

APPENDIX G
CONSTRUCTION

**APPENDIX G-1
CONSTRUCTION WORKFORCE AND DELIVERY
PROJECTIONS**

Podium Approach

Year	2011				2012				2013				2014			
Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Workers	147	390	436	507	666	772	886	907	634	693	806	939	1,031	970	1,001	928
Trucks	30	87	117	146	186	200	208	210	132	111	100	116	128	108	84	82
Year	2015				2016				2017				2018			
Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Workers	931	941	729	777	755	448	517	486	470	466	426	333	165	150	130	15
Trucks	82	84	76	81	79	97	126	95	94	93	60	35	22	20	17	4

Peak Average
 1,031 608
 210 97

Individual Basements Approach

Year	2011				2012				2013				2014			
Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Workers	71	186	186	163	202	478	551	559	528	866	1,030	1,030	967	793	767	1,061
Trucks	23	64	64	56	51	123	126	127	81	126	130	130	123	91	78	109
Year	2015				2016				2017				2018			
Quarter	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Workers	1,059	1,021	780	1,015	1,034	937	531	484	468	464	424	331	165	151	131	16
Trucks	109	107	108	127	128	144	127	95	94	93	60	35	22	20	17	4

Peak Average
 1,061 577
 144 87

APPENDIX G-2a
DETAILS OF CONSTRUCTION EQUIPMENT NOISE
EMISSION LEVELS

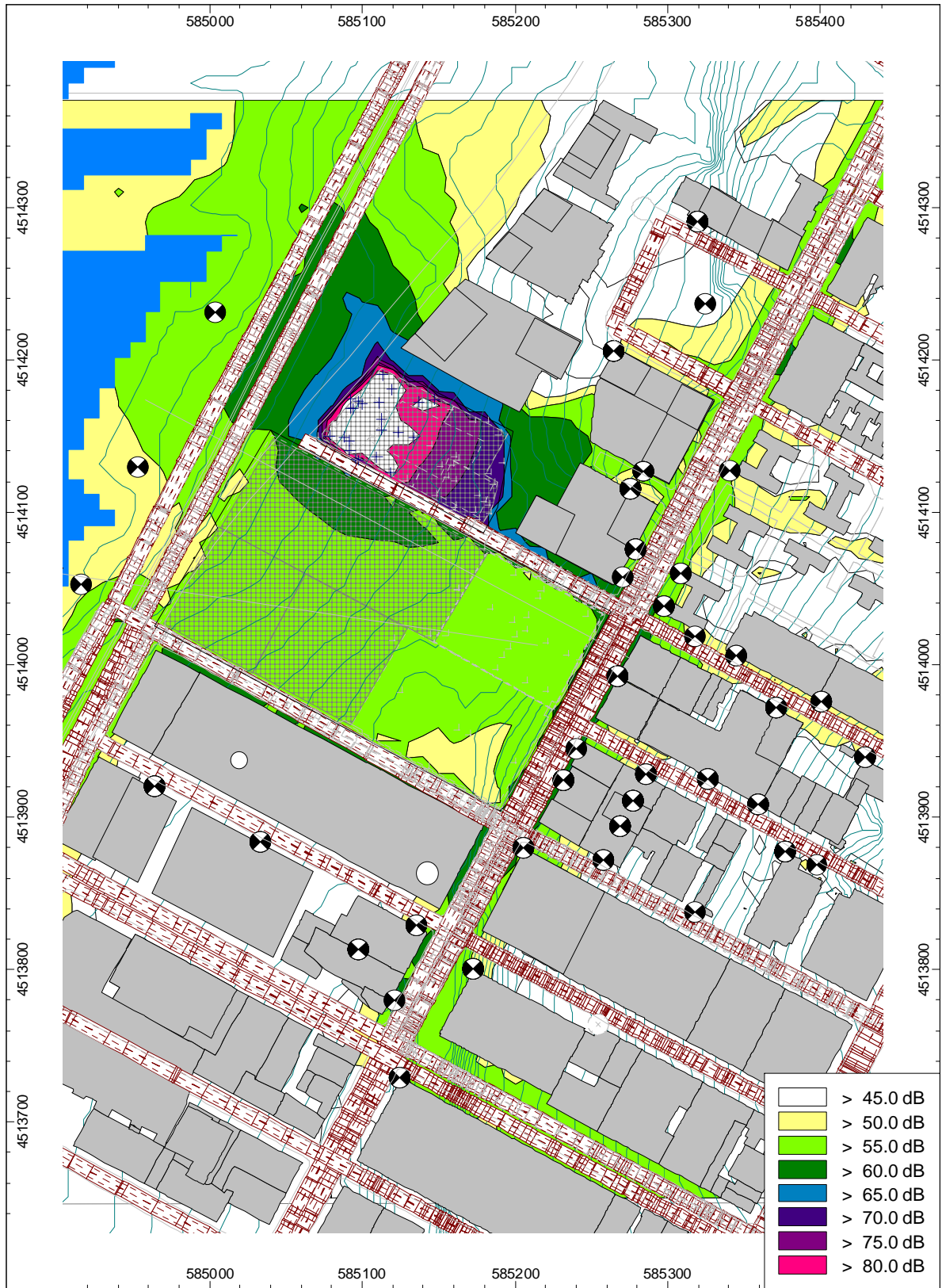
Riverside South Construction Equipment Noise Emission Data

