

DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
OFFICE ENGINEER, MS 43
1727 30TH STREET
P.O. BOX 168041
SACRAMENTO, CA 95816-8041
FAX (916) 227-6214
TTY 711



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July 16, 2009

04-Sol-80-6.7
04-299004
ACIM-080-2(350)E

Addendum No. 4

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SOLANO COUNTY IN VALLEJO AT THE HUNTER HILL SAFETY ROADSIDE REST AREA.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Tuesday, July 21, 2009.

This addendum is being issued to revise the Notice to Bidders and Special Provisions and provide a copy of the Supplemental Information Handout.

In the Special Provisions, Section 12-1.18, "ASBESTOS," is deleted in its entirety.

In the Special Provisions, Section 12-1.19, "LEAD BASED MATERIALS," is deleted in its entirety.

In the Special Provisions, Section 12-2.03, "REMOVAL AND DISPOSAL OF ASBESTOS," is deleted in its entirety.

In the Special Provisions, Section 12-2.04, "LEAD ABATEMENT," is deleted in its entirety.

In the Special Provisions, Section 12-2.035, "ASBESTOS-ABATEMENT," is added as attached.

In the Special Provisions, Section 12-2.045, "LEAD-RELATED CONSTRUCTION WORK," is added as attached.

To Bid book holders:

Attached is a copy of the Supplemental Information Handout, "Supplemental Asbestos and Lead-Containing Paint and Ceramic Tile Testing Results."

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the Notice to Bidders section of the Notice to Bidders and Special Provisions.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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This office is sending this addendum by GSO overnight mail to Bid book holders to ensure that each receives it. A copy of this addendum and the modified wage rates are available for the Contractors' use on the Web site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addenda.php

If you are not a Bid book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief
Office of Plans, Specifications & Estimates
Division of Engineering Services - Office Engineer

Attachments

12-2.035 ASBESTOS-ABATEMENT

GENERAL

This work includes removal, cleanup and disposal of the below-listed asbestos-containing material (ACM) and asbestos-containing construction material (ACCM) to the extent necessary for the building and structure demolition work of this project. The Contractor shall review all demolition plans, survey reports and field verify location and extent of materials containing asbestos related work.

REFERENCES

Codes, regulations and references applicable to asbestos-abatement work include but are not limited to the following:

1. American National Standards Institute (ANSI) publications;
 - Z9.2-79 Fundamentals Governing the Design and Operation of Local Exhaust Systems.
 - A10.6-2006 Safety Requirements For Demolition Operations
2. American Society for Testing and Materials (ASTM) publications;
 - D1331-89 (Re-approved 2001) Surface and Interfacial Tensions of Solutions of Surface Active Agents.
 - E1494-92 (Re-approved 2002) Specifications for Encapsulants for Friable Asbestos-Containing Building Materials.
 - E1368.90 Standard Practices For Visual Inspection of Asbestos-abatement Projects.
3. Code of Federal Regulations (CFR);
 - 29 CFR 1926.1101 "Asbestos."
 - 40 CFR 61 Subpart A and Subpart M, USEPA, "National Emission Standards for Hazardous Air Pollutants (NESHAPS)."
4. National Fire Protection Association (NFPA):
 - No. 70.2005 National Electrical Code.
5. California Code of Regulations (CCR):
 - Title 8, Division 1, Chapter 3.2, Subchapter 2, "Regulations of the Division of Occupational Safety and Health;" Article 2.5, Section 341.6 to 341.14; "Registration-Asbestos-Related Work."
 - Title 8, Division 1, Chapter 4, Subchapter 7, "General Industry Safety Orders," Group 16, Article 110, Section 5203; "Carcinogen Report of Use Requirements."
 - Title 8, Division 1, Chapter 4, Subchapter 4, "Construction Safety Orders," Article 4, Section 1529: "Asbestos"
 - Title 22, Division 4.5, Chapter 10, "Hazardous Waste Management System: General."
6. Local Air Pollution Control District Regulations

EXISTING SITE CONDITIONS

Hazardous material survey reports by Geocon Consultants Inc., Project No. E8415-06-68, dated June 26, 2009 and by CSC Environmental Consultants, Project No. 1009067, dated July 25, 2005 are included as information handouts. Locations of asbestos-containing materials identified in survey reports and where work is performed include:

ASBESTOS CONTAINING MATERIALS			
Location	Description	Asbestos Concentration	Approximate Area
Information-Kiosk roof	Built-up roofing (non friable)	10%	150 SF
SRRA building roof	Roof-penetration mastic (non friable)	4%	50 SF

This work includes all plans, permits and the removal, transportation, storage, and disposal of all material containing asbestos as specified or shown on the plans.

