

QUALITY ASSURANCE REVIEW CHECKLIST

COR 303 CEMENT TREATED PERMEABLE BASE COURSE (CTPBC)

0.00 ECMTS -- POM & PUB 10X APPENDIX T -- Environmental commitments and mitigation activities ensured to be completed and the Environmental Commitments and Mitigation Tracking System (ECMTS) Construction Tracking Signature Sheet current, properly completed, and on file.

- A. Project personnel have a thorough understanding of the project's environmental commitment responsibilities and clearly know their role in fulfilling those responsibilities. (POM B/4/8-1)
- B. Changes to contract work that involve previously undisturbed areas, are outside of the original project area, may potentially affect an environmental resource (i.e., wetlands, parks, historic resources, etc.) have been submitted to the District Environmental Unit for review before the contractor is authorized to begin work. (POM B/3/1-29)
- C. Inspection staff notified the contractor if mitigation measures are not being completed in the required sequence. (Pub 10X - Appendix T-9)
- D. Inspection staff verified the contractor completed mitigation activities by maintaining the ECMTS Construction Tracking Signature Sheet. (Pub 10X - Appendix T-11)

1.00 CERTIFICATIONS -- SECTION 106.03(b)3 -- All certifications for materials incorporated in this operation properly completed and on file.

- A. Certification for CTPBC on CS-4171 for each day's shipment.
- B. All materials received from an approved Bulletin 15, 14 or 42 supplier or by LTS testing.

2.00 PROJECT OFFICE DOCUMENTATION -- POM & SECTIONS 106 & 303 -- Documentation applicable to this operation current, properly completed, and on file.

- A. Source of supply letter approved by the District. [Sect. 106.02(a)]
- B. No material has been paid for without certification. [Sect. 106.03(b)3]
- C. Approved mix design is on file. [Sect. 303.2(e)]
- D. Source documents and I/E book properly completed. (POM B/1/4-1)

3.00 TEST DOCUMENTATION/FREQUENCY -- POM, PTM & SECTION 303 -- All testing properly documented and performed at the proper frequency.

- A. One test for depth for each 3,000 square yards or less of material placed. [Sect. 303.3(j)]
- B. Test locations determined using PTM 1.
- C. Disposition of rejected material documented. (POM B/6/2-1)

4.00 STAFFING -- Project adequately staffed. Inspectors and contractor supervisory personnel are knowledgeable of specification requirements.

- A. Department inspection.
- B. Consultant inspection.
- C. Contractor supervision.

5.00 SAFETY -- SECTION 107.08 AND OSHA 1926 -- Operation conducted in a safe manner.

- A. All personnel acting in a safe manner. [Sect. 107.08]
- B. All personnel wearing proper safety attire. [Sect. 107.08]
- C. Working conditions safe. [Sect. 107.08]
- D. Equipment operated in a safe manner.
- E. Contractor safety plan on file. [Sect. 107.08]
- F. Material safety data sheets on file. (OSHA 1926.59)

6.00 SUBBASE CONDITION -- SECTION 303 -- Subbase in satisfactory condition prior to CTPBC placement.

- A. CTPBC not placed on unstable or frozen subbase. [Sects. 303.3(b) & 501.3(b)1]
- B. The rubblized pavement/subbase was thoroughly sprinkled with as much water as it readily absorbs well in advance of CTPBC placement, if necessary to ensure a moist condition. [Sect. 303.3(d)]

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7.00 EQUIPMENT -- SECTION 303.3(e) -- Equipment used of the proper type, condition, and quantity.

- A. An approved asphalt paver or mechanical spreader, equipped with screed, plate vibrator, track-lines that operate outside the freshly placed CTPBC, and fully automated sensors to control profile and transverse grade was used.
- B. Compaction equipment is steel wheel power rollers with certified metal weight of 8 tons to 10 tons.

