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**** WARNING ** WARNING ** WARNING ** WARNING ****
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May 21, 2007

04-Mrn-101-17.6/20.6
04-226144
ACSTPE-Q101(127)E
CML-6204(043)

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in MARIN COUNTY IN SAN RAFAEL FROM 0.8 KM SOUTH OF COLEMAN SCHOOL PEDESTRIAN OVERCROSSING TO NORTH SAN PEDRO ROAD UNDERCROSSING.

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 May 30, 2007

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions,the Proposal and Contract and the Federal Minimum Wages with Modification Number 6 dated 4-20-07.

Project Plan Sheets 1, 219, 220 and 222 are revised. Half-sized copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheets 52A, 52B, 52C, 52D, 52E, 52F, 52G, 52H, 52I, 52J, 52K, 52L and 52M are added. Half-sized copies of the added sheets are attached for addition to the project plans.

In the Special Provisions, Section 4, "BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES," Subsection "INTERNAL TIME OF COMPLETION," is revised as follows:

"INTERNAL TIME OF COMPLETION

Linden Lane

The Contractor shall diligently prosecute to completion the reconstruction of the Linden Lane roadway, and the removal and construction of the structural work adjacent to and above Linden Lane which interferes with Linden Lane traffic before the expiration of

180 CALENDAR DAYS

beginning on the day Linden Lane is closed to vehicular traffic.

The Contractor shall pay to the State of California the sum of $5000 per day for each and every calendar day's delay in opening Linden Lane to traffic.

Liquidated damages shall accrue separately and independently of deductions for internal time of completion.

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Lincoln Avenue

The Contractor shall diligently prosecute to completion the reconstruction of the Lincoln Avenue roadway, and the removal and construction of the structural work adjacent to and above Lincoln Avenue which interferes with Lincoln Avenue traffic before the expiration of

180 CALENDAR DAYS

beginning on the day Lincoln Avenue is closed to vehicular traffic.

The Contractor shall pay to the State of California the sum of $5000 per day for each and every calendar day's delay in opening Lincoln Avenue to traffic.

Liquidated damages shall accrue separately and independently of deductions for internal time of completion."

In the Special Provisions, Section 5-1.23, "AERIALLY DEPOSITED LEAD," is replaced with Section 5-1.23, "METALS AND TOTAL PETROLEUM HYDROCARBONS," as attached.

In the Special Provisions, Section 5-1.29, "ASBESTOS CONTAINING MATERIAL," is added as attached.

In the Special Provisions, Section 5-1.30, "SAMPLING AND REMOVAL OF ASBESTOS," is added as attached.

In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the fourth paragraph is revised as follows:

"Attention is directed to "Obstructions" of these special provisions regarding coordination of construction activities with scheduled relocation of poles and overhead lines and water mains."

In the Special Provisions, Section 10-1.14, "OBSTRUCTIONS," is revised as attached.

In the Special Provisions, Section 10-1.19, "MAINTAINING TRAFFIC," the following paragraph is added after the eighth paragraph:

"Lincoln Avenue shall be open to traffic within 180 days after being closed to vehicular traffic to

1. Reconstruct the roadway and
2. Remove or construct all structural work adjacent to and above Lincoln Avenue which interferes with Lincoln Avenue traffic."

In the Special Provisions, Section 10-1.27, "EXISTING HIGHWAY FACILITIES," Subsection "REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING," is revised as attached.

In the Special Provisions, Section 10-1.285, "ASBESTOS COMPLIANCE PLAN," is added as attached.

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In the Special Provisions, Section 10-1.29, "EARTHWORK," the fourth paragraph is revised as follows:

"Attention is directed to "MATERIAL CONTAINING METALS AND TOTAL PETROLEUM HYDROCARBONS" of these special provisions."

In the Special Provisions, Section 10-1.29, "EARTHWORK," the sixth paragraph is revised as follows:

"Surplus excavated material, including soil with metal concentrations below hazardous levels and soils with total petroleum hydrocarbons diesel at or below 100 mg/kg, shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications."

In the Special Provisions, Section 10-1.31, "MATERIAL CONTAINING AERIALLY DEPOSITED LEAD," is replaced with Section 10-1.31, "MATERIAL CONTAINING METALS AND TOTAL PETROLEUM HYDROCARBONS," as attached.

In the Special Provisions, Section 10-1.315, "HEALTH AND SAFETY PLAN," is added as attached.

In the Special Provisions, Section 10-4.02, "CONSTRUCT RAILROAD TRACK," Subsection, "OTHER TRACK MATERIAL," the third paragraph is revised as follows:

"The Contractor shall furnish and install new rail anchors. Anchors shall be Channel Anchors, manufactured by Unit Anchor Company of Atchison, Kansas. Cross ties shall be box anchored every other tie. No existing rail anchors shall be reused."

In the Proposal and Contract, the Engineer’s Estimate Items 56, 57, 58, 62, 63, 64, 65 and 74 are revised, Items 240, 241, 242, 243, 244 and 245 are added and Item 239 is deleted as attached.

To Proposal and Contract book holders:

Replace pages 5, 6 and 14 of the Engineer's Estimate in the Proposal with the attached revised pages 5, 6, 14 and 14A of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

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 CONTRACTORS section of the Notice to Contractors 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 proposal.

Submit bids in the Proposal and Contract 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 Proposal and Contract book holders to ensure that each receives it. A copy of this addendum is available for the contractor's use on the Internet Site:

http://www.dot.ca.gov/hq/esc/oe/weekly_ads/addendum_page.html

If you are not a Proposal and Contract 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,

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

Attachments

5-1.23 METALS AND TOTAL PETROLEUM HYDROCARBONS

Aerially deposited lead (ADL), other metals, and total petroleum hydrocarbons (TPH) are present within the project limits. ADL is lead deposited within unpaved areas or formerly unpaved areas, primarily due to vehicle emissions.

Attention is directed to "Material Containing Metals and Total Petroleum Hydrocarbons" and "Project Information" of these special provisions.

The complete reports, entitled " Soil Investigation Report, Route 101 HOV Gap Closure Project, San Rafael, California dated February 12, 2001; Site Investigation Report, Soil Investigation, Route 101 HOV Gap Closure Project, San Rafael, California dated March 14, 2003; and Site Investigation Report, State Route 101 HOV Gap Project, San Rafael, California dated February 2007," are available for inspection at the Department of Transportation, Duty Senior's Desk, 111 Grand Avenue, Oakland, California, (510) 286-5209.

The Department has received from the California Department of Toxic Substances Control (DTSC) a Variance regarding the use of material containing ADL. This project is subject to the conditions of the Variance, as amended. The Variance is available for inspection at the Department of Transportation, District 4, Duty Senior's Desk, 111 Grand Avenue, Oakland, California, (510) 286-5209.

Once the Contractor has completed the placement of material containing ADL in conformance with these special provisions and as directed by the Engineer, the Contractor shall have no responsibility for such materials. The Department will not consider the Contractor a generator of such contaminated materials.

Excavation, reuse, and disposal of material with ADL, other metals, and TPH shall be in conformance with all rules and regulations including, but not limited to, those of the following agencies:

A. United States Department of Transportation,
B. United States Environmental Protection Agency,
C. California Environmental Protection Agency,
D. California Department of Health Services,
E. Department of Toxic Substances Control,
F. California Division of Occupational Safety and Health Administration,
G. Integrated Waste Management Board,
H. Regional Water Quality Control Board, Region 2,
I. State Air Resources Control Board, and
J. Bay Area Air Quality Management District.
K. Marin County

Materials containing hazardous levels of lead and other metals, and TPH shall be transported and disposed of in conformance with Federal and State laws and regulations, as amended, and county and municipal ordinances and regulations, as amended. Laws and regulations that govern this work include, but are not limited to:

A. Health and Safety Code, Division 20, Chapter 6.5 (California Hazardous Waste Control Act),
B. Title 22, California Code of Regulations, Division 4.5 (Environmental Health Standards for the Management of Hazardous Waste), and
C. Title 8, California Code of Regulations.

