

**MODIFICATION # 4  
TO  
SAN RAFAEL CITY SCHOOLS  
INDEPENDENT CONSULTANT AGREEMENT  
FOR PROFESSIONAL SERVICES  
WITH MILLENNIUM CONSULTING ASSOCIATES  
FOR INDUSTRIAL HYGIENE (HAZMAT) SERVICES AT  
SAN RAFAEL CITY ELEMENTARY SCHOOLS  
AS APPROVED BY SAN RAFAEL CITY SCHOOLS BOARD OF EDUCATION  
ON DECEMBER 18, 2017**

This Modification No. 4 ("Amendment") amends the Independent Consultant Agreement for Professional Services ("Agreement"), which was entered into by and between San Rafael City Schools ("District") and Millennium Consulting Associates ("Consultant") (together, "Parties") as follows:

**RECITALS**

WHEREAS, the parties entered into the Agreement executed on or about February 10, 2017; and

WHEREAS, both parties wish to make certain modifications to their Agreement; and

Now, THEREFORE, in consideration of the mutual promises and covenants set forth above and contained herein, the Parties agree as follows:

1. **Exhibit "A"** to the Agreement is deleted in its entirety and replaced with the document titled "**Exhibit "A"**" and attached to this Amendment.
2. In Section 4 of the Agreement ("Compensation"), "One Hundred Forty Thousand, Eight Hundred One Dollars, Fifty Cents" (\$140,801.50)" is deleted and replaced with "One Hundred Fifty-One Dollars, Three Hundred One Dollars, Fifty Cents" (\$151,301.50)".
3. Subsection 4.2.1.4 is added below subsection 4.2.1.3. as follows:

4.2.1.4. Phase I Environmental Site Assessments ("ESA") at Laurel Dell Elementary, 225 Woodland Avenue; Davidson Middle School, 280 Woodland Avenue; and, the Annex Building, 150 Lovell Avenue, all located in San Rafael, CA 94901.

Phase I ESA for Laurel Dell Elementary:	\$ 3,500.00
Phase I ESA for Davidson Middle:	\$ 3,500.00
Phase I ESA for Annex Building:	\$ 3,500.00

<b>Total Phase I ESA:</b>	<b>\$10,500.00</b>
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4. All other provisions of the Agreement shall remain in full force and effect and are reaffirmed. If there is any conflict between this Agreement and any provision of the Agreement relating to this Amendment only, the provisions of this Amendment shall control.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment.

By \_\_\_\_\_  
Dr. Michael Watenpaugh  
Superintendent  
San Rafael City Schools

\_\_\_\_\_  
Date

By \_\_\_\_\_  
Jack McCubbin, Principal  
Millennium Consulting Associates

\_\_\_\_\_  
Date

## **Exhibit “A”**

Consultant shall provide Services for asbestos, lead, PCB and hazardous materials abatement surveys, cost estimating, outline specifications preparation, and future design and construction phase services described below:

### **SCOPE OF WORK FOR CONSULTANTS**

#### **1. Hazardous Materials Survey, Cost Estimating, and Outline Specifications**

##### **SERVICES GENERALLY**

- In general, the services to be provided by the Consultant selected as a result of this process will include:
  - Construction document review,
  - Building inspections/surveying and testing for:
    - Asbestos-containing materials (“ACM”),
    - Lead-containing materials (“LCM”), and
    - Other hazardous materials of importance required prior to demolition,
  - Bulk sampling for ACM and LCM,
  - X-Ray fluorescence (XRF) testing for LCM,
  - Preparation of removal specifications and plans, identifying all items that require abatement prior to demolition,
  - ACM and LCM abatement compliance inspections, including environmental and clearance air monitoring, quality control and assurance programs for field sampling,
  - Project support and analytical services for an emergency or planned repair, renovation, and demolition projects as required by the District.
- Construction Phase Services: The Consultant will monitor the abatement work to ensure compliance with contract specifications and all federal, state, and local regulatory requirements applicable to such work.
- All work shall be performed in accordance with:
  - Asbestos Hazard Emergency Response Act (AHERA),
  - Title 8 of the California Code of Regulations, including Sections 1529 and 1532.1,
  - Education Code Section 49410 et seq.,
  - Health and Safety Code section 25914 et seq.,
  - Labor Code Section 6501 et seq., and

- All applicable local, state and federal laws, all in support of the construction commencing throughout the District.

