

APPENDIX K.3

**INITIAL PHASE - ENVIRONMENTAL BORING PROGRAM
SOIL ANALYTICAL RESULTS SUMMARY**

**Second Avenue Subway
Initial Environmental Borings
Volatile Organic Compounds in Soil**

Table K.3-1

Boring Identification No.		H125-5 6/16/2003 12-14	H125-5 6/16/2003 14-16	H125-5 6/16/2003 48-50	H125-3 6/16/2003 4-5	H97-2 6/6/2003 10-12	H97-2 6/6/2003 12-14	H97-2 6/6/2003 36-38	H91-3 6/20/2003 10-12	H57-1 6/9/2003 8-10	H57-1 6/9/2003 10-12	H54-2 6/10/2003 6-8
Sampling Date												
Sample Depth (feet)												
Potential Contaminant Source												
Units	MDL ug/Kg	P ug/Kg	P ug/Kg	P ug/Kg	DC, P ug/Kg	MGP, P ug/Kg	MGP, P ug/Kg	MGP, P ug/Kg	DC ug/Kg	DC ug/Kg	DC ug/Kg	DC, P ug/Kg
Chloromethane	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.4	ND	ND	ND	ND	ND	9.2	ND	ND	ND	ND	5.9
trans-1,2-Dichloroethene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.1	ND	ND	ND	11	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.2	ND	ND	ND	ND	ND	ND	8800	ND	ND	ND	ND
t-1,3-Dichloropropene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	ND	ND	ND	340	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	1.1	ND	ND	ND	ND	ND	ND	27000	ND	ND	ND	ND
m/p-Xylenes	2.9	ND	ND	ND	ND	ND	ND	44000	ND	ND	ND	ND
o-Xylene	1.2	ND	ND	ND	ND	ND	ND	22000	ND	ND	ND	ND
Bromoform	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ug/Kg=micrograms/kilogram (or ppb)
 ND=Not Detected i.e., below MDL
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
Volatile Organic Compounds in Soil**

Table K.3-1

Boring Identification No.		H54-2	H11-1	H11-1	H4-1	H4-1	H4-1	HP-4	HP-4	HP-4	HW-4	HW-4
Sampling Date		6/10/2003	6/10/2003	6/10/2003	6/11/2003	6/11/2003	6/11/2003	6/12/2003	6/12/2003	6/13/2003	6/17/2003	6/18/2003
Sample Depth (feet)		8-10	8-10	12-14	12-14	28-30	42-44	16-18	26-28	56-58	8-9	14-16
Potential Contaminant Source												
Units	MDL ug/Kg	DC, P ug/Kg	DC, P ug/Kg	DC, P ug/Kg	DC, P ug/Kg	DC, P ug/Kg	DC, P ug/Kg	MGP, DC, P ug/Kg	MGP, DC, P ug/Kg	MGP, DC, P ug/Kg	P, Pr ug/Kg	P, Pr ug/Kg
Chloromethane	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	1.1	ND	ND	ND	ND	ND	ND	1ND	ND	ND	ND	ND
Bromomethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrolein	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acrylonitrile	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	1.4	ND	ND	ND	4.5	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	1.2	ND	ND	ND	ND	ND	ND	2.5	ND	ND	ND	ND
1,1-Dichloroethane	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	1.1	ND	4.5	19	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
t-1,3-Dichloropropene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	1.3	ND	15	20	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl Benzene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
m/p-Xylenes	2.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	1.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.84	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ug/Kg=micrograms/kilogram (or ppb)
 ND=Not Detected i.e., below MDL
 MDL = Method Detection Limit
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 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
Semivolatile Organic Compounds in Soil**

Table K.3-2

Boring Identification Number		H125-5	H125-5	H125-5	H97-2	H97-2	H97-2	H54-2	H54-2	H11-1	H11-1
Sampling Date		6/16/2003	6/16/2003	6/16/2003	6/6/2003	6/6/2003	6/6/2003	6/10/2003	6/10/2003	6/10/2003	6/10/2003
Sample Depth (feet)		12-14	14-16	48-50	10-12	12-14	36-38	6-8	8-10	8-10	12-14
Potential Contaminant Source	MDL	P	P	P	MGP, P	MGP, P	MGP, P	DC, P	DC, P	DC, P	DC, P
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
n-Nitrosodimethylamine	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,2-oxybis(1-Chloropropane)	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	80	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	42	ND	ND	ND	89	ND	750000	ND	ND	ND	ND
Hexachlorobutadiene	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	42	ND	ND	ND	ND	ND	130000	ND	ND	50	ND
2,6-Dinitrotoluene	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	42	ND	ND	ND	ND	ND	13000	ND	ND	ND	ND
2,4-Dinitrophenol	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	38	ND	54	ND	ND	ND	110000	ND	ND	58	ND
4,6-Dinitro-2-methylphenol	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	69	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Azobenzene	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	45	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	66	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	35	ND	97	ND	ND	ND	140000	ND	ND	150	ND
Anthracene	45	ND	ND	ND	ND	ND	54000	ND	ND	50	ND
Di-n-butylphthalate	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	35	ND	70	ND	ND	ND	45000	ND	ND	39	ND
Benzidine	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	35	ND	51	ND	ND	ND	61000	ND	ND	73	ND
Butylbenzylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	35	ND	ND	ND	ND	ND	26000	ND	ND	ND	ND
Chrysene	55	ND	ND	ND	ND	ND	12000	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	35	170	41	ND	53	ND	ND	81	ND	ND	ND
Di-n-octylphthalate	52	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	35	ND	ND	ND	ND	ND	11000	ND	ND	ND	ND
Benzo(k)fluoranthene	90	ND	ND	ND	ND	ND	6600	ND	ND	ND	ND
Benzo(a)pyrene	52	ND	ND	ND	ND	ND	22000	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	55	ND	ND	ND	ND	ND	930	ND	ND	ND	ND
Dibenz(a,h)anthracene	52	ND	ND	ND	ND	ND	980	ND	ND	ND	ND
Benzo(g,h,i)perylene	45	ND	ND	ND	ND	ND	1900	ND	ND	ND	ND

ug/Kg=micrograms/kilogram (or ppb)

