

CONTRACTOR'S SUBMITTAL TRANSMITTAL

5ND LANTDIV 4-4355/3 (Rev. 6/76)

File

CONTRACT NO. 81-C-1766		TRANSMITTAL NO. 14	ROUTING ORDER 33 JUN 83
FROM CONTRACTOR Trader Construction Company		PROJECT TITLE AND LOCATION Public Works & Helipad	
TO Lockwood Greene/Six Associates		MCB Camp Lejeune, N.C.	

CONTRACTOR USE ONLY

*List only one specification division per form.

List only one of the following categories on each transmittal form, and indicate which is being submitted

- Contractor Approved
 OICC Approval
 Deviation/Substitution For OICC Approval

REVIEWER USE ONLY

- 4 **ACTION CODES
 5 A-Approved
 5 D-Disapproved
 6 AN-Approved as noted
 6 RA-Receipt acknowledged.
 7 C-Comments
 7 R-Resubmit

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES	REVIEWER'S INITIALS
115	02680 1.2.1	Asphalts & Asphalt Cement, Certificates of Analysis & Lab Reports AC-20	8	A	CCM 7-6-83
	02680 1.2.1	Bituminous Prime Coat, RC-30 Lab Reports	8	A	CCM 7-6-83
	02680 1.2.2	Job Mix Formular I-2	8	A	CCM 7-6-83
	02680 1.2.2	78M Stone Certification for I-2 Mix	8	A	CCM 7-6-83

RETURN TO: [Signature]

CONTRACTOR'S COMMENTS

Cover - Full 7-15-83

COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC: ROICC, Camp Lejeune, N.C.

CONTRACTOR REPRESENTATIVE (Signature): *John Mayo*

DATE RECEIVED BY REVIEWER: *6/29/83* FROM (Reviewer): *Six Associates* TO: *Trader Const Co.*

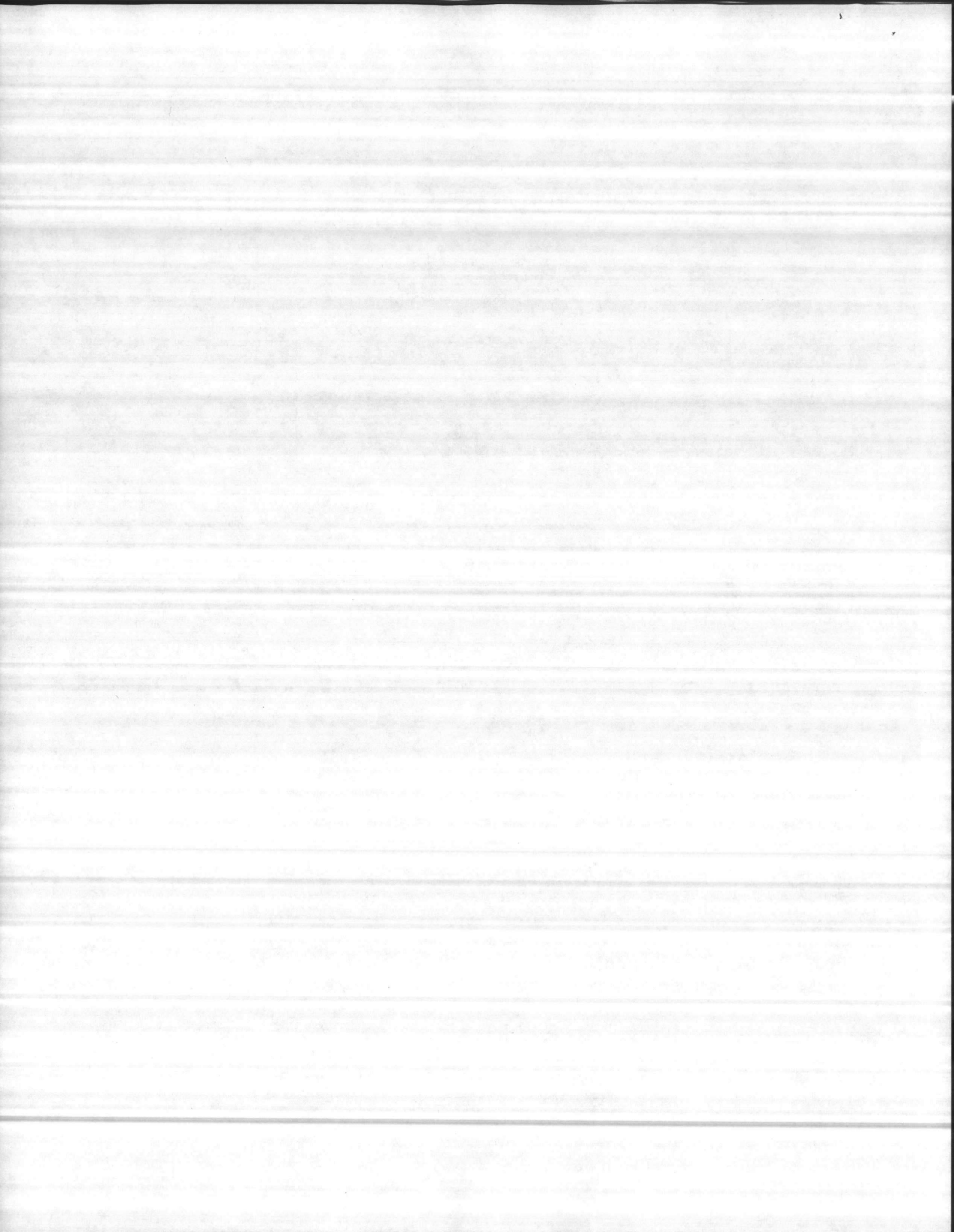
- Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.
- Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on ONE COPY of the transmittal form.

REVIEWER'S COMMENTS



COPIES TO: ROICC (2) LANTDIV (1) A-E (1)

DATE: *7-6-83* SIGNATURE: *Clay Moorey*





Asphalt Associates, Inc.

RICHARD B. LEWIS
HARRY SARGEANT

PAUL FRISCHKORN
R. D. CURRY

June 3, 1983

"It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into Contract Number N62470-81-C-1766 in compliance with the Contract drawings and specifications, can be installed in the allocated spaces, and is submitted Government approval.

