## 3.1 Hardscape Cap Designs

Hardscape cap systems constructed across the Site consist of: building foundations, bus lanes, traffic aisles and fire lanes, parking stalls, tennis courts, hard courts, football field, track, heavy concrete paving, and concrete paving. Hardscape cap systems consist of multiple layers of differing materials but do not include geotextiles/warning barriers.

## 3.2 Landscape Cap Designs

Landscape cap systems at the Site consist of: playfields, planters, infield mix, and 2H:1V sloped areas. The planters and playfields have a geotextile/warning barrier covered by at least 12 inches of clean-fill and sod. The infield mix has 4 inches of infield mix over 8 inches of clean fill over a geotextile/warning barrier. These areas will be properly maintained, i.e., periodically replenished with additional clean fill and sod as necessary to ensure the geotextile/marker is adequately covered. The 2H:1V sloped areas (embankments) are covered by natural grasses over jute mesh netting. The sloped areas are also fenced with perimeter signage that reads:

Caution
Restricted Access
Authorized Personnel Only
For more information call:
(916) 355-1100.

## 3.3 Site Boundary Protection

Site boundary protection fencing was installed along the northern boundary of the Site between parking lot 2 and the offsite knoll to prevent students from walking across potential NOA-containing soil adjacent to the school. The site boundary perimeter fencing has restricted access signage with the same wording as the embankment perimeter signage described in Section 3.2.

# 4.0 TRAINING

This section describes the training program for school O&M personnel and specifies requirements for asbestos awareness training and O&M inspection requirements.

The Project Coordinator is responsible for identifying and overseeing the provision of asbestos awareness and asbestos O&M inspection training and ensuring training is conducted within the designated time frames. The Project Coordinator is also responsible for obtaining and filing the appropriate training records. See Section 8.6 for record keeping of asbestos O&M inspection training and asbestos awareness training.

## 4.1 Asbestos Awareness Training Requirements

In addition to the Project Coordinator, School Site Designee (Vice Principal), and individuals designated to conduct the cap inspections, asbestos awareness training is recommended for FCUSD maintenance and custodial staff (custodians, electricians, heating/air conditioning engineers, plumbers, etc.) who may come into contact with NOA-containing soil at the Site.

In accordance with CCR Title 8, Subchapter 4, *Construction Safety Orders*, § 1529(k)(9)(G), persons who may at any time be exposed to concentrations greater than the permissible exposure limit (PEL) of 0.1 fibers per cubic centimeter (in 8 hours) for asbestos must attend asbestos awareness training within 60 days of hire and must also attend annual refresher training.

The asbestos work class definitions and training requirements specified in Title 8 CCR, §I529 (b) and 1529(k) refer primarily to “asbestos” or “asbestos containing materials (ACM)” and do not specifically address NOA; however, asbestos awareness training for NOA O&M activities will be consistent (i.e., work-equivalent) with these standards. The regulatory requirements in summary form are presented in Appendix E. Asbestos training will be documented and placed in the O&M Inspection Summary Reports; see Section 8.6 for required documentation and record keeping. This training can be provided through “live” instruction or by use of video-taped training for asbestos awareness.

Training provided to O&M employees will be commensurate with the work class and shall include the following subjects:

- methods of recognizing NOA;
- school site NOA locations; and
- health effects associated with asbestos exposure.

Upon completion of training, O&M employees should have familiarity with appropriate hazard controls and work practices to avoid disturbing NOA and prevent NOA exposures (such as use of wet methods for dust suppression; protective clothing; dust and asbestos monitors; respirators; proper cleanup and disposal; decontamination of equipment and clothing; relationship between smoking, asbestos, and cancer).

Video-taped training may be an option as long as it meets the requirements presented in this section and in Appendix E including: 1) Information in the training video is site-specific, or is supplemented with site-specific information; 2) the students have an opportunity to ask questions of a knowledgeable person during the training (i.e., Competent Person who is familiar with the Site [see Section 4.2]); and 3) the training is evaluated and found to be effective and adequate (i.e., employees can demonstrate sufficient knowledge of subjects described above). This evaluation can be done by the Project Coordinator and/or the O&M Project Professional. Video-taped training will have to be up-to-date with any changes to the O&M Plan or engineering controls, and the training shall be documented and placed in the O&M Inspection Summary Reports (see Section 8.6). The use of video-taped training for new employees is not prohibited; however, there would be more of a burden on the District to demonstrate the effectiveness and adequacy of the training for such staff.

## 4.2 Asbestos Awareness Trainer Requirements

The school district will designate a Competent Person (§1529[b]) to carry out training requirements as described in §1529 (b) and (k) for O&M personnel. A "Competent Person" is one who:

- Is capable of identifying existing and predictable conditions in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees.
- Is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure.
- Has authority to take prompt corrective measures to eliminate such identified hazards.

The Competent Person may be an asbestos consultant, safety officer or technician familiar with sampling techniques and potentially asbestiform mineral formations; the Competent Person may utilize the assistance of the O&M Project Professional or other trained professionals as appropriate.

## 4.3 Asbestos O&M Inspection Training

The O&M Project Professional is the designated professional who will conduct Asbestos O&M inspection training. The curriculum for Asbestos O&M inspection training will include the following subjects:

- Overview of O&M Plan;
- Descriptions and locations of onsite remediation measures/engineering controls;
- Required inspection locations as designated on the Inspection Checklist (Appendix F);
- Recognition of deteriorated, eroded or damaged engineering controls;
- Inspection checklist completion (Appendix F);
- Standard Operating Procedures (Appendix G);
- Outlines of policies and procedures for intrusive O&M work (see Appendices G and H), maintenance and repairs, and documentation of repairs;

- Roles and responsibilities of O&M personnel; and
- Contact list of responsible persons.

New maintenance staff employees assigned to the Site will attend Asbestos O&M inspection training prior to performing inspections at the Site. Training for designated maintenance staff will meet applicable requirements of 40 Code of Federal Regulations (CFR) § 763.92(a)(I) [40 CFR Training Requirements for Asbestos Containing Materials in Schools] and Title 8 CCR § 1529(k)(9)(G), Training Requirements for Asbestos in Construction (see Appendix E). This asbestos training will be documented and placed in the O&M Inspection Summary Reports. See Section 8.6 for documentation requirements.

# 5.0 O&M INSPECTIONS

## 5.1 Periodic Inspections

At a minimum, periodic inspections of the engineering controls will be conducted on a quarterly basis and will be performed by FCUSD maintenance staff under the direction of the Project Coordinator and O&M Project Professional. To ensure that no control measures are overlooked, a checklist for the specific control measures and their locations must be completed for each inspection. Upon completion, the checklists will be reviewed by the Project Coordinator (see Appendix F, Inspection Checklist for NOA Engineering Controls).

FCUSD employees who are assigned to conduct O&M inspections will be responsible for identification of any required repairs and documentation of changes in site conditions or usage, descriptions of any onsite construction activities, or any other significant information relating to the effectiveness of the NOA engineering controls. Examples of such conditions include cracks in caps or sloped areas, soil movement, rivulets, run-on or run-off, worn grass areas, visible geotextile markers, and visible bare NOA-containing soils. Periodic inspection reports will be maintained at the Site and in the FCUSD administrative files. All inspection records will be available for DTSC and public review.

The Project Coordinator will be responsible for follow-up review to ensure that identified repairs are completed on schedule. Copies of periodic inspection reports will be included in the O&M Inspection Summary Reports and Five-Year Reviews submitted to DTSC.

The frequency of inspections may be modified on an annual basis, based on specific site conditions and DTSC's approval. Requests for modification of the inspection frequency may be submitted to DTSC or included in the O&M Inspection Summary Report, with justification for the request and a discussion of how the reduction in frequency will not compromise the effectiveness of the NOA engineering controls. An approved request can be implemented based on the last-performed periodic inspection. Any change in the inspection frequency needs to be discussed in the O&M Inspection Summary Report with copies of the request and approval letters. Periodic inspections conducted before summer break should be used to determine if and what NOA-intrusive maintenance/repairs can be performed during the summer break period to help reduce potential exposure of students and staff to NOA-containing soils.

## 5.2 Inspections for Unplanned Events

FCUSD employees will also conduct inspections of engineering controls and sloped areas during or immediately following significant unplanned events, such as fires, broken utility lines, floods and/or heavy rain (rainfall exceeding 0.46 inch in one hour), and strong seismic events (earthquakes generating onsite accelerations in excess of 0.2 g, with a duration of 10 seconds or more) where caps may be compromised and NOA-containing soils may be exposed.

The Project Coordinator will document inspections and required repairs or maintenance and incorporate such documents into the O&M Inspection Summary Report. The inspection checklist (Appendix F) will be used to help conduct an inspection of an unplanned event.

The Project Coordinator will notify DTSC of any failures, i.e., compromised integrity or possible NOA exposures, of the engineering controls resulting from unplanned events that are not repaired, following the SOPs, within 14 days of discovery; such notifications will include a proposed schedule for completion of required repairs and maintenance. Refer to Section 8.5 (Notification and Reporting of NOA-Intrusive Work) and Table 3 (Notice and Reporting Requirements for NOA-Intrusive Work) to aid in determining whether advance notification to DTSC is required and for requirements for reporting NOA-intrusive work.

## 5.3 Annual Inspections

The Project Coordinator will notify DTSC at least 14 days in advance of each annual inspection. The first annual inspection was conducted at the Site on March 23, 2009, and subsequent annual inspections are to be completed on or before April 1 of every year. Each Five-Year Review Report will include, as an appendix, a schedule for the next five years of O&M inspections, O&M Inspection Summary Reports, and the next Five-Year Review Report.

The NOA engineering controls will be inspected annually by an O&M Project Professional with experience in evaluating cover systems and, when appropriate, slope stability issues. The Project Coordinator and the maintenance staff (who perform the periodic inspections) will accompany the O&M Project Professional during the annual inspection. The purpose of this inspection is to identify and review completion of required repairs, changes in site conditions or usage, descriptions of onsite construction activities, or other significant information relating to the NOA engineering controls that may have taken place over the previous twelve months.

During inspections, items flagged for required maintenance will have a specified action date for completion of required repairs. The Project Coordinator is responsible for follow-up review to ensure that identified repairs are completed on schedule and will sign-off in the completion blocks of the inspection reports. The Project Coordinator will notify DTSC of any failures of the engineering controls that are not repaired following the SOPs within 14 days of discovery. Notifications will include a proposed schedule for completion of required repairs and maintenance.

O&M Inspection Summary Reports will be submitted to DTSC for review and approval within 60 days after completion of each annual inspection, in accordance with reporting and notice requirements specified in Sections 8.2 and 8.5.1 of this O&M Plan.

# 6.0 FIVE-YEAR REVIEW

Five-year reviews will be conducted to evaluate ongoing remedy effectiveness where hazardous materials, such as NOA, remain in place. The purpose of a five-year review is to determine whether the remedy:

a) remains protective of human health and the environment;
b) is functioning as designed; and
c) is maintained appropriately by O&M activities.

Each five-year review will be conducted by the Project Coordinator, the maintenance staff (who performs periodic inspections) and the O&M Professional, who will prepare and sign the Five-year Review Report to summarize his/her findings and conclusions. A NOA Five-year Review Report outline is in Appendix H.

A five-year review (inspection and report) is inclusive of the O&M inspection and O&M Inspection Summary Report for that year. A five-year review can be conducted any time before the required five-year schedule.

The Project Coordinator will notify DTSC at least 14 days in advance of each five-year review inspection. The first five-year review inspection was completed in March 2013, and all subsequent five-year inspections will be completed on or before April 1$^{st}$ of every fifth year. During the five-year review, the NOA engineering controls will be inspected by the O&M Project Professional. Project Coordinator and the maintenance staff in the same manner as during the annual inspections; see Section 5.3.

The schedule for the second five years of inspections and reports are presented in Appendix I. Each subsequent Five-Year Review Report will include, as an appendix, a schedule for the next five upcoming annual inspections, O&M Inspection Summary Reports, and the next Five-year Review Report.

The purpose of the fifth-year inspection is to identify/review completion of required repairs, changes in site conditions or usage, descriptions of onsite construction activities, and/or other significant information involving the NOA engineering controls during the previous five years. The fifth year inspections will include measurement of the thickness of clean fill material remaining over geotextile markers and NOA-containing soil.

During inspections, items flagged for required maintenance will have a specified action date for completion of required repairs. The Project Coordinator is responsible for follow-up review to confirm that identified repairs are completed on schedule, and will sign-off in the completion blocks of the inspection reports. The Project Coordinator will notify DTSC of any failure of the engineering controls that is not repaired following the SOPs within 14 days of discovery. The notifications will include a proposed schedule for completion of required repairs and maintenance.

The Five-Year Review Report will be submitted to DTSC for review and approval in accordance with reporting schedule specified in Appendix I. The FCUSD will perform additional NOA investigation, monitoring, and/or mitigation as required by DTSC based upon the findings of each Five-Year Review Report.

The community will be informed at the beginning of the five-year review, notified of the availability of the Five-Year Review Report, and solicited for input on the Five-Year Review Report. See Appendix J (Informing the Community of Five-Year Reviews) for requirements to inform the community of Five-Year Reviews.

# 7.0 INTRUSIVE WORK ACTIVITIES

O&M personnel will submit site construction and maintenance work order requests involving activities that may disturb onsite soils to the Project Coordinator. The Project Coordinator will provide a determination in writing of whether or not activities described in the work orders are considered "non-NOA-intrusive" or "NOA-intrusive." "NOA-intrusive" activities are prohibited at the Site unless conducted in accordance with applicable provisions of the O&M Plan. "NOA-intrusive" work includes any construction or maintenance activities that disturb potentially NOA-containing soils including: digging, drilling, excavating, grading, repairing, removing, trenching, filling, gardening, and other soil movement that may penetrate or otherwise compromise the caps in-place, thereby opening pathways for possible human exposures to NOA. If work is determined to be NOA-intrusive, the Project Coordinator will ensure that work practices are followed as specified in Sections 7.2, 7.3, and 7.4 of this O&M Plan. The Project Coordinator will provide advance notice of scheduled work to DTSC in accordance with provisions in Section 8.5 of this O&M Plan.

## 7.1 Non-NOA-Intrusive Work

Construction, repair, and/or maintenance activities at the Site are restricted by DTSC in accordance with the O&M Plan only when exposures to NOA-containing soils are reasonably anticipated or when releases occur. Notification to DTSC of construction, repairs, and maintenance activities is not required unless potentially NOA-containing soil is expected to be disturbed, or is inadvertently disturbed. "Non-NOA-intrusive work" is defined as including construction, repairs, and/or maintenance activities at the Site where exposure of NOA-containing soils is not anticipated and where the integrity of engineered controls, such as hardscaped or landscaped caps, is not compromised. Non-NOA-intrusive work includes work where the geotextile marker, if present, will not be penetrated or breached, even though work may be performed in upper layers of a cap system (e.g., clean fill). FCUSD policies require the following procedures be taken when conducting non-NOA-intrusive work at the Site:

- Project Coordinator will provide information regarding location of cap systems and soils containing NOA to selected contractors and O&M personnel to minimize likelihood of NOA intrusion;
- O&M Project Professional and/or O&M personnel will conduct inspections during construction and/or maintenance activities at the school site to ensure NOA-containing soil is not being disturbed;
- In the event that NOA-containing soil is inadvertently disturbed, the integrity of engineered controls is compromised, or a geotextile marker is breached, the Project Coordinator will be responsible for notifying DTSC and implementing the appropriate procedures in accordance with the provisions described in Section 7.2; and,
- Ensure all import materials to be used as part of the cap system be pre-approved by DTSC and/or tested following DTSC's current Clean Fill Advisory.