Equipment	Equipment Type	FTA (dBA) at 50 feet	DEP (dBA) at 50 feet	Project Equipment (dBA) at 50 feet	Noise Reduction with path Controls*	Adjust Noise Level (dBA) at 50 feet
Asphalt Laying Equipment	diesel		85	85		85
Bulldozer	diesel		85	77		77
Cement Mixer	electric		75	63		63
Compressor	diesel		80	67		67
Concrete Pump			82	79		79
Concrete Truck			85	79		79
Concrete Vibrator	electric	76		76	10	66
Crane	diesel		85	77		77
Crane (Tower Crane)	electric		85	85	10	75
Delivery Trucks			84	79		79
Dump Truck			84	79		79
Excavator	diesel		85	77		77
Fuel Truck			84	79		79
Forklift	prop		75	75		75
Generator	diesel		82	68		68
Hoist	electric		85	75	10	65
Impact Wrench	air	85		85	10	75
Jack Hammer	air		85	71		71
Line Drill	diesel		85	85	10	75
Paver Cutter	electric		85	71		71
Pile Rig	diesel		84	84	10	74
Pump (Water)	electric		77	76		76
Rebar Bender	gas		80	80		80
Roller	diesel		85	74		74
Saw (Circular)	electric	76		76		76
Saw (Table Saw)	electric	76		76		76
Scissor Lift	electric		75	75		75
Slurry supply system	diesel		82	82		82
Sprayer	electric		75	75		75
Tamper	diesel	83		83	10	73
Tractor Trailer			84	79		79
Trailer			84	79		79
Trash hauling			85	77		77
Troweling machine	gas		85	85	10	75
Welding Equipment	electric		73	73		73

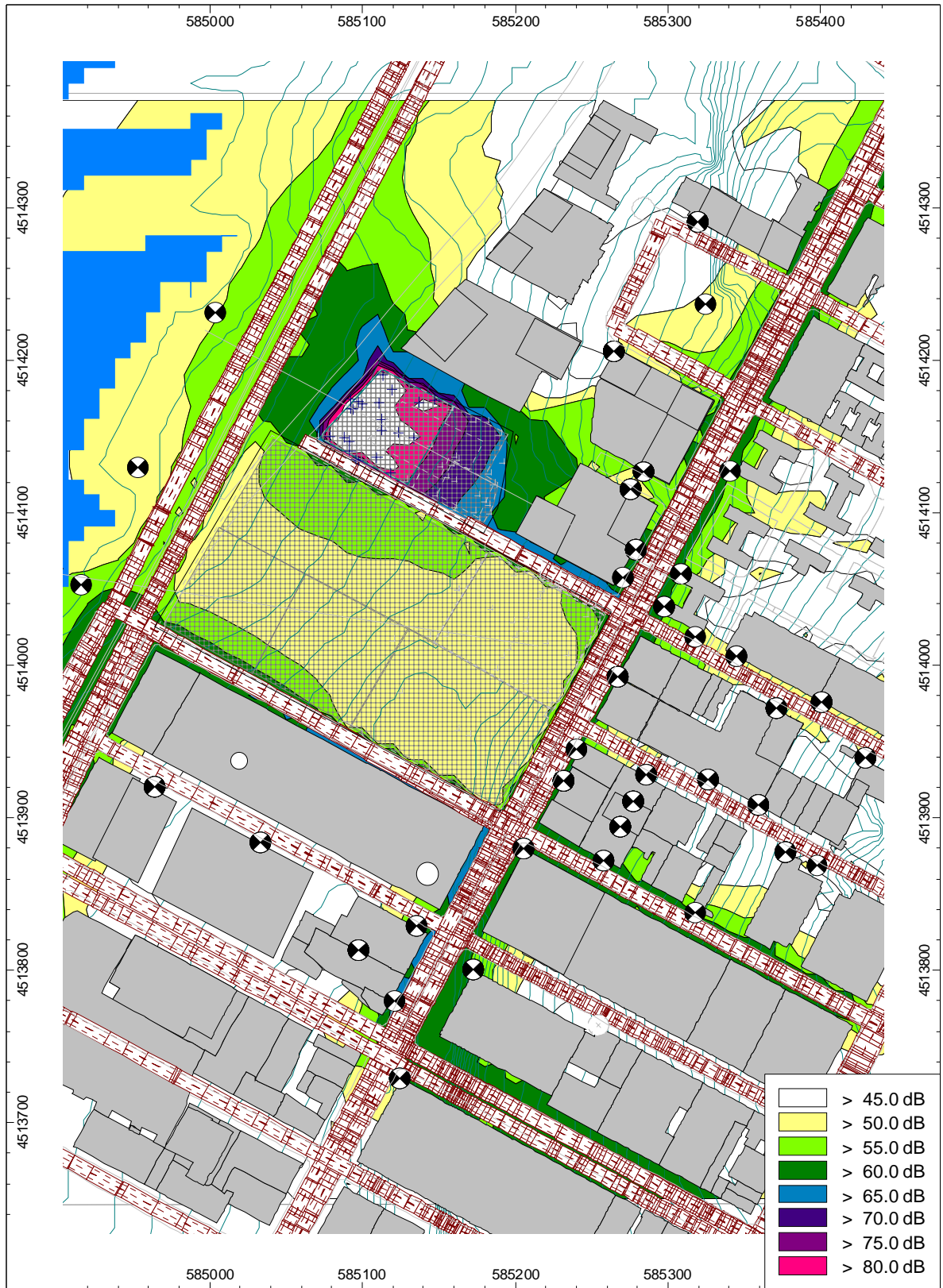
	NYSDEC
	USDOT
	FTA
	USDOC
	NYC Noise Code
	Olympian (Company)
	Electric or quieter

* 10 dBA is an average noise reduction value for breaking a line-of-sight between receivers and noise sources by portable barriers, enclosures, curtains, tents, etc.

