

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-40  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
0									1.5" Top Course, 2" Binder		
2		S-1	20	27	18	16	45		Subbase: Grayish brown GRAVEL, some Sand, trace silt	S-1) Bag sample, 3" spoon	
2		S-2	6	6	14	14	20		Grayish brown SILT, little Clay, little Sand, little Gravel		
4		S-3	21	37	50.1		Ref.		Dark brown decomposed/weathered SHALE		
6									(SM) (moist, firm to very compact)	Obtained sample DIPRA # 14	
6									Test boring terminated at depth of 5.6 feet.	Free standing water was not encountered upon test boring completion.	
8											
10											
15											
20											
25											
30											
35											
40											

DRILLER: K. Swinnich

DRILL RIG: CME-850

METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)

JOB NUMBER: CE-05-025

TEMPERATURE: \_\_\_\_\_

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-42  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course		
0		S-1	29	24	18	10		16" Subbase	S-1) Bag sample, 3" spoon	
2		S-2	3	4	5	6	9	Brown SILT, some Gravel, little Sand		
4								(ML) (moist, loose)		
4		S-3	7	8	7	12	15	Dark brown residual soil to decomposed/weathered SHALE		
6								(SM) (moist, firm to very compact)	Obtained sample DIPRA # 15	
6		S-4	29	40	50/0		Ref.			
8								Test boring terminated at depth of 7.7 feet.	Free standing water was encountered at 5.0 feet upon boring completion.	
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich

DRILL RIG: CME-850

METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)

JOB NUMBER: CE-05-025

TEMPERATURE: \_\_\_\_\_

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-43  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	24-N			
0								1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" spoon	
2		S-1	14	26	28	14		18" Subbase		
4		S-2	8	17	45	62		Gray residual soil to decomposed/weathered SHALE (SM) (moist, very compact)	Free standing water was not encountered upon boring completion.	
6								Test boring terminated at depth of 4.0 feet.		
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/1/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-44  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" spoon	
		S-1	14	15	20	8		18" Subbase		
2		S-2	4	2	2	4	4	Brown CLAY, some Silt, trace sand		
4								(CL) (moist, soft)		
6		S-3	8	16	27	29	43	Gray residual soil to decomposed/weathered SHALE	Obtained sample DIPRA # 16	
								(SM) (moist, compact to very compact)		
8		S-4	27	21	40		61	Test boring terminated at depth of 8.0 feet.		
10									Free standing water was encountered at 2.0 feet upon boring completion.	
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-45  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0									1" Top Course, 4" Binder Course	Pavement Core: 1" Top Course, 4" Binder Course
		S-1	20	27	16	14			12" Subbase	
2										S-1) Bag sample, 3" spoon
		S-2	4	17	43	60			Gray residual soil to decomposed/weathered SHALE (SM) (moist, very compact)	
4									Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.
6										
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-46  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course	Pavement Core: 3" Top Course, 2.5" Binder Course	
2		S-1	20	30	48	39		Subbase and Brown SAND, some Gravel, trace silt, trace cobble (SM) (moist)		
4		S-2	12	10	10		20	Brown SILT, some Sand, trace gravel (ML) (moist, firm)	S-1) Bag sample, 3" spoon	
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-46A  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0										
2										
4										
6										
8								Test boring terminated at depth of 7.0 feet.		
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-47  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" spoon	
2		S-1	24	25	89	50/0		Gray GRAVEL, little Sand, little Silt, trace cobbles (GP) (moist)		
4		S-2	42	45	62	50/0	107	Gray residual soil to decomposed/weathered SHALE (SM) (moist, very compact)	Free standing water was not encountered upon boring completion.	
6								Test boring terminated at depth of 4.0 feet.		
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/18/2005  
 FINISHED: 10/18/2005