5-1.29 ASBESTOS-CONTAINING MATERIAL

Asbestos-containing material (ACM), as defined in Section 1529, “Asbestos,” of the Construction Safety Orders, Title 8, of the California Code of Regulations, may be present in sound walls, retaining walls, concrete barriers, overhead signs and any other structures that will be demolished or altered, as identified by the Engineer. These structures shall be tested by the Contractor for suspected ACM prior to any demolition or alteration activities. If suspected ACM is exposed during demolition or alteration, it shall be tested.

Attention is directed to “Sampling and Removal of Asbestos” and “Asbestos Compliance Plan” elsewhere in these special provisions.

Friable ACM is defined under the Asbestos Hazard Emergency Response Act (AHERA) as "any material containing more than 1 percent (%) asbestos by area, that hand pressure can crumble, pulverize or reduce to powder when dry". The term non- friable implies that the asbestos fibers are tightly bound into the matrix of the material and should not become an airborne hazard as long as the material remains intact and undamaged, and is not sawed, sanded, drilled or otherwise abraded during removal.

When the Contractor encounters materials, which the Contractor reasonably believes to be asbestos as defined in Section 25914.1 of the Health and Safety Code, and the asbestos has not been rendered harmless, the Contractor may continue work only in unaffected areas reasonably believed to be safe.

Where ACM is to be removed during demolition or alterations, such material shall 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.

PERMITS

The Contractor shall notify the Bay Area Air Quality Management District as required by National Emission Standards for Hazardous Air Pollutants (NESHAP), 40CFR Part 61, and California Air Resources Control Board rules. A copy of the completed notification form and attachments shall be provided to the Engineer prior to submittal to the Air District. Notification shall take place a minimum of ten (10) days prior to demolition or alteration. The Contractor shall also notify other local permitting agencies and utility companies prior to demolition or alteration.

CODES AND STANDARDS

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

1. California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.
2. California Code of Regulations, Title 8, General Industry Safety Order 5208 Asbestos.
3. California Code of Regulations, Title 8, Sections 1529 and 341
4. California Code of Regulations, Title 22, Division 4.5
5. Occupational Safety and Health Administration, Part 26 (amended), of Title 29 of the Code of Federal Regulations.
6. Code of Federal Regulations (CFR), Title 40, Part 61, subpart M.

5-1.30 SAMPLING AND REMOVAL OF ASBESTOS

Attention is directed to “Asbestos-Containing Material” and “Asbestos Compliance Plan” elsewhere in these special provisions.

SAMPLING AND ANALYSIS WORKPLAN

At least fifteen (15) days prior to beginning any sampling for suspected ACM, the Contractor shall prepare and submit a work plan for asbestos sampling and analysis, and the name and address and the Environmental Laboratory Accreditation Program (ELAP) certification number of the laboratory to be used, for review and approval by the Engineer. If the plan is unacceptable, it shall be returned within ten (10) working days of the submittal to the Contractor for revision that shall be completed in five (5) working days. The Engineer shall have five (5) working days to review and accept or reject the revised plan from the date the revised plan is received from the Contractor. No sampling and analysis work shall proceed until the plan is accepted by the Engineer. The work plan for sampling and analysis shall include, but not be limited to, sampling procedures, analytical method for analyses, sample handling and preservation, and the analytical program for testing for ACM and shall be prepared and signed by a Certified Asbestos Consultant (CAC).

ASBESTOS INVESTIGATION

The Contractor who performs an asbestos investigation, including visual surveys and sampling for asbestos-containing material (ACM) shall meet the following requirements:

1. Be certified by the Division of Occupational Safety and Health,
2. Be AHERA (Asbestos Hazard Emergency Response Act) trained,
3. Have passed an EPA-approved Building Inspector course, and
4. Possess a valid AHERA certification.

Sampling shall be consistent with the US EPA’s Asbestos/NESHAP Regulated Asbestos Containing Materials Guidance. The Contractor shall sample and test any exposed ACM on the existing structures. The Contractor shall sample and test any exposed suspected ACM on the existing soundwalls, retaining walls, concrete barriers, overhead signs, sign structures and other structures as determined by the Engineer. Samples shall be taken from joints/expansion joints, concrete blocks, concrete locations, and other suspected ACM locations. ACM encased in concrete or other building components, shall be sampled and tested when exposed during demolition or alteration.

Samples shall be taken in accordance with applicable regulations and analyzed for asbestos concentration by a laboratory certified by the California Department of Health Services, according to the method specified by 40 Code of Federal Regulations (CFR) Part 763 Subpart F, Appendix A EPA procedure 600/R-93/116 (Polarized Light Microscopy). The sampling locations shall be representative of the various structural components where ACM is suspected. Samples shall be transported to the laboratory within 24 hours of sampling. The laboratory shall run analytical tests and results shall be made available within a 48-hour turn-around.

ASBESTOS SURVEY REPORT

Analytical results shall be sent by facsimile or hand delivered to the Engineer as soon as they are available. The Contractor shall also prepare and submit an asbestos survey report to the Engineer. The asbestos survey report shall include but not be limited to an executive summary, investigation methods, laboratory analysis program, investigation results, deviations from work plan with explanation, conclusions and recommendations, sampling maps, chain of custody, analysis and laboratory data sheets. The report shall also include photographs of the structures and of the locations where the samples were taken. The corresponding sample identification numbers shall be included in the photo captions.

The survey report shall be supplied to the Engineer within 15 days of completion of sampling and analysis. The Engineer will review the survey report and provide comments to the Contractor within 7 working days. If, in the opinion of the Engineer, completion of work is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for any resulting loss, and an extension of time will be granted in accordance with Section 8-1.09, "Right of Ways Delays" of the Standard Specifications. The Contractor will have five (5) days to make any requested edits and submit four copies of the Final survey report to the Engineer.

ASBESTOS REMOVAL

Removal and Management of ACM

All asbestos related work, including the work to identify and determine the extent of asbestos encountered during demolition or alteration of structures and the removal and disposal of ACM, shall be performed by a licensed contractor who is registered pursuant to Section 6501.5 of the Labor Code and certified pursuant to Section 7058.6 of the Business and Professions Code. Asbestos removal shall conform to Cal OSHA requirements in Title 8 Sections 1529 and 341.

All friable material shall be removed in a manner which conforms to OSHA standards and work practice requirements. All non-friable ACM shall be removed and handled to prevent breakage, damage or disturbance of the material. Non-friable ACM shall be disposed of at a landfill facility permitted to take asbestos-containing products.

Handling

The Contractor shall comply with all Federal, State, and local regulations for the removal of material containing asbestos prior to and during demolition and alteration, and shall place such removed material in approved plastic containers (double ply, 0.15 mm 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 ASBESTOS FIBERS
BREATHING ASBESTOS DUST MAY
CAUSE SERIOUS BODILY HARM

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

The removal of ACM encased in concrete or other structural material is not required prior to demolition or alteration, but such material shall be adequately wetted whenever exposed.

