



Pontiac Tr.

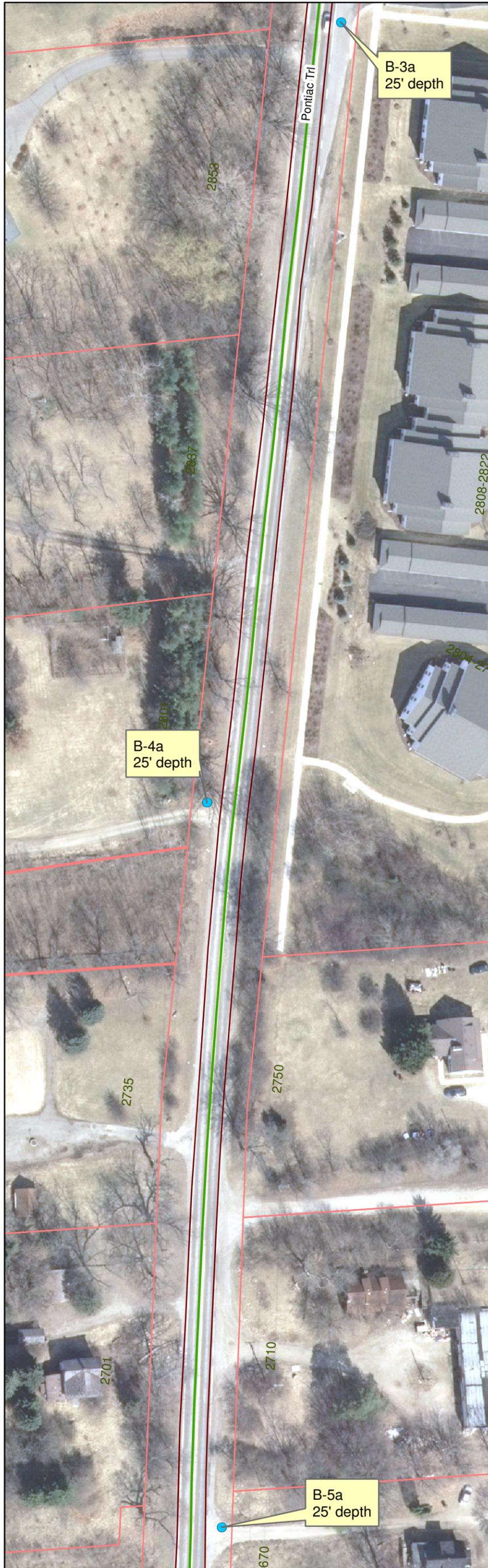
1 inch = 80 feet





Pontiac Tr.