# SUBSURFACE LOG

Boring No.: B-48  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" spoon	
		S-1	20	27	18	16		14" Subbase		
2								Brownish gray fine SAND and SILT, some Gravel (SM) (moist, compact)	Driller noted cobbles	
		S-2	20	27	18	16	45			
4								Gray CLAY, little Silt, little Sand, trace gravel (CL) (moist, hard)		
		S-3	20	27	18	16	45			
6								Test boring terminated at depth of 6.5 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: B-49  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0		S-1	50/0				Ref.	1.5" Top Course, 2" Binder Course 8.5" Subbase	S-1) Bag sample, 3" spoon	
2								Test boring terminated at depth of 1.0 feet with auger refusal.	Free standing water was not encountered upon boring completion.	
4										
6										
8										
10										
12										
14										
16										
18										
20										
22										
24										
26										
28										
30										
32										
34										
36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: B-50  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								1.5" Top Course, 2" Binder Course		
1		S-1	20	20	15	20		12" Subbase	S-1) Bag sample, 3" spoon	
2										
3		S-2	7	7	9	9	16	Brown SILT, some Sand, trace gravel		
4								(ML) (moist, firm)		
4.5								Test boring terminated at depth of 4.5 feet.	Free standing water was not encountered upon boring completion.	
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: J. Warner DRILL RIG: CME-75  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: B-51  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
0		S-1	15	21	12	72	33		1.5" Top Course, 2" Binder Course, 12" subbase		
2		S-2	50/3					Ref.	Gray SAND, some Gravel, little Silt (GP) (moist)	S-1) Bag sample, 3" spoon	
4									Gray decomposed/weathered SHALE (SM) (moist, very compact)	Free standing water was not completion.	
6									Test boring terminated at depth of 2.8 feet with auger refusal.	completion.	
8											
10											
15											
20											
25											
30											
35											
40											

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: B-52  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0		S-1	33	50/3			Ref.	1" Top Course, 1.5" Binder, 8" subbase	Pavement Core: 1" Top Course, 1.5" Binder Course, 8" Subbase	
2		S-2	18	50	50/2		Ref.	Grayish brown GRAVEL and SAND, little Silt (GP) (moist)		
4								Gray residual soil to decomposed/weathered SHALE (SM) (moist, very compact)	Free standing water was not encountered upon boring completion.	
6								Test boring terminated at depth of 3.7 feet with auger refusal.		
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich

DRILL RIG: CME-850

METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)

JOB NUMBER: CE-05-025

TEMPERATURE: \_\_\_\_\_

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/7/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: B-53  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	24-N			
0								1.5" Top Course, 2" Binder Course, 12" Subbase	S-1) Bag sample, 3" spoon	
	S-1	18	21	17	13		Grayish brown SAND, some Gravel, little silt (SM) (moist)			
2	S-2	8	12	27	53	39	Brown CLAY, some Silt, little Sand, little Gravel (CL) (moist, hard)			
4	S-3	50/3				Ref.	Gray decomposed/weathered SHALE (SM) (moist, very compact)	Free standing water was not encountered upon boring completion.		
6							Test boring terminated at depth of 4.8 feet.			
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: J. Warner DRILL RIG: CME-75  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-54  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course, 9.5" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	15	21	22	18		Grayish brown SAND, some Gravel, little Silt (SM) (moist)		
4		S-2	8	5	9	25	14	Gray CLAY, little Silt, little Shale fragments (CL) (moist, stiff)	Free standing water was not encountered upon boring completion.	
6								Test boring terminated at depth of 4.5 feet.		
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: J. Warner  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_

DRILL RIG: CME-75  
 CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-55  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	24-N			
0		S-1	19	15	17	50		1.5" Top Course, 2" Binder Course, 6" subbase	S-1) Bag sample, 3" spoon	
2		S-2	50/1				Ref.	Grayish brown SAND, some Gravel, little Silt (SM) (moist)	poor recovery	
4								Test boring terminated at depth of 2.6 feet with auger refusal.	Free standing water was not encountered upon boring completion.	
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-56  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
0									1.5" Top Course, 2" Binder Course, 6" subbase	S-1) Bag sample, 3" spoon	
0		S-1	12	18	37	50/0	55		Brown GRAVEL and SAND, little Silt		
2									(GP) (moist)	Angular to sub-rounded gravel	
4									Test boring terminated at depth of 2.1 feet with auger refusal.	Free standing water was not encountered upon boring completion.	
6											
8											
10											
15											
20											
25											
30											
35											
40											