ND=Not Detected i.e., below MDL

MDL = Method Detection Limit

P=Petroleum Storage Tank

DC=Dry Cleaner

MGP=Manufactured Gas Plant

Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
Semivolatile Organic Compounds in Soil**

Table K.3-2

Boring Identification Number		H4-1	H4-1	H4-1	HP-4	HP-4	HP-4	HW-4	HW-4
Sampling Date		6/11/2003	6/11/2003	6/11/2003	6/12/2003	6/12/2003	6/13/2003	6/17/2003	6/18/2003
Sample Depth (feet)		12-14	28-30	42-44	16-18	26-28	56-58	8-9	14-16
Potential Contaminant Source	MDL	DC, P	DC, P	DC, P	MGP, DC, P	MGP, DC, P	MGP, DC, P	P, Pr	P, Pr
Units	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
n-Nitrosodimethylamine	35	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	35	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	42	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	38	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	42	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND
2,2-oxybis(1-Chloropropane)	35	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	35	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	38	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	35	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	35	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	38	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	80	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	35	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	45	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	42	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	42	ND	ND	ND	ND	540	ND	ND	ND
Hexachlorobutadiene	52	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	38	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	130	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	35	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	42	ND	ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	42	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	35	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	42	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	69	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	38	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	38	ND	ND	ND	ND	ND	ND	ND	ND
Diethylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	42	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	38	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	42	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	69	ND	ND	ND	ND	ND	ND	ND	ND
Azobenzene	38	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	45	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobenzene	38	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	66	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	35	ND	270	ND	ND	ND	ND	ND	ND
Anthracene	45	ND	340	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate	42	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	35	ND	150	ND	ND	ND	ND	ND	ND
Benzidine	38	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	35	ND	160	ND	ND	ND	ND	ND	ND
Butylbenzylphthalate	35	ND	ND	ND	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	35	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	35	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	55	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	35	ND	ND	ND	ND	ND	44	350	47
Di-n-octylphthalate	52	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	35	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	90	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	52	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	55	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	52	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	45	ND	ND	ND	ND	ND	ND	ND	ND

ug/Kg=micrograms/kilogram (or ppb)
 ND=Not Detected i.e., below MDL
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
PCBs in Soil**

Table K.3-3

Boring Identification Number		H125-5	H125-5	H125-5	HW-4	HW-4
Sampling Date		6/16/2003	6/16/2003	6/16/2003	6/17/2003	6/18/2003
Sample Depth (feet)		12-14	14-16	48-50	8-9	14-16
Potential Contaminant Source	MDL	P	P	P	P, Pr	P
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aroclor 1016	5.9	ND	ND	ND	ND	ND
Aroclor 1221	1.5	ND	ND	ND	ND	ND
Aroclor 1232	9.0	ND	ND	ND	ND	ND
Aroclor 1242	2.5	ND	ND	ND	ND	ND
Aroclor 1248	6.2	ND	ND	ND	ND	ND
Aroclor 1254	12.0	ND	ND	ND	ND	ND
Aroclor 1260	2.3	ND	ND	ND	ND	ND
Total Aroclors						

ug/Kg=micrograms/kilogram (or ppb)

ND=Not Detected i.e., below MDL

MDL = Method Detection Limit

P=Petroleum Storage Tank

DC=Dry Cleaner

MGP=Manufactured Gas Plant

**Second Avenue Subway
Initial Environmental Borings
Metals in Soil**

Table K.3-4

Boring Identification Number		H125-5	H125-5	H125-5	H97-2	H97-2	H97-2	HP-4	HW-4	HW-4
Sampling Date		6/16/2003	6/16/2003	6/16/2003	6/6/2003	6/6/2003	6/6/2003	6/12/2003	6/17/2003	6/18/2003
Sample Depth (feet)		12-14	14-16	48-50	10-12	12-14	36-38	26-28	8-9	14-16
Potential Contaminant Source	MDL	P	P	P	MGP, P	MGP, P	MGP, P	MGP, DC, P	P, Pr	P, Pr
Units	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Aluminum	0.81	4130	2850	5910	5170	15200	7360	2990	530	2020
Antimony	0.29	0.46	0.41	ND	7.5	0.47	0.33	ND	0.41	ND
Arsenic	0.32	0.8	0.6	2.8	13.3	7.5	1.1	0.57	0.53	5.5
Barium	0.17	27.2	24.1	91.6	349	44.2	40.6	10.5	7.5	9.6
Beryllium	0.01	0.23	0.17	0.38	0.43	0.76	0.45	0.17	0.03	0.13
Cadmium	0.06	0.07	ND	0.22	0.45	0.44	0.18	ND	ND	0.15
Calcium	2.9	846	806	23500	9520	2440	1560	1710	2520	1600
Chromium	0.09	22.4	10.6	11	9.8	24.6	15.9	8.1	2.2	6.2
Cobalt	0.09	3.5	2.7	7.1	6	9	4.1	3.3	0.39	10.3
Copper	0.19	20	14.2	21.3	82.6	14	17.2	10.9	3.3	5.7
Cyanide	0.5	NA	NA	NA	ND*	ND*	ND*	ND	NA	NA
Iron	2.0	6460	4600	13600	21300	21800	10100	6460	1450	4030
Lead	0.22	5.1	3.2	9.3	964	25.2	6	5.1	11.2	4.9
Magnesium	1.7	1490	1300	8220	1260	5850	3050	1650	473	1070
Manganese	0.01	125	38.4	440	243	369	78.2	100	24.2	37.9
Mercury	0.01	0.12	ND	ND	1.1	0.06	ND	ND	0.03	ND
Nickel	0.27	8.1	7.3	14.7	14.7	21.1	16.3	20.6	1.2	14.2
Potassium	4.46	488	386	1790	751	4050	2180	492	97.4	356
Selenium	0.41	ND	ND	0.63	1.1	ND	ND	ND	ND	ND
Silver	0.46	0.48	0.45	1.1	2	0.91	ND	0.46	ND	ND
Sodium	49.1	300	172	194	811	1510	395	392	147	200
Thallium	0.72	ND	ND	ND	0.76	ND	ND	ND	ND	ND
Vanadium	0.12	11.9	12	17.1	19.5	37.3	17.6	9.1	2.4	10.6
Zinc	0.07	12	10.5	23.8	34.8	41.2	22.7	11.7	11.2	16.3

mg/Kg=milligrams/kilogram (or ppm)

