

REQUEST FOR QUALIFICATIONS (RFQ) FOR CONSTRUCTION INSPECTION AND MATERIALS TESTING SERVICES FOR THE FRANCISCO BOULEVARD EAST SIDEWALK IMPROVEMENTS PROJECT January 16, 2020

Introduction

The City of San Rafael (City) hereby requests Statements of Qualifications (Statements) from qualified consultants for construction inspection and materials testing services associated with the Francisco Boulevard East Sidewalk Improvements Project. Statements shall be submitted by firms that have a capable and demonstrable background in the type of work described in the section entitled "Scope of Work" of this notice. In addition, all interested firms shall have sufficient, readily available resources, in the form of trained personnel, support services, specialized consultants and financial resources, to carry out the work without delay or shortcomings.

The City's Consultant team shall be able to provide/meet the following minimum requirements and qualifications:

- 1. Knowledge of current Caltrans Standard Plans and Standard Specifications.
- 2. Knowledge of Caltrans daily diary jobsite reporting methods and procedures.
- 3. Knowledge of the County of Marin Uniform Construction Standards.
- 4. Ability to read and interpret plans and specifications.
- 5. Ability to work with a computer or tablet (knowledge of Microsoft Office).
- 6. Ability to conduct business as a representative of the City of San Rafael.

Background

The City has secured federal funds to expand the Francisco Boulevard East sidewalk to 8-feet-wide from Vivian Street to Grand Avenue. The City anticipates construction beginning late May or June 2020 with a 200-working day contract. The work will include demolition of the existing sidewalk and installation of new sidewalk, curb, gutter, retaining walls, storm drain, hot mix asphalt, electrical, signing/striping, and landscaping.

Anticipated Schedule

- o Statements due to Public Works See Item 1 under "Statement Requirements"
- Consultant Interviews Thursday, February 6, 2020 between 9 AM and 1 PM
- Award Contract by City Council March 16, 2020
- Notice to Proceed To Be Determined

Scope of Services

Task 1 – Field Inspection Services

The City's construction inspection Consultant shall be able to provide construction inspection services including, but not limited to, the following:

1. Review plans, specifications, and other contract and construction-related documents. Become familiar with traffic control plans, construction schedules, construction sequences, and permit requirements from other agencies.

- 2. Attend pre-construction meetings and present concerns, if any.
- 3. Interpret plans, specifications and regulations, and ensure that the contractor is following its contract. Provide daily inspections to ensure the project is constructed according to contract documents. The level of effort for daily inspections shall be coordinated with the Resident Engineer (RE) for each project.
- 4. Notify the RE about non-compliance and assist the RE in correcting compliance problems with the contractor as soon as they are discovered.
- 5. Prepare and maintain Caltrans-based daily diaries showing site and weather conditions, traffic control measures, stormwater management, labor, equipment, and materials used, quantity of work performed, and major incidents/safety violations. Daily diaries shall be submitted to the RE on a weekly basis and shall include daily photos of construction progress.
- 6. Review construction progress schedules on a regular basis, verify schedules are on track with project milestones, identify deviations, and ensure that corrective actions are taken to bring projects back on schedule.
- 7. Provide accurate measurements of work completed by Contractors in accordance with contract documents for the preparation of progress payments.
- 8. Review and evaluate proposed change orders and/or estimates for reasonableness and cost effectiveness and provide recommendations to the RE.
- 9. Monitor Contractor's compliance with the established safety program and response to deficiencies and hazards, and investigate and report on accidents.
- 10. Review soil compaction and material testing/certifications of compliance (COC). Coordinate with material sampling and testing Consultant.
- 11. Ensure contractors do not install materials without approved material testing certifications. Any failed tests shall be reported to the RE.
- 12. Attend weekly progress meetings to communicate, coordinate, and resolve any issues that may arise at the job site.
- 13. Conduct field construction employee interviews, as directed by the RE, to comply with Equal Employment Opportunity Law and David Bacon Act. Interviews shall be provided to the RE.
- 14. Prepare project punch list with RE.
- 15. Upon project completion, conduct final inspection with RE.
- 16. If requested by the RE, review Contractor's certified payroll for compliance with applicable minimum federal wage rates.
- 17. Review Contractor submittals and RFIs as needed.

Task 2 – Materials Testing/Sampling Services

The Consultant shall team with a reputable firm to provide materials testing/sampling services and to ensure installation of materials is in accordance with the City's Quality Assurance Plan (see attachment). Copies of all required certifications for personnel and laboratories shall be provided by the Consultant team to the City at the time the Notice to Proceed is issued to the Consultant. For the purposes of cost estimating, this current sidewalk project shall be considered a "Large Federally Funded Project," the requirements of which are outlined beginning on Page 5 of 9 of the QAP. The Consultant hired for this Task shall provide all necessary assistance to the City to ensure proper fulfillment of QAP requirements, including preparation and completion of relevant attachments to the QAP such as Attachment #1, Log Summary.

Materials to be tested include, but are not limited to, the following:

- Native soils for street and roadway sub-grade preparation and trench backfill.
- Imported trench backfill.
- Aggregate base rock for street, roadway, driveway, and sidewalks.
- Hot mix asphalt for street.
- Concrete for pavement, driveways, and sidewalks.

Statement Requirements

The Statement shall be concise, well organized, and demonstrate an understanding of the Scope of Services as outlined in this RFQ. Statements shall be limited to no more than eight one-sided pages $(8\frac{1}{2}x11^{"})$, or $11^{"}x17^{"}$ for fold-out drawings), inclusive of resumes, graphics, pictures, photographs, dividers, front and back covers, cover letter, etc. The required federal-aid forms do not count toward the page limit. Statement submittals shall consist of three bound sets and one PDF on flash drive; no emailed or faxed Statements will be accepted.

Statements shall be evaluated based on the Evaluation Criteria section of this RFQ.

At a minimum, Statements shall include:

1. Statements must be received no later than **2:00 PM, local time, on January 30, 2020**, at the Department of Public Works. Address to:

City of San Rafael Public Works Department 111 Morphew Street San Rafael, CA 94901 Attn: David Nicholson

- 2. Statements shall be submitted in sealed packages and clearly marked with the name of the Consultant and "Francisco Blvd East Sidewalk Improvements Project."
- Cover letter signed by the person authorized to negotiate a contract for proposed services with the City on behalf of the Proposal team. <u>The cover letter must state that the sample Professional</u> <u>Services Agreement (PSA) is acceptable as-is. Please do not submit a Statement and subsequently</u> <u>request changes to the PSA.</u>
- 4. Experience and Technical Competence The Consultant shall describe his or her experience in completing similar consulting efforts, especially for sidewalk construction/concrete work and associated Accessibility requirements. List in reverse chronological order for the last two years projects completed for which your firm provided construction inspection services. Name of clients, project managers, telephone numbers, type of work performed, and the value of the consulting contracts shall be included. Projects currently being performed may be submitted for the City's review.
- 5. Project Organization and Key Personnel
 - Provide a Statement that includes a discussion of the Consultant's staffing plans and level of personnel to be involved, their qualification, experience, resumes, roles, and the name of the individual who will be in overall charge and responsibility for coordination with the City. Do not submit resumes for individuals who do not have a high probability of actually leading or working on the project.

b. Identify proposed sub-consultants that will be retained to perform specified items of work listed in the Scope of Services.

The Consultant shall be aware of the following:

- Statements and/or modifications to Statements received after the hour and date specified in this RFQ will be rejected and returned unopened to the proposer.
- All Statements shall be submitted according to the specifications set forth in the RFQ. Failure to adhere to these specifications may be cause for rejection.
- Once submitted, Statements, including the composition of the consulting staff, shall not be changed without prior written consent. The City requires one inspector for the duration of the contract.
- All requests for clarification for this RFQ must be made in writing at least 96-hours prior to the due date as set forth in this RFQ. Consultants shall contact David Nicholson at the following email address: <u>davidn@cityofsanrafael.org</u>.
- The City will only respond to questions in writing from Consultants. The deadline for question submittal is 96 hours before proposals are due. The City cannot respond to verbal questions submitted by telephone or in person. All addenda will be posted on the City's Web site. By submitting a Statement, the proposer affirms that they are aware of any addenda and have prepared their Statement accordingly. No allowances will be made for a proposer's failure to inform themselves of addenda content. A link to the addenda may be accessed at the following web address:

https://www.cityofsanrafael.org/projects-out-to-bid/

• The City reserves the right to revise the RFQ prior to the indicated due date. The City may consider extending the due date for RFQ due to significant revisions to Scope of Services.

Payment and Cost Estimate

The method of payment to the successful proposer shall be on a time and materials basis with a maximum "not to exceed" fee, as set by the proposer in his/her Proposal, as being the maximum cost to perform all work. This figure shall include direct costs, including labor, overhead, profit, and expenses, such as, but not limited to, transportation, communications, subsistence, materials, and any subcontracted items of work. Progress payments will be based on actual hours and contract hourly rates charged to the project monthly.

The selected prime Consultant shall submit a cost proposal using the attached Exhibit 10-H, <u>Example 1</u> <u>Form</u>. The cost proposal shall include the following:

- Show break-down by job classifications and types of costs and/or rates the direct labor cost;
- Provide the Indirect Cost Rate (ICR) for the current fiscal year; and
- Itemize by items of work quantity, unit prices, and total price for each item listed under "other direct cost."

The cost proposal shall NOT be submitted with the Statement. Following the qualifications-based selection process, the City will request a cost proposal from the top ranked Consultant selected to enter negotiations. When requested, provide the cost proposal in a sealed envelope. Inclusion of the cost proposal in the Statement is grounds for rejection of the Statement.

Each invoice submitted to the City for payment shall contain a brief description of the work billed on that invoice, total billed to date, total paid to date, and amount remaining.

Technical Criteria

Based on the Caltrans Local Assistance Procedures Manual, ranking of the Statements will be weighted based on the following Technical Criteria point system (100 points maximum):

- 1. Understanding of the work to be done (20 points)
- 2. Experience with similar kinds of work (40 points)
- 3. Quality of staff for work to be done (20 points)
- 4. Familiarity with state and federal procedures (20 points)

The City will notify each Consultant regarding the outcome of the selection process.

The City may reject any or all Statements if it deems such action is in the public interest.

Consultant Nominating and Selection Process

- 1. A Consultant Selection Committee will be established for this project. Each member of the Committee will evaluate each submitted Statement.
- 2. The Committee will select a shortlist of Firms qualified for this project to participate in an oral interview.
- 3. Based on qualifications provided in Statements and oral interviews, the Committee will rank the Consultants. The top-ranked Firm will be selected.
- 4. The Committee, or representative, will enter negotiations with the selected Firm. The negotiations will cover the following: Scope of Work, contract terms and conditions and profit. If the Committee is unable to reach an acceptable agreement with the selected firm, the negotiations will be terminated and negotiations with the second-ranked firm will be initiated.
- 5. After negotiating a proposed agreement that is fair and reasonable, the Public Works Director will recommend to the City Council the approval of the agreement. Final authority to approve the agreement rests with the City Council.

Disadvantaged Business Enterprise (DBE) Policy

As this project is federally funded, the contract is subject to regulations in accordance with Title 49, Code of Federal Regulations, Part 26 (49 CFR 26).

Pursuant to this Code, the Consultant shall ensure that certified DBE firms have the opportunity to participate in the performance of the contract and shall take all necessary and reasonable steps to facilitate participation of DBE firms for such assurance. For this contract, the City has established a DBE goal of 4.0%.

For additional information, please see Caltrans Exhibit 10-I, "Notice to Proposers DBE Information," provided as an attachment. DBE Regulations require that bidders be fully informed with respect to the requirements of DBE regulations. The DBE regulations in their entirety are incorporated herein by reference. Please note the following:

1. A DBE must be a small business firm defined pursuant to 13 CFR 121 and be certified through the California Unified Certification Program (CUCP).

- 2. A certified DBE may participate as a prime Consultant, Sub-Consultant, joint venture partner, as a vendor of materials or supplies, or as a trucking company.
- 3. A DBE must perform a commercially useful function pursuant to 49 CFR 26.55, that is, a DBE firm must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work.
- 4. The proposer shall list only one subcontractor for each portion of work as defined in their proposal and all DBE subcontractors should be listed in the bid/cost proposal list of subcontractors.
- 5. A prime contractor who is a certified DBE is eligible to claim all work in the Agreement toward the DBE participation except that portion of the work to be performed by non-DBE subcontractors.

More information on the DBE application process and recent policy changes is available on the California Department of Transportation (Caltrans) Web site: "http://www.dot.ca.gov/hq/bep/".

Special Conditions

• Professional Services Agreement

The Consultant selected shall use the City of San Rafael's standard Professional Services Agreement as amended for use on federal-aid contracts. A copy of the Agreement template is attached to this RFQ. **Submitting a Statement is acceptance of the Professional Services Agreement as-is.** Contractually required insurance coverage and endorsement information is shown in the body of the document.

o <u>Reservations</u>

This RFQ does not commit the City to award a contract, to defray any costs incurred in the preparation of a Statement pursuant to this RFQ, or to procure or contract for work.

• RFQ as a Public Record

All Statements submitted in response to this RFQ become the property of the City and thus become public records and, as such, may be subject to public review.

<u>Right to Cancel</u>

The City reserves the right to cancel or change, for any or no reason, in part or in its entirety, this RFQ, including but not limited to: selection schedule, submittal date, and submittal requirements.

o Additional Information

The City reserves the right to request additional information and/or clarification from any or all respondents to this RFQ.

<u>Public Information</u>

Consultants who wish to release information regarding the consultant selection process, contract award, or data provided by the City at any Public Hearing, must receive prior written approval from the City before disclosing such information to the public.

o Financial Management and Accounting System Requirements

No Consultant contract will be awarded to a consulting firm who does not possess an adequate financial management and accounting system as required by 48 CFR Part 16.301-3, 2 CFR Part 200, and 48 CFR Part 31. The contract associated with this agreement and supporting documents are subject to audit or review by Caltrans' Audits and Investigations or the federal government.

• Protest Procedures

This RFQ and contract is subject to the protest procedures and dispute resolution process per 2 CFR Part 200.318(k).

o <u>Required Documents</u>

Caltrans Forms and Exhibits from the Local Assistance Procedures Manual (LAPM) as noted in the Attachments section of this RFP may be required. Failure to submit the required forms at the required intervals will render a bid non-responsive.

Attachments

Required by Consultant with Statement Submittal:

- 1. Exhibit 10-O1, "Consultant Proposal DBE Commitment"
- 2. Exhibit 10-Q, "Disclosure of Lobbying Activities"

Required by Selected Consultant after City interviews prior to Contract Execution (provided by the City):

- 1. Exhibit 10-A, "A&E Consultant Financial Document Review Request"
- 2. Exhibit 10-H1 "Cost Proposal"
- 3. Exhibit 10-K, "Consultant Annual Certification of Indirect Costs and Financial Management System" (submitted by prime and all subconsultants)

Required by Consultant and City after Contract Execution:

- 1. Exhibit 10-O2, "Consultant Contract DBE Commitment" (Exhibit 10-O2 will be turned into the City following the conclusion of cost negotiations and included as an attachment in the fully executed contract)
- 2. Exhibit 17-F, "Final Report Utilization of DBEs"
- 3. Exhibit 17-O, "DBE Certification Status Change"

For informational purposes only, the following is provided:

- 1. City of San Rafael *Professional Services Agreement for Federal-Aid Projects* Template (subject to change by the City Attorney's office, if necessary)
- 2. Exhibit 10-I, "Notice to Proposers DBE Information"
- 3. Plans and Specifications for this project are accessible at <u>www.blueprintexpress.com/sanrafael</u>. Plans/specs need not be purchased to review them.
- 4. Quality Assurance Plan, November 2018

Thank you for your interest in contracting opportunities with the City of San Rafael.

Respectfully,

David Nicholson, PE

EXHIBITS and ATTACHMENTS

- 1. Exhibit 10-01
- 2. Exhibit 10-Q
- 3. Exhibit 10-A
- 4. Exhibit 10-H1
- 5. Exhibit 10-K
- 6. Exhibit 10-O2
- 7. Exhibit 17-F
- 8. Exhibit 17-0
- 9. Exhibit 10-I
- 10. Attachment A: Sample Professional Services Agreement
- 11. Attachment B: Quality Assurance Plan

EXHIBIT 10-O1 CONSULTANT PROPOSAL DBE COMMITMENT

1. Local Agency:

2. Contract DBE Goal:

3. Project Description:

4. Project Location:

5. Consultant's Name: ______ 6. Prime Certified DBE:

7. Description of Work, Service, or Materials Supplied	8. DBE Certification Number	9. DBE Contact Information	10. DBE %
Local Agency to Complete this	Section		
17. Local Agency Contract Number:		11. TOTAL CLAIMED DBE PARTICIPATION	%
18 Federal-Aid Project Number		TI. TOTAL CLAIMED DBE PARTICIPATION	70
19. Proposed Contract Execution Date:			
20. Consultant's Ranking after Evaluation:		IMPORTANT: Identify all DBE firms being claimed	l for credit
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.		regardless of tier. Written confirmation of each list required.	ed DBE is
		12. Preparer's Signature 13. Date	<u></u>
		14. Preparer's Name 15. Pho	ne
		16. Preparer's Title	

DISTRIBUTION: Original - Included with consultant's proposal to local agency.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT PROPOSAL DBE COMMITMENT

CONSULTANT SECTION

1. Local Agency - Enter the name of the local or regional agency that is funding the contract.

2. Contract DBE Goal - Enter the contract DBE goal percentage as it appears on the project advertisement.

3. Project Location - Enter the project location as it appears on the project advertisement.

4. Project Description - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc.).

5. Consultant's Name - Enter the consultant's firm name.

6. Prime Certified DBE - Check box if prime contractor is a certified DBE.

7. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.

8. DBE Certification Number - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.

9. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.

10. DBE % - Percent participation of work to be performed or service provided by a DBE. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.

11. Total Claimed DBE Participation % - Enter the total DBE participation claimed. If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).

12. Preparer's Signature - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.

13. Date - Enter the date the DBE commitment form is signed by the consultant's preparer.

14. Preparer's Name - Enter the name of the person preparing and signing the consultant's DBE commitment form.

15. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.16. Preparer's Title - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

17. Local Agency Contract Number - Enter the Local Agency contract number or identifier.

18. Federal-Aid Project Number - Enter the Federal-Aid Project Number.

19. Proposed Contract Execution Date - Enter the proposed contract execution date.

20. Consultant's Ranking after Evaluation – Enter consultant's ranking after all submittals/consultants are evaluated. Use this as a quick comparison for evaluating most qualified consultant.

21. Local Agency Representative's Signature - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.

22. Date - Enter the date the DBE commitment form is signed by the Local Agency Representative.

23. Local Agency Representative's Name - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.

24. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.25. Local Agency Representative Title - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

EXHIBIT 10-Q DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:2. Status of F	ederal Action: 3. Report Type:			
 a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance A. bid/offer/ap b. initial awar c. post-award d. loan e. loan function insurance Mame and Address of Reporting Entity Prime Subawardee Tier, if known 	•			
Congressional District, if known	Congressional District, if known			
6. Federal Department/Agency:	7. Federal Program Name/Description:			
	CFDA Number, if applicable			
8. Federal Action Number, if known:	9. Award Amount, if known:			
10. Name and Address of Lobby Entity (If individual, last name, first name, MI)	11. Individuals Performing Services (including address if different from No. 10) (last name, first name, MI)			
(attach Continuation S	Sheet(s) if necessary)			
12. Amount of Payment (check all that apply)	14. Type of Payment (check all that apply)			
 \$ actual planned 13. Form of Payment (check all that apply): a. cash b. in-kind; specify: nature Value 	 a. retainer b. one-time fee c. commission d. contingent fee e deferred f. other, specify			
15. Brief Description of Services Performed or to be pe officer(s), employee(s), or member(s) contacted, for				
(attach Continuatio	n Sheet(s) if necessary)			
16. Continuation Sheet(s) attached: Yes	No			
17. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a wind the marker of the fact them \$1000 and next them then.	Signature:			
to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Telephone No.: Date:			
	Authorized for Local Reproduction			
Federal Use Only:	Standard Form - LLL			
Standard Form LL	L Rev. 04-28-06			

Distribution: Orig- Local Agency Project Files

INSTRUCTIONS FOR COMPLETING EXHIBIT 10-Q DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime federal recipient at the initiation or receipt of covered federal action or a material change to previous filing pursuant to title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1. Identify the type of covered federal action for which lobbying activity is or has been secured to influence, the outcome of a covered federal action.
- 2. Identify the status of the covered federal action.
- **3.** Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered federal action.
- 4. Enter the full name, address, city, state, and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to: subcontracts, subgrants, and contract awards under grants.
- 5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state, and zip code of the prime federal recipient. Include Congressional District, if known.
- 6. Enter the name of the federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7. Enter the federal program name or description for the covered federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
- **8.** Enter the most appropriate federal identifying number available for the federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant. or loan award number, the application/proposal control number assigned by the federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- **9.** For a covered federal action where there has been an award or loan commitment by the Federal agency, enter the federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
- **10.** Enter the full name, address, city, state, and zip code of the lobbying entity engaged by the reporting entity identified in Item 4 to influence the covered federal action.
- 11. Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (Ml).
- **12.** Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (Item 4) to the lobbying entity (Item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
- **13.** Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
- 14. Check all boxes that apply. If other, specify nature.
- **15.** Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with federal officials. Identify the federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
- **16.** Check whether or not a continuation sheet(s) is attached.
- 17. The certifying official shall sign and date the form, and print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30-minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503. SF-LLL-Instructions Rev. 06-04

EXHIBIT 10-A

A&E CONSULTANT FINANCIAL DOCUMENT REVIEW REQUEST

Caltrans Division of Local Assistance

(Completed by Local Agencies, One per Contract)

(For New Proposed A&E Consultant Local Agency Contracts of \$150,000 or Greater) (For Amendments, use only when there are additional subconsultants or changes in ICR)

EMAIL TO:

California State Department of Transportation	Date:
Independent Office of Audits and Investigations	Federal/State Project No.:
conformance.review@dot.ca.gov	
Attention: Audit Manager, External Contracts-Local Agencies	
Please check one: New Contract Amendment Other	
A&E Contract No.:	
Total Contract or Amended amount of \$	
Prime Consultant Full Legal Name:	
The Project Description is:	

Complete below for Prime and all Sub-consultants on this contract.

Consultant's Name	Participation Amount	Category 1, 2, 3, 4, 5	Caltrans ICR Acceptance ID # (if available)

Note: Add pages if necessary.

I verify we received financial documents from the prime and sub-consultants based on the requirements specified in the Exhibit 10-A Checklist.

Name	— Signature
Title	_
Name of Local Agency and Department:	
Address:	
Phone No ·	

CALTRANS A&I FINANCIAL DOCUMENT REVIEW REQUIREMENTS FOR ARCHITECTURAL AND ENGINEERING (A&E) CONSULTANTS ON LOCAL GOVERNMENT AGENCY CONTRACTS

Requirements for total contract amount equal to or greater than \$150,000. Local Government Agency must provide the following:

1) A&E Consultant Financial Document Review Request Letter (Exhibit 10-A) (a)

2) Local Agency and Prime Consultant's Points of Contact

Prime and all sub-consultants must provide the following documents based on t		0,0		CATEGOR	ONLY IF NOT XY 1, 2, or 3
Type of Financial Documents and Information for ICR FYE proposed *	CATEGORY 1: Firms with Cognizant Approval Letter for ICR FYE Proposed	CATEGORY 2: Firms with Caltrans Acceptance ID Number for ICR FYE Proposed **	CATEGORY 3: Firms Requesting Safe Harbor Rate (SHR)	CATEGORY 4: Consultant Participation Amount Less than \$150K	CATEGORY 5: Consultant Participation Amount Equal to or Greater than \$150K
Cost Proposals (Examples at Exhibit 10-H1 through 10-H4)	1	1	1	1	✓
Consultant Annual Certification of Indirect Costs and Financial Management System (Exhibit 10-K)	4			~	×
Indirect Cost Rate (ICR) Schedule with FAR References for Disallowed Costs (<i>b</i>) Note: Prime Consultant must have a CPA Audited ICR Schedule for contracts equal to or greater than \$1M.	4			1	*
Cognizant Approval Letter for the ICR FYE proposed	1				
Caltrans' ICR Acceptance ID #s for ICR FYE proposed **		1			
AASHTO Internal Control Questionnaire (ICQ) Appendix B (c)					✓
Post Closing Trial Balance (d)					✓
Prevailing Wage (PW) Policy for PW work (e)	1	1	√ ***	✓	√
Safe Harbor Rate Documents:					
Consultant Certification of Eligibility of Contract Costs and Financial Management System (Attachment 1R)			4		
When applicable, additional documents may be requested:					
Prior Year ICR Schedule					
Supplemental Reconciliation Schedule (to tie the proposed ICR Schedule to the Trial Balance) (d)					
Chart of Accounts					
Income Statement (d)					
Uncompensated Overtime Adjustments (f)					
Vacation/Sick Policy					
Bonus Policy					
Executive Compensation Analysis (ECA) (d)					
Related Party Rent Analysis (d)					
Vehicle, Equipment, and Other Direct Costs Schedules (d)					

* ICR FYE = Indirect Cost Rate Fiscal Year End. Items on this checklist may not be all inclusive. A&I reserves the right to request additional documentats as deemed necessary.

** Caltrans ICR Acceptance ID # is an identification number issued by Caltrans upon review and acceptance of consultant's indirect cost rate(s) schedule for a specific fiscal year. This ID # can be referenced for use on future contracts using the same FYE ICR.

*** Firms using SHR can be reimbursed for the prevailing wage deltas either as an Other Direct Cost or as an Overhead/Indirect Cost - refer to A&I's PW Interpretive Guidance on <u>http://ig.dot.ca.gov/resources/gentrainmod.html</u>

(a) Local Agencies are required to complete Exhibit 10-A and include all applicable required documents upon submission.

(b) See Table 8-1 of the AASHTO Audit Guide for a listing of common unallowable costs.

For financial document packages received between January 1, 2019 to June 30, 2019, the 2017 FYE ICR could be submitted if the FYE 2018 ICR is not available. For financial document packages received between July 1, 2019 to December 31, 2019, the 2018 ICR must be submitted.

(c) Go to AASHTO website @ audit.transportation.org, for Appendix B-Internal Control Questionnaire

(d) Accounts and balances must match costs proposed on the ICR schedule.