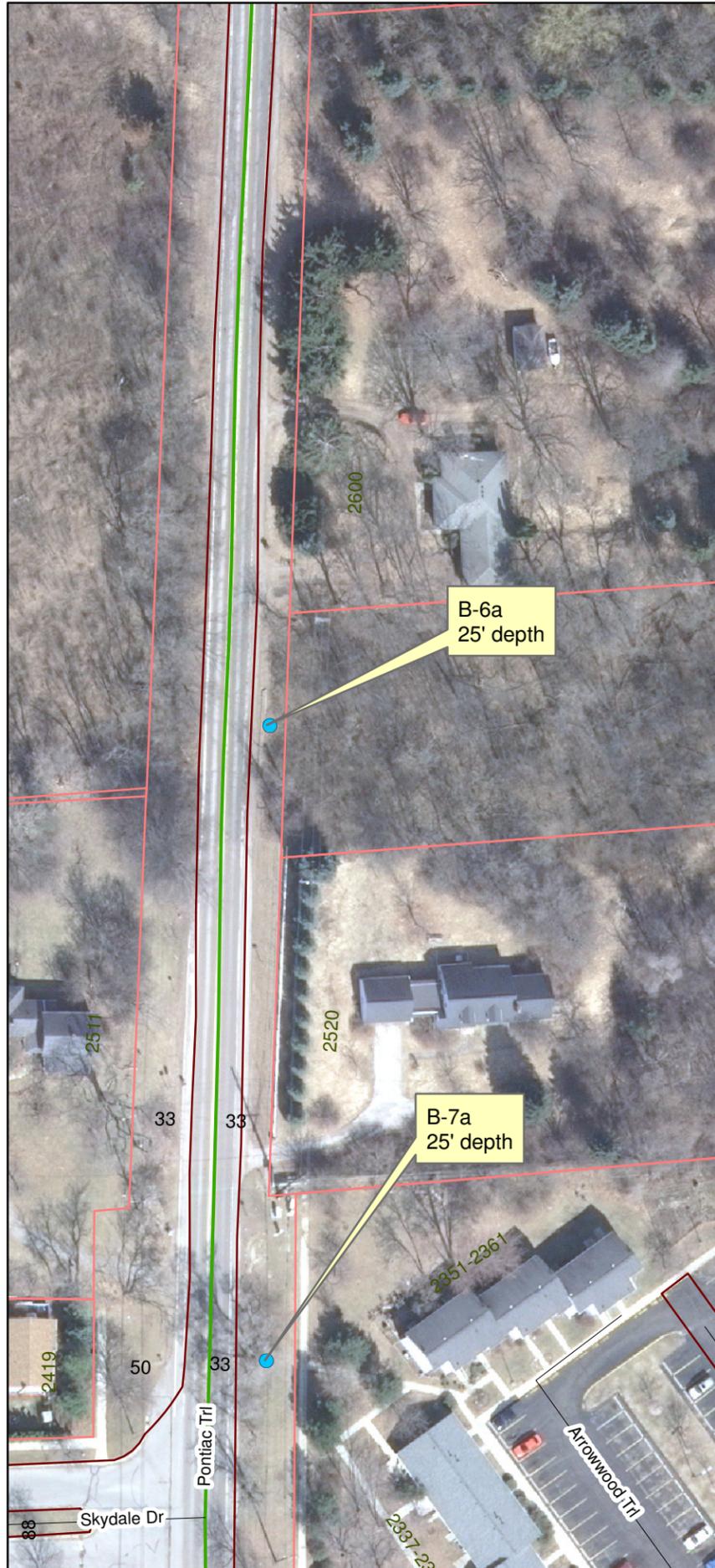
1 inch = 80 feet





Pontiac Tr.

1 inch = 80 feet





CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-1

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 11/28/12 **COMPLETED** 11/28/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 4-1/4 inch Hollow Stem Auger
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings and patched.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH 15' 6"

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲		
								20	40	60
0		5 inches ASPHALT PAVEMENT								
0-5		13 inches of dark brown moist silty fine to medium SAND with gravel - (FILL) Brown moist fine to medium SAND with some silt and trace of gravel - (FILL)	SS 1	89	10-15-15 (30)					
5		Dark brown moist sandy CLAY with silt and trace of gravel - (FILL)	SS 2	17	6-8-9 (17)					
5-10		Rubbelized ASPHALT with occasional clay seams and pieces of slag - (FILL) Brown moist medium dense clayey fine SAND with trace of gravel and occasional clay seams - (SC)	SS 3	100	24-22-13 (35)					
10		Brown moist dense fine to medium SAND with some silt, trace of gravel and occasional cobbles - (SP-SM)	SS 4	11	8-13-14 (27)					
15			SS 5	44	9-25-22 (47)					
20		Brown moist dense to very dense fine SAND with silt, some gravel and occasional cobbles - (SM)	SS 6	56	12-17-22 (39)					
25			SS 7	100	38-47-22 (69)					

Bottom of borehole at 25.0 feet.

Boring performed 2' east of west edge of road, 61' north of address 3185 driveway



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-2

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 10/11/12 **COMPLETED** 10/11/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 2-1/4 inch HSA
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH 15'6"

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲		
								20	40	60
0		12 inches of dark brown moist sandy TOPSOIL with traces of gravel								
0-4		Brown moist medium dense clayey fine to medium SAND with silt and some gravel - (SC)	SS 1	100	7-7-7 (14)					
4-5		Brown moist hard sandy CLAY with silt, trace of gravel and frequent silt partings - (CL)	SS 2	100	7-9-8 (17)	4.5+				
5-9		Brown moist medium dense silty fine to coarse SAND with some gravel and occasional cobbles - (SM)	SS 3	78	8-6-7 (13)	4.5+				
9-15			SS 4	78	9-6-7 (13)					
15-20			SS 5	78	4-5-6 (11)					
20-22		Brown moist medium dense silty, clayey fine SAND with trace of gravel - (SC-SM)	SS 6	100	10-11-12 (23)					
22-25		Brown moist medium dense silty fine SAND with traces of gravel and clay - (SM)	SS 7	100	12-10-11 (21)					

Bottom of borehole at 25.0 feet.