ND=Not Detected i.e., below MDL

NA=Not Analyzed for Metals

MDL = Method Detection Limit

P=Petroleum Storage Tank

DC=Dry Cleaner

MGP=Manufactured Gas Plant

Pr=Printers

*= holding time exceeded, sample concentration possible higher

**Second Avenue Subway
Initial Environmental Borings
Volatile Organic Compounds in Groundwater**

Table K.3-5

Boring Identification Number		H125-5	H97-2	H4-1	HP-4	HW-4
Sampling Date		7/25/2003	7/28/2003	7/29/2003	7/30/2003	7/30/2003
Potential Contaminant Source	MDL	P	MGP, P	DC, P	MGP, DC, P	P, Pr
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Chloromethane	0.51	ND	ND	ND	ND	ND
Vinyl Chloride	0.79	ND	ND	ND	ND	ND
Bromomethane	0.38	ND	ND	ND	ND	ND
Chloroethane	2.4	ND	ND	ND	ND	ND
Trichlorofluoromethane	0.73	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.69	ND	ND	ND	ND	ND
Acrolein	4.9	ND	ND	ND	ND	ND
Acrylonitrile	3.5	ND	ND	ND	ND	ND
Methyl tert-butyl Ether	1	ND	ND	ND	ND	ND
Methylene Chloride	1.8	4.7	ND	ND	ND	ND
trans-1,2-Dichloroethene	0.81	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.66	ND	ND	ND	ND	ND
Carbon Tetrachloride	0.47	ND	ND	ND	ND	ND
Chloroform	0.61	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	0.75	ND	ND	ND	ND	ND
Benzene	0.71	ND	140	ND	ND	ND
1,2-Dichloroethane	0.56	ND	ND	ND	ND	ND
Trichloroethene	0.72	ND	ND	2.8	ND	ND
1,2-Dichloropropane	0.73	ND	ND	ND	ND	ND
Bromodichloromethane	0.73	ND	ND	ND	ND	ND
Toluene	0.71	ND	97	ND	ND	ND
t-1,3-Dichloropropene	0.66	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.66	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	0.62	ND	ND	ND	ND	ND
2-Chloroethyl vinyl ether	2.2	ND	ND	ND	ND	ND
Dibromochloromethane	0.66	ND	ND	ND	ND	ND
Tetrachloroethene	0.7	ND	ND	8.7	1.8	ND
Chlorobenzene	0.78	ND	ND	ND	ND	ND
Ethyl Benzene	0.76	ND	97	ND	ND	ND
m/p-Xylenes	1.5	ND	87	ND	ND	ND
o-Xylene	0.72	ND	120	ND	ND	ND
Bromoform	0.49	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	0.7	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	0.74	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	0.93	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	0.88	ND	ND	ND	ND	ND

ug/l=micrograms/liter (or ppb)
 ND=Not Detected i.e., below MDL
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
Semivolatile Organic Compounds in Groundwater**

Table K.3-6

Boring Identification Number		H125-5	H97-2	H4-1	HP-4	HW-4
Sampling Date		7/25/2003	7/28/2003	7/29/2003	7/30/2003	7/30/2003
Potential Contaminant Source	MDL	P	MGP, P	DC, P	MGP, DC, P	P, Pr
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
n-Nitrosodimethylamine	1	ND	ND	ND	ND	ND
Phenol	1	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	1.2	ND	ND	ND	ND	ND
2-Chlorophenol	1.1	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	1	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	1.2	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	1	ND	ND	ND	ND	ND
2,2-oxybis(1-Chloropropane)	1	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	1	ND	ND	ND	ND	ND
Hexachloroethane	1.1	ND	ND	ND	ND	ND
Nitrobenzene	1	ND	ND	ND	ND	ND
Isophorone	1	ND	ND	ND	ND	ND
2-Nitrophenol	1.1	ND	ND	ND	ND	ND
2,4-Dimethylphenol	2.4	ND	2.7	ND	ND	ND
bis(2-Chloroethoxy)methane	1	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.4	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.2	ND	ND	ND	ND	ND
Naphthalene	1.2	ND	810	ND	ND	ND
Hexachlorobutadiene	1.6	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.1	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	4	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	1	ND	ND	ND	ND	ND
2-Chloronaphthalene	1.2	ND	1.7	ND	ND	ND
Dimethylphthalate	1	ND	ND	ND	ND	ND
Acenaphthylene	1.2	ND	54	ND	ND	ND
2,6-Dinitrotoluene	1	ND	ND	ND	ND	ND
Acenaphthene	1.2	ND	5.6	ND	ND	ND
2,4-Dinitrophenol	2.1	ND	ND	ND	ND	ND
4-Nitrophenol	1.1	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	1.1	ND	ND	ND	ND	ND
Diethylphthalate	1	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	1.2	ND	ND	ND	ND	ND
Fluorene	1.1	ND	20	ND	ND	ND
4,6-Dinitro-2-methylphenol	1.2	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	2.1	ND	ND	ND	ND	ND
Azobenzene	1.4	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	1.4	ND	ND	ND	ND	ND
Hexachlorobenzene	1.1	ND	ND	ND	ND	ND
Pentachlorophenol	2	ND	ND	ND	ND	ND
Phenanthrene	1	ND	16	ND	ND	ND
Anthracene	1.4	ND	3.6	ND	ND	ND
Di-n-butylphthalate	1.2	ND	ND	ND	ND	ND
Fluoranthene	1	ND	1.1	ND	ND	ND
Benzidine	1	ND	ND	ND	ND	ND
Pyrene	1	ND	1.4	ND	ND	ND
Butylbenzylphthalate	1	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	1	ND	ND	ND	ND	ND
Benzo(a)anthracene	1	ND	ND	ND	ND	ND
Chrysene	1.7	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	1	ND	ND	ND	1.8	1.9
Di-n-octylphthalate	1.6	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	1	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	2.7	ND	ND	ND	ND	ND
Benzo(a)pyrene	1.6	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	1.7	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	1.6	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	1.4	ND	ND	ND	ND	ND

ug/l=micrograms/liter (or ppb)
 ND=Not Detected i.e., below MDL
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
PCBs in Groundwater**