(e) Consultants performing Prevailing Wage (PW) work are required to provide written PW Policy. The policy must specify their accounting method for treatment of delta base and delta fringe. Refer to A&I's PW Interpretive Guidance on <u>http://ig.dot.ca.gov/resources/gentrainmod.html</u>

	EXHIBIT 10-H1	Cost Prop	OSAL P	age 1 of 3		
ACTUAL C	<u>ost-Plus-Fixed Fee</u> or	LUMP SUM (I	FIRM FIX	KED PRICE) CONT	RACT	S
	(DESIGN, ENGINEERING	AND ENVIRO	NMENTA	l Studies)		
Note: Mark-ups are Not Allowed	Prime	e Consultant	\Box S	ubconsultant	$\Box 2^{n}$	^d Tier Subconsultant
Consultant						
Project No	Contract N	No		Date		
DIRECT LABOR						
Classification/Title	Name	Н	ours	Actual Hourly	Rate	Total
(Project Manager)*				\$		\$
(Sr. Civil Engineer)				\$		\$
(Envir. Scientist)				\$		\$
(Inspector)**				\$		\$
LABOR COSTS						
a) Subtotal Direct Labor Costs				\$		
b) Anticipated Salary Increases				\$		
NDDECT COSTS	c) TO	TAL DIREC	T LABC	DR COSTS [(a) +	- (b)]	\$
INDIRECT COSTS d) Fringe Benefits (Rate:	_%) e) Total Frir	nge Benefits [(c) x (d)]	\$		
Overhead (Rate:%)				\$		
h) General and Administrative	(Rate:%) i) Ge	n & Admin [(c) x (h)]	\$		
	j) T (OTAL INDI	RECT C	OSTS $[(e) + (g) + (g)]$	+ (i)]	\$
FIXED FEE						\$
1) CONSULTANT'S OTHER D Description		Quantity	(Add ad Unit	Unit Cost	i nece	ssary) Total
Mileage Costs		Quantity	Cint	\$	\$	Totur
Equipment Rental and Supplies				\$	\$	
Permit Fees				\$	\$	
Plan Sheets				\$	\$	
Test				\$	\$	
	1) TOTAL O	THER D	IRECT COSTS	\$	
m) SUBCONSULTANTS' CO	STS (Add additional pag	ges if necessa	ry)			
Subconsultant 1:					\$	
Subconsultant 2:					\$	
Subconsultant 3:						
Subconsultant 4:					\$	
	m) TO	TAL SUBCO	NSULT	ANTS' COSTS	\$	
n) TOTAL OTHER DIF	ECT COSTS INCLUD	ING SUBCO	NSULT	ANTS [(1)+(m)]	\$	
		TOTAL COS	ST [(c) +	(j) + (k) + (n)]		
NOTES: 1. Key personnel <u>must</u> be marked	with an asterisk (*) and em	ployees that are	subject t	o prevailing wage r	equire	ments must be marked

Key personnel <u>must</u> be marked with an asterisk (*) and employees that are subject to prevailing wage requirements must be marked with two asterisks (**). All costs must comply with the Federal cost principles. Subconsultants will provide their own cost proposals.
 The cost proposal format shall not be amended. Indirect cost rates shall be updated on an annual basis in accordance with the

consultant's annual accounting period and established by a cognizant agency or accepted by Caltrans.

3. Anticipated salary increases calculation (page 2) must accompany.

EXHIBIT 10-H1 COST PROPOSAL Page 2 of 3 ACTUAL COST-PLUS-FIXED FEE OR LUMP SUM (FIRM FIXED PRICE) CONTRACTS

(CALCULATIONS FOR ANTICIPATED SALARY INCREASES)

1. Calculate Average Hourly Rate for 1st year of the contract (Direct Labor Subtotal divided by total hours)

Direct Labor	Total Hours per		Avg	5 Year
<u>Subtotal</u> per Cost	Cost Proposal		Hourly	Contract
Proposal			Rate	Duration
\$250,000.00	5000	=	\$50.00	Year 1 Avg Hourly Rate

2. Calculate hourly rate for all years (Increase the Average Hourly Rate for a year by proposed escalation %)

	Avg Hourly Rate		Proposed Escalation			
Year 1	\$50.00	+	2%	=	\$51.00	Year 2 Avg Hourly Rate
Year 2	\$51.00	+	2%	=	\$52.02	Year 3 Avg Hourly Rate
Year 3	\$52.02	+	2%	=	\$53.06	Year 4 Avg Hourly Rate
Year 4	\$53.06	+	2%	=	\$54.12	Year 5 Avg Hourly Rate

3. Calculate estimated hours per year (Multiply estimate % each year by total hours)

	Estimated % Completed Each Year		Total Hours per Cost Proposal		Total Hours per Year	
Year 1	20.0%	*	5000	=	1000	Estimated Hours Year 1
Year 2	40.0%	*	5000	=	2000	Estimated Hours Year 2
Year 3	15.0%	*	5000	=	750	Estimated Hours Year 3
Year 4	15.0%	*	5000	=	750	Estimated Hours Year 4
Year 5	10.0%	*	5000	=	500	Estimated Hours Year 5
Total	100%		Total	=	5000	

4. Calculate Total Costs including Escalation (Multiply Average Hourly Rate by the number of hours)

	Avg Hourly Rate		Estimated hours		Cost per	
	(calculated above)		(calculated above)		Year	
Year 1	\$50.00	*	1000	=	\$50,000.00	Estimated Hours Year 1
Year 2	\$51.00	*	2000	=	\$102,000.00	Estimated Hours Year 2
Year 3	\$52.02	*	750	=	\$39,015.00	Estimated Hours Year 3
Year 4	\$53.06	*	750	=	\$39,795.30	Estimated Hours Year 4
Year 5	\$54.12	*	500	=	\$27,060.80	Estimated Hours Year 5
	Total Direct Labor C	ost wi	ith Escalation	=	\$257,871.10	
	Direct Labor Subtota	al befo	ore Escalation	=	\$250,000.00	
Estimated total of Direct Labor Salary			Labor Salary	=		Transfer to Page 1
			Increase		\$7,871.10	-

NOTES:

- 1. This is not the only way to estimate salary increases. Other methods will be accepted if they clearly indicate the % increase, the # of years of the contract, and a breakdown of the labor to be performed each year.
- 2. An estimation that is based on direct labor multiplied by salary increase % multiplied by the # of years is not acceptable. (i.e. \$250,000 x 2% x 5 yrs = \$25,000 is not an acceptable methodology)
- 3. This assumes that one year will be worked at the rate on the cost proposal before salary increases are granted.
- 4. Calculations for anticipated salary escalation must be provided.

EXHIBIT 10-H1 COST PROPOSAL Page 3 of 3

Certification of Direct Costs:

I, the undersigned, certify to the best of my knowledge and belief that all direct costs identified on the cost proposal(s) in this contract are actual, reasonable, allowable, and allocable to the contract in accordance with the contract terms and the following requirements:

- 1. Generally Accepted Accounting Principles (GAAP)
- 2. Terms and conditions of the contract
- 3. <u>Title 23 United States Code Section 112</u> Letting of Contracts
- 4. <u>48 Code of Federal Regulations Part 31</u> Contract Cost Principles and Procedures
- 5. <u>23 Code of Federal Regulations Part 172</u> Procurement, Management, and Administration of Engineering and Design Related Service
- 6. <u>48 Code of Federal Regulations Part 9904 Cost Accounting Standards Board</u> (when applicable)

All costs must be applied consistently and fairly to all contracts. All documentation of compliance must be retained in the project files and be in compliance with applicable federal and state requirements. Costs that are noncompliant with the federal and state requirements are not eligible for reimbursement.

Local governments are responsible for applying only cognizant agency approved or Caltrans accepted Indirect Cost Rate(s).

Prime Consultant or Subconsultant Certifying:

Name:	Title *:
Signature :	Date of Certification (mm/dd/yyyy):
Email:	Phone Number:
Address:	

*An individual executive or financial officer of the consultant's or subconsultant's organization at a level no lower than a Vice President or a Chief Financial Officer, or equivalent, who has authority to represent the financial information utilized to establish the cost proposal for the contract.

List services the consultant is providing under the proposed contract:

EXHIBIT 10-K CONSULTANT ANNUAL CERTIFICATION OF INDIRECT COSTS AND FINANCIAL MANAGEMENT SYSTEM

(Note: If a Safe Harbor Indirect Cost Rate is approved, this form is not required.)

Consultant's Full Legal Name: _____

Important: Consultant means the individual or consultant providing engineering and design related services as a party of a contract with a recipient or sub-recipient of Federal assistance. Therefore, the Indirect Cost Rate(s) shall not be combined with its parent company or subsidiaries.

Indirect Cost Rate:

Combined Rate _____% OR

Home Office Rate _____% and Field Office Rate (if applicable) _____%

Facilities Capital Cost of Money____% (if applicable)

Fiscal period *_____

* Fiscal period is annual one year applicable accounting period that the Indirect Cost Rate was developed (not the contract period). The Indirect Cost Rate is based on the consultant's one-year applicable accounting period for which financial statements are regularly prepared by the consultant.

I have reviewed the proposal to establish an Indirect Cost Rate(s) for the **fiscal period** as specified above and have determined to the best of my knowledge and belief that:

- All costs included in the cost proposal to establish the indirect cost rate(s) are allowable in accordance with the cost principles of the Federal Acquisition Regulation (FAR) 48, Code of Federal Regulations (CFR), Chapter 1, Part 31 (48 CFR Part 31);
- The cost proposal does not include any costs which are expressly unallowable under the cost principles of 48 CFR Part 31;
- The accounting treatment and billing of prevailing wage delta costs are consistent with our prevailing wage policy as either direct labor, indirect costs, or other direct costs on all federally-funded A&E Consultant Contracts.
- All known material transactions or events that have occurred subsequent to year-end affecting the consultant's ownership, organization, and indirect cost rates have been disclosed as of the date of this certification.

I am providing the required and applicable documents as instructed on Exhibit 10-A.

Financial Management System:

Our labor charging, job costing, and accounting systems meet the standards for financial reporting, accounting records, and internal control adequate to demonstrate that costs claimed have been incurred, appropriately accounted for, are allocable to the contract, and comply with the federal requirements as set forth in <u>Title 23</u> <u>United States Code (U.S.C.) Section 112(b)(2)</u>; 48 CFR Part 31.201-2(d); 23 CFR, Chapter 1, Part 172.11(a)(2); and all applicable state and federal rules and regulations.

Our financial management system has the following attributes:

- Account numbers identifying allowable direct, indirect, and unallowable cost accounts;
- Ability to accumulate and segregate allowable direct, indirect, and unallowable costs into separate cost

accounts;

- Ability to accumulate and segregate allowable direct costs by project, contract and type of cost;
- Internal controls to maintain integrity of financial management system;
- Ability to account and record costs consistently and to ensure costs billed are in compliance with FAR;
- Ability to ensure and demonstrate costs billed reconcile to general ledgers and job costing system; and
- Ability to ensure costs are in compliance with contract terms and federal and state requirement

Cost Reimbursements on Contracts:

I also understand that failure to comply with 48 CFR Part 16.301-3 or knowingly charge unallowable costs to Federal-Aid Highway Program (FAHP) contracts may result in possible penalties and sanctions as provided by the following:

- Sanctions and Penalties 23 CFR Part 172.11(c)(4)
- False Claims Act <u>Title 31 U.S.C. Sections 3729-3733</u>
- Statements or entries generally <u>Title 18 U.S.C. Section 1001</u>
- Major Fraud Act <u>Title 18 U.S.C. Section 1031</u>

All A&E Contract Information:

- Total participation amount \$______ on all State and FAHP contracts for Architectural & Engineering services that the consultant received in the last three fiscal periods.
- The number of states in which the consultant does business is
- Years of consultant's experience with 48 CFR Part 31 is_____
- Audit history of the consultant's current and prior years (if applicable)
 - □ Cognizant ICR Audit □ Local Gov't ICR Audit

□ Caltrans ICR Audit

- \Box CPA ICR Audit \Box Federal (
 - □ Federal Gov't ICR Audit

I, the undersigned, certify all of the above to the best of my knowledge and belief and that I have reviewed the Indirect Cost Rate Schedule to determine that any costs which are expressly unallowable under the Federal cost principles have been removed and comply with <u>Title 23 U.S.C. Section 112(b)(2)</u>, <u>48 CFR Part 31</u>, <u>23 CFR Part 172</u>, and all applicable state and federal rules and regulations. I also certify that I understand that all documentation of compliance must be retained by the consultant. I hereby acknowledge that costs that are noncompliant with the federal and state requirements are not eligible for reimbursement and must be returned to Caltrans.

Name**:	Title**:
Signature:	Date of Certification (mm/dd/yyyy):
Email**:	Phone Number**:

**An individual executive or financial officer of the consultant's or subconsultant's organization at a level no lower than a Vice President, a Chief Financial Officer, or equivalent, who has authority to represent the financial information used to establish the indirect cost rate.

Note: Both prime and subconsultants as parties of a contract must complete their own Exhibit 10-K forms. Caltrans will not process local agency's invoices until a complete Exhibit 10-K form is accepted and approved by Caltrans Audits and Investigations.

Distribution: 1) Original - Local Agency Project File 2) Copy - Consultant 3) Copy - Caltrans Audits and Investigations

EXHIBIT 10-O2 CONSULTANT CONTRACT DBE COMMITMENT

2. Contract DBE Goal: 1. Local Agency:

3. Project Description:

4. Project Location:

5. Consultant's Name: ______6. Prime Certified DBE: □ 7. Total Contract Award Amount: _____

8. Total Dollar Amount for <u>ALL</u> Subconsultants: ______ 9. Total Number of <u>ALL</u> Subconsultants: ______

	1	1			
10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount		
Local Agency to Complete this	Section		\$		
20. Local Agency Contract		14. TOTAL CLAIMED DBE PARTICIPATION	\$		
21. Federal-Aid Project Number:		14. TOTAL CLAIMED DBE PARTICIPATION			
22. Contract Execution Date:			%		
Local Agency certifies that all DBE certifications are this form is complete and accurate.	IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.				
23. Local Agency Representative's Signature 24	1. Date	15. Preparer's Signature 16. Date			
25. Local Agency Representative's Name 26	6. Phone	17. Preparer's Name 18. Phon	ne		
27. Local Agency Representative's Title		19. Preparer's Title			

DISTRIBUTION: 1. Original - Local Agency

2. Copy - Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT CONTRACT DBE COMMITMENT

CONSULTANT SECTION

1. Local Agency - Enter the name of the local or regional agency that is funding the contract.

2. Contract DBE Goal - Enter the contract DBE goal percentage as it appears on the project advertisement.

3. Project Description - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).

4. Project Location - Enter the project location as it appears on the project advertisement.

5. Consultant's Name - Enter the consultant's firm name.

6. Prime Certified DBE - Check box if prime contractor is a certified DBE.

7. Total Contract Award Amount - Enter the total contract award dollar amount for the prime consultant.

8. Total Dollar Amount for <u>ALL</u> Subconsultants – Enter the total dollar amount for all subcontracted consultants.

SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.

9. Total number of <u>ALL</u> subconsultants – Enter the total number of all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.

10. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.

11. DBE Certification Number - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.

12. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.

13. DBE Dollar Amount - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.

14. Total Claimed DBE Participation - \$: Enter the total dollar amounts entered in the "DBE Dollar Amount" column. %: Enter the total DBE participation claimed ("Total Participation Dollars Claimed" divided by item "Total Contract Award Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).

15. Preparer's Signature - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.

16. Date - Enter the date the DBE commitment form is signed by the consultant's preparer.

17. Preparer's Name - Enter the name of the person preparing and signing the consultant's DBE commitment form.

18. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.

19. Preparer's Title - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

20. Local Agency Contract Number - Enter the Local Agency contract number or identifier.

21. Federal-Aid Project Number - Enter the Federal-Aid Project Number.

22. Contract Execution Date - Enter the date the contract was executed.

23. Local Agency Representative's Signature - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.

24. Date - Enter the date the DBE commitment form is signed by the Local Agency Representative.

25. Local Agency Representative's Name - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.

26. Phone - Enter the area code and phone number of the person signing the consultant's DBE commitment form.27. Local Agency Representative Title - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

EXHIBIT 17-F FINAL REPORT-UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES (DBE) AND FIRST-TIER SUBCONTRACTORS

1. Local Agency Contract Number 2. Federal-Aid			d Project Number	3. Local Agency	/			4. Contract Con	mpletion Date
5. Contractor	r/Consultant	1	6. Business Address	1			7. Final Contract Amount		
8. Contract 9. Description of Work, Servi	ice or	10. Company Name and	11. DBE	12. Contract Payments		13. Date	14. Date of		
Item Number	Materials Supplied	50, 01	Business Address	4	Certification Number	Non-DBE	DBE	Work Completed	Final Payment
15. ORIGINAL DBE COMMITMENT AMOUNT \$ 16. TOTAL									
List all first-tier subcontractors/subconsultants and DBEs regardless of tier whether or not the firms were originally listed for goal credit. If actual DBE utilization (or item of work) was different than that approved at the time of award, provide comments on an additional page. List actual amount paid to each entity. If no subcontractors/subconsultants were used on the contract, indicate on the form.									
I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT									
17. Contracto	tor/Consultant Representative's Sign	nature 18.	. Contractor/Consultant Representa	ative's Name		19. Phone		20. Date	
	I CERTIFY THAT THE CONTRACTING RECORDS AND ON-SITE PERFORMANCE OF THE DBE(S) HAS BEEN MONITORED								

 21. Local Agency Representative's Signature
 22. Local Agency Representative's Name
 23. Phone
 24. Date

DISTRIBUTION: Original - Local Agency, Copy - Caltrans District Local Assistance Engineer. Include with Final Report of Expenditures

ADA NOTICE: For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 445-1233, Local Assistance Procedures Manual TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – FINAL REPORT-UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES (DBE) AND FIRST-TIER SUBCONTRACTORS

1. Local Agency Contract Number - Enter the Local Agency contract number or identifier.

2. Federal-Aid Project Number - Enter the Federal-Aid Project Number.

3. Local Agency - Enter the name of the local or regional agency that is funding the contract.

4. Contract Completion Date - Enter the date the contract was completed.

5. Contractor/Consultant - Enter the contractor/consultant's firm name.

6. Business Address - Enter the contractor/consultant's business address.

7. Final Contract Amount - Enter the total final amount for the contract.

8. Contract Item Number - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.

9. Description of Work, Services, or Materials Supplied - Enter description of work, services, or materials provided. Indicate all work to be performed by DBEs including work performed by the prime contractor/consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.

10. Company Name and Business Address - Enter the name, address, and phone number of all subcontracted contractors/consultants. Also, enter the prime contractor/consultant's name and phone number, if the prime is a DBE.

11. DBE Certification Number - Enter the DBE's Certification Identification Number. Leave blank if subcontractor is not a DBE.

12. Contract Payments - Enter the subcontracted dollar amount of the work performed or service provided. Include the prime contractor/consultant if the prime is a DBE. The Non-DBE column is used to enter the dollar value of work performed by firms that are not certified DBE or for work after a DBE becomes decertified.

13. Date Work Completed - Enter the date the subcontractor/subconsultant's item work was completed.

14. Date of Final Payment - Enter the date when the prime contractor/consultant made the final payment to the subcontractor/subconsultant for the portion of work listed as being completed.

15. Original DBE Commitment Amount - Enter the "Total Claimed DBE Participation Dollars" from Exhibits 15-G or 10-O2 for the contract.

16. Total - Enter the sum of the "Contract Payments" Non-DBE and DBE columns.

17. Contractor/Consultant Representative's Signature - The person completing the form on behalf of the contractor/consultant's firm must sign their name.

18. Contractor/Consultant Representative's Name - Enter the name of the person preparing and signing the form.

19. Phone - Enter the area code and telephone number of the person signing the form.

20. Date - Enter the date the form is signed by the contractor's preparer.

21. Local Agency Representative's Signature - A Local Agency Representative must sign their name to certify that the contracting records and on-site performance of the DBE(s) has been monitored.

22. Local Agency Representative's Name - Enter the name of the Local Agency Representative signing the form.

23. Phone - Enter the area code and telephone number of the person signing the form.

24. Date - Enter the date the form is signed by the Local Agency Representative.

EXHIBIT 17-O DISADVANTAGED BUSINESS ENTERPRISES (DBE) CERTIFICATION STATUS CHANGE

1. Local Age	al Agency Contract Number 2. Federal-Aid Project Number 3. Local Agency					4. Contract Completion Date			
5. Contractor/Consultant 6. Bu			6. Bus	Business Address				7. Final Contract Amount	
8. Contract Item Number	9. DBE Contact Information			10. DBE Certification Number	11. Amount Paid While Certified	12. Certification/ Decertification Date (Letter Attached)	13.	Comments	

If there were no changes in the DBE certification of subcontractors/subconsultants, indicate on the form.

I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT						
14. Contractor/Consultant Representative's Signature	15. Contractor/Consultant Representative's Name	16. Phone	17. Date			
I CERTIFY THAT THE CONTRACTING RECORDS AND ON-SITE PERFORMANCE OF THE DBE(S) HAS BEEN MONITORED						
18. Local Agency Representative's Signature	19. Local Agency Representative's Name	20. Phone	21. Date			

DISTRIBUTION: Original – Local Agency, Copy – Caltrans District Local Assistance Engineer. Include with Final Report of Expenditures

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INSTRUCTIONS –DISADVANTAGED BUSINESS ENTERPRISES (DBE) CERTIFICATION STATUS CHANGE

1. Local Agency Contract Number - Enter the Local Agency contract number or identifier.

2. Federal-Aid Project Number - Enter the Federal-Aid Project Number.

3. Local Agency - Enter the name of the local or regional agency that is funding the contract.

4. Contract Completion Date - Enter the date the contract was completed.

5. Contractor/Consultant - Enter the contractor/consultant's firm name.

6. Business Address - Enter the contractor/consultant's business address.

7. Final Contract Amount - Enter the total final amount for the contract.

8. Contract Item Number - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.

9. DBE Contact Information - Enter the name, address, and phone number of all DBE subcontracted contractors/consultants.

10. DBE Certification Number - Enter the DBE's Certification Identification Number.

11. Amount Paid While Certified - Enter the actual dollar value of the work performed by those subcontractors/subconsultants during the time period they are certified as a DBE.

12. Certification/Decertification Date (Letter Attached) - Enter either the date of the Decertification Letter sent out by the Office of Business and Economic Opportunity (OBEO) or the date of the Certification Certificate mailed out by OBEO.

13. Comments - If needed, provide any additional information in this section regarding any of the above certification status changes.

14. Contractor/Consultant Representative's Signature - The person completing the form on behalf of the contractor/consultant's firm must sign their name.

15. Contractor/Consultant Representative's Name - Enter the name of the person preparing and signing the form.

16. Phone - Enter the area code and telephone number of the person signing the form.

17. Date - Enter the date the form is signed by the contractor's preparer.

18. Local Agency Representative's Signature - A Local Agency Representative must sign their name to certify

that the contracting records and on-site performance of the DBE(s) has been monitored.

19. Local Agency Representative's Name - Enter the name of the Local Agency Representative signing the form.

20. Phone - Enter the area code and telephone number of the person signing the form.

21. Date - Enter the date the form is signed by the Local Agency Representative.

EXHIBIT 10-I NOTICE TO PROPOSERS DBE INFORMATION

The Agency has established a DBE goal for this Contract of _____%

OR

The Agency has not established a goal for this Contract. However, proposers are encouraged to obtain DBE participation for this contract.

1. TERMS AS USED IN THIS DOCUMENT

- The term "Disadvantaged Business Enterprise" or "DBE" means a for-profit small business concern owned and controlled by a socially and economically disadvantaged person(s) as defined in Title 49, Code of Federal Regulations (CFR), Part 26.5.
- The term "Agreement" also means "Contract."
- Agency also means the local entity entering into this contract with the Contractor or Consultant.
- The term "Small Business" or "SB" is as defined in 49 CFR 26.65.

2. AUTHORITY AND RESPONSIBILITY

- A. DBEs and other small businesses are strongly encouraged to participate in the performance of Contracts financed in whole or in part with federal funds (See 49 CFR 26, "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs"). The Consultant must ensure that DBEs and other small businesses have the opportunity to participate in the performance of the work that is the subject of this solicitation and should take all necessary and reasonable steps for this assurance. The proposer must not discriminate on the basis of race, color, national origin, or sex in the award and performance of subcontracts.
- B. Proposers are encouraged to use services offered by financial institutions owned and controlled by DBEs.

3. SUBMISSION OF DBE INFORMATION

If there is a DBE goal on the contract, Exhibit 10-O1 *Consultant Proposal DBE Commitment* must be included in the Request for Proposal. In order for a proposer to be considered responsible and responsive, the proposer must make good faith efforts to meet the goal established for the contract. If the goal is not met, the proposer must document adequate good faith efforts. All DBE participation will be counted towards the contract goal; therefore, all DBE participation shall be collected and reported.

Exhibit 10-O2 *Consultant Contract DBE Information* must be included with the Request for Proposal. Even if no DBE participation will be reported, the successful proposer must execute and return the form.

4. DBE PARTICIPATION GENERAL INFORMATION

It is the proposer's responsibility to be fully informed regarding the requirements of 49 CFR, Part 26, and the Department's DBE program developed pursuant to the regulations. Particular attention is directed to the following:

A. A DBE must be a small business firm defined pursuant to 13 CFR 121 and be certified through the California Unified Certification Program (CUCP).

- B. A certified DBE may participate as a prime consultant, subconsultant, joint venture partner, as a vendor of material or supplies, or as a trucking company.
- C. A DBE proposer not proposing as a joint venture with a non-DBE, will be required to document one or a combination of the following:
 - 1. The proposer is a DBE and will meet the goal by performing work with its own forces.
 - 2. The proposer will meet the goal through work performed by DBE subconsultants, suppliers or trucking companies.
 - 3. The proposer, prior to proposing, made adequate good faith efforts to meet the goal.
- D. A DBE joint venture partner must be responsible for specific contract items of work or clearly defined portions thereof. Responsibility means actually performing, managing, and supervising the work with its own forces. The DBE joint venture partner must share in the capital contribution, control, management, risks and profits of the joint venture commensurate with its ownership interest.
- E. A DBE must perform a commercially useful function pursuant to 49 CFR 26.55, that is, a DBE firm must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work.
- F. The proposer shall list only one subconsultant for each portion of work as defined in their proposal and all DBE subconsultants should be listed in the bid/cost proposal list of subconsultants.
- G. A prime consultant who is a certified DBE is eligible to claim all of the work in the Contract toward the DBE participation except that portion of the work to be performed by non-DBE subconsultants.

5. **RESOURCES**

- A. The CUCP database includes the certified DBEs from all certifying agencies participating in the CUCP. If you believe a firm is certified that cannot be located on the database, please contact the Caltrans Office of Certification toll free number 1-866-810-6346 for assistance.
- B. Access the CUCP database from the Department of Transportation, Office of Business and Economic Opportunity Web site at: http://www.dot.ca.gov/hq/bep/.
 - 1. Click on the link titled *Disadvantaged Business Enterprise*;
 - 2. Click on Search for a DBE Firm link;
 - 3. Click on <u>Access to the DBE Query Form</u> located on the first line in the center of the page.

Searches can be performed by one or more criteria. Follow instructions on the screen.

6. MATERIALS OR SUPPLIES PURCHASED FROM DBES COUNT TOWARDS THE DBE GOAL UNDER THE FOLLOWING CONDITIONS:

- A. If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies. A DBE manufacturer is a firm that operates or maintains a factory, or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract and of the general character described by the specifications.
- B. If the materials or supplies purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies. A DBE regular dealer is a firm that owns, operates or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the

purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business provided in this section.

- C. If the person both owns and operates distribution equipment for the products, any supplementing of regular dealers' own distribution equipment shall be, by a long-term lease agreement and not an ad hoc or Agreement-by-Agreement basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not DBE regular dealers within the meaning of this section.
- D. Materials or supplies purchased from a DBE, which is neither a manufacturer nor a regular dealer, will be limited to the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on the job site, provided the fees are reasonable and not excessive as compared with fees charged for similar services.