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 disposable dust respirators (to cover nose and mouth). The use of goggles shall be optional.

The Contractor shall be responsible for verifying that all employees who are involved in asbestos removal operations have prior training which meets the requirements of Title 8, California Code of Regulations, Section 1529 and Section 5192 (b) (4)(B), 29 CFR 1910 and 1926, and wear the protective devices enumerated herein during removal operations.

Transporting

All haulers of Asbestos Containing material shall be currently registered with the State Department of Toxic Substances Control (DTSC), and shall have a U.S. Environmental Protection Agency Identification Number (U.S. EPA I.D. Number). All vehicles used to transport hazardous waste material shall have affixed to the vehicle a valid Certificate of Compliance issued by DTSC. If a roll off or drop box is utilized, both the drop box and the transporting vehicle must have a valid Certificate of Compliance issued by DTSC.

Disposal

The Engineer will obtain the required EPA generator identification numbers, and will sign the hazardous waste manifests. The Contractor shall dispose of all hazardous waste containing asbestos at a disposal facility permitted to accept such material and that meets all the requirements specified by Federal, State, and Local regulations. The Contractor shall notify the proper authorities at the disposal site in advance of delivery of hazardous waste containing asbestos to the disposal site.

If, as determined by the Engineer, the disposal of asbestos in the project area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

PAYMENT

Conforming to the requirements of this section, including preparing of a Sampling and Analysis Workplan, and an Asbestos Survey Report, identifying and determining the extent of asbestos prior to and during demolition or alteration work, including sampling and testing of this material and its removal, and transportation and disposal of the ACM, if any, will be paid as extra work in accordance with section 4-1.03D of the Standard Specifications.

10-1.14 OBSTRUCTIONS

Attention is directed to Section 8-1.10, "Utility and Non-Highway Facilities," and Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

Attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 150 mm in diameter or pipelines operating at pressures greater than 415 kPa (gage); underground electric supply system conductors or cables, with potential to ground of more than 300 V, either directly buried or in a duct or conduit which do not have concentric grounded or other effectively grounded metal shields or sheaths.

If these facilities are not located on the plans in both alignment and elevation, no work shall be performed in the vicinity of the facilities until the owner, or the owner's representative, has located the facility by potholing, probing or other means that will locate and identify the facility. If, in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being located by the owner or the owner's representative, the State will compensate the Contractor for the delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444 1-800-227-2600
Underground Service Alert-Southern California (USA)	1-800-422-4133 1-800-227-2600

Between station "M" 76+40 and station "M" 77+40, PG&E will be working until October 1, 2007. Unless otherwise directed by the Engineer, this PG&E work will take precedence over any other contract work.

It is anticipated that the following utility facilities will be relocated prior to the dates shown:

Utility	Location	Date
PG&E Pole	Relocate from T 82+11 to 7.5m SE of T 82+11	March 1, 2008
PG&E Pole	Relocate from T 83+19 to approx 18m left of T 84+04	March 1, 2008
MMWD Lincoln Avenue Water Main	T 82+10 to 83+60	March 1, 2008
MMWD - Water Main	M 84+40 to M 85+90	March 1, 2008

The relocation of these poles and the overhead line they support will be performed by PG&E during the progress of the contract. Relocation of the utility poles will require coordination with the Contractor's operations. No work shall occur from station "T" 81+00 to station "T" 88+00 until March 1, 2008 or until the poles are relocated, whichever occurs first. The Contractor may construct the Lincoln Avenue pedestrian undercrossing, and retaining walls 16, 18 and 19 prior to the pole relocation.

The relocation and abandonment of these water mains will be performed by MMWD during the progress of the contract. Relocation of the water mains will require coordination with the Contractor's operations. No work shall occur from station "T" 82+00 to station "T" 86+00 until March 1, 2008 or until the water mains are relocated, whichever occurs first.

The Contractor shall notify the Engineer, in writing, 10 working days prior to doing work in the vicinity of the pole or water facilities.

The following utility facilities will be abandoned, removed or relocated during the progress of the contract. The Contractor shall notify the Engineer, in writing, prior to doing work in the vicinity of the facility. The utility facility will be abandoned, removed or relocated within the listed working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications, after the notification is received by the Engineer:

Utility	Location	Working Days
PG&E – Power Pole Guy (Relocated)	T 69+24	30
PG&E - Electrical Distribution Line (Removed)	29.30 m Lt M 71+78.49 to 39.93 m Lt M 71+78.49	30
PG&E - Electrical Distribution Line (Removed)	29.97 m Lt M 71+90.85 to 40.96 m Lt M 71+90.85	30
PG&E – Power Pole (Relocated)	T 73+83	30
PG&E - Utility Pole (Relocated)	22.82 m Lt M 74+00	30
PG&E - Gas Line (Abandoned)	30.35 m Lt M 78+46.35 to 40.60 m Rt M 78+55.92	30
MMWD - Water Line (Abandoned)	53.10 m Lt M 78+44.45 to 28.45 m Rt M 78+61.34	30
MMWD Hydrant and valve (Relocated)	T 84+32	30
MMWD (200mm CIP) Linden Lane water main (Relocated)	59.05 m Lt M 73+72.20 to 23.94m Rt M 74+31.12	30
MMWD Water Valve (Adjust to Grade)	24 m Lt T 82+16	30
PG&E – 2 Gas Lines (100 mm & 400 mm) (Relocated)	25.06 m Lt M 85+15.10 to 31.93 m Lt M 85+71.53	30
AT&T - Telephone Line (Relocated)	26 m Lt M 86+06 to 27.00 m Lt M 88+13.55	30
PG&E - Power Pole (Relocated)	31.10 m Lt 87+69.94	30

Relocation of the water mains will require coordination with the Contractor's operations. The Contractor shall make the necessary arrangements with MMWD, through the Engineer, and shall submit a schedule of work, verified by a representative of MMWD, to the Engineer. The schedule of work shall provide not less than 30 working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for MMWD to complete their work.

The MMWD water main at Lincoln Avenue will be relocated in two phases. Phase 1 work will be completed by MMWD before construction of the project begins. Phase 2 work will be done by MMWD after the Lincoln Avenue Pedestrian Undercrossing is complete (Construction Stage 1 of project). Contractor shall notify MMWD at least 30 days before completion of the Lincoln Avenue Pedestrian Undercrossing. The existing water main will be relocated above the Pedestrian Undercrossing. Contractor shall coordinate with MMWD before constructing the concrete barriers above the Pedestrian Undercrossing.

The MMWD water main at Linden Lane will be relocated in two phases. Phase 1 work will be completed by MMWD before construction of the project begins. Phase 2 work will be done by MMWD after the construction of the culvert under Linden Lane is complete (Construction Stage 1 of project). Contractor shall notify MMWD at least 30 days before completion of culvert under Linden Lane.

At least one water main below Route 101 shall be in operation at all times (at Lincoln Ave and/or Linden Avenue). The new location of the PG&E pole at 82+11 that is to be relocated conflicts with the existing water main at Lincoln Avenue. Contractor shall coordinate his work with PG&E and MMWD to ensure that one line is functional at all times. The six inch water line crossing Route 101 at Myrtle Avenue shall remain in service until water facility relocations at Linden Lane and Lincoln Avenue have been completed.

In the event that the utility facilities mentioned above are not removed or relocated by the date specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by the date specified, the State will compensate the Contractor for the delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

REMOVE TRAFFIC STRIPE AND PAVEMENT MARKING

Traffic stripe and pavement marking shall be removed at the locations shown on the plans and as directed by the Engineer.

