QC-5 Rev. *Rev. 12 / 2013*

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DAILY CORE LOCATION & LOT SUMMARY

PROJECT NO. [2] MAP / RT. NO. [3] CONTRACTOR: [4] DATE PLACED: [1]

BASE TYPE: [6] LANE DESC.: [7] BASELINE: [8] PLANT LOCATION: [5]

TYPE MIX: [9] JMF NO.: [10] RES. ENGR. : [11]

CORE #	TEST SECTION			RANDOM #		RAND # x LENG. / WIDTH		TEST SECTION	CORE LOCATION			
	Test Section No.	Length (A)	Width (B)	Length (C)	Width (D)	Length (E = A X C)	Width (F = B X D)	BEGINNING STATION # (G)	Station (G + E)	Dist. From Baseline (F)	CORES SAMPLE THICKNESS	PERCENT COMPACTION
[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]

Lot Average ---> [25]

CONSTRUCTION TYPE: "New" [ ] "Other" [ ] [31]

THE "NEW" CONSTRUCTION CATEGORY WILL BE DEFINED AS PAVEMENTS EXCLUSIVE OF IRREGULAR AREAS MEETING ALL THREE OF THE FOLLOWING CRITERIA:

1.) PAVEMENT PLACED ON A NEW AGGREGATE OR SOIL BASE COMPACTED TO THE SPECIFIED DENSITY OR PAVEMENT PLACED ON A NEW ASPHALT MIX LAYER (EXCLUDING WEDGING LEVELING)
2.) PAVEMENT WHICH IS WITHIN A DESIGNATED TRAVEL LANE OF THE FINAL TRAFFIC PATTERN; AND
3.) PAVEMENT WHICH IS 4.0 FEET OR WIDER.

AS AN EXCEPTION, WHEN THE FIRST LAYER OF MIX IS PLACED ON AN UNPRIMED AGGREGATE BASE AND IS 2.0 INCHES OR LESS IN THICKNESS, THE LAYER WILL BE INCLUDED IN THE "OTHER" CONSTRUCTION CATEGORY.

THE "OTHER" CONSTRUCTION CATEGORY WILL INCLUDE ALL PAVEMENT EXCEPT AS DESCRIBED ABOVE AND ALSO ALL S 4.75 MIX TYPES.

[27]
**PRINT CERTIFIED QC ROADWAY TECHNICIAN'S NAME /W HiCAMS #

[28]
**CERTIFIED QC ROADWAY TECHNICIAN'S SIGNATURE

[29]
**PRINT CERTIFIED QC LAB TECHNICIAN'S NAME /W HiCAMS #

[30]
**CERTIFIED QC LAB TECHNICIAN'S SIGNATURE

[26] Passes

[26-A] Fails

**NOTE: BY PROVIDING THIS DATA UNDER MY SIGNATURE AND / OR HiCAMS CERTIFICATION NUMBER, I ATTEST TO THE ACCURACY AND VALIDITY OF THE DATA CONTAINED ON THIS FORM AND CERTIFY THAT NO DELIBERATE MISREPRESENTATION OF TEST RESULTS, IN ANY MANNER, HAS OCCURRED.

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DAILY CORE SAMPLE LOCATION AND LOT SUMMARY

GENERAL NOTE: Only results for one density acceptance lot shall be shown on each QC-5 form. "New" and "Other" construction, separate paving operations, different map numbers, different layers of same mix, and core sample control strips constitute separate lots therefore must be shown on separate QC-5 forms. This form shall be initiated by the Contractor's certified QC Roadway Technician or certified Density Gauge Operator by completing blanks numbered 1-22 & 31 at the roadway paving site. The QC core samples and Form QC-5 will be taken to the appropriate QC Lab by QC personnel. When compaction results have been determined, the QC Plant Technician will complete lines 23 - 26A & 29 - 30. QC should maintain a copy for a minimum of three years. The original is returned to the DOT's Roadway Technician as soon as test results are known by the QC Lab Technician. The DOT's Roadway Technician will attach the form to that day's daily roadway report (M&T 605) and forward to the Resident Engineer.

