Construction Management, Inspection and Materials testing Services for the Mariposa Avenue Safe Routes to School Phase 3 Project

ADDENDUM NO. 1
May 11, 2018

TO ALL PROSPECTIVE PROPOSERS:
Please incorporate the following revisions as part of the request for proposals documents for the subject project.

THIS ADDENDUM FORMS A PART OF THE REQUEST FOR PROPOSALS DOCUMENT AND MODIFIES THE ORIGINAL AS NOTED HEREIN. BY SUBMISSION OF A PROPOSAL FOR THIS PROJECT, THE PROPOSER IS ACKNOWLEDGING THAT THE PROPOSER HAS CONFIRMED THAT HE OR SHE HAS RECEIVED ALL ADDENDA ISSUED AND HAS CONSIDERED SUCH IN THE PROPOSAL SUBMITTED.

For further information, contact: Stuart Hodgkins, City Engineer  
Telephone: (916) 727-4770  
Fax: (916) 727-1454  
E-mail: GSD-Mailbox@citrusheights.net

By: Stuart Hodgkins, City Engineer  
Dated: 5/11/18

Proposer shall sign this Addendum and include this page as a part of your proposal.
(A) PROPOSAL DUE DATE REVISED

The due date for proposals is hereby delayed. Proposals are now due on **Tuesday, May 22, 2018 at 4:00 PM.**

Note to potential proposers: All other dates indicated under part VII (CONSULTANT SELECTION SCHEDULE) of the RFP have not been changed.

(B) REVISED DISADVANTAGED BUSINESS ENTERPRISE GOAL

The California Department of Transportation (Caltrans) has revised the City’s DBE goal for this work.

The Disadvantaged Business Enterprise paragraph, on page 1 of the Request for Proposals, is hereby revised to read as follows:

“The Project shall comply with requirements of the Caltrans LAPM regarding annual anticipated DBE participation level. Consistent with the Caltrans Annual Anticipated Disadvantaged Business Enterprise Participate Level (AADPL) for FY 2017, the City has established an overall **DBE goal of 38%** DBE goal of 29%. Additional DBE requirements and general information can be found in Appendix G.

(C) APPENDICES

APPENDIX B Quality Assurance Program – The City has updated its Quality Assurance Program (QAP). Please replace the original QAP dated August 6, 2014 and replace it with the attached updated Citrus Heights QAP dated May 7, 2018.

(D) CLARIFICATIONS

1) QUESTION: “Please confirm if the digital PDF copy should be enclosed in a USB drive or a CD.?”

   RESPONSE: The electronic (pdf) copy of your proposal may be submitted on either a CD/DVD or USB drive.

2) QUESTION: “Please confirm if the 10-Q form is required to be submitted with this proposal. If yes, is this form required from both prime and subs.?”

   RESPONSE: In accordance with the instructions on Exhibit 10-Q, “The filing of a form is required for such payment or agreement to make payment to lobbying entity …” If under the above criteria your firm, or one of your subconsultants is required to complete form 10-Q, you must submit them with your proposal.

3) QUESTION: “Please confirm if forms are not counted towards the page count. If yes, please confirm that forms and agreement comments can be included in an Appendix section?”

   RESPONSE: Yes, the required federal forms are not counted in the maximum pages specified in part VI (Proposal Submittal) of the RFP.
CITY OF CITRUS HEIGHTS

QUALITY ASSURANCE PROGRAM (QAP)

This program provides quality assurance guidelines for materials used in Federal-aid projects within the City of Citrus Heights.

APPROVED BY:

Stuart Hodgkins
City Engineer
General Services Department
City of Citrus Heights

C43991 – June 30, 2019
(CE# and Expiration Date)
CITY OF CITRUS HEIGHTS

QUALITY ASSURANCE PROGRAM (QAP)

The purpose of this Quality Assurance Program (QAP) is to provide assurance that the materials incorporated into the construction projects are in conformance with the contract specifications. This program should be updated every five years or more frequently if there are changes in the testing frequencies or to the tests themselves. To accomplish this purpose, the following terms and definitions will be used:

**DEFINITION OF TERMS**

- **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.
- **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.
- **Source Inspection** – AT of manufactured and prefabricated materials at locations other than the job site, generally at the manufactured location.
- **Caltrans QAP Manual** – California Department of Transportation Quality Assurance Program Manual for Use by Local Agencies.