ATTACHMENT A SAMPLE CONTRACT

AGREEMENT FOR PROFESSIONAL SERVICES WITH

ARTICLE I INTRODUCTION

A. This AGREEMENT is entered into as of the _____ day of _____, 2020 by and between the following named, hereinafter referred to as CONSULTANT, and the following named, hereinafter referred to as LOCAL AGENCY:

The name of the "CONSULTANT" is as follows: <a>company or individual's name. Incorporated in or authorized to do business in the State of California.

The Project Manager for the "CONSULTANT" will be

The name of the "LOCAL AGENCY" is as follows: City of San Rafael

The Contract Administrator for LOCAL AGENCY will be Bill Guerin, Public Works Director

- B. The work to be performed under this AGREEMENT is described in Article III Statement of Work and the approved CONSULTANT's Revised Cost Proposal ("Cost Proposal") dated <date>. The approved CONSULTANT's Cost Proposal is attached hereto (Exhibit A) and incorporated by reference. If there is any conflict between the approved Cost Proposal and this AGREEMENT, this AGREEMENT shall take precedence.
- C. CONSULTANT agrees to the fullest extent permitted by law, to indemnify, protect, defend, and hold harmless LOCAL AGENCY, its officers, agents, and employees and volunteers from and against any and all claims, damages, demands, liability, costs, losses and expenses, including without limitation, court costs and reasonable attorney's and expert witness fees, arising out of any failure to comply with applicable law, any injury to or death of any person(s), damage to property, loss of use of property, economic loss or otherwise arising out of the performance of the work described herein, to the extent caused by a negligent act or negligent failure to act, errors, omissions, recklessness or willful misconduct incident to the performance of this AGREEMENT on the part of CONSULTANT, except CONSULTANT will not reimburse LOCAL AGENCY for any such loss or damage which was caused by the sole negligence, or willful misconduct of LOCAL AGENCY, as determined by a Court of competent jurisdiction. The provisions of this section shall survive termination or suspension of this AGREEMENT.
- D. CONSULTANT in the performance of this AGREEMENT shall act in an independent capacity. It is understood and agreed that CONSULTANT (including CONSULTANT'S employees) is an independent contractor and that no relationship of employer-employee exists between the Parties hereto. CONSULTANT'S assigned personnel shall not be entitled to any benefits payable to employees of LOCAL AGENCY.
- E. LOCAL AGENCY is not required to make deductions or withholdings from the compensation payable to CONSULTANT under the provisions of the AGREEMENT and is not required to issue W-2 Forms for income and employment tax purposes for any of CONSULTANT's assigned personnel. CONSULTANT in the performance of its obligation hereunder, is only subject to the control of direction of the LOCAL AGENCY as to the designation of tasks to be performed and the results to be accomplished,
- F. Any third-party person(s) employed by CONSULTANT shall be entirely and exclusively under the direction, supervision, and control of CONSULTANT. CONSULTANT hereby indemnifies and holds LOCAL AGENCY harmless from any and all claims that may be made against LOCAL AGENCY based upon any contention by any third party that an employer-employee relationship exists by reason of this AGREEMENT.
- G. Except as expressly authorized herein, CONSULTANT's obligations under this AGREEMENT are not assignable or transferable, and CONSULTANT shall not subcontract any work, without the prior written approval of the LOCAL AGENCY. However, claims for money due or which become due to CONSULTANT from LOCAL AGENCY under this AGREEMENT may be assigned to a financial institution or to a trustee in

bankruptcy, without such approval. Notice of any assignment or transfer whether voluntary or involuntary shall be furnished promptly to the LOCAL AGENCY.

- H. CONSULTANT shall be as fully responsible to the LOCAL AGENCY for the negligent acts and omissions of its contractors and subcontractors or subconsultants, and of persons either directly or indirectly employed by them, in the same manner as persons directly employed by CONSULTANT.
- I. No alteration or variation of the terms of this AGREEMENT shall be valid, unless made in writing and signed by the parties authorized to bind the parties; and no oral understanding or agreement not incorporated herein, shall be binding on any of the parties hereto.
- J. The consideration to be paid to CONSULTANT as provided herein, shall be in compensation for all of CONSULTANT's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.

ARTICLE II CONSULTANT'S REPORTS OR MEETINGS

- A. CONSULTANT shall submit progress reports at least once a month. The report should be sufficiently detailed for the LOCAL AGENCY's Contract Administrator to determine, if CONSULTANT is performing to expectations, or is on schedule; to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.
- B. CONSULTANT's Project Manager shall meet with LOCAL AGENCY's Contract Administrator, as needed, to discuss progress on the AGREEMENT.

ARTICLE III STATEMENT OF WORK

The CONSULTANT shall perform the services specified in the Revised Scope of Work, dated <date>, attached hereto as Exhibit A and incorporated herein by reference. If there is any conflict between the terms of the Cost Proposal, attached hereto as Exhibit A, and the terms of this AGREEMENT, the terms of this AGREEMENT shall take precedence.

ARTICLE IV PERFORMANCE PERIOD

- A. This AGREEMENT shall go into effect on the date first hereinabove written, contingent upon approval by LOCAL AGENCY, and CONSULTANT shall commence work after notification to proceed by LOCAL AGENCY'S Contract Administrator. The AGREEMENT shall end upon completion of the work to the satisfaction of the LOCAL AGENCY'S Contract Administrator.
- B. CONSULTANT is advised that any recommendation for AGREEMENT award is not binding on LOCAL AGENCY until the AGREEMENT is fully executed and approved by LOCAL AGENCY.

ARTICLE V ALLOWABLE COSTS AND PAYMENTS

A. The method of payment for this AGREEMENT will be based on actual cost plus a fixed fee. LOCAL AGENCY will reimburse CONSULTANT for actual costs (including labor costs, employee benefits, travel, equipment rental costs, overhead and other direct costs) incurred by CONSULTANT in performance of the work. CONSULTANT will not be reimbursed for actual costs that exceed the estimated wage rates, employee benefits, travel, equipment rental, overhead, and other estimated costs set forth in the approved CONSULTANT'S Cost Proposal, unless additional reimbursement is provided for by AGREEMENT amendment. In no event, will CONSULTANT be reimbursed for overhead costs at a rate that exceeds LOCAL AGENCY's approved overhead rate set forth in the Cost Proposal. In the event that LOCAL AGENCY

determines that a change to the work from that specified in the Cost Proposal and AGREEMENT is required, the AGREEMENT time or actual costs reimbursable by LOCAL AGENCY shall be adjusted by AGREEMENT amendment to accommodate the changed work. The maximum total cost as specified in Paragraph "I" of this Article shall not be exceeded, unless authorized by AGREEMENT amendment.

- B. The indirect cost rate established for this AGREEMENT is extended through the duration of this specific AGREEMENT. CONSULTANT's agreement to the extension of the 1-year applicable period shall not be a condition or qualification to be considered for the work or AGREEMENT award.
- C. In addition to the allowable incurred costs, LOCAL AGENCY will pay CONSULTANT a fixed fee of <\$dollar amount>. The fixed fee is nonadjustable for the term of the AGREEMENT, except in the event of a significant change in the scope of work and such adjustment is made by AGREEMENT amendment.
- D. Reimbursement for transportation and subsistence costs shall not exceed the rates specified in the approved Cost Proposal.
- E. When milestone cost estimates are included in the approved Cost Proposal, CONSULTANT shall obtain prior written approval for a revised milestone cost estimate from the Contract Administrator before exceeding such cost estimate.
- F. Progress payments will be made monthly in arrears based on services provided and allowable incurred costs. A pro rata portion of CONSULTANT's fixed fee will be included in the monthly progress payments. If CONSULTANT fails to submit the required deliverable items according to the schedule set forth in Article III Statement of Work, LOCAL AGENCY shall have the right to delay payment or terminate this AGREEMENT.
- G. No payment will be made prior to approval of any work, nor for any work performed prior to approval of this AGREEMENT.
- H. CONSULTANT will be reimbursed promptly according to California Regulations upon receipt by LOCAL AGENCY's Contract Administrator of itemized invoices in duplicate. Invoices shall be submitted no later than thirty (30) calendar days after the performance of work for which CONSULTANT is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference this AGREEMENT number and project title. Final invoice must contain the final cost and all credits due LOCAL AGENCY including any equipment purchased under the provisions of Article XI Equipment Purchase. The final invoice shall be mailed to LOCAL AGENCY's Contract Administrator at the following address:

City of San Rafael Public Works Department Bill Guerin 111 Morphew Street San Rafael, CA 94901

- I. The total amount payable by LOCAL AGENCY including the fixed fee shall not exceed \$
dollar amount>.
- J. Salary increases will be reimbursable if the new salary is within the salary range identified in the approved Cost Proposal and is approved by LOCAL AGENCY's Contract Administrator.
- K. For personnel subject to prevailing wage rates as described in the California Labor Code, all salary increases, which are the direct result of changes in the prevailing wage rates are reimbursable.

ARTICLE VI TERMINATION

- A. This AGREEMENT may be terminated by LOCAL AGENCY, provided that LOCAL AGENCY gives not less than thirty (30) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate. Upon termination, LOCAL AGENCY shall be entitled to all work, including but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and in accordance with Article XXVI, Ownership of Data.
- B. LOCAL AGENCY may temporarily suspend this AGREEMENT, at no additional cost to LOCAL AGENCY, provided that CONSULTANT is given written notice (delivered by certified mail, return receipt requested) of temporary suspension. If LOCAL AGENCY gives such notice of temporary suspension, CONSULTANT shall immediately suspend its activities under this AGREEMENT. A temporary suspension may be issued concurrent with the notice of termination provided for in subsection A of this section.
- C. Notwithstanding any provisions of this AGREEMENT, CONSULTANT shall not be relieved of liability to LOCAL AGENCY for damages sustained by LOCAL AGENCY by virtue of any breach of this AGREEMENT by CONSULTANT, and LOCAL AGENCY may withhold any payments due to CONSULTANT until such time as the exact amount of damages, if any, due LOCAL AGENCY from CONSULTANT is determined.
- D. In the event of termination, CONSULTANT shall be compensated as provided for in this AGREEMENT, except as provided in Article XI, section C. Upon termination, LOCAL AGENCY shall be entitled to all work, including but not limited to, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and in accordance with Article XXVI, Ownership of Data.

ARTICLE VII COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

- A. The CONSULTANT agrees that 48 CFR Part 31, Contract Cost Principles and Procedures, shall be used to determine the allowability of individual items of cost.
- B. The CONSULTANT also agrees to comply with Federal procedures in accordance with 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.
- C. Any costs for which payment has been made to the CONSULTANT that are determined by subsequent audit to be unallowable under 48 CFR Part 31 or 2 CFR Part 200, are subject to repayment by the CONSULTANT to LOCAL AGENCY.
- D. When a CONSULTANT or Subconsultant is a Non-Profit Organization or an Institution of Higher Education, the Cost Principles for Title 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards shall apply.

ARTICLE VIII RETENTION OF RECORDS/AUDIT

For the purpose of determining compliance with Gov. Code §8546.7, the CONSULTANT, Subconsultants, and LOCAL AGENCY shall maintain all books, documents, papers, accounting records, Independent CPA Audited Indirect Cost Rate workpapers, and other evidence pertaining to the performance of the AGREEMENT including, but not limited to, the costs of administering the AGREEMENT. All parties, including the CONSULTANT's Independent CPA, shall make such workpapers and materials available at their respective offices at all reasonable times during the AGREEMENT period and for three (3) years from the date of final payment under the AGREEMENT. LOCAL AGENCY, Caltrans Auditor, FHWA, or any duly authorized representative of the Federal government having jurisdiction under Federal laws or regulations (including the basis of Federal funding in whole or in part) shall have access to any books, records, and documents of the CONSULTANT, Subconsultants, and the CONSULTANT's Independent CPA, that are pertinent to the AGREEMENT for audits, examinations, workpaper review, excerpts, and transactions, and copies thereof shall be furnished if requested without limitation.

ARTICLE IX AUDIT REVIEW PROCEDURES

- A. Any dispute concerning a question of fact arising under an interim or post audit of this AGREEMENT that is not disposed of by agreement, shall be reviewed by LOCAL AGENCY'S Finance Director.
- B. Not later than thirty (30) days after issuance of the final audit report, CONSULTANT may request a review by LOCAL AGENCY'S Finance Director of unresolved audit issues. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute nor its consideration by LOCAL AGENCY will excuse CONSULTANT from full and timely performance, in accordance with the terms of this AGREEMENT.
- D. CONSULTANT and subconsultant AGREEMENTs, including cost proposals and Indirect Cost Rates (ICR), may be subject to audits or reviews such as, but not limited to, an AGREEMENT audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the AGREEMENT, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instances of a CPA ICR audit work paper review it is CONSULTANT's responsibility to ensure federal, LOCAL AGENCY, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The AGREEMENT, cost proposal, and ICR shall be adjusted by CONSULTANT and approved by LOCAL AGENCY Contract Administrator to conform to the audit or review recommendations. CONSULTANT agrees that individual terms of costs identified in the audit report shall be incorporated into the AGREEMENT by this reference if directed by LOCAL AGENCY at its sole discretion. Refusal by CONSULTANT to incorporate audit or review recommendations, or to ensure that the federal, LOCAL AGENCY or local governments have access to CPA work papers, will be considered a breach of AGREEMENT terms and cause for termination of the AGREEMENT and disallowance of prior reimbursed costs.
- E. CONSULTANT's Cost Proposal may be subject to a CPA ICR Audit Work Paper Review and/or audit by Caltrans Audits and Investigation (A&I). Caltrans A&I, at its sole discretion, may review and/or audit and approve the CPA ICR documentation. The Cost Proposal shall be adjusted by the CONSULTANT and approved by the LOCAL AGENCY Contract Administrator to conform to the Work Paper Review recommendations included in the management letter or audit recommendations included in the audit report. Refusal by the CONSULTANT to incorporate the Work Paper Review recommendations included in the management letter or audit report will be considered a breach of the AGREEMENT terms and cause for termination of the AGREEMENT and disallowance of prior reimbursed costs.
 - 1. During Caltrans A&I's review of the ICR audit work papers created by the CONSULTANT's independent CPA, Caltrans A&I will work with the CPA and/or CONSULTANT toward a resolution of issues that arise during the review. Each party agrees to use its best efforts to resolve any audit disputes in a timely manner. If Caltrans A&I identifies significant issues during the review and is unable to issue a cognizant approval letter, LOCAL AGENCY will reimburse the CONSULTANT at an accepted ICR until a FAR (Federal Acquisition Regulation) compliant ICR {e.g. 48 CFR Part 31; GAAS (Generally Accepted Auditing Standards); CAS (Cost Accounting Standards), if applicable; in accordance with procedures and guidelines of the American Association of State Highways and Transportation Officials (AASHTO) Audit Guide; and other applicable procedures and guidelines} is received and approved by A&I.

Accepted rates will be as follows:

- a. If the proposed rate is less than one hundred fifty percent (150%) the accepted rate reimbursed will be ninety percent (90%) of the proposed rate.
- b. If the proposed rate is between one hundred fifty percent (150%) and two hundred percent (200%) the accepted rate will be eighty-five percent (85%) of the proposed rate.

- c. If the proposed rate is greater than two hundred percent (200%) the accepted rate will be seventy-five percent (75%) of the proposed rate.
- 2. If Caltrans A&I is unable to issue a cognizant letter per paragraph E.1. above, Caltrans A&I may require CONSULTANT to submit a revised independent CPA-audited ICR and audit report within three (3) months of the effective date of the management letter. Caltrans A&I will then have up to six (6) months to review the CONSULTANT's and/or the independent CPA's revisions.
- 3. If the CONSULTANT fails to comply with the provisions of this paragraph E, or if Caltrans A&I is still unable to issue a cognizant approval letter after the revised independent CPA audited ICR is submitted, overhead cost reimbursement will be limited to the accepted ICR that was established upon initial rejection of the ICR and set forth in paragraph E.1. above for all rendered services. In this event, this accepted ICR will become the actual and final ICR for reimbursement purposes under this AGREEMENT.
- 4. CONSULTANT may submit to LOCAL AGENCY final invoice only when all of the following items have occurred: (1) Caltrans A&I accepts or adjusts the original or revised independent CPA audited ICR; (2) all work under this AGREEMENT has been completed to the satisfaction of LOCAL AGENCY; and, (3) Caltrans A&I has issued its final ICR review letter. The CONSULTANT MUST SUBMIT ITS FINAL INVOICE TO LOCAL AGENCY no later than sixty (60) calendar days after occurrence of the last of these items. The accepted ICR will apply to this AGREEMENT and all other agreements executed between LOCAL AGENCY and the CONSULTANT, either as a prime or subconsultant, with the same fiscal period ICR.

ARTICLE X SUBCONTRACTING

- A. Nothing contained in this AGREEMENT or otherwise, shall create any contractual relation between LOCAL AGENCY and any Subconsultants, and no sub-agreement shall relieve the CONSULTANT of its responsibilities and obligations hereunder. The CONSULTANT agrees to be as fully responsible to LOCAL AGENCY for the acts and omissions of its Subconsultants and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by the CONSULTANT. The CONSULTANT's obligation to pay its Subconsultants is an independent obligation from LOCAL AGENCY'S obligation to make payments to the CONSULTANT.
- B. The CONSULTANT shall perform the work contemplated with resources available within its own organization and no portion of the work shall be subcontracted without written authorization by the LOCAL AGENCY Contract Administrator, except that which is expressly identified in the CONSULTANT's approved Cost Proposal.
- C. Any sub-agreement entered into as a result of this AGREEMENT, shall contain all the provisions stipulated in this entire AGREEMENT to be applicable to Subconsultants unless otherwise noted.
- D. CONSULTANT shall pay its Subconsultants within Fifteen (15) calendar days from receipt of each payment made to the CONSULTANT by the LOCAL AGENCY.
- E. Any substitution of Subconsultants must be approved in writing by LOCAL AGENCY Contract Administrator in advance of assigning work to a substitute Subconsultant.

ARTICLE XI EQUIPMENT PURCHASEAND OTHER CAPITAL EXPENDITURES

A. Prior authorization in writing, by LOCAL AGENCY's Contract Administrator shall be required before CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding five thousand dollars (\$5,000) for supplies, equipment, or CONSULTANT services. CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.

- B. For purchase of any item, service, or consulting work not covered in CONSULTANT's approved Cost Proposal and exceeding five thousand dollars (\$5,000), with prior authorization by LOCAL AGENCY's Contract Administrator, three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.
- C. Any equipment purchased as a result of this contract is subject to the following:
 - 1. CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two years and an acquisition cost of five thousand dollars (\$5,000) or more. If the purchased equipment needs replacement and is sold or traded in, LOCAL AGENCY shall receive a proper refund or credit at the conclusion of the AGREEMENT, or if the AGREEMENT is terminated, CONSULTANT may either keep the equipment and credit LOCAL AGENCY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established LOCAL AGENCY procedures; and credit LOCAL AGENCY in an amount equal to the sales price. If CONSULTANT elects to keep the equipment, fair market value shall be determined at CONSULTANT's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by LOCAL AGENCY and CONSULTANT, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by LOCAL AGENCY.
 - 2. Regulation 2 CFR Part 200 requires a credit to Federal funds when participating equipment with a fair market value greater than five thousand dollars (\$5,000) is credited to the project.

ARTICLE XII STATE PREVAILING WAGE RATES

- A. No CONSULTANT or Subconsultant may be awarded an AGREEMENT containing public work elements unless registered with the Department of Industrial Relations (DIR) pursuant to Labor Code §1725.5. Registration with DIR must be maintained throughout the entire term of this AGREEMENT, including any subsequent amendments.
- B. The CONSULTANT shall comply with all of the applicable provisions of the California Labor Code requiring the payment of prevailing wages. The General Prevailing Wage Rate Determinations applicable to work under this AGREEMENT are available and on file with the Department of Transportation's Regional/District Labor Compliance Officer (<u>http://www.dot.ca.gov/hq/construc/LaborCompliance/documents/District-Region Map Construction 7-8-15.pdf</u>). These wage rates are made a specific part of this AGREEMENT by reference pursuant to Labor Code §1773.2 and will be applicable to work performed at a construction project site. Prevailing wages will be applicable to all inspection work performed at LOCAL AGENCY construction sites, at LOCAL AGENCY facilities and at off-site locations that are set up by the construction contractor or one of its subcontractors solely and specifically to serve LOCAL AGENCY projects. Prevailing wage requirements do not apply to inspection work performed at the facilities of vendors and commercial materials suppliers that provide goods and services to the general public.
- C. General Prevailing Wage Rate Determinations applicable to this project may also be obtained from the Department of Industrial Relations Internet site at <u>http://www.dir.ca.gov</u>.
- D. Payroll Records
 - 1. Each CONSULTANT and Subconsultant shall keep accurate certified payroll records and supporting documents as mandated by Labor Code §1776 and as defined in 8 CCR §16000 showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the CONSULTANT or Subconsultant in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

- a. The information contained in the payroll record is true and correct.
- b. The employer has complied with the requirements of Labor Code §1771, §1811, and §1815 for any work performed by his or her employees on the public works project.
- 2. The payroll records enumerated under paragraph (1) above shall be certified as correct by the CONSULTANT under penalty of perjury. The payroll records and all supporting documents shall be made available for inspection and copying by LOCAL AGENCY representatives at all reasonable hours at the principal office of the CONSULTANT. The CONSULTANT shall provide copies of certified payrolls or permit inspection of its records as follows:
 - a. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or the employee's authorized representative on request.
 - b. A certified copy of all payroll records enumerated in paragraph (1) above, shall be made available for inspection or furnished upon request to a representative of LOCAL AGENCY, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations. Certified payrolls submitted to LOCAL AGENCY, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards shall not be altered or obliterated by the CONSULTANT.
 - c. The public shall not be given access to certified payroll records by the CONSULTANT. The CONSULTANT is required to forward any requests for certified payrolls to the LOCAL AGENCY Contract Administrator by both email and regular mail on the business day following receipt of the request.
- 3. Each CONSULTANT shall submit a certified copy of the records enumerated in paragraph (1) above, to the entity that requested the records within ten (10) calendar days after receipt of a written request.
- 4. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by LOCAL AGENCY shall be marked or obliterated in such a manner as to prevent disclosure of each individual's name, address, and social security number. The name and address of the CONSULTANT or Subconsultant performing the work shall not be marked or obliterated.
- 5. The CONSULTANT shall inform LOCAL AGENCY of the location of the records enumerated under paragraph (1) above, including the street address, city and county, and shall, within five (5) working days, provide a notice of a change of location and address.
- 6. The CONSULTANT or Subconsultant shall have ten (10) calendar days in which to comply subsequent to receipt of written notice requesting the records enumerated in paragraph (1) above. In the event the CONSULTANT or Subconsultant fails to comply within the ten (10) day period, he or she shall, as a penalty to LOCAL AGENCY, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Such penalties shall be withheld by LOCAL AGENCY from payments then due. CONSULTANT is not subject to a penalty assessment pursuant to this section due to the failure of a Subconsultant to comply with this section.
- E. When prevailing wage rates apply, the CONSULTANT is responsible for verifying compliance with certified payroll requirements. Invoice payment will not be made until the invoice is approved by the LOCAL AGENCY Contract Administrator.
- F. Penalty
 - 1. The CONSULTANT and any of its Subconsultants shall comply with Labor Code §1774 and §1775. Pursuant to Labor Code §1775, the CONSULTANT and any Subconsultant shall forfeit to the LOCAL AGENCY a penalty of not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of DIR for the work or craft in which the worker is employed for any public work done under the AGREEMENT by the

CONSULTANT or by its Subconsultant in violation of the requirements of the Labor Code and in particular, Labor Code §§1770 to 1780, inclusive.

- 2. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of mistake, inadvertence, or neglect of the CONSULTANT or Subconsultant in failing to pay the correct rate of prevailing wages, or the previous record of the CONSULTANT or Subconsultant in meeting their respective prevailing wage obligations, or the willful failure by the CONSULTANT or Subconsultant to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rates of prevailing wages is not excusable if the CONSULTANT or Subconsultant had knowledge of the obligations under the Labor Code. The CONSULTANT is responsible for paying the appropriate rate, including any escalations that take place during the term of the AGREEMENT.
- 3. In addition to the penalty and pursuant to Labor Code §1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the CONSULTANT or Subconsultant.
- 4. If a worker employed by a Subconsultant on a public works project is not paid the general prevailing per diem wages by the Subconsultant, the prime CONSULTANT of the project is not liable for the penalties described above unless the prime CONSULTANT had knowledge of that failure of the Subconsultant to pay the specified prevailing rate of wages to those workers or unless the prime CONSULTANT fails to comply with all of the following requirements:
 - a. The AGREEMENT executed between the CONSULTANT and the Subconsultant for the performance of work on public works projects shall include a copy of the requirements in Labor Code §§1771, 1775, 1776, 17775, 1813, and 1815.
 - b. The CONSULTANT shall monitor the payment of the specified general prevailing rate of per diem wages by the Subconsultant to the employees by periodic review of the certified payroll records of the Subconsultant.
 - c. Upon becoming aware of the Subconsultant's failure to pay the specified prevailing rate of wages to the Subconsultant's workers, the CONSULTANT shall diligently take corrective action to halt or rectify the failure, including but not limited to, retaining sufficient funds due the Subconsultant for work performed on the public works project.
 - d. Prior to making final payment to the Subconsultant for work performed on the public works project, the CONSULTANT shall obtain an affidavit signed under penalty of perjury from the Subconsultant that the Subconsultant had paid the specified general prevailing rate of per diem wages to the Subconsultant's employees on the public works project and any amounts due pursuant to Labor Code \$1813.
- 5. Pursuant to Labor Code §1775, LOCAL AGENCY shall notify the CONSULTANT on a public works project within fifteen (15) calendar days of receipt of a complaint that a Subconsultant has failed to pay workers the general prevailing rate of per diem wages.
- 6. If LOCAL AGENCY determines that employees of a Subconsultant were not paid the general prevailing rate of per diem wages and if LOCAL AGENCY did not retain sufficient money under the AGREEMENT to pay those employees the balance of wages owed under the general prevailing rate of per diem wages, the CONSULTANT shall withhold an amount of moneys due the Subconsultant sufficient to pay those employees the general prevailing rate of per diem wages if requested by LOCAL AGENCY.
- G. Hours of Labor

Eight (8) hours labor constitutes a legal day's work. The CONSULTANT shall forfeit, as a penalty to the LOCAL AGENCY, twenty-five dollars (\$25) for each worker employed in the execution of the AGREEMENT by the CONSULTANT or any of its Subconsultants for each calendar day during which such worker is required

or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of the Labor Code, and in particular §§1810 to 1815 thereof, inclusive, except that work performed by employees in excess of eight (8) hours per day, and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day and forty (40) hours in any week, at not less than one and one-half (1.5) times the basic rate of pay, as provided in §1815.