## 7.2 NOA-Intrusive Work

The following procedures are required by FCUSD when performing NOA-intrusive construction, repair or maintenance activities to: a) ensure that safeguards are in place to prevent or minimize NOA exposures to anyone at the Site; b) prevent untrained or unauthorized personnel from performing intrusive work in NOA areas; and c) restore the integrity of engineering controls (cap systems) in-place if impaired or compromised by such activities. The Project Coordinator will oversee the following procedures for all NOA-intrusive work performed by, or on behalf of, the FCUSD at the Site:

- Provide information regarding location of cap systems, cross-section construction details of cap systems, and locations of soil potentially containing NOA to contractors;
- Verify that contractors and their employees will comply with Federal and California State Occupational Safety and Health Administration (OSHA) requirements (see Appendix E);
- Require school district employees to follow established site-specific health and safety requirements (see Section 7.4) before starting NOA-intrusive work;
- Require that construction and maintenance work be performed under and in accordance with a DTSC-approved SOP (see Appendix G);
- Evaluate timelines and school and work schedules to ensure that NOA-intrusive work is completed as soon as possible to minimize exposure risks;
- Require reasonable restrictions to Site access to reduce exposures to non-workers;
- Implement dust control practices that utilize water;
- Manage NOA-containing or impacted soils brought to the surface in accordance with the SOPs (see Appendix G) and in compliance with applicable, relevant and appropriate provisions of State and Federal law;
- Comply with applicable, relevant and appropriate Federal, State, and local requirements, such as the California Air Resources Board (CARB) Final Regulation Order, Section 93105, *Asbestos Airborne Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations;* also Section 93106, *Asbestos Airborne Toxic Control Measure for Surfacing Applications*;
- Ensure import material to be used as part of the cap system be tested and pre-approved following DTSC's current Clean Fill Advisory; and
- Submit notice to DTSC in writing in advance of an onsite NOA-intrusive activity that is anticipated to exceed seven days in duration.

## 7.3 Standard Operating Procedures

NOA-intrusive construction or maintenance work activities will be conducted in accordance with the DTSC-approved SOPs (see Appendix G). Except in unplanned situations, advance notification to DTSC will be submitted in accordance with requirements found in Section 8.5.

The SOPs identify procedures to be followed for NOA-intrusive work, including:

- Stabilization of Site;
- Limitations on site access, as appropriate;
- NOA exposure monitoring of workers;
- Required notification to DTSC;
- Management of excavated soils, including dust control, soil segregation and disposal;
- Decontamination procedures for excavation equipment and workers;
- Geotextile marker, cap repair, or fill replacement procedures including temporary measures; and
- Testing and use of new cap system materials following DTSC's current Clean Fill Advisory.

If site conditions are not adequately addressed in the pre-approved SOPs, modification or revision of the SOPs may be required (e.g. if an SOP does not include adequate provisions for conducting air monitoring at fence lines or for use of a meteorological station). When such air monitoring is required pursuant to California OSHA or other regulatory requirements, such as CARB's ATCMs (see Section 7.4), a modified or new SOP detailing such procedures will be submitted in advance for DTSC's review.

## 7.4 Health and Safety Requirements

The FCUSD will designate a Competent Person (§1529[b]) to conduct an exposure assessment at the initiation of any construction operation (§1529[f][2][A]) to ascertain where airborne asbestos fibers may exceed the PELs (§1529[c]) during that operation. A "Competent Person" is one who:

- Is capable of identifying existing and predictable conditions in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees;
- Is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure; and
- Has authority to take prompt corrective measures to eliminate identified hazards.

The Competent Person may be an asbestos consultant, safety officer or technician familiar with sampling techniques and potentially asbestiform mineral formations. The Competent Person may utilize the assistance of the O&M Project Professional or other trained professionals as appropriate. Personnel performing NOA-intrusive activities specified in the O&M Plan will be responsible for operating in compliance with the most current requirements of:

- Title 8, CCR, §5192 (8 CCR 5192), General Industry and Construction Safety Orders;
- Title 8, CCR, § 1529 (8 CCR 1529), Asbestos, Construction Safety Orders Title 29, Code of Federal Regulations, §1910.120 (29 CFR 1910.120), "Standards for Hazardous Waste Operations and Emergency Response (HAZWOPER)";

- Title 29, Code of Federal Regulations, § 1926 (29 CFR 1926), Construction Industry Standards;
- Title 40, Code of Federal Regulations, § 763, Subpart E (40 CFR 763), Asbestos Containing Materials in Schools;
- CARB Section 93105 – *Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations*;
- CARB Section 93106 – *Asbestos Airborne Toxic Control Measure for Surfacing Applications* as applicable; and
- Other pertinent requirements (e.g., local ordinances, etc.).

Site-specific health and safety requirements will be identified for the Site under the supervision of a Certified Industrial Hygienist (CIH) in accordance with current health and safety standards as specified by the Federal and California OSHA agencies. These requirements will be addressed in a Health and Safety Plan (HSP) that identifies proposed NOA-intrusive work activities, and specifies site characteristics, current conditions, history, physical and chemical hazards, and methods of handling and controlling NOA so as to prevent or minimize exposures.

Personnel who perform NOA-intrusive work at the Site must follow these requirements. Contractors doing fieldwork in association with this O&M Plan will either adopt and abide by these site-specific requirements or develop their own HSPs, which, at a minimum, meet the site-specific requirements. A copy of the "Plan Acceptance Form" will be included in the HSP; onsite personnel will read the requirements and sign the "Plan Acceptance Form" before starting the specified NOA-intrusive work.

# 8.0 REPORTING AND RECORD-KEEPING

## 8.1 DTSC Reporting Requirements

The Project Coordinator will maintain records of training provided to O&M personnel, compile appropriate information, and develop and submit in a timely manner the following reports to DTSC:

- O&M Inspection Summary Reports;
- Completion reports for NOA-intrusive work; and
- Five-year Review Reports.

DTSC's database, EnviroStor, allows the public to view and download project related documents online. In order to facilitate this, a Portable Document Format (PDF) copy of the document must be provided to DTSC along with the hardcopy of the reports. Guidelines for submitting information to DTSC by PDF are provided in Appendix K.

## 8.2 O&M Inspection Summary Reports

O&M Inspection Summary Reports will provide a summary of the findings from periodic inspections, and will document completions, delays, or failures to repair any items identified as needing repairs. The O&M Inspection Summary Report will be signed by the O&M Project Professional and will be submitted to DTSC for review and approval in accordance with the inspection and reporting schedule in Appendix I. The schedule for the second five years of O&M Inspections and O&M Inspection Summary Reports is presented in Appendix I. Subsequent Five-Year Review Reports will include the upcoming inspection and report schedules. The format for the report is presented in the O&M Inspection Summary Report Outline in Appendix L. O&M Inspection Summary Reports will be included and maintained in files at the Site and at the FCUSD offices.

O&M Inspection Summary Reports will include the following:

- Copies and a summary of the periodic inspection checklists completed since preparation of the previous O&M Inspection Summary Report;
- Results of the annual visual inspection, measurements and an evaluation of the conditions and amounts of cap materials remaining over the geotextile marker/NOA-containing soil/rock, and if necessary, analytical sampling data and analyses;
- Description of actions taken since completion of the previous O&M annual inspection, including:
    - Repairs to the installed cap remedy that were identified and carried out;
    - Significant changes in site conditions or usage, e.g., paving, grading, utility trenching, playgrounds, or picnic areas; and
    - Additional onsite construction or other significant information that may relate to the installed cap remedy or that may have an impact on their function, e.g., installation of portable buildings or maintenance facilities.

- Copies of notifications and Completion Reports for any NOA-intrusive work (see Section 8) including emergencies, since the previous O&M annual inspection;
- Description of any maintenance or repairs identified as needed during the O&M annual inspection;
- Recommendations for O&M Plan modifications;
- Description of actions planned or expected to be undertaken before the next O&M annual inspection that will have an impact on the engineering controls in place;
- Recommendations concerning any repairs to the installed caps that are still needed;
- Photographs depicting site conditions with brief identifying captions or descriptions (e.g. "View looking east across the capped soccer field"). During the O&M inspection, the O&M Project Professional will take photographs for documentation as appropriate to demonstrate stability and/or failure of engineering controls;
- Conclusions regarding the ongoing effectiveness of the cap systems; and
- Documentation of additional NOA investigation, monitoring and/or mitigation activities required by DTSC.

The frequency of O&M Inspection Summary Reports may be modified based on specific site conditions and DTSC's approval. To do this, the Project Coordinator or the O&M Project Professional may send a request to DTSC with justification for the change and how the changed frequency will not affect the integrity of the NOA engineering controls. The District will still be responsible for following the O&M Plan. Any change in the reporting frequency needs to be discussed in the current O&M Inspection Summary Report with copies of the request and approval.

## 8.3 Completion Reports for NOA-Intrusive Work

Completion reports will be signed by the O&M Project Professional and submitted to DTSC within 60 days after completing:

- NOA-intrusive work requiring more than seven days from start to completion;
- NOA-intrusive work performed due to an unplanned event that is not repaired within 14 days after discovery; or
- NOA-intrusive work following a modified or new SOP.

The Completion Report should summarize the NOA-intrusive work and include the following information:

- Date work performed;
- Work location, with maps and figures;
- Work activities performed, including restoration of cap systems, where necessary;
- Work practices taken to prevent potential exposures;
- Variance or modifications (if any) of the approved SOPs; and
- Summary of finished site conditions.

The O&M Project Professional will incorporate the Completion Reports for NOA-intrusive work conducted during the year into the O&M Inspection Summary Report. The format for Completion Reports will follow the Completion Report outline in Appendix M. Certain types of NOA-intrusive work do not require the preparation of a formal Completion Report. Table 3 presents a matrix for Notice and Reporting Requirements for NOA-Intrusive Work.

## 8.4 Five-Year Review Reports

The Five-Year Review Report will follow the Five-Year Review Report Outline presented in Appendix H and will be used to summarize remedy effectiveness in the five-year period. The Report will identify incidents or problems with the cap systems and will evaluate system and component performance, effectiveness, and protectiveness. The report will provide a description of recommendations for O&M Plan modifications. The next five years of due dates for annual and five-year inspections and reports will be provided in an appendix within the Five-Year Review Report. The Five-Year Review Report will present conclusions and make recommendations for changes needed to maintain remedy protectiveness. Five-Year Review Reports will include the following components:

- Introduction;
- Site background;
- Physical setting;
- Site chronology;
- Removal actions;
- Five-year review process;
- Technical assessment;
- Issues;
- Conclusions;
- Recommendations; and
- Cost impacts.

The "Technical Assessment" component will include a summary of the previous four O&M Inspection Summary Reports and the issues identified in the annual O&M inspection. The report will also contain photographs depicting site conditions.

In addition to the information required in the O&M Inspection Summary Reports (see Section 8.2), the Five-Year Review Report will include a technical assessment and evaluation of the ongoing protectiveness of the remedy during the Five-Year Review. This evaluation will address the following questions:

- Is the remedy functioning as intended at the Site, as set forth by the remedy selection decision documents?
- Are the removal action objectives, goals, and criteria used at the time of the remedy selection still valid?

- Have there been any significant changes in the distribution or concentration of the subsurface NOA at the Site?
- Has other information come to light that could call into question the protectiveness of the remedy?
- Are any modifications needed to make the O&M Plan more effective?

Five-Year Review Reports will be submitted to DTSC for review and approval in accordance with the inspection and reporting schedule in Appendix I. Five-Year Review Reports will be maintained in files at the Site and FCUSD offices, in accordance with Section 8.6 of the O&M Plan. A five-year review (inspection and reports) is inclusive of the O&M inspection and O&M Inspection Summary Report. A five-year review can be conducted any time before the required five-year schedule. Completion of the five-year review starts the next five-year review period.

At a minimum, the community will be notified that the five-year review will be conducted and when the five-year review process is complete. Appendix J (Informing the Community of Five-year Reviews) includes information that should be provided to the community for the five-year review.

## 8.5 Notification and Reporting of NOA-Intrusive Work

Activities that disturb NOA-containing soils are restricted by DTSC in accordance with the approved O&M Plan. The Project Coordinator or O&M Project Professional will submit notice to DTSC in writing in advance of an onsite NOA-intrusive activity that is anticipated to exceed seven days in duration. NOA-intrusive work is work where cap systems or geotextile markers may be breached or otherwise compromised or NOA-containing soil on the Site will be disturbed during the course of construction, repair or maintenance activities. NOA-intrusive work activities will be conducted in accordance with a DTSC-approved SOP (see Appendix G); 30-day advance notification to DTSC is required if the pre-approved SOP is modified or substantially rewritten. Table 3 provides a summary of the Notice and Reporting Requirements for NOA-intrusive Work.

### 8.5.1 Notification Timeframes

Notification to DTSC is *not required* for the following activities at the Site:

- Work (whether or not intrusive) that is not anticipated to disturb NOA-containing soils; or
- The projected NOA-intrusive work duration is less than seven days from start to completion, and will follow the SOP.

Notification to DTSC by the Project Coordinator or O&M Project Professional *is required* for the following activities:

- Notify DTSC 14 days in advance if the activities are for NOA-intrusive work, are anticipated to exceed seven days in duration from start to completion, and will follow the SOPs.
- Notify DTSC at least 14 days in advance if the activities are for NOA-intrusive work and will follow a modified SOP. DTSC's approval of the modified SOP will be obtained prior to implementation of work.

- Notify DTSC at least 30 days in advance if the activities are for NOA-intrusive work and will follow a new SOP. DTSC's approval of the new SOP will be obtained prior to implementation of work.
- Notify DTSC of unplanned events (e.g., broken sewer line) if not repaired within 14 days; submit a Completion Report within 60 days after completion of work.

### 8.5.2 Electronic Mail Notice Format

Written communication to DTSC may be submitted via e-mail. A sample e-mail notification to the DTSC project manager and unit supervisor might read as follows:

> *"The Folsom Cordova Unified School District plans to perform maintenance at Vista del Lago High School at 1970 Broadstone Parkway in Folsom on the softball field (see attached figure showing the location) to repair one broken sprinkler head and add one new sprinkler head. As noted on the figure, NOA-BMPs/engineering controls in the work area are [description of the BMPs/engineering controls in place] over NOA-containing soil. We need to [description of how the BMPs/engineering controls will be affected] and will disturb [quantity and description of material being disturbed]. The action is proposed for [start date] and will be completed on [end date]. The [description of BMP/engineering control] will be restored by [brief description of restoration plan.] We will follow the SOP provided in the [name and date of O&M Plan approved by DTSC]. If you have any questions or would like to visit during the activity, please contact [name and address of Project Coordinator] and/or [O&M Project Professional and contact telephone numbers]*

Table 3 (Notice and Reporting Requirements) summarizes the notification and reporting requirements for NOA-intrusive work.