CERTIFICATE OF ANALYSIS

Certified by [Signature]
Date 23 Jun 83

TO WHOM IT MAY CONCERN:

Re: Project N62470-81-B-1766
Public Works Bldg., Helipad and Landscaping
Naval Regional Medical Center
Camp LeJeune, North Carolina

This is to certify that the Asphalt Cement Grade AC-20, furnished to Barrus Construction Company for use on the subject project will meet the requirements and/or specifications of AASHO M-226-78.

Very truly yours,

[Signature]
R. D. Curry
District Sales Manager

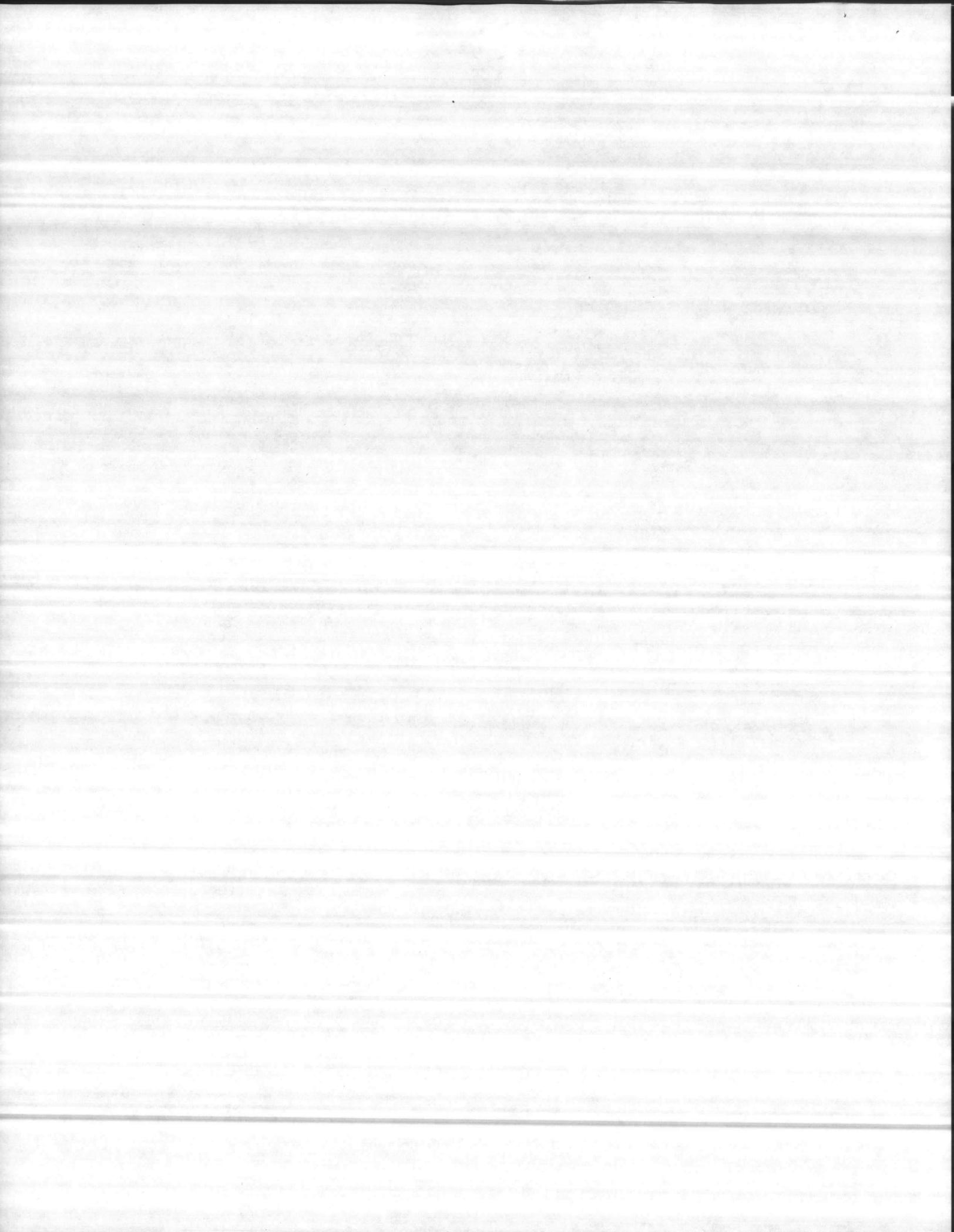
State of Florida
County of Broward

This is to certify that R. D. Curry, known to me personally, appeared before me and signed this document.

[Signature]
Notary Public

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXPIRES OCT 24 1986
BONDED THRU GENERAL INSURANCE UND

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	
APPROVED <input checked="" type="checkbox"/>	_____
APPROVED AS NOTED	_____
DISAPPROVED	_____
SUBJECT TO THE REQUIREMENTS OF CONTRACT NO. <u>N62470-81-C-1766</u>	
APPROVAL OF A SUBMITTAL DOES NOT INCLUDE APPROVAL OF ANY DEVIATION FROM THE CONTRACT REQUIREMENTS UNLESS THE CONTRACTOR CALLS ATTENTION TO AND SUPPORTS THE DEVIATION... THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER PHYSICAL DIMENSIONS & WEIGHTS, COORDINATION OF TRADES, ETC., AS REQUIRED.	
REVIEWER <u>[Signature]</u>	DATE <u>7-6-83</u>
FOR OFFICER IN CHARGE OF CONSTRUCTION	



Amoco Oil Company

LABORATORY REPORT (Typical Analysis)

Report No. _____ of Asphalt Shipments. Period _____ through _____
 Shipped By AMOCO OIL COMPANY, 3345 RIVER ROAD, WILMINGTON, N.C. 28403
 Shipped To BARRUS CONSTRUCTION COMPANY, P.O. BOX 905, JACKSONVILLE, N.C. 28540
 Docket _____ P. O. _____ Req. _____ Proj. * See Below.

