SM 282 E 12/02

PSN _____ BORNUM FHB-3

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
STA _____
OFFSET ft

DIVISION Syracuse
COUNTY Herkimer
PIN S52886
ROUTE Thruway Mainline
MILEPOST 225.48
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements

SURF. ELEV. 455.0402, NAD 88
DEPTH TO WATER 34.0

COORDINATES (Lat) 43.062477°N (Long) 75.078747°W
DATE START 1/5/2017 **DATE FINISH** 1/5/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING O. D. in I. D. in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER O. D. 2 in I. D. 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	0.0									Dark gray asphalt pavement to 0.9 feet.	-
	5.0	SS1	12	12	5	10	20.2%	14		Brown to black (SAND-SILT-CLAY) fill with 15 to 25% gravel, little clay, trace to little sand, very stiff, massive soil structure, (ML-CL).	M - PL
	10.0	SS2	4	11	7	5	19.4%	9		Light brown to brown (SILTY-CLAY) fill with 5 to 15% gravel, trace sand, very stiff, massive soil structure, (CL).	M - PL
	15.0	SS3	4	5	7	8	13.2%	19		14.0-15.0' Brown (SILTY-SAND) with mostly very fine to fine size sand, trace to little silt, compact, weakly thinly bedded, (SM). 15.0-16.0' Grayish brown (SILTY-SAND) with 3 to 7% gravel, mostly very fine to fine size sand, trace silt, compact, (SP).	M - NPL
	20.0	SS4	9	6	7	8	3.7%	18		Same as 15.0-16.0'	M - NPL
	25.0	SS5	9	8			4.9%	20		Same as 15.0-16.0'	M - NPL

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CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Brandon Mikolin
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME Thruway/Millers Grove Rd. (C.R. 53)

SM 282 E 12/02

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DEPTH TO WATER 34.0

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DATE START 1/5/2017 **DATE FINISH** 1/5/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING O. D. in I. D. in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER O. D. 2 in I. D. 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK
	25.0				10	10				-
	30.0	SS6	5	3	4	5	10.0%	17		Grayish brown (SILTY-SAND) with mostly very fine to fine M - NPL size sand, trace silt, loose, (SP). -
	35.0	SS7	1	1	1	2	33.7%	15		Light brown to brown (SILTY-SAND) with mostly very fine S - NPL to fine size sand, trace to little silt, very loose, weakly thinly bedded, (SM). -
	40.0	SS8	WR	1	6	7	20.8%	20		39.0-40.0' Same as 34.0-36.0' S - NPL 40.0-41.0' Brown (SILTY-SAND) with 10 to 20% gravel, mostly very fine to coarse size sand, trace to little silt, loose, stratified, (SW). -
	45.0	SS9	10	16	50/5		10.9%	16		Brown gravelly (SILTY-SAND) with 15 to 40% gravel, S - NPL mostly very fine to coarse size sand, little silt, very dense, stratified, (SW). -
	50.0	SS10	50/2				-%	0		No recovery. -

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DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Brandon Mikolin
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

TWY-CAN SUBSURF EXPLORATION 6K16_BIN-5516071&5516072-DRAFTS.GPJ TWYSE1TMPL_V05.GDT 3/31/17

SM 282 E 12/02

PSN _____ BORNUM FHB-3

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
STA _____
OFFSET ft

DIVISION Syracuse
COUNTY Herkimer
PIN S52886
ROUTE Thruway Mainline
MILEPOST 225.48
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements

SURF. ELEV. 455.0402, NAD 88
DEPTH TO WATER 34.0

COORDINATES (Lat) 43.062477°N (Long) 75.078747°W
DATE START 1/5/2017 **DATE FINISH** 1/5/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING **O. D.** in **I. D.** in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER **O. D.** 2 in **I. D.** 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	50.0										
	55.0	SS11	27	29	44	44	18.1%	21		54.0-55.0' Gray (SILTY-SAND) with mostly very fine to fine size sand, trace silt, very dense, (SP). 55.0-56.0' Gray (SILTY-CLAY) hard, thinly laminated with very thin silt lenses, (CL).	S - PL
	60.0	SS12	7	24	46	50/4	19.8%	18		Gray (SILTY-SAND) with mostly very fine to fine size sand, trace silt, very dense, (SP).	S - NPL
	65.0	SS13	3	21	40	50/4	22.5%	20		Same as 59.0-61.0'	S - NPL
	70.0	SS14	4	27	50/5		19.7%	15		Same as 59.0-61.0'	S - NPL

BOTTOM OF HOLE AT 70.40 ft

Note:
Advanced bore hole with 4 1/4" ID x 8" OD hollow stem auger casing with 5.0-foot interval sampling to 70.4 feet. Bore hole was backfilled with cuttings and ground surface was repaired with an asphalt patch.

DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Brandon Mikolin
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

SM 282 E 12/02

PSN _____ BORNUM FHB-3

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
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OFFSET ft

DIVISION Syracuse
COUNTY Herkimer
PIN S52886
ROUTE Thruway Mainline
MILEPOST 225.48
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements

SURF. ELEV. 455.0402, NAD 88
DEPTH TO WATER 34.0

COORDINATES (Lat) 43.062477°N (Long) 75.078747°W

DATE START 1/5/2017 **DATE FINISH** 1/5/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER
CASING **O. D.** in **I. D.** in
SAMPLER **O. D.** 2 in **I. D.** 1-3/8 in

WT OF HAMMER-CASING lb **HAMMER FALL-CASING** in
WT OF HAMMER-SAMPLER 140 lb **HAMMER FALL-SAMPLER** 30 in
HAMMER TYPE Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6 6/12 12/18 18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK

DATE	TIME	DEPTH (ft.) HOLE	DEPTH (ft.) CASING	DEPTH (ft.) WATER	ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
05-Jan-17	10:00	35.00	34.00	34.00	NO	No
05-Jan-17	13:00	70.40	69.00	35.00	NO	No

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CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Brandon Mikolin
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME Thruway/Millers Grove Rd. (C.R. 53)

SM 282 E 12/02

PSN _____ BORNUM FHB-4

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
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OFFSET ft

DIVISION Syracuse
COUNTY Herkimer
PIN S52886
ROUTE Thruway Mainline
MILEPOST 225.48
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements

SURF. ELEV. 455.1163, NAD 88
DEPTH TO WATER 32.0

COORDINATES (Lat) 43.062125°N (Long) 75.078837°W
DATE START 1/9/2017 **DATE FINISH** 1/10/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING O. D. in I. D. in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER O. D. 2 in I. D. 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	0.0									Dark gray asphalt pavement to 0.8 feet.	-
	5.0	SS1	15	10	10	10	6.2%	17		Dark brown gravelly (SANDY-SILT) fill with 15 to 30% gravel, some sand, compact to dense, massive soil structure, (ML).	M - NPL
	10.0	SS2	16	19	13	19	7.5%	12		Same as 4.0-6.0'	M - NPL
	15.0	SS3	15	15	18	16	8.0%	8		Same as 4.0-6.0'	M - NPL
	20.0	SS4	15	6	15	9	12.0%	10		Dark brown gravelly (SANDY-SILT) fill with 10 to 20% gravel, little to some sand, trace clay, compact, massive soil structure, (ML).	M - NPL
	25.0	SS5	WR	1			21.1%	22		24.0-25.0' Brown (SILTY-SAND) with 3 to 7% gravel, mostly very fine to fine size sand, trace silt, organic matter,	M - PL

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DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Kyle Shearing
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME
Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

TWY-CAN SUBSURF EXPLORATION 6K16_BIN-5516071&5516072-DRAFTS.GPJ TWYSE1TMPL_V05.GDT 3/31/17

SM 282 E 12/02

PSN _____ BORNUM FHB-4

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
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COUNTY Herkimer
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SURF. ELEV. 455.1163, NAD 88
DEPTH TO WATER 32.0

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AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING **O. D.** in **I. D.** in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER **O. D.** 2 in **I. D.** 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	25.0				4	4				very lose, weakly thinly bedded to massive soil structure, (SM). 25.0-26.0' Faintly mottled grayish brown (CLAYEY-SILT) with 5 to 10% gravel, some clay, trace sand, firm, weakly thinly laminated to massive soil structure, (CL).	-
	30.0	SS6	7	12	16	19	28.8%	22		Faintly mottled brown to grayish brown (CLAYEY-SILT) with 0 to 3% gravel, little clay, trace sand and organic matter, very stiff, weakly thinly laminated, (ML-CL).	M - LPL
	35.0	SS7	2	3	4	4	29.4%	20		Brown (SAND) mostly very fine to fine size, very loose to loose, weakly thinly bedded, (SP).	S - NPL
	40.0	SS8	WR	1	3	5	31.0%	24		Same as 34.0-36.0'	S - NPL
	45.0	SS9	WR	1	1	3	24.5%	24		Same as 34.0-36.0'	S - NPL
	50.0	SS10	2	10			22.8%	24		49.0-49.5' Same as 34.0-36.0' 49.5-51.0' Brown (SANDY-SILT) with trace mostly very fine	S - NPL

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DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Kyle Shearing
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME
Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

TWY-CAN SUBSURF EXPLORATION 6K16_BIN-5516071&5516072-DRAFTS.GPJ TWYSE1TMPL_V05.GDT 3/31/17

SM 282 E 12/02

PSN _____ BORNUM FHB-4

NEW YORK STATE THRUWAY AUTHORITY
NEW YORK STATE CANAL CORPORATION

SUBSURFACE EXPLORATION LOG

HOLE FH-B
LINE _____
STA _____
OFFSET ft

DIVISION Syracuse
COUNTY Herkimer
PIN S52886
ROUTE Thruway Mainline
MILEPOST 225.48
PROJECT Syracuse Division 2017 Design-Build Bridge Replacements

SURF. ELEV. 455.1163, NAD 88
DEPTH TO WATER 32.0

COORDINATES (Lat) 43.062125°N (Long) 75.078837°W
DATE START 1/9/2017 **DATE FINISH** 1/10/2017

AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING O. D. in I. D. in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER O. D. 2 in I. D. 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	50.0				15	11				size sand, compact, weakly thinly bedded, (ML).	
	55.0	SS11	40	25	22	50/4	13.6%	20		Brown gravelly (SILTY-SAND) with 15 to 30% gravel, trace to little silt, occasional cobble, dense to very dense, weakly stratified to massive soil structure, (SM).	S - NPL
	60.0	SS12	6	31	50/4		18.6%	16		Gray (SAND) with mostly very fine to fine size, trace silt, very dense, (SP).	S - NPL
	65.0	SS13	30	50/3			22.7%	8		Same as 59.0-61.0'	S - NPL
	70.0	SS14	50/4				20.0%	4		Gray (SANDY-SILT) with some mostly very fine size sand, very dense, weakly thinly bedded, (ML).	S - NPL
	75.0	SS15	50/3				21.9%	3		Same as 69.0-71.0'	S - NPL