## 8.6 Record Keeping and Preservation

Documentation and records (e.g., data, training, reports, and other documents) prepared under the O&M Plan will be maintained in chronological order by the Project Coordinator at the Site and in the FCUSD administrative offices. The records will be available for inspection upon request by the public and DTSC representatives. The records will include:

- Periodic inspection checklists, O&M Inspection Summary Reports, Five-Year Review Reports, Notifications to DTSC, Completion Reports for NOA-intrusive work, and photographs associated with the checklists and reports;
- Records of training for asbestos awareness and NOA inspections. NOA training sessions will be logged and recorded for the administrative record and documented in the O&M Inspection Summary Report submitted to DTSC. At a minimum, the log will identify the name of the company providing the training, instructor's name and title and qualifications, names and signatures of staff persons attending training, with staff job title, and date(s) of training;
- Records of personal air monitoring and perimeter air sampling for asbestos concentrations during construction and maintenance work activities (if required);

- Records of public inquiries for information about NOA at the Site; and
- Investigation and remediation documents, e.g., PEA, RAW, Removal Action Completion Report, O&M Agreement and Plan, including surveys, photographs, design specifications and as-built drawings, and appendices.

Records will be preserved by the Project Coordinator for a minimum of six years after the conclusion of each relevant activity. The Project Coordinator will notify DTSC in writing at least six months prior to destroying any documents prepared pursuant to the O&M Plan. If any litigation, claim, negotiation, audit or other action involving the records has been initiated before the six-year period, the related records shall be retained until the completion and resolution of the issues. If requested by DTSC, the Project Coordinator will make requested documents available for review or copy.

Because of the potential volume of paper that could be generated or stored, the Project Coordinator may elect to maintain paper copies of the previous 12 months reports and the latest Five-year Review Report, if applicable, and keep the rest as electronic files (e.g., in PDF format).

DTSC's Administrative Record for the Site is available for public inspection during office hours at the following DTSC location:

Schools Unit
Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
8800 Cal Center Drive, Sacramento, CA 95826
Attention: Mellan Songco, Project Manager
Office: 916.255.6527
Facsimile: 916.255.3734
E-mail: mellan.songco@dtsc.ca.gov

## 9.0 SITE ACCESS

Upon request, access to the Site will be arranged and provided by the Project Coordinator at all reasonable times to employees, authorized contractors, DTSC and consultants of DTSC.

# 10.0 VARIANCE, MODIFICATION OR TERMINATION OF O&M PLAN

The Project Coordinator may seek variance, modification, and/or termination of the O&M Plan at any time during the life cycle of the cap remedy. The Project Coordinator shall submit a written request for DTSC's authorization for any modification or discontinuation of the Remediation System or any part thereof at least 60 days, to the extent feasible, prior to the intended date of the proposed modification or discontinuation. "Variance" refers to the possible release from specific individual O&M Plan requirements for a limited time period, while "modification" refers to permanent revision of specific individual O&M Plan requirements. DTSC may allow variance, modification or termination of the O&M Plan if DTSC determines that:

- Such variance, modification or termination is protective of public health and safety and the environment; or
- It is neither feasible nor appropriate to continue the O&M Plan as a component of the remedy selected for the Site.

## 10.1 O&M Plan Variance

The Project Coordinator may apply to DTSC for a written variance from the provisions of the O&M Plan. DTSC will evaluate each request and will grant a variance request only after determining that such a request would be protective of human health and the environment.

## 10.2 O&M Plan Modifications

When long-term performance of the selected cap remedies has been confirmed, the Project Coordinator may apply to DTSC to modify the requirements of the O&M Plan based on site-specific monitoring results and conditions. Additionally, DTSC reserves the right to independently initiate appropriate O&M Plan modifications. As a result, DTSC may require the following O&M Plan modifications:

- Changes in the frequency of O&M activities;
- Modification, replacement, or addition of components to the O&M Plan if O&M activities fail to achieve the O&M objectives of protecting public health, safety and the environment; or
- Evaluation, design, construction, and/or operation of additional remedial measures to achieve the O&M objectives.

## 10.3 Discontinuation of O&M Plan

Based on review of a Five-Year Review Report or a subsequent O&M Inspection Summary Report, DTSC may determine that O&M activities are no longer necessary to maintain the cap on the Site. O&M activities may be terminated if conditions on the Site meet either of the following performance criteria:

- Availability of new scientific information resulting in changes or modifications to DTSC's technical criteria for evaluating unacceptable risk levels of NOA concentrations in soils; or
- Change in land use, where the Site is no longer used as an educational facility.

As required by H&SC §25359.7, prior to the sale, lease or sublease of the Site, or any portion thereof, the Project Coordinator will provide the buyer, lessee, or sub-lessee with notice that NOA-containing soils are located on or beneath the Site, of the existing remediation system at the Site, and the O&M obligations to assure the safety of the Site occupants. In addition, the Project Coordinator will notify DTSC in writing within 30 days after any change of lease, sublease or ownership interest of the Site.

DTSC will notify the Project Coordinator in writing when continued O&M activities for the cap remedies are no longer required. Because caps are not anticipated to have any adverse impacts on building foundation systems or other components, removal and/or decommissioning of the caps following termination of the O&M activities will not be required by DTSC.

## 11.0 LIMITATIONS

This O&M Plan has been prepared solely for the FCUSD in consideration of the FUSCD's requirements. Other parties may rely on the findings and conclusions of the O&M Plan for informational purposes only. However, the FCUSD and other parties who may rely on the findings and conclusions of the O&M Plan should recognize that this O&M Plan does not constitute a complete set of as-built construction plans or specifications and should not be construed as such. The recommendations as presented in this O&M Plan are predicated on the construction of the NOA exposure mitigation measures described herein. In addition, the recommendations made are not intended to address potential impacts related to sources of potentially hazardous materials other than NOA as specified herein.

The information contained herein is only valid as of the date of the O&M Plan and would require an update to reflect additional site activities. Therefore, the O&M Plan should only be deemed conclusive with respect to the information presented. No guarantee of the results of the study used to generate the O&M Plan is implied within the intent of this O&M Plan or any subsequent report, correspondence or consultation, either express or implied. The services performed were conducted in accordance with the local standard of care in the geographic region at the time the services were rendered.

## 12.0 REFERENCES


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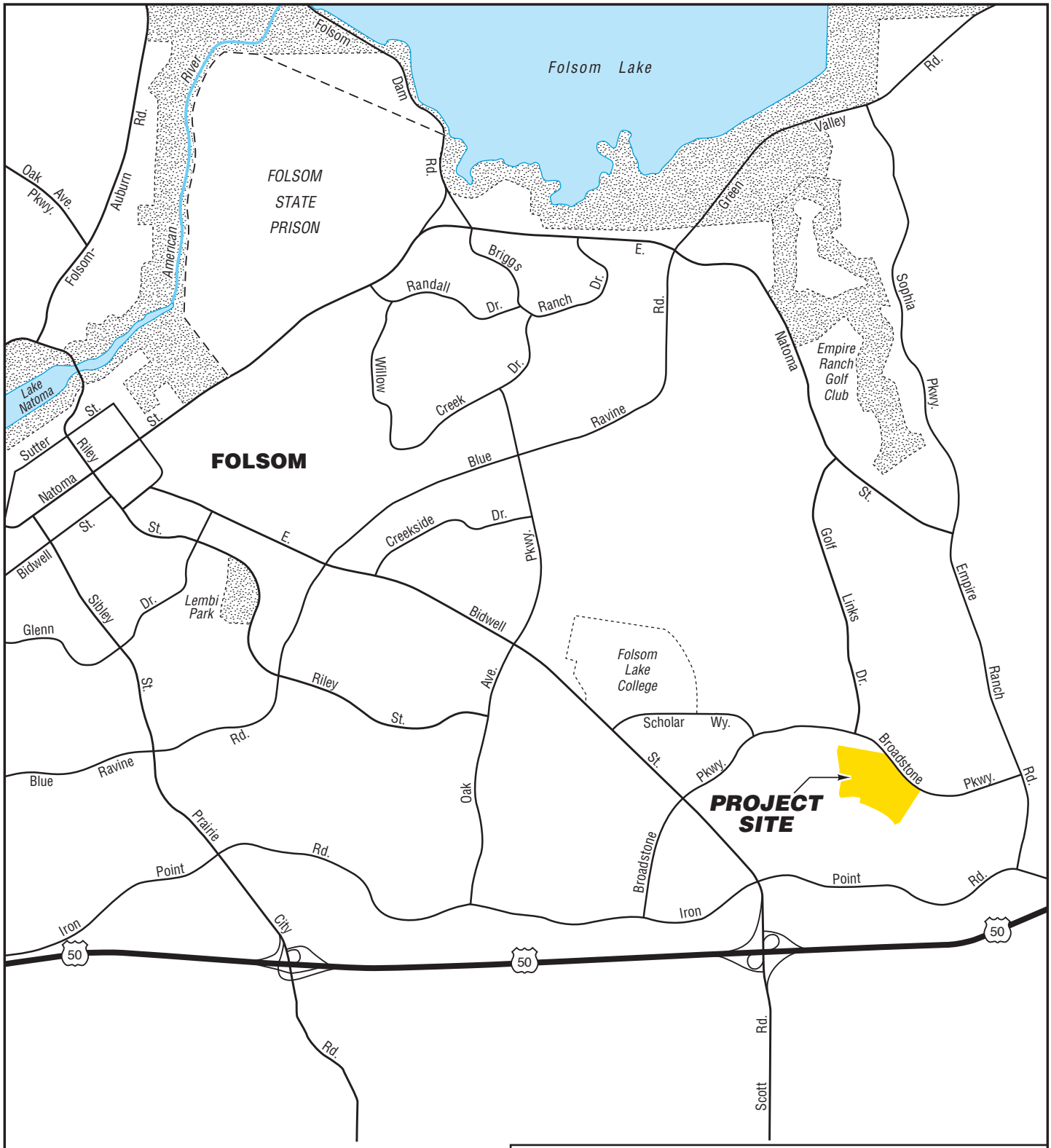
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WKA, 2008, *Final RACR, Vista Del Lago High School Site, Folsom, California*, December 16, 2008.




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Vista del Lago High School

Folsom,
California

**VICINITY MAP**

| S9460-06-01 | July 2014 | Figure 1 |
|---|---|---|




## LEGEND:

**BUILDING FOUNDATIONS**
4 INCHES OF CONCRETE OVER
6 INCHES OF ¾ INCH CRUSHED ROCK

**BUS LANES**
3 INCHES OF ASPHALT CONCRETE OVER
11 INCHES OF AGGREGATE BASE

**TRAFFIC AISLES & FIRE LANE**
3 INCHES OF ASPHALT CONCRETE OVER
8 INCHES OF AGGREGATE BASE

**PARKING STALLS**
3 INCHES OF ASPHALT CONCRETE OVER
4 INCHES OF AGGREGATE BASE

**TENNIS COURTS**
¾ INCH TENNIS COURT SURFACING
2½ INCHES OF ASPHALT CONCRETE OVER
5½ INCHES OF AGGREGATE BASE

**HARD COURTS**
2½ INCHES ASPHALT CONCRETE OVER
4 INCHES AGGREGATE BASE

**FOOTBALL FIELD**
2 INCHES RUBBER/TURF SURFACING OVER
6 INCHES OF COMPACTED DRAIN ROCK OVER
GEOTEXTILE FABRIC

**TRACK**
½ INCH RESILIENT SURFACE POLYURETHANE/RUBBER OVER
2 INCHES OF ASPHALT CONCRETE OVER
6 INCHES OF AGGREGATE BASE

**HEAVY CONCRETE PAVING**
6 INCHES PORTLAND CEMENT CONCRETE WITH
#4 REBAR 18 INCHES ON-CENTER, EACH WAY OVER
6 INCHES OF AGGREGATE BASE

**CONCRETE PAVING**
4 INCHES PORTLAND CEMENT CONCRETE OVER
6 INCHES OF FILL

**2H:1V SLOPES**
NATURAL GRASSES OVER
JUTE MESH
FENCED PERIMETER WITH SIGNAGE

**PLANTERS & PLAY FIELD**
12 TO 18 INCHES CLEAN FILL OVER WARNING BARRIER

**INFIELD MIX**
4 INCHES OF INFIELD MIX (IM) OVER
8 INCHES OF CLEAN FILL (CF) OVER WARNING BARRIER

**SITE BOUNDARY**

Adapted from a Composite Paving Plan prepared by
Warren Consulting Engineers, Inc., dated September 28, 2004.

LEGEND:

- TP1 — Approximate Test Pit Location (WKA, 6/04)
- HS1 ⊗ — Approximate Surface Sample Location (WKA, 6/04)
- 1.73 — % NOA by PLM (Polarized Light Microscopy)

N

0 125 250

SCALE IN FEET

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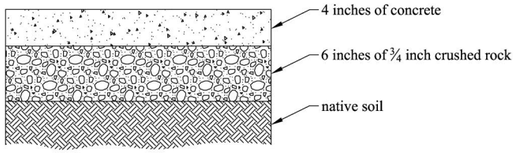
Vista del Lago High School