- H. Employment of Apprentices
 - 1. Where either the prime AGREEMENT or the sub-agreement exceeds thirty thousand dollars (\$30,000), the CONSULTANT and any subconsultants under him or her shall comply with all applicable requirements of Labor Code §§1777.5, 1777.6 and 1777.7 in the employment of apprentices.
 - 2. CONSULTANTs and subconsultants are required to comply with all Labor Code requirements regarding the employment of apprentices, including mandatory ratios of journey level to apprentice workers. Prior to commencement of work, CONSULTANT and subconsultants are advised to contact the DIR Division of Apprenticeship Standards website at https://www.dir.ca.gov/das/, for additional information regarding the employment of apprentices and for the specific journey-to- apprentice ratios for the AGREEMENT work. The CONSULTANT is responsible for all subconsultants' compliance with these requirements. Penalties are specified in Labor Code §1777.7.

ARTICLE XIII CONFLICT OF INTEREST (Verbatim)

- A. During the term of this AGREEMENT, the CONSULTANT shall disclose any financial, business, or other relationship with LOCAL AGENCY that may have an impact upon the outcome of this AGREEMENT or any ensuing LOCAL AGENCY construction project. The CONSULTANT shall also list current clients who may have a financial interest in the outcome of this AGREEMENT, or any ensuing LOCAL AGENCY construction project, which will follow.
- B. CONSULTANT certifies that it has disclosed to LOCAL AGENCY any actual, apparent, or potential conflicts of interest that may exist relative to the services to be provided pursuant to this AGREEMENT. CONSULTANT agrees to advise LOCAL AGENCY of any actual, apparent or potential conflicts of interest that may develop subsequent to the date of execution of this AGREEMENT. CONSULTANT further agrees to complete any statements of economic interest if required by either LOCAL AGENCY ordinance or State law.
- C. The CONSULTANT hereby certifies that it does not now have nor shall it acquire any financial or business interest that would conflict with the performance of services under this AGREEMENT.
- D. The CONSULTANT hereby certifies that the CONSULTANT or subconsultant and any firm affiliated with the CONSULTANT or subconsultant that bids on any construction contract or on any Agreement to provide construction inspection for any construction project resulting from this AGREEMENT, has established necessary controls to ensure a conflict of interest does not exist. An affiliated firm is one, which is subject to the control of the same persons, through joint ownership or otherwise.

ARTICLE XIV REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

The CONSULTANT warrants that this AGREEMENT was not obtained or secured through rebates, kickbacks or other unlawful consideration either promised or paid to any LOCAL AGENCY employee. For breach or violation of this warranty, LOCAL AGENCY shall have the right, in its discretion, to terminate this AGREEMENT without liability, to pay only for the value of the work actually performed, or to deduct from the AGREEMENT price or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

ARTICLE XV PROHIBITION OF EXPENDING LOCAL AGENCY, STATE, OR FEDERAL FUNDS FOR LOBBYING

- A. CONSULTANT certifies to the best of his or her knowledge and belief that:
 - 1. No state, federal or local agency appropriated funds have been paid or will be paid, by or on behalf of the CONSULTANT, to any person for influencing or attempting to influence an officer or employee of any local, State, or Federal agency, a Member of the State Legislature or United States Congress, an officer or employee of the Legislature or Congress, or any employee of a Member of the Legislature or Congress in connection with the awarding or making of this AGREEMENT, or with the extension, continuation, renewal, amendment, or modification of this AGREEMENT.
 - 2. If any funds other than Federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this AGREEMENT, the CONSULTANT shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. §1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than ten thousand dollars (\$10,000) and not more than one hundred thousand dollars (\$100,000) for each such failure.
- C. The CONSULTANT also agrees by signing this document that he or she shall require that the language of this certification be included in all lower tier sub-agreements, which exceed one hundred thousand dollars (\$100,000) and that all such subrecipients shall certify and disclose accordingly.

ARTICLE XVI NON-DISCRIMINATION AND STATEMENT OF COMPLIANCE

- A. The CONSULTANT's signature affixed herein and dated shall constitute a certification under penalty of perjury under the laws of the State of California that CONSULTANT has, unless exempt, complied with the nondiscrimination program requirements of Gov. Code §12990 and 2 CCR §8103.
- B. During the performance of this AGREEMENT, CONSULTANT and its subconsultants shall not deny the AGREEMENT's benefits to any person on the basis of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status, nor shall they unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation, or military and veteran status. CONSULTANT and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment.

C. CONSULTANT and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code §12990 et seq.), the applicable regulations promulgated there under (2 CCR §11000 et seq.), the provisions of Gov. Code §§11135-11139.5, and the regulations or standards adopted by LOCAL AGENCY to implement such article. The applicable regulations of the Fair Employment and Housing Commission implementing Gov. Code §12990 (a-f), set forth 2 CCR §§8100-8504, are incorporated into this AGREEMENT by reference and made a part hereof as if set forth in full.

D. CONSULTANT shall permit access by representatives of the Department of Fair Employment and Housing and the LOCAL AGENCY upon reasonable notice at any time during the normal business hours, but in no case less than twenty-four (24) hours' notice, to such of its books, records, accounts, and all other sources of

information and its facilities as said Department or LOCAL AGENCY shall require to ascertain compliance with this clause.

E. CONSULTANT and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

F. CONSULTANT shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this AGREEMENT.

G. The CONSULTANT, with regard to the work performed under this AGREEMENT, shall act in accordance with Title VI of the Civil Rights Act of 1964 (42 U.S.C. §2000d et seq.). Title VI provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the United States shall, on the basis of race, color, national origin, religion, sex, age, disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.

H. The CONSULTANT shall comply with regulations relative to non-discrimination in federally-assisted programs of the U.S. Department of Transportation (49 CFR Part 21 - Effectuation of Title VI of the Civil Rights Act of 1964). Specifically, the CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR §21.5, including employment practices and the selection and retention of Subconsultants.

ARTICLE XVII DEBARMENT AND SUSPENSION CERTIFICATION

- A. CONSULTANT's signature affixed herein, shall constitute a certification under penalty of perjury under the laws of the State of California, that the CONSULTANT or any person associated therewith in the capacity of owner, partner, director, officer, or manager:
 - 1. Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency;
 - 2. Has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years;
 - 3. Does not have a proposed debarment pending; and
 - 4. Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.
- B. Any exceptions to this certification must be disclosed to LOCAL AGENCY. Exceptions will not necessarily result in denial of recommendation for award but will be considered in determining responsibility. Disclosures must indicate to whom exceptions apply, the initiating agency, and the dates of agency action.
- C. Exceptions to the Federal Government Excluded Parties List System maintained by the U.S. General Services Administration are to be determined by FHWA.

ARTICLE XVIII DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION

- A. This AGREEMENT is subject to 49 CFR Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs". CONSULTANTs who enter into a federally-funded agreement will assist the LOCAL AGENCY in a good faith effort to achieve California's statewide overall DBE goal.
- B. The goal for DBE participation for this AGREEMENT is <u>4.0</u>%. Participation by DBE CONSULTANT or subconsultants shall be in accordance with information contained in <u>Exhibit 10-01: Consultant Proposal DBE</u>

<u>Commitment</u>, or in <u>Exhibit 10-O2: Consultant Contract DBE Commitment</u> attached hereto and incorporated as part of the AGREEMENT. If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.

- C. CONSULTANT can meet the DBE participation goal by either documenting commitments to DBEs to meet the AGREEMENT goal, or by documenting adequate good faith efforts to meet the AGREEMENT goal. An adequate good faith effort means that the CONSULTANT must show that it took all necessary and reasonable steps to achieve a DBE goal that, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to meet the DBE goal. If CONSULTANT has not met the DBE goal, complete and submit Exhibit 15-H: *DBE Information Good Faith Efforts* to document efforts to meet the goal. Refer to 49 CFR Part 26 for guidance regarding evaluation of good faith efforts to meet the DBE goal.
- D. DBEs and other small businesses, as defined in 49 CFR Part 26 are encouraged to participate in the performance of AGREEMENTs financed in whole or in part with federal funds. The LOCAL AGENCY, CONSULTANT or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The CONSULTANT shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the CONSULTANT to carry out these requirements is a material breach of this AGREEMENT, which may result in the termination of this AGREEMENT or such other remedy as the LOCAL AGENCY deems appropriate, which may include, but is not limited to:
 - 1. Withholding monthly progress payments;
 - 2. Assessing sanctions;
 - 3. Liquidated damages; and/or
 - 4. Disqualifying the contractor from future bidding as non-responsible
- E. A DBE firm may be terminated only with prior written approval from LOCAL AGENCY and only for the reasons specified in 49 CFR §26.53(f). Prior to requesting LOCAL AGENCY consent for the termination, CONSULTANT must meet the procedural requirements specified in 49 CFR §26.53(f). If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.
- F. Consultant shall not be entitled to any payment for such work or material unless it is performed or supplied by the listed DBE or by other forces (including those of Consultant) pursuant to prior written authorization of the LOCAL AGENCY's Contract Administrator.
- G. A DBE is only eligible to be counted toward the AGREEMENT goal if it performs a commercially useful function (CUF) on the AGREEMENT. CUF must be evaluated on an agreement by agreement basis. A DBE performs a Commercially Useful Function (CUF) when it is responsible for execution of the work of the AGREEMENT and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible, with respect to materials and supplies used on the AGREEMENT, for negotiating price, determining quality and quantity, ordering the material and installing (where applicable), and paying for the material itself. To determine whether a DBE is performing a CUF, evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the AGREEMENT is commensurate with the work it is actually performing, and other relevant factors.
- H. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, AGREEMENT, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.
- I. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its AGREEMENT with its own work force, or the DBE subcontracts a greater portion of the work of the AGREEMENT than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a CUF.

- J. CONSULTANT shall maintain records of materials purchased or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime CONSULTANT's shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.
- K. Upon completion of the AGREEMENT, a summary of these records shall be prepared and submitted on the form entitled, *Exhibit 17-F: Final Report-Utilization of Disadvantaged Business Enterprise (DBE) First-Tier* <u>Subconsultants</u>, certified correct by CONSULTANT or CONSULTANT's authorized representative and shall be furnished to the Contract Administrator with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in twenty-five percent (25%) of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to CONSULTANT when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subconsultants" is submitted to the Contract Administrator.
- L. If a DBE subconsultant is decertified during the life of the AGREEMENT, the decertified subconsultant shall notify CONSULTANT in writing with the date of decertification. If a subconsultant becomes a certified DBE during the life of the AGREEMENT, the subconsultant shall notify CONSULTANT in writing with the date of certification. Any changes should be reported to LOCAL AGENCY's Contract Administrator within thirty (30) calendar days.
- M. Any subcontract entered into as a result of this AGREEMENT shall contain all of the provisions of this section.

ARTICLE XI<mark>X INSURANCE</mark>

- A. **Scope of Coverage.** During the term of this Agreement, CONSULTANT shall maintain, at no expense to LOCAL AGENCY, the following insurance policies:
 - 1. A commercial general liability insurance policy in the minimum amount of one million dollars (\$1,000,000) per occurrence/two million dollars (\$2,000,000) aggregate, for death, bodily injury, personal injury, or property damage.
 - 2. An automobile liability (owned, non-owned, and hired vehicles) insurance policy in the minimum amount of one million dollars (\$1,000,000) dollars per occurrence.
 - 3. If any licensed professional performs any of the services required to be performed under this Agreement, a professional liability insurance policy in the minimum amount of two million dollars (\$2,000,000) per occurrence/four million dollars (\$4,000,000) aggregate, to cover any claims arising out of the CONSULTANT 's performance of services under this Agreement. Where CONSULTANT is a professional not required to have a professional license, LOCAL AGENCY reserves the right to require CONSULTANT to provide professional liability insurance pursuant to this section.
 - 4. If it employs any person, CONSULTANT shall maintain worker's compensation insurance, as required by the State of California, with statutory limits, and employer's liability insurance with limits of no less than one million dollars (\$1,000,000) per accident for bodily injury or disease. CONSULTANT's worker's compensation insurance shall be specifically endorsed to waive any right of subrogation against LOCAL AGENCY.
- B. **Other Insurance Requirements.** The insurance coverage required of the CONSULTANT in subparagraph A of this section above shall also meet the following requirements:
 - 1. Except for professional liability insurance or worker's compensation insurance, the insurance policies shall be specifically endorsed to include the LOCAL AGENCY, its officers, agents, employees, and volunteers, as additional insureds (for both ongoing and completed operations) under the policies.

- 2. The additional insured coverage under CONSULTANT'S insurance policies shall be "primary and noncontributory" with respect to any insurance or coverage maintained by LOCAL AGENCY and shall not call upon LOCAL AGENCY's insurance or self-insurance coverage for any contribution. The "primary and noncontributory" coverage in CONSULTANT'S policies shall be at least as broad as ISO form CG20 01 04 13.
- 3. Except for professional liability insurance or worker's compensation insurance, the insurance policies shall include, in their text or by endorsement, coverage for contractual liability and personal injury.
- 4. By execution of this Agreement, CONSULTANT hereby grants to LOCAL AGENCY a waiver of any right to subrogation which any insurer of CONSULTANT may acquire against LOCAL AGENCY by virtue of the payment of any loss under such insurance. CONSULTANT agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not LOCAL AGENCY has received a waiver of subrogation endorsement from the insurer.
- 5. If the insurance is written on a Claims Made Form, then, following termination of this Agreement, said insurance coverage shall survive for a period of not less than five years.
- 6. The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this Agreement.
- 7. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and noncontributory basis for the benefit of LOCAL AGENCY (if agreed to in a written contract or agreement) before LOCAL AGENCY'S own insurance or self-insurance shall be called upon to protect it as a named insured.
- 8. It shall be a requirement under this Agreement that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to LOCAL AGENCY or any other additional insured party. Furthermore, the requirements for coverage and limits shall be: (1) the minimum coverage and limits specified in this Agreement; or (2) the broader coverage and maximum limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the obligations of the CONSULTANT under this agreement.
- C. **Deductibles and SIR's.** Any deductibles or self-insured retentions in CONSULTANT's insurance policies must be declared to and approved by the PROJECT MANAGER and City Attorney and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or LOCAL AGENCY or other additional insured party. At LOCAL AGENCY's option, the deductibles or self-insured retentions with respect to LOCAL AGENCY shall be reduced or eliminated to LOCAL AGENCY's satisfaction, or CONSULTANT shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees and defense expenses.
- D. **Proof of Insurance**. CONSULTANT shall provide to the PROJECT MANAGER or LOCAL AGENCY'S City Attorney all of the following: (1) Certificates of Insurance evidencing the insurance coverage required in this Agreement; (2) a copy of the policy declaration page and/or endorsement page listing all policy endorsements for the commercial general liability policy, and (3) excerpts of policy language or specific endorsements evidencing the other insurance requirements set forth in this Agreement. LOCAL AGENCY reserves the right to obtain a full certified copy of any insurance policy and endorsements from CONSULTANT. Failure to exercise this right shall not constitute a waiver of the right to exercise it later. The insurance shall be approved as to form and sufficiency by PROJECT MANAGER and the City Attorney.

ARTICLE XX FUNDING REQUIREMENTS

- A. It is mutually understood between the parties that this AGREEMENT may have been written before ascertaining the availability of funds or appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays that would occur if the AGREEMENT were executed after that determination was made.
- B. This AGREEMENT is valid and enforceable only, if sufficient funds are made available to LOCAL AGENCY for the purpose of this AGREEMENT. In addition, this AGREEMENT is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress, State Legislature, or LOCAL AGENCY governing board that may affect the provisions, terms, or funding of this AGREEMENT in any manner.
- C. It is mutually agreed that if sufficient funds are not appropriated, this AGREEMENT may be amended to reflect any reduction in funds.
- D. LOCAL AGENCY has the option to terminate the AGREEMENT pursuant to Article VI Termination, or by mutual agreement to amend the AGREEMENT to reflect any reduction of funds.

ARTICLE XXI CHANGE IN TERMS

- A. This AGREEMENT may be amended or modified only by mutual written agreement of the parties.
- B. CONSULTANT shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by LOCAL AGENCY's Contract Administrator.
- C. There shall be no change in CONSULTANT's Project Manager or members of the project team, as listed in the approved Cost Proposal, which is a part of this AGREEMENT without prior written approval by LOCAL AGENCY's Contract Administrator.

ARTICLE XXII CONTINGENT FEE

CONSULTANT warrants, by execution of this AGREEMENT that no person or selling agency has been employed, or retained, to solicit or secure this AGREEMENT upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by CONSULTANT for the purpose of securing business. For breach or violation of this warranty, LOCAL AGENCY has the right to annul this AGREEMENT without liability; pay only for the value of the work actually performed, or in its discretion to deduct from the AGREEMENT price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XXIII DISPUTES

Prior to either party commencing any legal action under this AGREEMENT, the parties agree to try in good faith, to settle any dispute amicably between them. If a dispute has not been settled after forty-five (45) days of good-faith negotiations and as may be otherwise provided herein, then either party may commence legal action against the other.

A. Any dispute, other than audit, concerning a question of fact arising under this AGREEMENT that is not disposed of by agreement shall be decided by a committee consisting of LOCAL AGENCY's Contract Administrator and other LOCAL AGENCY representatives who may consider written or verbal information submitted by CONSULTANT.

- B. Not later than thirty (30) days after completion of all work under the AGREEMENT, CONSULTANT may request review by LOCAL AGENCY Governing Board of unresolved claims or disputes, other than audit. The request for review will be submitted in writing.
- C. Neither the pendency of a dispute, nor its consideration by the committee will excuse CONSULTANT from full and timely performance in accordance with the terms of this AGREEMENT.

ARTICLE XXIV INSPECTION OF WORK

CONSULTANT and any subconsultant shall permit LOCAL AGENCY, the State, and the FHWA if federal participating funds are used in this AGREEMENT; to review and inspect the project activities and files at all reasonable times during the performance period of this AGREEMENT.

ARTICLE XXV SAFETY

- A. CONSULTANT shall comply with OSHA regulations applicable to CONSULTANT regarding necessary safety equipment or procedures. CONSULTANT shall comply with safety instructions issued by LOCAL AGENCY Safety Officer and other LOCAL AGENCY representatives. CONSULTANT personnel shall wear hard hats and safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Vehicle Code §591, LOCAL AGENCY has determined that such areas are within the limits of the project and are open to public traffic. CONSULTANT shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. CONSULTANT shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.
- C. CONSULTANT must have a Division of Occupational Safety and Health (CAL-OSHA) permit(s), as outlined in California Labor Code §6500 and §6705, prior to the initiation of any practices, work, method, operation, or process related to the construction or excavation of trenches which are five (5) feet or deeper.

ARTICLE XXVI OWNERSHIP OF DATA

- A. It is mutually agreed that all materials prepared by CONSULTANT under this AGREEMENT shall become the property of LOCAL AGENCY, and CONSULTANT shall have no property right therein whatsoever. Immediately upon termination, LOCAL AGENCY shall be entitled to, and CONSULTANT shall deliver to LOCAL AGENCY, reports, investigations, appraisals, inventories, studies, analyses, drawings and data estimates performed to that date, whether completed or not, and other such materials as may have been prepared or accumulated to date by CONSULTANT in performing this AGREEMENT which is not CONSULTANT's privileged information, as defined by law, or CONSULTANT's personnel information, along with all other property belonging exclusively to LOCAL AGENCY which is in CONSULTANT's possession. Publication of the information derived from work performed or data obtained in connection with services rendered under this AGREEMENT must be approved in writing by LOCAL AGENCY.
- B. Additionally, it is agreed that the Parties intend this to be an AGREEMENT for services and each considers the products and results of the services to be rendered by CONSULTANT hereunder to be work made for hire. CONSULTANT acknowledges and agrees that the work (and all rights therein, including, without limitation, copyright) belongs to and shall be the sole and exclusive property of LOCAL AGENCY without restriction or limitation upon its use or dissemination by LOCAL AGENCY.
- C. Nothing herein shall constitute or be construed to be any representation by CONSULTANT that the work product is suitable in any way for any other project except the one detailed in this AGREEMENT. Any reuse by LOCAL AGENCY for another project or project location shall be at LOCAL AGENCY's sole risk.

- D. Applicable patent rights provisions regarding rights to inventions shall be included in the contracts as appropriate (48 CFR 27 Subpart 27.3 Patent Rights under Government Contracts for federal-aid contracts).
- E. LOCAL AGENCY may permit copyrighting reports or other agreement products. If copyrights are permitted; the AGREEMENT shall provide that the FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use; and to authorize others to use, the work for government purposes.

ARTICLE XXVII CLAIMS FILED BY LOCAL AGENCY'S CONSTRUCTION CONTRACTOR

- A. If claims are filed by LOCAL AGENCY's construction contractor relating to work performed by CONSULTANT's personnel, and additional information or assistance from CONSULTANT's personnel is required in order to evaluate or defend against such claims; CONSULTANT agrees to make its personnel available for consultation with LOCAL AGENCY'S construction contract administration and legal staff and for testimony, if necessary, at depositions and at trial or arbitration proceedings.
- B. CONSULTANT's personnel that LOCAL AGENCY considers essential to assist in defending against construction contractor claims will be made available on reasonable notice from LOCAL AGENCY. Consultation or testimony will be reimbursed at the same rates, including travel costs that are being paid for CONSULTANT's personnel services under this AGREEMENT.
- C. Services of CONSULTANT's personnel in connection with LOCAL AGENCY's construction contractor claims will be performed pursuant to a written contract amendment, if necessary, extending the termination date of this AGREEMENT in order to resolve the construction claims.

ARTICLE XXVIII CONFIDENTIALITY OF DATA

- A. All financial, statistical, personal, technical, or other data and information relative to LOCAL AGENCY's operations, which are designated confidential by LOCAL AGENCY and made available to CONSULTANT in order to carry out this AGREEMENT, shall be protected by CONSULTANT from unauthorized use and disclosure.
- B. Permission to disclose information on one occasion, or public hearing held by LOCAL AGENCY relating to the AGREEMENT, shall not authorize CONSULTANT to further disclose such information, or disseminate the same on any other occasion.
- C. CONSULTANT shall not comment publicly to the press or any other media regarding the AGREEMENT or LOCAL AGENCY's actions on the same, except to LOCAL AGENCY's staff, CONSULTANT's own personnel involved in the performance of this AGREEMENT, at public hearings, or in response to questions from a Legislative committee.
- D. CONSULTANT shall not issue any news release or public relations item of any nature, whatsoever, regarding work performed or to be performed under this AGREEMENT without prior review of the contents thereof by LOCAL AGENCY, and receipt of LOCAL AGENCY'S written permission.
- E. All information related to the construction estimate is confidential and shall not be disclosed by CONSULTANT to any entity, other than LOCAL AGENCY, Caltrans, and/or FHWA. All of the materials prepared or assembled by CONSULTANT pursuant to performance of this AGREEMENT are confidential and CONSULTANT agrees that they shall not be made available to any individual or organization without the prior written approval of LOCAL AGENCY or except by court order. If CONSULTANT or any of its officers, employees, or subcontractors does voluntarily provide information in violation of this AGREEMENT, LOCAL AGENCY has the right to reimbursement and indemnity from CONSULTANT for any damages caused by CONSULTANT releasing the information, including, but not limited to, LOCAL AGENCY's attorney's fees and disbursements, including without limitation experts' fees and disbursements.

ARTICLE XXIX NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with Public Contract Code §10296, CONSULTANT hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against CONSULTANT within the immediately preceding two-year period, because of CONSULTANT's failure to comply with an order of a federal court that orders CONSULTANT to comply with an order of the National Labor Relations Board.

ARTICLE XXX EVALUATION OF CONSULTANT

CONSULTANT's performance will be evaluated by LOCAL AGENCY. A copy of the evaluation will be sent to CONSULTANT for comments. The evaluation together with the comments shall be retained as part of the AGREEMENT record.

ARTICLE XXXI RETENTION OF FUNDS

No retainage will be held by the LOCAL AGENCY from progress payments due the CONSULTANT. Any retainage held by the CONSULTANT or subconsultants from progress payments due subconsultants shall be promptly paid in full to subconsultants within thirty (30) days after the subconsultant's work is satisfactorily completed. Federal law (49 CFR §26.29) requires that any delay or postponement of payment over thirty (30) calendar days may take place only for good cause and with the LOCAL AGENCY's prior written approval. Any violation of this provision shall subject the violating CONSULTANT or subconsultant to the penalties, sanctions and other remedies specified in Business and Professions Code §7108.5. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to the CONSULTANT or subconsultant in the event of a dispute involving late payment or nonpayment by the CONSULTANT, deficient subconsultant performance, or noncompliance by a subconsultant. This provision applies to both DBE and non-DBE CONSULTANT and subconsultants.

ARTICLE XXXII NOTIFICATION

All notices hereunder and communications regarding interpretation of the terms of this AGREEMENT and changes thereto, shall be effected by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

CONSULTANT: <a>Consultant's Name>

LOCAL AGENCY:	City of San Rafael
	Bill Guerin, Contract Administrator
	111 Morphew Street
	San Rafael, CA 94901

ARTICLE XXXIII CONTRACT

The two parties to this AGREEMENT, who are the before named CONSULTANT and the before named LOCAL AGENCY, hereby agree that this AGREEMENT constitutes the entire AGREEMENT which is made and concluded in duplicate between the two parties. Both of these parties for and in consideration of the payments to be made,

conditions mentioned, and work to be performed; each agree to diligently perform in accordance with the terms and conditions of this AGREEMENT as evidenced by the signatures below.

ARTICLE XXXIV NO THIRD PARTY BENEFICIARIES

LOCAL AGENCY and CONSULTANT do not intend, by any provision of this contract, to create in any third party, any benefit or right owed by one party, under the terms and conditions of this AGREEMENT, to the other party.

ARTICLE XXXV COSTS AND ATTORNEY'S FEES

The prevailing party in any action brought to enforce the terms and conditions of this AGREEMENT, or arising out of the performance of this AGREEMENT, may recover its reasonable costs (including claims administration) and attorney's fees expended in connection with such action.

ARTICLE XXXVI LOCAL AGENCY BUSINESS LICENSE / OTHER TAXES

CONSULTANT shall obtain and maintain during the duration of this contract, a LOCAL AGENCY business license as required by the San Rafael Municipal Code. CONSULTANT shall pay any and all state and federal taxes and any other applicable taxes. LOCAL AGENCY shall not be required to pay for any work performed under this contract, until CONSULTANT has provided LOCAL AGENCY with a completed Internal Revenue Service Form W-9 (Request for Taxpayer Identification Number and Certification).

ARTICLE XXXVII WAIVERS

The waiver by either party of any breach or violation of any term, covenant or condition of this AGREEMENT, or of any ordinance, law or regulation, shall not be deemed to be a waiver of any other term, covenant, condition, ordinance, law or regulation, or of any subsequent breach or violation of the same or other term, covenant, condition, ordinance, law or regulation. The subsequent acceptance by either party of any fee, performance, or other consideration which may become due or owing under this AGREEMENT, shall not be deemed to be a waiver of any preceding breach or violation by the other party of any term, condition, covenant of this contract or any applicable law, ordinance or regulation.

ARTICLE XXXVIII APPLICABLE LAW

The laws of the State of California shall govern this AGREEMENT.

CONSULTANT shall observe and comply with all applicable federal, state and local laws, ordinances, codes and regulations, in the performance of its duties and obligations under this AGREEMENT. CONSULTANT shall perform all services under this AGREEMENT in accordance with these laws, ordinances, codes and regulations. CONSULTANT shall release, defend, indemnify and hold harmless LOCAL AGENCY, its officers, agents and employees from any and all damages, liabilities, penalties, fines and all other consequences from any noncompliance or violation of any laws, ordinances, codes or regulations.