Table K.3-7

Boring Identification Number		H125-5	H97-2	H4-1	HP-4	HW-4
Sampling Date		7/25/2003	7/28/2003	7/29/2003	7/30/2003	7/30/2003
Potential Contaminant Source	MDL	P	MGP, P	DC, P	MGP, DC, P	P, Pr
Units	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Aroclor 1016	0.2	ND	NA	NA	NA	ND
Aroclor 1221	0.1	ND	NA	NA	NA	ND
Aroclor 1232	0.1	ND	NA	NA	NA	ND
Aroclor 1242	0.1	ND	NA	NA	NA	ND
Aroclor 1248	0.1	ND	NA	NA	NA	ND
Aroclor 1254	0.1	ND	NA	NA	NA	ND
Aroclor 1260	0.0	ND	NA	NA	NA	ND
Total Aroclors						

ug/l=micrograms/liter (or ppb)
 ND=Not Detected i.e., below MDL
 NA=Not Analyzed for PCBs
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

**Second Avenue Subway
Initial Environmental Borings
Metals in Groundwater**

Table K.3-8

Boring Identification Number Sampling Date Potential Contaminant Source Units	MDL ug/l	H125-5 7/25/2003 P ug/l	H97-2 7/28/2003 MGP, P ug/l	H4-1 7/29/2003 DC, P ug/l	HP-4 7/30/2003 MGP, DC, P ug/l	HW-4 7/30/2003 P, Pr ug/l
Aluminum	18.40	175	1760	NA	NA	152
Antimony	2.00	ND	ND	NA	NA	ND
Arsenic	4.00	ND	ND	NA	NA	ND
Barium	9.90	214	136	NA	NA	138
Beryllium	0.10	0.13	0.44	NA	NA	ND
Cadmium	0.80	ND	ND	NA	NA	ND
Calcium	36.2	84400	74800	NA	NA	144000
Chromium	1.40	ND	5.5	NA	NA	ND
Cobalt	0.70	3.3	2.4	NA	NA	ND
Copper	3.60	8	12.4	NA	NA	ND
Cyanide	0.0	NA	ND	NA	NA	NA
Iron	22.2	180	7660	NA	NA	3060
Lead	3.00	ND	22.3	NA	NA	3.7
Magnesium	7.0	21100	121000	NA	NA	32900
Manganese	0.20	4360	755	NA	NA	480
Mercury	0.20	ND	ND	NA	NA	ND
Nickel	2.00	4.6	4.2	NA	NA	ND
Potassium	27.30	10700	120000	NA	NA	61000
Selenium	1.30	4.2	2.8	NA	NA	ND
Silver	3.70	ND	ND	NA	NA	ND
Sodium	217.2	110000	1300000	NA	NA	140000
Thallium	5.30	ND	ND	NA	NA	ND
Vanadium	1.40	ND	7.4	NA	NA	ND
Zinc	1.80	11	31.7	NA	NA	34.1

ug/l=micrograms/liter (or ppb)
 ND=Not Detected i.e., below MDL
 NA=Not Analyzed for metals
 MDL = Method Detection Limit
 P=Petroleum Storage Tank
 DC=Dry Cleaner
 MGP=Manufactured Gas Plant
 Pr=Printers