Furniture and portable equipment will be removed from the area of work by the Department before any work begins.

PRECONSTRUCTION MEETING

At least 7 days before asbestos-removal work commences, a preconstruction meeting shall be held at a location designated by the Engineer. Attendees shall include the Engineer, Department's Observation Service, Contractor's Competent Person; the Contractor's Project Superintendent, and others as necessary. The agenda shall include a review of project safety requirements, the Contractor's written asbestos-compliance work plan, emergency contacts and notification plan, containment and work area design, facility requirements, submittals, and any other issues pertinent to the safe execution of the asbestos-abatement work.

Work shall not commence until the Engineer has approved submittals and plans for asbestos-abatement work.

EQUIPMENT AND MEDICAL SURVEILLANCE

Personal protective equipment, training, and medical surveillance required by the Contractor's health and safety plan shall be provided to State personnel by the Contractor. The number of State personnel will be 4. The Contractor shall comply with all federal, state, and local requirements for safety which shall include providing employees with coveralls (preferably disposable plastic-coated), rubber gloves (to be discarded after use), rubber boots (to be washed thoroughly after use) and appropriate respirators (to cover nose and mouth). The Contractor shall be responsible for verifying that all employees who are involved in asbestos-removal operations wear the protective devices enumerated herein during removal operations.

SUBMITTALS

Product data: A list of manufacturer's product data, specifications, samples, application instructions and other pertinent information as necessary shall be submitted for approval.

Abatement-Procedure Plan

The Contractor shall submit the following detailed plan of the work procedures for abatement of asbestos materials:

1. Federal, state and local agencies that require notification.
2. Personal monitoring procedures.
3. Phasing of abatement work indicating daily roster of workers for each phase.
4. Security system warning signs locations.
5. Detailed plans for decontamination facilities, toilets, and systems providing intraroom and work area to outside communication, showing connections to existing building.
6. Standard procedures for protecting workers, visitors, employees, and spaces outside work area from contamination.
7. Engineering systems' exposure control, indicating number, location, and capacity of supply and exhaust systems; the expected direction of flow; and the range of expected differential pressure in each area.
8. Safety precautions such as lockout, tagout, fall-protection, and confined-space-entry procedures and equipment.
9. Work procedures to be used in the encapsulation, removal and demolition of materials containing asbestos.

The plan shall be prepared, signed and stamped by a certified asbestos consultant.

Waste Transportation: Submit the method of transportation of hazardous waste including name, address, EPA I.D. number and telephone number of transporter.

Hazardous Waste Site: Submit for approval the name, class, address, EPA I.D. number and telephone number of hazardous waste site(s) to be utilized for disposal.

Waste Manifest: For waste manifest purposes, the generator is the facility of the subject work. Obtain necessary information for this purpose from the Engineer. Give a copy of the waste manifest to the state's Observation Service for each shipment of material containing asbestos. The Contractor shall submit a non-hazardous-waste manifest or waste shipment record (WSR) for disposal of material containing asbestos that is not classified as a hazardous waste.

Qualifications:

The following documents shall be submitted:

Registration: Submit copy of the registration for asbestos-related work from the Division of Occupational Safety and Health in accordance with Title 8, Article 2.5 of the California Code of Regulations.

Medical Examination: Submit proof that personnel who will be entering regulated asbestos areas have had medical examinations, and furnish the results of said exam, signed by the medical examiner, to the Engineer.

Submit an employee roster to the Engineer for each work shift and confirm in writing within 24 hours of commencement of shift.