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SOIL & ROCK DESCRIPTION Kyle Shearing
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME
Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

TWY-CAN SUBSURF EXPLORATION 6K16_BIN-5516071&5516072-DRAFTS.GPJ TWYSE1TMPL_V05.GDT 3/31/17

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AUGER 4 1/4" I.D. HOLLOW STEM FLIGHT AUGER **WT OF HAMMER-CASING** lb **HAMMER FALL-CASING** in
CASING **O. D.** in **I. D.** in **WT OF HAMMER-SAMPLER** 140 lb **HAMMER FALL-SAMPLER** 30 in
SAMPLER **O. D.** 2 in **I. D.** 1-3/8 in **HAMMER TYPE** Safety

CASING BLOWS/ft	DEPTH (ft.) BELOW SURFACE	SAMPLE NO.	BLOWS ON SAMPLER (in.) 0/6	6/12	12/18	18/24	MOIST. CONT. (%)	Soil Recovery (in.)	Rock Recovery (ft.)	DESCRIPTION OF SOIL AND ROCK	
	75.0										
	80.0	SS16	38	48	50/5		17.7%	17		Moist gray (SILTY-CLAY) hard, thinly laminated with very thin silt lenses, (CL).	M - PL
	85.0	SS17	50/4				20.2%	4		Gray (SILTY-SAND) with mostly very fine to fine size sand, trace to little silt, very dense, weakly thinly bedded, (SM) tending toward (SP).	S - NPL
										BOTTOM OF HOLE AT 86.00 ft	

Note:
Advanced bore hole with 4 1/4" ID x 8" OD hollow stem auger casing with 5.0-foot of interval to end of boring at 86.0 feet. Bore hole was backfilled with cuttings and ground surface repaired with a cold patch.

DATE	TIME	DEPTH (ft.)			ARTESIAN HEAD HEIGHT ABOVE GROUND	FILLED WITH WATER AT END OF DAY
		HOLE	CASING	WATER		
09-Jan-17	11:30	36.00	34.00	32.00	NO	No
10-Jan-17	08:15	84.30	84.00	43.00	NO	No

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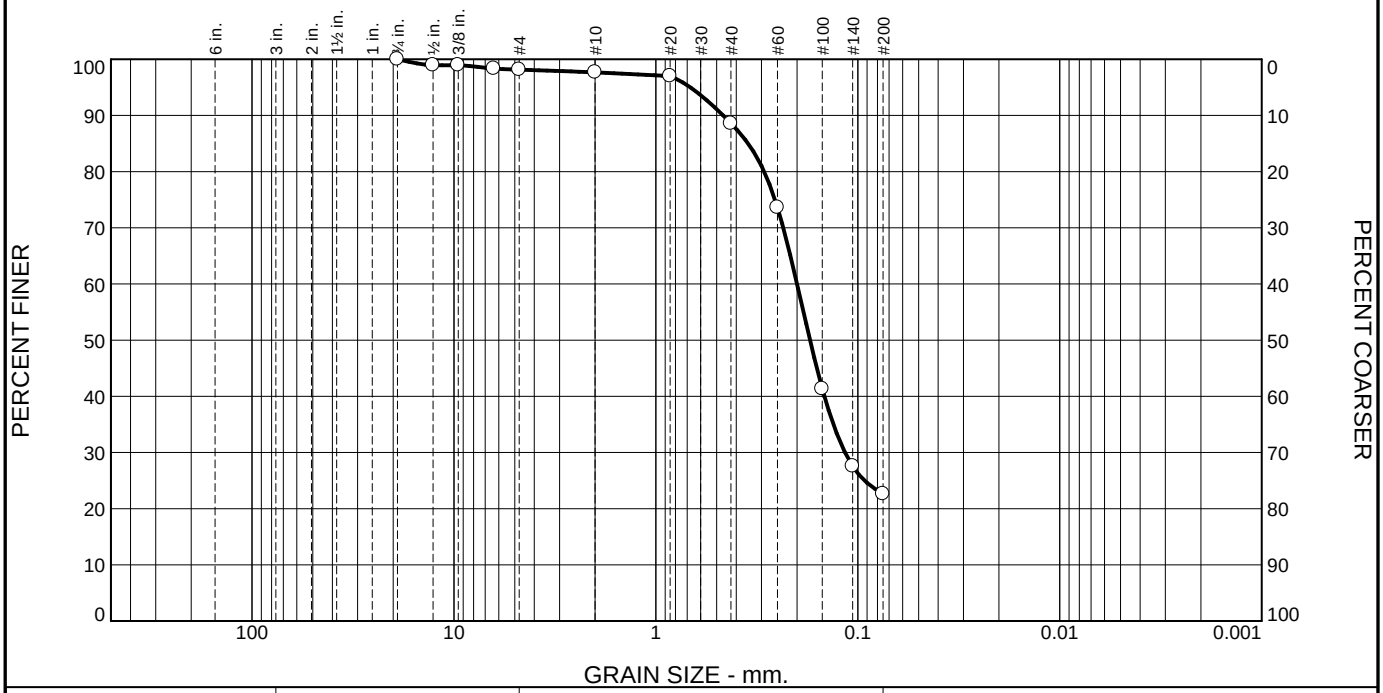
DRILL RIG OPERATOR Philip Bence
SOIL & ROCK DESCRIPTION Kyle Shearing
INSPECTOR Matthew Conley (Stantec)
BIN 5516071 & 5516072
STRUCTURE NAME
Thruway/Millers Grove Rd. (C.R. 53)

CONTRACT _____ **CONTRACTOR** Earth Dimensions, Inc.