ARTICLE XXXIX SIGNATURES

CITY OF SAN RAFAEL

< CONSULTANT NAME>

	By:
Jim Schutz City Manager	
	Title:
	and
ATTEST:	< <mark>CONSULTANT NAME></mark>
	P
LINDSAY LARA	By:
City Clerk	Title:
APPROVED AS TO FORM:	

ROBERT F. EPSTEIN City Attorney

ATTACHMENT B QUALITY ASSURANCE

QUALITY ASSURANCE PROGRAM





THE CITY WITH A MISSION

Kevin McGowan, P.E. Assistant Public Works Director/City Engineer November 2018

PURPOSE

This City of San Rafael Quality Assurance Program (CSRQAP) is a sampling and testing program that will provide assurance that the materials and workmanship incorporated into each capital improvement project are in conformance with the contract specifications. This program should be updated at a minimum every five years, or more frequently if there are changes of the testing frequencies or to the tests themselves. The main elements of the CSRQAP are procedures for:

- Acceptance Testing (AT) Sampling and testing, or inspection, to determine the degree of compliance with contract requirements.
- Independent Assurance Program (IAP) Verification that AT is being performed correctly by qualified testers and laboratories.
- **Testing of Manufactured Materials** AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.
- Quality Assurance Program (QAP) A sampling and testing program that will provide assurance that the materials and workmanship incorporated into the construction project are in conformance with the contract specifications. The main elements of a QAP are the AT and IAP.

APPLICABILITY

This CSRQAP applies to federally funded projects off the State Highway System (SHS).

On-SHS system projects are governed by Caltrans' Quality Assurance Program (QAP), which is detailed in the manuals and guides referenced in Section 16.11 of the Local Assistance Procedures Manual, Administer Construction Contracts, Section 11, Quality Assurance Program (LAPM-16.11).

Off-SHS system, federally funded projects are governed by the procedures in this CSRQAP. Its use is mandatory for Federal-aid projects and it's recommended for other City Street and highway projects. This CSRQAP is based upon the requirements for local QAPs contained in the aforementioned Section 16.11. Federally funded projects that mix on-and-off-SHS sites should utilize the Caltrans QAP.

APPROVAL

This CSRQAP has been approved by the City of San Rafael Assistant Public Works Director, who is a registered civil engineer. It shall be kept on file and available for Caltrans review.

TESTING REQUIRED

This local QAP describes procedures for three types of required testing, described as follows:

<u>Acceptance Testing</u> - procedures for regular testing of materials entering a construction project to verify that the materials, or products, comply with contract specifications or standards.

<u>Independent Assurance Sampling and Testing</u> - procedures to verify that acceptance testing is being performed correctly by:

- Verifying that equipment used for acceptance testing is properly calibrated and in good working condition.
- Witnessing sampling and testing by the Acceptance Tester.
- Splitting material samples and comparing the test results between the Acceptance Tester and Independent Assurance Sampler and Tester.

<u>Testing of Manufactured Materials</u> - procedures for inspecting, accepting and testing of manufactured and prefabricated materials either by source inspection, job site inspection, or certificate of compliance.

GENERAL PROCEDURES AND REQUIREMENTS

Conduct of the sampling and testing shall follow these general procedures:

Construction Documents – Since the City does not provide its own testing and inspection of materials, provision of such services must be arranged prior to advertising a project and addressed appropriately in the construction documents.

Compliance – Failure to comply with the CSRQAP may result in loss of federal funds.

Sampling and Testing Options - The City may select from the following sources to perform sampling and testing:

- Another agency's laboratory
- Caltrans' laboratory
- Private consultant laboratory

Non-Caltrans laboratories shall have a QAP that meets LAPM-16.11 requirements.

Engineering Charge

All laboratories shall be under the responsible engineering management of a California registered professional engineer, with experience in sampling, inspection and testing on construction materials, who shall certify results of tests performed under his supervision.

The materials laboratory shall contain certified test equipment capable of performing the tests conforming to provisions of this CSRQAP.

Contractor Influence - The contractor shall not select or exercise any authority over the laboratory utilized.

Certification of Laboratory Personnel - The certification requirements of LAPM-16.11 shall apply. Generally:

- Current certification is required for the following sampling and testing personnel: construction management/inspection, local agency, consultant laboratory and their subconsultants.
- For on-SHS projects, certification shall be a "Certificate of Proficiency for an Acceptance Tester" (LAPM Exhibit 16-D, MR-0111), issued to an individual by the Caltrans District Materials Engineer or his designee, based either on Caltrans training, or on submittal of

evidence of non-Caltrans training, experience or certification such as the "National Institute for Certification in Engineering Technologies" (NICET).

- For off-SHS projects, certification of personnel for AT and IAST shall be either Caltrans (LAPM Exhibit 16-D/MR-0111 or MR-0100), NICET, or similar certificate acceptable to the City Engineer.
- Certificates for personnel on a project shall be retained in the Resident Engineer's (RE) project files.
- Sampling and testing by an uncertified person is acceptable only in extreme, unforeseen emergencies, upon assurance by the Resident Engineer that the uncertified person is competent to perform the work.

Laboratory Equipment Calibration - The City shall obtain documentation of consultant laboratory's calibration of its equipment in accordance with LAPM-16.11 and nationally recognized calibration standards. The laboratory is responsible for performing the calibrations and providing such records to the City. Calibration records shall be provided to the Caltrans District Materials Engineer upon request.

Calibration of laboratory equipment and field test equipment (e.g. sand cones, scales, moisture test, slump cones, air meters) shall occur prior to use on a construction project and on regular, appropriate intervals not exceeding one year.

Cost Recovery - Material testing and sampling performed by the City or its consultants are eligible to the charged to the construction engineering phase of the project.

Records - CSRQAP and consultant's QAP material records of samples and tests, material releases, and certificates of compliance for a project shall be incorporated into the RE's project file. For Federally funded projects, records shall be retained for a period of three years.

The use of a "Log Summary," as shown in Attachment #1 (Appendix H of the QAP Manual), facilitates reviews of material sampling and testing by Caltrans and FHWA, and assists the Resident Engineer in tracking the frequency of testing.

When two or more projects are being furnished identical materials simultaneously from the same plant, it is not necessary to take separate samples or perform separate tests for each project; however, copies of the test reports are to be provided for each of the projects to complete the records.

Project Certification - Upon completion of a Federal-aid project, the RE or Project Engineer shall complete and sign a "Materials Certificate" (Caltrans LAPM Exhibit 17-G). The Certificates shall be submitted to the Caltrans Local Assistance Engineer (for Federally funded projects) and retained in the project construction files. All non-conforming materials must be explained and justified on the Certificate. See Attachment #2 for an example (Appendix K of the QAP Manual).

Project Checklist - Attachment #3 (Appendix E & Appendix L of the QAP Manual) contains checklists to guide the City through the QAP process. These are basically the same checklists used to determine whether the QAP is being properly administered.

ACCEPTANCE TESTING

Definition - Acceptance Testing (AT) is defined as regular testing of materials entering a construction project to verify compliance with contract specifications or standards.

Timing - Sampling should begin as soon as materials are placed on a project. Testing should be performed promptly to enable data evaluation and necessary measures to be taken by the RE and contractor.

Test Methods - Both Caltrans Test (CT) and American Society of Testing and Materials (ASTM) methods are acceptable. See Attachment #4 (Caltrans Test Method – ASTM Test Method Conversion Chart).

Frequency - Sampling shall occur in general accordance with Attachment #5 (Caltrans' "Frequency Tables" (LAPM Exhibit 16-R) and Attachment #6 (Appendix D, "Acceptance Sampling and Testing Frequencies" of the QAP Manual), except as modified in writing by the Public Works Director for a specific project.

The tables are intended as a guide; the actual quality of materials tested may justify decreasing or increasing the frequency of subsequent similar samples and tests. If not so specified in the contract specifications, samples shall be taken at the City's request at the locations and frequencies as shown in Attachments #5 and #6.

Tests to be Performed - The tests to be performed shall be in accordance with Attachment #5 (Caltrans "Frequency Tables" LAPM Exhibit 16-R), Attachment #6 (Appendix D, "Acceptance Sampling and Testing Frequencies" of the QAP Manual), and the Caltrans Standard Specifications as modified by the project Special Provisions, except as modified in writing by the City Engineer.

The following guidelines have been separated into categories representing Small Federally and Non-Federally Funded Projects and Large Federally Funded Projects. The categories outline a minimum scope of tests for commonly used materials.

Small Federally / Non-Federally Funded Projects

Unless specified otherwise in the specifications, all construction materials listed in Attachment #7 (Appendix F of the QAP Manual), including Minor Concrete, shall be accepted by Certificates of Compliance as part of the project submittal process. Additionally, unless specified otherwise in the specifications, Portland Cement Concrete, and HMA materials shall be accepted by Certificates of Compliance where the quantities are less than 500 tons.

Soils and Aggregate Baserock

- a) Representative samples shall be taken at the beginning of each project for laboratory compaction testing (ASTM D1557). Samples may be collected for sieve analysis, R-value, sand equivalent, etc. if requested by the City. Samples may either be collected on-site, or from the source of import. Additional samples may be required to confirm the laboratory maximum density.
- b) Nuclear Field Density Testing (FDT) of compacted soils and aggregate baserock shall follow ASTM procedures, unless otherwise specified by the project specifications. FDTs will generally be taken every 50 to 250 linear feet in confined locations (trenches and sidewalk), and approximately every 2 vertical feet in trenches. No less than 3 tests will be taken in confined areas (roadways, driveways, building pads, etc.) that are equal to or less the 1000 yd². Additional FDTs may be taken at the Engineer's discretion.

1. Hot Mix Asphalt (HMA)

- a) When requested by the City, representative samples of hot mix asphalt (HMA) will be sampled on-site for laboratory testing to determine maximum unit weight or maximum theoretical density.
- b) Nuclear Field Density Testing (FDT) of compacted HMA shall follow Caltrans or ASTM procedures, unless otherwise specified by the project specifications. FDTs will generally be taken every 50 to 250 linear feet (e.g. trenches, width of paver, etc.). Additional FDTs may be taken at the Engineer's discretion.

2. Portland Cement Products (Concrete, Control Density Fill, Etc.)

- a) Sampling of concrete for temperature, slump, and compressive strength testing will be required for concrete design strengths of 3,000 psi and greater.
- b) Concrete samples will be taken at a frequency of 1 set of 4 cylinders per 50-100 yd³ delivered to the site. Additional samples may be taken at the request of the City.

Large Federally Funded Projects

Unless specified otherwise in the specifications, a Certificate of compliance may be used for the following construction materials: liquid asphalt and binder emulsions (HMA), aggregate cleanliness (Portland Cement Products), aggregate sand equivalent (Portland Cement Products), admixtures (Portland Cement Products).

1. Soils and Aggregates

a) Sampling methods should conform to Caltrans Test Methods (CT 125) or alternative recognized standard. The following tests are commonly administered for soils: laboratory compaction, sand equivalent, R-value, gradation, and plasticity index as defined in the project specifications. The following tests are commonly administered for aggregates: Laboratory Compaction, Sieve Analysis, R-Value, Durability, and Sand Equivalent. Samples should generally be taken at least once per project with additional samples taken every 500 to 1,000 tons of material placed.

b) Nuclear Field Density Testing (FDT) of compacted soils and aggregate baserock shall follow CT 231 or alternate recognized standard (e.g. ASTM). A minimum of 3 FDTs will be taken in areas less 1,000 yd². A minimum of 5 tests will be taken in areas greater than 1,000 yd² and less than 2,000 yd². Areas greater than 2000 yd² shall be spatially divided to allow testing frequencies as described above. Additional FDTs may be taken at the City or Engineer's discretion.

2. Hot Mix Asphalt (HMA)

- a) Representative samples of the HMA shall be taken at the beginning of each project for laboratory compaction testing of Bulk Specific Gravity (CT 304/308) or Maximum Specific Gravity (CT 309), whichever is specified in the contract documents. Additional samples may be collected every 5 paving days or 25,000 tons delivered, whichever occurs first, and if there is a change in the mix design. Sampling and testing should be in general compliance with Caltrans Test Methods (CT125, CT 375) of alternative recognized standard.
- Additional testing may include gradation for aggregate sampled at the plant (CT 202), S-value (CT 366), asphalt content (CT 362), and moisture content (CT 370).
- c) Nuclear Field Density Testing (FDT) of compacted HMA shall be in general compliance with CT 375 or alternative recognized standard. FDTs will generally be taken at a frequency of 10 tests for every 500 tons of HMA placed or at a rate of 1 test for every 50 tons placed. Additional FDTs may be taken at the City or Engineer's discretion.
- d) Cores will not generally be taken for Acceptance Testing for HMA less than 6inches thick. For HMA greater than 6 inches, cores should be taken in lower layer of the asphalt provided schedule allows for sufficient time for testing and calibration of test results. In place density tests per CT 375 Nuclear Gage field test shall be performed during HMA operations to meet compaction requirements per Standard Specifications.

3. Portland Cement Products (Concrete, Control Density Fill, Etc.)

a) Representative samples of Portland Cement Products shall be taken at the beginning of each project in general conformance with Caltrans Test Methods (CT 539 / CT540) or alternative recognized standard. Samples should generally be taken at least once per project with additional samples taken every 50 to 100 yd³ placed. The following tests are commonly administered for freshly mixed concrete products: Temperature (ASTM C1064/C1064M), Slump (CT 533), Compressive Strength (CT 521)

b) Representative samples of aggregates may be sampled from the batch plant prior to mixing with cement and water. Sampling is commonly performed for each 500 yd² or if there is a change in aggregate content. The following tests are commonly administered for concrete aggregates: La Rattler (CT 211), Cleanness Value (CT 227), Sand Equivalent (CT217), Sieve Analysis (CT202).

Test Result Report Guidelines - Results should be submitted to the RE within three (3) working days of completion of laboratory testing, or as dictated by the construction schedule. Results may be expedited by using fax, telephone, or e-mail.

Summary Logs - "Material Testing Summary Logs" shall be maintained by the RE for each material requiring multiple sampling and testing. Log data shall include station location, test sample depth, approximate quantity of sample material, test results, and tester.

Minor Quantities - Relatively minor quantities of materials from a known, reliable source may be accepted without testing if:

- The RE performs visual examination of materials, or
- The manufacturer or supplier certifies that the material furnished complies with specification requirements.

Such records of acceptance shall be placed in the RE's project files with related inspection notes.

Re-testing - Failing test results require re-testing to define the failed area and conform. The Log Summary shall cross-reference the retest to the initial failed test.

MATERIALS LABORATORY

The City will use their own material laboratory or private consultant materials laboratory to perform AT on Federal-aid and other designated projects. The materials laboratory shall be under the responsible management of a California registered Engineer with experience in sampling, inspection, and testing of construction materials. The Engineer shall certify the results of all tests performed by the laboratory personnel under the Engineer's supervision. The material laboratory shall contain certified test equipment capable of performing the tests conforming to the provisions of this QAP.

The materials laboratory used shall provide documentation that the laboratory complies with the following procedures:

- 1. Correlation Testing Program The materials laboratory shall be a participant in one or more of the following testing programs:
 - a) AASHTO Materials Reference Laboratory (AMRL)
 - b) Cement and Concrete Reference Laboratory (CCRL)
 - c) Caltrans' Reference Samples Program (RSP)

- 2. Certification of Personnel The materials laboratory shall employ personnel who are certified by one or more of the following:
 - a) Caltrans District Materials Engineer
 - b) Nationally recognized non-Caltrans organizations such as the American Concrete Institute, Asphalt, National Institute of Certification of Engineering Technologies, etc.
 - c) Other recognized organizations approved by the State of California and/or Recognized by local governments or private associations.
- 3. Laboratory and Testing Equipment The materials laboratory shall only use laboratory and testing equipment that is in good working order. All such equipment shall be calibrated at least once each year.

All testing equipment must be calibrated by impartial means using devices of accuracy traceable to the National Institute of Standards and Technology. A decal shall be firmly affixed to each piece of equipment showing the date of the last calibration. All testing equipment calibration decals shall be checked as part of the IAP.

INDEPENDENT ASSURANCE PROGRAM (IAP)

Definition - The purpose of these procedures is to verify that Acceptance Testing is being performed correctly and reliably, and to ensure that equipment is in good condition and properly calibrated. IAP shall be provided by personnel from a consultant's certified materials laboratory.

Applicability - IAP procedures are required for Federally funded projects on and off the SHS system. For on-SHS projects, LAPM-16.11 procedures apply. For off-SHS projects, the City will verify that its consultant laboratory's QAP includes IAST procedures for "testing its own testers". IAP procedures are optional and may be required at the discretion of the Assistant Public Works Director, for non-Federally funded projects.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, San Equivalent, and Cleanness Value tests. All other types of IAP shall be witness tests.

Poor correlation between acceptance tester's results and other test results may indicate probably deficiencies with the acceptance sampling and testing procedures. In case of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel, or an independent materials laboratory chosen by the City. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.

IAP Testers - Only persons holding an Independent Assurance Sampler Tester Certificate (Caltrans Form MR-0100) may perform IAP. These may include individually certified Caltrans or City REs, laboratory personnel or consultant testers. Testers shall be free of conflict of interest if also performing other testing work.

Frequency of IAP - The IAP frequency shall be as specified in the consultant laboratory's QAP for each project where IAP is required.

TESTING OF MANUFACTURED AND ASSEMBLED MATERIALS

Definition - This procedure provides methods for inspecting, accepting, and testing materials that are manufactured or prefabricated off the project site.

Certificate of Compliance - The City may accept manufactured products, materials, or assemblies if accompanied by a Certificate of Compliance, provided they do not involve structural integrity or public safety. Such Certificate shall be signed by the manufacturer and shall state that materials and workmanship conform to the specific project specifications.

Source Inspection - As an alternative to a Certificate of Compliance, the City or it's consultant, may perform inspection at the manufacturing site or request Caltrans to do a Source Inspection in accordance with LAPM-16.11 procedures, see Attachment #8 (Exhibit 16-V of the LAPM). A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment #7 (Appendix F of the QAP Manual). All certificates of compliance shall conform to the requirements of the contract specifications, for examples see Attachment #9 (Appendix J of the QAP Manual).

Applicable Materials - Contract documents shall specify which materials require a Certificate of Compliance (or optional Source Inspection). Typical materials are listed in Attachment #10 (LAPM Exhibit 16-T).

Responsibility - The Resident Engineer shall ensure that Certificates are furnished with material deliveries and are kept in the RE's project file.

Documentation - The certified material's lot number and project number shall be identified on the certificate and on lot tags or stenciled on the material. In addition, this data shall be referenced on the inspector's daily logs and laboratory reports.

Re-testing - Certified materials may be sampled and tested again on the job site, and rejected for cause whether in place or not

APPROVED BY:

Kevin McGowan, P.E. Assistant Public Works Director/ City Engineer

<u>C 45967 /2/3/18</u> <u>11/9/18</u> CE # and Expiration Date Date

Attachment #1 Appendix H of the QAP Manual Log Summary





Appendix H - Example of a Log Summary Sheet

Date	СТ	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
5/15/07	231	1+00 (30' L)	99.00	93	90 or greater	Passed	N/A
5/16/07	231	1+ 50 (20' R)	100.50	94	90 or greater	Passed	N/A
5/17/07	231	2+ 25 (25' R)	101.00	96	90 or greater	Passed	N/A
5/18/07	231	1+ 50 (30' L)	101.50	95	95 or greater	Passed	N/A
5/19/07	231	2+ 50 (20' L)	102.00	92 *	95 or greater	Failed	See Note 1
5/19/07	231	2+ 50 (20' L)	102.00	95	95 or greater	Passed	N/A

Subgrade Materials

CT 231 = Compaction (Nuclear Gage)

* Note 1: The Contractor used a water tank to dampen the soil surface at the failed subgrade location. Using a sheep's foot compactor, he reworked the subgrade (making at least 10 passes) from Station 2+ 00 to Station 3+ 00. After approximately 30 minutes, another compaction test was taken. This time the relative compaction was 95.

Date	СТ	Station	Elevation	Test Re- sults	Minimum Spec.	Passed or Failed	Action Taken
6/20/07	202	1+00 (10' R)	102.50	See data sheet	See data sheet	Passed	N/A
6/20/07	202	2+00 (20' L)	102.50	See data sheet	See data sheet	Passed	N/A
6/22/07	217	1+00 (10' R)	102.50	75	25 or greater	Passed	N/A
6/22/07	217	2+00 (20' L)	102.50	83	25 or greater	Passed	N/A
6/20/07	227	1+00 (20' R)	102.50	86	71 or greater	Passed	N/A
6/20/07	227	1+ 50 (20' L)	102.50	85	71 or greater	Passed	N/A
6/24/07	231	2+00 (20' R)	102.50	98	95 or greater	Passed	N/A
6/24/07	231	2+ 50 (20' L)	102.50	97	95 or greater	Passed	N/A

Aggregates and Base Materials

CT 202 = Sieve Analysis, CT 217 = Sand Equivalent, CT 231 = Compaction (Nuclear Gage)

CT 227 = Cleanness Value,





Appendix H (continued)

Date	СТ	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
7/10/07	339	1+00 (10' R)	103.00	0.08 gal/ sq yd	0.05 -0.10 gal/sq yd	Passed	N/A
7/10/07	366	2+00 (20' L)	103.00	32	>23	Passed	N/A
7/10/07	366	1+00 (10' R)	103.00	41	>23	Passed	N/A
7/10/07	375	2+00 (20' L)	103.00	94	RC = 93 to 97	Passed	N/A
7/15/07	375	1+00 (20' R)	103.00	96	RC = 93 to 97	Passed	N/A
7/15/07	375	1+ 50 (20' L)	103.00	95	RC = 93 to 97	Passed	N/A

Hot Mix Asphalt

CT 339 = Distributor Spread Rate, CT 366 = Stabilometer Value CT 375 = In-Place Density & Relative Compaction

Portland Cement Concrete

Date	СТ	Station	Elevation	Test Results	Minimum Spec.	Passed or Failed	Action Taken
9/25/07	504	10 + 50 (50' R)	102.50	6.5%	>6.0%	Passed	N/A
9/25/07	533	12 + 50 (50' R)	102.50	1.5"	<2"	Passed	N/A
9/25/07	518	11 + 50 (50' R)	102.50	151 lb/cu ft	> 145 lb/cu ft	Passed	N/A
9/25/07	521	10 + 50 (50' R)	102.50	28 day = 4200 psi	>3800 psi	Passed	N/A
9/28/07	521	11 + 50 (50' R)	102.50	28 day = 4290 psi	>3800 psi	Passed	N/A
9/30/07	521	12 + 50 (50' R)	102.50	28 day = 4160 psi	>3800 psi	Passed	N/A

CT 504 = Air Content, CT 518 = Unit Weight, CT 521 = Compressive Strength, CT 533 = Ball Penetration

Attachment #2 Appendix K of the QAP Manual





Appendix K - Examples of Materials Certificates/Exceptions (Signed by the Resident Engineer at the Completion of the Project)

Federal-aid Project No.: Project HP21L – 5055 – 111

Subject: Materials Certification

This is to certify that the results of the tests on acceptance samples indicate that the materials incorporated in the construction work and the construction operations controlled by sampling

and testing were in conformity with the approved plans and specifications. \mathbf{X}

All materials exceptions to the plans and specifications on this project are noted below.

No exceptions were found to the plans and specifications on this project.

Bill Sanders

Resident Engineer (Print Name)

Bill Sanders7/7/07Resident Engineer (Signature)(Date)

Note: The signed original of this certificate is placed in the Resident Engineer's project files and one copy is mailed to the DLAE and filed under "Report of Expenditures."

See the attachment (next page)





Appendix K (continued)

Attachments: Materials Exceptions (Acceptance Testing)

Type of Test	Description of Work	Total Tests Performed On the Project	Number of Failed Tests	Action Taken
Slump Test	Concrete Sidewalk	8	1	When the measured slump exceeded the maximum limit, the entire concrete load was rejected.
Sand Equivalent	Aggregate for Structural Concrete	10	1	The tested S.E. was 70 and the contract compliance specification was 71 minimum. However, the concrete 28-day compressive strength was 4800 psi. The concrete was considered adequate and no materials deductions were taken.
Compaction	Sub grade Material	12	1	One failed test was noted. The failed area was watered and reworked. When this was completed, a retest was performed. The retest was acceptable.
Compaction	Hot Mix As- phalt	12	1	One failed area was noted. It was reworked and retested. The second test met specifications.

Bill Sanders

Bill Sanders

July 4, 2007

Resident Engineer (Print Name)

Resident Engineer (Signature)

Date

Attachment #3 Appendix E & Appendix L of the QAP Manual





Appendix E - Check List to Assist Local Agencies Monitor Acceptance Testing Requirements

No.	Item	Yes, No or N/A
1	Was the Resident Engineer able to present an approved QAP, when requested to do so?	
2	Were there Certificates of Compliance in the project files for materials that were accepted (without testing) on the project?	
3	Did the type and number of acceptance tests taken on the project match (or exceed) the minimum type and number required in the frequency tables of the approved QAP?	
4	Did all acceptance samplers and testers (local agency employees and/or consultants) have valid Certificates of Proficiency for the duration of the project?	
5	Were there calibration stickers firmly affixed to all the test equipment used by the acceptance samplers and testers on the project?	
6	Were the calibration dates on the stickers (affixed to the test equipment) within 12 months of the current date?	
7	Did the Resident Engineer have a log summary sheet of all acceptance tests performed on the project?	
8	If plant inspection and/or source inspection were performed on this project, were there test records to show that testing was performed for the items used?	
9	Did any acceptance samplers and testers get decertified for any test during the construction of the project?	
10	Did the Resident Engineer provide written approval of the PCC mix designs used on the project?	
11	Did the Resident Engineer provide written approval of the hot mix asphalt designs used on the project?	
12	If materials did not meet minimum specifications but were still used on the project, did the Resident Engineer fully document all testing and attach justifications for use and cost reduction information to the Materials Certificate?	
13	Did the Resident Engineer sign and date the Materials Certificate after the project was completed?	

Note (for No. 3 above):

Assume that a concrete structure was 50% complete and approximately 1000 cubic yards of PCC will be used on the project. If the testing frequency in the local agency's QAP states that two concrete cylinders will be tested for compressive strength every 500 cubic yards, did the Resident Engineer have at least two compressive-strength tests in the project file? Likewise if the structure was 100% complete, were there four compressive-strength tests in the project file?

Printed Name of the Local Agency:	
Printed Name of the Resident Engineer:	
Printed Name of the Reviewer:	
Date of Review:	





Appendix L - Check List for Local Agencies to Help Monitor Independent Assurance Requirements

No.	Item	Yes, No Or N/A
1	Did the IA person have a letter (or contract) stating he (or she) was authorized to perform IA services for the city or county?	
2	Did the IA person have a recent Qualification Certificate from a qualified tester from a qualified laboratory that regularly participates in Reference Samples Programs with AMRL and CCRL?	
3	Did the IA person maintain separate files for each acceptance sampler and tester for all local agency projects?	
4	Did the IA person have annual Split-Sample Test records for each acceptance tester for all local agency projects?	
5	Did the Split-Sample Testing include the following tests: sieve analysis, sand equivalent, cleanness, slump (or penetration) of fresh concrete air content of fresh concrete, unit weight of fresh concrete, compaction of hardened hot mix asphalt?	
6	Did the IA person have annual Witness Test records for each acceptance sampler and tester for all local agency projects?	
7	On each project, did the IA records include: certification, decertification, and recertification for each acceptance sampler and tester?	
8	Did the IA person have annual Certificates of Proficiency for each acceptance sampler and tester for all local agency projects?	
9	Did the IA person issue annual Laboratory Certificates for each laboratory that performed tests for all local agency projects?	
10	Did the IA person verify that all test equipment for each acceptance tester conformed to current test standards and the equipment had firmly affixed calibration stickers (dated within the last 12 months)?	
11	Did the IA person train acceptance samplers and testers and also perform IA services involving these people?*	
12	Did the IA person use separate materials testing equipment than used by the acceptance testers?	