Land Disposal Restrictions:

Submit to the Engineer, a copy of the completed Notice and Certification, signed by the generator, with each hazardous-waste manifest for wastes intended for land disposal, pursuant to Section 67740 of 22 CCR, Division 4.5, Chapter 45.

For HEPA filtration systems exhausting externally within 50 feet of the building's air intake or entry, submit the results of on-site dioctyl-phthalate (DOP) or portacount testing of required efficiency.

NOTIFICATIONS, COMMUNICATIONS AND POSTINGS

The Contractor shall notify the Engineer 15 working days prior to the start of any abatement work.

Prior to performing operations involving the removal of material containing asbestos, the Contractor shall provide written notification to all federal, state and local agencies that regulate the handling and disposal of material containing asbestos.

The Division of Occupational Safety and Health (CAL OSHA) shall be notified 24 hours prior to performing removal operations of materials containing asbestos.

Notification shall be in accordance with the NESHAP, 40 CFR, Part 61, Subpart M and Section 341.9 of Title 8 of California Code of Regulations.

In addition to detailed requirements of this specification, the Contractor shall comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities regarding handling, storing, transporting, and disposing of material containing asbestos. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where requirements of this specification and reference documents vary, the most stringent requirement shall apply.

FIELD AIR SAMPLING

Personnel monitoring and other monitoring which is required by law or considered necessary by the Contractor for worker protection shall be the responsibility of the Contractor and performed by the Contractor's competent person. The Contractor shall disclose any interest in the firm or laboratory performing the field air sampling or analysis.

CONSTRUCTION

PROJECT PROCEDURES

General:

Asbestos-abatement work shall not commence until:

- Arrangements have been made for disposal of material containing asbestos at an acceptable site.
- Arrangements have been made for containing and disposal of wastewater containing asbestos resulting from wet-stripping.
- Work areas and decontamination enclosure systems and parts of the building required to remain in use are effectively segregated.
- Tools, equipment, and material-waste receptacles are on hand.
- Arrangements have been made for building security.
- Preparatory steps have been taken and applicable notices posted and permits obtained.
- Differential-pressure systems are installed and operating, where applicable.
- The Contractor's submittal for the isolation of non-asbestos-abatement work areas has been reviewed and approved by the Engineer.

Work area requirements:

- All asbestos-abatement shall be performed in regulated areas with access limited to the asbestos-removal contractor's employees, regulating officials and Engineer until cleared.
- All regulated areas require clearance testing by the Department's Observation Service using the transmission electron microscopy (TEM) analysis method. Mini-enclosures shall have clearance testing in accordance with the TEM analysis method. The Department will pay for all laboratory tests necessary for clearance testing.
- When performing removal work on wall or ceiling areas with unknown asbestos content, a full containment, negative-pressure enclosure, 3-stage decontamination area will be required.
- Shut down electric power. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical-code requirements and provide ground-fault interrupter circuits as power source for electrical equipment.
- Shut down and isolate heating, cooling, and ventilation air systems to prevent contamination and fiber dispersal to other areas of the structure. Isolate and depressurize steam, compressed gas, hydraulics, and other pressurized systems prior to work involving piping or components in such systems. During the work, vents within the work area shall be sealed with 2 layers of 6-mil, fire-rated plastic sheeting sealed with tape.
- Do not begin work until area is free of loose equipment.
- Pre-clean fixed objects within the proposed work areas using HEPA-filtered vacuum equipment or wet cleaning methods, as appropriate, and enclose with protective barriers of plywood covered with minimum 6-mil, fire-rated plastic sheeting sealed with tape.
- All stationary equipment will be pre-cleaned with a HEPA-filtered vacuum and protected with water-tight double, 6-mil, fire-rated plastic sheeting.
- Clean the proposed work areas using HEPA-filtered vacuum equipment or wet cleaning methods as necessary to maintain fiber levels at or below 0.01 f/cc. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters shall not be used.
- Seal off openings including but not limited to corridors, doorways, ducts, grills, diffusers, and any other penetrations of the work areas, with 2 layers of 6-mil, fire-rated plastic sheeting sealed with tape. Doorways and corridors which will not be used for passage during work shall be sealed with barriers.
- Cover floor and wall surfaces with plastic sheeting sealed with tape. Use a minimum of two layers of 6-mil, fire-rated plastic on floors. Cover floors first so that plastic extends at least 1 foot up on walls, then cover walls with a minimum of 6-mil, fire-rated plastic sheeting to the floor level, thus overlapping the floor material by a minimum of 1 foot. The Contractor may use additional layers to assist in protection during the replacement of materials.
- Install decontamination enclosure system or equivalent prefabricated portable decontamination units as approved.
- Maintain emergency and fire exits from work areas.