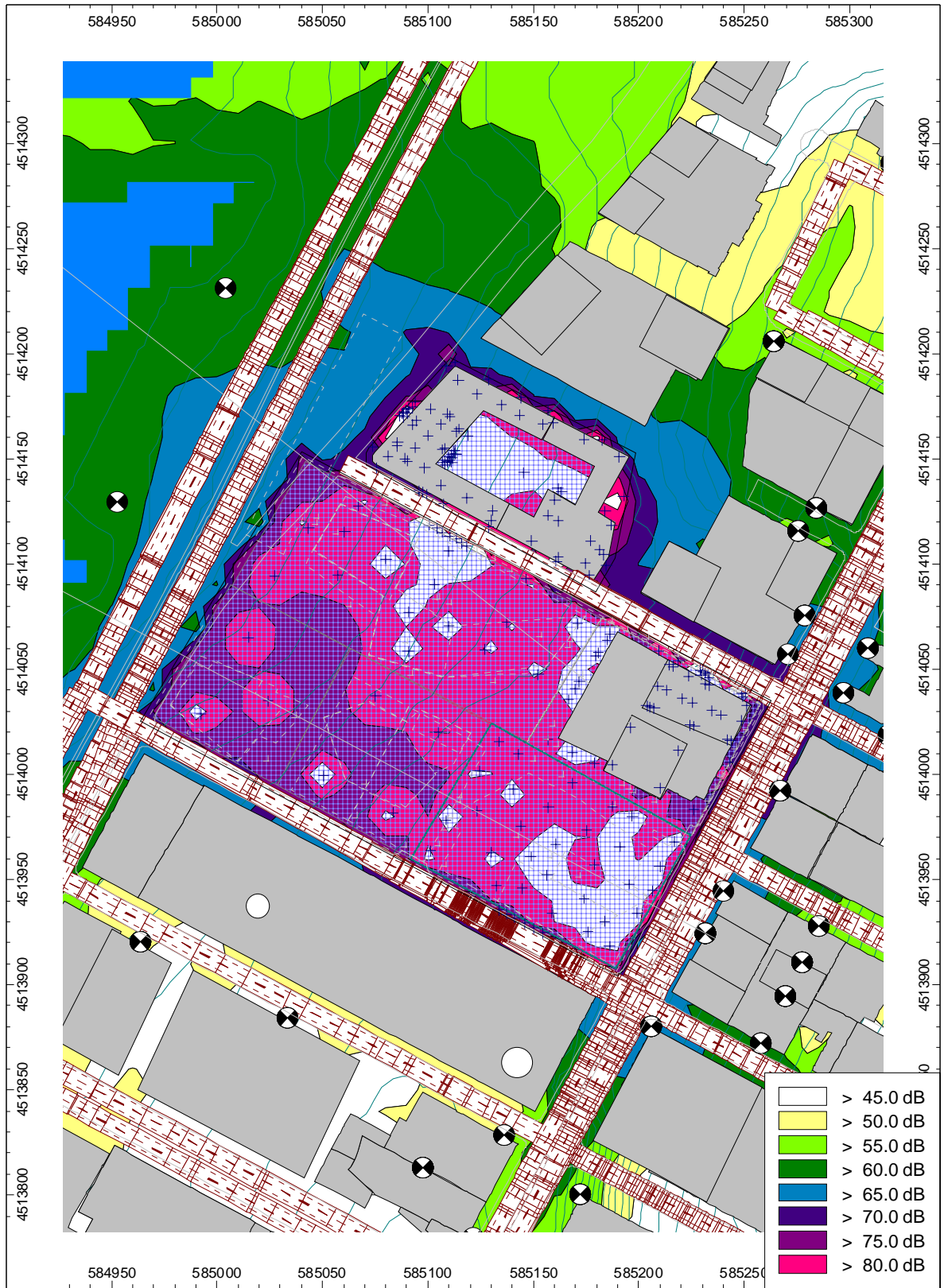
APPENDIX G-2b
NOISE CONTOURS DEPICTING NOISE FROM