Printed Name of the City or County: ______ Printed Name of the IA Person:

*Answer is "no", others should be "yes" or "not applicable"

Attachment #4

Caltrans Test Method – ASTM Test Method Conversion Chart

CALTRANS TEST METHOD - ASTM TEST METHOD CONVERSION CHART Testing Procedures - for local agency use only

Use this CTM - ASTM conversion chart to assist you in determining acceptance test requirements and frequencies, as detailed in Caltrans *Construction Manual* Chapter 6, "Sampling and Testing." Refer to the Agency, special provisions, contract plans, and applicable standard specifications, for correct sampling and test methods (ASTM-CTM).

СТМ	ASTM	Book of Standards	TEST PROCEDURE	NOTE S
105			Calculations Pertaining to Gradings and Specific Gravities	2
125	D75 D979	4.02 4.03	Sampling Highway Materials (when approved) Standard Practice for Sampling Aggregates Practice for Sampling Bituminous Paving Mixtures	3 3
201	C702	4.02	Soil & Aggregate Sample Preparation Reducing Field Samples of Aggregate to Testing Size	13
202	C136 C117	4.02 4.03	Sieve Analysis of Fine and Coarse Aggregate Sieve Analysis of Fine and Coarse Aggregate Material Finer Than 75-um (#200) Sieve in Mineral Aggregates by Washing	
205			Percentage of Crushed Particles	1
206	C127	4.02	Specific Gravity and Absorption of Coarse Aggregate Specific Gravity and Absorption of Coarse Aggregate	
207	C128	4.02	Specific Gravity and Absorption, Fine Aggregate Specific Gravity and Absorption, Fine Aggregate	
208			Apparent Specific Gravity of Fine Aggregate	1
211	C131	4.02	Abrasion of Coarse Aggregate by Use of the Los Angeles Rattler Machine Resistance to Degradation , Small-Size Coarse Agg. by Abrasion & Impact, L.A. Machine	
213	C40	4.02	Organic Impurities in Concrete Sand Organic Impurities in Fine Aggregate for Concrete	
214	C88	4.02	Soundness of Aggregates by Use of Sodium Sulfate Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	1
216	D1556 D1557	4.08 4.08	Relative Compaction of Untreated and Treated, Soils & Aggregates Density of Soil In-place by the Sand Cone Method Moisture-Density Relations of Soils & Soil-Agg. Mixtures, 10-lb. Rammer, 18-in Drop	11
217			Sand Equivalent (only authorized method per Caltrans 07, District Materials Engineer)	1,9
223			Surface Moisture in Concrete Aggregate	1
226	C566	4.02	Moisture Content in Soils by Oven Drying Total Moisture Content of Aggregate by Drying	
227			Evaluating Cleanness of Coarse Aggregate	1
229	D3744	4.03	Durability Index Aggregate Durability Index	1
231	D2922	4.08	Relative Compaction of Soils by the Area Concept Utilizing Nuclear Gages Density of Soil & Soil-Aggregate In-place by the Nuclear Method	4 4

CTM - ASTM Testing Procedures - for local agency use only

Use this CTM - ASTM conversion chart to assist you in determining acceptance test requirements and frequencies, as detailed in Caltrans *Construction Manual* Chapter 6, "Sampling and Testing." Refer to the Agency, special provisions, contract plans, and applicable standard specifications, for correct sampling and test methods (ASTM-CTM).

CTM	ASTM	Book of Standards	TEST PROCEDURE	NOTES
301	D2844	4.08	R-Value of Treated & Untreated, Bases, Subbases & Basement Soils R-Value and Expansion Pressure of Compacted Soils	1
302	D1664	4.03	Film Stripping Coating and Stripping of Bitumen-Aggregate Mixtures	
303			Centrifuge Kerosene Equivalent	1
304	D1561	4.03	Preparation of Bituminous Mixtures for Testing Prep. of Bituminous Mixture Test Specimens by Means of Calif. Kneading Compactor	1
305			Swell of Bituminous Mixtures	1
307			Moisture Vapor Susceptibility of Bituminous Mixtures	1
308	D1188	4.03	Bulk Specific Gravity and Weight Per Cubic Foot of Bituminous Mixtures Bulk Sp.G. and Density of Compacted Bituminous Mixtures, Paraffin-Coated Specimens	
310	D2172	4.03	Asphalt and Moisture Contents of Bituminous Mixtures by Hot Solvent Extraction Extraction of Bitumen from Bituminous Paving Mixtures (Method A, B, or C)	5 6,10
312			Design and Testing of Class "A" and "B" Cement Treated Base	1
338			Cement or Lime Content in Treated Aggregate by the Titration Method	1
339	D2995	4.03	Determination of Distributor Spread Rate Determining Application Rate of Bituminous Distributors	
362	D2172	4.03	Asphalt Content of Bituminous Mixtures by Vacuum Extraction Quantitative Extraction of Bitumen from Bituminous Paving Mixtures (Method "E")	5 6
366			Stabilometer Value	1
367			Recommending Optimum Bitumen Content (OBC.)	1
370			Determining Moisture Content of Asphalt Mixtures or Mineral Agg., Microwave Ovens	
	D4643	4.08	Determination of Water (Moisture) Content of Soil by the Microwave Oven Method	
375	D2950	4.03	In-place Density & Relative Compaction of AC Pavement (nuclear) Density of Bituminous Concrete In-place by the Nuclear Method	5,7,12 6,7
379	D4125	4.03	Asphalt Content of Bituminous Mixtures by use of the Troxler Nuclear Gage Asphalt Content of Bituminous Mixtures by the Nuclear Method	5,8 6,8
405			Chemical Analysis of Water	1
415			Chloride Content in Organic Additives for Portland Cement Concrete	1

CTM - ASTM Testing Procedures - for local agency use only

Use this CTM - ASTM conversion chart to assist you in determining acceptance test requirements and frequencies, as detailed in Caltrans *Construction Manual* Chapter 6, "Sampling and Testing." Refer to the Agency, special provisions, contract plans, and applicable standard specifications, for correct sampling and test methods (ASTM-CTM).

CT M	ASTM	Book of Standards	TEST PROCEDURE	NOTES
504	C231	4.02	Air Content of Freshly Mixed Concrete by the Pressure Method Air Content of Freshly Mixed Concrete by the Pressure Method	
515			Relative Mortar Strength of Portland Cement Concrete Sand	1
518	C138	4.02	Unit Weight of Fresh Concrete Unit Weight, Yield, and Air Content (Gravimetric) of Concrete	
521	C39	4.02	Compressive Strength of Molded Concrete Cylinders Compressive Strength of Cylindrical Concrete Specimens	
523	C293 C78	4.02 4.02	Flexural Strength of Concrete (using simple beam with center-point loading) Flexural Strength of Concrete (using simple beam with center-point loading) Flexural Strength of Concrete (using simple beam with third-point loading)	1
528			Freeze Thaw Resistance of Aggregates in Air-Entrained Concrete	1
529			Proportions of Coarse Aggregate in Fresh Concrete	1
530			Determining the Effect of H ₂ O-Reducing and Set-Retard. Admix. Drying Shrinkage PCC	1
533	C360 C143	4.03 4.02	Ball Penetration in Fresh Portland Cement Concrete Ball Penetration in Fresh Portland Cement Concrete Slump of Freshly Mixed PCC	
539	C172	4.02	Sampling Fresh Concrete Sampling Freshly Mixed Concrete	
540	C31	4.02	Making, Handling, & Storing Concrete Compressive. Test Specimens in the Field Making & Curing Concrete Test Specimens in the Field	
541			Flow of Grout Mixtures (flow cone method)	1
543	C173	4.02	Air Content of Freshly Mixed Concrete by the Volumetric Method Air Content of Freshly Mixed Concrete by the Volumetric Method	
548			Evaluation of Aggregate for Lean Concrete Base (LCB.)	1

Notes

- 1. Use the CALTRANS Method.
- 2. Use the methods of calculation within the applicable test method first. Refer to CTM 105 as necessary.
- 3. Use the Caltrans Construction Manual procedures as necessary when ASTM D75 or D979 do not adequately cover the item to be sampled.
- 4. Use the direct transmission method only, the air gap method shall not be used. All nuclear gages must have local Caltrans District calibration within the last year. The data sheets provided by the local Caltrans District shall be used when determining the in-place density.
- 5. Sample from the job site, across the mat, immediately behind the paving machine (Caltrans Construction Manual).
- 6. Sample per ASTM D 979 paragraph 4.2.3., sample from the job site, across the mat, immediately behind the paving machine.
- 7. All nuclear gages used for this test must be calibrated on the six (6) DNTM&R AC Standard Blocks. The Data sheets provided by the local Caltrans District shall be used when determining the in-place density.
- 8. Recommended Percent (%) AC method for Rubberized Bituminous Paving mixtures.
- 9. The hand method of shaking is not authorized and shall not be used. An electro-mechanical or handoperated mechanical. Sand Equivalent shaker must be utilized for this test.
- 10. This Method covers hot solvent, centrifuge, and vacuum extraction.
- 11. Compaction Apparatus shall be calibrated in accordance with ASTM D 2168, Method B (ASTM Book 4.08).
- 12. Test Maximum Density (TMD) shall be performed by Caltrans Test Method 375, Section F. Test Max. Density.
- 13. Splitters must be of the fixed riffle type (no adjustable splitters).

Attachment #5 Caltrans' "Frequency Tables" (LAPM Exhibit 16-R)

					(-)			1
					POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
	MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
	COARSE AGGREGATE	LA Rattler (500) Rev.) 6	211	See Note (3)	See Note (2)			
AGGREGATE		Cleanness value	227			1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production is less than 300 cu. yds, 1 per accumulative 300 cu. yds.	One of the following locations listed in order of preference: a. Belt from weigh hopper to central or transit mixer. b. Belt which feeds batch plant bins immediately preceding the weigh hopper. c. Discharge gate of weigh hopper. A single sample 400+ lbs. into loader or dump truck; split to test portion required for grading analysis. d. Discharge gates of bins feeding the weigh hopper at batch plant	Recommend 1 acceptance test per day if 3 consecutive tests over 80
	FINE AGGREGATE	Colometric Test Mortar Strength	213 515	See Note (3)	See Note (2)	Only if initial test shows critical or contamination is suspected	The location and method of sampling are to be determined and agreed upon by the engineer and the contractor. Once selected, the location and method of sampling are not	
		Sand Equivalent	217			1 for every 500 cu. yds. See Notes (1) (7). If production is less than 300 cu. yds., 1 per accumulative 300 cu. yds.	to be changed during the life of a project, or so long as there is no change in plant's configuration or operation.	Recommend 1 acceptance Test per day if 3 consecutive tests over 80
		Durability	229					
	COARSE & FINE AGGREGATE	Specific gravity & absorption Soundness	206 & 207 214	See Note (3)	See Note (2)	When aggregate changed. See Note 7	Same as Fine Aggregate (above)	
		Sieve Analysis	202			1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production less than 300 cu. Yds, 1 per accumulative 300 cu. yd.	Same Fine Aggregate (above)	
		Freeze-Thaw	528	See Note (4)	Non See Note (5)			
		Moisture	223 &/ or 226		None	1 for every 500 cu. yds. 1 per day min. See Notes (1) (7). If production less than 300 cu. Yds, 1 per accumulative 300 cu. yd.	Same Fine Aggregate (above)	Sample must be in an airtight container
	CEMENT	Compliance w/Std. Specs. & Special Provisions		8 lb.	None with Certificate of Compliance (See REMARKS.)	1 for every 500 cu. yds. 1 per min. See Notes (1)(7). If production is less than 300 cu. yds, 1 per accumulative 300 cu. yd.	Weigh hopper or in the feed line immediately in advance of the hopper	If no Certificate of Compliance, sample at least 14 days prior to use for previously tested brands, 35 days for untested brands.
	WATER	Compliance with Sec. 90 of Std. Specs. & Special Provisions	405	Clean 1/2 gallon plastic jug with lined sealed lid	At point of use (See REMARKS)KS)	As required for acceptance (See REMARKS)	At point of use	City water supplies for domestic use usually need not be tested unless suspected of high chloride or sulfate content. On-the-job wells are to be tested.

SIZE, FREQUENCY AND LOCATION OF SAMPLING AND TESTING TABLES PORTLAND CEMENT_CONCRETE (6) - PAVEMENT_____

ADMIXTURES	Air Entraining Agent Water Reducers Set Retarders	Air entraining properties, chloride identification Claimed properties, chloride identification	ASTM C 260 ASTM C 494	1-quart can or plastic bottle of liquid, 2 lbs. of powder 1-quart can of liquid, 2 lbs. of powder	Samples must reach testing lab at least 1 week prior to use. Samples must reach Testing lab at least 1 week prior to use. Untested brands require 5 weeks prior to use.	As required for information As new supplies arrive on the job or each time brand is changed.	Sample must reach testing lab at least 1 week prior to use Samples must reach testing lab at least 1 week prior to use. Untested brands require 5 weeks prior to use.	
Ċ	ONCRETE	Yield	518	See test method See Note (8)		One for each 4 hours production	At point it is deposited on the grade	If yield test used for payment, 1 per each 1,500 cu. yds.; min. of 2 per mix design per job.
		Ball Penetration	533			When test specimen is fabricated & when consistency or uniformity is questionable. Min. 2 per day	At point concrete is deposited in the work and from different portions of the batch to check uniformity.	
		Modules of rupture	523	1 set of 3 beams 6" x 6" x 34" each	See California Test 539	One set for each 4,000 cubic yards	See California Test 539	Recommend min. 2 sets per shift. Normally, from each set, break 1 beam at 7 days, 1 beam at 10 days, and 3rd beam as required 50% decrease after 10 sets.
		Air Content	504	Approx. 1/2 cubic foot		As required for information; min. once every 4 hours. Each time 518 is performed.	At point deposited on the grade.	Where specified for freeze thaw resistance, acceptance testing shall not be less than once every hour.
		Coarse agg. per cu. ft. of concrete	529			As required to assure uniformity of concrete. See Std. Specs., Section 90	1st and last 4th of batch	
		Dimensions				As required for information. See Std. Specs. Section 40		
CUR	1ented Ing Pound	Compliance (See Std. Specs. & Special Prov.)		1 Quart (Can)		As new shipments arrive on job or each time brand is changed	From spray nozzle or feed line at point of field application.	

Note:

Not required if P.C. from same source is being used on other work and test is being made there. No need to duplicate the test just for the sake of record. The actual test results may be used anywhere (1) they are applicable.

From material site or stockpile; 60 days prior to use. (2)

150# of 2 1/2" x 1 1/2 - 100# of 1 1/2 x 3/4 - 75# of 3/4" x No. 4-75# of pea gravel -50# of sand. This material for test numbers 202, 206, 207, 211, 213, 214, 217, 227, 229 and 515.

(3) (4) (5) (6) See California Test No. 528 or contact the Division of New Technology, Materials and Research.

Contact District Materials Engineer for special sampling procedures at least 120 calendar days before intended use.

For lightweight concrete, see Standard Specifications and Special Provisions.

(7) When prior test results are acceptable and material appears to be of uniform composition, a max. of 2 tests per day will satisfy acceptance test requirements for this material. Adjustments to testing frequencies shall be documented in the project files.

(8) No deductions for cement content will be made based on the results of California test 518.

		PORTLAND C	CEMENT	CONCRETE (6) -	BRIDGES & MAJO	R STRUCTURES (R.C.B., P.C.C. A	rch Culverts, Retaining Walls)	
					POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
	MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
	COARSE	LA Rattler (500) Rev.)	211	Cas Nata (2)	Can Nata (2)			
AGGREGATE	AGGREGATE	Cleanness Value		See Note (3)	See Note (2)	1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production is less than 300 cu. yds, 1 per accumulative 300 cu. yds.	One of the following locations listed in order of preference: a. Belt from weigh hopper to central or transit mixer. b. Belt which feeds batch plant bins immediately preceding the weigh hopper. c. Discharge gate of weigh hopper. A single sample 400+ lbs. into loader or dump truck; split to test portion required for grading analysis. d. Discharge gates of bins feeding the weigh become at become at become at	Recommend 1 acceptance test per day if 3 consecutive tests over 80
	FINE AGGREGATE	Colometric test Mortar Strength Sand Equivalent	213 515 217	See Note (3)	See Note (2)	Only if initial test shows critical or contamination is suspected 1 for every 500 cu. yds. See Notes (1) (7). If production is less than 300 cu. yds., 1 per accumulative 300 cu. yds.	change in plant's configuration or	Recommend 1 acceptance test per day if 3 consecutive tests over 80
		Durability	229					
	COARSE & FINE AGGREGATE	Specific gravity & absorption Soundness	206 & 207 	See Note (3)	See Note (2)	When aggregate changed. See Note (7)	As per potential source list	
		Sieve Analysis	202			1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production less than 300 cu. yds, 1 per accumulative 300 cu. yd.	Same Fine Aggregate (above)	
		Freeze-Thaw	528	See Note (4)	See Note (5)			
		Moisture	223 &/ or 226		None	r every 500 cu. yds. 1 per day min. See Note (7). If production less than 300 cu. yds, 1 p umulative 300 cu. yd.	Same Fine Aggregate (above)	Sample must be in an airtight container
	CEMENT	Compliance w/Std. Specs. & Special Provisions		8 lb.	None with Certificate of Compliance (See REMARKS.)	1 for every 500 cu. yds. 1 per min. See Notes (1)(7). If production is less than 300 cu. yds, 1 per accumulative 300 cu. yd.	Weigh hopper or in the feed line immediately in advance of the hopper	If no Certificate of Compliance, sample at least 14 days prior to use for previously tested brands, 35 days for untested brands.
	WATER	Compliance with Sec. 90 of Std. Specs. & Special Provisions	405	1/2 gallon plastic jug with lined sealed lid	At point of use (See REMARKS.)	As required for acceptance (See REMARKS)	At point of use	City water supplies for domestic use need not be tested unless suspected of high chloride or sulfate content. On-the-job wells are to be tested.

ADMIXTURES	Air Entraining Agent Water Reducers Set Retarder	Air entraining properties, chloride identification	ASTM C 260 ASTM C 494	1-quart can or plastic bottle of liquid, 2 lbs. of powder 1-quart can of liquid, 2 lbs. of powder	Samples must reach testing lab at least 1 wk prior to use. Samples must reach testing lab at least 1 wk prior to use. Untested	As required for information As new supplies arrive on the job or each time brand is changed.	Sample must reach testing lab at least 1 week prior to use Samples must reach testing lab at least 1 week prior to use. Untested brands require 5 weeks prior to use.	Check with DNTM&R for brands which may be used prior to sampling and testing when properly certified
					brands require 5 wks prior to use.			
(CONCRETE	Yield	518	Approx. 1 cu. ft. See Note (8)	See California Test 539	As necessary to assure accuracy of mix design; min. 2 per each mix design	At point it is deposited in the work	
		Ball Penetration	533			When test specimen is fabricated & when consistency or uniformity is questionable. Min. 2 per day	At point concrete is deposited in the work and from different portion of the batch to check uniformity	
		Compressive Strength	539 & 540	1 set of 2-6" x 12" cylinders for each test age		1 set for approx. every 300 cu. yds. concrete or as required for acceptance. Min. 1 set per job & class of concrete for each days production.	At point deposited in the work	For trial batches, see Std. Specs. or job Special Provisions and Section 8- 03 of this manual.
		Air Content	504			A Min. once every 4 hours of production and when test specimens are fabricated	At point deposited on the grade.	Where air is specified for freeze- thaw resistance, a min. of 1 per each 30 cu. yds.
		Coarse agg. per cu. ft- of concrete	529			As required to assure uniformity of concrete. See Std. Specs., Section 90	1st and last 4th of batch	
		Dimensions				As required for information. See Std. Specs. Sec. 40		
TEI	RESTRESSED NDON GROUT	Efflux time	541	1-6" x 12" cylinder mold can	From batch immediately after mixing for prequalification; thereafter from outlet end of tendon &/or storage tank.	At the start of each day's work and thereafter 1 test per each 5% of ducts		Repeat acceptance tests whenever source of material is changed
-	PIGMENTED CURING COMPOUND	Compliance (See Std. Specs. & Special Prov.)		1 Quart (Can)		Periodically to ensure compliance	From storage drums	For chlorinated rubber base type, sample and test if not previously inspected at the source.

Note:

(1) Not required if P.C. from same source is being used on other work and test is being made there. No need to duplicate the test just for the sake of record. The actual test results may be used anywhere they are applicable. From material site or stockpile; 60 days prior to use.

(2) (3) (4)

150# of 2 1/2 x 1 1/2"-100# of 1 1/2 x 3/4 - 75# of 3/4" x No. 4-75# of pea gravel -50# of sand. This material for test numbers 202, 206, 207, 211, 213, 214, 217, 227, 229 and 515.

See California Test 528 or contact the Division of New Technology, Materials and Research.

(5) Contact District Materials Engineer for special sampling procedures at least 120 calendar days before intended use.

(6) For lightweight concrete, see Standard Specifications and Special Provisions.

(7) When prior test results are acceptable and material appears to be of uniform composition, a max. of 2 tests per day will satisfy acceptance test requirements for this material. Adjustments to testing frequencies shall be documented in the project files.

(8) No deductions for cement content will be made based on the results of California Test 518.

					See Notes (6) and			
					POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
	MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
AGGREGATE	COARSE AGGREGATE	LA Rattler (500) Rev.) Cleanness Value	211 227	See Note (3)	See Note (2)	1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production is less than 300 cu. yds, 1 per accumulative 300 cu. yds.	 One of the following locations listed in order of preference: a. Belt from weigh hopper to central or transit mixer. b. Belt which feeds batch plant bins immediately preceding the weigh hopper. c. Discharge gate of weigh hopper. A single sample 400+ lbs. into loader or dump truck; split to test portion required for grading analysis. d. Discharge gates of bins feeding the weigh plant be and the plant be plant be plant. 	Recommend 1 acceptance test per day if 3 consecutive tests over 80
,	FINE AGGREGATE	Colometric Test Mortar Strength Sand Equivalent	213 515 217	See Note (3)	See Note (2)	Only if initial test shows critical or contamination is suspected 1 for every 500 cu. yds. See Notes (1) (7). If production is less than 300 cu. yds., 1 per accumulative 300 cu. yds.	weigh hopper at batch plant The location and method of sampling are to be determined and agreed upon by the engineer and the contractor. Once selected, the location and method of sampling are not to be changed during the life of a project, or so long as there is no change in plant's configuration or operation.	Recommend 1 acceptance test per day if 3 consecutive tests over 80
-	COARSE & FINE AGGREGATE	Durability Specific gravity & absorption Soundness Sieve Analysis Freeze-Thaw	229 206 & 207 214 202 528	See Note (3)	See Note (2)	When aggregate changed. 1 for every 500 cu. yds. 1 per day min. See Notes (1)(7). If production less than 300 cu. yds, 1 per accumulative 300 cu. yd.		
		Moisture	223 &/ or 226		None	1 for every 500 cu. yds. 1 per day min. See Notes (1) (7). If production less than 300 cu. yds, 1 per accumulative 300 cu. yd.	Same as Fine Aggregate (above)	
C	EMENT (6)	Compliance w/Std. Specs. & Special Provisions		8 lb.	None with Certificate of Compliance (See REMARKS.)	1 for each 500 cu. yds. used. I per day min.: 2 per day max. See Note (1). See Section 8-02 of this Construction Manual	From weigh hopper, screw leading to weigh hopper	If no Certificate of Compliance, sample at least 14 days prior to use for previously tested brands, 35 days for untested brands.
	WATER	Compliance with Sec. 90 of Std. Specs. & Special Provisions	405	1/2 gallon plastic jug with lined sealed lid	At point of use (See REMARKS.)	As required for acceptance (See REMARKS.)	At point of use	City water supplies for domestic use usually need not be tested unless suspected of high chloride or sulfate content. On-the-job wells are to be tested.

PORTLAND CEMENT CONCRETE MISCELLANEOUS CONCRETE

(TURES	Air Entraining Agent Water Reducers	Air entraining properties, chloride identification	ASTM C 260	1-quart can or plastic bottle of liquid, 2 lbs. of powder 1-quart can of liquid, 2	testing lab at least 1 week prior to use. Samples must reach	As required for information When new lots are to be used.	Samples must reach testing lab at least 1 week prior to use. Samples must reach testing lab at	Check with DNTM&R for brands which may be used prior to sampling and testing when properly certified.
XIMOX	Set Retarder	Claimed properties, chloride identification	C 494	lbs. of powder	Testing lab at least 1 week prior to use. Untested brands require 5 weeks prior to use.		least 1 week prior to use. Untested brands require 5 weeks prior to use.	
COI	MBINED MIX (6)	Yield Cement Factor	518	See test method See Note (8)		As necessary to assure accuracy of mix design	At point concrete is deposited in the work from different portions of the batch to check uniformity	If yield test used for payment, 1 per each 1,500 cu. yds.; min. of 2 per mix design per job.
		Ball Penetration	533			When test specimen is fabricated & when consistency or uniformity is questionable. Min. 2 per day		
		Compressive Strength	539 & 540	1 set of 2-6" x 12 cylinders		One set for each day when volume exceeds 25 cu. yd. (1) None if total days run less than 25 cu. yds.	At point deposited in work	
		Entrained Air	504	Approx. 1/2 cubic foot		As required for information	At point concrete is deposited in work	

Note:

(1) Not required if P.C. C. from same source is being used on other work and test is being made there. No need to duplicate the test just for the sake of record. The actual test results may be used anywhere they are applicable.

From material site or stockpile; 60 days prior to use. (2)

(3) 150# of 2 1/2" x 1 1/2 - 100# of 1 1/2 x 3/4 - 75# of 3/4" x No. 4-75# of pea gravel -50# of sand. This material for test numbers 202, 206, 207, 211, 213, 214, 217, 227, 229 and 515.

(4)

See California Test 528 or contact the Division of New Technology, Materials and Research. Contact District Materials Engineer for special sampling procedures at least 120 calendar days before intended use. For minor concrete, sample and test only at Resident Engineer's discretion. (5) (6)

(7) When prior test results are acceptable and material appears to be of uniform composition, a max. of 2 tests per day will satisfy acceptance test requirements for this material. Adjustments to testing frequencies shall be documented in the project files.

No deductions for cement content will be made based on the results of California test 518. (8)

(9) For lightweight concrete, see Standard Specifications and Special Provisions.