Tests

Material AC-20
 Date 2 JUNE 1983
 Source TERMINAL STORAGE
 Test No. _____
 Visc. XX@ 140 °F 1900 POISES (KINEMATIC)
 Flash Point 480 °F
 Distillation _____
 % T. Dist. to 374°F _____
 % T. Dist. to 437 _____
 % T. Dist. to 500 _____
 % T. Dist. to 600 _____
 Dist. Res. @ 680°F _____
 Slave Test _____ % _____
 Settlement _____ % _____
 Demulsib. _____ N. % _____
 Asph. Residue _____ % _____
 Penetration 100g; 5s at 77°F = 92
5cm./min. at 77°F = 100 cm plus
 Ductility _____
 Sol. in XX 99.8 % in Trichlorethylene
 Sol. in CCl₄ _____ % _____
 Ash _____ % _____
 Spot Test NEGATIVE
 Oven Loss 163°C _____ % _____
 Per. of Res. _____ % _____
 Spec. Grav. 1.0404 (4.5 A.P.I.)

Shipments

Date	Material	D. T. No.	Gallons
"It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into Contract Number <u>NS2470-81-C-1766</u> is in compliance with the Contract drawings and specifications, and is submitted Government approval.			
Certified by <u>Jam</u>			
Date <u>23 Jun 83</u>			

ATLANTIC DIVISION
 NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VIRGINIA 23511

APPROVED
 APPROVED AS NOTED _____
 DISAPPROVED _____
 SUBJECT TO THE REQUIREMENTS OF
 CONTRACT NO. NS2470-81-C-1766
 APPROVAL OF A SUBMITTAL DOES NOT INCLUDE APPROVAL OF ANY DEVIATION FROM THE CONTRACT REQUIREMENTS UNLESS THE CONTRACTOR CALLS ATTENTION TO AND SUPPORTS THE DEVIATION... THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER PHYSICAL DIMENSIONS & WEIGHTS COORDINATION OF TRADES, ETC., AS REQUIRED.
 REVIEWER Clay M... 7-6-83 DATE
 FOR OFFICER IN CHARGE OF CONSTRUCTION

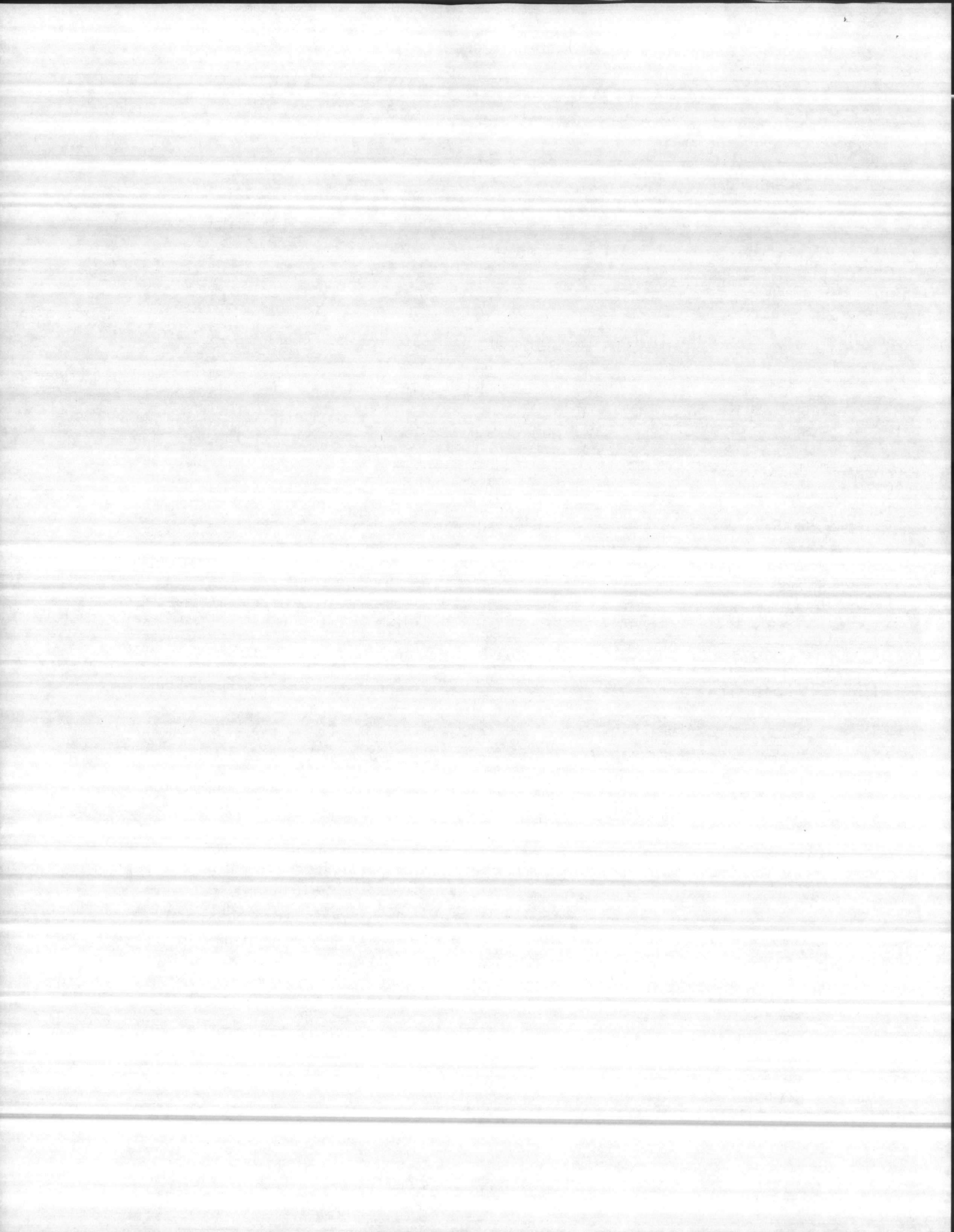
Material MEETS AASHTO M226 Specifications for Grade Shown
 Techn. _____
 Address _____
 *PROJECT:
 PUBLIC WORKS BUILDING HELIPAD & LANDSCAPING
 NAVAL REGIONAL MEDICAL CENTER
 M.C.B., CAMP LEJEUNE, N.C.
 N 62470-81-B-1766

To: BARRUS CONSTRUCTION COMPANY
 ATTN: MR. ANDREW KINSLEY

Respectfully submitted,

CC To: SAME
 FILE

AMOCO OIL COMPANY
 by: E. J. R... Jr.
 Assistant Terminal Manager



Amoco Oil Company

LABORATORY REPORT (Typical Analysis)

