



MACTEC ENGINEERING AND CONSULTING, INC.
 3301 ATLANTIC AVENUE
 RALEIGH, NORTH CAROLINA 27604

N.C.D.O.T./AASHTO CLASSIFICATIONS

REPORT ON SAMPLES OF: SOILS FOR QUALITY

MACTEC PROJECT NAME AND NUMBER: Dual Bridges on NC 87 over Reedy Meadow Swamp (6468-04-0650)
 PROJECT: 34467.1.1 (R-2562C) COUNTY: Bladen OWNER: N.C.D.O.T.
 DATE SAMPLED: April 2004 RECEIVED: 5/3/2004 REPORTED BY: MACTEC
 SAMPLED FROM: EB1-A LL
 SUBMITTED BY: MACTEC ENGINEERING AND CONSULTING, INC.

1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.		SS-1	SS-2	SS-3	SS-4	SS-5	SS-6
Retained 4.75 mm Sieve (%)		0.0	0.0	0.0	0.7	0.1	3.0
Passing 2.00 mm Sieve (%)		100.0	99.8	98.7	91.3	99.9	96.6
Passing 425 µm Sieve (%)		97.9	79.3	68.4	35.4	98.5	96.0
Passing 75 µm Sieve (%)		4.2	5.8	23.0	7.4	15.1	85.3

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%							
Coarse Sand Ret - 250 µm (%)		17.0	43.3	54.4	82.8	21.4	1.4
Fine Sand Ret - 53 µm (%)		79.6	51.5	23.1	9.7	64.9	23.1
Silt 0.05 - 0.005 mm (%)		1.0	0.0	1.9	0.5	3.6	19.3
Clay < 0.005 mm (%)		2.4	5.2	20.6	6.9	10.1	56.2
		100.0	100.0	100.0	100.0	100.0	100.0

Moisture Content (%)		ND	ND	ND	ND	ND	42.6
Liquid Limit, L.L.		21	21	35	21	25	71
Plasticity Index, P.I.		NP	NP	18	NP	NP	48
AASHTO Classification		A-3	A-3	A-2-6(1)	A-1-b	A-2-4(0)	A-7-6(44)
Organic Content (%)		ND	ND	ND	ND	ND	ND

Boring No.		EB1-A LL	EB1-A LL	EB1-A LL	EB1-A LL	EB1-A LL	EB1-A LL
Station		178+46.8	178+46.8	178+46.8	178+46.8	178+46.8	178+46.8
Offset		17.8 m LT	17.8 m LT	17.8 m LT	17.8 m LT	17.8 m LT	17.8 m LT
Alignment		-L- REV	-L- REV	-L- REV	-L- REV	-L- REV	-L- REV
Depth (m)	From	2.10	5.50	6.01	10.57	18.17	21.21
	to	2.55	5.95	6.46	11.02	18.62	21.66

REMARKS: ND=NOT DETERMINED

Submitted by: Jennifer Bauer
 Laboratory Manager



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 DATE SAMPLED: April 2004 RECEIVED: 5/3/2004 REPORTED BY: MACTEC
 SAMPLED FROM: B1-A LL, B2-A LL, EB2-A LL
 SUBMITTED BY: MACTEC ENGINEERING AND CONSULTING, INC.

1992 STANDARD SPECIFICATIONS

TEST RESULTS

Lab Sample No.		SS-7	SS-8	SS-9	SS-10	SS-11	SS-17
Retained 4.75 mm Sieve (%)		0.4	0.0	0.0	0.0	0.4	
Passing 2.00 mm Sieve (%)		99.4	100.0	99.9	97.6	93.5	
Passing 425 µm Sieve (%)		88.5	97.5	95.9	87.5	52.6	
Passing 75 µm Sieve (%)		6.9	69.4	71.3	8.1	21.5	

MINUS 2.00mm FRACTION

SOIL MORTAR - 100%							
Coarse Sand Ret - 250 µm (%)		33.6	5.0	7.2	25.0	63.0	
Fine Sand Ret - 53 µm (%)		60.0	26.3	31.0	67.3	14.7	
Silt 0.05 - 0.005 mm (%)		1.1	10.1	22.1	0.6	0.7	
Clay < 0.005 mm (%)		5.3	58.6	39.6	7.1	21.6	
		100.0	100.0	100.0	100.0	100.0	

Moisture Content (%)		ND	78.5	20.8	ND	ND	295.9
Liquid Limit, L.L.		19	83	49	21	40	ND
Plasticity Index, P.I.		NP	62	30	NP	25	ND
AASHTO Classification		A-3	A-7-6	A-7-6	A-3	A-2-6	ND
Organic Content (%)		ND	ND	ND	ND	ND	33.8

Boring No.		B1-A LL	B1-A LL	B1-A LL	B2-A LL	EB2-A LL	B2-A LL
Station		178+69.7	178+69.7	178+69.7	178+90.3	179+11.9	178+90.3
Offset		15.7 m LT	15.7 m LT	15.7 m LT	17.6 m LT	16.7 m LT	17.6 m LT
Alignment		-L- REV	-L- REV	-L- REV	-L- REV	-L- REV	-L- REV
Depth (m)	From	2.62	5.66	7.04	3.14	7.65	0.00
	to	3.07	6.11	7.49	3.59	8.10	0.45

REMARKS: ND=NOT DETERMINED

Submitted by: Jennifer Bauer
 Laboratory Manager