1. Date pavement was placed and compacted.
2. Prime project number from which density core samples were taken.
3. Map or route number mix on which mix is placed; i.e., Map No. 13, SR 1440, etc.
4. Name of Contractor placing and compacting pavement.
5. Location of the asphalt plant producing the mix.
6. Type of base on which asphalt layer is being placed; i.e., existing pavement, ABC, new asphalt layer, subgrade, milled pavement, etc.
7. Location of lane being paved, i.e., Rt. NBL, Lt. EBL, Lt -Y 2-, Rt. Detour 1, etc.
8. Reference base line for use in determining transverse location of density core samples; i.e., Rt. E.P., Centerline E.P., etc.
9. Type mix from which density samples are taken; i.e., S 4.75A, S 9.5B, I 19.0B, etc. Only density samples for one density lot and type mix should be recorded on the QC-5 Form.
10. Job Mix Formula number for mix type being placed and compacted.
11. Name of Project Engineer assigned to contract on which mix is being placed.
12. Sequential core sample nos. per mix type per day assigned by QC Roadway Technician.
    a. QC core samples will have a sequential series of numbers; i.e., 1,2,3,4, etc. These sequential numbers restart each day core samples are taken. If a 2nd paving operation of the same mix type on the same contract occurs on the same day, those QC cores shall be numbered consecutively also except have an "A" suffix ; i.e., 1A, 2A, 3A, 4A, etc.
    b. QC control strip core samples will have a sequential base number with the suffix "QC:" i.e., 1QC, 2QC, 3QC, 4QC, 5QC, etc., for Control Strip No. 1. These sequential numbers will be consecutive for each type mix throughout the life of a contract, i.e., control strip No. 2, 6QC, 7QC, 8QC, 10 QC, etc.
    c. QC check core samples will use the same base numbers of the original core samples being checked except it will have the suffix "C" with a subscript of 1, 2 , 3, i.e., check samples for QC sample no. 4 would be 4C1, 4C2, 4C3.
13. Sequential test section nos. by mix type assigned by Contractor's Roadway Technician.
    a. 2000 L.F. or fraction thereof per day of pavement placed to be numbered as test sections.
    b. QC test sections will have a sequential series of numbers each day; i.e., 1,2,3,4.
    c. These sequential numbers will start over each day pavement is placed.
14. Actual length of density test section. Normally test sections are 2000 L.F. unless a partial test section occurs. Pavement less than 2000 L.F. placed in a day or less than 2000 L.F. left over at the end of the day's paving will constitute partial test sections. If the fraction of a test section remaining at the end of a day is less than 100 linear feet, it is recommended that the density be represented by the results of the previous section provided approved compaction equipment and procedures are used. All pavement placed which is 2000 feet shall be tested as full test sections and should not be divided into lesser lengths unless pre-approved by the Engineer.
15. Actual width of compacted pavement; i.e, 12', 10', 4', etc.
16. Random number used to compute length from beginning of the test section. This random number comes from the random numbers tables in Section 10 of this manual
17. Random number used to compute distance from reference base line to sample location. This random number comes from the random numbers tables in Section 10 of this manual
18. Random number times test section length. (Column A times Column C)
19. Random number times lane width. (Column B Times Column D)
20. Beginning station number of each test section

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DAILY CORE SAMPLE LOCATION AND LOT SUMMARY
(continued)

21. Actual station that core will be placed (Column E length plus Column G station no.).
22. Distance over from reference baseline to core sample location (Transfer from Column F).
23. Average core sample thickness measured to the nearest 1/16" (Measured by Contractor's QC plant technician).
24. Actual percent compaction of core samples to the nearest 0.1% (Transferred from the QA/QC-5 form by the Contractor's QC plant technician).
25. Average of all the test sections within this one lot (Shown to the nearest 0.1%).
26. Mark "X" if lot passes (If the average for the lot meets the minimum density requirement for this mix type, the lot passes).

26A. Mark "X" if lot fails (If the average for the lot does not meet the minimum density requirement for this mix type, the lot fails).

27. Printed name and HiCAMS certification number of any certified QMS Technician initiating form.
28. Signature of any technician initiating form, certifying that all data entered in columns 1 - 22 on the form is true and correct.
29. Printed name & HiCAMS certification number of certified QC plant technician completing form.
30. Signature of the Certified Level I Plant technician completing form, certifying that all data entered in columns 23 - 26A on the form is true and correct.
31. Mark “X” in the appropriate block for “NEW” or “OTHER”. To qualify as "NEW" construction, the pavement placed must meet all three of the requirements listed above these blocks. If it fails to meet any of these three requirements, it will then be considered in the "OTHER" category.