**PRE-DESIGN PHASE: SURVEY, OUTLINE SPECIFICATIONS, COST ESTIMATING**

- Prepare a detailed survey/inspection of EACH Site for the presence of asbestos and lead containing materials, which will include review of available pertinent existing historical documentation/previous reports of proposed areas where materials or areas of ACM and LCM may be located.
- Meet with the District Representatives as needed to decide what abatement steps should be undertaken in connection with the modernization plans for the Site.
- Develop a management plan to identify ACM and LCM.
- Assess, sample and analyze materials for ACM at the Site:
- Visual assessment of accessible areas.
- Preliminary assessment to determine homogeneous area and sampling schemes.
- Non-destructive bulk sampling and analysis by Polarized Light Microscopy (PLM) of suspect ACM. Analysis to be in accordance with United States Environmental Protection Agency (USEPA) protocol as found in the Asbestos Hazard Emergency Response Act (Code of Federal Regulation, Section 40, Part 763).
- Assess, sample and analyze LCM at the respective school sites:
- Visual assessment of accessible areas.
- Preliminary assessment to determine homogeneous areas and sampling schemes.
- X-ray fluorescence (XRF) sampling of painted surfaces to assess lead content. If inconclusive, sample tests are to be provided.
- Consultant shall provide seventy two (72) hours' notice to the designated representative of the District prior to starting any on-site assessment or sampling. The Consultant shall notify the District

representative for all work to be performed, including the date and time of the Consultant's visit. Sampling may only be performed when staff and students are not present in the areas to be sampled. The Consultant shall not displace staff or students for sampling purposes.

- Consultant shall provide a Hazardous Building Material Survey (HBMS) report for the Site. HBMS reports shall include a summary of findings and recommendations, and individual detailed sections for ACM, LCM, PCB'S, hazardous chemicals, underground storage tanks, and other hazardous materials.
- Outline specifications for use during the design phase establishing requirements and procedures for abatement of hazardous materials during each of the future projects.
- Cost estimates for each site indicating costs for abatement of identified hazardous materials.
- District will provide, if available, copies of any available existing hazardous material reports prepared by others, as-built/record drawings (CD, if available) and copies of relevant modernization design drawings currently in progress to the selected Consultant.

#### **DESIGN/PRE-BID PHASE**

- Consultant shall prepare a LCM/ACM scope of work and project-specific Specifications for the Site as directed by the District, which will include but not be limited to: work procedures, abatement drawings identifying type, extent and location at each building of ACM and LCM and disposal requirements, air sampling criteria and work area preparation.
- Consultant shall assist District in the preparation of other bidding/contract documents for abatement contractors.
- Consultant shall be available to attend Pre-Bid meetings to answer questions from bidding contractors.

#### **CONSTRUCTION PHASE**

- Consultant shall provide oversight of abatement and remediation activities.

- Consultant shall review contractor submittals, including the contractor's hazardous remediation plan, worker certificates, medical clearances, respirator fit tests and Injury Illness Prevention Plan (IIPP).
- Consultant shall attend and participate in weekly project meetings, and any other meetings, as required.
- Consultant shall monitor construction contractor with regard to monitoring abatement work (asbestos and lead removal), for compliance with abatement scope of work and specifications, as well as all necessary air monitoring, wipe sampling and necessary testing.
- Consultant shall collect asbestos air samples during abatement work and analyze within twenty-four (24) hours. Clearance air samples at conclusion of abatement work shall be analyzed in accordance with the requirements of the Asbestos Hazard Emergency Response Act (AHERA), the Asbestos School Hazard Abatement Reauthorization Act (ASHARA), 40 Code of Federal Regulations (CFR), Environmental Protection Agency (EPA) rules regarding asbestos containing materials in schools and other applicable requirements of responsible regulatory agencies.
- Consultant shall characterize waste materials from lead abatement work. Waste characterization shall be performed in accordance with applicable requirements of responsible regulatory agencies. This includes characterization of wastes as hazardous waste and/or Resource Conservation Recovery Act (RCRA) hazardous waste.

### **CLOSEOUT**

- Within thirty (30) days of completion of the abatement work, Consultant shall provide District documentation detailing abatement work completed, results of monitoring and contractor observations, results of clearance sampling, copies of waste manifests for the disposal of hazardous and non-hazardous waste for the Site, site inspection reports (daily field reports) of abatement activities and summary of abatement activities, abatement activity personnel, and certification that the abatement activities complied with all applicable Health and Safety laws, guidelines, and requirements of Cal/OSHA Title 8, California Department of Education (CDE), Department of Toxic Substances Control (DTSC), and the California Division of the State Architect (DSA).