CONSTRUCTION ACTIVITIES



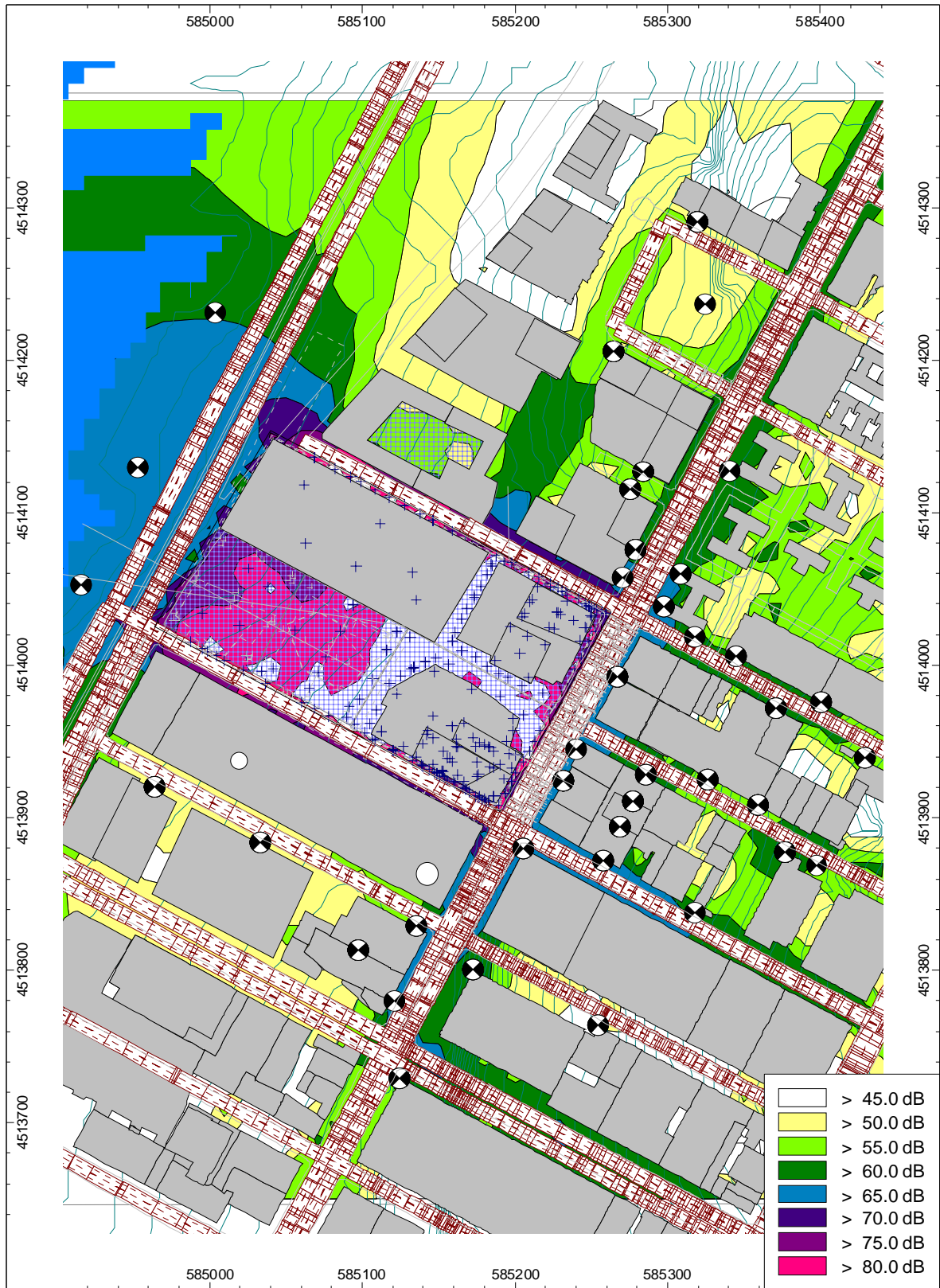
Podium Approach – Q4 2010



