

Appendix 9
Natural Resources

March 2012 Roosevelt Island Technology Campus Tree Survey

A walking survey of 132 trees located on the project site of the Roosevelt Island Technology Campus was conducted on March 5 and 6, 2012. Only trees located on the project site were surveyed; trees adjacent to the project site were not surveyed. Data on genus, species, DBH (trunk diameter at breast height), height, and canopy spread were collected for all 132 surveyed trees. A hazard risk assessment was performed in accordance with ISA hazard risk criteria for 115 trees to assess tree structure, describe defects, evaluate the likelihood of failure, and note what would be damaged if the tree failed. This assessment was performed by visual inspection only. Trees were not sounded or bored to test for internal decay. However, for some trees, boring is recommended to test for structural integrity. An additional 17 trees, most with a DBH equal to or less than four inches, did not receive a hazard risk assessment. DBH was measured to the 10th of an inch.

Data on all trees is contained in an Excel file. One worksheet contains data for trees receiving a hazard risk assessment. A second worksheet contains data for trees that did not receive a hazard risk assessment. All surveyed trees have been given a unique identifier (i.e. a TreeID number).

Locations for surveyed trees were also mapped. Initial locations were based on a 1999 tree survey contained in a CAD dwg file. However, this CAD file is not geo-referenced (i.e. tree locations do not have longitude and latitude coordinates). To associate tree locations with longitude and latitude coordinates, the CAD file was imported into GIS (Geographic Information Systems) software and “rubber-sheeted” to a 2010 aerial orthoimage serving as a reference layer. The CAD file data was superimposed on the 2010 aerial orthoimage to create maps used in the survey. Tree locations were corrected post-inventory to correspond more closely with that image. Some trees included in the 1999 survey were found to have been removed. Additionally, some trees were found either to have been missed in the 1999 survey or to have been planted in the interim. These trees were located and given longitude and latitude coordinates based on the 2010 orthoimage. Finally, while the 1999 tree survey included information on tree species and DBH, data was found in many instances to be inaccurate. Data from the 1999 tree survey was updated with data from the 2012 tree survey.

Locations of surveyed trees are contained in two GIS shapefiles. The first shapefile contains data from the 115 trees that received a hazard risk assessment. A second shapefile contains data from the 17 trees that did not receive a hazard risk assessment. A third shapefile contains data from trees that were identified in the 1999 tree survey, but were found to have been removed in the 2012 tree survey. All shapefiles are State Plane New York – Long Island, NAD 83, US Survey Foot.