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-57  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1" Top course, 1.5" Binder Course, 15.5" subbase	Pavement Core: 1" Top Course, 1.5" Binder S-1) Bag sample, 3" spoon	
		S-1	19	15	17	50		Brown SAND, some Gravel, little Silt		
2		S-2	9	20	50/0		Ref.	(SM) (moist)		
4								Gray SILT, some Gravel, little Sand, little Clay	Free standing water was not encountered upon boring completion.	
								(ML) (moist)		
								Test boring terminated at depth of 3.5 feet with auger refusal.		
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-58  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Hudson Street  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	24-N			
0		S-1	18	17	20	27		1.5" Top Course, 2" Binder Course, 12" subbase	S-1) Bag sample, 3" spoon	
2		S-2	50/0				Ref. N.R.	Brown SAND, some Gravel, little to some Silt (SM) (moist)	N.R.: Sample was not recovered	
4								Test boring terminated at depth of 2.5 feet with auger refusal.	Free standing water was not encountered upon boring completion.	
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_

DRILL RIG: CME-850

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/12/2005  
 FINISHED: 10/12/2005



# SUBSURFACE LOG

Boring No.: B-59  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Updike Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								5" Asphalt, 13" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	4	8	8	10				
4		S-2	41	50/1			Ref.	Brown fine SAND, little silt, trace gravel, trace clay (SM) (moist) (Grades to "little" Shale fragments)	S-2: Poor recovery	
4.1								Test boring terminated at depth of 4.1 feet.	Free standing water was not encountered upon boring completion.	
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-60  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Burns Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								3.5" Asphalt, 8.5" Old Asphalt	S-1) Bag sample, 3" spoon	
1		S-1	10	12	12			FILL: Brown SAND, some Gravel, some Silt, trace glass (SM) (moist)		
2		S-2	4	6	6	12		Brown to gray SAND, little Gravel, little Silt, trace clay (SM) (moist, firm)		
4								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
5										
6										
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39										
40										

DRILLER: J. Warner DRILL RIG: CME-75  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-61  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Burns Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24			
0								1.5" Top Course, 2" Binder Course, 6" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	10	15	12			Brown SILT, some Sand, little Gravel (ML) (moist)		
4		S-2	8	9	9	18		(firm)	Free standing water was not encountered upon boring completion.	
4								Test boring terminated at depth of 4.0 feet.		
6										
8										
10										
15										
20										
25										
30										
35										
40										

DRILLER: J. Warner  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_

DRILL RIG: CME-75  
 CLASSIFIED BY: Geotechnical Engineer

DATE: 11/8/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-62  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: East King Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N				
0									1.5" Top Course, 2" Binder, 8" subbase	S-1) Bag sample, 2" spoon	
2		S-1	15	10	10	12	20		FILL: Gray SILT, some Sand, little Gravel (ML) (moist, firm)		
4		S-2	10	6	12		18		Gray CLAY, little Silt, little Gravel, little Sand (CL) (moist, very stiff)		
6									Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8											
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12											
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16											
18											
20											
22											
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26											
28											
30											
32											
34											
36											
38											
40											

DRILLER: J. Warner DRILL RIG: CME-75  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-63  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Troy Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
0									2.5" Asphalt, 6" Subbase	S-1) Bag sample, 2" spoon	
1		S-1	12	15	15	13	30		Brown SAND, some Gravel, little Silt		
2									(SM) (moist, firm)		
3		S-2	10	6	6		12		(Grades to "little" Clay, "trace" gravel)		
4									Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
6											
8											
10											
15											
20											
25											
30											
35											
40											