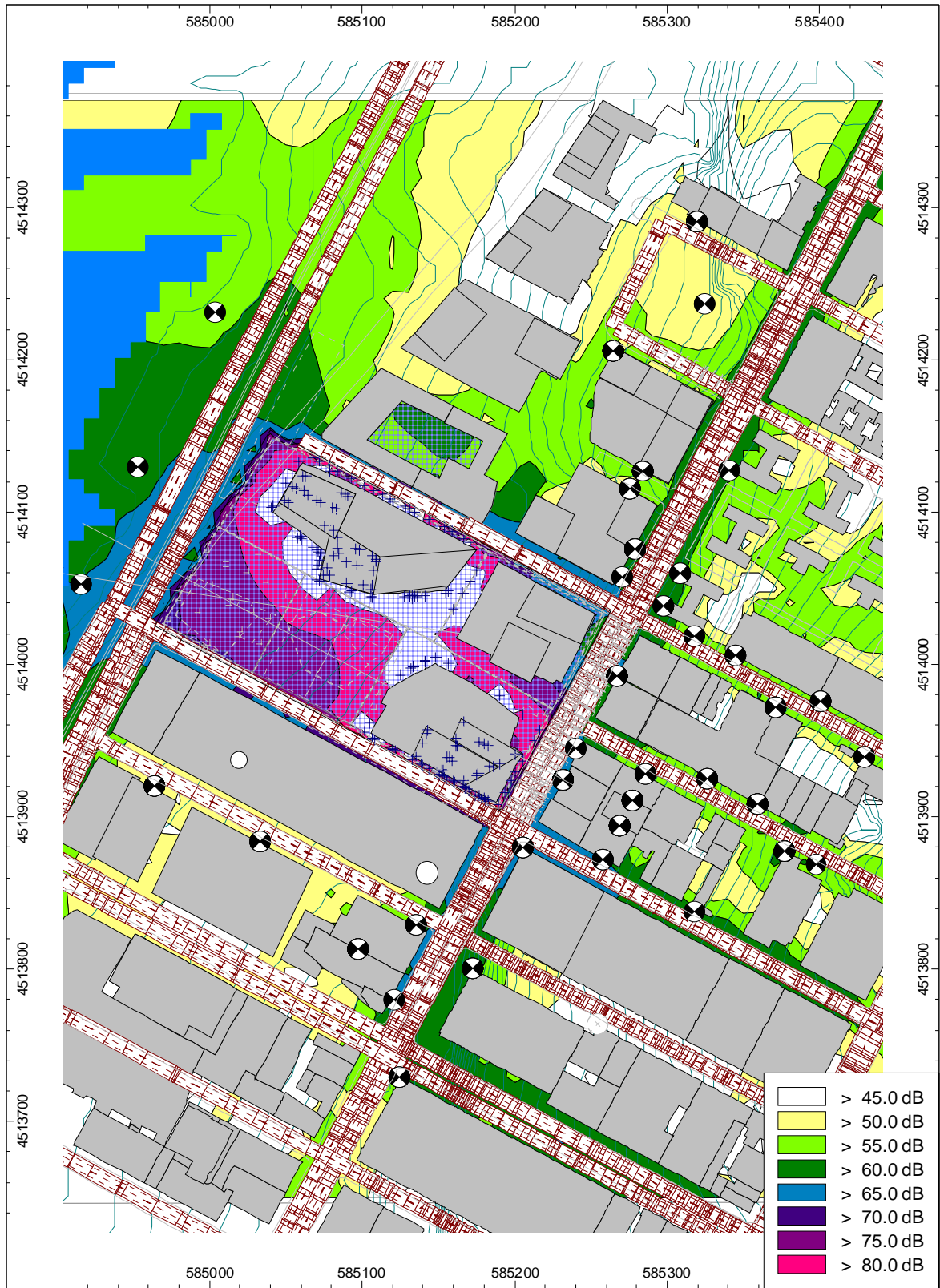
Podium Approach – Q1 2011



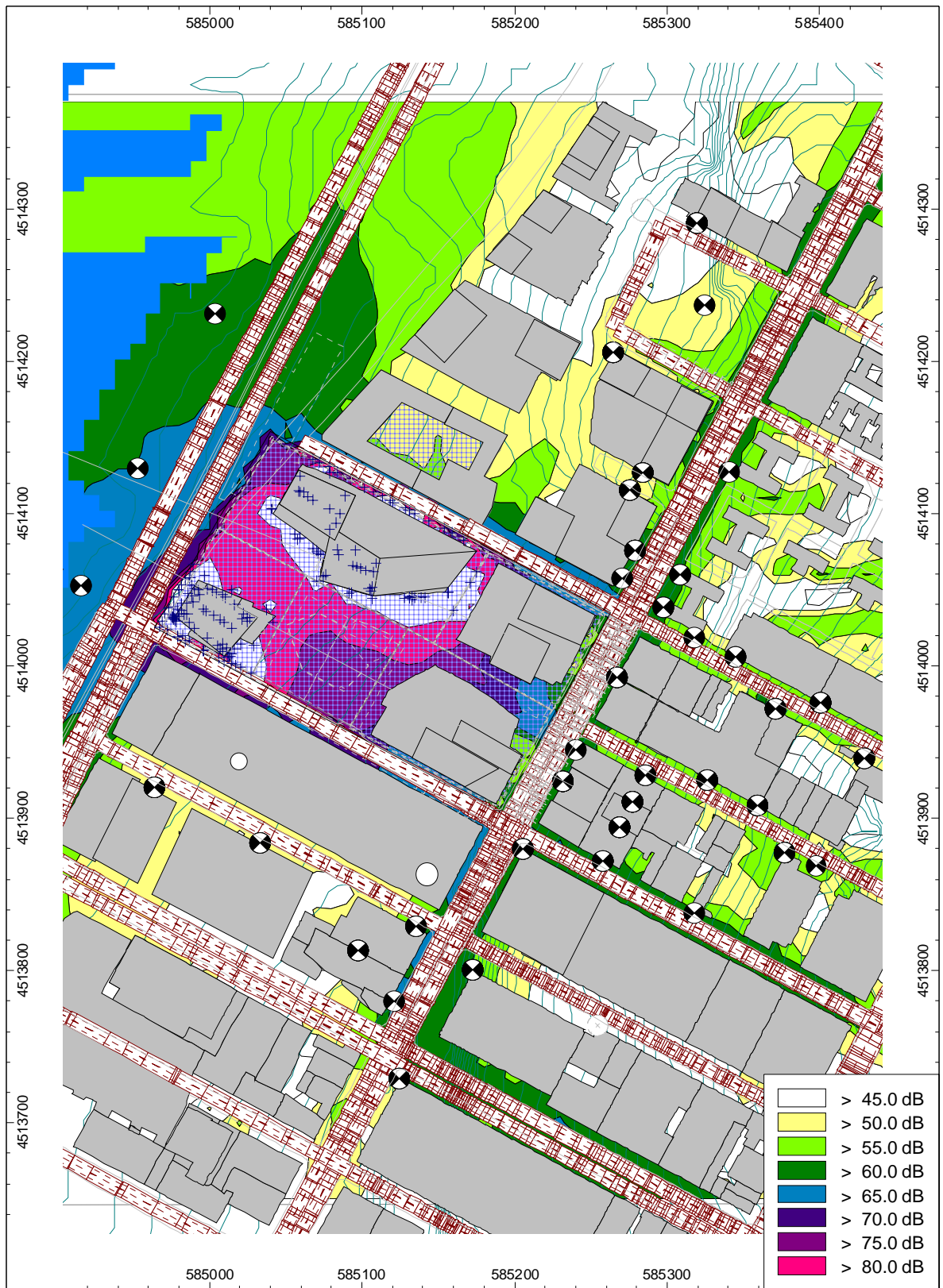