Report No. _____ of Asphalt Shipments. Period _____ through _____
Shipped By AMOCO OIL COMPANY, 3345 RIVER ROAD, WILMINGTON, N.C. 28403
Shipped To BARRUS CONSTRUCTION COMPANY, P.O. BOX 905, JACKSONVILLE, N.C. 28540
Docket _____ P. O. _____ Req. _____ Prof. * SEE NOTE BELOW:

Material RC - 30 Tests _____
Date 2 JUNE 1983
Source TERMINAL STORAGE
Test No. _____
Visc. SF @ 77 °F 107
Flash Point 105 °F T.O.C.
Distillation _____
% T. Dist. to 374°F 52.5
% T. Dist. to 437 76.5
% T. Dist. to 500 86.5
% T. Dist. to 600 95.0
Dist. Res. @ 680°F 57.0 VOL. BY DIFFERENCE
Slave Test _____ % _____
Settlement _____ % _____
Demulsib. _____ N.% _____
Asph. Residue _____ % _____
Penetration 77°F 100g; 5s = 90
Ductility _____
Sol. in CCl₄, 99.8 % in Trichloroethylene
Sol. in CCl₄ _____ % _____
Ash _____ % _____
Spot Test NEGATIVE
Open Loss 163°C _____ % _____
Pen. of Res. _____ % _____
Spec. Grav. .9218 (22.0 API)

Shipments
Date _____ Material _____ D. T. No. _____ Gallons _____
"It is hereby certified that the (equipment) (material) shown and marked in this submit-
tal is that proposed to be incorporated into
Contract Number MS2170-81-C-1766 is in
compliance with the Contract drawings and
specifications, can be installed in the allocat-
ed spaces, and is submitted Government
approval.
Certified by JMU
Date 23 Jun 83"

Material RC - 30 MEETS Specifications for Grade Shown _____
Techn. _____
Address _____

AASHTO M81 FOR GRADE RC-70 EXCEPT AS
OUTLINED ON PAGE 516, SECTION 920-2
OF NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION; STANDARD SPECIFICATION
MANUAL.

*PROJECT:
PUBLIC WORKS BUILDING, HELIPAD & LANDSCAPING
NAVAL REGIONAL MEDICAL CENTER
M.C.B., CAMP LEJEUNE, N.E.
N 62470-81-B-1766

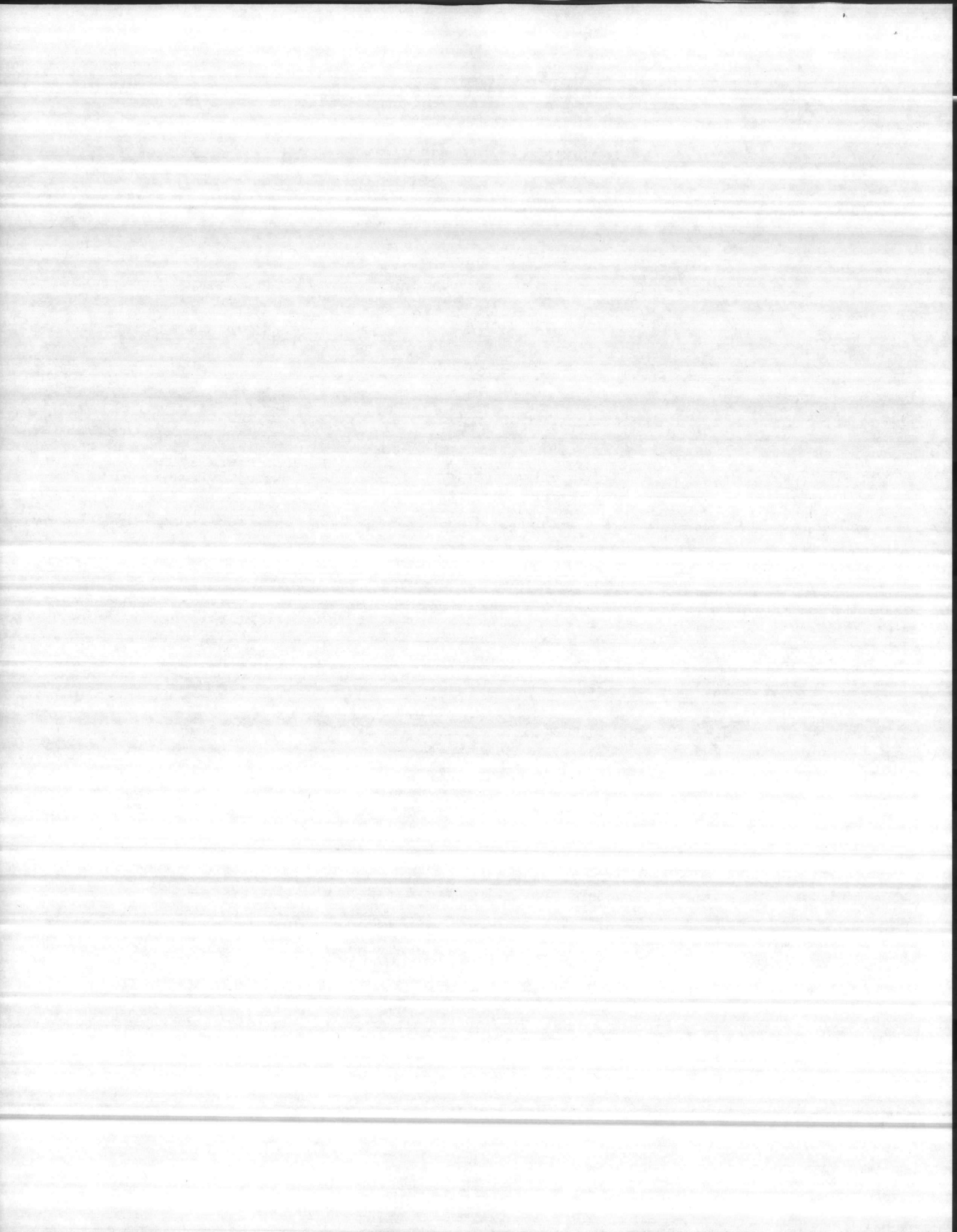
Reports Tot. Gals. _____

To: BARRUS CONSTRUCTION COMPANY
ATTN: MR. ANDREW KINSEY

Respectfully submitted,

CC To: SAME
FILE

AMOCO OIL COMPANY
by: E. F. Riley, Jr.
Assistant Terminal Manager



hereby certified that the material shown and marked in this submission that proposed to be incorporated into Contract Number N62470-81-C-1766 is in accordance with the Contract drawings and specifications, and is submitted for Government approval.