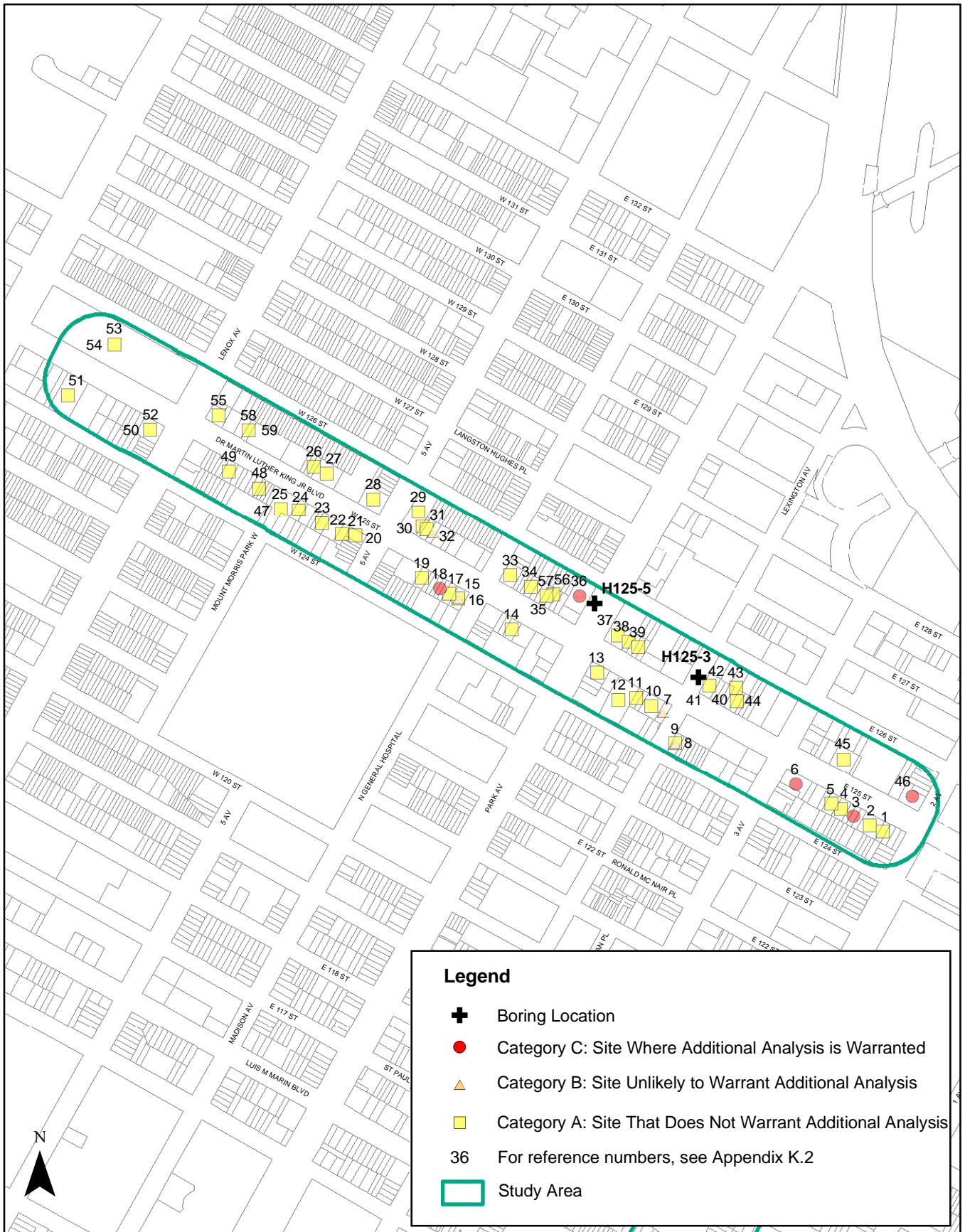


Figure K.3-1
Locations of Initial Environmental Borings
 125 St Station

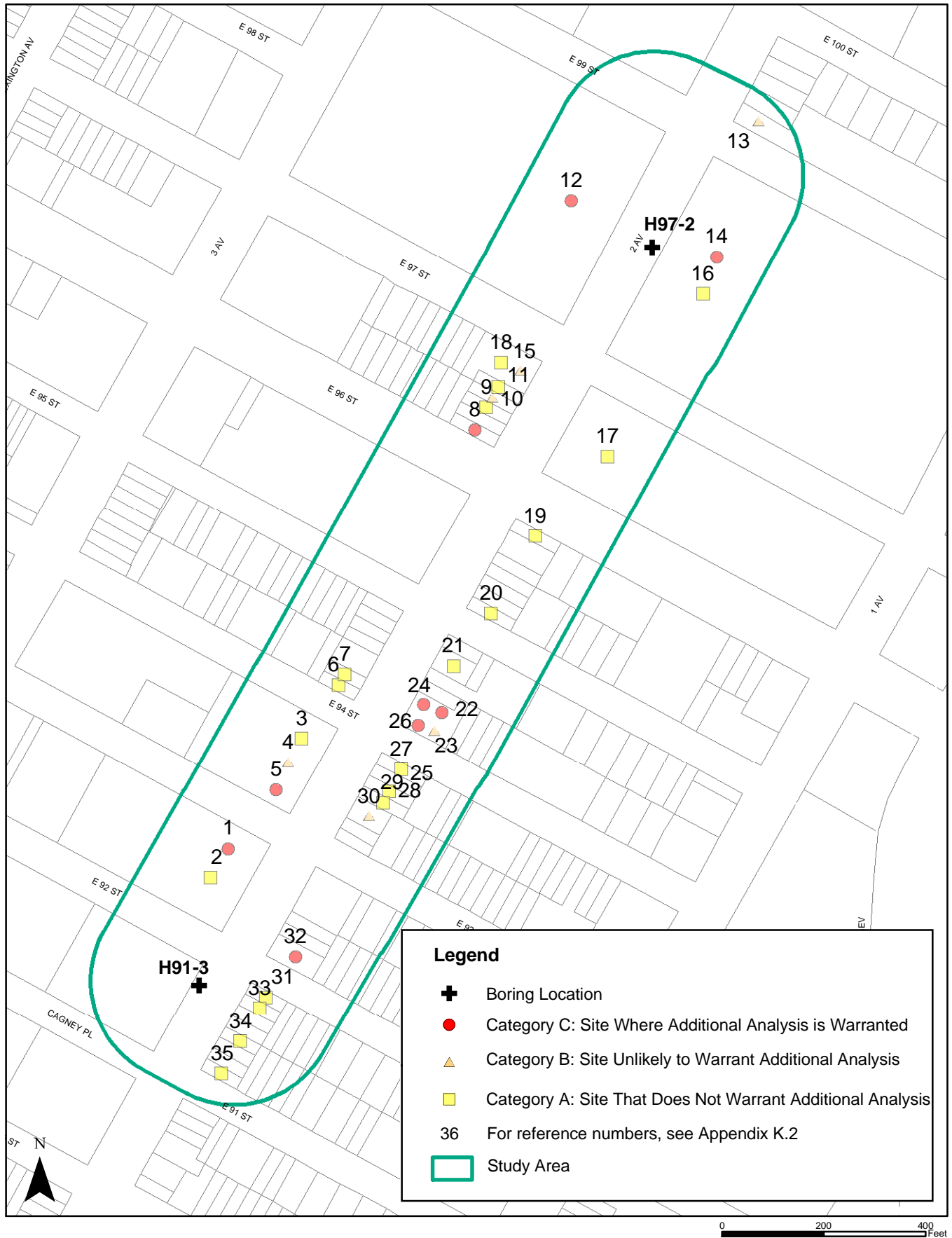


Figure K.3-2
Locations of Initial Environmental Borings
 96 St Station and Shaft Sites