Folsom,
California

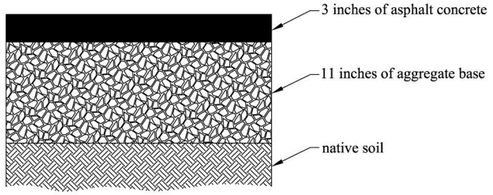
**Site Plan**

| S9460-06-01 | July 2014 | Figure 2 |
|---|---|---|

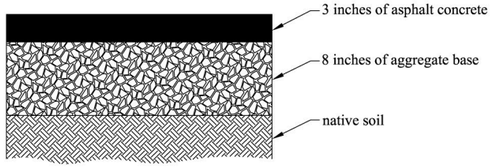
**Building Foundations**



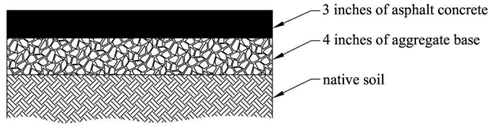

**Bus Lanes**



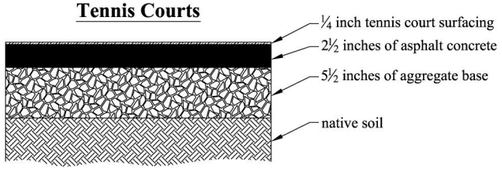

**Traffic Aisles & Fire Lane**



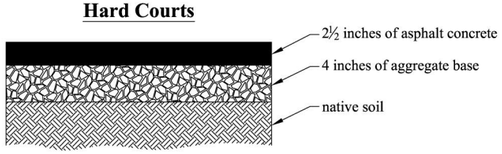

**Parking Stalls**



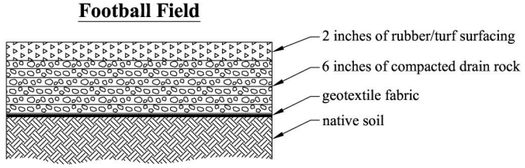

**Tennis Courts**



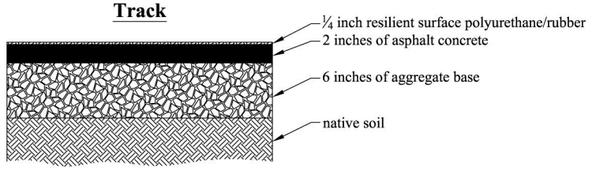

**Hard Courts**



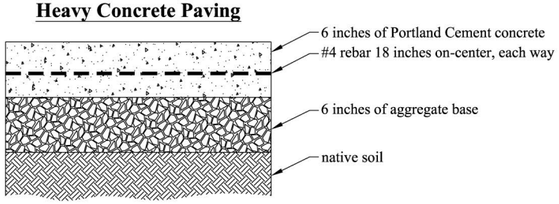

**Football Field**



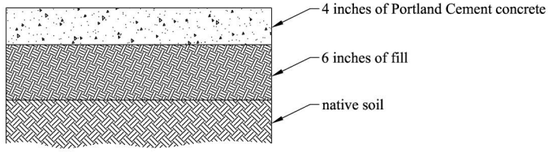

**Track**



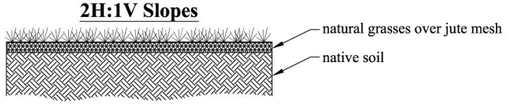

**Heavy Concrete Paving**



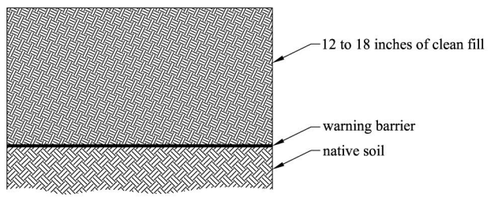

**Concrete Paving**



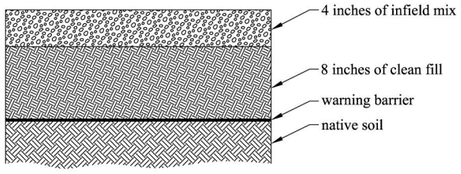

**2H:1V Slopes**




**Planters & Playfield**




**Infield Mix**




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**Cross-Sections Of Cap System Components**

S9460-06-01 | July 2014 | Figure 3

TABLE 1
ESTIMATED ROUTINE ANNUAL O&M COSTS
VISTA DEL LAGO HIGH SCHOOL
FOLSOM, CALIFORNIA

| WORK FEATURE | ITEM | QUANTITY | UNITS | COST/UNIT | ITEM COST |
|---|---|---|---|---|---|
| Operation and Maintenance (Per Year) | | | | | |
| | Training | 1 | Estimated Total | $ 1,000.00 | $ 1,000.00 |
| | Inspection | 52 | Weeks | $ 50.00 | $ 2,600.00 |
| | BMP Maintenance | 1 | Estimated Total | $ 5,000.00 | $ 5,000.00 |
| | Reporting | 1 | Estimated Total | $ 3,250.00 | $ 3,250.00 |
| | Engineering Oversight | 1 | Estimated Total | $ 1,000.00 | $ 1,000.00 |
| | DTSC Oversight | 1 | Estimated Total | $ 4,000.00 | $ 4,000.00 |
| | | | **TOTAL ESTIMATED ANNUAL O&M COSTS** | | **$ 16,850.00** |

TABLE 2
SUMMARY OF CAP SYSTEM COMPONENTS
VISTA DEL LAGO HIGH SCHOOL
FOLSOM, CALIFORNIA

| | Area | Activity Level | Capping Material | Warning Barrier/ Geotextile Fabric | Minimum Cap Thickness |
|---|---|---|---|---|---|
| **Hardscape Systems** | Building Foundations | Low | Concrete over aggregate base | No | 10 inches |
| | Bus Lanes | High | Asphalt over aggregate base | No | 14 inches |
| | Traffic Aisles and Fire Lane | Moderate to High | Asphalt over aggregate base | No | 11 inches |
| | Parking Stalls | High | Asphalt over aggregate base | No | 7 inches |
| | Tennis Courts | High | Court surfacing and asphalt over aggregate base | No | 8.25 inches |
| | Hard Courts | High | Asphalt over aggregate base | No | 6.5 inches |
| | Football Field | High | Rubber/turf surfacing over drain rock | Yes | 8 inches |
| | Track | High | Polyurethane/rubber and asphalt over aggregate base | No | 8.25 inches |
| | Heavy Concrete Paving | Moderate to High | Concrete and rebar over aggregate base | No | 12 inches |
| | Concrete Paving | High | Concrete | No | 4 inches |
| **Softscape Systems** | 2H/1V Slopes | Low | Grass and jute mesh | No | n/a |
| | Planters and Playfields | Low | Clean fill | Yes | 12 to 18 inches |
| | Infield Mix | Moderate to High | Infield mix over clean fill | Yes | 12 inches |
| **Fence Systems** | Boundary Fence | n/a | n/a | n/a | n/a |

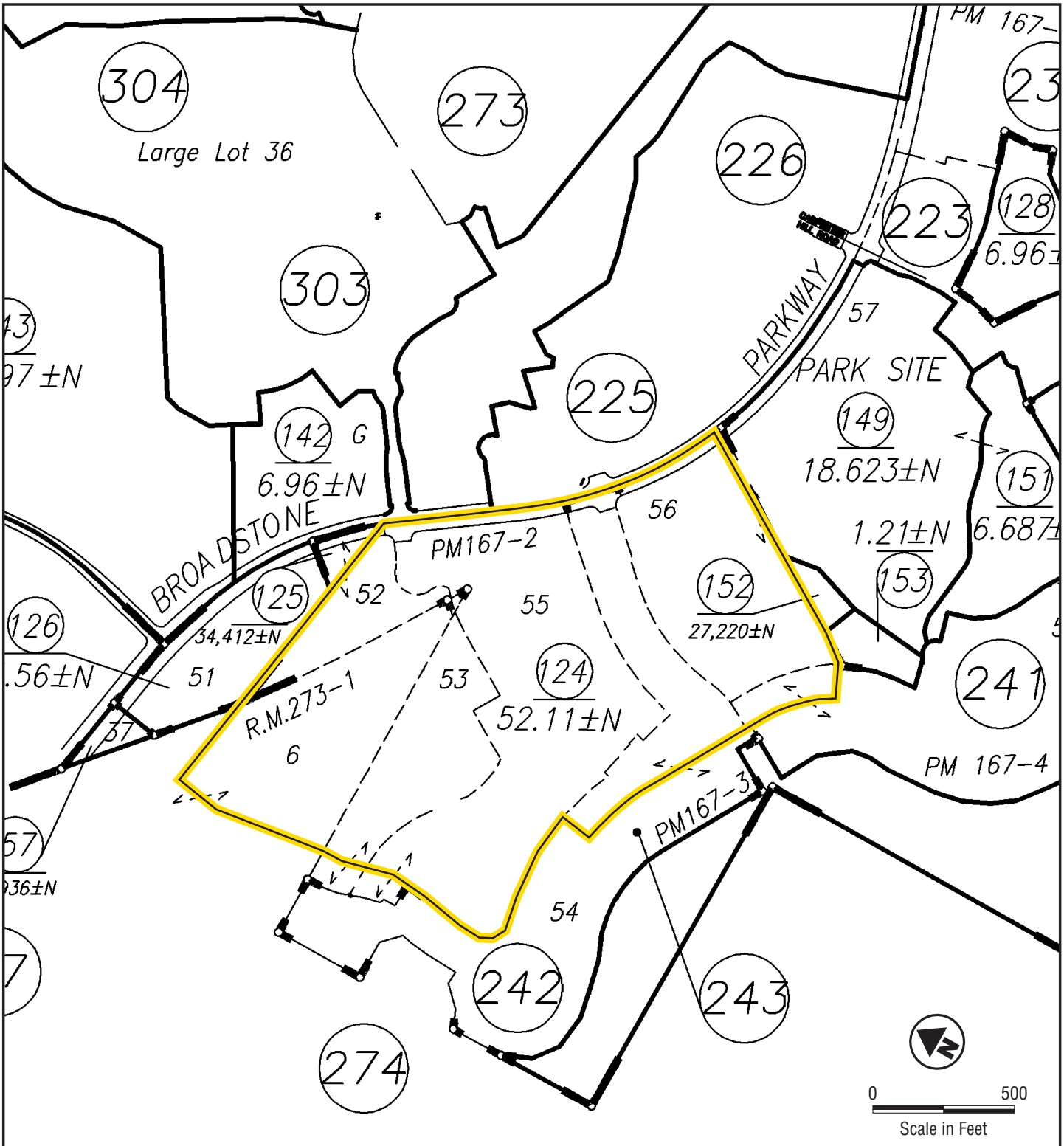
Notes:
n/a = not applicable

TABLE 3
NOTICE AND REPORTING REQUIREMENTS FOR NOA-INTRUSIVE WORK
VISTA DEL LAGO HIGH SCHOOL
FOLSOM, CALIFORNIA

| Activity Onsite | NOA Intrusive Work | | | Inspection/5-Year Inspection |
|---|---|---|---|---|
| | **Duration ≤ 7 calendar days** | **Duration > 7 calendar days** | **Unplanned Events** | |
| **1. Notification to DTSC** | Not Required | Yes - before work begins | If not repaired within 14 days after discovery | Yes - 14 days before inspection |
| **1.a) Using Approved SOP** | | 14 days before work begins | | |
| **1.b) Using Modified SOP** | Notification to DTSC at least 14 days before work begins, regardless of duration. | | | |
| **1.c) Using New SOP** | Notification to DTSC at least 30 days before work begins, regardless of duration. | | | |
| **2. Reports** | Document in O&M Inspection Summary Report | Completion Report to DTSC within 60 days and in O&M Inspection Summary Report | Completion Report to DTSC within 60 days and in O&M Inspection Summary Report | O&M Inspection Summary*/5-Year Report to DTSC within 60 days of inspection |

*The Inspection Summary Reports will be submitted to DTSC for review and approval based on the schedule presented in Appendix K or at a frequency agreed to by DTSC and the FCUSD.

# APPENDIX A




Legal Description: Sacramento County Assessor's Parcel Number 072-117-124 with street address of 1970 Broadstone Parkway, Folsom, California

Adapted from the Sacramento County Assessor's Map Book 072, Page 117

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Folsom,
California

**PARCEL MAP**

| S9460-06-01 | July 2014 | Figure A1 |
|---|---|---|

# APPENDIX B

APPENDIX B

MATRIX - O&M PERSONNEL RESPONSIBILITIES

NATURALLY OCCURRING ASBESTOS OPERATIONS AND MAINTENANCE PLAN

VISTA DEL LAGO HIGH SCHOOL

FOLSOM, CALIFORNIA

| | Project Coordinator* | O&M Project Professional | Maintenance Staff | School Site Designee |
|---|---|---|---|---|
| **1. Training** | | | | |
| Coordinate training and refresher requirements for VdLHS administrators, faculty, and maintenance personnel | X | | | |
| Track and schedule training and refresher requirements for VdLHS | X | | | |
| Coordinate NOA awareness training for designated contractors working at site | X | | | |
| **2. Inspection, Maintenance, and Repairs** | | | | |
| Direct periodic/annual/5-year inspections of engineered controls and completion of the inspection checklists in compliance with O&M Plan | X | | | |
| Conduct Periodic Inspections | | | X | |
| Conduct Unplanned Event Inspections | X | | X | |
| Conduct Annual Inspections | X | X | | |
| Conduct 5-Year Review Inspections | X | X | | |
| Monitor onsite maintenance activities for compliance with dust mitigation and air monitoring requirements | | X | | |
| Direct and oversee maintenance activities involving disturbance of NOA-containing soils to ensure that SOPs are followed | X | | | |
| Direct and oversee implementation of contingency plan in compliance with O&M Plan: obtain DTSC approval of revised SOP when required | X | | | |
| Notify district staff and parents, if required regarding planned activities that disturb NOA-containing soil | X | | | X |
| Perform maintenance and repairs | X | | X | |
| **3. Record Keeping and Checklists** | | | | |
| Maintain records of O&M-related activities | X | | X | |
| Document activities that will potentially disturb NOA-containing soils | X | | X | |
| Document Maintenance and Repair Activities | X | | X | |
| Maintain O&M-related site files and documents | X | | | |
| Complete and submit maintenance reports and records for agency review | X | X | | |
| Document provisions of NOA awareness training for designated contractors | X | | | |
| Complete inspection checklist and file checklist | X | | X | |
| **4. Reporting** | | | | |
| Coordinate reporting to regulatory agencies | X | | | |
| Notify regulatory agencies of planned activities that disturb NOA-containing soils | X | | | |
| Notify regulatory agencies of planned or unplanned activities conducted in accordance with SOPs approved by DTSC | X | | | |
| Prepare and Submit Periodic Inspection Report | X | | X | |
| Prepare and Submit O&M Inspection Summary Report | X | X | | |
| Prepare and Submit 5-Year Inspection Summary Report | X | X | | |
| Prepare and Submit NOA Intrusive Work Completion Report | X | X | | |

DTSC = Department of Toxic Substances Control

NOA - Naturally occurring asbestos

O&M - Operations and Maintenance

VdLHS = Vista del Lago High School

SOPs - Standard Operating Procedures

* - Project Coordinator is responsible for implementing the O&M Plan (which includes all tasks presented in this matrix).

# APPENDIX C

# John Pfeiffer, PG, CEG
Senior Geologist



Mr. Pfeiffer has provided geologic, hydrogeologic, and environmental expertise to Northern California businesses and government entities since 1989. He has extensive experience performing geologic evaluations, site assessments, and remediation/mitigation for both introduced contaminants and naturally occurring asbestos (NOA). Mr. Pfeiffer has completed numerous NOA studies and mitigation plans in Placer, El Dorado, and Sacramento Counties, as well as other Sierra foothill locations. The NOA-related projects have included simple map review (for applicability of NOA regulations and/or concerns), geologic reconnaissance for preliminary site screening, subsurface soil/rock sampling and laboratory NOA analysis, successful completion of geologic exemption requests (i.e., demonstration of absence of NOA), and preparation and implementation of Asbestos Dust Mitigation Plans.

**Naturally Occurring Asbestos Surveys, Northern California.** Mr. Pfeiffer is a project manager for the identification and geological assessment of potential NOA management areas within Caltrans right-of-ways throughout Northern California. Depending on project needs, he performs preliminary geologic review of proposed projects, conducts field reconnaissance, and develops/implements project-specific sampling and analysis strategies for NOA characterization. He has provided NOA surveys and associated services for Caltrans and other transportation infrastructure projects in many Northern California counties including Amador, Calaveras, Colusa, El Dorado, Humboldt, Lake, Mendocino, Napa, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Tehama, Trinity, and Yolo.