				ASPHALIC	CONCRETE (3)		
				POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
AGGREGATE PRIOR TO MIXING	LA Rattler (500) Rev.) Specific gravity (coarse and fine aggregate) CKE Stabilometer Moist Vapor Susceptibility % Crushed Particles Sieve Analysis Sand Equivalent Film Stripping	211 206 & 208 303 366 305 307 205 202 217 302	Type A & B UNPROCESSED 250# PROCESSED 50# of each bin size Open graded 50#	Materials site, stockpile, or plant (7)	As necessary for information and/or acceptance (8) 1 for each 500 tons; 1 per day min.; 2 per day max. See Note (1) (5) if production is less than 300 cu. yds. 1 per accumulative 300 cu. yds. As necessary for information an/or acceptance	Plant bin prior to mixing (2) (7)	Not made on open graded. Performed on laboratory mixture Performed on laboratory mixture Performed on laboratory mixture
PAVING ASPHALT LIQUID ASPHALT ASPHALTIC EMULSION	In accordance with applicable Section of Std. Specs		Asphalt 1 quart can Emulsion 1/2 gallon plastic jug	Test only if no Certificate of Compliance. Asphalt line (6) Test only if no certification of compliance. Emulsion Storage Tank	Once daily (6) Each shipment	Asphalt line or distributor	

ASPHALT CONCRETE (3)

COMPLETE MIXTURE	Swell	305	DGAC 15# carton	As necessary for information and/or acceptance		When less than a total of 500 tons is to be placed, sample and test only at Resident Engineers discretion.
	Moist, vapor susceptibility	307	OGAC 1 qt. can			Total sample: DGAC: Four Cartons (about 60#) OGAC: Four 1 Qt. cans (about 14#)
	Stabilometer	304				1.411
	Sieve Analysis	202				
	Asphalt Content	310, 362 & 379		 1 for each 500 ton; 2 per day minimum		
	Moisture	310 & 370			Completed pavement	
	In-Place Density	375	As specified or lot size	 1 sample representing each 4 hours of production	As per California Test 375	
	Maximum Density	375	Two 15# cartons	 As per California Test 375		

Note:

(1) On smaller projects being supplied from sources currently in use on larger projects, a copy of the acceptance test information on asphalt concrete aggregate is all that is required.

For continuous mixing, sample from the combined feed in advance of mixing, for mixing, sample from hot bins.

(2) (3) (4) When special provisions state that production shall be "from commercial quality asphalt and aggregate" sample and test only at Resident Engineers discretion.

Not required if P.C.C. from same source is being used on other work and test is being made there. No need to duplicate tests; results may be used anywhere they are applicable.

(5) When prior test results are acceptable and material appears to be of uniform composition, a max. of 2 tests per day will satisfy acceptance test requirements for this material. Adjustments to testing frequencies shall be documented in the project files.

(6) When continuous mixing plants used, sample and test for specific gravity at least monthly.

(7) When sampling for AC mix design (California Test 367), aggregate samples must be taken as described in Note 2.

Refer to Standard Specifications, 39-3.03 "Proportioning" for frequency of AC mix design (California test 367) sampling. (8)

When prior test results are acceptable and material appears to be of uniform composition, a max. of 2 tests per day will satisfy acceptance test requirements for this item. Adjustments to testing (9) frequencies shall be documented in the project files.

LEAN CONCRETE BASE

					POTENTIAL SOURCE TESTS		TEOTO	
	IATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	ACCEPTANCE FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
A	GGREGATE	Sand equivalent Sieve analysis	217 202 & 105	100 lbs. for aggregate qualification	Material site or stockpile	1 sample for each 3,000 tons or 2,000 cu. yds. (1)	One of the following locations listed in order of preference: a. Belt from weigh hopper to central or transit mixer.	
		Compressive strength of laboratory mixtures	548	As required for method of test for acceptance tests.			 b. Belt which feeds batch plant bins immediately preceding the weigh hopper. c. Discharge gate of weigh hopper. A single sample 400+ lbs. into loader or dump truck; split to test portion required for grading analysis. d. Discharge gates of bins feeding the weigh hopper at batch plant The location and method of sampling are to be determined and agreed upon by the engineer and the location and method of sampling are not to be changed during the life of a project, or so long as there is no change in plant's configuration or operation. 	
	CEMENT	Compliance with Section 90 of Std. Spec.		8 lbs.	None with Certificate of Compliance (see REMARKS)	Each 120 tons of cement, 2 per day max.	Weigh hopper or screw leading to weigh hopper or from distributor if road-mixed.	If no Certificate of Compliance, sample at least 14 days prior to use for previously tested brands; 35 days for untested brands.
	WATER	Compliance with Section 90 of Std. Spec.	405	Clean 1/2 gallon plastic jug with lined sealed lid.	At point of use(see REMARKS)		At point of use.	City water supplies for domestic use need not be tested unless suspected chlorine or sulfate content. On-the- job wells are to be tested
JRES	Air Entraining Agents							Contact DNTM&R for information
ADMIXTURES	Retarders	Compliance with specifications	530 or 415	1 quart can or plastic bottle of liquid, 2 lbs. of powder		Each new lot of material brought to the job	Samples much reach testing lab at least 1 week prior to use. Untested brands require 5 weeks prior to use.	Contact DNTM&R for brands which may be used prior to sampling and testing when properly certified

ſ	COMPLETED MIXTURE	Penetration	533			At least once for every 4 hours of production	At point concrete is deposited in the work	
		Entrained Air	504	Approx. 1/2 cu. ft.	Request laboratory to perform this test during aggregate qualification.	At least once for each day's production		
		Dimensions				As required		
	CURING COMPOUND	Compliance with specifications		1 quart can		Each new lot of material brought to the job	From spray nozzle or feed line at point of field application	

NOTE; (1) If material is uniform and well within specification limits, the frequency is decreased to 1 a day unless source is changed. Adjustments to testing frequencies shall be documented in the project files.

			OLINEI				
				POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
AGGREGATE	R-value (with & without cement)	301	100 lbs. for aggregate qualification	Material site or stockpile			Class B only
	Compressive Strength	312					Class A
	Sieve Analysis	202	As required for method of test for acceptance tests.		1 sample for each 3,000 tons or 2,000 cu. yds. (1)	As specified.	Minimum 1 acceptance test per project on smaller projects.
	Sand Equivalent	217			1 sample for each 3,000 tons or 2,000 cu.yds. (1)	As specified.	
COMPLETED MIX	Compressive Strength	312	See California Test 312 Part II		See Section 6-27 of this manual.	See California Test 312 Part II	
	Cement Titration	338	See California Test 338 Part I		As necessary for acceptance (See REMARKS)	See California Test 338 Part I	Use minimum of 1 person full time during full-time operation.
	Relative Compaction	312 216 231			1 sample for each 3,000 tons or 2,000 cu. yds. (1).	See California Test 375	
	Dimensions				As necessary for information.	In place after compaction.	
CEMENT	Compliance with Section 90 of Std. Spec.		8 lbs.	None with Certificate of Compliance (see REMARKS)	Each 120 tons of cement, 2 per day max.	Weigh hopper or screw leading to weigh hopper or from distributor if road-mixed.	If no Certificate of Compliance, sample at least 14 days prior to use for previously tested brands; 35 days for untested brands.
WATER	Compliance with Section 90 of Std. Spec.		1/2 gallon plastic jug with lined sealed lid.	At point of use(see REMARKS)	As necessary for acceptance (see REMARKS).	At point of use.	No sample necessary if from obviously suitable source such as municipal water supply. On-the-job wells should be tested.
Liquid Asphalt	In accordance with Special. Prov. & Std. Specs.		1 quart can	None with Certificate of Compliance. If no Certificate of Compliance, then from storage tank of distributor truck.	Each shipment.	Distributor truck.	

CEMENT TREATED BASE ROAD MIX OR PLANT MIX

NOTE;

(1) If material is uniform and well within specification limits, the frequency is decreased to 1 a day unless source is changed. Adjustments to testing frequencies shall be documented in the project files.

			1101				
				POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
AGGREGATE	Grading	202			2 times daily		
	% crushed particles	205			As necessary for information and /or	Plant bins prior to mixing.	
	LA Rattler (500 rev.)	211	50#	Materials, site, stockpile or plant bins.	acceptance.	See Note (1).	
	Cleanness Value	227	50#	Dins.	Once for each 4 hours of production.		Recommend 1 acceptance test per day if 3 consecutive tests over 62.
	Film Stripping	302			1 for every 5 days paving, for 1st 10 days.		
ASPHALT	In accordance with Std. Specs.		quart can	Test only if no cert. of compliance	One daily.		
COMPLETED MIX	Asphalt content	310 & 362	Two 1-quart cans		1 for every 4 hours of production		

ASPHALT TREATED PERMEABLE BASE (ATPB)

CEMENT TREATED PERMEABLE BASE (CTPB)

AGGREGATE	Grading	202			Once for each 4 hours of production. See note (4).	One of the following locations listed in order of preference:	
	LA Rattler (500 rev.)	211	See note (2)	See note (3)		a. Belt from weigh hopper to central or transit	
	Cleanness Value	227			One for each 4 hours of production.	mixer.	Recommend 1 acceptance test per
					See Note (4).	 b. Belt which feeds batch plant bins immediately preceding the weigh hopper. c. Discharge gate of weigh hopper. A single sample 400+ lbs. into loader or dump truck; split to test portion required for grading analysis. d. Discharge gates of bins feeding the weigh hopper at batch plant. The location and method of sampling are to be determined and agreed upon by the engineer and the contractor. Once selected, the location and method of sampling are not to be changed during the life of a project, or so long as there is no change in plant's configuration or operation 	day if 3 consecutive tests over 80
CEMENT	Compliance w/ Std. Specs & Spec. Prov.		8 lbs.	None with Cert. of Compliance	Once for each 120 tons, 2 per day mix.		
WATER	Compliance with/ Sec 90 of Std. Specs and Special Provisions		1/2 gallon plastic jug with lined sealed lid.				City water supplies for domestic use; need not be tested unless suspected chlorine or sulfate content. On-the- job wells are to be tested.

NOTE:

(1) (2) (3) (4)

For continuous mixing plants, sample from combined feed in advance of mixing. 75 # of 1' x No. 3/4" x No. 4. This material for test numbers 202, 211, and 227. From material site or stockpile; 60 days prior to use. Not required if P. C. C. from same source is being used on other work and test is being made there. No need to duplicate the test just for the sake of record. The actual test results may be used anywhere they are applicable.

]	TESTS	ACCEPTANCE	POTENTIAL SOURCE TESTS				
REMARKS	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	SAMPLE SIZE & CONTAINER TYPE	TEST NO.	TEST FOR	MATERIAL OR PRODUCT
Minimum 1 acceptance test per project.	As specified	As necessary for acceptance.	Materials site or stockpile.		205	% crushed Particles	AGGREGATE BASE
Minimum 1 acceptance test per project on smaller projects.		Every 3,000 tons or 2,000 cu. yds. (1).		100 # for initial samples. 50 # for control samples.	202	Sieve Analysis	
		If initial source changes or new source developed.			229	Durability Index	
		Every 3,000 tones of 2,000 cu. yds. (1)(2).			301	R-Value	
Minimum 1 acceptance test per project on smaller projects.		Every 3,000 tones of 2,000 cu. yds. (1)			217	Sand Equivalent	
	At time of weighing.	2 times daily if paid for by weight-			226	Moisture	
	In place after compaction.	As necessary for acceptance.		30#	216 or 231	Relative Compaction	
	Upon completion of layer.	As necessary for information				Dimensions	
Minimum 1 acceptance test per project on smaller project. None if less than 300 tons.	As specified.	1 for every 3,000 tons or 2,000 cu. yds. (1).	Material site or stockpile.		202	Sieve analysis	AGGREGATE SUBBASE
		1 for every 3,000 tons or 2,000 cu. yds. (1) (2).		50 #	301	R-value	
		(2). 1 for every 3,000 tons or 2,000 cu. yds. (1).			217	Sand equivalent	
	In place after compaction.	As necessary for acceptance.		30#	216 or 231	Relative compaction	
	Upon completion of layer.	As necessary for information.				Dimensions	

NOTE:

(1)

If material is uniform and well within specification limits, the frequency may be decreased to one a day unless source is changed. Adjustments to testing frequencies shall be documented in the project files.

R-value testing may be waived when test records demonstrate that material from the same source, and having comparable grading and sand equivalent values, meets the minimum R-value requirements.

					POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
	MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
	MPORTED BORROW	Relative Compaction	216 or 231			As required for acceptance.	Immediately after material is placed and compacted	
B	ASEMENT SOIL	R-Value	301	50 #	Test material below grading plane, both in cut and in fill.		Prior to placement of cover material.	
		Relative Compaction	216 or 231	30 #		As necessary for acceptance.	Immediately prior to placement of cover material.	
		Grade Tolerance					Grading plane.	
EN	BANKMENT	Relative compaction	216 or 231	30 #			In place after compaction.	
Ξ	Soil or Aggregate to be Treated	Unconfined compressive strength	301	100 #	Native soils. Test each type of material to be treated.	If initial source changes.	Prior to beginning of lime treatment.	To determine appropriate lime content.
NT	COMPLETED MIX	Lime Content	338	20 #		As necessary for acceptance.	See California Test 338, Part I	
TREATMENT	, mixe	Relative Compaction	216 & 231				In place after compaction.	
LINE TRE		Dimensions					In place after compaction.	
	LIME	Compliance with Special Provisions		1/2 gallon can with friction lid	None with Certificate of Compliance.	Each load delivered.	From distributor.	
	EMULSION (CURING SEAL)	In accordance with Special Provisions and Standard Specifications		1/2 gallon plastic jug.	None with Certificate of Compliance. If no Certificate of Compliance, then from storage tank or distributor truck.	Each shipment.	Distributor truck.	

NOTE:

(1) Not to be used for the lime treatment of AC aggregates.

					POTENTIAL SOURCE TESTS	ACCEPTANCE	TEQTO	
	MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
ENT	LIQUID ASPHALT	In accordance with applicable section of Std. Specs.		1 quart can	None with Certificate of Compliance.	Each shipment.	Plant storage tank or distributor.	
PENETRATION TREATMENT	SAND	Sieve Analysis	202			As necessary for acceptance.	As delivered to project.	
	PAVING ASPHALT LIQUID ASPHALT ASPHALTIC EMULSION	In accordance with applicable section of Std. Specs Binder distribution	339	Asphalts 1 quart can , Emulsion 1/2 gallon plastic jug	None with Certificate of Compliance.	Each shipment.	Storage tank or distributor	
SEALS	SCREENINGS	LA Rattler	211	50 #	Stockpile	As necessary for acceptance	As delivered to spread, equipment.	
BITIMINOUS SEALS		% crushed particles Sieve Analysis	203			Twice daily.		
IMIN		Film Stripping	302			As necessary for acceptance.		
BIT		Cleanness Value	227		Stockpile	Once daily As necessary for acceptance	Prior to mixing	
	SLURRY SEAL AGGREGATE	Sieve Analysis	202	25#	oto stiplic			
		Film Stripping	302					
S	ID OR SEMI- SOLID AIR REFINED ASPHALT	In accordance with Std. Specs		3 #	Barrels or sacks.	Each 29 barrels or sacks.	Barrels or sacks.	

				POTENTIAL	ΔΟΟΕΡΤΑΝΟΕ	TEOTO	
MATERIAL		TEST	SAMPLE SIZE &	SOURCE TESTS LOCATION OR	ACCEPTANCE	15315	
OR PRODUCT	TEST FOR	NO.	CONTAINER TYPE	TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
PERMEABLE MATERIAL	Sieve Analysis	202	150 #	Stockpile	1 daily, or as required for acceptance.	In place, at time of placing.	Minimum 1 acceptance test per project.
	Durability Index	229			If initial source changes or new source developed.	Material site or stockpile	
	Sand Equivalent	217			1 daily, or as required for acceptance.	In place, at time of placing.	Minimum 1 acceptance test per project.
STRUCTURE BACKFILL	Sieve Analysis	202	50 #	Materials site.	As required for acceptance.	At time of use	
	Sand Equivalent	217					
	Relative Compaction	216 & 231				In place after compaction.	
SLOPE PROTECTION	Size			Quarry	As required for acceptance (See REMARKS)	Upon delivery to job site or at time of placing.	Adequate size of slope protection documented by measuring or weighing the material.
	Apparent Specific Gravity	206					
	Absorption	206					
	Durability Index	229	75 #				
ASBESTOS SHEET PACKING			12" X 12"		1 each lot.	At delivery	Sample and test if not previously inspected at the source.
ASPHALT PLANK			Contact DNTM&R for instructions		Contact DNTM&R for instructions.		
BARBED WIRE			3 ' length		Each 50 rolls or fraction	At time of use.	Sample and test if not previously inspected at the source. If less than 500 LF. of fence, see Note (1).
BOLTS AND HARDWARE			2 samples each diameters		Each lot.		Sample and test if not previously inspected at the source.

NOTE:

(1) Resident Engineer may accept on the basis of visual examination provided the source has recently furnished similar material found to be satisfactory under the normal sampling and testing procedures of the Department. Place Resident Engineer's written approval in the project file.

				POTENTIAL	1005574N/05	TEOTO	
MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	SOURCE TESTS LOCATION OR TIME OF SAMPLING	ACCEPTANCE FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
BRICK	Compliance with Specifications		10 full size		Contact DNTM&R for instructions.	At time of use	
CHAIN LINK FENCING	opoonidationo		24" width		Each 50 rolls or fraction.		Sample and test if not previously inspected a the source. if less than 500 LF of fence, see note (1).
CONCRETE AND CLAY PIPE			Contact DNTM&R for instructions.		Contact DNTM&R for instructions.		Sample and test if not previously inspected at the source. If less than 100 LF. of fence, see Note (1).
JOINT FILLER EXPANSION			6" long full width of sheet		Each 1,000 sq. ft. not less than 2 per shipment.		Sample and test if not previously inspected at the source. If less than 100 sq. ft. see Note (1).
ELECTRICAL CONDUCTOR	Compliance with Specifications		2 each 3" long, include markings		Each type each lot.		Sample and test if not previously inspected at the source. Certificate of Compliance required for 5,000 volt cable.
GALVANIZED PIPE			1 ' length from each end of length tested of each size		Each 500 lengths or fraction		Sample and test if not previously inspected at the source.
GEO- SYNTHETICS Filler, Reinf. & Paving Fabric S/R Fence, Etc.			1 piece, 3' x full width of roll		Each lot.	Distribution Warehouse.	Certificate of Compliance required for each lot. Unroll at least 1 circumference before sampling.
JOINT SEAL, Type B			Contact DNTM&R			At time of use.	Sample and test if not previously inspected at the source.
JOINT SEALING COMPOUND 2- COMPONENT POLYSULFIDE POLYMER TYPE	Specification requirements		1 gallon of each component		1 sample from each component of each batch	From cans at job site.	
MOPPING ASPHALT	Compliance with Specification		1 quart		Each lot.	At time of use.	Sample and test if not previously inspected at the source.
PAINT	Compliance with Specification		For Br. or major Str. send an unopened 5 Gal. can. For misc. painting, 1 qt. (See Sec. 8-02)		Each batch		Unused portion of 5 gallon sample will be returned to job. See Section 8-02. If less than 20 gallons, see note (1).
PAVEMENT MARKERS	Compliance with Specification		20 Markers		1 Sample (20 markers) from each lot of 10,000		Sample and test if not previously inspected at the source
PLASTIC CONDUIT	Compliance with Specification		2" long from center of length		2 samples each size]	Sample and test if not previously inspected at the source
RAISED BARS (PRECAST)	Compliance with Specification		1 unit or full size bar		Each lot		Sample and test if not previously inspected at the source
REINFORCING STEEL	Compliance with Specification		2 samples 30" except 36" for #14 & #18		As necessary for acceptance	Before use	Sample and test at job site

NOTE:

(1)

Resident Engineer may accept on the basis of visual examination provided the source has recently furnished similar material found to be satisfactory under the normal sampling and testing procedures of the Department. Place Resident Engineer's written approval in the project file.

				POTENTIAL SOURCE TESTS	ACCEPTANCE	TESTS	
MATERIAL OR PRODUCT	TEST FOR	TEST NO.	SAMPLE SIZE & CONTAINER TYPE	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING	LOCATION OR TIME OF SAMPLING	REMARKS
STEEL PRODUCTS			Contact DNTM&R for instructions.		Contact DNTM&R for instructions.	At time of use	Sample and test if not previously inspected at the source.
STRUCTURAL STEEL & MISC. IRON & STEEL			2 samples, 2" x 30" cut parallel to direction of rolling		Each heat or melt or 10 tons or fraction.		Sample and test if not previously inspected at the source
WATER- PROOFING MATERIALS		ASTM D173	1 sq. yd. of asphalt saturated cotton fabric		1 sample from each lot.	Manufacturer's stock or contractor yard.	Meshes of fabric shall be substantially ^{open}
		ASTM D449	5 pounds of asphalt				Contractor's stock must be kept covered.
		ASTM D41	1 quart of asphalt primer.				
WIRE MESH REINFORCING			3' x 3'		Each 10 tons or fraction.	At time of use.	Sample and test at if not previously inspected at the source. If less than 2 rolls, see note (1).
WIRE ROPE OR CABLE			Per Special Provisions or as instructed.		Per Special Provisions or as instructed. At time of use.		Sample and test if not previously inspected at the source.

NOTE:

(1)

Resident Engineer may accept on the basis of visual examination provided the source has recently furnished similar material found to be satisfactory under the normal sampling and testing procedures of the Department. Place Resident Engineer's written approval in the project file.

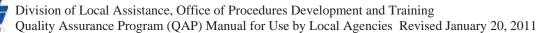
Attachment #6

Appendix D, "Acceptance Sampling and Testing Frequencies" of the QAP Manual Note: It may be desirable to sample and store some materials. If warranted, testing can be performed at a later date.

Appendix D - Acceptance Sampling and Testing Frequencies

22

	Description or Comments	Sample aggregate from belt or hopper (random basis).	If testing appears warranted, test for chlorides and sulfates.
	Typical Test Methods	ASTM D75 CT 125 AASHTO M6, T2, M80	CT 405, CT 422, CT 417 AASHTO R23
nent Concrete)	Sampling/Testing Frequency	Take one aggregate sample for each 1000 cu. yd. of PCC/HCC concrete. Test at least one sample per job.	If the water is clean with no record of chlorides or sulfates greater than 1%, no testing is required. If the water is dirty do not use it. Test only when the chloride or sulfates are suspected to be greater than 1%.
Portland Cement Concrete (Hydraulic Cement Concrete)	Sample Size	50-lb. sample	Take a two-quart sample using a clean plastic jug (with lining) and sealed lid. Sample at the point of use.
Portland Cement C	Materials to be Sampled or Tested	Aggregate for Hydrau- lic Cement Concrete (Sampling & Testing)	Water (Sampling & Testing)



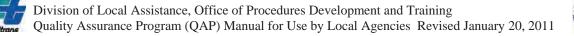




Portland Cement Concrete (Hydraulic Cement Concrete) – Continued

Appendix D (continued)

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Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description of Comments
Air Entraining Admixtures (Sampling & Testing)	Take a one-quart sample using a clean, lined can or plastic bottle, if liquid. If powder, take a 2.5 lb. sample.	If the product is accepted based on a Certificate of Compliance, testing is not required. Take one sample per job. Prior to sampling, check with Caltrans (METS) for acceptable brands and dosage rates.	ASTM C233 AASHTO M154, T157, C260	If testing appears warranted, test for sulfates and chlorides Admixtures with sulfates and chlorides greater than 1% should not be used.
Water Reducers or Set Retarders (Sampling & Testing)	If liquid, take a 1-qt. sample using a clean plastic can. If powder, take a 2.5 lb. sample.	If the product is accepted based on a Certificate of Compliance, no testing is required. If not, test once per job. Prior to using this product, please check with Caltrans (METS) for acceptable brands and dosage rates.	ASTM C494 AASHTO M194	If testing appears warranted, test for sulfates and chlorides. Admixtures with sulfates and chlorides greater than 1% should not be used.
Freshly-Mixed Concrete (Sampling)	Approx. 150lb. (or 1 cu. ft.) near mixer discharge.	When tests are required, take at least one sample for each 500 to 1000 cu. yd. of PCC/HCC.	ASTM C172, C685 CT 539 AASHTO T141, M157	This describes a method to sample freshly-mixed concrete.
Freshly-Mixed Concrete (Testing)	Approx. 150 lb/ (or 1 cu. ft.) near mixer discharge.	On projects with 500 cu. yd., or more, test at least one sample per job.	ASTM C143 AASHTO T119	This test determines the slump of the freshly-mixed concrete.
Freshly-Mixed Concrete (Testing)	Approx. 150 lb/ (or 1 cu. ft.) near mixer discharge	On projects with 500 cu. yd., or more, test at least one sample per job.	ASTM C360 CT 533	This test determines the ball penetration of the freshly-mixed concrete.
Freshly-Mixed Concrete (Testing)	Approx. 150 lb/ (or 1 cu. ft.) near mixer discharge	On projects with 500 cu. yd., or more, test at least one sample per job.	ASTM C231 CT 504 AASHTO T152	This test determines the air content of freshly-mixed concrete (pressure method).
Freshly-Mixed Concrete (Testing)	Approx. 150 lb/ (or 1 cu. ft.) near mixer discharge	On projects with 500 cu. yd., or more, test at least one sample per job.	ASTM C138 CT 518 AASHTO T121	This test determines the unit weight of freshly mixed concrete.





This test is used to fabricate 6" x 12' flexural strength of simple concrete This test is used to determine the concrete cylinders. Compressive strengths are determined, when beams in third-point loading **Description or Comments** needed. AASHTO T97 & CT 521 AASHTO T22 **Typical Test** ASTM C39 ASTM C78 Methods CT 31 One sample set for every 500 to 1,000 cu. per project. Test for compressive strength at least once for each 500 to 1,000 cu. yd. Fabricate at least two concrete cylinders Sampling/Testing Frequency of structural concrete. yd. of concrete. Approx. 150 lb/ (or 1 cu. ft.) Approximately 210 lb. of fabricate three concrete concrete are needed to near mixer discharge Sample Size Materials to be Freshly-Mixed Freshly-Mixed Sampled or (Testing) Concrete Concrete (Testing) Tested

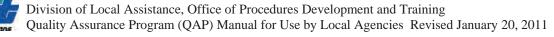
T23

Portland Cement Concrete (Hydraulic Cement Concrete) – Continued

Soils and Aggregates

beams.

	2000 and 1981 van				
	Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
24	Aggregate (Sampling)	One 50-lb. sample	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	ASTM D75 CT 125 AASHTO T2	This test describes the procedures to sample aggregate from the belt or hopper (random basis).
	Fine Aggregates (Testing)	One 50-lb. sample	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	ASTM C128 CT 208 AASHTO T84	This test determines the apparent specific gravity of fine aggregates for bituminous mixes, cement treated bases and aggregate bases.
	Fine Aggregate (Testing)	One 50-lb. sample	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	ASTM CI 28 CT 207 AASHTO T84	This test determines the bulk specific gravity (SSD) and the absorption of material passing the No. 4 sieve.
	Coarse Aggregate (Testing)	One 50-lb. sample	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample per project.	CT 206	This test determines the cleanness of coarse aggregate.