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	1.8	0.5	9.1	66.0	22.6	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.75	100.0		
.5	98.9		
.375	98.9		
.25	98.3		
#4	98.2		
#10	97.7		
#20	97.0		
#40	88.6		
#60	73.6		
#100	41.3		
#140	27.6		
#200	22.6		

* (no specification provided)

Material Description

ID#17-033

Atterberg Limits (ASTM D 4318)

PL= **LL=** **PI=**

Classification

USCS (D 2487)= **AASHTO (M 145)=**

Coefficients

D_{90}= 0.4651 D_{85}= 0.3491 D_{60}= 0.1999
D_{50}= 0.1725 D_{30}= 0.1157 D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 2/9/17 **Date Tested:** 3/2/17

Tested By: ETC

Checked By: JMA

Title: LM

Source of Sample: 6K16 & 7K16 **Date Sampled:**

Sample Number: FHB-3, SS7

3rd Rock, LLC

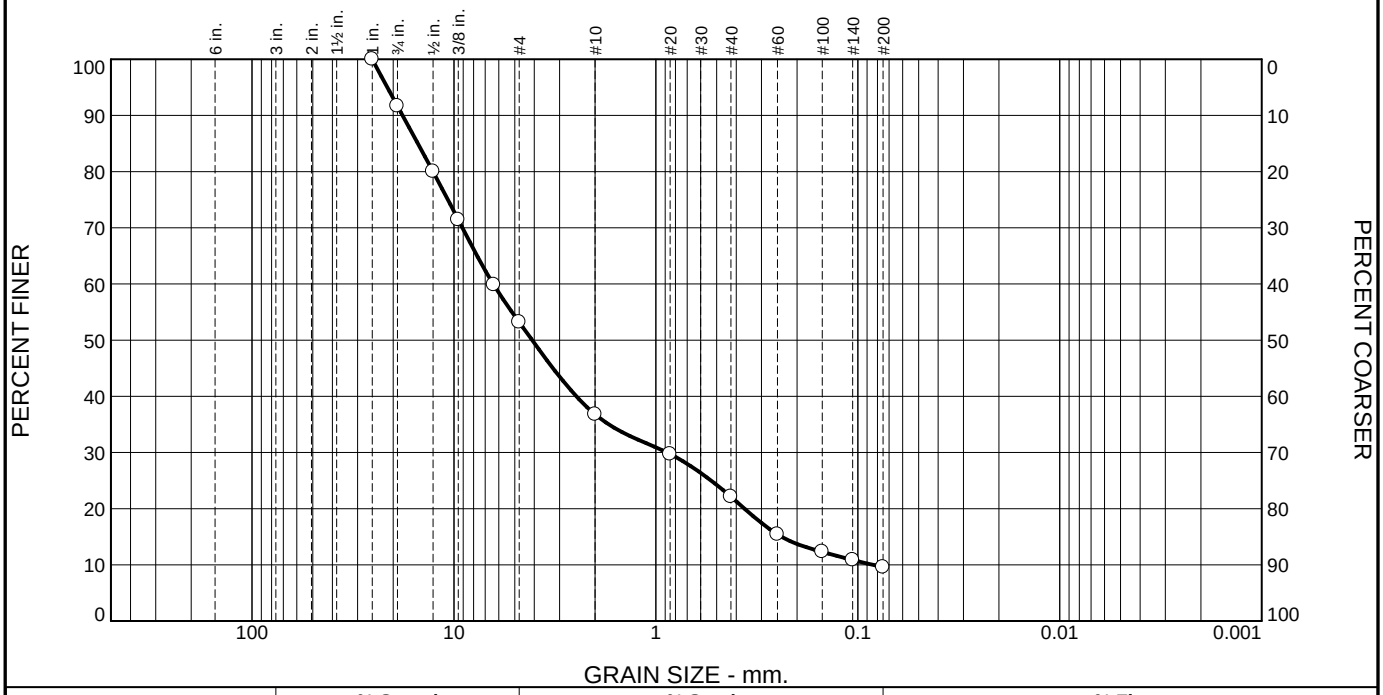
East Aurora, NY

Client: Earth Dimensions, Inc.