**MATERIALS LABORATORY**

The City of Citrus Heights (CITY) will use a 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 laboratory personnel under the Engineer’s supervision. The materials 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.

**ACCEPTANCE TESTING (AT)**

AT will be performed by a materials laboratory certified to perform the required tests. The tests results will be used to ensure that all materials incorporated into the project are in compliance with the contract specifications.

Testing methods will be in accordance with the CT Methods or a national recognized standard (i.e., AASHTO, ASTM, etc.) as specified in the contract specifications.

Sample locations and frequencies may be in accordance with the contract specifications. If not so specified in the contract specifications, samples shall be taken at the locations and frequencies as shown in Attachment #1 (“Acceptance Sampling and Testing Frequencies”).

**INDEPENDENT ASSURANCE PROGRAM (IAP)**

IAP shall be provided by personnel from Caltrans or the City’s private consultant’s certified materials laboratory. IAP will be used to verify that sampling and testing procedures are being performed properly and that all testing equipment is in good condition and properly calibrated.

IAP personnel shall be certified in all required testing procedures, as part of IAP, and shall not be involved in any aspect of AT.

IAP shall be performed on every type of materials test required for the project. Proficiency tests shall be performed on Sieve Analysis, Sand 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 probable deficiencies with the acceptance sampling and testing procedures. In cases of unresolved discrepancies, a complete review of AT shall be performed by IAP personnel, or an independent materials laboratory chosen by the Agency. IAP samples and tests are not to be used for determining compliance with contract requirements. Compliance with contract requirements is determined only by AT.
REPORTING ACCEPTANCE TESTING RESULTS

The following are time periods for reporting material test results to the Resident Engineer:

- When the aggregate is sampled at material plants, test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 24 hours after sampling.
- When materials are sampled at the job site, test results for compaction and maximum density should be submitted to the Resident Engineer within 24 hours after sampling.
- When soils and aggregates are sampled at the job site:
  1. Test results for Sieve Analysis, Sand Equivalent and Cleanness Value should be submitted to the Resident Engineer within 72 hours after sampling.
  2. Test results for "R" Value and asphalt concrete extraction should be submitted to the Resident Engineer within 96 hours after sampling.

When sampling products such as Portland Cement Concrete (PCC), cement-treated base (CTB), hot mix asphalt (HMA), and other such materials; the time of such sampling shall be varied with respect to the time of the day insofar as possible, in order to avoid a predictable sampling routine. The reporting of AT results, if not performed by the Resident Engineer's staff, shall be done on an expedited basis such as by email, fax or telephone.

TESTING OF MANUFACTURED MATERIALS

During the Design phase of the project, the Project Engineer may submit a “Source Inspection Request” see Attachment #2 (Exhibit 16-V of the Local Assistance Procedures Manual) to the CITY, consultant, or Caltrans for inspection and testing of manufactured and prefabricated materials by their materials laboratory. A list of materials that can be typically accepted on the basis of certificates of compliance during construction is found in Attachment #3 (Appendix F of the Caltrans QAP Manual). All certificates of compliance shall conform to the requirements of the contract specifications, for examples see Attachment #4 (Appendix J of the Caltrans QAP Manual).

Should the Agency request Caltrans to conduct the source inspection, and the request is accepted, all sampling, testing, and acceptance of manufactured and prefabricated materials will be performed by Caltrans' Office of Materials Engineering and Testing Services.