## **2. Services Regarding Davidson Middle School Annex**

In addition to the Services identified above, in Section 1, Consultant shall provide the following services for the District's Davidson Annex preparation for temporary housing, pre-design services, bid support, monitoring and closeout services, to include:

Pre-Renovation Hazardous Material Survey and assessment of the Annex (exterior, interior and roof), and immediate Annex grounds (as applicable to the scope). For the purposes of this contract, hazardous materials are described as asbestos containing materials (ACM), lead containing materials (LCM), other regulated materials (ORMS) such as poly-chlorinated biphenyls (PCB's), and universal wastes (light fixtures, thermostats, illuminated exit signs).

**A. Task 1 – Historical Hazmat Data Review, Initial Site Survey** – As part of this task, Consultant will review data obtained from San Rafael City Schools (SRCS) for the Annex. Following review of the available SRCS data, Consultant will perform a visual survey of the interior, exterior and roof of the school and exterior play yard areas that comprise the school grounds. The purpose of the visual survey is to confirm the presence and condition of suspect asbestos containing building materials, lead containing building components or paint coating systems, PCB's, and ORM's identified in existing SRCS files. The visual assessment will be used to develop a sampling plan for the pre-renovation survey.

Following the initial site review, Consultant will develop a site-specific sampling and analysis plan. The work plan will include defining homogeneous sample groups (HSG) for asbestos sampling. The number of samples to be collected will conform to AHERA sampling requirements for TSI, surfacing and current EPA guidance for miscellaneous suspect ACMs.

The work plan will include conducting lead bulk sampling and X-ray Fluorescent (SRF) surveying as part of the hazmat assessment survey. In addition, the work plan will include asphalt concrete sampling for asbestos and soil sampling for naturally occurring asbestos (ONLY). The asphalt concrete and soil sampling will be limited to depths of five feet below existing site grade (BGS) unless exterior renovation work will require excavation to depths greater than five feet. The asphalt coring and soil sampling budget has been included in this proposal under Task 1.

The visual inspection and sampling will be performed and supervised by personnel who are qualified and certified in their perspective professional fields (asbestos and lead). The sampling program will be performed after the work plan has been developed. However, selected materials may be sampled during the initial site inspection. The scope of the sampling program is described in Task 1 below.

### Hazmat Survey

Based on Task 1, Millennium will conduct a hazardous material survey to close the data gaps described above. This task will include performing the following:

- XRF survey to evaluate paint coating systems and suspect lead containing building components for lead,
- Bulk sampling of damaged paint coating systems for lead,
- Bulk sampling of caulking, sealants, and suspect components for PCBs;
- Bulk sampling of previous buildings materials and components that were assumed ACM or contains no existing data

Bulk samples and/or paint chip samples, will be collected in conformance with HUD and/or CDPH sampling procedures and will be analyzed for total lead by EPA Method 3050B/7000B. Bulk samples will be analyzed for asbestos content using the EPA Method 600/R-93/116, 1993. This method is referred to as the "Improved Method" and is recommended by EPA as a preferred substitute to the Interim Method EPA 600/M4--82-020, 1982. Bulk samples for asbestos that exhibit trace (<1% asbestos) or will be analyzed by Point Counting (1000 Point Count).

### Asphalt and Soil Testing for Environmental Assessment

Under this task Millennium will collect asphalt concrete core samples and representative soil samples at general representative locations for the entire site. Where available, this work will be coordinated with a separate geotechnical investigation to be performed by SRCSD's geotechnical consultant (if one will be contracted for the design). Where this coordination is not practical, Millennium will subcontract with a utility locator subcontractor (if feasible and if information provided by USA North 811 services are insufficient) to assist in the subsurface investigation and perform the field services of asphalt coring and collection of samples itself. Should subsurface conditions impede general soils investigation, Millennium will hire a subcontractor to perform coring/boring, which may be at an additional cost to the original proposal.

Millennium anticipated performing three (3) soil borings to a maximum depth of five (5) feet below ground surface (bgs). Asphalt



cores and soil samples will be collected from each boring. Soil sample depths will be staggered between soil borings. Groundwater is not anticipated to be encountered unless deeper soil borings will be performed. The soil samples will be placed in a cooler containing water ice. Samples, will be logged onto a chain of custody.

