



**LAW ENGINEERING AND ENVIRONMENTAL SERVICES, INC.**  
 3301 ATLANTIC AVENUE  
 RALEIGH, NC 27604

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

REPORT ON SAMPLES OF: SOILS FOR QUALITY

Law Project Name and Number: Clayton Bypass Over Austin Pond (30725-1-4791)

Project: 8.T 311002 (R-2552AB)

County: Johnston

Owner: N.C.D.O.T.

Date Sampled: August to Sept.

Received: 9/12/01

Reported: 9/24/01

Sampled from: EB2-ALL, EB1-BLL, EB2-BLL

By: LAW ENGINEERING

Submitted by: Law Engineering and Environmental Services, Inc.

1992 Standard Specifications

**TEST RESULTS**

Lab Sample No.		SS-39	SS-40	SS-41	ST-1	ST-3	ST-4
Retained 4.75 mm Sieve (%)		0.0	0.5	0.0	0.8	0.3	0.0
Passing 2.00 mm Sieve (%)		98.4	97.8	97.7	97.2	98.9	100.0
Passing 425 µm Sieve (%)		71.6	70.0	72.5	85.9	94.5	95.7
Passing 75 µm Sieve (%)		31.5	30.4	27.8	49.0	54.2	49.9

**MINUS 2.00mm FRACTION**

SOIL MORTAR - 100%							
Coarse Sand Ret - 250 µm (%)		40.8	41.7	41.4	26.1	15.0	15.6
Fine Sand Ret - 53 µm (%)		33.1	32.8	35.6	29.6	36.8	45.3
Silt 0.05 - 0.005 mm (%)		21.1	20.5	18.0	32.1	19.5	25.7
Clay < 0.005 mm (%)		5.0	5.0	5.0	12.2	28.7	13.4

Moisture Content (%)		32.2	ND	ND	25.5	28.6	42.9
Liquid Limit, L.L.		40	38	27	32	44	48
Plasticity Index, P.I.		NP	NP	NP	13	10	4
AASHTO Classification		A-2-4(0)	A-2-4(0)	A-2-4(0)	A-6(3)	A-5(4)	A-5(1)
Organic Content (%)		ND	ND	ND	ND	ND	ND

Boring No.		EB2-ALL	EB2-ALL	EB2-ALL	EB1-BLL	EB2-BLL	EB2-BLL
Station		41+82.4	41+82.4	41+82.4	39+67.0	41+92.0	41+92.0
Offset		23.2m LT	23.2m LT	23.2m LT	7.8m LT	8.0m LT	8.0m LT
Alignment		-L-	-L-	-L-	-L-	-L-	-L-
Depth (m)	From	2.63	5.71	8.77	0.49	0.97	1.58
	to	3.08	6.16	9.22	1.23	1.58	2.19

REMARKS: ND=Not Determined



**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: DUAL STRUCTURES ON CLAYTON BYPASS (-L-) OVER WHITE OAK CREEK (AUSTIN POND)

PROJECT: 8.T311002 (R-2552AB)

COUNTY: Johnston

OWNER: N.C.D.O.T.

DATE SAMPLED: SEPTEMBER 2003

RECEIVED: 9/10/2003

REPORTED BY: MACTEC

SAMPLED FROM: EB1-A LL REV

SUBMITTED BY: MACTEC ENGINEERING AND CONSULTING, INC.

1992 STANDARD SPECIFICATIONS

**TEST RESULTS**

Lab Sample No.		SS-54	SS-55			
Retained 4.75 mm Sieve (%)		0.0	0.0			
Passing 2.00 mm Sieve (%)		100.0	87.2			
Passing 425 µm Sieve (%)		95.7	67.2			
Passing 75 µm Sieve (%)		81.1	38.5			

**MINUS 2.00mm FRACTION**

SOIL MORTAR - 100%							
Coarse Sand Ret - 250 µm (%)		7.9	34.2				
Fine Sand Ret - 53 µm (%)		14.5	28.3				
Silt 0.05 - 0.005 mm (%)		28.8	27.5				
Clay < 0.005 mm (%)		48.8	10.0				
		100.0	100.0				

Moisture Content (%)		75.9	ND			
Liquid Limit, L.L.		80	36			
Plasticity Index, P.I.		37	6			
AASHTO Classification		A-7-5(36)	A-4 (0)			
Organic Content (%)		ND	ND			

Boring No.		EB1-A LL REV	EB1-A LL REV			
Station		39+41.6	39+41.6			
Offset		21.6m LT	21.6m LT			
Alignment		-L-	-L-			
Depth (m)	From	5.66	11.74			
	to	6.11	12.19			

REMARKS:

Reviewed by: [Signature]