For Federal-aid projects on the National Highway System (NHS), Caltrans will assist in certifying the materials laboratory, and the acceptance samplers and testers. For Federal-aid projects off the NHS, Caltrans may be able to assist in certifying the materials laboratory, and the acceptance samplers and testers.
PROJECT CERTIFICATION

Upon completion of a Federal-aid project, a “Materials Certificate” shall be completed by the Resident Engineer. The CITY shall include a “Materials Certificate” in the Report of Expenditures submitted to the Caltrans District Director, Attention: District Local Assistance Engineer. A copy of the “Materials Certificate” shall also be included in the City’s construction records. The Resident Engineer in charge of the construction function for the Agency shall sign the certificate. All materials incorporated into the work which did not conform to specifications must be explained and justified on the “Materials Certification”, including changes by virtue of contract change orders. See Attachment #5 for an example (Appendix K of the Caltrans QAP Manual).

RECORDS

All material records of samples and tests, material releases and certificates of compliance for the construction project shall be incorporated into the Resident Engineer’s project file. If a Federal-aid project:

- The files shall be organized as described in Section 16.8 “Project Files” of the Local Assistance Procedures Manual.
- It is recommended that the complete project file be available at a single location for inspection by Caltrans and Federal Highway Administration (FHWA) personnel.
- The project files shall be available for at least three years following the date of final project voucher.
- The use of a “Log Summary,” as shown in Attachment #6 (Appendix H of the Caltrans 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.
ATTACHMENT 1

Acceptance Sampling and Testing Frequencies
## Acceptance Sampling and Testing Frequencies

**Type A Hot Mix Asphalt (Aggregates)**

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Gradation</td>
<td>202 T27</td>
<td>1 per 750 tons or Part thereof, Min. 1 per day during production</td>
<td>At Plant Per CTM 125</td>
</tr>
<tr>
<td>Sand Equivalent b</td>
<td>217 T176</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moisture Content c</td>
<td>226 T329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crushed Particles</td>
<td>T335</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Los Angeles Rattler</td>
<td>211 T96</td>
<td>1 per Project tons or change of source or mix design.</td>
<td></td>
</tr>
<tr>
<td>Flat and Elongated Particles</td>
<td>235 ASTM D4791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Aggregate Angularity</td>
<td>234 T304</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* If RAP is used, test the combined aggregate gradation under California Test 384.

*b* Reported value must be the average of 3 tests from a single sample.

*c* Test at continuous mixing plants only. If RAP is used, test the RAP moisture content at continuous mixing plant and batch mixing plant.
# Acceptance Sampling and Testing Frequencies

## Type A Hot Mix Asphalt
(Hot Mix Asphalt)

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Binder Content</td>
<td>CTM 382, AASHTO T308</td>
<td>1 per 750 tons or part thereof but not less than 1 per day during production</td>
<td></td>
</tr>
<tr>
<td>HMA Moisture Content</td>
<td>CTM 370, AASHTO T329</td>
<td>1 per 2500 tons but not less than 1 per day during production</td>
<td></td>
</tr>
<tr>
<td>Air Voids Content</td>
<td>CTM 367, AASHTO T269</td>
<td>1 per 4000 tons but not less than 1 per day during production</td>
<td></td>
</tr>
<tr>
<td>Voids in mineral aggregate</td>
<td>LP-2, SP-2</td>
<td>1 per 10,000 tons or 2 per project whichever is greater</td>
<td>Loose Mix Per CTM 125</td>
</tr>
<tr>
<td>Dust proportion</td>
<td>LP-4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voids Filled with Asphalt</td>
<td>LP-3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stabilometer Value &amp; Bulk Density</td>
<td>CTM 366, 308</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Compaction Density of Core</td>
<td>CTM 308, AASHTO T166/T275</td>
<td>3 cores per project</td>
<td>Random Locations per CTM 375</td>
</tr>
<tr>
<td>Percent Compaction Nuclear Gage</td>
<td>CTM 375, AASHTO T209</td>
<td>1 test per 250 Tons</td>
<td>Random Locations per CTM 375</td>
</tr>
<tr>
<td>Maximum Theoretical Density (Rice)</td>
<td>CTM 309, AASHTO T209</td>
<td>1 per 750 tons</td>
<td>Loose Mix Per CTM 125</td>
</tr>
</tbody>
</table>