All soil samples will be transmitted to McCampbell Analytical, Inc. (MAI) under chain of custody by Millennium personnel. MAI will formulate the composite samples for the NOA analyses. Millennium will transmit the composite samples for NOA and the asphalt core samples to EMSL Analytical in San Leandro, CA for analysis. The sampling and analysis plan will include analyzing discreet and composite (2:1 or 3:1) soil samples for the following constituents:

Table - Soil Sampling and Analysis Plan

<b>Analytical Method</b>	<b>Number of Analyses</b>
Naturally Occurring Asbestos (NOA) by CARB 435 (1,000 point Count).	3 - Composite Soil Sample (2:1or 3:1) <sup>1</sup>
Asbestos (1,000 point count with gravimetric reduction)	2 - Asphalt/ Concrete Only

Notes:

1. NOA to be analyzed on composite of soil samples (2:1 or 3:1 composite) from 0 to 5 feet bgs from each boring.

All analyses will be performed at standard turnaround times (5 days depending on analytical method). All analyses will be performed using Level II Quality Assurance/Quality Control (QA/QC) protocols.

Should surface treatments or soil conditions impede subsurface investigations performed by Millennium personnel, Millennium will sub-contract out the subsurface work. Difficult conditions regarding subsurface work may require additional costs to the original

proposal. Millennium will communicate all site conditions prior to progressing work on difficult site conditions.

**B. Task 2: Pre-Renovation Hazardous Material Survey Report**

Under this task, Millennium will document the results of the Pre-renovation Hazardous Materials Survey and Assessment including the results of the existing data review and site sampling program.

**C. Task 3: Outline Technical Specifications (Construction Documents)**

Millennium will assist in the preparation of project construction documents for both public bidding and Job Order Contracting delivery methods, and for project change orders. In providing construction document services, Millennium will:

1. Develop hazardous material specifications for the specific work to be performed for the abatement of hazardous materials (asbestos, lead, and Other Regulated Materials/ Universal Wastes to be disturbed by scheduled building renovation. The hazardous material specifications will utilize standard specifications (asbestos, lead, ORMs).

Hazardous material specifications shall address contractor qualifications submittals, removal and decontamination procedures, proper worker protection and final clearance criteria. The specifications shall incorporate all applicable federal, state and local laws, regulations, documents, codes, SRCSD policies and requirements that govern hazardous materials abatement/containment work, along with describing all labor, materials, services, permits and fees that are required to accomplish the hazardous materials abatement/containment and any required restoration. The hazardous material specification will also address all applicable regulatory requirements for demolition (including NESHAP permitting where appropriate), removal, transportation and disposal of hazardous materials. The hazmat specifications shall include a list of all agencies required to be notified by the contractor. The hazmat specifications will also include hazmat schedule that will detail the hazardous materials present in each room.

2. Develop hazardous material abatement drawings. The drawings will show the approximate location of hazardous materials to be removed including piping requiring abatement. Drawings will be full size, and will utilize backgrounds to be provided by the project architect.

**D. Task 4: Bidding Services:**

Millennium will assist SRCSD during the bidding phase by providing the following:

1. Attending two pre-bid walks to review the hazardous materials related work as described in the project specifications.
2. Provide written responses to Request for Information (RFI's) and prepare written addenda pertaining to hazardous material related work as required. All written responses will be coordinated with the Project Architect or through the SRCSD Project Manager.

**E. Task 5: Inspection and Monitoring Services:**

Millennium will provide hazardous material (Hazmat) abatement inspection and monitoring services by providing the following:

1. Attending an initial pre-construction meeting to review necessary abatement submittals.
2. Attending weekly construction progress meetings (as necessary) to coordinate abatement monitoring, with planned work activities during the various project phases.
3. Reviewing hazardous material subcontractor submittals for conformance with the project specifications.
4. Inspecting abatement enclosures and/or regulated areas prior to initiation of abatement and/or demolition activities for conformance with project specifications.
5. Performing necessary clearance inspections and testing;
6. Performing final acceptance testing and wipe testing and microbial swab (if necessary) following completion of work and prior to turnover to the SRCSD.

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**F. Task 6: Project Closeout:**

Millennium will provide project closeout services by providing the following:

7. Review contractor red-lined drawings related to hazmat abatement work;
8. Preparing as-built drawings showing areas that have been abated and identify remaining hazardous materials that were not abated or disturbed, and
9. Preparing and/or reviewing required close-out documents.