**EDUCATION**

**University of California, Davis**
Bachelors of Science,
Geology - 1987

**PROFESSIONAL REGISTRATIONS**

**Professional Geologist, CA**
**Certified Engineering Geologist, CA**

**PROFESSIONAL CERTIFICATIONS**

**OSHA 40-Hour HAZWOPER**

**PROFESSIONAL ORGANIZATIONS**

**Association of Environmental & Engineering Geologists (AEG)**
- **Board of Directors & Chairman of Sacramento Section from 2007-2010**
- **Vice-Chairman of Sacramento Section from 2005 to 2007**

**Placer (County) Architects, Geologists, Engineers and Surveyors (PAGES)**
- **Executive Director 2008**
- **Secretary 2005 to 2007**

**Groundwater Resources Association of California**

**Vista Del Lago High School, Folsom, California.** Vista del Lago High School (VdLHS) is an approximately 50-acre school campus that opened in August 2007. Due to the presence of NOA in native soils underlying the site, engineering and administrative controls were incorporated into the school design under Department of Toxic Substances Control oversight to prevent uncontrolled NOA exposures and to protect the health of students, faculty, staff, operations and maintenance (O&M) personnel, and visitors at the school site. As the designated O&M Project Professional for VdLHS and one other school in the district, Mr Pfeiffer assists the school and district personnel with NOA compliance matters including site inspections, NOA awareness and O&M training, and reporting to DTSC.

# APPENDIX D

# APPENDIX E

# APPENDIX E

## REGULATORY TRAINING REQUIREMENTS

Note: As of July 2014, there are no Federal or State health and safety training requirements regarding work related to naturally occurring asbestos (NOA). The requirements cited below apply to work with asbestos-containing materials (ACM) and potentially asbestos-containing materials (PACM) and will be used as guidelines for "best available management practices" when determining the level of training required for school district maintenance staff.

### Class I Asbestos Work

In accordance with 8 CCR, § 1529 (b) and (k)(9)(E), "Class I asbestos work means activities involving the removal of thermal system insulation (TSI) and surfacing ACM and PACM. Training for Class I operations and for Class II operations that require the use of critical barriers (or equivalent isolation methods) and/or negative pressure enclosures under this section shall be the equivalent in curriculum training method and length to the United States Environmental Protection Agency (USEPA) Model Accreditation Plan (MAP) asbestos abatement workers training (40 CFR Part 763, Subpart E, Appendix C).

### Class II Asbestos Work

In accordance with 8 CCR, § 1529 (b) and (k)(9)(E), "Class II asbestos work means activities involving the removal of ACM which is not TSI or surfacing material. This includes the removal of asbestos-containing wallboard, floor tile and sheeting, roofing and siding shingles, and construction mastics.

### Training for other Class II Work

1. For work with asbestos-containing material involving roofing materials, flooring materials, siding materials, ceiling tiles, or transite panels, training shall include at a minimum all the elements included in 8 CCR, § 1529 subsection (k)(9)(H) and in addition, the specific work practices and engineering controls set forth in subsection (g) of this section which specifically relate to that category. Such course shall include "hands-on" training and shall take at least 8 hours.

2. An employee who works with more than one of the categories of material specified in 8 CCR, § 1529 subsection (k)(9)(D) shall receive training in the work practices applicable to each category of material that the employee removes and each removal method that the employee uses.

3. For Class II operations not involving the categories of material specified in 8 CCR, 91 529 subsection (k)(9)(D), training shall be provided which shall include at a minimum all the

elements included in 8 CCR, § 1529 subsection (k)(9)(H) and in addition, the specific work practices and engineering controls set forth in 8 CCR, § 1529 subsection (g) which specifically relate to the category of material being removed, and shall include "hands-on" training in the work practices applicable to each category of material that the employee removes and each removal method that the employee uses.

## Class Ill Asbestos Work

In accordance with 40 CFR §763.92 (a)(l) and 8 CCR §1529 (k)(9)(E), "Class III asbestos work means repair and maintenance operations, where asbestos-containing materials are likely to be disturbed." Training for Class III employees shall be consistent with United States Environmental Protection Agency (USEPA) requirements for training of local education agency maintenance and custodial staff as set forth in 40 CFR § 763.92(a)(2). Such a course shall also include "hands-on" training and shall take at least 16 hours.

Exception: For Class III operations for which the competent person determines that the USEPA curriculum does not adequately cover the training needed to perform that activity, training shall include as a minimum all the elements included in 8 CCR §1529 (k)(9)(H) and in addition, the specific work practices and engineering controls set forth in 8 CCR §1529 (g) which specifically relate to that activity, and shall include "hands-on" training in the work practices applicable to each category of material that the employee disturbs.

## Class IV Asbestos Work

In accordance with 40 CFR § 763.92 (a)(l) and 8 CCR § 1529 (k)(9)(F), "Class IV asbestos work" means maintenance and custodial activities during which employees contact but do not disturb ACM and activities to clean up dust, waste and debris resulting from Class I, II, and Ill activities.

Training for employees performing Class IV operations shall be consistent with USEPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR § 763.92(a)(I). Such a course shall include available information concerning the locations of thermal system insulation and surfacing ACM/PACM, and asbestos-containing flooring material, or flooring material where the absence of asbestos has not yet been certified; and instruction in recognition of damage, deterioration, and decontamination of asbestos-containing building materials. Such course shall take at least 2 hours.

## Other Training Requirements

The training program shall be conducted in a manner that the employee is able to understand. Video-taped training may be an option as long as it meets the requirements included in this appendix and in Section 4: 1) Information in the training video is site-specific, or is supplemented with site-specific information; 2) the students have an opportunity to ask questions of a knowledgeable person during the training (i.e., Competent Person who is familiar with the site [see Section 4.2]); and 3) the training is evaluated and found to be effective and adequate (i.e., employees can demonstrate sufficient knowledge of subjects described above). This evaluation can be done by the Project Coordinator and/or the O&M Project Professional. Video-taped training will have to be up-to-date with any changes to the O&M Plan or engineering controls and the training shall be documented and placed in the O&M Inspection Summary Reports (see Section 8.6). The use of video-taped training for new employees is not prohibited; however, there would be more of a burden on the District to demonstrate the effectiveness and adequacy of the training for such staff.

In accordance with 8 CCR §1529 (k)(9)(G), training for employees who are likely to be exposed in excess of the Permissive Exposure Limit (PEL) and who are not otherwise required to be trained under 8 CCR §1529 (k)(9)(C) through (F), shall meet the requirements of 8 CCR §1529 (k)(9)(H). In addition to the content required by provisions in subsections 8 CCR §1529 (k)(9)(C) through (F), the employer shall ensure that each such employee is informed of the following:

1. Methods of recognizing asbestos, including the requirement in 8 CCR §1529 (k)(l) to presume that certain building materials contain asbestos;
2. The health effects associated with asbestos exposure;
3. The relationship between smoking and asbestos in producing lung cancer;
4. The nature of operations that could result in exposure to asbestos, the importance of necessary protective controls to minimize exposure including, as applicable, engineering controls, work practices, respirators, housekeeping procedures, hygiene facilities, protective clothing, decontamination procedures, emergency procedures, and waste disposal procedures, and any necessary instruction in the use of these controls and procedures where Class III and IV work will be or is performed, the contents of EPA 20T-2003, "Managing Asbestos In-Place" July 1990 or its equivalent in content;
5. The purpose, proper use, fitting instructions, and limitations of respirators as required by Section 5144;
6. The appropriate work practices for performing the asbestos job;
7. Medical surveillance program requirements;
8. The content of this standard including appendices;

9. The names, addresses and phone numbers of public health organizations which provide information, materials and/or conduct programs concerning smoking cessation. The employer may distribute the list of such organizations, to comply with this requirement; and

10. The requirements for posting signs and affixing labels and the meaning of the required legends for such signs and labels.

### Access to Training Materials

(A) The employer shall make readily available to affected employees without cost, written materials relating to the employee training program, including a copy of this regulation.

(B) The employer shall provide to regulatory personnel, upon request, all information and training materials relating to the employee information and training program.

(C) The employer shall inform all employees concerning the availability of self-help smoking cessation program material. Upon employee request, the employer shall distribute such material, consisting of NIH Publication No. 89-1647, or equivalent self-help material, which is approved or published.

# APPENDIX F

# VISTA DEL LAGO HIGH SCHOOL
# INSPECTION CHECKLIST FOR NOA ENGINEERING CONTROLS

| | | | |
|---|---|---|---|
| Date | | Inspector Name/Signature | |
| Inspection Frequency | | Supervisor Name/Signature | |

| Area | Surface Condition OK? | Maintenance Required | Recommended Action Schedule | | |
|---|---|---|---|---|---|
| | | | Plan | Implement | Completion |
| Bus Lanes | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Traffic Aisle & Fire Lane | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Parking Stalls | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Tennis Courts | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Hard Courts | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Football Field | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Track | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| JV Baseball | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Varsity Baseball | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Soccer | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Softball | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Heavy Concrete Paving | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Concrete Paving | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Site Boundary Protection Fencing | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Slope Areas** | | | | | |
| <u>West Slope</u> Extends along west edge of the campus, from northwest to southwest corners | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| <u>Southwest Slope</u> Extends along southwest edge of the campus, south of softball, football, and varsity baseball fields | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| <u>Northeast Slope</u> Small slope area east of Parking Lot 2 at northern most boundary of school | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |

**VISTA DEL LAGO HIGH SCHOOL**
**INSPECTION CHECKLIST FOR NOA ENGINEERING CONTROLS**

| | | | |
|---|---|---|---|
| Date | | Inspector Name/Signature | |
| Inspection Frequency | | Supervisor Name/Signature | |

| Area | Surface Condition OK? | Maintenance Required | Recommended Action Schedule | | |
|---|---|---|---|---|---|
| | | | Plan | Implement | Completion |
| **Parking Lot 1 Planters** | | | | | |
| Planters and grassy area north and east of Parking Lot 1 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 5 small planters within and south of Parking Lot 1 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Parking Lot 2 Planters** | | | | | |
| 2 planters at west end of Parking Lot 2 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 3 planters along north and south sides of Parking Lot 2 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planter at east end of Parking Lot 2 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 3 planters east and southeast of Parking Lot 2 that extend downslope along the traffic aisles | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Parking Lot 3 Planters** | | | | | |
| Parking Lot 3 perimeter planters – northwest and northeast sides | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Parking Lot 3 perimeter planters – southwest, south, and southeast sides | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 3 small planters within the northwest portion of Parking Lot 3 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 5 small planters within the central portion of Parking Lot 3 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 small planters within the southeast portion of Parking Lot 3 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 5 planters in center of Bus Lanes around northwest, southwest, south, and southeast sides of Parking Lot 3 | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **JV Baseball Field Area** | | | | | |
| Large sloped planter north and northwest of JV Baseball field | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |

**VISTA DEL LAGO HIGH SCHOOL**
**INSPECTION CHECKLIST FOR NOA ENGINEERING CONTROLS**

| | | | |
|---|---|---|---|
| Date | | Inspector Name/Signature | |
| Inspection Frequency | | Supervisor Name/Signature | |

| Area | Surface Condition OK? | Maintenance Required | Recommended Action Schedule | | |
|---|---|---|---|---|---|
| | | | Plan | Implement | Completion |
| **Building A Area** | | | | | |
| Building A Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 small planters on north/northwest sides of Building A | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Semi-circular planters southeast of Building A, in center of "quad" area | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building B Area** | | | | | |
| Building B Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 3 planters on north, northeast, and east sides of Building B | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 planters on south and southeast sides of Building B | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building C Area** | | | | | |
| Building C Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 4 small planters/grassy areas at the west end of Building C | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 planters on the north side of Building C | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Large grassy area and planters on the east side of Building C | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building D Area** | | | | | |
| Building D Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 3 small to large planters/ grassy areas at the west end of Building D | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building E Area** | | | | | |
| Building E Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planter off the northwest side of Building E | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planter off the southwest and southeast sides of Building E | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Long planter(s) along the north side of the Softball Field Area | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |

**VISTA DEL LAGO HIGH SCHOOL**
**INSPECTION CHECKLIST FOR NOA ENGINEERING CONTROLS**

| | | | |
|---|---|---|---|
| Date | | Inspector Name/Signature | |
| Inspection Frequency | | Supervisor Name/Signature | |

| Area | Surface Condition OK? | Maintenance Required | Recommended Action Schedule | | |
|---|---|---|---|---|---|
| | | | Plan | Implement | Completion |
| **Building F Area** | | | | | |
| Building F Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 small planters on the north to east sides of Building F | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 small planters on the southeast and south side of Building F | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planters between Building F and Building H (stairway planters) | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building G Area** | | | | | |
| Building G Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| 2 small planters on the north side of Building G | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planter(s) on the northwest and southwest sides of Building G | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Grassy areas between Buildings G, H, and A | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building H Area** | | | | | |
| Building H Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Grassy areas between Buildings H and E and the Hard Courts | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Planters and grassy area on the east side of Building H | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Building J Area** | | | | | |
| Building J Foundation | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| Small planter on the north and west side of the swimming pool area | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |
| **Tennis Court Area** | | | | | |
| Narrow planter along the south side of the tennis courts | Yes ☐ No ☐ | Yes ☐ No ☐ | | | |




0 125 250

SCALE IN FEET

GEOCON
CONSULTANTS, INC.
3160 GOLD VALLEY DR. – SUITE 800 - RANCHO CORDOVA, CA. 95742
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Vista del Lago High School

Folsom,
California

**Inspection Site Plan**

| S9460-06-01 | July 2014 | Figure F1 |
|---|---|---|

APPENDIX G

# APPENDIX G
# STANDARD OPERATING PROCEDURES (SOP)

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**STANDARD OPERATING PROCEDURES FOR NATURALLY OCCURRING ASBESTOS INTRUSIVE WORK**

# 1.0 INTRODUCTION

## 1.1 Objectives

This document has been prepared to outline the Standard Operating Procedures (SOP) for repairs, construction or maintenance activities conducted by Folsom Cordova Unified School District (FCUSD) personnel or subcontractors at Vista Del Lago High School (the Site) in Folsom, California, that may disturb soil containing naturally occurring asbestos (NOA). These SOPs are the procedures to be followed when NOA-intrusive work is conducted at the Site. These SOPs have been prepared in accordance with the Department of Toxic Substances Control's (DTSC) *O&M Plan Template For Naturally Occurring Asbestos Response Actions at Schools*, dated October 11, 2005.

## 1.2 NOA Hazard Summary

Asbestos is the common name for a series of naturally occurring iron-magnesium-silicate minerals. Six asbestos minerals are currently referenced in state regulations; see Title 22 California Code of Regulations (CCR), §66261.24(a)(2) and Appendix X to Chapter 11, Title 22, Division 4.5 CCR. These six minerals are classified in two different groups based on their mineralogical characteristics: a) the "serpentine" mineral group which contains the mineral chrysotile; and b) the amphibole asbestos minerals (amosite, crocidolite, actinolite, anthophyllite and tremolite). The six regulated forms of asbestos are considered hazardous, and classified as known human carcinogens by State, Federal, and international agencies. As defined in Health & Safety Code §25316 and §25260 respectively, asbestos is both a hazardous substance and a hazardous material.