Project: 6K16; 7K16

Project No: 17-002 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	8.3	38.5	16.4	14.7	12.5	9.6	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1"	100.0		
.75	91.7		
.5	80.0		
.375	71.4		
.25	59.8		
#4	53.2		
#10	36.8		
#20	29.7		
#40	22.1		
#60	15.4		
#100	12.3		
#140	10.9		
#200	9.6		

* (no specification provided)

Material Description

ID#17-034

Atterberg Limits (ASTM D 4318)

PL= **LL=** **PI=**

Classification

USCS (D 2487)= **AASHTO (M 145)=**

Coefficients

D_{90}= 17.9736 D_{85}= 15.0899 D_{60}= 6.3944
D_{50}= 4.1003 D_{30}= 0.8810 D_{15}= 0.2387
D_{10}= 0.0841 C_u= 75.99 C_c= 1.44

Remarks

Date Received: 2/9/17 **Date Tested:** 3/2/17

Tested By: ETC

Checked By: JMA

Title: LM

Source of Sample: 6K16 & 7K16 **Date Sampled:**

Sample Number: FHB-3, SS9

3rd Rock, LLC

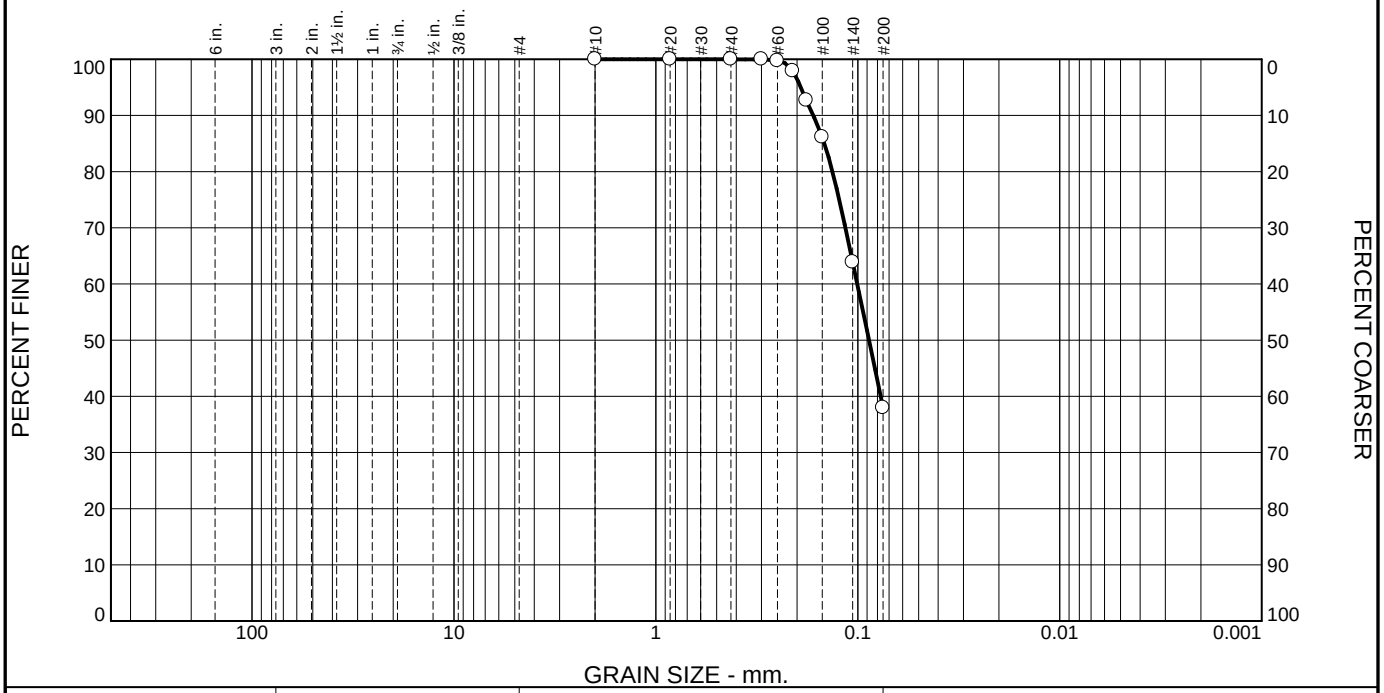
East Aurora, NY

Client: Earth Dimensions, Inc.

Project: 6K16; 7K16

Project No: 17-002 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.0	62.0	38.0	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#10	100.0		
#20	100.0		
#40	100.0		
#50	100.0		
#60	99.7		
#70	97.9		
#80	92.7		
#100	86.1		
#140	63.9		
#200	38.0		

* (no specification provided)

Material Description

ID#17-035

Atterberg Limits (ASTM D 4318)

PL= **LL=** **PI=**

Classification

USCS (D 2487)= **AASHTO (M 145)=**

Coefficients

D_{90}= 0.1663 D_{85}= 0.1463 D_{60}= 0.1006
D_{50}= 0.0881 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 2/9/17 **Date Tested:** 2/23/17