Roosevelt Island Tree Survey

TreeID	Date	SpCode	Botanic	Genus	Height	Spread	DBH	Age	Live Crown Ratio
1003	3/5/2012	QUPA	Quercus palustris	Quercus	45	50	28.4	Mature	75%
1005	3/5/2012	COMA	Cornus mas	Cornus	15	16	10.2	Mature	80%
1006	3/5/2012	COMA	Cornus mas	Cornus	15	16	9.5	Mature	60%
1007	3/5/2012	COMA	Cornus mas	Cornus	15	16	9.8	Mature	65%
1008	3/5/2012	COMA	Cornus mas	Cornus	12	16	17.0	Mature	60%
1009	3/5/2012	COMA	Cornus mas	Cornus	15	18	33.0	Mature	25%
1010	3/5/2012	QUPA	Quercus palustris	Quercus	50	50	35.0	Mature	70%
1011	3/5/2012	QUPA	Quercus palustris	Quercus	50	55	26.8	Mature	65%
1012	3/6/2012	QUPA	Quercus palustris	Quercus	50	50	31.4	Mature	60%
1013	3/5/2012	QUPA	Quercus palustris	Quercus	50	50	28.0	Mature	65%
1014	3/5/2012	QUPA	Quercus palustris	Quercus	40	50	22.8	Mature	55%
1023	3/5/2012	QURU	Quercus rubra	Quercus	45	60	25.4	Mature	60%
1024	3/5/2012	QUPA	Quercus palustris	Quercus	30	40	22.5	Declining	
1027	3/5/2012	QUPA	Quercus palustris	Quercus	40	30	22.0	Mature	45%
1028	3/5/2012	QUPA	Quercus palustris	Quercus	35	35	18.6	Semi-mature	60%
1029	3/5/2012	QUPA	Quercus palustris	Quercus	35	35	19.5	Declining	60%
1031	3/5/2012	QURU	Quercus rubra	Quercus	45	45	23.0	Mature	50%
1032	3/5/2012	QUPA	Quercus palustris	Quercus	30	40	21.8	Semi-mature	50%
1033	3/5/2012	QUPA	Quercus palustris	Quercus	50	65	24.3	Mature	40%
1063	3/6/2012	COMA	Cornus mas	Cornus	12	25	8.0	Semi-mature	
1064	3/6/2012	QUPA	Quercus palustris	Quercus	50	55	23.3	Mature	65%
1065	3/6/2012	QUPA	Quercus palustris	Quercus	45	55	23.0	Mature	60%
1066	3/6/2012	QUPA	Quercus palustris	Quercus	50	55	23.1	Mature	65%
1067	3/6/2012	QUPA	Quercus palustris	Quercus	50	60	30.0	Mature	65%
1068	3/6/2012	QUPA	Quercus palustris	Quercus	50	50	21.4	Semi-mature	70%
1069	3/6/2012	QUPA	Quercus palustris	Quercus	50	60	29.3	Mature	60%
1071	3/6/2012	PIST	Pinus strobus	Pinus	40	25	14.1	Semi-mature	65%
1072	3/6/2012	PINI	Pinus nigra	Pinus	30	12	6.4	Young	60%
1093	3/6/2012	QUPA	Quercus palustris	Quercus	40	25	17.6	Semi-mature	40%
1094	3/6/2012	QUPA	Quercus palustris	Quercus	50	55	30.3	Mature	60%
1095	3/6/2012	ULAM	Ulmus americana	Ulmus	45	60	25.4	Mature	55%
1096	3/6/2012	QUPA	Quercus palustris	Quercus	40	30	20.4	Semi-mature	50%