Human health effects of asbestos are dependent primarily upon exposure to airborne asbestos fibers, which can be inhaled deep into the lungs. Exposure to asbestos through inhalation can result in health impacts, including respiratory disease (asbestosis, a non–cancerous fibrosis of the lungs) and lung cancer (mesothelioma, cancer of the lung lining). Breathing of asbestos dust has been related to scarring of lung tissue (asbestosis). In addition, asbestos and tobacco smoke have a strong interactive synergism, which can produce a higher incidence of lung cancer than the sum of the agents independently. The longer a person is exposed to asbestos, and the greater the intensity of exposure, the greater the chances for development of health problems.

## 1.3 Intrusive Work

Operation and maintenance (O&M) personnel will submit school site construction and maintenance work order requests to the Project Coordinator. The Project Coordinator will evaluate in writing whether or not activities described in the work orders are considered "non-NOA-intrusive" or "NOA-intrusive." "NOA-intrusive" activities are prohibited at the Site unless conducted in accordance with applicable provisions of these SOPs. "NOA-intrusive" work includes construction or maintenance work activities that disturb NOA-containing soil including: digging, drilling, excavating, grading, repairing, removing,

trenching, filling, gardening, and other soil movement that may penetrate or otherwise compromise the caps in place, thereby opening pathways for possible human exposures to NOA. If work is determined to be NOA-intrusive, the Project Coordinator will ensure that work practices are followed as specified in the approved SOPs. The Project Coordinator will provide advance notice of scheduled work to DTSC in accordance with provisions in Section 8.5 of the O&M Plan for the Site.

### 1.3.1 Non-NOA Intrusive Work

Construction, repair, and/or maintenance activities at the Site are restricted by DTSC in accordance with the O&M Plan only when exposures of NOA-containing soil are reasonably anticipated or when releases occur. Notification to DTSC of construction, repairs, and maintenance activities is not required unless potentially NOA-containing soil is expected to be disturbed, or is inadvertently disturbed. "Non-NOA-intrusive work" is defined as including construction, repairs, and/or maintenance activities at the Site where exposure of NOA-containing soil is not anticipated and where the integrity of engineering controls, such as hardscaped or landscaped caps, is not compromised. Non-NOA-intrusive work includes work where the geotextile marker, if present, will not be penetrated or breached, even though work may be performed in upper layers of a cap system (e.g., clean fill). FCUSD policies require the following procedures be taken when conducting non-NOA-intrusive work at the Site:

- Project Coordinator will provide information regarding location of cap systems and soil containing NOA to selected contractors and O&M personnel to minimize likelihood of NOA intrusion;
- O&M Project Professional and/or O&M personnel will conduct inspections during construction and/or maintenance activities at the Site to ensure NOA-containing soil is not being disturbed;
- In the event that NOA-containing soil is inadvertently disturbed, the integrity of engineered controls is compromised, or a geotextile marker is breached, the Project Coordinator will be responsible for notifying DTSC and implementing the appropriate procedures in accordance with the provisions described in Section 7.2 of the O&M Plan; and
- Ensure import materials to be used as part of the cap system be pre-approved by DTSC and/or tested following DTSC's current Clean Fill Advisory.

### 1.3.2 NOA Intrusive Work

The following procedures are required by the FCUSD when performing NOA-intrusive construction, repair or maintenance activities to: a) ensure that safeguards are in place to prevent or minimize NOA exposures to personnel at the Site; b) prevent untrained or unauthorized personnel from performing intrusive work in NOA areas; and c) restore the integrity of engineering controls (cap systems) in-place if impaired or compromised by such activities.

The Project Coordinator will oversee the following procedures for NOA-intrusive work performed by, or on behalf of, FCUSD at the Site:

- Provide information regarding location of cap systems, cross-section construction details of cap systems, and locations of soil potentially containing NOA to selected contractors;

- Verify that selected contractors and their employees will comply with Federal and California State Occupational Safety and Health Administration (OSHA) requirements (see Appendix E of the O&M Plan);
- Require school district employees to follow established site-specific health and safety requirements (see Section 7.4 of the O&M Plan) before starting NOA-intrusive work;
- Require that construction and maintenance work be performed under and in accordance with a DTSC-approved SOP;
- Evaluate timelines and school and work schedules to ensure that NOA-intrusive work is completed as soon as possible to minimize exposure risks;
- Require reasonable restrictions to school site access to reduce exposures to non-workers;
- Implement dust control practices that utilize water;
- Manage NOA-containing or impacted soil brought to the surface in accordance with the these SOPs and in compliance with applicable, relevant and appropriate provisions of State and Federal law;
- Comply with applicable, relevant and appropriate federal, state, and local requirements, such as the California Air Resources Board (CARB) Final Regulation Order, Section 93105, *Asbestos Airborne Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations;* also Section 93106, *Asbestos Airborne Toxic Control Measure for Surfacing Applications;*
- Ensure import material to be used as part of the cap system be tested and pre-approved following DTSC's current Clean Fill Advisory; and
- Submit notice to DTSC in writing in advance of an onsite NOA-intrusive activity that is anticipated to exceed seven days in duration.

## 1.4 O&M Personnel

### 1.4.1 Project Coordinator

Jim Bonovich, Director of Maintenance and Operations
Folsom Cordova Unified School District
11458 Elks Circle, Rancho Cordova, CA 95742
Office: 916.631.0501
Mobile: 916.870.0224
E-mail: jbonovic@fcusd.org

The responsibilities of the Project Coordinator are to:

- Implement the O&M Plan;
- Be familiar with site conditions and cap systems installed at the Site;
- Evaluate work orders to determine if work will be NOA-intrusive work;
- Oversee implementation of DTSC-approved SOPs for NOA-intrusive work and ensure identified repairs are completed on schedule;
- Receive and submit notices, comments, documents, reports, approvals, decisions and other communications to and from DTSC on behalf of the FCUSD for the Site;

- Identify and oversee provisions of inspection training and asbestos awareness training and ensure that training is conducted within the designated time frames;
- Accompany the O&M Project Professional during annual inspections;
- Submit O&M Plan and subsequent reports, including O&M Inspection Summary Reports, Five-Year Review Reports, and NOA-intrusive Work Completion/Incident Reports;
- Ensure retention of reports, forms, and records (e.g., O&M Inspection Summary Reports, completed inspection forms, training records); and
- Ensure that issues pertaining to O&M are brought to the attention of the FCUSD's Board as appropriate, including requests for ongoing appropriations of funds and notification in the event that exposures to onsite NOA-containing soil occur at the Site.

In the event of the absence of the Project Coordinator, his/her authority and responsibilities are delegated to the School Site Designee.

### 1.4.2 O&M Project Professional

John C. Pfeiffer, Senior Geologist
Professional Geologist No. 6984; Certified Engineering Geologist No. 2372
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800, Rancho Cordova, California 95742
Office: 916.852.9118
Mobile: 916.626.2387
E-Mail: pfeiffer@geoconinc.com

Pursuant to Business and Professions Code, Chapters 7 and 12.5, and CCR, Title 16, Chapters 5 and 29, the O&M Project Professional is a California-registered Professional Geologist with expertise in NOA investigation and remediation and is familiar with the O&M Plan and the cap systems installed at the Site. To demonstrate expertise in NOA investigation and remediation, John Pfeiffer's resume is in Appendix C of the O&M Plan.

The responsibilities of the O&M Project Professional are to:

- Conduct annual inspections (including five-year reviews);
- Prepare and sign O&M Inspection and Summary Reports and Five-Year Review Reports;
- Other environmental professional work related to NOA matters at the Site; and
- Evaluate cap system performance, maintenance, and repair in coordination with the Project Coordinator.

In the event of the absence of the O&M Project Professional, his/her authority and responsibilities are delegated to John Juhrend, PE, CEG, Principal with Geocon Consultants, Inc.

### 1.4.3 School Site Designee

Ann Botsford, Vice Principal
Vista del Lago High School
1970 Broadstone Parkway, Folsom, CA 95630
Office: 916.294.2410
E-mail: abotsfor@fcusd.org

The responsibilities of the School Site Designee are to:

- Ensure that school staff with O&M roles have received appropriate training and direction;
- Ensure that activities which may potentially disturb NOA-containing soils will not be conducted at the Site without the knowledge and approval of the Project Coordinator;
- Provide, as necessary, information to staff and parents concerning releases of NOA on the Site; and
- Ensure cap system performance, maintenance, and repair in coordination with the Project Coordinator.

## 1.5 NOA Contractor Qualification

NOA is not a regulated hazardous waste when it is managed in-place; therefore specialized licensing is not required for contractors who perform NOA-intrusive work. However, individuals performing NOA-intrusive work may fall under regulatory jurisdiction of the California Division of the Occupational Safety and Health Administration (Cal-OSHA) under CCR Title 8 § 5208. It is recommended that personnel performing NOA-intrusive work activities at the Site attend NOA Awareness training prior to the commencement of work.

## 1.6 Modified or New SOP

Based on changes in site conditions, DTSC may require a modified or new SOP. Approval from DTSC will be obtained prior to the implementation of a new or modified SOP. Any changes to the SOP for a NOA-intrusive project must be approved by DTSC and documented in the Completion Report.

# 2.0 NOTIFICATION

## 2.1 Notification to DTSC

### 2.1.1 Notification Time-frames

NOA intrusive work activities require notification to DTSC prior to the commencement of work as described in the following sections. In addition, the table on the following page summarizes the notice and reporting requirements for NOA-intrusive work.

Notification to DTSC is not required for the following activities at the Site:

- The activities are non-NOA work (whether or not intrusive) that are not anticipated to disturb NOA containing soils; or
- The projected NOA-intrusive work duration is less than seven days from start to completion and will follow these SOPs

Notification to DTSC by the Project Coordinator *is required* for the following activities:

- Notify DTSC 14 days in advance if the activities are for NOA-intrusive work, are anticipated to exceed seven days in duration from start to completion, and will follow these SOPs;
- Notify DTSC at least 14 days in advance if the activities are for NOA-intrusive work and will follow a modified SOP. DTSC's approval of the modified SOP will be obtained prior to implementation of work;
- Notify DTSC at least 30 days in advance if the activities are for NOA-intrusive work and will follow a new SOP. DTSC's approval of the new SOP will be obtained prior to implementation of work; or
- Notify DTSC of unplanned events (e.g., broken sewer line) if not repaired within 14 days; submit a Completion Report within 60 days after completion of work.

### 2.1.2 Electronic Mail Notice Format

Written communication to DTSC may be submitted via e-mail. A sample e-mail notification to DTSC project manager and unit supervisor might read as follows:

"The Folsom Cordova Unified School District plans to perform maintenance at Vista del Lago High School at 1970 Broadstone Parkway in Folsom on the softball field (see attached figure showing the location) to repair one broken sprinkler head and add one new sprinkler head. As noted on the figure, the area has a geotextile/marker and a cap of 12 inches of clean fill over NOA-containing soils. We need to cut through the existing marker and remove approximately [X] cubic yards of NOA-containing soils during the activity. The action is proposed for [start date] and will be completed on [end date]. The marker will be restored by [brief description of restoration plan]. We will follow the SOPs provided in the [name and date of O&M Plan approved by DTSC]. If you have any questions or would like to visit during the activity, please contact [name and address of Project Coordinator and/or O&M Project Professional and contact telephone numbers]."

**Notice and Reporting Requirements for NOA Intrusive Work**

| Activity Onsite | NOA Intrusive Work | | | Inspections/ 5-Year Inspection |
|---|---|---|---|---|
| | **Duration ≤7 calendar days** | **Duration >7 calendar days** | **Unplanned Events** | |
| **1. Notify DTSC** | Not Required | Yes – before work begins | If not repaired within 14 days after discovery | Yes - 14 days before inspection |
| 1.a) Using Approved SOP | | 14 days before work begins | | |
| 1.b) Using Modified SOP | Notification to DTSC at least 14 days before work begins, regardless of duration. | | | |
| 1.c) Using New SOP | Notification to DTSC at least 30 days before work begins, regardless of duration. | | | |
| **2. Reports** | Document in O&M Inspection Summary Report | Completion Report to DTSC within 60 days and in O&M Inspection Summary Report | Completion Report to DTSC within 60 days and in O&M Inspection Summary Report | O&M Inspection Summary*/5-Year Report submitted to DTSC within 60 days of inspection |

*The Inspection Summary Reports will be submitted to DTSC for review and approval based on the schedule presented in Appendix I or at a frequency agreed to by DTSC and the FCUSD.

### 2.1.3 Notice of Contingencies or Emergencies

DTSC will be notified of contingencies or emergencies (e.g., broken sewer line) if not repaired within 14 days; a Completion Report shall be submitted to DTSC within 60 days after completion of work associated with a contingency or emergency involving NOA-containing soil.

## 2.2 Public Right to Know

### 2.2.1 Notification to School Community Members

The Project Coordinator will notify the school community members (faculty, staff and parents) prior to the start of NOA-intrusive work. The format of the notification will be at the discretion of the Project Coordinator but shall include, at a minimum, the following information:

- Nature and extent of work;
- Schedule (start time and projected completion date); and
- Mitigation measures that will be implemented to prevent potential NOA exposure.

### 2.2.2 Notification to Contractor

The contractors and/or FCUSD maintenance personnel performing NOA-intrusive work at the Site will have the following information provided to them prior to performing the work:

- Thickness/type of cap systems at the proposed work location;
- Cross-section detail; and
- Presence/absence of the warning barrier/geotextile above the NOA-containing soil.

## 3.0 WORK ORDERS

O&M personnel will submit school site construction and maintenance work order requests to the Project Coordinator. The Project Coordinator will evaluate in writing whether or not activities described in the work orders are considered "non-NOA-intrusive" or "NOA-intrusive." If work is determined to be NOA-intrusive, the Project Coordinator will ensure that work practices are followed as specified in these SOPs.

## 4.0 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

A summary of Applicable or Relevant and Appropriate Requirements (ARARs) is presented in this section.

### 4.1 Health and Safety Requirements

Site-specific health and safety requirements will be identified for the Site under the supervision of a Certified Industrial Hygienist (CIH) in accordance with current health and safety standards as specified by the Federal and California OSHA agencies. These requirements will be addressed in a Health and Safety Plan (HSP) that identifies proposed NOA-intrusive work activities, and specifies site characteristics, current conditions, history, physical and chemical hazards, and methods of handling and controlling NOA so as to prevent or minimize exposures.

### 4.1.1 Competent Person

The FCUSD will designate a Competent Person to oversee NOA-intrusive work. A "Competent Person" is one who:

- Is capable of identifying existing and predictable conditions in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees;
- Is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure;
- Has authority to take prompt corrective measures to eliminate such identified hazards;
- May be an asbestos consultant, safety officer or technician familiar with sampling techniques and potentially asbestiform mineral formations; and
- May be someone who has been appropriately trained and who reports to the O&M Project Professional (California Certified Professional).