BHC 0-PLS
 CC - PMS
 BHC
 WFR

certified by Jm
23 Jun 83

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH 27611
 June 14, 1982

JAMES B. HUNT, JR.
 GOVERNOR

DIVISION OF HIGHWAYS

William R. Roberson, Jr.
 SECRETARY

PROJECT: 8.1260101 R-807
 COUNTY: Onslow
 APPROVED JOB MIX FORMULA TYPE I-2
 BITUMINOUS CONCRETE SURFACE COURSE
 SECTION 645 AND SPECIAL PROVISIONS

Barrus Construction Company
 P. O. Box 399
 Kinston, North Carolina 28501

PLANT LOCATION Deppe, North Carolina

THIS FORMULA IS BASED ON INFORMATION OBTAINED FROM MIX DESIGN NUMBER 82-24 LISTED BELOW, AND TEST PERFORMED IN THE FIELD.

SUPPLIER	COMBINATION OF AGGREGATES SHIPPING POINT	MATERIAL	AMOUNT %	ASPHALT CEMENT %	
				GRADE	
Martin Marietta	Belgrade Quarry	78-M	37	AC-20	6.8
Martin Marietta	Belgrade Quarry	Scrg.	40	ASH	0.1
Martin Marietta	New Bern Quarry	F. Scrg.	23	Max.Theo.Sp.Gv.	2.36
				Lab.Sp.Gv.	2.21
				Min.Rdwy.Sp.Gv.	2.10
				TEMP. OF MIX	285°
				TACK COAT GRADE	AC-20
			Total		
			100		

GRADATION

Sieve Size	% Passing
3/4	100
1/2	98
3/8	95
4	77
8	60
40	40
80	17
200	5.1

NOTES

FORMULA NO. 2

ASPHALT CEMENT SUPPLIER * Asphalt International SHIPPING POINT Morehead City, N. C.

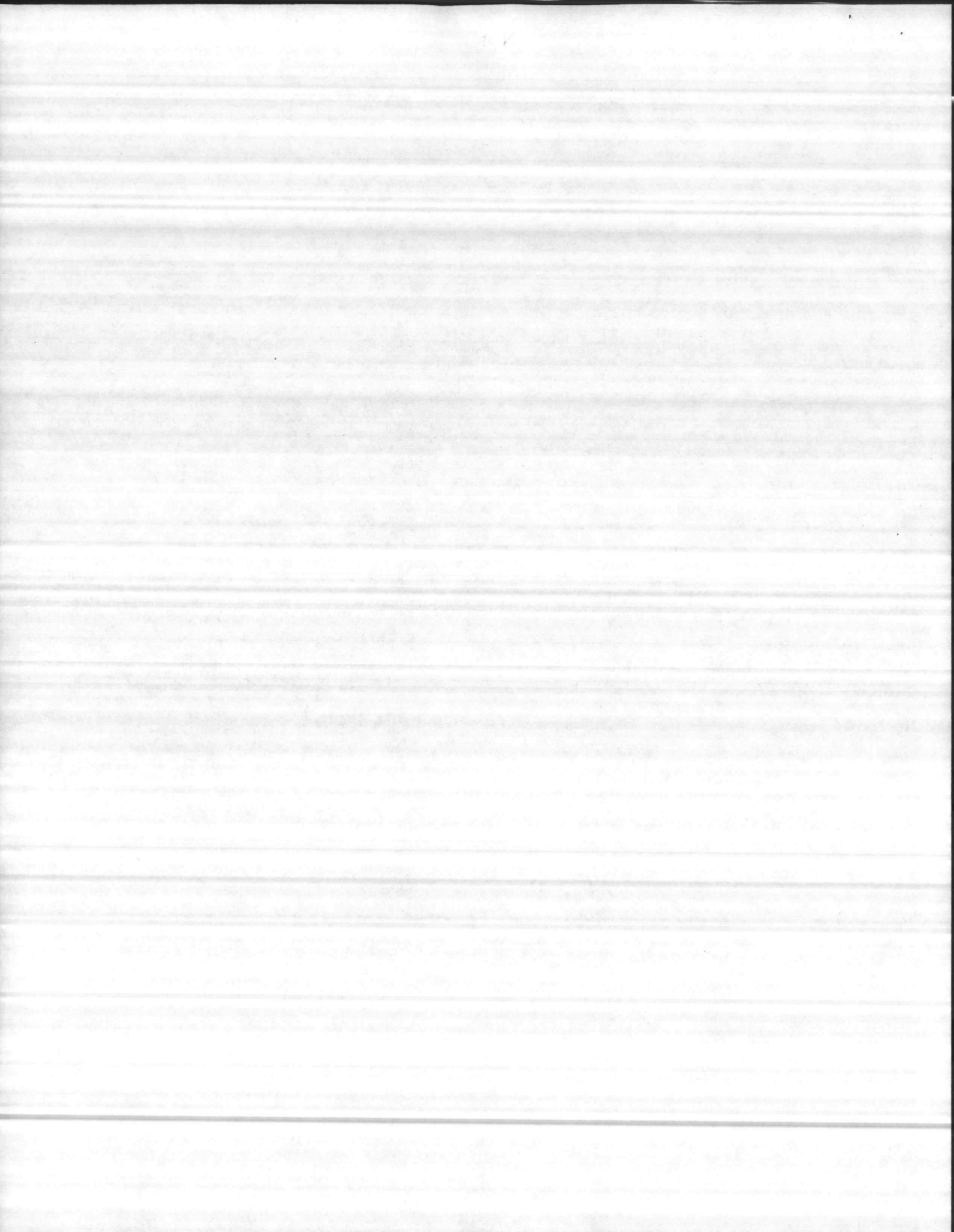
TACK COAT SUPPLIER * Asphalt International SHIPPING POINT Morehead City, N. C.

*Other approved sources may be used subject to provisions of Division 600 of Standard Specifications and other applicable provisions.