Tested By: ETC

Checked By: JMA

Title: LM

Source of Sample: 6K16 & 7K16 **Date Sampled:**

Sample Number: FHB-3, SS13

3rd Rock, LLC

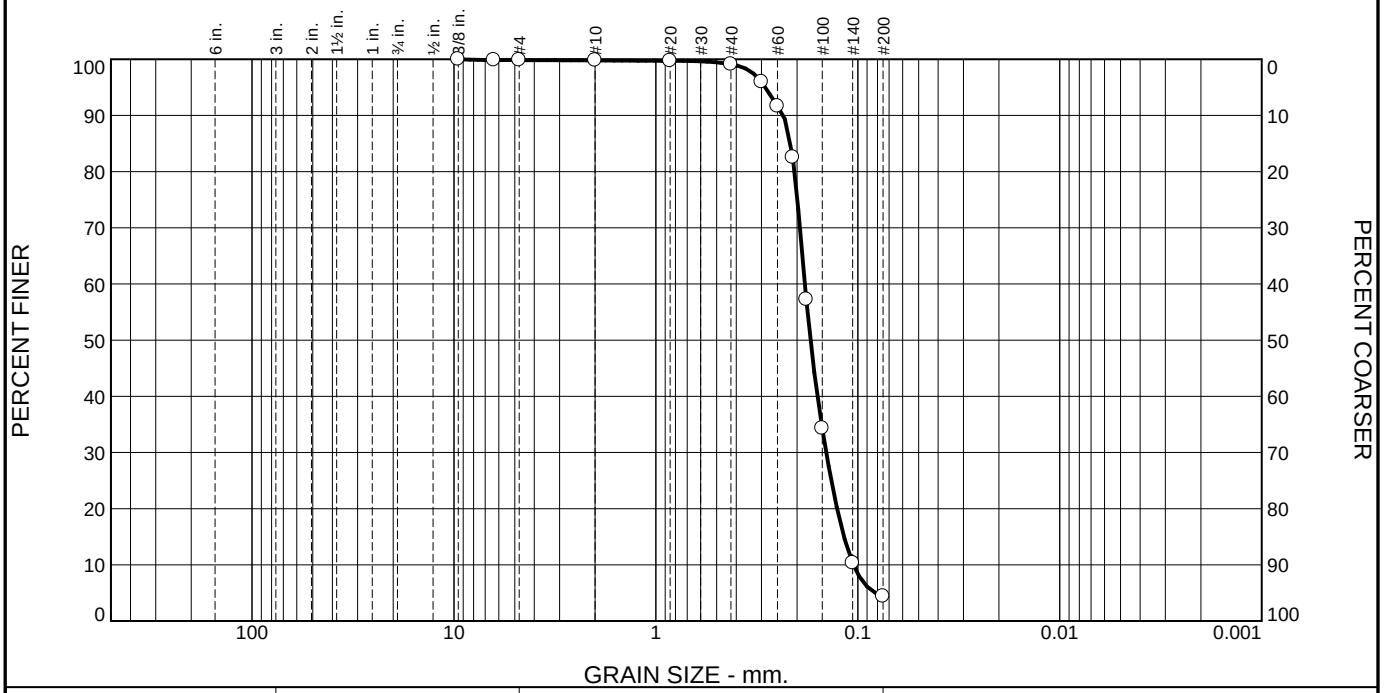
East Aurora, NY

Client: Earth Dimensions, Inc.

Project: 6K16; 7K16

Project No: 17-002 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.2	0.0	0.7	94.7	4.4	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
.375"	100.0		
.25	99.8		
#4	99.8		
#10	99.8		
#20	99.7		
#40	99.1		
#50	96.0		
#60	91.6		
#70	82.5		
#80	57.2		
#100	34.3		
#140	10.3		
#200	4.4		

* (no specification provided)

Material Description

ID#17-036
Poorly graded sand

Atterberg Limits (ASTM D 4318)

PL= **LL=** **PI=**

Classification

USCS (D 2487)= SP **AASHTO (M 145)=**

Coefficients

D_{90}= 0.2341 D_{85}= 0.2149 D_{60}= 0.1830
D_{50}= 0.1717 D_{30}= 0.1434 D_{15}= 0.1170
D_{10}= 0.1051 C_u= 1.74 C_c= 1.07

Remarks

Date Received: 2/9/17 **Date Tested:** 2/15/17
Tested By: ETC
Checked By: JMA
Title: LM