Podium Approach – Q1 2012



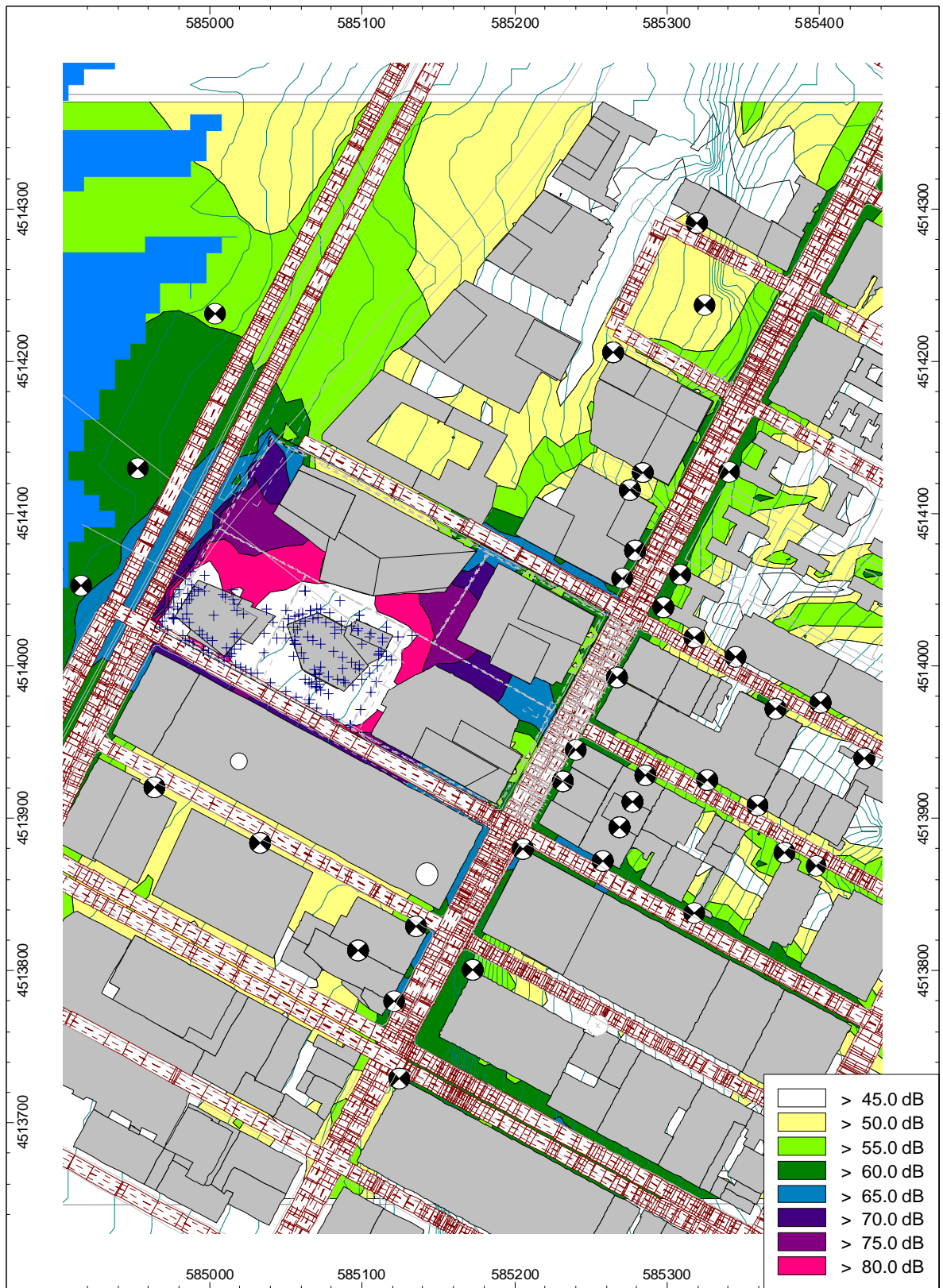
Podium Approach – Q4 2013