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### 3. Supplemental Services for San Rafael High School Phase II Environmental Site Assessment

For the San Rafael High School site, Consultant shall complete the following tasks as part of Consultant's Phase II Environmental Site Assessment Services:

#### SCOPE OF WORK

##### Task 1 – Investigation Planning, Site Preparation, and Sampling

Millennium will perform a limited Phase II ESA at Building M and Building O. Millennium recommends that 72 soil samples be collected as outlined in Table 1 below:

Table 1: Proposed Work Plan

Location	Sample Depths (ft-bgs)	Boring Type	Sample Type	Sample Quantity/Interval	Analytical Summary
Building M (Auto Shop)	0.5 to 2.0, 4.5 to 6.0	Direct Push	Soil	10 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 40	VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), TPH(g, d, mo) (EPA Method 8015B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082)
Building O (Metal Shop)	0.5 to 2.0, 4.5 to 6.0	Direct Push	Soil	8 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 32	VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082)

Millennium will initiate field investigation by conducting subsurface utility clearances at all proposed sampling locations. This will be performed by coordinating with local agencies through USA Underground Alert and utilizing third party utility and subsurface locating services. Millennium personnel will conduct the sampling with a C-57 licensed subcontracted driller. The soil samples collected during drilling will be collected in containers provided by the analytical laboratory.

Soil samples will be field screened using an Organic Vapor Analyzer equipped with a Photo Ionization Detector (OVA-PID). Due to the relatively shallow soil sampling, no groundwater samples will be collected. All soil samples will be placed in a cooler containing ice. Samples will be logged onto a chain of custody.

All borings performed will be in conformance with applicable boring permits and permit close-out documents, including boring logs.

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The soil samples will be shipped to McCampbell Analytical under chain of custody by Millennium personnel. The soil samples will be analyzed for the following constituents:

- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- Total Petroleum Hydrocarbons (TPH) as gasoline, diesel, and motor oil (g, d, mo) by EPA Method 8015B;
- CAM17 Heavy Metals by EPA Method 6020/7041; and
- Polychlorinated biphenyls (PCBs) as Aroclors by EPA Method 8082.

Estimated analytical quantities based on the above and in Table 1 are detailed in the attached cost detail spreadsheet. All analyses will be performed at the standard 5 day turn-around time. All analyses will be performed using Level II Quality Assurance/Quality Control (QA/QC) protocols.

### **Task 2 – Project Management, Data Analysis, & Reporting**

Following completion of the field work and review of the analytical results, Millennium will prepare a written report. The analytical results will be compared to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (Water Board). The ESLs are considered to be conservative. Consequently, the Water Board, under most circumstances, considers the presence of a chemical in soil at concentrations below the corresponding ESL to not pose a significant, long-term (chronic) threat to human health and the environment.

The report will also present the visual observations during the field investigation, soil sampling results, findings, and conclusions. Based on comparison of the ESLs with the analytical data, Millennium will develop specific conclusions and recommendations about onsite reuse and offsite disposal options for excess soil, and if additional worker protection will be required during site demolition activities.

Soils that have analyte concentrations below the DTSC Total Threshold Limit Concentration (TTLC), but have the potential to exceed the Soluble Threshold Limit Concentration will be analyzed using the Waste Extraction Test (WET). Soils that have the potential for exceeding Federal regulated levels for hazardous waste will be analyzed using the Toxicity Characteristic Leachate Procedure (TCLP). For budgeting purposes, Millennium will assume that 10% of the collected samples for VOCs and CAM17 Metals will require analysis using the WET and 5% of the collected samples for VOCs and CAM17 Metals will require analysis using the TCLP.

### **TIMELINE**

Start of work on the limited Phase II ESA is dependent on the following:

- District availability prior to the start of the 2017-2018 school year. The District will be required to move the automobiles out of Building M in order for the driller to have access to boring locations; and
- Driller availability. Millennium will schedule a driller within 5 days of executing the notice to proceed.

#### **4. Supplemental Services Regarding San Rafael High School Stadium Renovation**

For the San Rafael High School Stadium Site, Consultant shall complete the following tasks as part of Consultant's industrial hygiene services.