When paving done utilizing section 39-1.03 (2010 Standard Specifications)
## Acceptance Sampling and Testing Frequencies

### Aggregate Base

(Class II)

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Gradation</td>
<td>CTM 202 / AASHTO/D422</td>
<td>Minimum of 1 test per 2,500 tons or portion of</td>
<td>Sample from source or on-site material in accordance with CTM 125</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>T176 / D2419</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durability Index</td>
<td>T210 / D3744</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-value</td>
<td>D2844</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compaction Curve / Impact Curve</td>
<td>216 D1557</td>
<td>1 sample for every 500 to 1,000 cy or change in material or as required by Project Engineer</td>
<td>Sample from import source or on-site material in accordance with CTM 125</td>
</tr>
<tr>
<td>Field In-Place Density/Moisture Testing</td>
<td>231 D1557</td>
<td>Minimum of 1 test per 1,000 square yards</td>
<td>Random test locations in accordance with CTM 231 or as required by project Engineer</td>
</tr>
</tbody>
</table>
## Acceptance Sampling and Testing Frequencies

### Micro-Surfacing Aggregate

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Gradation</td>
<td>CTM 202</td>
<td>T27 / D422</td>
<td>Minimum of 1 sample per project or source</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>AASHTO 217</td>
<td>T176 / D2419</td>
<td>Sample from source or on-site material in accordance with CTM 125</td>
</tr>
<tr>
<td>Durability Index</td>
<td>CTM 229</td>
<td>T210 / D3744</td>
<td>Minimum of 1 sample per project or source</td>
</tr>
<tr>
<td>Percentage of crushed particles (min, %)</td>
<td>CTM 205</td>
<td>---</td>
<td>Sample from source or on-site material in accordance with CTM 125</td>
</tr>
</tbody>
</table>

### Slurry Aggregate

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Gradation</td>
<td>CTM 202</td>
<td>T11</td>
<td>Minimum of 1 sample per project or source</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>AASHTO 217</td>
<td>T176</td>
<td>At Plant Per CTM 125</td>
</tr>
</tbody>
</table>

### Soil Subgrade

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gradation</td>
<td>CTM 202</td>
<td>T27 / D422</td>
<td>Sample from import source or on-site material in accordance with CTM 125</td>
</tr>
<tr>
<td>R-value</td>
<td>AASHTO 301</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compaction Curve / Impact Curve</td>
<td>CTM 216</td>
<td>D1557</td>
<td>Sample from import source or on-site material in accordance with CTM 125</td>
</tr>
<tr>
<td>Field In-Place Density/Moisture Content Testing</td>
<td>AASHTO 231</td>
<td>D6938</td>
<td>Random test locations in accordance with CTM 231 or as required by project Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Acceptance Sampling and Testing Frequencies

Structural Concrete
(aggregates / fresh mixed concrete)

<table>
<thead>
<tr>
<th>Quality Characteristic</th>
<th>Test Method</th>
<th>Minimum Sampling and Testing Frequency</th>
<th>Location of Sampling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CTM</td>
<td>AASHTO</td>
<td></td>
</tr>
<tr>
<td>Aggregate Gradation</td>
<td>202</td>
<td>T27</td>
<td></td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>217</td>
<td>T176</td>
<td></td>
</tr>
<tr>
<td>Cleanness</td>
<td>227</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>556</td>
<td></td>
<td>1 test per project for gradation, sand equivalent and cleanness, 1 test per 150 cubic yards or 1 days pour for remaining tests.</td>
</tr>
<tr>
<td>Slump</td>
<td>504</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Content</td>
<td>518</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Weight</td>
<td>557</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>521</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compressive Strength</td>
<td>556</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Minor Concrete
(aggregates / fresh mixed concrete)

Minor Concrete will be accepted upon Certificate of Compliance. At Agency’s discretion, Agency may require cylinder testing depending on the location minor concrete.
ATTACHMENT 2