Roosevelt Island Tree Survey

TreeID	Date	SpCode	Botanic	Genus	Height	Spread	DBH	Age	Live Crown Ratio
1097	3/6/2012	PIPU	<i>Picea pungens</i>	<i>Picea</i>	12	6	4.9	Young	85%
1098	3/6/2012	PIPU	<i>Picea pungens</i>	<i>Picea</i>	14	9	6.8	Young	85%
1113	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	60	55	22.9	Semi-mature	55%
1115	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	60	65	32.7	Mature	80%
1116	3/5/2012	GLTR	<i>Gleditsia triacanthos</i>	<i>Gleditsia</i>	40	50	23.7	Mature	60%
1117	3/5/2012	PRSE1	<i>Prunus serotina</i>	<i>Prunus</i>	40	30	16.0	Semi-mature	50%
1118	3/5/2012	MASO	<i>Magnolia x soulangiana</i>	<i>Magnolia</i>	18	20	20.5	Semi-mature	65%
1119	3/5/2012	CACA	<i>Carpinus caroliniana</i>	<i>Carpinus</i>	30	40	16.0	Mature	80%
1120	3/5/2012	CASP	<i>Catalpa speciosa</i>	<i>Catalpa</i>	20	25	16.0	Declining	45%
1123	3/5/2012	COFL	<i>Cornus florida</i>	<i>Cornus</i>	15	12	6.3	Young	65%
1124	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	55	80	35.5	Mature	65%
1126	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	50	70	30.7	Mature	70%
1127	3/5/2012	ACSA1	<i>Acer saccharinum</i>	<i>Acer</i>	45	50	39.9	Mature	80%
1129	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	55	70	34.8	Mature	60%
1130	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	50	60	26.7	Mature	60%
1131	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	60	75	38.4	Mature	75%
1132	3/5/2012	CACA	<i>Carpinus caroliniana</i>	<i>Carpinus</i>	18	40	30.6	Mature	85%
1133	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	50	50	22.6	Semi-mature	60%
1134	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	55	45	22.8	Mature	70%
1141	3/5/2012	GLTR	<i>Gleditsia triacanthos</i>	<i>Gleditsia</i>	50	60	24.9	Mature	60%
1146	3/5/2012	PIST	<i>Pinus strobus</i>	<i>Pinus</i>	30	16	11.2	Young	85%
1182	3/5/2012	CACA	<i>Carpinus caroliniana</i>	<i>Carpinus</i>	25	35	30.6	Mature	80%
1186	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	30	30	15.6	Semi-mature	45%
1188	3/5/2012	PODE	<i>Populus deltoides</i>	<i>Populus</i>	55	50	28.3	Semi-mature	75%
1189	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	50	40	25.7	Semi-mature	55%
1190	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	50	55	25.9	Semi-mature	55%
1191	3/5/2012	PLAC	<i>Platanus x acerifolia</i>	<i>Platanus</i>	60	70	32.5	Mature	60%
1195	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	45	55	32.5	Mature	65%
1197	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	40	55	28.5	Mature	80%
1198	3/5/2012	PIST	<i>Pinus strobus</i>	<i>Pinus</i>	25	24	13.1	Semi-mature	85%
1199	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	35	55	23.8	Mature	60%
1200	3/5/2012	QUPA	<i>Quercus palustris</i>	<i>Quercus</i>	45	40	21.7		50%

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TreeID	Date	SpCode	Botanic	Genus	Height	Spread	DBH	Age	Live Crown Ratio
1201	3/5/2012	PRSE1	Prunus serotina	Prunus	35	60	27.5	Mature	65%
1216	3/5/2012	PIST	Pinus strobus	Pinus	25	30	15.8	Semi-mature	90%
1217	3/5/2012	CABI	Catalpa bignonioides	Catalpa	25	45	19.8	Semi-mature	80%
1229	3/6/2012	QUPA	Quercus palustris	Quercus	40	40	21.3	Semi-mature	70%
1230	3/6/2012	QUPA	Quercus palustris	Quercus	45	40	32.0	Mature	60%
1231	3/6/2012	LIST	Liquidambar styraciflua	Liquidambar	55	20	12.2	Semi-mature	70%
1232	3/6/2012	QUPA	Quercus palustris	Quercus	40	55	23.7	Semi-mature	65%
1233	3/6/2012	QUPA	Quercus palustris	Quercus	45	45	31.0	Mature	65%
1234	3/6/2012	QURU	Quercus rubra	Quercus	40	40	24.5	Mature	55%
1235	3/6/2012	QURU	Quercus rubra	Quercus	45	40	20.5	Semi-mature	60%
1236	3/6/2012	QUPA	Quercus palustris	Quercus	40	40	23.8	Mature	55%
1261	3/5/2012	QUPA	Quercus palustris	Quercus	40	40	20.8	Semi-mature	50%
1262	3/5/2012	QUPA	Quercus palustris	Quercus	35	30	15.5	Semi-mature	40%
1263	3/5/2012	QUPA	Quercus palustris	Quercus	55	70	29.7	Mature	50%
1288	3/5/2012	QUPA	Quercus palustris	Quercus	45	50	27.0	Mature	60%
1289	3/5/2012	GIBI	Ginkgo biloba	Ginkgo	35	18	16.8	Declining	35%
1291	3/5/2012	LIST	Liquidambar styraciflua	Liquidambar	50	50	20.0	Semi-mature	70%
1293	3/5/2012	QUPA	Quercus palustris	Quercus	45	65	26.2	Mature	65%
1294	3/5/2012	CRCR	Crataegus crus-galli	Crataegus	12	20	10.2	Semi-mature	10%
1295	3/5/2012	QURU	Quercus rubra	Quercus	55	60	24.0	Semi-mature	45%
1296	3/5/2012	AIAL	Ailanthus altissima	Ailanthus	40	40	16.5	Semi-mature	35%
1297	3/5/2012	MOAL	Morus alba	Morus	35	60	26.1	Mature	80%
1299	3/6/2012	QUPA	Quercus palustris	Quercus	35	35	17.9	Semi-mature	60%
1300	3/6/2012	QUPA	Quercus palustris	Quercus	40	45	21.6	Semi-mature	60%
1301	3/6/2012	QUPA	Quercus palustris	Quercus	50	55	26.0	Mature	65%
1306	3/6/2012	CR	Crataegus species	Crataegus	25	20	12.6	Mature	55%
1307	3/6/2012	PYCA	Pyrus calleryana	Pyrus	14	14	4.2	Young	80%
1308	3/6/2012	LIST	Liquidambar styraciflua	Liquidambar	50	30	23.2	Mature	60%
1309	3/6/2012	LIST	Liquidambar styraciflua	Liquidambar	45	55	24.4	Mature	60%
1310	3/6/2012	MA2	Malus species	Malus	10	30	20.0	Mature	65%
1311	3/6/2012	CR	Crataegus species	Crataegus	15	16	10.6	Mature	75%
1312	3/6/2012	PIST	Pinus strobus	Pinus	35	35	15.7	Semi-mature	80%