- DISTRIBUTION:
- Mr. T. W. Funderburk
 - Mr. F. G. Watson
 - Mr. A. K. Murray
 - Inspector
 - Mr. F. T. Wagner
 - Mr. J. E. Bobbitt, Jr.
 - Mr. M. D. Barbour
 - Mr. I. F. Allen

APPROVED

 J. E. GRADY, JR.
 BITUMINOUS CONSTRUCTION ENGINEER



STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
MATERIALS AND TESTS UNIT
RALEIGH, NORTH CAROLINA

MAR 9 1982

SHEET _____ OF _____
BITUMINOUS SECTION

REPORT ON STABILITY TEST OF BITUMINOUS MIXTURE

MD 82-24

Date Sampled	1-28-82	Date Received	2-2-82	Date Reported	3-3-82
Project No.	8-7326010	HES -8 - 3 (6)	County	Onslow	
Specification:	I-2 WS	Specimen:	Marshall		
Mat:	78M Stone - Belgrade - Avg Grad				
Scrngs	" 82-263-265				
F Scrngs	New Bern 0 82-117-120			AC 20 Amoco, Wilmington, NC	
Mat. Sampled by:	Smith - Gray - Odum	Contractor:	R.G.K., Inc		
Mix Recommended:	6.8% AC 20	Mix used:	5½-6-6½-7-7½ AC20		
Min. Stability Requirement:	600 lbs.				

U. S. STD. SIEVES	GRADATION OF MATERIALS USED				COMBINATION %
	Blend	40%	23%		
1½ in.	78 M Stone	Scrngs	F Scrngs		
1 in.					
¾ in.					
½ in.	100				100
¾ in.	97	100	100		99
No. 4	40	99	99		77
No. 8	8	89	91		60
No. 40	3	58	67		40
No. 80	1	12	49		17
No. 200	0.5	3.4	15.0		5.1
Elutriation loss:					
Specific Gravity	2.54	2.66	2.66		2.614

	FORMULATIONS					
	Mix No. 1	Mix No. 2	Mix No. 3	Mix No. 4	Mix No. 5	Mix No. 6
% Asphalt	5.5	6.0	6.5	7.0	7.5	
Stability Lbs.	967	1584	1689	1758	1962	
Specific Gravity	2.17	2.19	2.20	2.22	2.25	
Max. Theoretical Sp.Gr.	2.41	2.39	2.37	2.36	2.34	
Total mix lbs. per cu. ft.	135.3	136.5	137.2	138.4	140.3	
Flow 1/100 in.	8	8	9	10	11	
% Solids total mix	90.0	91.6	92.8	94.1	96.2	
% Voids total mix	10.0	8.4	7.2	5.9	3.8	
% by Volume of A. C.	11.7	12.9	14.0	15.2	16.5	
% Solids of Agg. only	78.3	78.7	78.8	78.9	79.7	
% Voids of Agg. only	21.7	21.3	21.2	21.1	20.3	
% Voids filled with Asp.	53.9	60.6	55.0	72.0	81.3	
% Ash	--	--	0.1	--	--	

Remarks: For R.G.K. Inc.