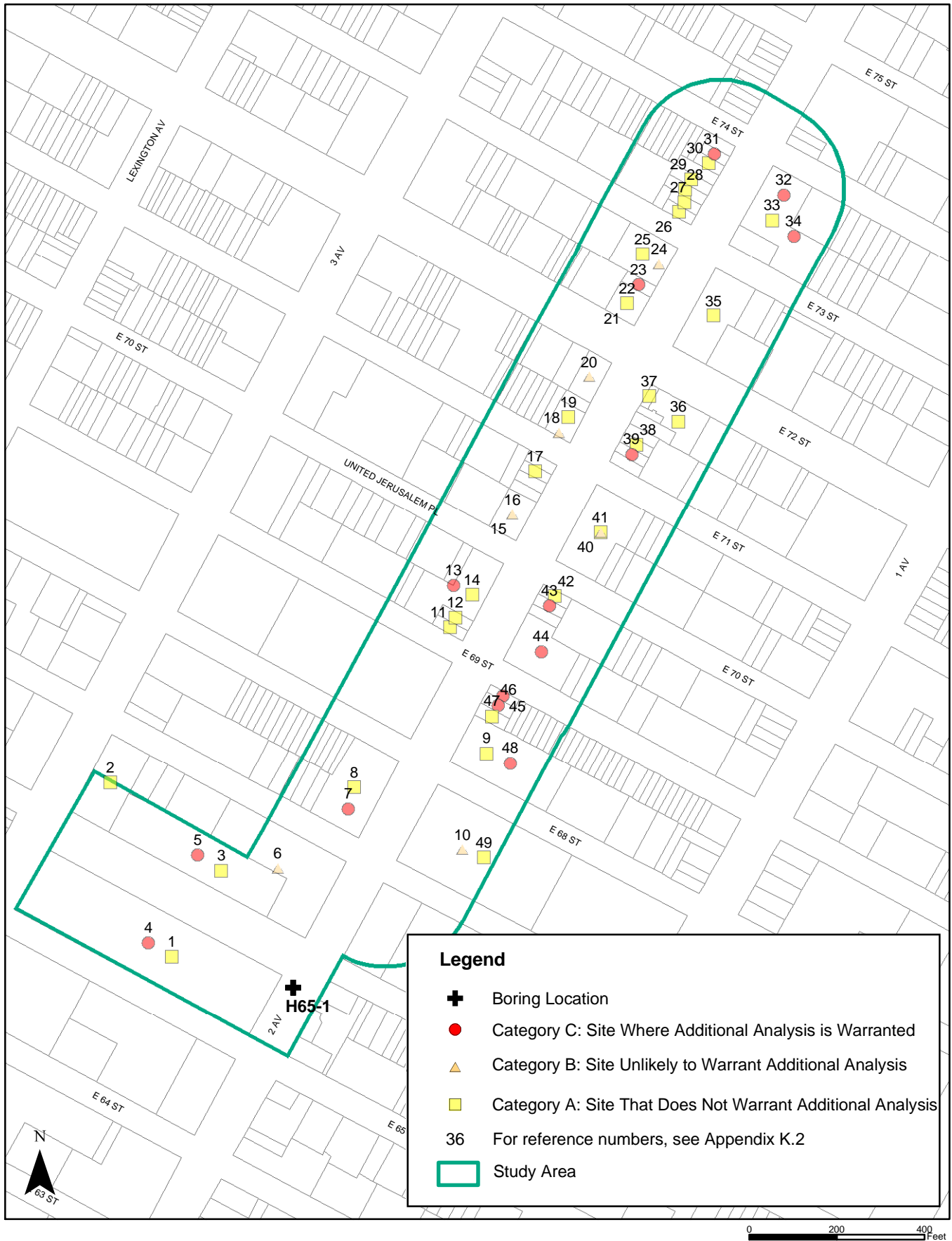


Figure K.3-3
Locations of Initial Environmental Borings
 72 St Station and 66th St Shaft Site