Attention is directed to "Water Pollution Control" of these special provisions.

Waste from removal of yellow thermoplastic traffic stripe contains lead chromate in average concentrations greater than or equal to 5 mg/L Soluble Lead or 1000 mg/kg Total Lead. Yellow thermoplastic traffic stripe exists as shown on the plans. Residue produced from the removal of yellow thermoplastic contains heavy metals in concentrations that exceed thresholds established by the California Health and Safety Code and Title 22 of the California Code of Regulations. The Contractor shall assume that the residue is not regulated under the Federal Resource Conservation and Recovery Act (RCRA). Yellow thermoplastic may produce toxic fumes when heated.

The removed yellow thermoplastic shall be disposed of at a Class 1 disposal facility in conformance with the requirements of the disposal facility operator within 60 days after accumulating 100 kg of residue and dust. The Contractor shall make necessary arrangements to test the yellow thermoplastic residue as required by the disposal facility and these special provisions. Testing shall include, at a minimum, (1) Total Lead by EPA Method 6010B and Chromium by EPA Method 7000 series, (2) Soluble Lead and Chromium by California Waste Extraction Test, and (3) Soluble Lead and Chromium by Total Characteristic Leaching Procedure. From the first 840 L of waste or portion thereof, if less than 840 L of waste are produced, a minimum of four randomly selected samples shall be taken and analyzed individually. Samples shall not be composited. From each additional 3360 L of waste or portion thereof, if less than 3360 L are produced, a minimum of one additional random sample shall be taken and analyzed. Each sample shall be homogenized prior to analysis by the laboratory performing the analyses. A sample aliquot sufficient to cover the amount necessary for the total and the soluble analyses shall then be taken. This aliquot shall be homogenized a second time and the total and soluble (if necessary) run on this aliquot. The homogenization process shall not include grinding of the samples. The Contractor shall submit the name and location of the disposal facility and analytical laboratory along with the testing requirements to the Engineer not less than 5 days prior to the start of removal of yellow thermoplastic traffic stripe. The analytical laboratory shall be certified by the Department of Health Services Environmental Laboratory Accreditation Program for all analyses to be performed. Test results shall be provided to the Engineer for review prior to signing a waste profile as requested by the disposal facility, prior to issuing an EPA identification number, and prior to allowing removal of the waste from the site.

The Contractor shall prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling removed yellow thermoplastic residue. Attention is directed to Title 8, California Code of Regulations, Section 1532.1, "Lead," for specific Cal-OSHA requirements when working with lead.

The Lead Compliance Plan shall contain the elements listed in Title 8, California Code of Regulations, Section 1532.1(e)(2)(B). Before submission to the Engineer, the Lead Compliance Plan shall be approved by an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene. The Plan shall be submitted to the Engineer at least 7 days prior to beginning removal of yellow thermoplastic.

Prior to removing yellow thermoplastic traffic stripe, personnel who have no prior training, including State personnel, shall complete a safety training program provided by the Contractor that meets the requirements of Title 8, California Code of Regulations, Section 1532.1, "Lead," and the Contractor's Lead Compliance Program.

Personal protective equipment, training, and washing facilities required by the Contractor's Lead Compliance Plan shall be supplied to State personnel by the Contractor. The number of State personnel will be 5.

Where grinding or other methods approved by the Engineer are used to remove yellow thermoplastic traffic stripe, the removed residue, including dust, shall be contained and collected immediately. Collection shall be by a high efficiency particulate air (HEPA) filter equipped vacuum attachment operated concurrently with the removal operations or other equally effective methods approved by the Engineer. The Contractor shall submit a written work plan for the removal, storage, and disposal of yellow thermoplastic traffic stripe to the Engineer for approval not less than 15 days prior to the start of the removal operations. Removal operations shall not be started until the Engineer has approved the work plan.

The removed yellow thermoplastic traffic stripe residue shall be stored and labeled in covered containers. Labels shall conform to the provisions of Title 22, California Code of Regulations, Sections 66262.31 and 66262.32. Labels shall be marked with date when the waste is generated, the words "Hazardous Waste," composition and physical state of the waste (for example, asphalt grindings with thermoplastic or paint), the word "Toxic," the name and address of the Engineer, the Engineer's telephone number, contract number, and Contractor or subcontractor. The containers shall be a type approved by the United States Department of Transportation for the transportation and temporary storage of the removed residue. The containers shall be handled so that no spillage will occur. The containers shall be stored in a secured fenced enclosure at a location within the project limits until disposal, as approved by the Engineer.

If the yellow thermoplastic traffic stripe residue is transported to a Class 1 disposal facility as a hazardous waste, a manifest shall be used, and the transporter shall be registered with the California Department of Toxic Substance Control. The Engineer will obtain the United States Environmental Protection Agency Identification Number and sign all manifests as the generator within 2 working days of receiving sample test results and approving the test methods.

Additional disposal costs for removal residue regulated under RCRA, as determined by test results, will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

Nothing in these special provisions shall relieve the Contractor of the Contractor's responsibilities as specified in Section 7-1.09, "Public Safety," of the Standard Specifications.

The contract lump sum price paid for Lead Compliance Plan (Stripe Removal) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing the Lead Compliance Plan, including paying the Certified Industrial Hygienist, and for providing personnel protective equipment, training, air monitoring, and medical surveillance, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Full compensation for providing a written work plan for the removal, storage, and disposal of yellow thermoplastic traffic stripe shall be considered as included in the contract prices paid per meter for remove yellow thermoplastic traffic stripe and no separate payment will be made therefor.

10-1.285 ASBESTOS COMPLIANCE PLAN

Attention is directed to "Asbestos-Containing Material" and "Sampling and Removal of Asbestos" elsewhere in these special provisions.

The Contractor shall prepare an Asbestos Compliance Plan to prevent or minimize exposure to asbestos. The Contractor's attention is directed to Title 8, California Code of Regulation, Section 5192 (b) (4)(B) and Section 1529, Occupational Safety and Health Guidance Manual published by the National Institute of Occupational Safety and Health (NIOSH), Occupational Safety and Health Administration (OSHA), and USEPA for elements of the Compliance plan. The Asbestos Compliance Plan shall contain as a minimum but not be limited to: identification of key personnel for the project, job hazard analysis for work assignments, summary of risk assessment, air monitoring plan, personal protective equipment, delineation of work zones on-site, decontamination procedures, general safe work practices, security measures, emergency response plans and worker training. The Asbestos Compliance Plan shall be approved by the Contractor's Certified Industrial Hygienist before submission to the Engineer for review and acceptance. The plan shall be submitted to the Engineer at least 15 working days prior to beginning any work in areas containing asbestos.

TRAINING

Prior to performing any work in areas containing asbestos, personnel who have no prior training or are not current in their training status, including State personnel, shall complete a safety training program provided by the Contractor, which meets the requirement of Title 8, California Code of Regulations, Section 1529 and Section 5192 (b) (4)(B), and 29 CFR 1910 and 1926. The Contractor shall provide a written certification of completion of safety training to the Engineer for all trained personnel prior to performing any work in areas containing asbestos. The number of State personnel to be trained will be 5.

EQUIPMENT AND MEDICAL SURVEILLANCE

The Contractor shall provide personnel protective equipment, training, and medical surveillance required by the Contractor's Asbestos Compliance Plan to State personnel.

PAYMENT

The contract lump sum price paid for Asbestos Compliance Plan shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in preparing and implementing the Asbestos Compliance Plan, including paying the Certified Industrial Hygienist and for providing personal protective equipment, training, and medical surveillance, as specified in these special provisions and as directed by the Engineer.