Boring performed 20' west of west edge of road, 40' north of center of Dhu Varren Road



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-3

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 10/11/12 **COMPLETED** 10/11/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 2-1/4 inch HSA
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings and patched.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING 13'
AFTER DRILLING None
COLLAPSE DEPTH 16'6"

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲			
								PL	MC	LL	
								20	40	60	80
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		6 inches of ASPHALT PAVEMENT									
		18 inches of brown moist fine to medium SAND with some gravel and clay - (FILL)	SS 1	100	16-11-7 (18)						
		Brown moist medium dense gravelly fine to coarse SAND with some clay and occasional clay lenses - (SP-SC)	SS 2	83	4-3-3 (6)						
5		Brown moist hard CLAY with silt, traces of gravel and sand and occasional silt partings - (CL)	SS 3	94	2-3-5 (8)	4.5+		13			
		Brown moist dense fine SAND with some silt, trace of gravel and occasional cobbles - (SP-SM)	SS 4	100	5-12-21 (33)	4.5+		21			
10		Brown wet dense sandy SILT - (ML)	SS 5	100	12-14-18 (32)						
15		Light brown moist dense to medium dense fine SAND with some silt - (SP-SM)	SS 6	100	11-14-21 (35)						
20			SS 7	100	8-12-13 (25)						
25											

Bottom of borehole at 25.0 feet.

Boring performed 10' west of east curb, 20' south of Knightsbridge Circle



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-4

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 10/12/12 **COMPLETED** 10/12/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 2-1/4 inch HSA
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH None

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲						
								PL	MC	LL				
								20	40	60	80			
								20	40	60	80			
								□ FINES CONTENT (%) □			20	40	60	80
0		2 inches of dark brown TOPSOIL												
0-5		Brown moist medium dense silty, sandy GRAVEL - (GM)	SS 1	94	8-9-12 (21)									
5-15		Brown moist hard CLAY with silt, traces of gravel and sand and frequent silt partings - (CL)	SS 2	100	11-15-17 (32)	4.5+								
			SS 3	100	11-18-22 (40)	4.5+								
			SS 4	100	13-21-33 (54)	4.5+								
15-20		Light brown moist dense to medium dense fine SAND with some silt - (SP-SM)	SS 5	100	12-22-22 (44)	4.5+								
			SS 6	100	10-9-18 (27)									
			SS 7	100	12-17-17 (34)									

Bottom of borehole at 25.0 feet.

Boring performed 15' west of west edge of road, 260' north of driveway to address 2735 Pontiac Trail



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-5

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 11/29/12 **COMPLETED** 11/29/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 4-1/4 inch Hollow Stem Auger
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING 13' 6"
AFTER DRILLING 13'
COLLAPSE DEPTH 14'

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲			
								20	40	60	80
0								PL	MC	LL	
								20	40	60	80
								□ FINES CONTENT (%) □			
								20	40	60	80
0		6 inches of brown moist silty fine to medium SAND with gravel - (FILL)									
		Brown moist fine to medium SAND with some gravel and silt - (FILL)	SS 1	89	6-7-3 (10)	0.75	17				
		Brown moist CLAY with silt, traces of gravel and sand and occasional silt seams - (FILL)									
5		Brown moist silty fine SAND with trace of gravel and occasional clay lenses - (FILL)	SS 2	83	3-5-5 (10)						
		Brown moist loose fine to medium SAND with some silt, trace of gravel and occasional organic clay seams - (SP-SM/Poss. FILL) Loss-on-Ignition (organic content) = 3.5%	SS 3	83	2-5-4 (9)		28				
10		Brown moist stiff CLAY with silt, traces of gravel and sand and occasional silt seams - (CL)	SS 4	100	2-3-4 (7)	1.25	21				
15		Brown wet very loose to medium dense fine to medium SAND with some silt and occasional clay lenses - (SP-SM)	SS 5	78	1-0-0 (0)						
20			SS 6	100	7-9-7 (16)						
25		Gray wet loose clayey fine to medium SAND with trace of gravel and occasional clay seams - (SC)	SS 7	83	2-2-2 (4)						

Bottom of borehole at 25.0 feet.