Source of Sample: 6K16 & 7K16 **Date Sampled:**
Sample Number: FHB-4, SS8

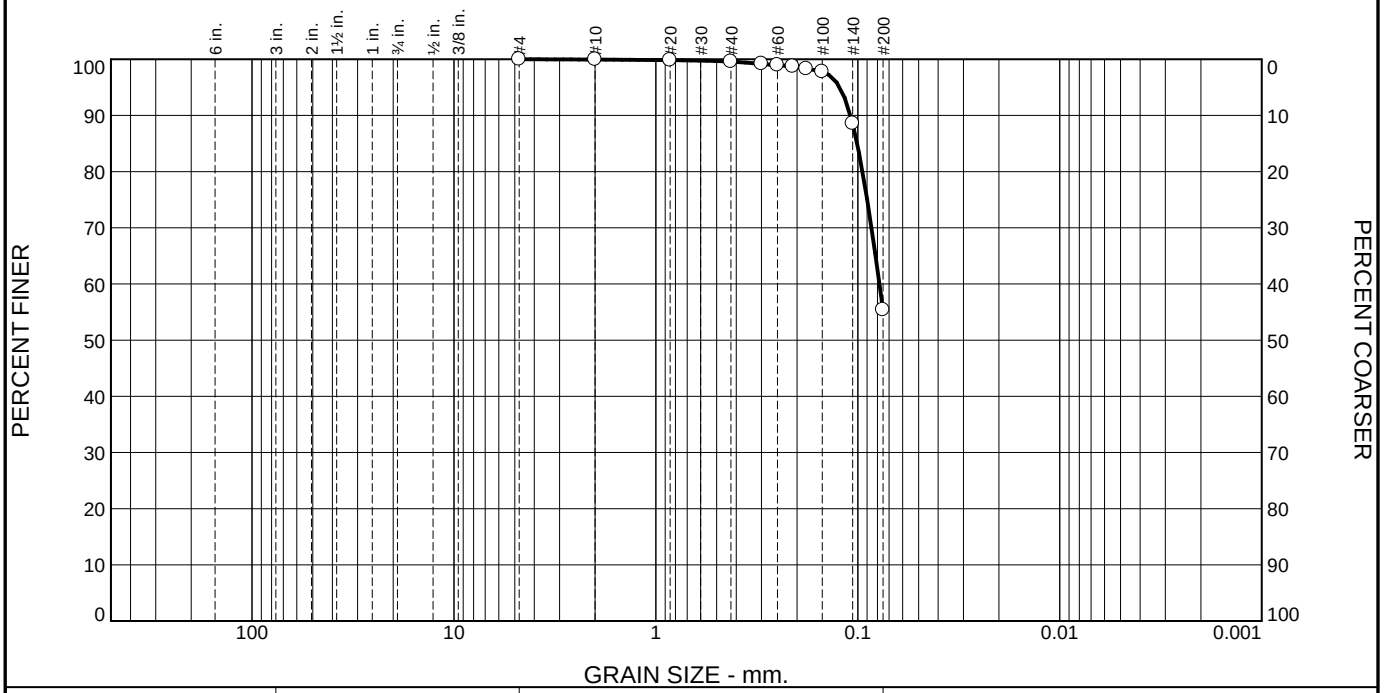
3rd Rock, LLC

East Aurora, NY

Client: Earth Dimensions, Inc.
Project: 6K16; 7K16

Project No: 17-002 **Figure**

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.1	0.3	44.2	55.4	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	99.9		
#20	99.8		
#40	99.6		
#50	99.2		
#60	98.9		
#70	98.7		
#80	98.3		
#100	97.8		
#140	88.6		
#200	55.4		

* (no specification provided)

Material Description

ID#17-037

Atterberg Limits (ASTM D 4318)

PL= **LL=** **PI=**

Classification

USCS (D 2487)= **AASHTO (M 145)=**

Coefficients

D_{90}= 0.1086 D_{85}= 0.1007 D_{60}= 0.0782
D_{50}= D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 2/9/17 **Date Tested:** 2/15/17

Tested By: ETC

Checked By: JMA

Title: LM

Source of Sample: 6K16 & 7K16 **Date Sampled:**

Sample Number: FHB-4, SS13

3rd Rock, LLC

East Aurora, NY

Client: Earth Dimensions, Inc.

Project: 6K16; 7K16

Project No: 17-002 **Figure**

Water Content Test Results by ASTM D2216

Project: New York State Thruway **Project No:** 16-008
EDI Project No.: 6K16 **Date:** 1/17/17
Client: Earth Dimensions, Inc.

Borehole No.	Sample Nos.	Depth, fbg	Lab ID No.	Natural Water Content, %
FH-B-1	S-1	4-6	17-004	3.9
	S-2	9-11	17-004	4.7
	S-3	14-16	17-004	6.9
	S-4	19-21	17-004	8.1
	S-5	24-26	17-004	6.4
	S-6	29-31	17-004	6.3
	S-7	34-36	17-004	10.2
	S-8	39-41	17-004	12.2
	S-9	44-46	17-004	13.3
	S-10	49-51	17-004	12.3
	S-11	54-56	17-004	16.2
	S-12	59-61	17-004	9.6
	S-13	64-66	17-004	13.9
	S-14	69-71	17-004	7.0
	S-15	74-76	17-004	8.0
FH-B-4	S-1	4-6	17-005	6.2
	S-2	9-11	17-005	7.5
	S-3	14-16	17-005	8.0
	S-4	19-21	17-005	12.0
	S-5	24-26	17-005	21.1
	S-6	29-31	17-005	28.8
	S-7	34-36	17-005	29.4
	S-8	39-41	17-005	31.0
	S-9	44-46	17-005	24.5
	S-10	49-51	17-005	22.8
	S-11	54-56	17-005	13.6
	S-12	59-61	17-005	18.6
	S-13	64-66	17-005	22.7
	S-14	69-71	17-005	20.0
	S-15	74-76	17-005	21.9
	S-16	79-81	17-005	17.7
	S-17	84-86	17-005	20.2

3rd Rock, LLC
580 Olean Road
East Aurora, NY 14052
(716)655-4933
(716)655-8638 fax

Water Content Test Results by ASTM D2216

Project: New York State Thruway **Project No:** 16-008
EDI Project No.: 6K16 **Date:** 1/11/17
Client: Earth Dimensions, Inc.

Borehole No.	Sample Nos.	Depth, fbg	Lab ID No.	Natural Water Content, %
FH-B-3	S-1	4-6	17-002	20.2
	S-2	9-11	17-002	19.4
	S-3	14-16	17-002	13.2
	S-4	19-21	17-002	3.7
	S-5	24-26	17-002	4.9
	S-6	29-31	17-002	10.0
	S-7	34-36	17-002	33.7
	S-8	39-41	17-002	20.8
	S-9	44-46	17-002	10.9
	S-10	49-51	17-002	No Sample
	S-11	54-56	17-002	18.1
	S-12	59-91	17-002	19.8
	S-13	64-66	17-002	22.5
	S-14	69-70.4	17-002	19.7
FH-B-5	S-1	4-6	17-003	8.9
	S-2	9-11	17-003	7.8
	S-3	14-16	17-003	5.8
	S-4	19-21	17-003	16.0
	S-5	24-26	17-003	24.0
	S-6	29-31	17-003	27.5
	S-7	34-36	17-003	26.3
	S-8	39-41	17-003	14.1
	S-9	44-46	17-003	8.8
	S-10	49-51	17-003	6.3
	S-11	54-56	17-003	4.9
	S-12	59-61	17-003	8.0
	S-13	64-66	17-003	7.7
	S-14	69-69.4	17-003	11.6