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-64  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Rich Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N				
0									1.5" Top Course, 2" Binder, 12" Subbase	S-1) Bag sample	
1		S-1	-	-	6	6			Brown SAND, some Silt, trace gravel (SM) (moist)		
2		S-2	10	6	6	12			Brown CLAY, little Silt (CL) (moist, stiff)		
4									Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
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DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-65  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: West Northview Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								3.5" Top Course	S-1) Bag sample	
2		S-1	-	-	6	6		FILL: Brown SAND, some Gravel, little Silt (SM) (moist)		
4		S-2	10	6	6		12	FILL: Gray Gravel, some Sand, trace silt (GM) (moist, compact)		
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
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16										
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28										
30										
32										
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36										
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DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-66  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Northview Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" Spoon Bore hole location was moved by about 5', due to auger refusal at 1.5'.	
2		S-1	27	50/5				FILL: Brown SAND, little to some Silt, little Gravel (SM) (moist)		
4		S-2	9	9	18	27		Brown SAND, little Silt, little Clay, little weathered Shale fragments (SM) (moist, compact)		
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
14										
16										
18										
20										
22										
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26										
28										
30										
32										
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36										
38										
40										

DRILLER: K. Swinnich

DRILL RIG: CME-850

METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)

JOB NUMBER: CE-05-025

TEMPERATURE: \_\_\_\_\_

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-67  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Juniper Drive  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								1.5" Top Course, 2" Binder Course, 6" Subbase	S-1) Bag sample, 3" Spoon	
2		S-1	20	17	17	15		FILL: Gray SAND, little to some Silt, little Gravel (SM) (moist)		
4		S-2	12	22	48	70		Gray CLAY and SILT, little weathered Shale fragments (CL) (moist, hard)		
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
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36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/25/2005  
 FINISHED: 10/25/2005



# SUBSURFACE LOG

Boring No.: B-68  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Spruce Way  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								1.5" Top Course, 2" Binder Course, 6" Subbase	S-1) Bag sample, 2" Spoon	
2		S-1	21	20	32	25	52	Grayish brown SAND, some Silt, little Gravel, trace shale fragments (SM) (moist, compact)		
4		S-2	6	6	11		17	Gray CLAY, little Silt, little Sand, little embedded Gravel (CL) (moist, very stiff)		
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
12										
14										
16										
18										
20										
22										
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26										
28										
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32										
34										
36										
38										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/24/2005  
 FINISHED: 10/24/2005



# SUBSURFACE LOG

Boring No.: B-69  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								1.5" Top Course, 2" Binder Course, 18" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	31	39	42	18		Brown SAND, little to some Silt, little Gravel (SM) (moist)		
4		S-2	12	23	48	71		Gray Residual soil to decomposed/weathered SHALE (SM) (moist, very compact)		
6								Test boring terminated at depth of 4.0 feet.	Free standing water was not encountered upon boring completion.	
8										
10										
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30										
32										
34										
36										
38										
40										

DRILLER: K. Swinnich  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_

DRILL RIG: CME-850

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/19/2005  
 FINISHED: 10/19/2005



# SUBSURFACE LOG

Boring No.: RB-1  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	N			
0								1.5" Top Course, 2" Binder Course, 6" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	26	10	9	10		FILL: Brown SAND, some Gravel, little Silt (SM) (moist)		
4		S-2	7	7	10	10	17	(Grades to "little" Silt, "little" Gravel) (SM) (moist, firm)		
6		S-3	4	4	4	6	8	(Grades to "some" Gravel and/or Cobbles) (loose)		
8		S-4	4	6	49	20	55	(very compact)		
10		S-5	10	15	21	33	36	Gray GRAVEL and COBBLE, little Sand, trace silt (GP) (moist, compact)		
10		S-6	50/5				Ref.			
10		S-7	50/5				Ref.	(Grades to "and" decomposed/weathered SHALE)		
15		R-1						Run 1) Gray SHALE, medium hard, weathered, thin bedded, vertical fractures at depth ranging from 13.3' to 15.4' with Clay seam within the fracture zone.	Run No. 1: 13.3' to 16.3' Recovery = 100% RQD = 0%	
20								Test boring terminated at depth of 16.3 feet.	Free standing water was encountered at depth 11.2' upon boring completion.	
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/19/2005  
 FINISHED: 10/19/2005



# SUBSURFACE LOG

Boring No.: RB-2  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement  
 CLIENT: Dewberry-Goodkind, Inc.