Maintenance of Containment/Negative-Pressure Enclosure Systems:

- Ensure that barriers and plastic linings are effectively sealed and taped.
- Repair damaged barriers and remedy defects immediately upon discovery.
- Visually inspect enclosures at the beginning of each work period.
- Use smoke methods to test effectiveness of barriers prior to implementing asbestos-removal and when directed by the Engineer.
- Ensure that the integrity of the enclosure system is not breached during the duration of its use.

Disposal

Containers to be loaded for transportation from the holding area shall be removed by workers who have entered from unregulated areas, dressed in clean overalls. Workers shall not enter from the holding area into the wash room or the work area.

The sealed asbestos containers shall be delivered to the Contractor's pre-designated, approved hazardous-waste disposal site for burial, in accordance with Title 22, CCR, EPA guidelines and 40 CFR 61.156 and local air pollution control district regulations.

Notify the Engineer 48 hours in advance of the time when materials containing asbestos are to be removed from the site.

The Contractor shall be responsible for safe handling and transportation of hazardous waste generated by this Contract to the designated hazardous-waste disposal site.

The Contractor shall hold the State harmless for claims, damages, losses, and expenses against the State, including attorney's fees arising out of or resulting from asbestos spills on the site or spills enroute to the disposal site.

DECONTAMINATION OF WORK AREA (GROSS REMOVAL TECHNIQUE)

After visual inspection and written notification to proceed from the State's Observation Service, encapsulate surfaces where asbestos material has been removed.

Surfaces from which asbestos has been removed shall be sealed with a clear encapsulant after the surface is clean and dry. Post-abatement lockdown encapsulant shall be applied using airless spray equipment.

Prepare and apply encapsulant according to the manufacturer's specifications.

Upon completion of encapsulation work, notify the Engineer in writing that encapsulation surfaces are ready for review. The State's Observation Service shall determine that a clearance fiber count is at or below 70 s/mm² by TEM analysis following Asbestos Hazard Emergency Response Act (AHERA) protocol.

Upon proper notification, the Engineer and the State's Observation Service will review encapsulated surfaces for conformance with specifications. Non-conformance of work shall be remedied until work is in compliance.

Upon successful compliance with review of the Engineer and after written notification from the State's Observation Service, remove outer layer of plastic sheeting on floors. Inner plastic layer and isolation barriers, vents, grilles, diffuser, etc. shall remain in place.

Wet clean or clean with HEPA vacuum equipment surfaces within the work area. Equipment used in the work area shall be included in the cleanup and shall be removed from the work area. Decontamination enclosure system(s) shall remain during the cleaning sequence until after final air clearance.

After final cleaning operation or removal procedure, notify the Engineer that the work area is ready for review and "Clearance Testing." If "Clearance Testing" shows the work area has not been decontaminated, repeat cleaning or application of encapsulant, or both, until the work area is in compliance.

After written notification from the Engineer accepting decontamination of the work area, remove inner plastic layer isolation barriers and proceed with any remaining repairs or refinish work and reestablishment of objects and systems as specified.

AIR MONITORING

PERIMETER-AREA AIR MONITORING

Throughout the abatement process, perimeter-area air monitoring may be conducted by the State's Observation Service to ensure work is done in conformance with the fiber concentration limits of these specifications.

If perimeter-area air monitoring outside the work area is in excess of 0.01 fibers/cc, the Contractor shall make modifications in work procedures to assure compliance with minimum standards. Unsatisfactory results are fiber counts in excess of 0.01 fibers/cc by phase contrast microscopy (PCM) NIOSH 7400 method, measured outside the work area as perimeter-area air monitoring.