### 4.1.2 Exposure Assessment

The Competent Person will conduct an exposure assessment at the initiation of any construction operation not previously assessed to determine where airborne asbestos fibers may exceed the OSHA Permissible Exposure Limit (PEL) of 0.1 fibers per cubic centimeter (f/cc) during that operation. The personnel performing the O&M activities specified in these SOPs will be responsible for operating in compliance with the most current requirements of:

- Title 8, CCR, §5192 (8 CCR 5192), General Industry and Construction Safety Orders;
- Title 8, CCR, § 1529 (8 CCR 1529), Asbestos, Construction Safety Orders Title 29, Code of Federal Regulations, §1910.120 (29 CFR 1910.120), "Standards for Hazardous Waste Operations and Emergency Response (HAZWOPER)";
- Title 29, Code of Federal Regulations, § 1926 (29 CFR 1926), Construction Industry Standards;
- Title 40, Code of Federal Regulations, § 763, Subpart E (40 CFR 763), Asbestos Containing Materials in Schools;
- CARB Section 93105 – "Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations";
- CARB Section 93106 – "Asbestos Airborne Toxic Control Measure for Surfacing Applications" as applicable; and
- Other pertinent requirements (e.g., local ordinances, etc.).

### 4.1.3 Personal Protective Equipment

Personal protective equipment (PPE) is required for workers performing NOA-intrusive repairs at the Site to protect personnel from NOA exposure and physical hazards. A CIH will determine the appropriate level of PPE required for NOA-intrusive activities and when conditions require a PPE upgrade.

The level of PPE that will be required depends not only on existing site conditions and hazards but also on the specific task or operation to be performed. As an example, soil excavation in open, well-ventilated areas is not expected to expose field personnel to concentrations of air contaminants above PEL, but could result in dermal or eye contact. Consequently, the level of PPE during these activities would include skin and eye protection but would not necessarily require respiratory protection. At a minimum, personnel are required to employ Level D PPE. Level D is basically a work uniform that provides only minimal protection against chemical hazards. Level D PPE used at the Site will consist of a hardhat (around heavy equipment), steel-toed safety boots, hearing protection (when necessary), and safety glasses (when necessary). When working anywhere near vehicle traffic, a bright-colored safety vest must also be worn to increase visibility.

The level of protection may be upgraded to Level C as deemed necessary by the Competent Person. Level C is required when respiratory protection and a minimal level of skin protection are necessary. Level C is indicated when action levels (e.g., airborne concentrations exceeding PELs) for respiratory protection are detected or anticipated prior to site activities, or there is a potential for exposure to other airborne

contaminants (e.g., dust or particulates), or there are changes in the routes of exposure or types and toxicity of chemicals encountered. Level C will consist of half-face, HEPA cartridge-equipped air-purifying respirator (APR); dust-resistant coveralls and gloves; hardhat; steel-toed boots, hearing protection (when necessary), and safety glasses (when necessary).

Level C PPE will not likely be needed for most NOA-intrusive work based on air sampling data collected at the Site during the school construction activities. Dermal exposure, and subsequent incidental ingestion, can be minimized by frequent hand washing and by not eating, drinking, or smoking in the work area. Level B and Level A PPE will not be utilized for the field activities described in these SOPs.

### 4.1.4 Medical Surveillance

A medical surveillance program is recommended for personnel performing NOA-intrusive work. Employers are required to establish a medical surveillance program for employees who are or will be exposed to asbestos at or above the PEL of 0.1 f/cc of air per 29CFR1910.1001.

### 4.1.5 Other (hearing protection, heat stress, etc.)

Hearing protection, heat stress and other hazards associated with the work activities maintenance staff may encounter while using maintenance equipment, FCUSD vehicles, and heavy equipment shall be addressed by their own Injury and Illness Prevention Program (IIPP).

## 4.2 Dust Control

The purpose of this section is to describe the mitigation measures and engineering controls designed to prevent the release of asbestos fibers and dust generation during maintenance activities, construction and/or repairs that may disturb NOA-containing soil.

### 4.2.1 Asbestos Dust Mitigation Plan

An Asbestos Dust Mitigation and Air Monitoring Plan (ADM/AMP) was prepared for the Site for use during implementation of the RAW. The purpose of the ADM/AMP is to provide requirements and guidelines for controlling and monitoring emissions of asbestos dust particulates during site grading and earthwork activities associated with the removal action. The requirements were designed to comply with the CARB *Asbestos Air Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations* (Section 93105 of the CCR), the Sacramento Metropolitan Air Quality Management District (SMAQMD) regulation for airborne asbestos control (Rules 402.301, 403.201, & 904.6), and the DTSC's *Draft Interim Guidance for Naturally Occurring Asbestos (NOA) at School Sites*.

### 4.2.2 Wet Methods

During NOA intrusive work activities, water will be utilized to adequately wet NOA-containing soil before and during earthmoving activities to minimize the potential for the generation of dust. Additionally, temporary stockpiles of NOA-containing soil will be adequately wetted to minimize fugitive dust generation.

Dust control methods will be evaluated during work activities, if visible dust is observed, wet methods will be increased or work activities will cease if excessive winds are present.

### 4.2.3 Engineering Controls

NOA-containing soil stockpiles may be covered with heavy plastic sheeting to minimize dust generation in the event of excessive winds. A mist curtain may also be used downwind of the work area to mitigate fugitive dust.

### 4.2.4 Cease Operations

Earth-moving activities associated with NOA-intrusive work will be suspended when wind speeds are high enough to result in visible dust emissions crossing the property line, or for the purposes of NOA-intrusive work, the exclusion area, despite the application of dust mitigation measures.

## 4.3 Run-On and Runoff Control

The following sections discuss the regulations and best management practices (BMPs) that shall be implemented during intrusive work activities (non-NOA-intrusive and NOA-intrusive) at the Site.

### 4.3.1 Storm Water Pollution Prevention Plan

The State of California Water Resources Control Board (SWRCB), in compliance with the National Pollutant Discharge Elimination System (NPDES), has adopted a statewide General Permit to control stormwater discharges associated with construction activity (General Permit). The Regional Water Quality Control Board (RWQCB) is the agency in charge of enforcing the provisions of General Permits. The General Permit requires construction projects that disturb one acre or more to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP specifies BMPs to prevent discharge of sediment to storm drains, drainages and waterways in the vicinity of the Site. A SWPPP was prepared for the Site and implemented during the removal action and was included as Appendix D of the RAW.

Although construction activities associated with O&M activities may not exceed one acre, the provisions outlined in the SWPPP still must be implemented to prevent sediment from leaving the Site.

### 4.3.2 Run-On and Runoff Control

The BMPs identified in the SWPPP must be implemented during intrusive work activities to prevent stormwater from entering the work area (run-on). BMPs will be in place to prevent stormwater/sediment migration away from the work area (run-off) should run-on occur.

## 4.4 Soil Management Plan

The following sections identify the requirements for the management and handling of NOA-containing soil at the Site.

### 4.4.1 NOA-Containing Soil Stockpiling Operation

When stockpiling NOA-containing soil generated during NOA-intrusive work, the material will be adequately wetted or covered with plastic sheeting, which will be secured in-place. Additionally, soil stockpiles should be bermed or surrounded by straw wattle to minimize run-on and run-off. Excavated soil shall be placed on plastic sheeting or other impermeable surface (concrete foundation, dumpster or dump-truck) to avoid contamination of underlying soil or landscape features, if present.

As stated in the ADM/AMP, control for disturbed stockpiles will include one or more of the following:

- Keep the surface adequately wetted;
- Establish and maintain surface crusting;
- Cover with plastic sheeting or vegetative cover; and/or
- Any other measure as effective as the measures listed above.

Stockpiles should be inspected daily to ensure control measures are adequate to prevent contamination of underlying or adjacent soils or landscape features.

### 4.4.2 Disposal of NOA-Containing Soil

Excess NOA-containing soil generated during NOA-intrusive work may be placed below the geotextile/warning barrier elsewhere on the Site if possible. Otherwise, excess NOA-containing soil generated during NOA-intrusive work will be disposed of at an appropriately licensed landfill facility.

Soil with a reported asbestos concentration greater than or equal to 0.25%, but less than 1.0% shall not be reused for surfacing applications per CCR Title 17, § 93106 (Surfacing ATCM). Should this material be transported offsite, a written *Warning Statement* per CCR Title 17, § 93106 (d)(3), must be provided to the recipient.

Soil with a reported asbestos concentration of 1.0% or greater is considered to be Asbestos-Containing Material (ACM). This material shall not be reused as surfacing material and if transported offsite must be handled as non-friable ACM. Should this material be transported offsite, it must be done in compliance with Federal, State and local laws and regulations.

## 5.0 IMPLEMENTATION OF SOPs

These SOPs must be carefully implemented to ensure worker exposures are minimized and the cap system remains as a protective barrier from the underlying NOA.

### 5.1 Field Documentation

The following sections identify the documentation requirements for NOA-intrusive work at the Site.

### 5.1.1 Field Reports

The Competent Person must complete a daily field report (DFR) for each day of NOA-intrusive work and submit the DFR to the Project Coordinator. The DFR should contain the following information:

- Project name/location;
- Contractor;
- Name of person who approved work;
- Name of workers performing work;
- Name of competent person/field personnel;
- Weather conditions; and
- Chronological description of events.

### 5.1.2 Photos

Photographic documentation is recommended for each day of NOA-intrusive work to supplement the description of events in the DFR. The photos should be submitted to the Project Coordinator with the corresponding field report.

## 5.2 Site Preparation

The following sections describe the measures to be taken prior to the commencement of work that may disturb NOA-containing soil.

### 5.2.1 Work Area Delineation and Security Measures

Prior to conducting maintenance work, or repairs that may disturb NOA-containing soil, an exclusion zone must be properly delineated using fencing including dust screens, construction barricades, safety cones, and/or "Caution" tape. Additionally, signs should be posted that communicate access to the area is restricted to authorized personnel only. Only personnel trained to conduct NOA-intrusive work will be allowed inside the exclusion zone.

### 5.2.2 Utility Survey and Clearance

Prior to the commencement of any NOA-intrusive work, as-built drawings and school site plans will be reviewed to locate onsite underground utilities. Underground Services Alert (USA) will be contacted and the work area will be marked with white spray paint at least 48-hours in advance of any excavation work.

### 5.2.3 NOA Control

Maintenance or repair work that may disturb NOA-containing soil will be strictly managed to minimize potential NOA exposure. Engineering controls will be used to control dust generation and personnel performing intrusive work activities at the Site will attend NOA awareness training. Further, NOA-intrusive work should be scheduled for times when students, faculty and staff are not onsite (evenings, weekends, extended summer breaks, etc.).

### 5.2.4 Permits and Plan

FCUSD personnel will obtain applicable permits, submit work orders, and notify the appropriate agencies of planned NOA-intrusive work prior to starting the work.

## 5.3 Field Work

The following sections describe various types of fieldwork that may take place during the course of operations and maintenance activities and the recommended procedures to follow when completing the specified work activity.

### 5.3.1 Confined Space Entry

The Site may contain spaces that are considered "confined" because their configurations hinder the activities of employees who must enter, work in, and exit them. A confined space has limited or restricted means for entry or exit, and it is not designed for continuous employee occupancy. Confined spaces include underground vaults, tanks, storage bins, manholes, pits, silos, process vessels, and pipelines. OSHA uses the term "permit-required confined space" (permit space) to describe a confined space that has one or more of the following characteristics:

- Potential to contain a hazardous atmosphere;
- Contains a material that has the potential to engulf an entrant;
- Has walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant; or
- Contains any other recognized safety or health hazard, such as unguarded machinery, exposed live wires, or heat stress.

If confined space entry is required as part of NOA-intrusive activities, FCUSD personnel or contractors performing work on behalf of FCUSD shall comply with Federal and California OSHA regulations pertaining to confined space entry.

### 5.3.2 Excavation

Excavation using heavy machinery may be required to perform NOA-intrusive work activities at the Site. Work that requires excavation using heavy equipment shall adhere to CCR, Title 8, § 1540, “Excavation.”

Dust mitigation measures will be strictly enforced during NOA-intrusive excavation work, which may include decreased rate of excavation and lower drop heights during stockpiling and soil loading activities.

Excavation operations shall adhere to the following procedures:

- Remove ground cover (sod, bark, mulch, etc) and pile away from work area to prevent mixing with NOA-containing soil;

- Carefully excavate clean-fill material so as not to damage integrity of geotextile/warning barrier, which is at a depth of approximately 12 to 18 inches. Hand excavation practices are recommended when a depth of approximately 10 inches is attained;
- Place clean fill material on, and cover with, plastic sheeting for the duration of the work to ensure that the clean fill material is not mixed with NOA-containing soil located below the geotextile/warning barrier;
- If the scheduled work requires excavation into NOA-containing soil, cut the fabric in a manner where it can be folded back into place following work activities;
- Place excavated NOA-containing soil on plastic sheeting, plywood or other impermeable surface to ensure NOA-containing soil does not mix with surface materials;
- Following repair work, replace NOA-containing soil and compact according to geotechnical specifications;
- Fold geotextile/warning barrier back into place;
- Rinse tools/equipment and shoes/clothing over plastic sheeting and use BMPs to contain runoff;
- Place clean fill material above geotextile/warning barrier;
- Replace ground cover to landscape architect's specifications; and
- Discard plastic by folding inward to prevent debris from leaving plastic and place in a sealed and labeled container (drum, 6-mil plastic bags [2]) for subsequent offsite disposal.

### 5.3.3 Soil Staging and Storage Operations

NOA-containing soil stockpiles will be placed on plastic sheeting in an effort to minimize potential contamination of underlying soil/softscape, if present. The soil will be adequately wetted to minimize dust generation. If the temporary stockpile will remain inactive for a period of more than seven (7) days, it will be covered with plastic sheeting or managed by one or more of the engineering controls listed in section 4.4.1 of these SOPs.

### 5.3.4 Soil Segregation Operations

For NOA-intrusive work that takes place in an area where the cap system is clean fill material, reasonable efforts will be made to segregate the clean fill material from NOA-containing soil. Soil segregation is necessary to ensure the clean fill material will remain an effective mitigation measure against potential NOA exposure after the completion of work.

Excess NOA-containing soil will have to be hauled offsite for disposal at an appropriate licensed facility. The guidelines for offsite disposal are discussed in Section 5.4 of these SOPs.

With DTSC's approval, the FCUSD may elect to set aside a restricted soil stockpile area to store NOA-containing soil. Stockpiled soil will be either covered with plastic sheeting or seeded for the establishment of a vegetative cover to prevent windblown dispersion. The stockpile will also need to be bermed to minimize run-on and run-off. The area should be checked daily during and following inclement weather to ensure that engineering controls are functioning properly.

### 5.3.5 Repair or Maintenance

During repair or maintenance activities FCUSD personnel may disturb NOA-containing soil. Therefore, reasonable effort should be made to adhere to the dust mitigation measures described in section 4.2 of these SOPs.

## 5.4 Transportation Plan for Offsite Disposal

The following sections describe the procedures for transportation and offsite disposal should excess NOA-containing soil be generated during intrusive work activities at the Site.