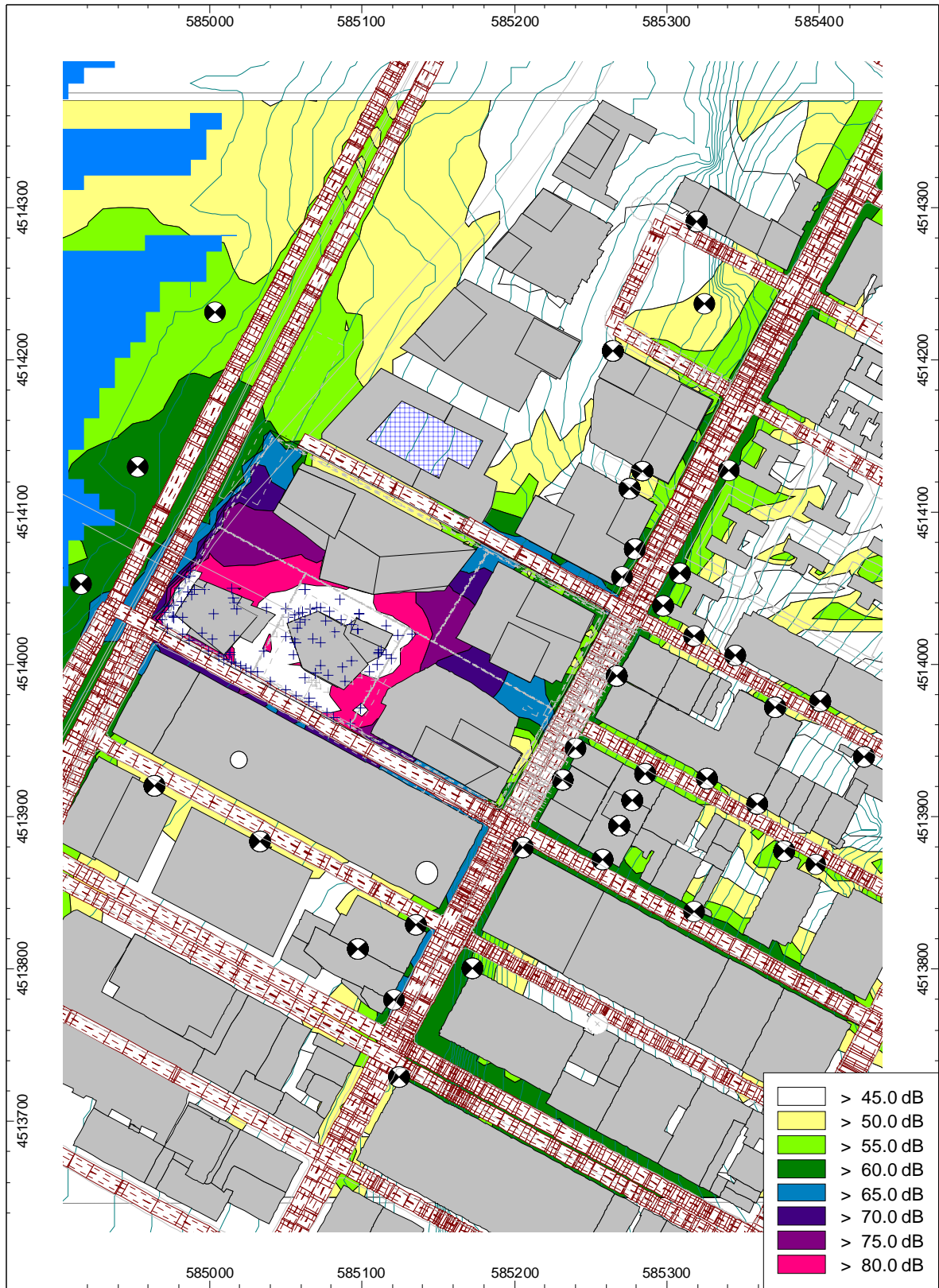
Podium Approach – Q3 2014



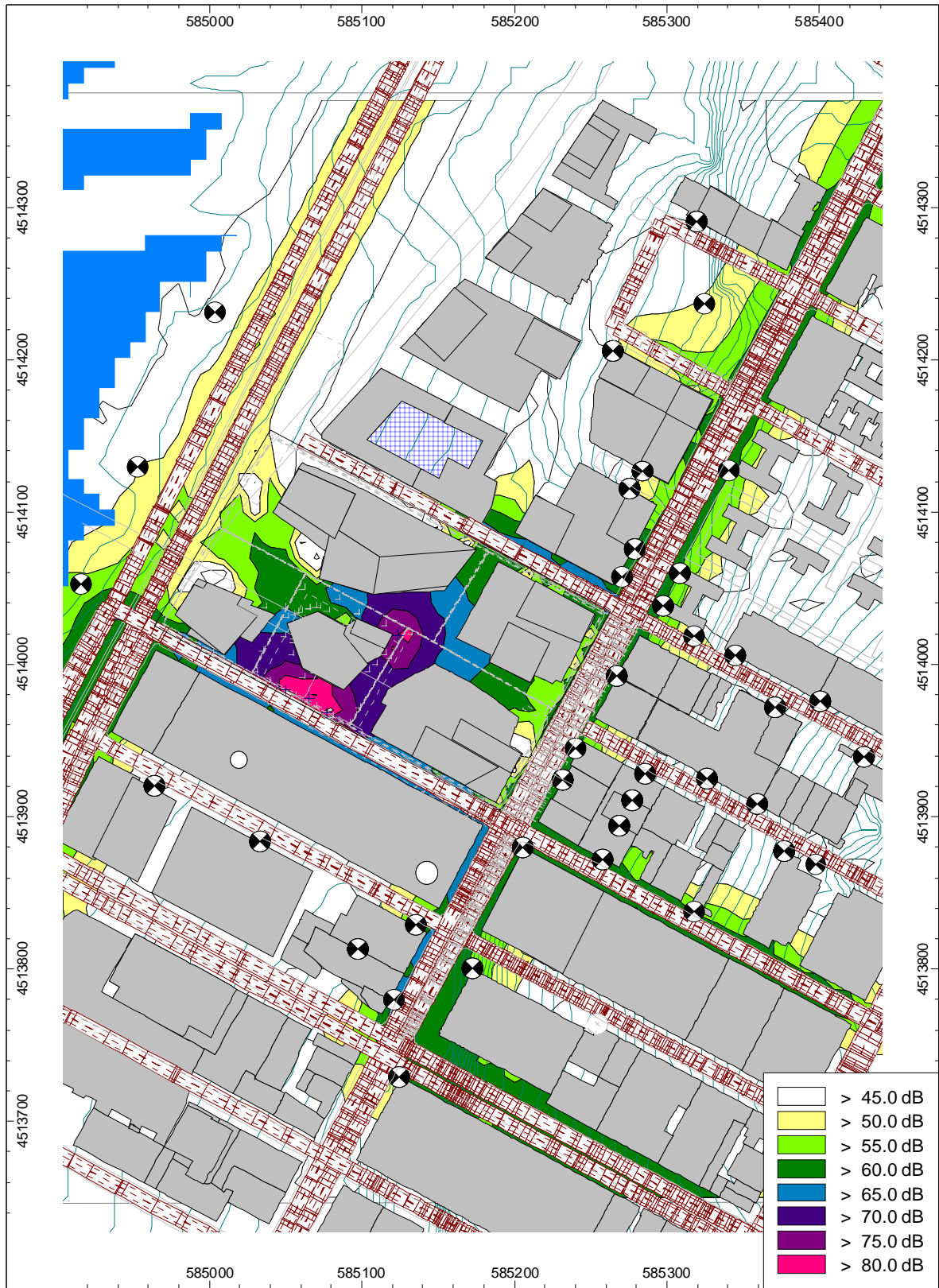