The State's Observation Service will report perimeter-area air monitoring results collected outside the work area to the Engineer on the following day prior to start of work.

The Contractor shall submit the laboratory analysis report and chain of custody (COC) of the Contractor's personal monitoring results to the State's Observation Service within 48 hours following completion of that work shift. Personal air-monitoring results shall not exceed the maximum use level (MUL) of the respiratory protection factor (PF) in use for asbestos.

CLEARANCE TESTING

The State's Observation Service, upon completion of the visual inspection and encapsulation review form (Form A), will conduct final air clearance sampling for each work area. For the purpose of this work, clearance shall be defined as an air sample showing fiber counts at or below 70 s/mm² by transmission electron microscopy (TEM) analysis following the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR, Part 763, Appendix A to Subpart E (Transmission Electron Microscopy Analytical Method). The Contractor will be given a Clearance Testing and Asbestos Air-Monitoring Notification (Form B) by the State's Observation Service.

RE-ESTABLISHMENT OF SYSTEMS

When cleanup is complete:

Re-establish HVAC including installation of new filters and disposal of used filters and ensure mechanical and electrical systems are in proper working order.

REPAIR AND PAINTING

Damage to finishes and other items not scheduled for demolition or removal, as a result of work under this section, shall be repaired or replaced, painted, or cleaned to match existing adjacent surfaces to the satisfaction of the Engineer. Painting shall comply with the requirements under "Painting" in Division 9, "Finishes," of these special provisions.

VISUAL INSPECTION AND ENCAPSULATION REVIEWS

FORM A

PROJECT:
LOCATION:
WORK AREA (if applicable):
CONTRACTOR:

WORK ORDER NO.:
BUILDING NAME:

VISUAL INSPECTION REVIEW

In accordance with the Contract Specifications, for the referenced project, Contractor hereby certifies that all surfaces in the referenced building work area are free from all visible material and residue, and notifies the Engineer or Observation Service that the referenced area is ready for visual inspection review.

By:
(Signature)

Date:

(Print Name)

Title:

Observation Service hereby certifies that Observation Service has performed the visual inspection review of the referenced work area, and verifies that this inspection has been thorough and that all surfaces in the work area are free from all visible material and residue. Observation Service hereby notifies Contractor to proceed with the encapsulation of the abated surfaces and decontamination of the work area.

By:
(Signature)

Date:

(Print Name)

Title:

ENCAPSULATION REVIEW

Contractor hereby notifies the Engineer or Observation Service that the work area encapsulated surfaces are ready for review.

By:
(Signature)

Date:

(Print Name)

Title:

Observation Service certifies the review of the work area encapsulated surfaces was acceptable and found them to be in conformance with the Specifications.

By:
(Signature)

Date:

(Print Name)

Title:

CLEARANCE TESTING & ASBESTOS AIR-MONITORING NOTIFICATION FORM B

PROJECT:
LOCATION:
WORK AREA (if applicable):
CONTRACTOR:

WORK ORDER NO.:
BUILDING NAME:

CLEARANCE TESTING CERTIFICATION

Observation Service hereby certifies that Observation Service has taken an air sample "Clearance Test" upon completion of each work area. Observation Service further certifies that the decontamination of the work area has complied with the Specifications and the air samples indicated a fiber count of or below 70 s/mm² by TEM analysis as per AHERA protocol.

By:
(Signature)

Date:

(Print Name)

Title:

ASBESTOS AIR-MONITORING NOTIFICATION

To: (Name of Facility CPO)

(Name & Location of Facility)

(Department)

In accordance with Asbestos-Notification Law, Health and Safety Code Section 25915, and for the above-referenced project building (work area, if applicable), the Real Estate Services Division (RES D) is transmitting the information herein above related to the air-monitoring results conducted pursuant to Section 1529 of Title 8 of the California Code of Regulations. RES D has logged this transmittal as a part of Asbestos Program records.

If you have any questions regarding this information, contact the Project Manager.

From:

Date:

Signature of RES D Construction Supervisor

(Print Name)

12-2.045 LEAD-RELATED CONSTRUCTION WORK

GENERAL

SUMMARY

The work shall consist of removal and disposal of lead-related construction materials which are designated on the plans or specified in these special provisions to be removed and disposed of.