10-1.31 MATERIAL CONTAINING METALS AND TOTAL PETROLEUM HYDROCARBONS

Earthwork involving material containing aerially deposited lead, mercury, other metals, and total petroleum hydrocarbons (TPH) shall conform to the provisions in Section 19, "Earthwork" of the Standard Specifications and these special provisions.

Attention is directed to "Metals and Total Petroleum Hydrocarbons" of these special provisions.

Any soil generated from any excavation in the project area, including excavation associated with construction area signs, clearing and grubbing, piling, highway planting, railroad track work, electrical work, sign structures, and drainage may contain aerially deposited lead, mercury, other metals, and total petroleum hydrocarbons and shall be considered hazardous. Reuse, transportation, and disposal of such material after the material has been tested and contamination level determined shall be in conformance with applicable rules and regulations found elsewhere in these special provisions.

Materials to be excavated from most of the areas within the project limits have been sampled, tested, and classified for lead, mercury, other metals, and TPH content as indicated elsewhere in these special provisions. The Contractor shall sample and analyze materials to be excavated from untested areas so that they can be classified for lead, mercury, other metals, and TPH content.

TYPE Y1 MATERIAL

Type Y-1 material contains aerially deposited lead in average concentrations of 0.5 mg/L or less extractable lead (based on a modified waste extraction test using deionized water as the extractant) and 1411 mg/kg or less total lead. Type Y-1 material exists, as shown on the plans. This material shall be placed as shown on the plans, unless otherwise directed by the Engineer, and covered with a minimum 0.61-m layer of non-hazardous soil or pavement. This material is hazardous waste regulated by the State of California that may be reused, as permitted under the Variance of the California Department of Toxic Substances Control (DTSC), provided that the lead contaminated soil is placed a minimum of 1.5 m above the maximum water table elevation and covered with at least 0.3 m of non-hazardous soil. Temporary surplus material may be generated on this project due to the requirements of stage construction. Temporary surplus material shall not be transported outside the State right of way. In order to conform to the requirements of these provisions, it may be necessary to stockpile material for subsequent stages, to construct some embankments out of stage, or to handle temporary surplus material more than once.

TYPE Y2 MATERIAL

Type Y-2 material contains aerially deposited lead in average concentrations that exceed either 0.5 mg/L extractable lead (based on a modified waste extraction test using deionized water as the extractant) or 1411 mg/kg total lead but are less than 50 mg/L extractable lead (based on a modified waste extraction test using deionized water as the extractant) and less than 3397 mg/kg of total lead. Type Y-2 material exists, as shown on the plans. This material shall be placed as shown on the plans, unless otherwise directed by the Engineer, and covered with a layer of pavement. This material is hazardous waste regulated by the State of California that may be reused, as permitted under the Variance of DTSC, provided that the lead contaminated soil is placed a minimum of 1.5 m above the maximum water table elevation and protected from infiltration by a pavement structure which will be maintained by the Department. Temporary surplus material may be generated on this project due to the requirements of stage construction. Temporary surplus material shall not be transported outside the State right of way. In order to conform to the requirements of these provisions, it may be necessary to stockpile material for subsequent stages, to construct some embankments out of stage, or to handle temporary surplus material more than once.

TYPE Z-2 MATERIAL

Type Z-2 material contains hazardous levels of lead and mercury and exists as shown on the plans. This material is hazardous waste regulated by the State of California and shall be transported to and disposed of at a Class I Disposal Site. Excavated Z-2 material shall be transported by a hazardous waste transporter registered with the DTSC using the required procedures for creating a manifest for the material. The vehicles used to transport the hazardous material shall conform to the current certifications of compliance of the DTSC.

TYPE TPH MATERIAL

Type TPH material contains total petroleum hydrocarbons as diesel (TPHd) at concentrations that exceed 100 mg/kg. Type TPH material exists as shown on the plans. Type TPH material shall be excavated, handled, and transported in accordance with the rules and regulations of Marin County, Regional Water Quality Control Board, and Department of Toxic Substances Control, and disposed of at a Disposal Facility permitted to accept such material.

UNTESTED MATERIALS

Untested material to be excavated shall be considered hazardous unless and until it is determined not to be hazardous through sampling and analytical testing conducted by the Contractor.

In- Situ Sampling

Untested material to be excavated exists at:

1. Retaining Wall 4
2. Retaining Wall 10
3. Retaining Wall 14
4. Retaining Wall 15
5. Retaining Wall 18
6. Retaining Wall 19
7. ML Line from Station ML 66+39 to 70+20
8. AB Line
9. R Line

In-situ samples shall be collected from these locations and analyzed prior to the start of excavation at the locations listed above.

Stockpile Sampling

Untested material, to be excavated, exists at locations for:

1. Sign structures
2. Overhead sign structures
3. Drainage systems
4. Ditch excavation
5. Any other areas involving excavation or identified by the Engineer.

Material generated from the excavation in these untested areas shall be placed back within the excavation from which it was generated. Any material that cannot be placed back into the excavation it came out of shall be considered surplus. The Contractor shall temporarily stockpile, sample, and analyze this surplus untested material prior to disposal.

EXCAVATION AND TRANSPORTATION PLAN

The Contractor shall prepare the project specific Excavation and Transportation Plan establishing the procedures the Contractor will use to comply with requirements for excavating, stockpiling, transporting, and placing (or disposing) of material designated by type in these special provisions. The Plan shall conform to the regulations of the DTSC and Cal-OSHA. The plan shall contain, but not be limited to the following elements:

1. Excavation schedule (by location and date)
2.. Temporary locations of stockpiled material and stockpiling procedures
3. Dust control measures
4. Air monitoring
   A. Location and type of equipment
   B. Sampling frequency
   C. Analytical laboratory
5. Transportation equipment and routes
6. Method for preventing spills and tracking material onto public roads
7. Truck waiting and staging areas
8. Site(s) for disposal of Type Z-2 and Type TPH materials
9. Example of Bill of Lading to be carried by trucks transporting Type Y-1 or Y-2 material. The Bill of Lading shall contain: US DOT description, including shipping name, hazard class, and ID number; handling codes; quantity of material; and volume of material. Copies of the bills of lading shall be provided to the Engineer upon placement of Type Y-1 or Y-2 material in its final location. Trucks carrying Type Y-1 or Y-2 material shall not leave the highway right of way.
10. Spill Contingency Plan for Type Z-2 and Type TPH materials

Within 15 days after approval of the contract, the Contractor shall submit 3 copies of the Excavation and Transportation Plan to the Engineer. The Engineer will have 7 days to review the Excavation and Transportation Plan. If revisions are required, as determined by the Engineer, the Contractor shall revise and resubmit the Plan within 7 days of receipt of the Engineer's comments. The Engineer will have 7 days to review the revisions. Upon the Engineer's approval of the Excavation and Transportation Plan, 3 additional copies incorporating the required changes shall be submitted to the Engineer. Minor changes to or clarifications of the initial submittal may be made and attached as amendments to the Excavation and Transportation Plan. In order to allow construction to proceed, the Engineer may conditionally approve the Plan while minor revisions or amendments are being completed. The Engineer will determine whether the results documented in the Final Sampling and Analysis Report indicate the need for modifications to the Excavation and Transportation Plan. If the Engineer determines that modifications to the Excavation and Transportation Plan are necessary the Contractor shall have 5 days to submit the modified plan.