##### **Task 1 – Hazmat Site Inspection Survey, Sampling and Testing**

- Limited asbestos, lead and other regulated materials (ORM) hazardous material survey consisting of any as-needed limited bulk sample and debris collection of any exterior asphalt/concrete pavement, paint coating, soils, and other systems and components likely to be affected by the renovation for compliance with the listed criteria in California Occupational Safety and Health Administration (Cal OSHA) standard 8 California Code of Regulations (CCR) 1529, OSHA standard 29 Code of Federal Regulations (CFR) 1926.1101 and Environmental Protection Agency (EPA) standard 40 CFR Part 61.145 (a), including the analysis of bulk samples via polarized light microscopy (PLM) methodology.
- Soil testing is limited to within 2' below the surface / grade (with no assistance from mechanical drilling or coring due to time sensitivity). Soil at greater depths will not be collected/analyzed and may require additional services and equipment.

##### **Task 2 – Hazmat Survey Report**

- Prepare Hazardous Material Survey Report detailing the findings and results of the testing.

##### **Task 3 – Hazardous Materials Design Specs and Drawings**

- Develop hazardous material specifications for the specific work to be performed for the abatement of hazardous materials (asbestos lead, and other regulated material / universal wastes) to be disturbed by scheduled construction and demolition. The hazardous material specifications will utilize standard specifications (asbestos, lead, ORMs).
- Develop hazardous material abatement drawing(s). The drawings will show the approximate location of hazardous materials to be removed drawings will range from 8.5 x 11 to full size (pending contract document format) and will utilize backgrounds to be provided by the project designer.

##### **Task 4 – Bidding Services**

- Millennium will assist San Rafael City Schools (SRCS) and Van Pelt Construction Services (VPCS) during the bidding

phase of the project (if applicable).

**Task 5 – Abatement Inspection and Monitoring Services**

- Millennium will provide hazardous material (Hazmat) abatement inspection, testing and monitoring services through the duration of the construction project, which includes submittal review of contractor qualifications, onsite construction monitoring (primary perimeter sampling), and responding to RFI's and ASI's regarding environmental impact to the scope of work, and observing completion of abatement services and regulated waste transport.

**Task 6 – Project Closeout**

- Millennium will provide project closeout reporting services, which includes compilation of daily logs, analytical results of monitoring and profiling, copies of waste tickets and manifests, and certificate of completion.

Based on the tasks above, Millennium will perform the following technical scope of services to support the planned project:

**Task 1: Hazmat Site Inspection Survey, Sampling and Testing**

Historical Review and Data Gap Assessment – Prior to conducting the site inspection, Millennium will conduct a review of any existing asbestos, lead and site soil data for the site. This will include reviewing:

- Available hazmat survey information and subsurface investigation provided by San Rafael City Schools (SRCS) and conducted by SRCS and its' consultants.

Site Inspection and Work Plan Development – Following the review of available existing data, Millennium will conduct an initial site inspection of the proposed improvement areas at the site. The purpose of the site inspection is to determine existing site conditions that could impact planned sample locations. Once the initial data review and site inspection has been completed, Millennium will prepare a work plan identifying the planned collection locations, and chemical analyses to be performed. The work plan will also identify locations where additional bulk samples of existing painting coating systems for asbestos and lead will need to be collected to support the proposed project.

Asbestos and Lead Hazard Survey – for materials without existing data, the asbestos and lead hazard survey will include collecting limited bulk/debris samples from any components and paint coating



systems that will be disturbed during the proposed project. The bulk samples will be analyzed for asbestos and lead, where no previous testing has been reported. Bulk lead samples will be analyzed by EMSL Analytical using EPA Method 7420 for lead. Bulk samples for asbestos will be analyzed using EPA Method 600 (Standard PLM) or by gravimetric reduction/1000 point count depending on material matrix. The bulk asbestos and lead data will be compiled in tables that will be included in the report to be prepared under Task 2.

Soil Sample Preparation and Analysis – Following the review of available existing data (Phase 1 reports, historical surveys, etc.), for site preliminary characterization purposes, the soil samples collected from each location will be analyzed both as discrete samples and/or as composite (2:1 to 3:1 composite). The sampling plan may vary depending on field and soil conditions encountered during the sample collection. Analytic procedures to be used for analysis of building and structural components to be affected during construction, and soil samples include the following:

Stadium Structures and Components (if no existing data available)

- Bulk asbestos samples analyzed by Polarized Light Microscopy (PLM) in accordance with the EPA Method for the Determination of Asbestos in Bulk Building Materials (Method 600/R-93/116). EPA Method 600 (Standard PLM) or by gravimetric reduction and 1000-point Count (as needed).
- Bulk total lead analysis by Flame AA (7000B).