The Contractor shall take special precautions for that part of the work which involves the demolition and handling of materials which may contain lead, either during demolition or construction.

SITE CONDITIONS

.A hazardous-material survey report by Geocon, Project No. E8415-06-68, dated June 26, 2009, is included as an Information Handout. The following items were tested for lead and the results of the testing are as follows:

Location	Description	Total Lead (mg/kg)
Information kiosk exterior	Brown paint- intact condition	11
Pedestrian-walkway railing (ramp)	300 sq ft- peeling/flaking	59
SRRA building exterior walls	White paint- intact condition	<5
SRRA building exterior walls and trim	Brown paint- intact condition	370
SRRA building wall vents	Brown paint- intact condition	2500
SRRA building doors	Brown paint- intact condition	220
Picnic tables	100 sq. ft- peeling/flaking	440
Picnic canopies	100 sq. ft- peeling/flaking	290
Picnic canopies	Brown paint- intact condition	86
Exterior tiles at drinking fountain	Intact condition	560
Interior ceramic wall tiles in handicap restrooms	Intact condition	16
Interior ceramic floor tiles in handicap restrooms	Intact condition	<5
Interior ceramic floor tiles in restrooms	Intact condition	11
Interior ceramic trim tiles in restrooms	Intact condition	31

Where existing lead-based materials are to be removed during demolition, construction or alterations, such material may need to be treated as hazardous waste, and shall be removed, hauled and disposed of in accordance with all applicable federal, state and local laws and ordinances.

SUBMITTALS

The Contractor shall submit to the Engineer a lead-compliance plan, abatement-procedure plan and debris containment and collection plan. No work shall be done on any portion of the work which contains or may contain lead-based materials until the Engineer has reviewed and accepted the submittals. The Contractor shall allow 15 days for the review of the submittals.

These plans shall be submitted as specified in Section 5 -1.02, "Plans and Working Drawings," of the Standard Specifications.

Lead-Compliance Plan

The Contractor shall prepare a project-specific lead-compliance plan to prevent or minimize worker exposure to lead.

The lead-compliance plan shall contain the elements listed in Title 8, California Code of Regulations, Section 1532.1(e)(2)(B). The lead-compliance plan shall be prepared, signed and stamped by an industrial hygienist certified in comprehensive practice by the American Board of Industrial Hygiene.

Abatement-Procedure Plan

The abatement-procedure plan prepared, signed and stamped by a lead project monitor or lead project designer currently certified by the California Department of Public Health. The plan shall address but not be limited to the following abatement procedures:

1. Personal monitoring procedures.
2. Phasing of abatement work indicating daily roster of workers for each phase.
3. Security system warning sign locations.
4. Detailed plans for decontamination facilities, toilets, and systems providing anteroom- and work-area-to-outside communication showing connections to the existing building.
5. Standard procedures for protecting workers, visitors, employees, and spaces outside work area from contamination.
6. Engineering systems' exposure control, indicating number, location, and capacity of supply and exhaust systems; the expected direction of flow; and the range of expected differential pressure in each area.
7. Safety precautions such as lockout, tagout, fall-protection, and confined-space-entry procedures and equipment.
8. Work procedures to be used in the encapsulation, removal and disposal of lead-based paint.

Debris Containment and Collection Plan:

The debris containment and collection plan shall be prepared, signed and stamped by a lead project monitor or lead project designer currently certified by the California Department of Public Health. The program shall identify materials, equipment, and methods to be used when the existing paint system is disturbed and shall include working drawings of containment systems, and provisions for ventilation and air movement for visibility and worker safety.

QUALITY ASSURANCE

Codes which govern removal and disposal of materials containing lead include, but are not limited to the following:

1. California Health and Safety Code, Division 20, Chapter 6.5, "Hazardous Waste Control."
2. California Code of Regulations, Title 17, Division 1, Chapter 11, "Occupational Lead Poisoning Prevention Program."
3. California Code of Regulations, Title 22, Division 4.5, Chapter 10, "Hazardous Waste Management System: General."
4. California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 4, Article 4, "Lead."
5. Occupational Safety and Health Administration (OSHA), 29 Code of Federal Regulation (CFR) Part 1926.62, "Lead."