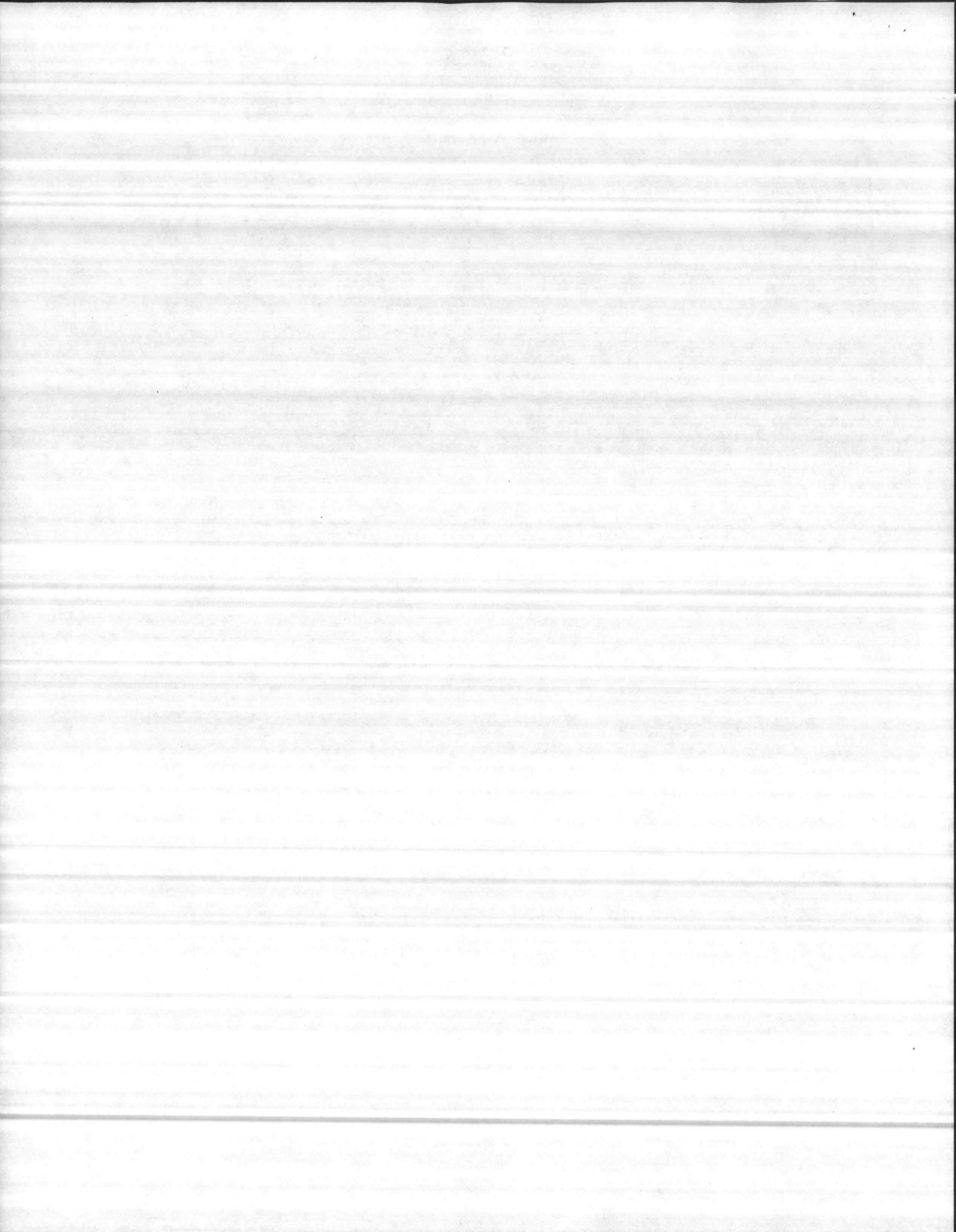
AC 6.8%

M 2.36

L 2.21

R 2.10

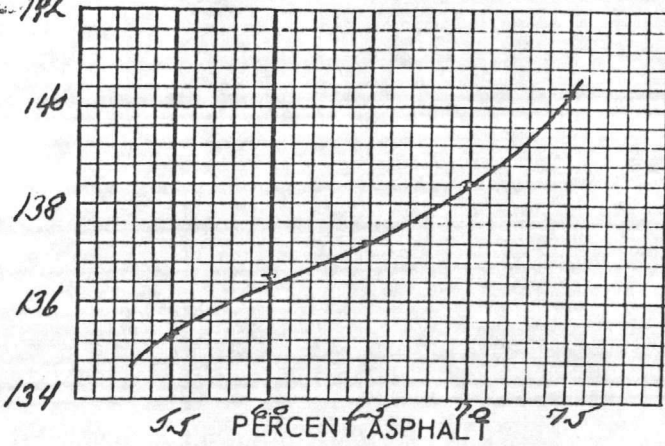
M. D. Balow
Bituminous Design Engineer



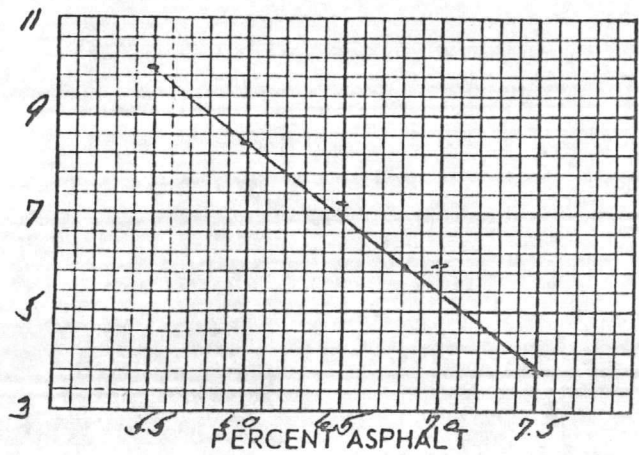
STATE OF NORTH CAROLINA

DEPT. OF TRANSPORTATION
MATERIALS AND TESTS UNIT
RALEIGH, NORTH CAROLINA

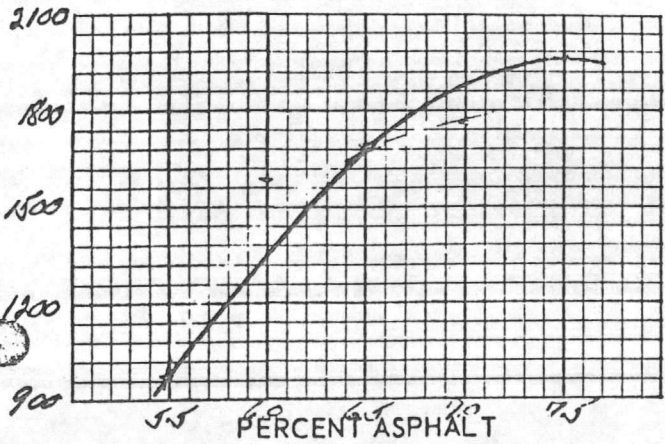
UNIT WT. LBS. CU. FT.



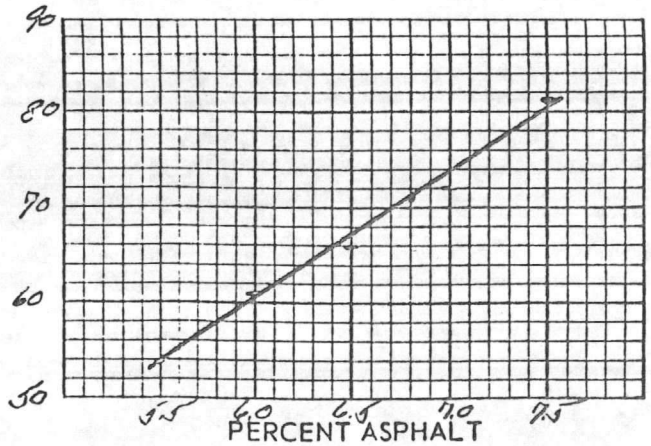
PERCENT VOIDS TOTAL MIX



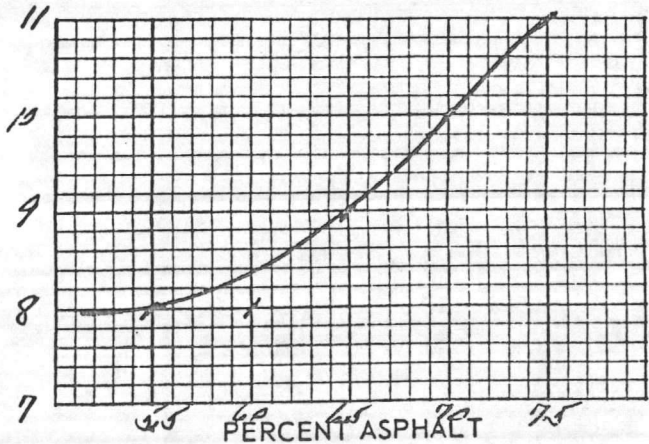
STABILITY - LBS.