DUST CONTROL

Excavation, transportation, placement, and handling of material containing aerially deposited lead, mercury, or TPHd shall result in no visible dust migration. The Contractor shall have a water truck or tank on the job site at all times while clearing and grubbing and performing earthwork operations in work areas containing aerially deposited lead, mercury, or TPHd.

STOCKPILING OF SURPLUS UNTESTED MATERIAL

Surplus untested material generated from the excavations for sign structures and overhead sign structures, shall be stockpiled temporarily at one location approved by the Engineer, prior to sampling, analysis, and disposal

Surplus untested material, generated from the excavations for drainage systems, shall be stockpiled temporarily at one location approved by the Engineer, prior to sampling, analysis, and disposal.

Surplus untested material generated from excavations at other locations or identified by the Engineer shall be stockpiled temporarily at one location approved by the Engineer, prior to sampling, analysis, and disposal.

Stockpiled material shall be stored on undamaged 1.52-mm high-density polyethylene or an equivalent impermeable barrier unless the stockpiling location is on a paved surface. If the location is on a paved surface the thickness of the barrier can be reduced to 0.51-mm high-density polyethylene or its equivalent. The dimensions of the barrier shall exceed the dimensions of the stockpile at all times. Any seams in the barrier shall be sealed to prevent leakage.

At the end of each day the stockpiled material shall be covered with undamaged 0.30-mm polyethylene or an equivalent impermeable barrier to prevent windblown dispersion and precipitation run-off and run-on. When more than one sheet is required to cover the material, the sheets shall be overlapped a minimum of 0.5 meter in a manner that prevents water from flowing onto the material. The cover shall be secured in a manner that keeps it in place at all times. Driven anchors shall not be used except at the perimeter of the stockpile. The cover shall be inspected and maintained in accordance with the requirements of "Water Pollution Control" of these special provisions and the Standard Specifications.

The Contractor shall leave a clear path around each stockpile for inspection and sampling purposes. Stockpiles of untested material shall not be placed where they can be affected by surface run-on or run-off. Stockpiles shall not be placed in environmentally sensitive areas. Stockpiled material shall not enter storm drains, inlets, or waters of the State, including Irwin Creek.

Once analytical test results are available and the stockpiled material is classified regarding contaminant concentrations, the Contractor shall keep the stockpiles segregated so that differently classified materials are not mixed. If classification of material changes as the result of mixing with hazardous material or with material containing TPHd, this material shall be disposed of appropriately at the cost of the Contractor.

These stockpiling requirements apply to all temporary storage of tested hazardous materials or materials with TPHd and untested surplus material outside of an excavation or a transport container including, but not limited to, staging of excavated material next to the excavation prior to pick up by loading equipment, accumulating material for full transport loads, awaiting analytical test results, and awaiting loading for transport for final disposal.

SAMPLING AND ANALYSIS

The Contractor shall sample and test the temporary stockpiles of surplus untested material and collect and analyze in-situ samples from the locations designated. Samples shall be analyzed for lead, mercury, other metals, and TPHd, as specified in these special provisions and detailed in the accepted Sampling and Analysis Work Plan.

Sampling and Analysis Work Plan

The Contractor shall prepare and submit for review and approval by the Engineer, a Sampling and Analysis Work Plan for both in-situ and stockpile sampling and analysis. The work plan and the name and address and California Department of Health Services Environmental Laboratory Accreditation Program (ELAP) certification number of the laboratory to be used shall be submitted to the Engineer 15 working days prior to beginning any sampling and analysis. If the work plan is unacceptable, it will be returned within 10 working days of the submittal to the Contractor for revision that shall be completed in 5 working days. The Engineer shall have 5 working days to review and accept or reject the revised work plan from the date the revised plan is received from the Contractor. No sampling and analysis work shall proceed until the plan is accepted by the Engineer. All samples shall be collected and handled under the supervision of a California Professional Engineer or a California Professional Geologist with experience in site investigation and waste classification. The laboratory performing the analyses shall hold current ELAP certification for each analysis that is run. Sampling and analysis shall be based on guidelines in USEPA, SW 846, "Test Methods for Evaluating Solid Waste, Volume II: Field Manual Physical/Chemical Methods".

The work plan shall include but not be limited to:

1. Sampling procedures,
2. Sample frequency, depth and location,
3. Sample handling and preservation,
4. Analytical methods, including the analytical methods required by the disposal facility that will receive surplus material,
5. Management of investigation derived wastes,
6. The signature of the California Professional Geologist or Professional Engineer, with experience in site investigation and waste classification, who prepared the work plan.

In-situ Sampling

For in-situ sampling, the minimum number of borings, that shall be drilled by the Contractor at each location is as follows:

1. Retaining Wall No. 4: - Two Borings
2. Retaining Wall No. 10 – Two Borings
3. Retaining Wall No. 14: - Two Borings
4. Retaining Wall No. 15: - Two Borings
5. Retaining Wall No. 18: - Two Borings
6. Retaining Wall No. 19: - Two Borings
7. ML Line from station ML 66+39 to ML 70+20 – Eight Borings
8. AB Line – Four Borings
9. R Line – Four Borings

Borings shall be spaced so that the samples collected are representative of the materials at the locations to be excavated. At a minimum, soil samples shall be taken at depths below existing grade of:

1. 0-0.15 meters,
2. 0.30 to 0.45 meters,
3. 0.60 to 0.75 meters,
4. 1.05 to 1.20 meters.

Stockpile Sampling

For stockpiled material, a minimum of 4 discrete soil samples shall be taken from the initial 50 cubic meters, or part thereof, of each temporary stockpile. The samples shall be representative of the stockpile and shall be taken at different locations and depths. Thereafter, discrete samples shall be obtained at a minimum rate of one sample for each 10 cubic meters, or part thereof, of each stockpile. Discrete samples shall be composited, and only composite samples shall be tested. Each composite sample shall be created from 2 discrete samples.

Analysis

Samples shall be transported to the laboratory for analysis within 24 hours of sampling. The laboratory shall run analytical tests and results made available to the Engineer within a 120-hour turn-around. In-situ samples and samples collected from stockpiles shall be tested for metals by US EPA Method 6010B and for TPHd by Modified US EPA Method 8015 for diesel. Waste extraction test using de-ionized water (DI-WET) shall also be conducted. Once Method 6010B results are available for the samples, the following sequential procedures for laboratory analysis shall be followed:

1. If total metal concentrations exceed ten times their respective soluble threshold limit concentrations (STLC), a California Waste Extraction Test (Ca-WET) shall be performed on the sample to determine soluble concentrations.
2. If total metal concentrations exceed the TTLC or soluble metal concentrations exceed the STLC, a Toxicity Characteristic Leaching Procedure (TCLP) shall be performed in conformance with US EPA Method 1311. If a stockpile or an excavation location is determined to have metals concentrations that exceed the hazardous waste threshold a minimum of 25% of the samples from that stockpile or excavation location shall be analyzed by the TCLP. In these cases, the samples with the highest metals concentration shall be included in the 25% analyzed by the TCLP.
3. If total lead concentrations exceed the TTLC or soluble lead concentrations exceed the STLC, a Waste Extraction Test utilizing de-ionized water as the extractant shall be performed. If a stockpile or an excavation location is determined to have lead concentrations that exceed the hazardous waste threshold for lead, a minimum of 25% of the samples from that stockpile or excavation location shall be analyzed by the DI-WET. In these cases, the samples with the highest metals concentration shall be included in the 25% analyzed by the DI-WET.

