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# COUNTY OF RIVERSIDE

## TRANSPORTATION AND LAND MANAGEMENT AGENCY

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### Transportation Department

**TO:** Land Development Community

**FROM:** Construction Division - Inspection Section

**RE:** Supplement to the Requirements to Construct and Finalize a Tract or Parcel Map

**Date:** June 27, 2018

Reference:

1. Letter to Land Development Community, Re: Requirements to Construct and Finalize a Tract or Parcel Map, dated June 13, 2018.

Below provides a summary of the general procedures of the Asphalt Concrete (AC) and Portland Cement Concrete (PCC) acceptance requirements pertaining to the paving, concrete structures, and other road related construction within a subdivision in the unincorporated areas of Riverside County.

1. Construction materials, materials testing, and materials acceptance shall be in accordance with the County Ordinance 461, latest version of Caltrans Standard Specifications, Caltrans Construction Manual, Department's Quality Assurance Program, and applicable published standard methods, such as, Standard Specifications for Public Works Construction (The "Greenbook").
2. **Asphalt Concrete:**
  - a. Mix Design. Asphalt concrete mix design is reviewed and approved by the Department's Materials Lab. A plant certification, such as California Test Method (CTM) 109 or Material Plant Quality Program (MPQP), and a mix design shall be submitted by the AC producer. When multiple producers are used, a separate mix design for each producer shall be submitted for approval. When there is a change in the material's source, i.e., asphalt binder and/or aggregate, a new mix design must be submitted for approval.
  - b. Inspection. A County construction inspector performs the inspection to assure the asphalt concrete meets specifications and ensure the material is placed in accordance with the approved plans. During placement, certified weight tickets showing the approved mix design number are collected from each AC truck assuring the approved material is delivered to the project site.
  - c. Sampling & Testing. A County materials lab technician collects samples at the plant and in the field (behind the paver). The collected samples are tested for quality characteristics for assuring conformance with the approved mix design. A set of samples will comprise the individual components and the complete mixture specified in the mix design including, but not limited to:
    - (i) Coarse aggregates collected at the plant

- (ii) Fine aggregates collected at the plant
  - (iii) Asphalt Binder at the plant
  - (iv) Asphalt concrete mix (loose) collected behind the paver
- d. Frequency of Testing. A set of samples may represent no more than 750 tons of AC placed. When the AC quantity is less than 750 tons but more than 200 tons, one set of samples is required per day. When the AC quantity is 200 tons or less, no sampling is required.

**3. Portland Cement Concrete:**

- a. Mix Design. Portland cement concrete mix design is reviewed and approved by the Department's Materials Lab. A plant certification, such as California Test Method (CTM) 109 or Material Plant Quality Program (MPQP), and a mix design shall be submitted by the PCC producer. When multiple producers are used, separate mix design for each producer shall be submitted for approval. When there is a change in the material's source, i.e., Portland cement and/or aggregate, a new mix design must be submitted for approval.
- b. Inspection. A County construction inspector performs the inspection to assure the Portland cement concrete meets specification and ensure the material is placed in accordance with the approved plans. During placement, certified weight tickets showing the approved mix design number are collected from each PCC trucks assuring the approved material is delivered to the project site.
- c. Sampling & Testing. A County materials lab technician collects samples at the plant and in the field (point of discharge). The collected samples are tested for quality characteristics for assuring conformance with the approved mix design. A set of samples will comprise the individual components and the complete mixture specified in the mix design including, but not limited to:
  - (i) Coarse aggregates collected at the plant
  - (ii) Fine aggregates collected at the plant
  - (iii) Portland cement concrete mix at the point of discharge
- d. Frequency of Testing. A set of samples may represent no more than 500 cubic yards (cy) of PCC placed. When the PCC quantity is less than 500 cy but more than 200 cy, one set of samples is required per day. When the PCC quantity is 200 cy or less, no sampling is required. When the cementitious content of the PCC is 590 pounds per cubic yard (pcy) or greater, a minimum of one set of samples is required per day.

**4. Slurry Seal:**

- a. Mix Design. Slurry seal mix design is reviewed and approved by the Department's Materials Lab.
- b. Inspection. A County construction inspector performs the inspection of the slurry seal placement in accordance with International Slurry Surfacing Association (ISSA) guidelines and applicable local and state standards.
- c. Testing. Spread rate is determined in the field by the Contractor and in the presence of a County construction inspector.
- d. Frequency of Testing. The Contractor performs a minimum of 2 tests per day or at the direction of the County construction inspector.

**5. Reduction in Materials Acceptance Testing:**

When prior test results are acceptable and are no more than 6 months old, a maximum of 2 tests per day will satisfy acceptance test requirements for the asphalt concrete and Portland cement concrete. Adjustments to testing frequencies shall be documented in the project files.

**6. Testing by Developer’s Private Consultant:**

The Developer has the option to perform the testing requirements listed in items 2(c) and 3(c) and the respective sampling frequencies in items 2(d) and 3(d). If the Developer opts to perform the testing, the Developer or Developer’s Private Consultant shall notify the Construction Inspection Section office three (3) working days prior to start of testing in order to witness the sampling procedures. Upon completing the placement of asphalt and/or Portland cement concrete work, the Developer’s Private Consultant shall submit a complete sampling and testing report to the County for approval. All reports shall be signed and stamped by a Registered Civil Engineer or a Registered Geotechnical Engineer. The table below summarizes the testing frequency requirements for materials acceptance. When testing frequencies are adjusted because of prior acceptable test results and as indicated in item 5, any adjustment must be documented through a “Memo to File.” The “Memo to File” will be included with the sampling and testing report submitted to the County.

| <b>Testing Frequency for Asphalt Concrete</b> |                           |
|---|---------------------------|
| Quantity                                      | Frequency                 |
| 750 tons or greater                           | minimum 2 samples per day |
| more than 200 but less than 750 tons          | 1 sample per day          |
| 200 tons or less                              | no sample required        |

| <b>Testing Frequency for Portland Cement Concrete</b> |                           |
|---|---------------------------|
| Quantity  | Frequency                 |
| 500 cy or greater                                     | minimum 2 samples per day |
| more than 200 but less than 500 cy                    | 1 sample per day          |
| 200 cy or less  | no sample required        |
| cementitious content is 590 pcy or greater            | minimum 1 sample per day  |