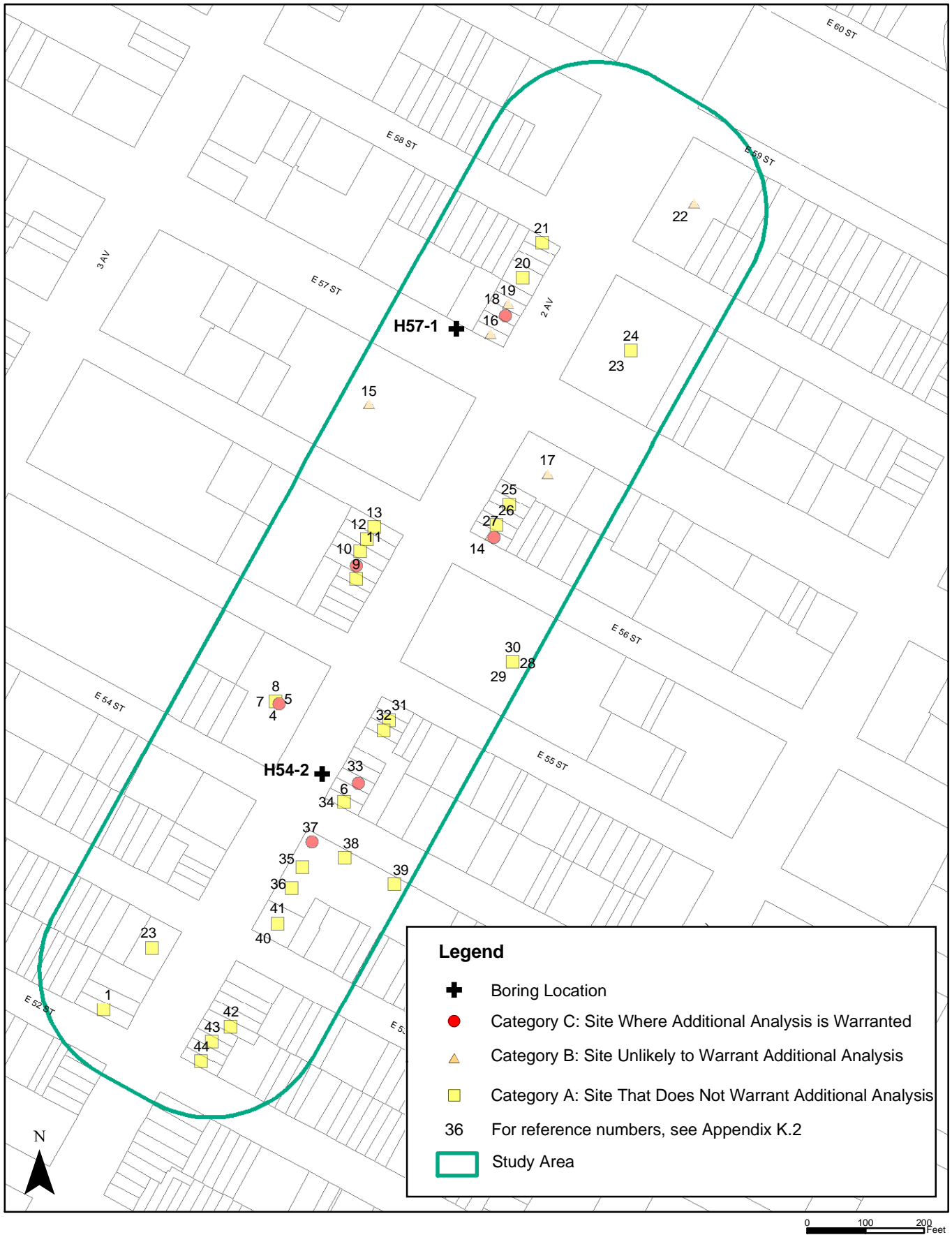


Figure K.3-4
**Locations of Initial Environmental Borings
 55 St Station**

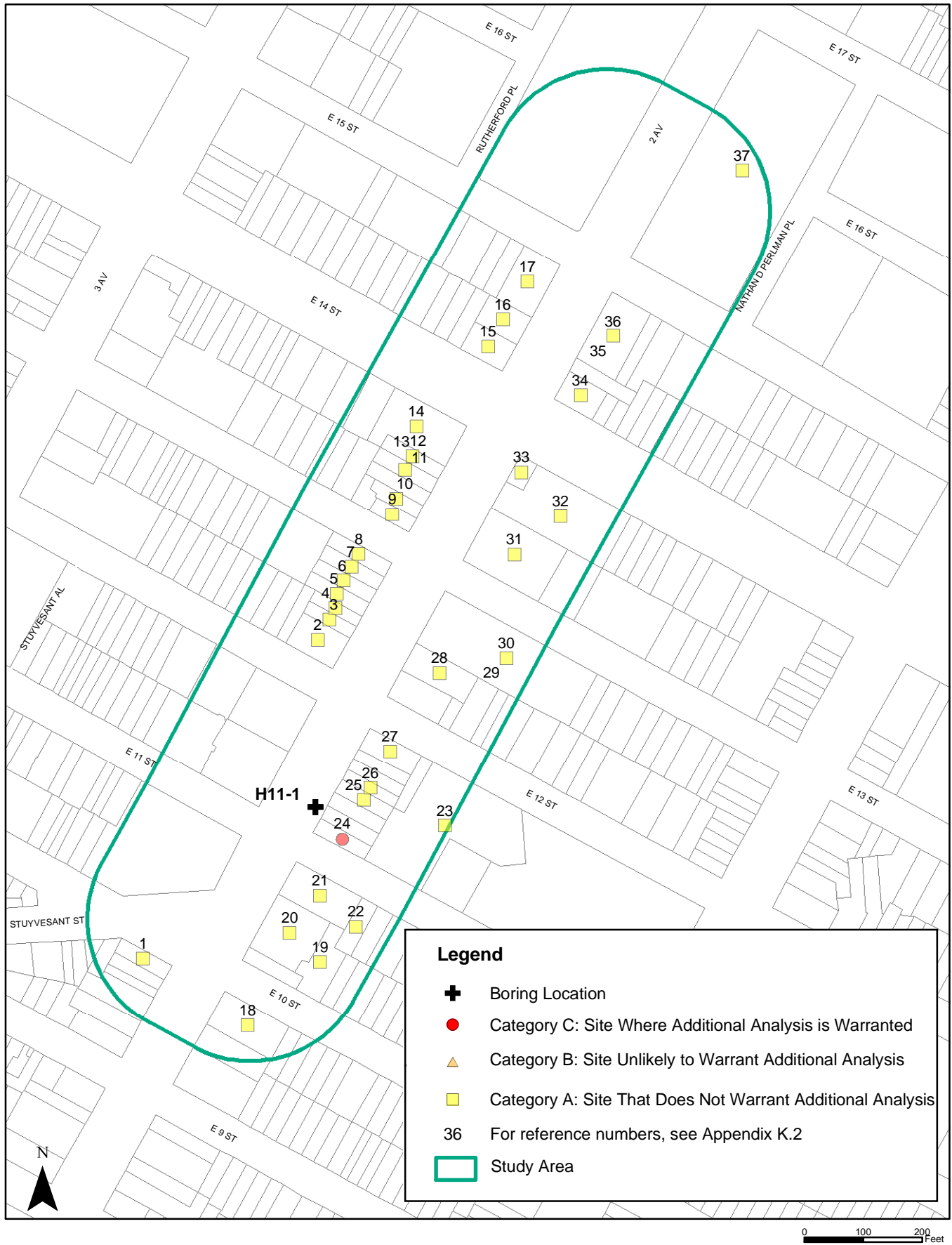
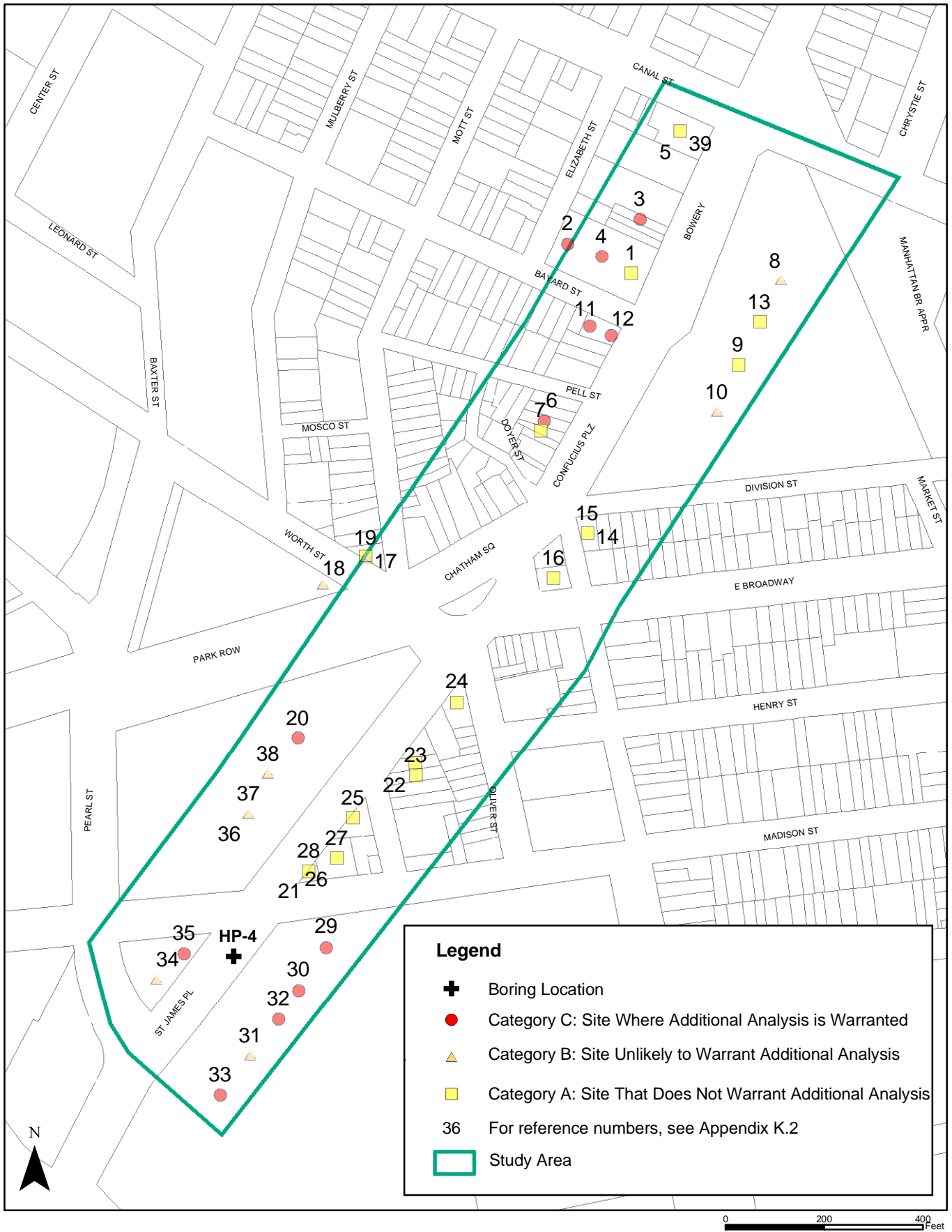