NOTIFICATION

The Contractor shall notify the Engineer 3 business days in advance of the start of removal operations of lead-based material.

Prior to performing operations involving the removal of lead-based material, the Contractor shall provide written notification to all federal, state and local agencies that regulate the removal, handling, transporting and disposal of lead in construction.

The Contractor shall notify the Division of Occupational Safety and Health (CAL OSHA) 24 hours prior to performing removal operations of materials containing lead or lead-based materials.

QUALITY ASSURANCE

The lead-related construction work shall be supervised by a California Department of Public Health-certified lead supervisor. The supervisor shall be on-site during abatement work preparation and post-abatement cleanup and be readily available as required by the California Code of Regulations, Title 17, Division 1, Chapter 8, Article 16, Work Practice Standard, 36100. Personnel for lead-related construction work shall be California Department of Public Health lead worker certified.

REGULATORY REQUIREMENTS

If measures being taken by the Contractor are inadequate to provide for worker safety or the containment and collection of residue from existing paint systems, the Engineer will direct the Contractor to revise operations and the compliance plans. Such directions will be in writing and will specify the items of work for which the Contractor's compliance plans are inadequate. No further work shall be performed on said items until the compliance plans are adequate and, if required, a revised compliance plan has been approved.

SAFETY

Construction activities (including demolition) that disturb materials or paints containing any amount of lead are subject to requirements in the California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 4, Article 4, "Lead."

Any work that disturbs the lead-based paint will expose workers to health hazards and will:

1. Produce debris containing heavy metal in amounts that might exceed the thresholds established in Titles 8 and 22 of the California Code of Regulations.
2. Produce toxic fumes when heated.

The Contractor shall be responsible for verifying that all employees who are involved in removal operations wear the required protective devices during removal operations.

Personal protective equipment, training, and washing facilities required by the Contractor's health and safety plan shall be supplied to State personnel by the Contractor. The number of State personnel will be 4.

State personnel shall complete a safety training program provided by the Contractor that meets the requirements of Title 8, California Code of Regulations, Division 1, Chapter 4 and the Contractor's lead-compliance plan.

CONSTRUCTION

REMOVAL

Painted materials shall be removed using the wet process, vacuum-blasting process or other acceptable processes that contain paint debris. The Contractor shall remove all paint and provide clean substrate suitable for a new finish. Removed material and water used for removal shall be collected. Removed material shall be separated from water using approved filters.

HANDLING

The Contractor shall comply with all federal, state, and local regulations for the removal of material containing lead prior to demolition and place removed material in approved plastic containers (double ply, 6-mil-minimum-thickness, plastic bags) with caution labels affixed to said bags. Such caution labels shall have conspicuous, legible lettering which spells out the following, or equivalent, warning:

CAUTION
CONTAINS LEAD

Temporary storage on the ground of material and residue produced when the existing paint system is disturbed will not be permitted. Material and residue shall be stored in leak-proof containers and shall be handled in such a manner that no spillage will occur.

At the option of the Contractor, the removed lead-based materials may be placed directly into a roll-off or drop box which shall have the same caution label affixed on all sides.

TRANSPORTING

The debris shall be hauled by a transporter currently registered with the California Department of Toxic Substances Control using correct manifesting procedures and vehicles displaying current certification of compliance. The Contractor shall make all arrangements with the operator of the disposal facility and perform any testing of the debris required by the operator. All vehicles used to transport hazardous waste material shall have affixed to the vehicle a valid Certificate of Compliance issued by United States Department of Transportation. If a roll-off or drop box is utilized, both the drop box and the transporting vehicle shall have a valid Certificate of Compliance issued by the United States Department of Transportation.

DISPOSAL

The Engineer will obtain the required EPA generator identification numbers, and will sign the hazardous waste manifests.

All material and residue produced during removal operations shall be tested and profiled to determine hazardous waste characteristics. Dispose of residue and waste at an approved disposal facility in accordance with the requirements of the disposal facility operator.

The Contractor shall notify the proper authorities at the disposal site in advance of delivery of hazardous waste containing lead to the disposal site.