LOCATION: Coddington Road  
Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0-6	6-12	12-18	18-24	24-N				
0									1.5" Top Course, 2" Binder Course	S-1) Bag sample, 3" spoon	
2		S-1	8	8	13	21			FILL: Brown SAND and GRAVEL, little Silt (SM) (moist) (loose)		
4		S-2	5	5	5	6	10				
6		S-3	6	12	50	50/1	62		(Grades to "some" Sand) (very compact)		
8		R-1							R-1) BOULDERS	Run No. 1: 6.5' to 7.5' Recovery = 0 % RQD = 0%	
10		S-4	18	50/5			Ref.		Brown SAND, some Gravel, some Shale fragments, little Silt (SM) (moist)		
12.5		R-2							Run 2) Gray SHALE, medium hard, weathered, thin bedded to , bedded, little fractured	Run No. 2: 9.5' to 12.5' Recovery = 83 % RQD = 30 %	
15									Test boring terminated at depth of 12.5 feet.	Free standing water was encountered at depth 8.2' upon boring completion.	
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DRILLER: K. Swinnich

METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)

JOB NUMBER: CE-05-025

TEMPERATURE: \_\_\_\_\_

DRILL RIG: CME-850

CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/20/2005  
 FINISHED: 10/20/2005



# SUBSURFACE LOG

Boring No.: RB-3  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								1.5" Top Course, 2" Binder Course, 12" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	21	18	18	14		FILL: Brown SAND, some Gravel, little Silt (SM) (moist)		
4		S-2	3	5	5	7	10	FILL: Brown SILT, little Clay, little Sand, trace gravel (ML) (moist, stiff)		
6		S-3	3	3	7	7	10	(Grades to "trace" roots)		
8		S-4	7	5	7	7	12	Brown SAND, little Silt, little Gravel, trace clay (SM) (moist, firm)		
10		S-5	10	12	27	50/0	39	(compact)		
10		R-1						Run 1) Gray SHALE, medium hard, weathered, laminated to thin bedded, vertical fractures at depth ranging from 10 to 12.5'.	Run No. 1: 10' to 13' Recovery = 96 % RQD = 0 %	
15								Test boring terminated at depth of 13.0 feet.	Free standing water was encountered at depth 3.4' upon boring completion.	
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/20/2005  
 FINISHED: 10/20/2005



# SUBSURFACE LOG

Boring No.: RB-4  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0	6	12	18	24	N			
0									6" Asphalt, 6" Subbase		
2		S-1	6	5	5	5			FILL: Brown SAND, some Gravel, little Silt (SM) (moist, loose)		
4		S-2	8	11	9	8	20		Brownish gray GRAVEL and/or COBBLE, some Sand, trace silt (GP) (moist, firm)		
6		S-3	6	9	11	14	20				
8		S-4	9	11	12	12	23		Brown to gray SAND, some Gravel, little Silt (SM) (moist, firm)		
10		S-5	9	13	16	18	29				
12		S-6	15	18	31	50/1	49		(Grades to "and" SHALE fragments)		
15		R-1							Run 1) Gray SHALE, medium hard to hard, weathered, thin bedded to bedded with Clay seam at 15'.	Run No. 1: 13.3' to 16.3' Recovery = 90 % RQD = 30 %	
16.3									Test boring terminated at depth of 16.3 feet.	Free standing water was encountered at depth 5.6' upon boring completion.	
20											
25											
30											
35											
40											

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/20/2005  
 FINISHED: 10/20/2005