Roosevelt Island Tree Survey

TreeID	Date	SpCode	Botanic	Genus	Height	Spread	DBH	Age	Live Crown Ratio
1314	3/6/2012	ACPE	Acer pensylvanicum	Acer	15	15	15.9	Semi-mature	80%
1315	3/6/2012	PINI	Pinus nigra	Pinus	30	25	12.8	Semi-mature	70%
1316	3/6/2012	PINI	Pinus nigra	Pinus	35	30	15.6	Semi-mature	70%
1317	3/6/2012	GLTR	Gleditsia triacanthos	Gleditsia	30	35	19.2	Semi-mature	60%
1318	3/6/2012	QUPA	Quercus palustris	Quercus	50	65	35.6	Mature	
1320	3/6/2012	QUPA	Quercus palustris	Quercus	50	45	17.8	Semi-mature	60%
1321	3/6/2012	QUPA	Quercus palustris	Quercus	45	30	21.0	Semi-mature	60%
1322	3/6/2012	QUPA	Quercus palustris	Quercus	40	25	16.7	Semi-mature	55%
1323	3/6/2012	QUPA	Quercus palustris	Quercus	40	35	22.5	Semi-mature	65%
1324	3/6/2012	PYCA	Pyrus calleryana	Pyrus	15	20	7.8	Semi-mature	60%
1325	3/6/2012	ACPE	Acer pensylvanicum	Acer	15	20	11.0	Semi-mature	75%
1326	3/6/2012	ACPE	Acer pensylvanicum	Acer	18	22	12.6	Semi-mature	80%
1327	3/5/2012	MA2	Malus species	Malus	10	12	6.2	Young	85%
1328	3/5/2012	PIST	Pinus strobus	Pinus	30	18	9.0	Young	75%
1329	3/5/2012	PIST	Pinus strobus	Pinus	30	16	8.5	Young	75%
1401	3/6/2012	PINI	Pinus nigra	Pinus	20	12	6.3	Young	70%
1402	3/6/2012	PINI	Pinus nigra	Pinus	12	9	4.5	Young	75%
1403	3/6/2012	QUPA	Quercus palustris	Quercus	40	40	26.2	Mature	60%
1405	3/6/2012	QUPA	Quercus palustris	Quercus	45	35	25.2	Semi-mature	60%