Source Inspection Request
SAMPLE COVER MEMO
SOURCE INSPECTION REQUEST
FROM LOCAL AGENCY to
CALTRANS’ DISTRICT LOCAL ASSISTANCE ENGINEER
(Prepared By Applicant On Applicant Letterhead)

To: (name)  
Caltrans’ District Local Assistance Engineer  
Caltrans’ Local Assistance Office  
(district office address)

Date: ______________________

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 3

Materials Accepted on Basis of Certificate of Compliance
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 4

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

**No. 583408**

**STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION**

**VENDOR'S CERTIFICATE OF COMPLIANCE**

MR-0548 (REV. 5/02) PCT-761-020-2

PRECAST CONCRETE PRODUCTS  SOUNDOWall

**TO:**

BILL SYNDER

**RESIDENT ENGINEER - CITY OF FLATLAND**

We certify that the Portland cement, chemical and mineral admixtures contained in the material described below are in compliance with specifications for:

**CONTRACT NUMBER:**

**Cement Brand:** XYZ CEMENT CO.  **Type:** MODIFIED

**Mill Location:** MIDLAND, CALIFORNIA

**Chemical Admixture:**

- **Brand:** ABC ADHESIVE  **Manufacturer:** XYZ SUPPLIER
- **Type:** WATER REDUCER

**Mineral Admixture:**

- **Manufacturer:** PBZ Inc.  **Class:** F

**Delivery Date:** 9/14/07  **Dates of Fabrication:**

- **Portland Cement:**
  - Fly ash
  - Water Reducer

**Manufacturer of Concrete Products:**

A.E.B. READY MIX

**Authorized Representative Signature:**

JOE ANDERSON

**F1-3 1593**  **Original in Box Eng. Sealed Reissue.**

**OSP 01 88884**
Appendix J.2 - Example of a Certificate of Compliance for Portland Cement (continued)

This is to certify that the

Portland Cement

Supplied by ABC Cement Company complies with all requirements for Type II Portland Cement when tested in accordance with ASTM C - 494.

Local Agency Project No.  HP21L - 5055 - 111

Albert Howakowa
Quality Assurance Engineer
ABC Cement Company

Date: 07/07/07
ATTACHMENT 5

Example Materials Certification
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.

☑ 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    Bill Sanders    7/7/07
Resident Engineer (Print Name)    Resident 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)**

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>Description of Work</th>
<th>Total Tests Performed On the Project</th>
<th>Number of Failed Tests</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slump Test</td>
<td>Concrete Sidewalk</td>
<td>8</td>
<td>1</td>
<td>When the measured slump exceeded the maximum limit, the entire concrete load was rejected.</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>Aggregate for Structural Concrete</td>
<td>10</td>
<td>1</td>
<td>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.</td>
</tr>
<tr>
<td>Compaction</td>
<td>Sub grade Material</td>
<td>12</td>
<td>1</td>
<td>One failed test was noted. The failed area was watered and reworked. When this was completed, a retest was performed. The retest was acceptable.</td>
</tr>
<tr>
<td>Compaction</td>
<td>Hot Mix Asphalt</td>
<td>12</td>
<td>1</td>
<td>One failed area was noted. It was reworked and retested. The second test met specifications.</td>
</tr>
</tbody>
</table>