Figure K.3-5
Locations of Initial Environmental Borings
 14 St Station





0 200 400 Feet

Figure K.3-7
Locations of Initial Environmental Borings
 Chatham Sq Station

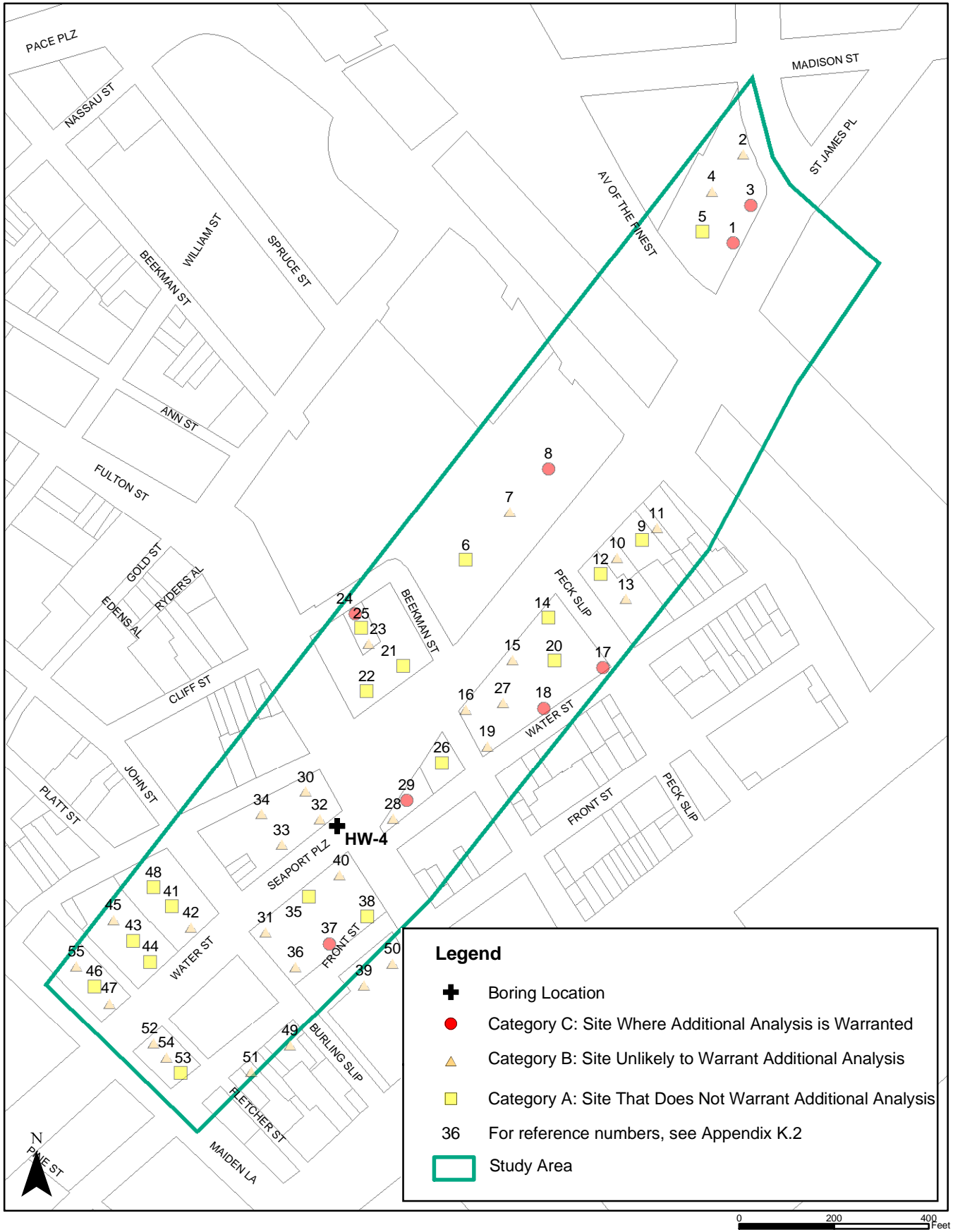


Figure K.3-8
Locations of Initial Environmental Borings
Seaport Station