Boring performed 4' east of east edge of road, 2 feet north of address 2672 driveway



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-6

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 11/29/12 **COMPLETED** 11/29/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 4-1/4 inch Hollow Stem Auger
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH 17'

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲		
								20	40	60
0		6 inches of brown moist silty fine to medium SAND with gravel - (FILL)								
		Brown moist loose fine to coarse SAND with some gravel and silt - (SP-SM)	SS 1	78	6-5-4 (9)					
		Brown moist loose fine to coarse SAND with some gravel and clay - (SP-SC)	SS 2	56	3-4-4 (8)					
5		Brown moist loose fine SAND with some silt and trace of gravel - (SP-SM)	SS 3	89	3-4-5 (9)					
			SS 4	78	3-3-4 (7)					
10										
		Brown moist medium dense fine to medium SAND with silt and some gravel - (SM)	SS 5	89	4-8-9 (17)					
15										
		Brown moist medium dense fine to medium SAND with some gravel, trace of silt and occasional cobbles - (SP)	SS 6	67	6-7-10 (17)					
20										
			SS 7	56	9-11-9 (20)					
25										

Bottom of borehole at 25.0 feet.

Boring performed 1' east of east edge of road, 65' south of address 2600 driveway



CTI and Associates Inc

BORING NUMBER: Pontiac Trail B-7

PAGE 1 OF 1

CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-2
DATE STARTED 11/29/12 **COMPLETED** 11/29/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 4-1/4 inch Hollow Stem Auger
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings and patched.

PROJECT NAME Miscellaneous Geotechnical Services
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH 21' 6"

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf) UNC. STRENGTH (psf)	NATURAL MOISTURE CONTENT (%)	▲ SPT N VALUE ▲		
								20	40	60
0		6 inches of ASPHALT PAVEMENT								
		6 inches of dark brown moist silty fine to medium SAND with gravel - (FILL)	SS 1	89	6-9-7 (16)					
		12 inches of gray moist fine to coarse SAND and GRAVEL - (FILL)								
		Brown moist medium dense silty fine sand with traces of gravel and clay and occasional clay seams - (SM)	SS 2	94	4-5-7 (12)					
5		Brown moist loose silty fine SAND - (SM)	SS 3	100	3-5-5 (10)					
			SS 4	89	4-5-5 (10)					
10		Brown moist to very moist loose sandy SILT - (ML)								
			SS 5	94	4-4-4 (8)					
15		Light brown moist loose fine to medium SAND with some gravel, trace of silt and occasional silt lenses - (SP)								
			SS 6	44	3-5-6 (11)					
20		Brown moist medium dense to loose fine to medium SAND with some gravel and silt - (SP-SM)								
			SS 7	67	5-4-5 (9)					
25										

Bottom of borehole at 25.0 feet.

Boring performed 11' west of east edge of road, 61' south of address 2520 driveway