### 5.4.1 Waste Soil Loading

Excess or waste NOA-containing soil generated during intrusive work activities that requires offsite disposal will be loaded into trucks adjacent to the work area when practicable. Waste soil loading activities shall adhere to the following procedures:

- Place heavy plastic sheeting beneath the trucks in the loading area to contain soil spilled during loading operations;
- NOA-containing soil must be adequately wetted prior to loading into trucks to minimize dust generation;
- Six (6) inches or more of freeboard will be maintained when trucks are fully loaded;
- Drop heights during loading shall be minimized such that no visible dust is generated;
- Prior to moving off the plastic sheeting, soil spilled during loading will be removed from each loaded truck using a vacuum equipped with a high efficiency particulate absorbing filter or wet sweeping;
- Clean off plastic sheeting prior to driving off plastic to prevent tracking of NOA-containing soil away from the work area;
- Loads must be wetted and covered prior leaving the waste soil loading area; and
- Following the completion of waste soil loading activities, the plastic sheeting shall be folded inward to prevent material from leaving the plastic and loaded into the last truck prior to covering.

### 5.4.2 Dust Control During Transportation

In order to minimize the generation of dust during transportation, the loads will have at least 6 inches of freeboard, be adequately wetted, and covered with tarps. Additionally, the condition of the trucks utilized for offsite transportation will be maintained to ensure that spillage cannot occur from holes or other openings in the cargo compartments.

### 5.4.3 Traffic Control

It is not anticipated that a large number of trucks will be required for most NOA-intrusive work activities that will occur at the Site. However, if potential traffic issues are identified prior to a large-scale NOA-intrusive work activity, then traffic control and truck coordination efforts will be put into effect.

### 5.4.4 Transportation Routes

The proposed primary route for transportation of NOA-containing soil from the Site to the proposed class II landfill (anticipated to be Forward Landfill, Inc.) is:

Left (west) onto Broadstone Parkway;
Left (south) onto East Bidwell to Interstate Highway 50, West;
Merge onto Interstate Highway 50, west (approximately 22 miles);
Continue to California Highway 99, south (approximately 45 miles);
Exit Mariposa Road, east (toward Escalon);
Keep right onto East Mariposa Road; and
Turn right onto Austin Road, follow signs to landfill.

A secondary route to the landfill has also been identified as follows:

Left (west) onto Broadstone Parkway;
Left (south) onto East Bidwell to Interstate Highway 50, West;
Merge onto Interstate Highway 50, west (approximately 23 miles);
Merge onto Interstate Highway 5, south (approximately 45 miles);
Exit onto California Highway 4, east (approximately 3.6 miles);
Exit onto California Highway 99, south (approximately 2 miles);
Exit Mariposa Road, east (toward Escalon);
Keep right onto East Mariposa Road; and
Turn right onto Austin Road, follow signs to landfill.

The above routes were selected based on directness and suitability for heavy truck traffic. Both the primary and the secondary routes involve travel through metropolitan areas, and commute-hour traffic periods should be avoided, if possible.

### 5.4.5 Offsite Disposal

The disposal of excess NOA-containing soil generated during NOA-intrusive work at the Site and transported offsite shall be performed in accordance with these SOPs and in compliance with applicable Federal, State and local regulations.

### 5.4.6 Shipment Documentation

Waste manifests will accompany the driver(s) transporting NOA-containing soil to an appropriate landfill disposal facility from the Site. The following information shall be documented and retained in the O&M file:

- Project Name and Address;
- Analytical laboratory results for transported soil;
- Date(s) of transportation;
- Location of facility where soil was transported;
- Total amount of soil transported; and
- Planned use of soil (fill material, etc.) if the destination of the soil is other than a class II landfill disposal facility.

## 5.5 Decontamination

The following sections describe the decontamination procedures that are to take place following NOA-intrusive work activities.

### 5.5.1 Work Area

Following NOA-intrusive work activities the work area shall be decontaminated by placing excess NOA-containing soil below the geotextile/warning barrier or by disposing of the soil offsite. The plastic sheeting used to isolate NOA-containing soil should be folded inward to prevent the escape of residual soil and placed in a sealed and labeled container (drum, 6-mil plastic bags [2]) for subsequent disposal. If residual material is left on sidewalks or other hardscape surfaces onsite, water should be used to spray any dirt toward a containment area (e.g. plastic sheeting with BMPs to contain run-off).

### 5.5.2 Decontamination of Workers

Personnel performing NOA-intrusive work at the Site will be provided potable water in the work area to allow for decontamination of their face, arms, and hands prior to leaving the work area. Workers boots must also be free from visible accumulations of mud prior to leaving the work area. Water used for decontamination of workers can be used for dust control on NOA-containing soil or discharged slowly to the ground surface where the cap system has not been replaced and allowed to infiltrate/evaporate. The water used for decontamination purposes may also be disposed of offsite in an appropriately permitted disposal facility.

### 5.5.3 Decontamination of Equipment and Vehicles

Equipment and vehicles shall be decontaminated to prevent NOA-containing soil from being transferred outside the work area. Decontamination of equipment and vehicles will be done by rinsing equipment and containing the water in an onsite holding tank. The used decontamination water can be used for dust control on NOA-containing soil or discharged slowly to the ground surface where the cap system has not

been replaced and allowed to infiltrate/evaporate. The water used for decontamination purposes may also be disposed of offsite in an appropriately permitted disposal facility.

## 5.6 Backfill, Compaction and Site Restoration

Following completion of NOA-intrusive work activity the engineering controls that make up the cap system shall be restored to the condition specified in the RAW. The geotextile/warning barrier shall be restored to its original condition prior to the placement of clean fill. Material used as backfill shall be compacted to meet the specifications in the geotechnical report prepared for the Site.

## 5.7 Work Completion Inspection

Following the completion of NOA-intrusive work activities and prior to reopening the area for public use, the Project Coordinator shall conduct an inspection to ensure the Site has been restored to the specifications in the RAW.

Additionally, a completion report for NOA-intrusive work will be completed by either the Project Coordinator or the O&M Project Professional within 60 days of completing the NOA-intrusive work. A completion report is only required if the intrusive work duration is longer than seven days or if an unplanned event involving intrusive work is not repaired within 14 days after discovery. The completion report for NOA-intrusive work will follow the outline included in Appendix M of the O&M Plan. Completion reports prepared for NOA-intrusive work shall be included in the O&M Inspection Summary Report prepared for the Site.

# APPENDIX H

## APPENDIX H

## NOA FIVE-YEAR REVIEW REPORT OUTLINE

1.0 INTRODUCTION
2.0 GENERAL INFORMATION
- 2.1 Background
- 2.2 O&M Personnel

3.0 SUMMARY OF THE CURRENT YEAR'S PERIODIC INSPECTIONS

4.0 SUMMARY OF ACTIONS COMPLETED SINCE PREVIOUS O&M INSPECTIONS

5.0 NARRATIVE OF INSPECTION OBSERVATIONS
- 5.1 Purpose
- 5.2 NOA Awareness and O&M Training
- 5.3 Previous O&M Inspection
- 5.4 Five-Year Inspection
- 5.5 Inspection Checklists and Field Logs
- 5.6 Discussion
  - 5.6.1 Hardscape Systems – Cap Integrity
  - 5.6.2 Softscape Systems – Cap Integrity
  - 5.6.3 Additional Action Items
  - 5.6.4 Action Item Status Summary

6.0 COST IMPACTS

7.0 CONCLUSIONS AND RECOMMENDATIONS

8.0 REPORTING AND INSPECTION SCHEDULE

FIGURES
1. Vicinity Map
2. Site Plan
3. Cap System Components

TABLES
1. Summary of Cap System Components

ATTACHMENTS/APPENDICES
- Periodic Inspection Checklists
- Training Records
- Notifications and Completion Reports (if applicable)
- Five-Year Inspection Checklist and Field Notes
- Site Photographs
- O&M Plan Updates (change pages, if applicable)

# APPENDIX I

## APPENDIX I
## (Updated December 24, 2013)

## REPORT AND INSPECTION SCHEDULE
## Vista del Lago High School

Quarterly Periodic Inspections: during the months of June, September, and December of each year

Sixth Annual Inspection: on or before April 1, 2014
Sixth O&M Inspection Summary Report: June 1, 2014

Seventh Annual Inspection: on or before April 1, 2015
Seventh O&M Inspection Summary Report: June 1, 2015

Eighth Annual Inspection: on or before April 1, 2016
Eighth O&M Inspection Summary Report: June 1, 2016

Ninth Annual Inspection: on or before April 1, 2017
Ninth O&M Inspection Summary Report: June 1, 2017

Second Five-year Review / Tenth Annual Inspection: on or before April 1, 2018
Second Five-year Review / Tenth O&M Inspection Summary Report: June 1, 2018
Public Notice for the Five-Year Review / O&M Inspection Summary Report: [add the date]

The first Annual Inspection was completed on March 23, 2009. This date is used as the basis for subsequent annual inspections. However, dates may be adjusted to allow for issues discovered during the annual inspection to be resolved while the school is closed for summer break.

The following five years of report and inspection dates will be placed in each five-year review.

# APPENDIX J

# APPENDIX J

## INFORMING THE COMMUNITY OF FIVE-YEAR REVIEWS

**Before Starting**: inform the community that a five-year review will be conducted. The following should be included:

- District name, school name and location;
- State the district will be conducting the review ;
- Brief description of the mitigation cap (the selected remedy);
- Summary of the NOA (contamination) addressed by the mitigation cap;
- How the community can contribute during the review process;
- Contact name, telephone and e-mail address for further information; and
- The scheduled completion date of the five-year review.

**At the end**: inform the community that a five-year review has been completed. The following should be included:

- District name, school name and location;
- State the district conducted the review;
- Brief description of the mitigation cap (the selected remedy);
- Summary of the NOA (contamination) addressed by the mitigation cap as provided in the initially informed;
- Brief summary of the five-year review results;
- Protectiveness statement(s) – (remedy functioning as intended)
- A brief summary of data and information that provided the basis for determining protectiveness, issues, recommendations, and follow-up actions directly related to the protectiveness of the remedy;
- Location(s) where a copy of the five-year review can be viewed
- A contact name, telephone number and e-mail address for further information or where questions can be asked about the results; and
- The date of the next five-year review or a statement and supporting rationale that a five-year review will no longer be required.

# APPENDIX K

# APPENDIX K

## GUIDELINES FOR SUBMITTING PDF DOCUMENTS TO THE DEPARTMENT OF TOXIC SUBSTANCES CONTROL

With the DTSC Cleanup Program's database, EnviroStor, the public can now download and view project-related documents online. To provide the public with this vital source of information, please provide a PDF copy of documents, even if a hard copy will be supplied.

Due to differences in internet downloading capabilities and resolutions of PDF files, many users have trouble downloading and viewing large PDF files. The following guidelines were created to provide consistency in PDF files and allow most users to access these files.

1) **File size:** For each file that needs to be uploaded, the maximum file size should be kept to 30 megabytes (MB). If you have a large file, please save large color images (e.g., figures, site photos, maps) and supplemental information (appendices) in separate PDF files. If you are creating PDF files by scanning a paper document, the recommended resolution setting is 200 SPI.

2) **Naming PDF files:** It is recommended that the files be named by using an abbreviated site name, report title, date, and, if multiple files are being uploaded, the section of report (e.g., Site_report _mmddYLsection.pdf, 968-81 stAve_PEA _072706_text.pdf, etc). Please do not use spaces in your filename.

3) **Accessibility:** To ensure that all files uploaded into EnviroStor are searchable and comply with California's Web Accessibility law, please run all PDF files through an Optical Character Recognition (OCR) process prior to submitting the file to DTSC.

4) **Bookmarks:** For large reports, bookmarks should be created in the PDF for ease of navigation.

5) **FTP server:** To submit large files or a group of files that cannot be sent via e-mail, they can be sent to a DTSC staff member via the FTP server. It is recommended that if you are sending multiple files via the FTP server, that you place all files into a folder and ZIP the folder. Below are the instructions to submit files via the FTP server:

   Link: http://www.dtsc.ca.gov/database/DTSC FTP Reguests/index.cfm

   i. **Provide Upload File Information:** Please provide the requested information about yourself, the recipient, and the name of the computer file to be uploaded. This tells our system:
      a. to expect and allow your file onto the FTP server,
      b. to whom the recipient is, and
      c. to let the recipient know who sent the file

      Please assure that the file name and specified name of the file (with extension) exactly match the actual name of the file being sent. If the names do not match exactly, then the file will be deleted as spam. Do not specify a drive or directory.

   ii. **Transfer the File:** Once your information is provided in the first step, you have 60 minutes to send your file to our server. You will be provided with an FTP location after providing the information.

      You will be notified upon the successful receipt or failure to receive your file.

For further assistance about submitting PDF files, please contact the appropriate Cleanup Program Project Manager, or the EnviroStor Help Desk at (916) 323-3400, or by email to EnviroStor@dtsc.ca.gov.

# APPENDIX L

## APPENDIX L

## O&M INSPECTION SUMMARY REPORT OUTLINE

1.0 GENERAL INFORMATION
- 1.1 Introduction
- 1.2 Background
- 1.3 O&M Personnel
- 1.4 Pre-Inspection Activities

2.0 NARRATIVE OF INSPECTION OBSERVATIONS
- 2.1 Purpose
- 2.2 NOA Awareness and O&M Training
- 2.3 Previous O&M Inspections
- 2.4 Current Inspection
- 2.5 Inspection Checklists and Field Logs
- 2.6 Discussion
  - 2.6.1 Hardscape Systems – Cap Integrity
  - 2.6.2 Softscape Systems – Cap Integrity
  - 2.6.3 Additional Action Items
  - 2.6.4 Action Items Status Summary

3.0 CONCLUSIONS AND RECOMMENDATIONS

4.0 REPORTING AND INSPECTION SCHEDULE

FIGURES
1. Vicinity Map
2. Site Plan
3. Cap System Components

TABLES
1. Summary of Cap System Components

ATTACHMENTS/APPENDICES
- Training Records
- Notifications and Completion Reports (if applicable)
- Inspection Checklists and Field Notes
- Site Photographs

APPENDIX M

## APPENDIX M

## NOA INTRUSIVE WORK COMPLETION REPORT OUTLINE

1.0 GENERAL INFORMATION

2.0 PUBLIC NOTIFICATION ACTIVITES (if applicable)

3.0 SUMMARY OF WORK ORDER
- 3.1 Work Location (maps and figures for larger projects)
- 3.2 Description of Work Activities

4.0 SITE PREPARATION
- 4.1 Field Documentation
  - 4.1.1 Field Logbooks
  - 4.1.2 Photographs
- 4.2 Site Preparation and Security Measures
  - 4.2.1 Work Area Delineation and Security Measures
  - 4.2.2 NOA Control
  - 4.2.3 Permits and Plan (if applicable)

5.0 REPAIR, MAINTENANCE, AND SITE RESTORATION
- 5.1 Excavation
  - 5.1.1 Soil Staging, Segregation and Storage Operations
  - 5.1.2 Excavation Plan
  - 5.1.3 Decontamination
- 5.2 Repair or Maintenance
- 5.3 Compliance with Health and Safety Requirements
- 5.4 Dust Control
- 5.5 Transportation Plan for Offsite Disposal (if applicable)
- 5.6 Backfill and Site Restoration

6.0 FIELD VARIANCE OR CHANGE ORDER (if applicable)

7.0 SIGNATURE