The Contractor may perform additional tests on material to be excavated at his option and expense for confirmation of the material classification as hazardous or with contaminant levels below hazardous. Sampling methodology shall be consistent with the accepted Sampling and Analysis Work Plan. Sampling and analysis shall be based on guidelines in USEPA, SW 846, “Test Methods for Evaluating Solid Waste, Volume II: Field Manual Physical/Chemical Methods”.

Sampling and Analysis Reports

Analytical results shall be sent electronically or hand delivered to the Engineer as soon as they are available. The Contractor shall prepare and submit two Sampling and Analysis Reports to the Engineer. One Sampling and Analysis Report shall be prepared for the in-situ sampling and the second Sampling and Analysis Report shall be prepared for the stockpile sampling. Each Sampling and Analysis Report shall include but not be limited to:

1. Investigation summary,
2. Investigation methods,
3. Laboratory analysis program,
4. Sample locations,
5. Number of samples analyzed,
6. Number of each analysis run,
7. Investigation results,
8. Deviations from the workplan with explanation,
9. Laboratory data summary tables,
10. Statistical analysis of analytical results,
11. Data interpretation and recommendations regarding waste classification and management of the sampled soils,
12. Site location and sampling maps,
13. Chain of custody forms,
14. Laboratory data sheets.

Each of the Sampling and Analysis Reports shall be submitted to the Engineer within 15 days of the completion of the sampling and analysis activities. The Engineer will review the Sampling and Analysis Reports and provide comments to the Contractor within 7 working days If, in the opinion of the Engineer, completion of the work is delayed or interfered with by reason of the Engineer's delay in completing the review, the Contractor will be compensated for any resulting loss, and an extension of time will be granted, in the same manner as provided for in Section 8-1.09, "Right of Ways Delays" of the Standard Specifications. The Contractor shall have 5 days to make any requested edits and submit four copies of each of the Final Sampling Reports to the Engineer.

MATERIAL TRANSPORTATION

Prior to traveling on public roads, loose and extraneous material shall be removed from surfaces outside the cargo areas of the transporting vehicles and the cargo shall be covered with tarpaulins or other cover, as outlined in the approved Excavation and Transportation Plan. The Contractor shall be responsible for costs due to spillage of material containing metals and TPHd during transport.

The Department will not consider the Contractor a generator of the hazardous material, and the Contractor will not be obligated for further cleanup, removal, or remedial action for such material handled or disposed of in conformance with the requirements specified in these special provisions and the appropriate State and Federal laws and regulations and county and municipal ordinances and regulations regarding hazardous waste.

DISPOSAL

The Engineer will obtain the Environmental Protection Agency Generator Identification Number for hazardous waste disposal. The Engineer will sign all hazardous waste manifests. The Contractor shall notify the Engineer 5 days before the manifests are to be signed.

Type Z-2 and Type TPH Materials

Type Z-2 and Type TPH materials shall be disposed of within California. The disposal site(s) shall be operating under a permit issued by the appropriate California Environmental Protection Agency board or department and shall be appropriately permitted to accept the material.

Material Sampled and Analyzed by the Contractor

The disposal site(s) for material sampled and analyzed by the Contractor per these special provisions shall be chosen based upon the waste classification in the Engineer approved Sampling and Analysis Reports.

The disposal site(s) for hazardous waste and material with TPHd concentrations in excess of 100 mg/kg shall be operating under a permit issued by the appropriate California Environmental Protection Agency board or department. shall be appropriately permitted to accept the material, and shall be located within California.

Material, sampled and analyzed by the Contractor per these special provisions with metals concentrations below hazardous thresholds and with concentrations of TPHd at or below 100 mg/kg shall become the property of the Contractor. If the Contractor chooses to use the material outside the highway right of way, the Contractor shall comply with the requirements specified in Section 7-1.13 of the Standard Specifications. If the Contractor chooses to dispose of the material at a disposal facility, the facility shall be permitted to accept such material.

MEASUREMENT AND PAYMENT

Quantities of

Roadway Excavation (Type Y-1) (Aerially Deposited Lead),
Roadway Excavation (Type Y-2) (Aerially Deposited Lead),
Structure Excavation (Type Y-1) (Aerially Deposited Lead),
Structure Excavation (Type Y-2) (Aerially Deposited Lead),
Structure Excavation (Type Z-2) (Hazardous), and
Structure Excavation (Type TPH)

will be measured and paid for in the same manner specified for roadway excavation and structure excavation, respectively, in Section 19, "Earthwork," of the Standard Specifications.

Quantities of untested material will be measured and paid for in the same manner specified for roadway excavation, ditch excavation, and structure excavation in Section 19, "Earthwork," of the Standard Specifications.

Full compensation for preparing an approved Excavation and Transportation Plan; transporting Type Y-1 and Type Y-2 material reused in the work from location to location; and transporting and disposing of Type Z-2 and Type TPH material shall be considered as included in the contract prices paid per cubic meter for the related items of roadway excavation and structure excavation of the types involved, and no additional compensation will be allowed therefor.

Full compensation for preparing an approved Sampling and Analysis Work plan for in-situ and stockpile sampling and analysis, including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing the Sampling and Analysis Work Plan, including paying a Registered Geologist or a professional Engineer, shall be considered as included in the contract prices paid for the items involved and no additional compensation will be allowed therefor.

The contract lump sum price paid for sampling and analysis shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in in-situ sampling and analysis, complete in place, including preparing an approved Sampling and Analysis Report for in-situ sampling and analysis, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

Conducting sampling and analysis of surplus stockpiled excavated soil, including preparing an approved Sampling and Analysis Report for surplus stockpiled excavated soil sampling and analysis, as indicated in these special provisions and as directed by the Engineer will be paid for as extra work as provided in Section 4-l.03D of the Standard Specifications.

Transportation and disposal of any surplus hazardous material and other material with average levels of TPHd above 100 mg/kg after in-situ testing and testing of stockpiles as specified in these special provisions under "Sampling and Analysis," and as directed by the Engineer, will be paid for as extra work as provided in Section 4-l.03D of the Standard Specifications.

Sampling, analysis, excavation, transportation and disposal of additional material resulting from excavations performed outside of the pay limits shown on the plans, specified in the Standard Specifications, or specified or directed by the Engineer, for the Contractor’s convenience, shall be at the Contractor’s expense. Sampling, analysis, excavation, transportation and disposal of additional material resulting from the Contractor’s option to slope the excavations in lieu of shoring at locations where this is possible will be at the Contractor’s expense.

No payment for stockpiling of material containing aerially deposited lead, mercury, other metals, and TPHd will be made unless the stockpiling is specified in these special provisions or ordered by the Engineer.

10-1.315 HEALTH AND SAFETY PLAN

The Contractor's Certified Industrial Hygienist, certified by the American Board of Hygiene, shall prepare a detailed site Health and Safety Plan (HSP) for metals and total petroleum hydrocarbons as diesel (TPHd) for all site personnel in accordance with Title 8 of the California Code of Regulations, California Department of Toxic Substances Control (DTSC) and CAL-OSHA regulations. The HSP shall be submitted at least fifteen (15) working days prior to beginning any work for review and acceptance by the Engineer. If the plan is unacceptable it shall be returned, within fifteen (15) working days of the submittal, to the Contractor for revision. The Engineer shall have five (5) working days to review and accept or reject the revised plan from the date the revised plan is received from the Contractor. No work shall proceed until the plan is accepted by the Engineer.