Bill Sanders

Resident Engineer (Print Name)  
Bill Sanders

Resident Engineer (Signature)  
July 4, 2007

Date
ATTACHMENT 6

Sample “Log Summary”
Appendix H - Example of a Log Summary Sheet

### Subgrade Materials

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

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.*

### Aggregates and Base Materials

<table>
<thead>
<tr>
<th>Date</th>
<th>CT</th>
<th>Station</th>
<th>Elevation</th>
<th>Test Results</th>
<th>Minimum Spec.</th>
<th>Passed or Failed</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/20/07</td>
<td>202</td>
<td>1+ 00 (10' R)</td>
<td>102.50</td>
<td>See data sheet</td>
<td>See data sheet</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/20/07</td>
<td>202</td>
<td>2+ 00 (20' L)</td>
<td>102.50</td>
<td>See data sheet</td>
<td>See data sheet</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/22/07</td>
<td>217</td>
<td>1+ 00 (10' R)</td>
<td>102.50</td>
<td>75</td>
<td>25 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/22/07</td>
<td>217</td>
<td>2+ 00 (20' L)</td>
<td>102.50</td>
<td>83</td>
<td>25 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/20/07</td>
<td>227</td>
<td>1+ 00 (20' R)</td>
<td>102.50</td>
<td>86</td>
<td>71 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/20/07</td>
<td>227</td>
<td>1+ 50 (20' L)</td>
<td>102.50</td>
<td>85</td>
<td>71 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/24/07</td>
<td>231</td>
<td>2+ 00 (20' R)</td>
<td>102.50</td>
<td>98</td>
<td>95 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>6/24/07</td>
<td>231</td>
<td>2+ 50 (20' L)</td>
<td>102.50</td>
<td>97</td>
<td>95 or greater</td>
<td>Passed</td>
<td>N/A</td>
</tr>
</tbody>
</table>

CT 202 = Sieve Analysis,  CT 217 = Sand Equivalent,  CT 227 = Cleanness Value,  CT 231 = Compaction (Nuclear Gage)
Appendix H (continued)

Hot Mix Asphalt

<table>
<thead>
<tr>
<th>Date</th>
<th>CT</th>
<th>Station</th>
<th>Elevation</th>
<th>Test Results</th>
<th>Minimum Spec.</th>
<th>Passed or Failed</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/10/07</td>
<td>339</td>
<td>1+ 00</td>
<td>103.00</td>
<td>0.08 gal/sq yd</td>
<td>0.05 - 0.10 gal/sq yd</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>7/10/07</td>
<td>366</td>
<td>2+ 00</td>
<td>103.00</td>
<td>32</td>
<td>&gt;23</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>7/10/07</td>
<td>366</td>
<td>1+ 00</td>
<td>103.00</td>
<td>41</td>
<td>&gt;23</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>7/10/07</td>
<td>375</td>
<td>2+ 00</td>
<td>103.00</td>
<td>94</td>
<td>RC = 93 to 97</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>7/15/07</td>
<td>375</td>
<td>1+ 00</td>
<td>103.00</td>
<td>96</td>
<td>RC = 93 to 97</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>7/15/07</td>
<td>375</td>
<td>1+ 50</td>
<td>103.00</td>
<td>95</td>
<td>RC = 93 to 97</td>
<td>Passed</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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

Portland Cement Concrete

<table>
<thead>
<tr>
<th>Date</th>
<th>CT</th>
<th>Station</th>
<th>Elevation</th>
<th>Test Results</th>
<th>Minimum Spec.</th>
<th>Passed or Failed</th>
<th>Action Taken</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/25/07</td>
<td>504</td>
<td>10 + 50</td>
<td>102.50</td>
<td>6.5%</td>
<td>&gt;6.0%</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>9/25/07</td>
<td>533</td>
<td>12 + 50</td>
<td>102.50</td>
<td>1.5”</td>
<td>&lt;2”</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>9/25/07</td>
<td>518</td>
<td>11 + 50</td>
<td>102.50</td>
<td>151 lb/cu ft</td>
<td>&gt; 145 lb/cu ft</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>9/25/07</td>
<td>521</td>
<td>10 + 50</td>
<td>102.50</td>
<td>28 day = 4200 psi</td>
<td>&gt;3800 psi</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>9/28/07</td>
<td>521</td>
<td>11 + 50</td>
<td>102.50</td>
<td>28 day = 4290 psi</td>
<td>&gt;3800 psi</td>
<td>Passed</td>
<td>N/A</td>
</tr>
<tr>
<td>9/30/07</td>
<td>521</td>
<td>12 + 50</td>
<td>102.50</td>
<td>28 day = 4160 psi</td>
<td>&gt;3800 psi</td>
<td>Passed</td>
<td>N/A</td>
</tr>
</tbody>
</table>

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