8.00 PLACEMENT -- SECTION 303.3(e) -- CTPBC material properly placed.

- A. CTPBC placed using an approved asphalt paver or mechanical spreader, equipped with screed.
- B. CTPBC operations discontinued when the descending air temperature, away from artificial heat, fell to 40F, unless otherwise permitted in writing. [Sect. 303.3(b) & 501.3(b)1]
- C. Operations were not resumed until the air temperature, away from artificial heat, rose above 40F. [Sect. 303.3(b) & 501.3(b)1]
- D. Compaction was complete in 1 hour from the time the water was added to the aggregate and cement unless a retarding admixture was used and the time was extended to 1 1/2 hours.

9.00 COMPACTION AND DENSITY -- SECTION 303.3(e) -- Determination of in place density and compaction procedures were satisfactory.

- A. Compaction of the CTPBC performed using steel-wheel power rollers in the static mode.
- B. A minimum of one pass with the roller was used to achieve compaction and CTPBC was not compacted to the point that the material is not free draining or the aggregate is crushed.
- C. One roller pass is defined as one trip of the roller in one direction over any one spot. Handwork performed as directed.
- D. Freshly placed CTPBC not disturbed after placement.

10.00 SURFACE TOLERANCE -- SECTION 303.3(f) -- Surface tolerance properly controlled.

- A. Surface tolerances are checked using a 10-foot straightedge every 5 feet.
- B. Surface tolerances are checked at transverse joints and paving notches.
- C. Irregularities of more than 1/2 inch are being corrected.

11.00 CURING -- SECTION 303.3(g) -- CTPBC was properly cured.

- A. CTPBC cured with white membrane forming curing compound or white polyethylene sheeting material immediately following compaction.
- B. Curing compound applied at a rate of 1 gallon per 100 SF \pm 10% of surface area.
- C. CTPBC cured for 24 consecutive hours.
- D. CTPBC cured for an additional day if the CTPBC temperature fell below 40F during the 24-hour curing period.
- E. If the temperature dropped below 32F within 72 hours of placement, the CTPBC was removed and replaced at no cost to the Department.

12.00 DEPTH TESTS -- SECTION 303.3(j) -- Depth of completed CTPBC checked properly.

- A. Test holes for depth are being performed for every 3,000 square yards.
- B. Where the depth was determined to be defective the defective limits were defined by digging or drilling additional test holes longitudinally and transversely until the depth meets requirements.
- C. Test holes backfilled with CTPBC mixture.

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13.00 PROTECTION OF COURSES -- SECTIONS 303.3(h) AND 105.13 -- CTPBC was properly protected from traffic.

- A. Construction traffic was not allowed on the CTPBC for at least 3 days after the CTPBC had been placed. [Sect. 303.3(h)]
- B. After 3-day period, construction traffic restricted to allow only trucks and equipment required to place the next layer or any adjacent CTPBC lift or pavement course. [Sect. 303.3(h)]
- C. Damaged or contaminated areas removed and replaced at no cost to the Department. [Sect. 303.3(h)]

14.00 PROTECTION AGAINST RAIN – SECTIONS 303.3(i) AND 501.3(r) -- CTPBC was properly protected from rain.

- A. Material provided on site, at all times, to properly protect the pavement edges and surface against rain, before initial set of concrete. [Sect. 303.3(i) & 501.3(r)]
- B. If rain appears imminent, stop paving operations, immediately protect the pavement sides, and cover the CTPBC surface with protective material. [Sect. 303.3(i) & 501.3(r)]

15.00 DEFECTIVE WORK -- SECTION 303.3(k) -- CTPBC properly evaluated for defective work.

- A. CTPBC determined to be defective when the depth was deficient by 1/2 inch or more. [Sect. 303.3(k)]
- B. Defective CTPBC removed and replaced at no additional cost to the Department unless otherwise directed in writing by the District Executive.
- C. Plan submitted with proposed methods to remove and replace the CTPBC to the Representative.
- D. The CTPBC removed and replaced after approval of the plan.