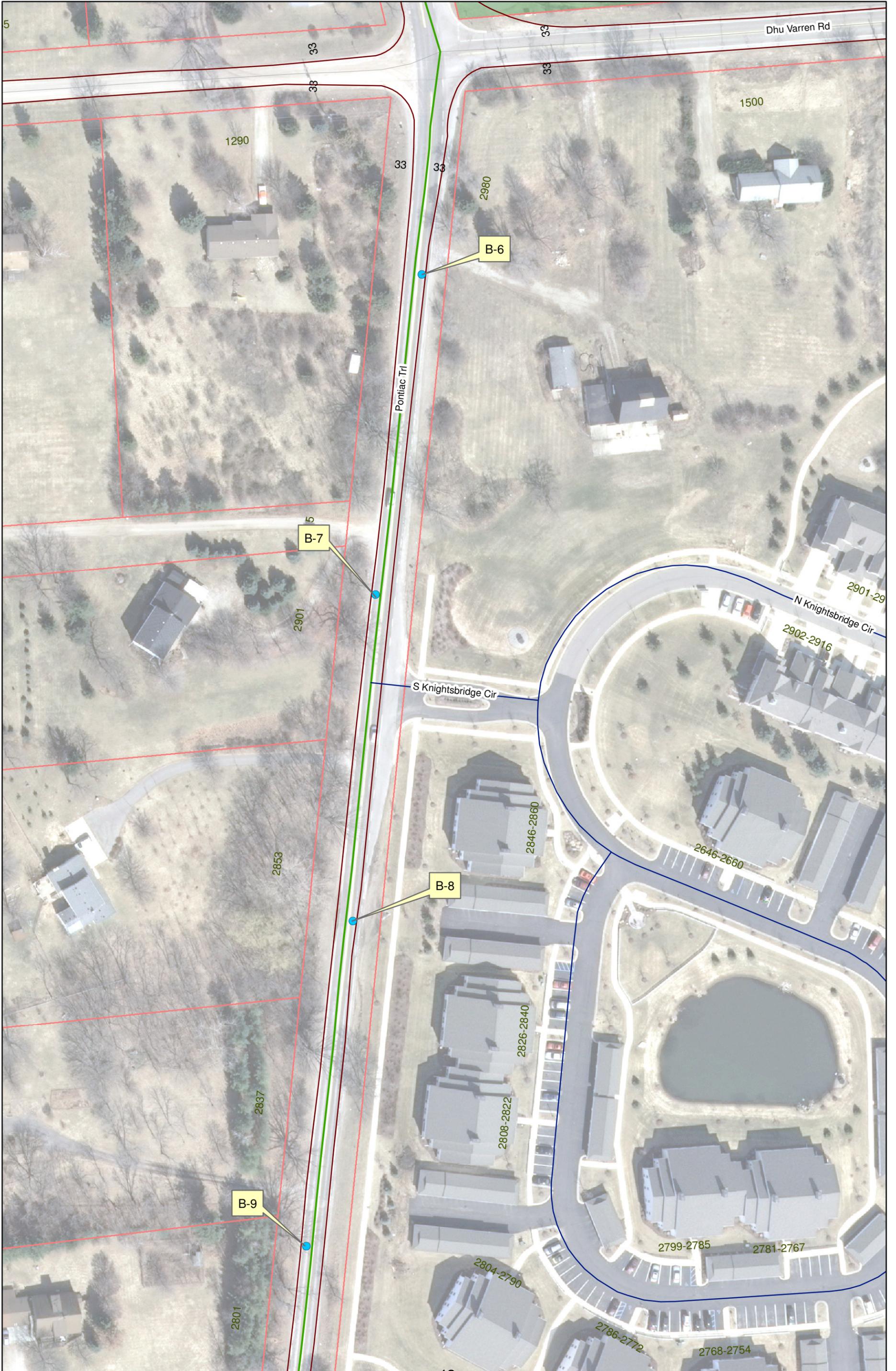
Pontiac Trail

1" = 80'



Pontiac Trail

1" = 80'



Pontiac Trail

1" = 80'





Testing Engineers & Consultants, Inc.

1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249

(248) 588-6200 or (313) T-E-S-T-I-N-G

Fax (248) 588-6232

Boring No.: PT1 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/21/2011
		Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.25	ASPHALT (3")	4.7	94	
2.5	LS	15 16 12	3	Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clay-FILL			
5.0	LS	6 9/4"	5	Medium Compact Moist Brown Clayey SAND With Trace Of Gravel & Clay Layers	5.8	112	
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, pcf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT1 Pontiac Trail



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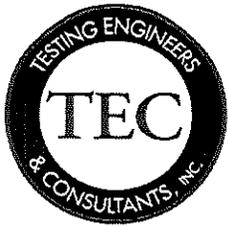
Boring No.: PT2 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/21/2011
		Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.38	ASPHALT (4 1/2")			
2.5	LS	10 13 10		Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clayey Seams-FILL	5.5	93	
5.0	LS	4 9/5"	5	Bottom of Borehole at 5'	5.7	97	
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" J.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None
At Completion: None
Boring No. PT2 Pontiac Trail



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Boring No.: PT3 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/21/2011
		Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.27	ASPHALT (3 1/4")	7.1	99	
2.5	LS	15 11 11	3	Medium Compact Moist Brown Gravelly Well Graded Sand With Some Clay-FILL			
5.0	LS	4 5 6	4 5	Medium Compact Moist Brown Fine SAND	15.5	103	
				Firm Moist Brown CLAY With Some Silt & Trace Of Gravel			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" J.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, pcf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT3 Pontiac Trail



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Boring No.: PT4 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/21/2011
		Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.54				
2.5	LS	6 7 5	1.5	ASPHALT (6 1/2")	16.3	125	3300
			3	Medium Compact Moist Brown Clayey Medium To Fine SAND With Trace Of Gravel			
5.0	LS	6 7 7	5	Firm Moist Brown CLAY With Some Silt & Trace Of Gravel	5.6	104	
				Medium Compact MOist Brown Medium SAND			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