# SUBSURFACE LOG

Boring No.: RB-5  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER						Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N				
0									1.5" Top Course, 2" Binder Course, 6" Subbase		
2		S-1	15	10	12	10			FILL: Brown SAND, some Gravel, little Silt (SM) (moist)		
4		S-2	3	3	3	3	6		Possible FILL: Brown SILT, little Sand, trace gravel (ML) (moist, loose)		
6		S-3	8	5	6	5	11		(Grades to "little" Clay) (firm)		
8		S-4	8	10	12	17	22		Brown CLAY, some Silt, little Shale (CL) (moist, very stiff)		
10		S-5	13	15	16	11	31		(hard)		
		S-6	31	50/1			Ref.				
		R-1							Gray decomposed/weathered SHALE (moist)		
									Run 1) Gray SHALE, medium hard, weathered, laminated to thin bedded, fractured vertically at depth ranging from 13.7' to 14'.	Run No. 1: 11.0 to 14.0' Recovery = 100 % RQD = 0 %	
15									Test boring terminated at depth of 14.0 feet.	Free standing water was encountered at depth 4.1' upon boring completion.	
20											
25											
30											
35											
40											

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/20/2005  
 FINISHED: 10/20/2005



# SUBSURFACE LOG

Boring No.: RB-6  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								1.5" Top Course, 2" Binder Course, 12" Subbase	S-1) Bag sample, 3" spoon  Angular to sub-rounded gravel Driller noted soft organic clay	
2		S-1	15	17	15	12		FILL: Dark brown to black SAND, some Gravel, some Silt (SM) (moist)		
4		S-2	9	7	5	4	12	Brown SILT, little Clay, little Sand, trace gravel (ML) (moist, firm)		
6		S-3	4	5	7	7	12	(Grades to "some" Gravel)		
8		S-4	6	5	6	6	11	Brown to dark brown SAND, some Silt, little Gravel/Shale fragment little clay, trace wood		
10		S-5	12	50/3			Ref.	(SM) (moist, firm)	Run No. 1: 10' to 13' Recovery = 76 % RQD = 27 %	
		R-1						Run 1) Gray SHALE, medium hard, weathered, laminated		
								Test boring terminated at depth of 13.0 feet.	Free standing water was encountered at depth 3.6' upon boring completion.	
15										
20										
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer

DATE: 11/9/2005  
 STARTED: 10/21/2005  
 FINISHED: 10/21/2005



# SUBSURFACE LOG

Boring No.: RB-7  
 SURF. ELEV. G. S.  
 G.W. DEPTH (See Notes)  
 SHEET 1 of 1

PROJECT: Coddington Road Improvement LOCATION: Coddington Road  
 CLIENT: Dewberry-Goodkind, Inc. Tompkins County, New York

DEPTH-FT.	SAMPLES	SAMPLE NO.	BLOWS ON SAMPLER					Rec (ft)	SOIL OR ROCK CLASSIFICATION	NOTES
			0/6	6/12	12/18	18/24	N			
0								1.5" Top Course, 2" Binder Course, 12" Subbase	S-1) Bag sample, 3" spoon	
2		S-1	17	15	15	12		FILL: Brown SAND and GRAVEL, little Silt (SM) (moist)		
4		S-2	18	24	31	31	55	(Grades to "little" Asphalt fragments)		
6		S-3	27	18	10	10	28	Brown SILT, little Clay, little Sand, little Gravel (ML) (moist, firm)		
8		S-4	12	13	13	12	26	(Grades to "little" Shale fragments)		
10		S-5	21	50			Ref.	Gray SAND and weathered SHALE, little Silt, little Gravel (SM) (moist)	S-4: poor recovery	
10		R-1						Run 1) Gray SHALE, hard, weathered, laminated to thin bedded fractured at depth ranging from 10.7' to 11.7'. Test boring terminated at depth of 12.5 feet.		
15									Run No. 1: 9.5' to 12.5' Recovery = 100 % RQD = 0 %	
20									Free standing water was encountered at depth 5.7' upon boring completion.	
25										
30										
35										
40										