Site Soil and Waste Characterization

- Heavy Metals (CAM 17 List – TTLC) by ICP/ICP-MS (Various EPA Methods, metal analyte specific) (total analysis only)
- Heavy Metals (STLD/TCLP) – soluble lead, chromium or metals with CAM 17 results 10x times the STLC regulatory California limit for hazardous waste
- EPA Method 8082 (PCBs) for Aroclors Only
- Organochlorine Pesticides by EPA Method 8081A
- Naturally Occurring Asbestos (CARB 435/PLM with milling, sensitivity to <0.25% or <0.1% (Levels A/V) (as needed supplementary to historical data)

Bulk samples for asbestos and lead will be sent to EMSL Analytical, located in San Leandro, California. All soil samples will be stored in a cooler with water ice (temperature about 4 degrees C), and will be transported under chain of custody to McCampbell Analytical in Pittsburg or to Curtis & Tompkins LTD in Berkeley. All analyses will be performed using Level II Quality Assurance/Quality Control (QA/QC) protocols. Soil samples for asbestos and NOA will be

submitted to EMSL for testing.

## **Task 2 – Hazardous Material Survey Report**

Under Task 2, Millennium to review the analytical data and summarize the results of the bulk sampling. The history, background and project scope will be described in the narrative of the report, whilst the analytical results will be organized in tabular format. Millennium will provide summary conclusions and recommendations for the proposed renovation project.

The soil analytical results will be compared to Environmental Screening Levels (ESLs) established by the San Francisco Regional Water Quality Control Board (SFRWQB). The analytical data will also be reviewed to determine if the asphalt, concrete and/or soil exhibit a toxic characteristic of hazardous waste from solely a heavy metals perspective using existing hazardous waste limits codified in CCR Title 22. Based on comparison of the ESLs and hazardous waste limits with the analytical data, Millennium will develop specific conclusions and recommendations about handling and offsite disposal options for excess soil regarding heavy metals. The results of the site testing will be presented in a written Hazardous Material Assessment Report. The report will also include a heavy metal background concentration assessment (Arsenic, Chromium, Lead, and Vanadium) for use in comparison with planned import materials.

## **Task 3 – Hazardous Materials Design Specification and Drawings**

Hazardous material specifications shall address contractor qualifications submittals, removal and decontamination procedures, proper worker protection and final clearance criteria. The specifications shall incorporate all applicable federal, state and local laws, regulations, documents, codes, SRCS policies and requirements that govern hazardous materials abatement/containment work, along with describing all labor, materials, services, permits and fees that are required to accomplish the hazardous materials abatement / containment and any required restoration. The hazardous material specification will also address all applicable regulatory requirements for demolition (including NESHAP permitting where appropriate), removal, transportation and disposal of hazardous materials. The hazmat specifications shall include a list of all agencies required to be notified by the contractor.

Hazardous material drawings shall provide approximate locations of materials to be removed. All projected work areas are based on the design proposed by Carducci Associates.

#### **Task 4 – Bidding Services**

Millennium to assist SRCS/VPCS during the bidding phase of the project by providing the following:

1. Attending two (2) pre-bid walks to review the hazardous materials related work as described in the project specifications.
2. Provide written responses to Request for Information (RFI's) and prepare written addenda pertaining to hazardous material related work as required. All written responses will be coordinated through the VPCS Project Manager.

#### **Task 5 – Abatement Inspection and Monitoring Services**

Millennium to provide hazardous material (Hazmat) abatement inspection and monitoring services through the duration of the project, including the items below:

1. Attending an initial pre-construction meeting for coordination of work, and subsequent weekly construction meetings (as needed);
2. Reviewing hazardous material subcontractor submittals for conformance with the project specifications;
3. Inspecting abatement and/or regulated areas prior to initiation of abatement and/or demolition activities for conformance with project specifications;
4. Performing necessary clearance inspections and site testing, which includes air monitoring for compliance with environmentally regulated demolition practices (air monitoring by phase contrast microscopy (PCM by NIOSH 7400);
5. Assisting with waste profiling and characterization of regulated materials to be hauled offsite for disposal (TTLS/STLC/TCLP per SW-846);
6. Performing final acceptance testing following completion of work and prior to turnover to the SRCSD.