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Sampled or Tested	04111 pre 0126	oampung i textug ri equency	nypreat rest Methods	
Coarse Aggre- gate	One 50-lb. sample	Take one sample for every 500 to 1,000 tons of materials. Test at least one sample	ASTM C127 CT 227	This test determines the specific gravity and absorption of coarse
(Testing)		per project.	AASHTO T85	aggregate (material retained on the No. 4 sieve).
Soils and	One 50-lb. sample	Take one sample for every 500 to 1,000	ASTM C136	This test determines the gradation of
Aggregates (Testing)		tons of materials. Test at least one sample per project.	CT 202 AASHTO T27	soils and aggregates by sieve analysis.
Soils and	One 50-lb. sample	Take one sample for every 500 to 1.000	ASTM D2419	This test determines the Sand Equiva-
Aggregates		tons of materials. Test at least one sample	CT 217	lent of soils and aggregates.
(Testing)		per project.	AASHTO T176)
Soils and	One 50-lb. sample	Take one sample for every 500 to 1,000	ASTM C117	This test determines the gradation for
Aggregates		tons of materials. Test at least one sample	AASHTO T11	materials finer that the No. 200 sieve
(Testing)		per project.		(by washing method).
Soils and	One 50-lb. sample	Take one sample for every 500 to 1,000	ASTM D3744	
Aggregates		tons of materials. Test at least one sample	CT 229	This test determines the Durability
(Testing)		per project.	AASHTO T210	Index of soils and aggregates.
Soils and	One 50-lb. sample	Take one sample for every 500 to 1,000	ASTM D2844	This test determines the Resistance
Aggregates		tons of materials. Test at least one sample	CT 301	Value (R-) and expansion pressure of
(Testing)		per project.	AASHTO T190	compacted materials.
Soils and	One random location for	Take one sample for every 500 to 1,000	ASTM D2922	This test determines field densities
Aggregates	every 2,500 sq. ft.	tons of materials. Test at least one sample	CT 231	using the
(Testing)		per project.	AASHTO T238	nuclear gage.
Soils and	One random location for	Take one sample for every 500 to 1,000	ASTM D3017	This test determines the water content
Aggregates	every 2,500 sq. ft.	tons of materials. Test at least one sample	CT 231	using the nuclear gage.
(Testing)		per project.	AASHTO T239	



Asphalt Binder

Materials to be Samuled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Asphalt Binder	One 0.5-gal. sample placed	Sample once per job at the asphalt	CT 125	This procedure describes the proper method
(Sampling)	in a clean, sealed can.	concrete plant.	ASTM D 979	to sample the asphalt binder.
	×.		AASHTO T 168, T48	-
Asphalt Binder	One 0.5-gal. sample placed	Sample once per job at the asphalt	ASTM D92, D117	This test determines the flash point of the
	ווו מ נוכמוו, אכמוכנו נמוו.	concrete plant.	04 I OIIICEE	aspirate united (by circyclatic upp).
Asphalt Binder (Testing)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons	ASTM D2872 & D92	This test determines the rolling thin-film oven test (RTFO).
ò	×	of asphalt concrete placed.	CT 346	~
			AASHTO T240 &T48	
Asphalt Binder	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D2042	This test determines the solubility of
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons of asuhalt concrete placed	AASHTO T44	asphalt material in trichloroethylene.
Asphalt Binder	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D2171	This test determines the dynamic
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons	AASHTO T202	viscosity, (absolute viscosity of
		of asphalt concrete placed.		asphalt @ 140 degrees F by the
				Vacuum Capillary Viscometer Poises).
Asphalt Binder	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D5	This test determines the penetration of bitu-
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons	AASHTO T49	minous material @ 77 degrees F and per-
		of asphalt concrete placed.		centage of original penetration from the residue.
Asphalt Binder	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D113	This test determines the ductility of
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons	AASHTO T51	asphalt @ 77 degrees F.
		of asphalt concrete placed.		
Asphalt Binder	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D2170	This test determines the kinematic
(lesting)	m a clean, sealed can.	concrete plant for each 1,000 tons of asphalt concrete placed.	AA3H1U 1201	viscosity of asphalt @ 2/5 degrees r (Centistoke).





Description or Comments This test determines the dynamic **AASHTO T202** ASTM D2171 **Typical Test** Methods Obtain one sample at the asphalt concrete plant for each 1,000 Sampling/Testing Frequency One 0.5-gal. sample placed in Sample Size a clean, sealed can. **Asphalt Binder - Continued** Sampled or Tested Materials to be Asphalt Binder (Testing)

Asphalt Binder (Testing)	a clean, sealed can.	concrete plant for each 1,000 tons of asphalt concrete placed.	AASHTO T53	asphalt.
Asphalt Emulsified				
Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Emulsified Asphalt (Sampling)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons of asphalt concrete placed.	ASTM D140, D979 CT 125 AASHTO T 40, T168	This test describes the procedure to sample the emulsified asphalt.
Emulsified Asphalt (Testing)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons of asphalt concrete placed.	ASTM D244 AASHTO T59	This test determines the sieve retention of emulsified asphalt.
Emulsified Asphalt (Testing)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons of asphalt concrete placed.	ASTM D244 AASHTO T59	This test determines the weight per gallon of emulsified asphalt.
Emulsified Asphalt (Testing)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons of asphalt concrete placed.	ASTM D244 AASHTO T59	This test determines the penetration of the emulsified asphalt.
Emulsified Asphalt (Testing)	One 0.5-gal. sample placed in a clean, sealed can.	Obtain one sample at the asphalt concrete plant for each 1,000 tons of	ASTM D244 CT 330 AASHTO T59	This test determines the residue @ 325 degrees F evaporation of emulsified asphalt.



This test determines the softening point of Vacuum Capillary Viscometer Poises).

ASTM D36

Obtain one sample at the asphalt

One 0.5-gal. sample placed in

tons of asphalt concrete placed.

viscosity. (absolute viscosity of asphalt @ 140 degrees F by the



asphalt concrete placed.

Asphalt Emulsified - Continued

Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Emulsified Asphalt	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D4402	This test determines the Brookfield
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons	AASHTO T201	viscosity.
		of asphalt concrete placed.		
Emulsified Asphalt	One 0.5-gal. sample placed	Obtain one sample at the asphalt	ASTM D88	This test determines the Saybolt-
(Testing)	in a clean, sealed can.	concrete plant for each 1,000 tons	AASHTO T72	Furol viscosity of emulsified asphalt
		of asphalt concrete placed.		@ 77 degrees F (seconds).

Hot Mix Asphalt (Hot Mix Asphalt (Asphalt Concrete) – Concrete			
Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Asphalt Concrete (Sampling)	Obtain one 30-lb. sample each day of production	Obtain one sample at the asphalt concrete plant for each 5,000 tons of asphalt concrete placed.	ASTM D75, D140, D979 CT 125 AASHTO T 40, T168	This test describes the procedure to sample the asphalt concrete.
Asphalt Concrete (Testing)	4" x 8" cores	Take one 4" x 8" core for every 500 ft of paved roadway.	ASTM D1188, D1560, D1561, D5361 CT 304 AASHTO T246, T247	This test determines the field density of street samples.
Asphalt Concrete (Testing)	Obtain one 30-lb. sample for each day of production	Obtain one sample for every five cores taken.	ASTM D1188, D1560, D1561, D5361 CT 304 AASHTO T246, T247	This test determines the laboratory density and relative compaction of asphalt concrete.
Asphalt Concrete (Testing)	4" x 8" cores	Obtain one sample for every five cores taken.	ASTM D2726, D1188, D5361	This test determines the specific gravity of compacted bituminous mixture dense- graded or non-absorptive.



Hot Mix Asphalt (Asphalt Concrete) –Continued

HOL MIX ASPIIAL	ITUU IVITA ASPITALI (ASPITALI CULICICUE) -CULULIUGU	n		
Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Asphalt Concrete (Testing)	One 30-Ib sample	Obtain one sample for every 1,000 tons of asphalt concrete.	ASTM D1559 AASHTO T245	This test determines the resistance to plastic flow of prepared mixes as determined by the Marshall Method.
Asphalt Concrete (Testing)	One 30-1b sample	Obtain one sample for every 1,000 tons of asphalt concrete.	ASTM C117, D2172 (use Method B) AASHTO T164	This test determines the screen analysis of aggregates recovered from asphalt materials.
Geotextile Fabric (Placed Under the Asphalt Con- crete) (Testing)	One 12 ft. x 3 ft. sample	Obtain one sample per job.	ASTM D4632 AASHTO M288	This test determines the weight per sq. yd. and grabs strength of geotextile fabrics.
Asphalt Concrete (Testing)	Sample any test location (random basis)	Obtain one sample for every 1,000 tons of asphalt concrete.	ASTM D2950 CT 375	This test determines the nuclear field density of in-place asphalt concrete.
Asphalt Concrete (Testing)	One 10-1b sample	Obtain one sample during every day of production.	ASTM D1560, D1561 CT 366 AASHTO T246, T247	This test determines the stability value of asphalt concrete.
Slurry Seals (Sample)	One 0.5 gal. sample in a clean, dry plastic container.	Obtain one sample per truck	ASTM D979 CT 125 AASHTO T 40, T168	This test describes the procedure for sampling the slurry seal.
Aggregate for Slurry Seals (Testing)	One 30-lb. sample.	Obtain at least one sample per project from the belt or hopper or stockpile and test for Sand Equivalent	ASTM D2419 CT 217 AASHTO T176	This test determines the Sand Equivalent of aggregates.



Slurry Seals				
Materials to be	Sample Size	Sampling/Testing Frequency	Typical Test	Description or Comments
Sampled or Tested			Methods	
Aggregate for Slurry One 30-lb. sample.	One 30-lb. sample.	Obtain at least one sample per project from the	ASTM C117	This test determines the sieve
Seals		belt, hopper, or stockpile and test for sieve	AASHTO T11	analysis of fine sand (gradation of
(Testing)		analysis of fine sand.		materials finer than No. 200 sieve by

This test determines the Wet Track

ASTM D3910

Test one sample per project and test for

Abrasion.

One 0.5 gal. sample in a clean, dry plas-tic container.

Slurry Seals

(Testing)

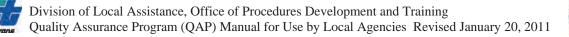
wash grading).

Abrasion Test (2) (WTAT).

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Materials to be Sampled or Tested	Sample Size	Sampling/Testing Frequency	Typical Test Methods	Description or Comments
Steel Strand (Testing)	Sample strand at various sizes.	This item may be accepted using a Certificate of Compliance. Sample and test at least two steel strands per job when a Certificate of Compliance is not used.	ASTM A370, A416, E328 AASHTO T244	This test determines the tensile strength of uncoated seven-wire stress-relieved strand for pre- stressed concrete.
Steel Rebar (Testing)	Sample rebar at various sizes.	This item may be accepted using a Certificate of Compliance. Sample and test at least two steel rebar per job when a Certificate of Compliance is not used.	ASTM A615, A370 AASHTO T244	This test determines the steel reinforcement bar tensile strength and bend capability.





Attachment #7 Appendix F of the QAP Manual





Appendix F - Construction Materials Accepted by a Certificate of Compliance *

Soil Amendment Fiber Mulch Stabilizing Emulsion **Plastic Pipe** Lime **Reinforcing Steel** Structural Timber and Lumber Treated Timber and Lumber Timber and Lumber Culvert and Drainage Pipe Joints Reinforced Concrete Pipe Corrugated Steel Pipe and Corrugated Steel Pipe Arches Structural Metal Plate Pipe Arches and Pipe Arches Perforated Steel Pipe Polyvinyl Chloride Pipe and Polyethylene Tubing Steel Entrance Tapers, Pipe Down drains, Reducers, Coupling Bands and Slip Joints Aluminum Pipe (Entrance Tapers, Arches, Pipe Down drains, Reducers, Coupling Bands and Slip Joints) Metal Target Plates **Electrical Conductors** Portland Cement Minor Concrete Waterstop

* If Caltrans Standard Specifications May 2006 is part of contract specifications.

Note: Usually these items are inspected at the site of manufacture or fabrication and reinspected after delivery to the job site.

Attachment #8 Exhibit 16-V of the LAPM

SAMPLE COVER MEMO SOURCE INSPECTION REQUEST FROM LOCAL AGENCY TO CALTRANS' DISTRICT LOCAL ASSISTANCE ENGINEER (Prepared By Applicant On Applicant Letterhead)

To: (name) Date: ______ Caltrans' District Local Assistance Engineer Caltrans' Local Assistance Office (district office address)

Federal-aid Project Number:	(if one has been assigned)
Project Description:	-
Project Location:	

Subject: (Source Inspection for Project Name, County)

We are requesting that Caltrans provide Source Inspection (reimbursed) services for the above mentioned project. We understand we are responsible for paying for this service provided for by the State. Listed below are the materials for which we are requesting Caltrans' Source Inspection (reimbursed) services.

Materials that will require source inspection:

Justification for request: (Based on the requirements in Section 16.14 under "Source Inspection")

Any question you might have about the above materials should be directed to:______, at ____(phone #)

Approved:

(Applicant Representative Name)

District Local Assistance Engineer

(Title)

(Date)

(Local agency, name & address)

Attachment #9 Appendix J of the QAP Manual





Appendix J.1 - Example of a Vendor's Certificate of Compliance

	OR SOUNDWALL
TO: BILL SYNDE	P
STATE UICIANAN CALONICED	- CITY OF FLATLA
We certify that the portland cement, che material described below are brands stated	mical and mineral admixtures contained in the d and comply with specifications for:
CONTRACT NUMBER:	Contraction of the second
XYZ CEMENT CO.	MILL LOCATION MIDLAND,
TYPE IT MODIFIED	CALIFORNIA
	LADMIXTURE
TYPE ABC ADMIXTURE	A XIZ SUITLICK
2 BRAND	MANUFACTURER
ТУРЕ	
CHECK BOX IF A CHEMICAL	ADMIXTURE WAS NOT USED
	ADMIXTURE
POZZ. INC.	CLASS F
CHECK BOX IF A MINEBAL A	DMIXTURE WAS NOT USED
DELIVERY DATE Propy Min / 0 7	DATES OF FABRICATION (Precast)
LIST PRODUCTS TO WHICH CERTIFICATE	APPLIES. (Show size and lin. It. of pipe, etc.,
Portland C Flyash Water Red	Cement
Water Red	ucer
MANUFACTURER OF CONCRETE PRODUCTS $A. \xi B. \mathcal{R}$ By: AUTHORIZED REPRESENTATIVE SIGNA	EADY MIX
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Appendix J.2 - Example of a Certificate of Compliance for Portland Cement (continued)

This is to certify that the	
Portlar	nd Cement .
	Company complies with all ortland Cement when tested in - 494.
<u>Local Agency Project No.</u> <u>HP21L – 5055 – 111</u>	<i>Albert Howakowa</i> Quality Assurance Engineer ABC Cement Company
	Date: <u>07/07/07</u> .

Attachment 10 LAPM Exhibit 16-T

Exhibit 16-T Materials Accepted By Certificate of Compliance

Table 6-2.3 Materials Accepted by Certificate of Compliance (1 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Asphalt	
Asphaltic emulsion	 Certificate of compliance must include the following: Shipment number and shipment date. Source refinery, consignee, and destination. Type and description of material with specific gravity and quantity. Contract or purchase order number. Signature by the manufacturer of the material and a statement that the material complies with the contract.
Asbestos cement pipe	
Asbestos sheet packing	
Asphalt modifier	Test results required with each truck load.
Asphalt rubber joint sealant	A certified test report of the results for the required tests performed within 12 months before the proposed use.
Backer rods	Must include manufacturer's statement of compatibility with the joint sealant to be used.
Barbed Wire	
Blast cleaning material	
Bonding Material	
Brick	
Cable-type restrainers Lock nuts	Certificate of compliance must be submitted with a copy of each required test report.
Cast iron pipe	
Cast iron manhole rings and covers	
Chemical adhesive for bonding tie bars and dowel bars in concrete pavement	
Chemical adhesive for structures	Certificate of compliance must state compliance with ICBO AC 58 and Caltrans. Augmentation/Revisions to ICBO AC 58.
Concrete Admixture	Certificate of compliance from the manufacturer must certify that the admixture furnished is the same as that previously authorized or the authorized materials list.
Concrete Cementitious material	Certificate of compliance must include the source name and location. If the cementitious material is delivered directly to the job site, the certificate of compliance must be signed by the cementitious material supplier. If the cementitious material is used in ready-mixed concrete, the certificate of compliance must be signed by the concrete manufacturer. If blended cement is used, the certificate of compliance must include a statement signed by the blended cement supplier that shows the actual percentage of SCM, by weight, in the blend.
Concrete Curing compound	 Certificate of compliance must include: Test results for the tests specified in Section 90-1.01D(6) [90-7.01B] of the Standard Specifications. Certification that the material was tested within 12 months before use.
Concrete Minor concrete	Before placing minor concrete from a source not previously used on the contract, a certificate of compliance stating that the minor concrete to be furnished complies with the contract requirements, including the specified minimum cementitious material content.
Ceramic tile	
Chain link fencing and railing	Certificate required for protective coating system.
Concrete anchorage devices	

Table 6-2.3 Materials Accepted by Certificate of Compliance (2 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Concrete pipe Circular reinforced direct design method	Certificate of compliance must:1. Be signed by the manufacturer's quality control representative.2. State that all materials and workmanship comply with the specifications and authorized shop drawings.
Copper pipe	
Corrugated metal pipe	
Crack sealant	Certificate of compliance must include: 1. Manufacturer's name 2. Production location 3. Product brand or trade name 4. Product designation 5. Batch or lot number 6. Crack treatment material type 7. Contractor or subcontractor name 8. Contract number 9. Lot size 10. Shipment date 11. Manufacturer's signature
Crash cushions	
Crumb rubber modifier	Test results required with each truck load.
Culvert markers	
Delineators	Certificate of compliance required for: 1. Metal target plates 2. Enamel coating 3. Retroreflective sheeting
Dowel bar baskets	
Drop inlet grates and frames	
Drain tile	
Drip irrigation line	
Elastomeric Bearing Pads Plain	Certified test results for the elastomer.
Elastomeric Bearing Pads Steel-reinforced	Certified test results.
Electrical Battery back-up system	Certificates of compliance is required for: • External cabinet • Batteries
Electrical Conductor	
Electrical Conduit (galvanized and plastic) Electrical	
Equipment Electrical Pull boxes (concrete and plastic)	
Electrical Service cabinets	

Table 6-2.3 Materials Accepted by Certificate of Compliance (3 of 7)

Certificate of compliance is requi Straw Fiber RECP Fasteners	ired for:
 titled "Pollutant Testing Guida Construction Site Monitoring 4. Report of acute and chronic t conforming to EPA methods. 5. List of ingredients, including of 6. Properties of polyacrylamide purity by weight, 	trix ments include: pollutant indicators for soil products as shown in the table ance Table" in the Caltrans Program Guidance Manual. toxicity tests on aquatic organisms chemical formulation.
Ероху	
Epoxy powder coating for dowel bars and tie bars	
Expansion joint filler	
Fiberglass pipe Certificate of compliance must be results.	-
Gabions If PVC coating is shown, a suitable blended with the PVC and the address certificate of compliance.	ble UV resistance additive must be dditive must be shown on the
Geocomposite drain capability graph for the geocomp	e must be accompanied by a flow osite drain showing flow rates and and hydraulic gradients. Verification
Geosynthetics Test sample representing each lo	ot and minimum average roll value.
Glass beads Glue laminated timbers and decking	
Guide markers	
Irrigation hose	
Irrigation pipe Certificate of compliance required Polyethylene pipe. Plastic pipe supply line for p	d for: pipe with wall thickness of the bell mum wall thickness of the pipe.
less man the specified minin	
Joint filler material	

Table 6-2.3 Materials Accepted by Certificate of Compliance (4 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Joint seal (Type B) Joint seal assemblies with a movement rating of 4 inches or less	Certificate of compliance required for: • Elastomeric joint seal • Lubricant-adhesive Certificate of compliance must be submitted with certified test report for each lot of elastomeric joint seal and lubricant-adhesive. Test reports must include the seal movement rating, the manufacturer's minimum uncompressed width, and test results. For alternative joint seal assemblies, a certificate of compliance must be submitted for each shipment of joint seal materials. The certificate must state that the materials and fabrication involved comply with the
Joint seal assemblies with a	specifications and the data submitted in obtaining the authorization for the alternative joint seal assembly.
movement rating over 4 inches	
Lime	Certificate of compliance must include a statement certifying the lime furnished is the same as on the authorized material source list.
Machine spiral wound PVC pipeliners	 Certificate of compliance for each reel of PVC strip must include: 1. Name of manufacturer 2. Plant location 3. Date of manufacture and shift 4. Cell classification 5. Unit mass 6. Average pipeliner stiffness and profile type
Markers	Certificate of compliance required for: 1. Metal target plates 2. Enamel coating 3. Retroreflective sheeting
Masonry block	Certificate of compliance required for: 1. Concrete masonry units 2. Aggregate for grout 3. Grout
Micro surfacing emulsion	
Mulch	
Open steel flooring and grating	
Overside drains	Certificate of compliance based on steel materials, aluminum materials or plastic materials.
Parking area seal material	
Pavement markers	
Pavement marking Paint or thermoplastic	
Plastic lumber	Laboratory test report.
Plastic traffic drums	
Plastic pipe for drainage	Certificate of compliance must include average pipe stiffness, resin material cell classification, and date of manufacture. For corrugated polyethylene pipe, manufacturer's copy of plant audits and test results from the National Transportation Products Evaluation Program for the current cycle of testing for each pipe diameter furnished.
Portable changeable message sign	
Precast concrete Cementitious material used in precast concrete products	Certificate of compliance must be signed by the precast concrete product manufacturer.

Table 6-2.3 Materials Accepted by Certificate of Compliance (5 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Precast concrete	Certificate of compliance must signed by the manufacturer's QC
Box culverts	representative for each shipment.
Precast raised traffic bars	
Preformed compression seal for	
concrete pavement	
Preformed membrane sheet	Must include type of sheet and the conditioner or primer application rates.
Rapid strength concrete	Certificate of compliance is required for each delivery of aggregate, cementitious material, and admixtures used for calibration tests. The certificate of compliance must state that the source of the materials used for the calibration tests is the same source as to be used for the planned work.
Reinforcement	 You may request that the contractor submits with certificate of compliance: 1. Copy of the certified mill test report for each heat and size of reinforcing steel showing physical and chemical analysis. 2. Two copies of a list of all reinforcement before starting reinforcement placement.
Reinforcement Epoxy-coated	 Certificate of compliance for each shipment of epoxy-coated reinforcement must be submitted with: 1. Certification that the coated reinforcement complies with ASTM A 775/A 775M for bar reinforcement or ASTM A 884/A 884M, Class A, Type 1, for wire reinforcement 2. All certifications specified in ASTM A 775/A 775M for bar reinforcement or ASTM A 884/A 884M for wire reinforcement.
Reinforcement Epoxy-coated prefabricated reinforcement	 Certificate of compliance for each shipment of epoxy-coated prefabricated reinforcement must be submitted with: 1. Certification that the coated reinforcement complies with ASTM A 934/A 934M for bar reinforcement or ASTM A 884/A 884M Class A, Type 2 for wire reinforcement. 2. All certifications specified in ASTM A 934/A 934M for bar reinforcement or ASTM A 884/A 884M for wire reinforcement.
Reinforcement Epoxy-coating patching materials	Certificate of compliance for the patching material must include certification that the patching material is compatible with the epoxy powder to be used.
Reinforcement Headed bar	 Certificate of compliance for each shipment of headed bar reinforcement must be submitted with: 1. Mill test reports for the: 1.1. Bar reinforcement 2. Head material Production test reports Daily production logs
Reinforcement Splicing	 Certificate of compliance for each shipment of splice material must be submitted with: 1. Type or series identification of the splice material, including tracking information for traceability. 2. Grade and size number of reinforcement to be spliced. 3. Statement that the splice material complies with the type of mechanical splice on the authorized material list. 4. For resistance-butt-welded material: 4.1. Heat number 4.2. Lot number 4.3. Mill certificates

Table 6-2.3 Materials Accepted by Certificate of Compliance (6 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Sheet metal	
Sign panels	Certificates of compliance required for: 1. Aluminum sheeting 2. Retroreflective sheeting 3. Screened-process colors 4. Nonreflective, opaque, black film 5. Protective-overlay film
Silicone joint sealant	A certified test report of the results for the required tests performed within 12 months before the proposed use.
Slotted edge drain	
Snow poles	
Snow plow deflectors polyethylene material	
Soil amendment	
Steel crib wall	
Sheet metal	
Sign panels	 Certificates of compliance required for: 1. Aluminum sheeting 2. Retroreflective sheeting 3. Screened-process colors 4. Nonreflective, opaque, black film 5. Protective-overlay film
Silicone joint sealant	A certified test report of the results for the required tests performed within 12 months before the proposed use.
Slotted edge drain	
Snow poles	
Snow plow deflectors polyethylene material	
Soil amendment	
Steel crib wall	
Steel pipe piles	 The certificate of compliance must be signed by the plant's QC representative. The QC representative must be on record with the Department's Office of Structural Materials. certificate of compliance must include: 1. Statement that all materials and workmanship incorporated in the work and all required tests and inspections of this work have been performed as described. 2. Certified mill test reports for each heat number of steel pipe piles being furnished. 3, Test reports for tensile, chemical, and any specified non-destructive test (NDT). 4. Test reports must be based on test samples taken from the base metal, steel, coil or from the manufactured or fabricated piles. 5. Calculated carbon equivalent. The carbon equivalent may be shown on the mill test report.
Steel sheet piling	
Structural plate culverts	Certificate of compliance required for: 1. Structural metal plate pipe 2. Arches 3. Pipe arches 4. Metal liner plate pipe

Table 6-2.3 Materials Accepted by Certificate of Compliance (7 of 7)

Material/Product	Remarks (Including Requirements for Additional Back-Up Information Required with Certificate of Compliance)
Structural shape steel piles	 Certificate of compliance must include: Test reports for tensile, chemical, and any specified NDT. Test samples must be taken from the base metal, steel, or from the manufactured or fabricated pile. A statement that all materials and workmanship incorporated in the work and all required tests and inspections of this work have been performed as described.
Structural composite lumber used in falsework	
Structural steel thermal spray coat Wire feedstock	
Styrofoam filler	
Subsurface drain	
Temporary concrete washout	Certificate of compliance required for: • Gravel-filled bag • Plastic liner
Temporary fence (Type ESA)	Certificate of compliance required for: • High visibility fabric • Safety caps for metal posts
Temporary linear sediment barrier	Certificate of compliance required for: • Fiber roll • Safety cap for metal posts • Silt fence fabric • Sediment filter bag • Foam barrier • Gravel-filled bag fabric
Temporary railing (Type K)	
Thermoplastic	
Tie bars	
Tie bar baskets	
Timber products (treated and untreated)	Certificate of compliance for timber and lumber must state the species of the material to be shipped and include a certified grading report. If treated, certified treating report.
Threaded tie bar splice couplers	
Traffic stripe Paint or thermoplastic	
Turf sod	
Underdrains	Certificate of compliance required for: • Type of pipe • Tubing • Fitting
Waterproofing fabric	
Waterstop	Certificate of compliance for waterstop material must state compliance with paragraph 6 of Army Corps of Engineers CRD-C 572.
Welded wire fabric	
Wire mesh fencing	