DRILLER: K. Swinnich DRILL RIG: CME-850  
 METHOD OF INVESTIGATION: 4 1/4" I.D. Hollow Stem Augers, 2" Split Spoon Sampler (ASTM D1586)  
 JOB NUMBER: CE-05-025  
 TEMPERATURE: \_\_\_\_\_ CLASSIFIED BY: Geotechnical Engineer



**Rochester Office**

535 Summit Point Drive  
Henrietta, NY 14467

**LABORATORY D.I.P.R.A. TESTS**

Project: Coddington Road Improvement Date: 11-10-05 Job# CE-05-025 Page: #1

Technician: Josh Brown

Note: Per the Ductile Iron Pipe Research Association (DIPRA), point totals 10 or greater should be considered for Cathodic Protection.

**Test Results**  
**Laboratory Analysis of the soil sampled:**

No.	LOCATION	RESISTIVITY	REDOX	pH	SULFIDES	MOISTURE	TOTAL POINTS
		(ohm-cm) points	(mv) points	points	(+,I,-) points	(wet, moist, dry) points	
05-1412	B-7	2900	-53.8	7.48	-	moist	7
		1	5	0	0	1	
05-1413	B-9	10000	-16.0	6.85	-	moist	6
		0	5	0	0	1	
05-1414	B-10	4000	-49.7	7.40	-	moist	6
		0	5	0	0	1	
05-1415	B-11	2600	-59.9	7.57	-	moist	7
		1	5	0	0	1	
05-1416	B-12	1400	-33.5	7.14	-	moist	16
		10	5	0	0	1	
05-1417	B-14	6100	5.7	6.43	-	moist	5
		0	4	0	0	1	



**Rochester Office**

535 Summit Point Drive  
Henrietta, NY 14467

**LABORATORY D.I.P.R.A. TESTS**

Project: Coddington Road Improvement Date: 11-10-05 Job# CE-05-025 Page: #2

Technician: Josh Brown

Note: Per the Ductile Iron Pipe Research Association (DIPRA), point totals 10 or greater should be considered for Cathodic Protection.

**Test Results**  
**Laboratory Analysis of the soil sampled:**

No.	LOCATION	RESISTIVITY	REDOX	pH	SULFIDES	MOISTURE	TOTAL POINTS
		(ohm-cm) points	(mv) points	points	(-,T,-) points	(wet, moist, dry) points	
05-1418	B-15	3000	-62.0	7.61	-	moist	7
		1	5	0	0	1	
05-1419	B-16	3800	-32.2	7.11	-	moist	6
		0	5	0	0	1	
05-1420	B-17	7900	-57.3	7.54	-	moist	6
		0	5	0	0	1	
05-1421	B-22	1300	-31.9	7.09	-	moist	16
		10	5	0	0	1	
05-1422	B-23	4900	-40.2	7.24	-	moist	6
		0	5	0	0	1	
05-1423	B-26	1800	-39.8	7.24	-	moist	14
		8	5	0	0	1	



## APPENDIX D

### FILL MATERIAL AND EARTHWORK RECOMMENDATIONS

#### I. Material Recommendations

##### A. Structural Fill

Structural Fill should consist of a crusher run stone, free of clay, organics and friable or deleterious particles. As a minimum, the crusher stone should meet the requirements of New York State Department of Transportation, Standard Specifications, Item 304.12 M – Type 2 Subbase, with the following gradation requirements.

<u>Sieve Size</u> <u>Distribution</u>	<u>Percent Finer</u> <u>by Weight</u>
2 inch	100
¼ inch	25-60
No. 40	5-40
No. 200	0-10

##### B. Subbase Stone

The subbase stone course placed as the aggregate course beneath slab-on-grade and pavement construction should conform to the same material requirements as Structural Fill as stated above.