PERCENT VOIDS FILLED



FLOW 100 INCHES



ASPHALTIC CONCRETE
BASIC MIX DESIGN

MD 82 -24

87326010

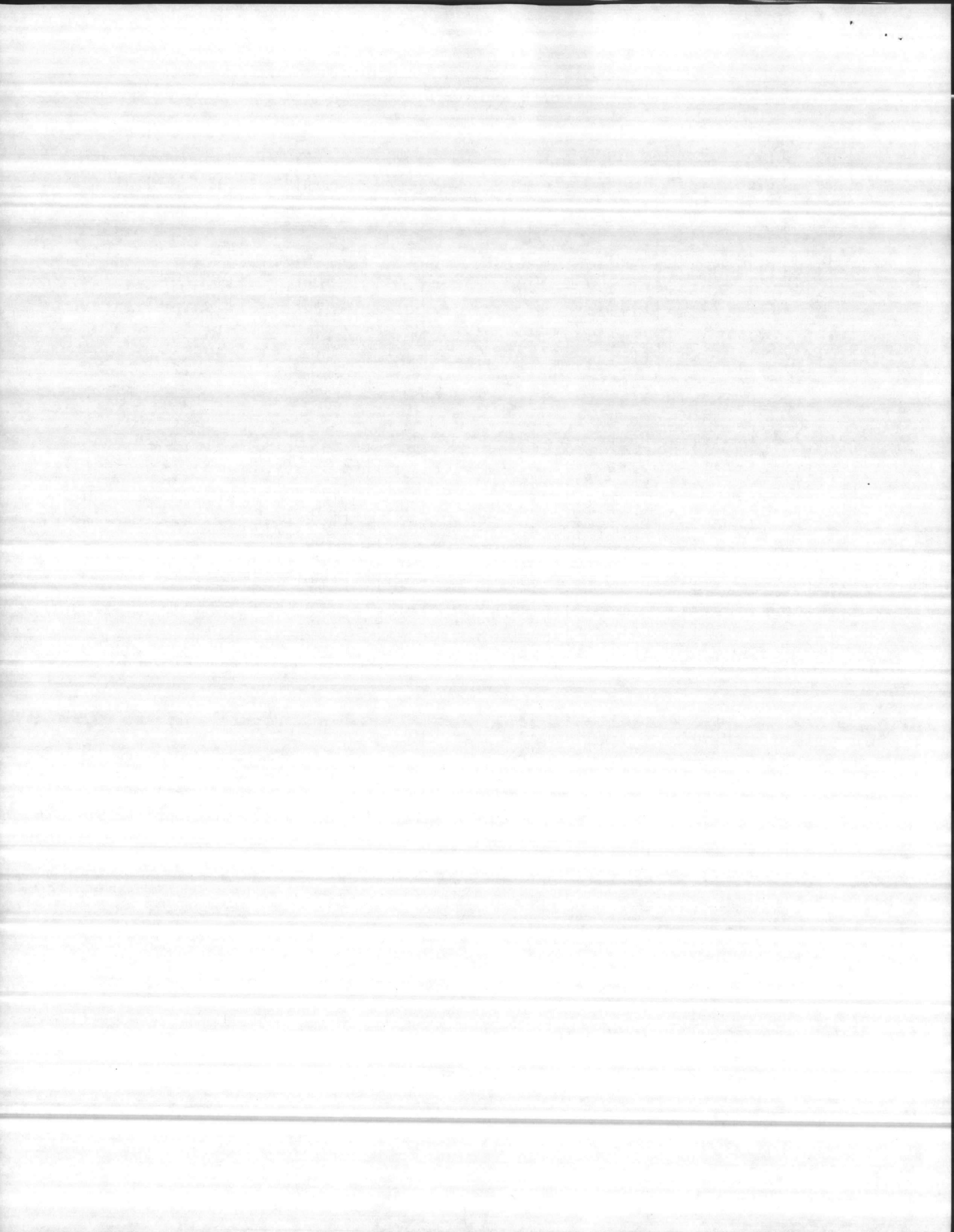
ON SLOW CO.,

I-2 W/S

PROPERTY	STABILITY	UNIT WT.	% T. VOIDS	% VOIDS F.	FLOW
PT. ON CURVE	PEAK	PEAK	4-10	5.5-7.5	—
% ASPHALT	7.50	7.50	6.45	6.35	—

VALUES AT OPTIMUM 7.0 %

SPEC.	600 LBS. MIN	—	4-10	—	7-14
ACTUAL	1870	138.4	5.4	74	10



MARTIN MARIETTA AGGREGATES
It is hereby certified that the (equipment)
(material) shown and marked in this submittal
is that proposed to be incorporated into
Contract Number N62470-81-C-1766 is in
compliance with the Contract drawings and
specifications, can be installed in the allocated
spaces, and is submitted Government
approval.

CONSTRUCTION AGGREGATES DIVISION
P. O. BOX 30013
RALEIGH, NORTH CAROLINA 27622
TELEPHONE (919) 781-4550

June 2, 1983

Certified by JAW
Date 23 Jun 83

Barrus Construction Company
P. O. Box 905
Jacksonville, N. C. 28540

Re: N62470-81-C-1766
Public Works Building, Heli-
pad and Landscaping
MCB, Camp LeJeune, N. C.

Gentlemen:

We are pleased to advise that the 78M produced at our Belgrade, N. C. Quarry meets the specifications for roads and structures of the North Carolina Department of Transportation.

We appreciate the opportunity to furnish your crushed stone needs.

Sincerely,

Larry B. Ward
Larry B. Ward

NORTH CAROLINA
WAKE COUNTY

Sworn to and subscribed before me
this 3 day of June, 1983

Rebecca Kaye Davis
Notary Public

My commission expires: 4/27/85

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA 23511	
APPROVED <input checked="" type="checkbox"/>	_____
APPROVED AS NOTED	_____
DISAPPROVED	_____
SUBJECT TO THE REQUIREMENTS OF CONTRACT NO. <u>N62470-81-C-1766</u>	
APPROVAL OF A SUBMITTAL DOES NOT INCLUDE APPROVAL OF ANY DEVIATION FROM THE CON- TRACT REQUIREMENTS UNLESS THE CONTRACTOR CALLS ATTENTION TO AND SUPPORTS THE DEVI- ATION... THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PROPER PHYSICAL DIMENSIONS & WEIGHTS, COORDINATION OF TRADES, ETC., AS REQUIRED.	
REVIEWER <i>Clay Money</i>	DATE <u>7-6-83</u>
FOR OFFICER IN CHARGE OF CONSTRUCTION	