Attention is directed to California Code of Regulations, Title 8 Section 5192 and the Occupational Safety and Health Guidance Manual published by the National Institute of Occupational Safety and Health (NIOSH) for elements of the HSP. The HSP shall include, but not be limited to:

1. Key site safety personnel,
2. Risks associated with the work involving metals and TPHd,
3. Training requirements,
4. Appropriate personal protective equipment,
5. Medical surveillance requirements,
6. Air monitoring requirements,
7. Work zones,
8. Physical barriers,
9. Decontamination procedures.

The HSP shall include perimeter air monitoring for lead incorporating upwind and downwind locations as shown on the plans or as approved by the Engineer. Monitoring shall be by personal air samplers using National Institute of Safety and Health Method 7082. Sampling shall achieve a detection limit of 0.05 $\mu g/m^3$ of air per day. Daily monitoring shall take place while the Contractor clears and grubs and performs earthwork operations. A single representative daily sample shall be analyzed for lead. Results shall be analyzed and provided to the Engineer within 24 hours. Average lead concentrations shall not exceed 1.5 $\mu g/m^3$ of air per day. If concentrations exceed this level the Contractor shall stop work and modify the work to prevent release of lead. Monitoring shall be done under the direction of, and the data shall be reviewed by and signed by a Certified Industrial Hygienist.

SAFETY TRAINING

Prior to performing any work that will disturb the soil, all personnel working in the areas containing metals and TPHd, including State Personnel, shall complete training covering the potential hazards of the metals and TPHd, as required in the final HSP. The training, including subsequent training required until the completion of the work, shall be provided by the Contractor. The Contractor shall provide a certification of completion of the Safety Training Program to all personnel.

Any personal protective equipment required by the Contractor's HSP for personnel working within an exclusion zone as defined in the HSP will be supplied to State personnel by the Contractor. The number of State personnel requiring the above mentioned safety training program and personal protective equipment will be 5.

MEASUREMENT AND PAYMENT

The contract lump sum price paid for HSP shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in preparing and implementing the HSP, including paying the Certified Industrial Hygienist, and for providing personal protective equipment, training and monitoring, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

ENGINEER'S ESTIMATE
04-226144

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	152390	RELOCATE ROADSIDE SIGN	EA	2		
42	152401	ADJUST WATER METER TO GRADE	EA	2		
43	152402	ADJUST WATER VALVE COVER TO GRADE	EA	1		
44	152604	MODIFY INLET	EA	3		
45	152703	REMODEL INLET	EA	2		
46 (S)	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	M2	79 200		
47	153221	REMOVE CONCRETE BARRIER	M	2400		
48	153239	REMOVE CONCRETE (CURB, GUTTER, AND SIDEWALK)	M3	110		
49	153250	REMOVE SOUND WALL	M2	5230		
50	011415	REMOVE SOUND WALL (AT SOUND WALL NO. 9)	LS	LUMP SUM	LUMP SUM	
51	155003	CAP INLET	EA	3		
52	157561	BRIDGE REMOVAL (PORTION), LOCATION A	LS	LUMP SUM	LUMP SUM	
53	157562	BRIDGE REMOVAL (PORTION), LOCATION B	LS	LUMP SUM	LUMP SUM	
54	157563	BRIDGE REMOVAL (PORTION), LOCATION C	LS	LUMP SUM	LUMP SUM	
55	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
56	190101	ROADWAY EXCAVATION	M3	22 100		
57	190107	ROADWAY EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)	M3	1300		
58	190108	ROADWAY EXCAVATION (TYPE Y-2) (AERIALLY DEPOSITED LEAD)	M3	2000		
59	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
60 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	909		

ENGINEER'S ESTIMATE
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	M3	70		
62 (F)	192037	STRUCTURE EXCAVATION (RETAINING WALL)	M3	9663		
63 (F)	192048	STRUCTURE EXCAVATION, RETAINING WALL (SOUND WALL)	M3	10 734		
64	192053	STRUCTURE EXCAVATION (TYPE Z-2) (AERIALLY DEPOSITED LEAD)	M3	70		
65	192057	STRUCTURE EXCAVATION (TYPE Y-1) (AERIALLY DEPOSITED LEAD)	M3	1800		
66 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	687		
67 (F)	510314	CLASS 4 CONCRETE (BACKFILL)	M3	16		
68 (F)	193013	STRUCTURE BACKFILL (RETAINING WALL)	M3	9093		
69	193014	STRUCTURE BACKFILL (SOUND WALL)	M3	230		
70 (F)	193020	STRUCTURE BACKFILL, RETAINING WALL (SOUND WALL)	M3	11 338		
71 (F)	193030	PERVIOUS BACKFILL MATERIAL	M3	1127		
72	193114	SAND BACKFILL	M3	100		
73	194001	DITCH EXCAVATION	M3	2100		
74	198001	IMPORTED BORROW	M3	9000		
75 (S)	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	
76 (S)	011416	EROSION CONTROL (NETTING)	M2	3400		
77 (S)	203014	FIBER (EROSION CONTROL)	KG	710		
78 (S)	203021	FIBER ROLLS	M	1310		
79 (S)	011417	LOG REVETMENT	LS	LUMP SUM	LUMP SUM	
80 (S)	203024	COMPOST (EROSION CONTROL)	M3	9		

ENGINEER'S ESTIMATE
04-226144

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
221 (S)	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	1960		
222 (S)	860298	SIGNAL AND LIGHTING (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
223 (S)	011433	LIGHTING (BIKE PATH)	LS	LUMP SUM	LUMP SUM	
224 (S)	011434	LIGHTING (CITY)	LS	LUMP SUM	LUMP SUM	
225 (S)	011435	LIGHTING (CITY STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
226 (S)	011436	LIGHTING AND SIGN ILLUMINATION (STAGE CONSTRUCTION)	LS	LUMP SUM	LUMP SUM	
227 (S)	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
228 (S)	860604	FLASHING BEACON SYSTEM	LS	LUMP SUM	LUMP SUM	
229 (S)	860797	ELECTRIC SERVICE (IRRIGATION)	LS	LUMP SUM	LUMP SUM	
230 (S)	011437	TRAFFIC OPERATIONS SYSTEM	LS	LUMP SUM	LUMP SUM	
231 (S)	011438	DIAL-UP MODEM	EA	1		
232 (S)	011439	GENERAL PACKET RADIO SYSTEM WIRELESS MODEM ASSEMBLY	EA	6		
233 (S)	011440	CAMERA UNIT	EA	1		
234 (S)	011441	PAN/TILT UNIT	EA	1		
235 (S)	011442	CAMERA CONTROL UNIT	EA	1		
236 (S)	011443	VIDEO ENCODER UNIT	EA	1		
237 (S)	011444	INTEGRATED SERVICE DIGITAL NETWORK TERMINAL ADAPTER	EA	1		
238 (S)	011445	RELOCATE UNDERGROUND ELECTRIC CONDUITS	LS	LUMP SUM	LUMP SUM	
239		BLANK				
240	012186	SAMPLING AND ANALYSIS	LS	LUMP SUM	LUMP SUM	

241	070418	HEALTH AND SAFETY PLAN	LS	LUMP SUM	LUMP SUM	
242	190113	ASBESTOS COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
243	192058	STRUCTURE EXCAVATION (TYPE Y-2) (ARIALLY DEPOSITED LEAD)	M3	2900		
244	012187	STRUCTURE EXCAVATION (TYPE TPH)	M3	100		
245	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID (A): = _____

TOTAL BID (B):

$25,100.00 x _____ = _____

(Cost Per Day) (Enter Working Days Bid)

(Not To Exceed 460 Days)

TOTAL BASIS FOR COMPARISON OF BIDS: (A + B): _____