##### C. Suitable Granular Fill

Suitable soil material, classified as GW, GP, GM, SW, SP and SM soils using the Unified Soil Classification System (ASTM D-2487) and having no more than 85-percent by weight material passing the No. 4 sieve, no more than 20-percent by weight material passing the No. 200 sieve and which is generally free of particles greater than 6 inches, will be acceptable as Suitable Granular Fill. It should also be free of topsoil, asphalt, concrete rubble, wood, debris, clay and other deleterious materials. Suitable Granular Fill can be used as foundation backfill and as subgrade fill to raise site grades beneath pavement construction.

##### D. General Fill

General Fill may be used for backfill in non-loaded areas outside of paved areas. General Fill should be free of topsoil, organics, debris and deleterious materials and should be of a moisture content suitable for proper compaction.

## GEOTECHNICAL REPORT LIMITATIONS

Empire Geo-Services, Inc. (Empire) has endeavored to meet the generally accepted standard of care for the services completed, and in doing so is obliged to advise the geotechnical report user of our report limitations. Empire believes that providing information about the report preparation and limitations is essential to help the user reduce geotechnical-related delays, cost over-runs, and other problems that can develop during the design and construction process. Empire would be pleased to answer any questions regarding the following limitations and use of our report to assist the user in assessing risks and planning for site development and construction.

**PROJECT SPECIFIC FACTORS:** The conclusions and recommendations provided in our geotechnical report were prepared based on project specific factors described in the report, such as size, loading, and intended use of structures; general configuration of structures, roadways, and parking lots; existing and proposed site grading; and any other pertinent project information. Changes to the project details may alter the factors considered in development of the report conclusions and recommendations. *Accordingly, Empire cannot accept responsibility for problems which may develop if we are not consulted regarding any changes to the project specific factors that were assumed during the report preparation.*

**SUBSURFACE CONDITIONS:** The site exploration investigated subsurface conditions only at discrete test locations. Empire has used judgement to infer subsurface conditions between the discrete test locations, and on this basis the conclusions and recommendations in our geotechnical report were developed. It should be understood that the overall subsurface conditions inferred by Empire may vary from those revealed during construction, and these variations may impact on the assumptions made in developing the report conclusions and recommendations. *For this reason, Empire should be retained during construction to confirm that conditions are as expected, and to refine our conclusions and recommendations in the event that conditions are encountered that were not disclosed during the site exploration program.*

**USE OF GEOTECHNICAL REPORT:** Unless indicated otherwise, our geotechnical report has been prepared for the use of our client for specific application to the site and project conditions described in the report. *Without consulting with Empire, our geotechnical report should not be applied by any party to other sites or for any uses other than those originally intended.*

**CHANGES IN SITE CONDITIONS:** Surface and subsurface conditions are subject to change at a project site subsequent to preparation of the geotechnical report. Changes may include, but are not limited to, floods, earthquakes, groundwater fluctuations, and construction activities at the site and/or adjoining properties. *Empire should be informed of any such changes to determine if additional investigative and/or evaluation work is warranted.*

**MISINTERPRETATION OF REPORT:** The conclusions and recommendations contained in our geotechnical report are subject to misinterpretation. *To limit this possibility, Empire should review project plans and specifications relative to geotechnical issues to confirm that the recommendations contained in our report have been properly interpreted and applied.*

Subsurface exploration logs and other report data are also subject to misinterpretation by others if they are separated from the geotechnical report. This often occurs when copies of logs are given to contractors during the bid preparation process. *To minimize the potential for misinterpretation, the subsurface logs should not be separated from our geotechnical report and the use of excerpted or incomplete portions of the report should be avoided.*

**OTHER LIMITATIONS:** Geotechnical engineering is less exact than other design disciplines, as it is based partly on judgement and opinion. For this reason, our geotechnical report may include clauses that identify the limits of Empire's responsibility, or that may describe other limitations specific to a project. These clauses are intended to help all parties recognize their responsibilities and to assist them in assessing risks and decision making. Empire would be pleased to discuss these clauses and to answer any questions that may arise.