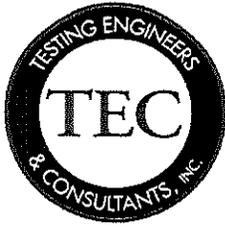
"N" - Standard Penetration Resistance
 SS - 2" J.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT4 Pontiac Trail



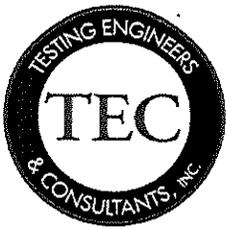
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Boring No.: PT5 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/21/2011
		Completed: 12/21/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.29	ASPHALT (3 1/2")			
2.5	LS	3 4 5	3	Loose Moist Brown Well Graded Sand With Some Gravel & Clay-FILL	14.3	124	1400
5.0	LS	6 8 9	5	Medium Compact Moist Brown Fine To Medium SAND With Trace Of Gravel	5.2	101	
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance SS - 2")D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample AS - Auger Sample	w - H ₂ O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push	Water Encountered: None At Completion: None Boring No. PT5 Pontiac Trail
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Boring No.: PT6 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/7/2011
		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
0.0			.60	ASPHALT (7 1/4")			
2.5	LS	9 9 6		Medium Compact Moist Brown Well Graded Sand With Some Gravel & Clay-FILL	6.5	106	
5.0	LS	5 7 9	3 5	Medium Compact Moist Brown Medium SAND With Trace Of Gravel	4.6	112	
5.0				Bottom of Borehole at 5'			
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

N - Standard Penetration Resistance
 SS - 2" J.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample
 w - H2O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None
At Completion: None
Boring No. PT6 Pontiac Trail



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(248) 588-6200 or (313) T-E-S-T-I-N-G

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Boring No.: PT7 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/7/2011
		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.58	ASPHALT (7")			
2.5	LS	9 9 9		Medium Compact Moist Brown Well Graded Sand With Some Gravel & Clay-FILL	7.6	122	
5.0	LS	5 6 6	4		3.9	125	
			5	Medium Compact Moist Brown Fine SAND With Trace Of Gravel			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

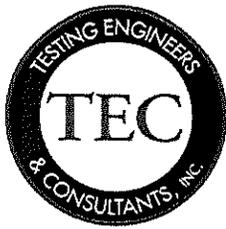
"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT7 Pontiac Trail



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Boring No.: PT8 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/7/2011
		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.54	ASPHALT (6 1/2")			
2.5	LS	9 10 6		Medium Compact Moist Brown Clayey SAND With Some Gravel & Pebbles	7.4	124	
5.0	LS	6 7 12	5	Bottom of Borehole at 5'	10.5	130	
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT8 Pontiac Trail



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Boring No.: PT9 Pontiac Trail	Job No.: 51989	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		
Type of Rig: Truck		Location: Ann Arbor, Michigan
Drilling Method: Solid Stem Augers		Drilled By: I. Mickle
Ground Surface Elevation:		Started: 12/7/2011
		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
0.0			.56	ASPHALT (6 3/4")			
2.5	LS	4 4 2/2"	3.4	Loose Moist Brown Clayey SAND With Some Gravel	12.5	109	
5.0				On Possible Utility At 2.2'. Moved 3.5' North & Redrilled, Possible Utility At 3.4' Bottom of Borehole at 3.4'			
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" .D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered:

At Completion:

Boring No. PT9 Pontiac Trail



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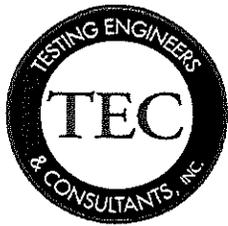
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Fax (248) 588-6232

Boring No.: PT10 Pontiac Trail 51989	Job No.:	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		Location: Ann Arbor, Michigan
Type of Rig: Truck		Drilled By: I. Mickle
Drilling Method: Solid Stem Augers		Started: 12/7/2011
Ground Surface Elevation:		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.56	ASPHALT (6 3/4")			
2.5	LS	7 5 4	2	Medium Compact Moist Brown Clayey Medium To Fine SAND With Trace Of Gravel	4.9	128	
			3				
5.0	LS	7 8 9	5	Loose Moist Brown Clayey SAND With Trace Of Gravel	11.1	130	5600
				Stiff Moist Brown CLAY With Some Silt & Trace Of Gravel			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance SS - 2" J.D. Split Spoon Sample LS - Sectional Liner Sample ST - Shelby Tube Sample AS - Auger Sample	w - H ₂ O, % of dry weight d - Bulk Density, pcf qu - Unconfined Compression, psf DP - Direct Push	Water Encountered: None At Completion: None Boring No. PT10 Pontiac Trail
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Boring No.: PT11 Pontiac Trail 51989	Job No.:	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		Location: Ann Arbor, Michigan
Type of Rig: Truck		Drilled By: I. Mickie
Drilling Method: Solid Stem Augers		Started: 12/7/2011
Ground Surface Elevation:		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.35	ASPHALT (4 1/4")			
2.5	LS	10 7 7	2.5	Medium Compact Moist Dark Brown Clayey Medium To Fine SAND With Trace Of Gravel	4.3	120	
5.0	LS	4/1"	3.6	Medium Compact Moist Brown Clayey SILT & Sand			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