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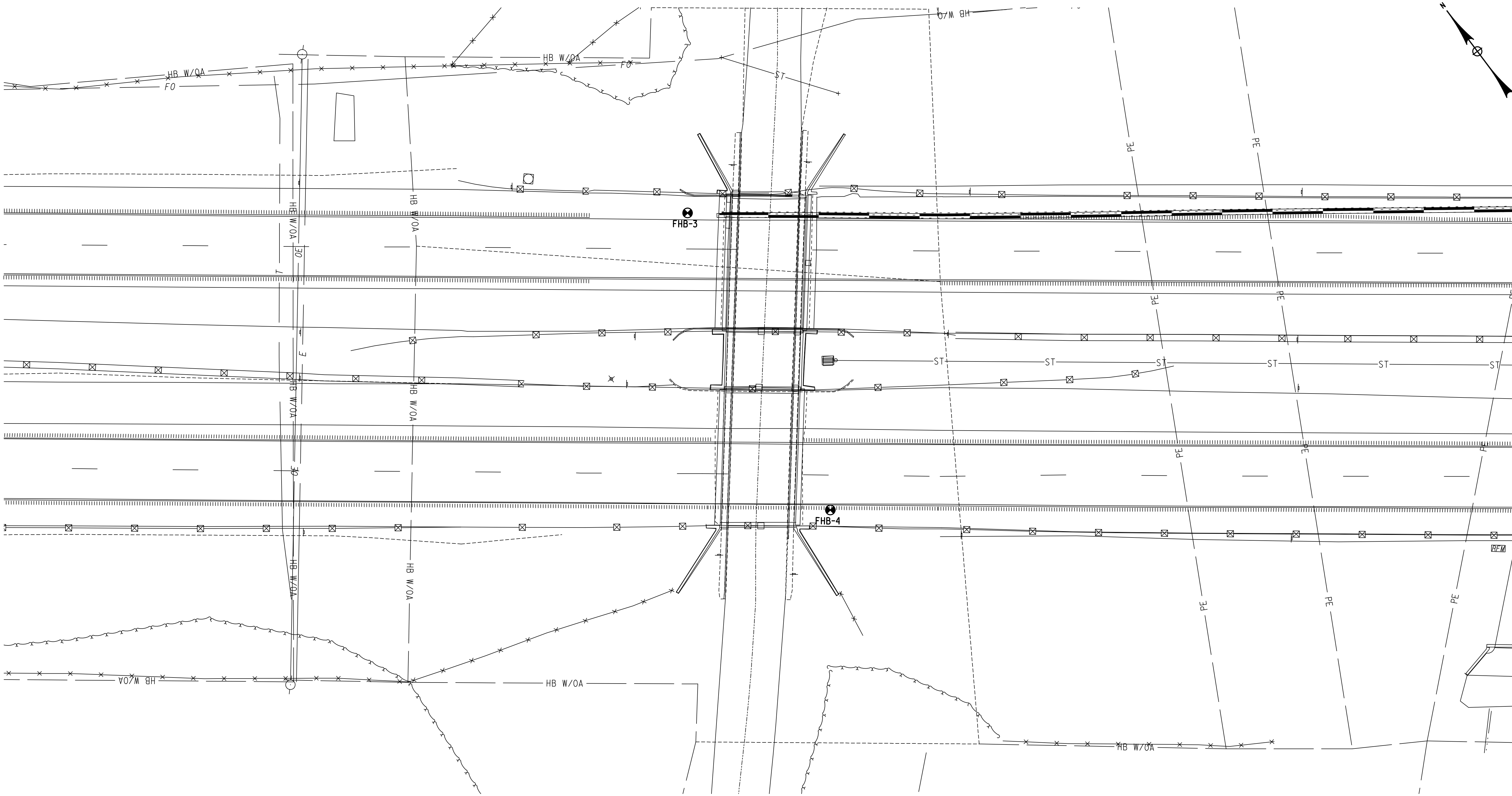

SOIL BORING LOCATION PLAN

SCALE: 1" = 40'

SOIL BORING LOCATION		
BORING	LATITUDE	LONGITUDE
FHB-3	43.062477 N	-75.078747 E
FHB-4	43.062125 N	-75.078837 E

20 0 20 40

SCALE: 1" = 40'

DESIGNED BY: M. SAVINO
CHECKED BY: D. JENKINSON
DRAFTED BY: M. SAVINO
CHECKED BY: D. JENKINSON
DESIGN SUPERVISOR: M. LAISTNER

ALTERED ON:

AFFIXED ON:

SIGNATURE:
STAMP:

SIGNATURE:
STAMP:

REVISIONS			
DATE	DESCRIPTION	BY	SYM.

NEW YORK STATE OF OPPORTUNITY. Thruway Authority

PDG POPLI DESIGN GROUP

TITLE OF PROJECT
INTERSTATE 90 OVER MILLERS GROVE ROAD
MP 225.48 & 225.49 / BINS 5516072 & 5516071

LOCATION OF PROJECT
TOWN OF SCHUYLER
HERKIMER COUNTY, NY

TITLE OF DRAWING
BORING LOCATION PLAN

CONTRACT NUMBER: TAB 17-X

DATE: APRIL 2017

DRAWING NUMBER: BP-02