#### **Task 6 – Project Closeout**

Millennium to provide project closeout services by providing the following:

1. Review contractor red-lined drawings related to hazmat abatement work;
2. Preparing necessary forms of completion to detail removal for recordkeeping;
3. Preparing as-built drawings showing areas that have been

abated and identify remaining hazardous materials that were not abated or disturbed, and

4. Preparing and/or reviewing required close-out documents submitted by contractor for compilation.

**5. Phase I Environmental Site Assessments (“ESA”) at Laurel Dell Elementary, 225 Woodland Avenue; Davidson Middle School, 280 Woodland Avenue; and, the Annex Building, 150 Lovell Avenue, all located in San Rafael, CA 94901**

**Task 1 – Phase I ESAs**

Millennium will perform Phase I Environmental Site Assessments (“ESA”) for each of the three sites listed in Section 5 in accordance with ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Standard Practice). Millennium will perform the following tasks to assess the subject property and local vicinity usage and status.

*User Questionnaire*

Under the current ASTM Standard Practice, the party seeking to complete the Phase I ESA of a property of a property (hereafter referred to as the User) is obligated to perform certain tasks in order to qualify for a Landowner Liability Protection to CERCLA Liability under the “All Appropriate Inquiries” Final Rule (40 CFR Part 312). Millennium will seek to obtain any relevant information from the User that will assist with identifying Recognized Environmental Conditions on the Subject Property. Such existing documentation might include previous Phase I ESAs or environmental liens encumbering the Subject Property.

*Site Reconnaissance*

Millennium will initiate the investigation into the current condition of the subject property and vicinity by conducting an on-site survey using experienced personnel. During the site reconnaissance visit, the personnel will walk the property and interview persons associated with the property. The site reconnaissance and interview for each site will cover (as applicable):

- Current Property Usage and Occupants;
- Hazardous Materials Usage and Storage;
- Hazardous Waste Generation and Storage;
- Underground and Aboveground Storage Tanks;
- Evidence of Soil Disturbances (e.g. removal or fill activity);
- Sumps, Impoundments, Lagoons, Clarifiers, Wells; and
- Evidence of Stains, Spillage, Wastewater Discharges, and Distressed Vegetation.

Additionally, during the site reconnaissance, the site inspector will visually evaluate surrounding sites for possible hazardous material usage that could impact the subject property. The adjacent properties survey will be limited to observations made from the subject sites and public properties fronting the adjacent establishments.

#### *Agency Database/Records Review*

To further investigate the current status of the subject property and vicinities, Millennium will review environmental databases to obtain information concerning the usage, storage, treatment, and disposal of hazardous substances. Record searches will be performed according to the ASTM Standard Practice search radii for available listed databases, unless otherwise requested. The database information is reviewed to identify previous on- and off-site activities and/or facilities that could potentially impact the environmental quality of the subject property. Facilities that can affect the subject property due to location, proximity, and other factors are evaluated. Millennium will describe the potential impact to the subject property of identified sites of possible concern. The database review may also provide information relevant to the subject property.

#### *History of the Subject Property and Vicinity*

Historical activities on the subject property and in the vicinities can also greatly influence environmental risk. Properties with no apparent environmental concerns at the current time could have been historically used as a landfill, gasoline station dry cleaner, or for other uses that could have been unregulated in the past. The site history review assesses the following historical resources:

##### *Historical Aerial Photography Review*

Millennium will review historical aerial photographs covering the subject property and immediate vicinities to identify visible indications of potential contamination such as landfills, large-scale staining, ponds or lagoons, aboveground storage tanks, pits, service stations, and/or other similar items.

##### *Historical Fire Insurance/Topographic Maps*

Millennium will order historical Sanborn fire insurance maps for the subject property, if available. Sanborn maps often provide useful information regarding past property usage. If Sanborn maps are unavailable, Millennium will order historical topographic maps to research past property usage.

##### *Site Setting*

The physiographic, geologic, and hydrogeological setting of a site greatly affects the potential for surrounding sites to impact the subject property. Surface contamination releases from on-

site or off-site sources can also negatively impact underlying groundwater. Millennium will describe the regional physiographic and hydrogeological setting for the property. This description will be based on our contracts with California regulatory agencies and/or information compiled in our library.

#### Interviews

In accordance with the ATM Standard Practice, Millennium will endeavor to conduct interviews with local knowledgeable personnel who are familiar with each site and its development/use history. This information will be included within the body of the report, and as an appendix for reference.

#### *Report Preparation*

The last step in the Phase I ESA process is the formulation of a report. This report will summarize the information gathered by our research and site inspections in a succinct manner. The Phase I ESA report prepared for each property will include area maps, site maps, a review of the above listed agency records, a description of the subject property as observed during the site reconnaissance, and evaluations of pertinent discoveries. Further Phase II ESA recommendations, if necessary, will be included in the report recommendations.

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