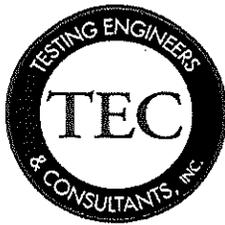
"N" - Standard Penetration Resistance
 SS - 2" .D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT11 Pontiac Trail



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Boring No.: PT12 Pontiac Trail 51989	Job No.:	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		Location: Ann Arbor, Michigan
Type of Rig: Truck		Drilled By: I. Mickle
Drilling Method: Solid Stem Augers		Started: 12/7/2011
Ground Surface Elevation:		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.63				
			1.3	ASPHALT (7 1/2")			
2.5	LS	6 6 5		Moist Brown Gravelly Well Graded Sand With Some Clay-FILL	10.1	123	
			3	Medium Compact Moist Brown Clayey SILT & Sand			
5.0	LS	2 3 3		Plastic Moist Variegated CLAY With Some Silt & Trace Of Sand	15.8	115	1400
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

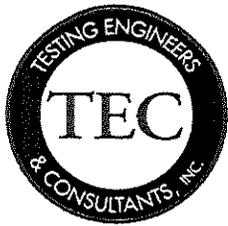
"N" - Standard Penetration Resistance
 SS - 2" I.D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT12 Pontiac Trail



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Boring No.: PT13 Pontiac Trail 51989	Job No.:	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		Location: Ann Arbor, Michigan
Type of Rig: Truck		Drilled By: I. Mickle
Drilling Method: Solid Stem Augers		Started: 12/7/2011
Ground Surface Elevation:		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
0.0			.48				
0.0			.83	ASPHALT (5 3/4")			
2.5	LS	10 9 11		Moist Brown Gravelly Well Graded Sand With Some Clay-FILL	10.6	103	
5.0	LS	4 6 6	5	Medium Compact Moist Brown Fine SAND	3.6	105	
5.0				Bottom of Borehole at 5'			
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

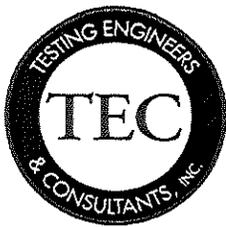
N - Standard Penetration Resistance
 SS - 2" D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT13 Pontiac Trail



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Boring No.: PT14 Pontiac Trail 51989	Job No.:	Project: Miscellaneous Geotechnical Services, Bundle One
Client: City of Ann Arbor		Location: Ann Arbor, Michigan
Type of Rig: Truck		Drilled By: I. Mickle
Drilling Method: Solid Stem Augers		Started: 12/7/2011
Ground Surface Elevation:		Completed: 12/7/2011

Depth (ft)	Sample Type	N	Strata Change	Soil Classification	w	d	qu
			.38 .83	ASPHALT (4 1/2")			
2.5	LS	12 12 11	3	Moist Brown Gravelly Well Graded Sand With Some Clay-FILL (5 1/2")	3.3	106	
5.0	LS	5 5 4	5	Medium Compact Moist Brown Fine SAND With Trace Of Gravel	6.7	107	
				Loose Moist Brown Fine SAND With Silt Layers			
7.5				Bottom of Borehole at 5'			
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							

"N" - Standard Penetration Resistance
 SS - 2" D. Split Spoon Sample
 LS - Sectional Liner Sample
 ST - Shelby Tube Sample
 AS - Auger Sample

w - H₂O, % of dry weight
 d - Bulk Density, pcf
 qu - Unconfined Compression, psf
 DP - Direct Push

Water Encountered: None

At Completion: None

Boring No. PT14 Pontiac Trail