Podium Approach – Q3 2015



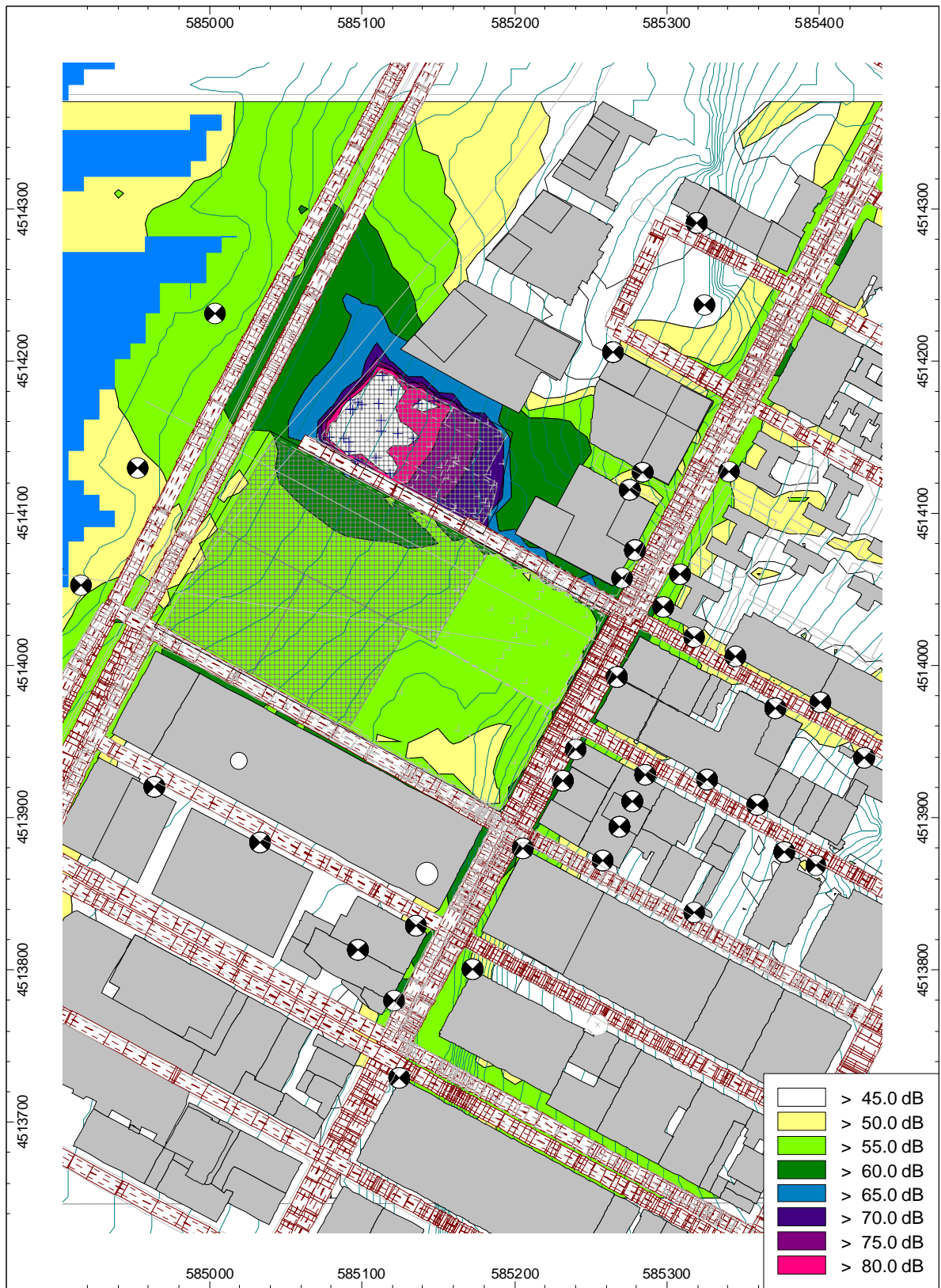
Podium Approach – Q4 2016



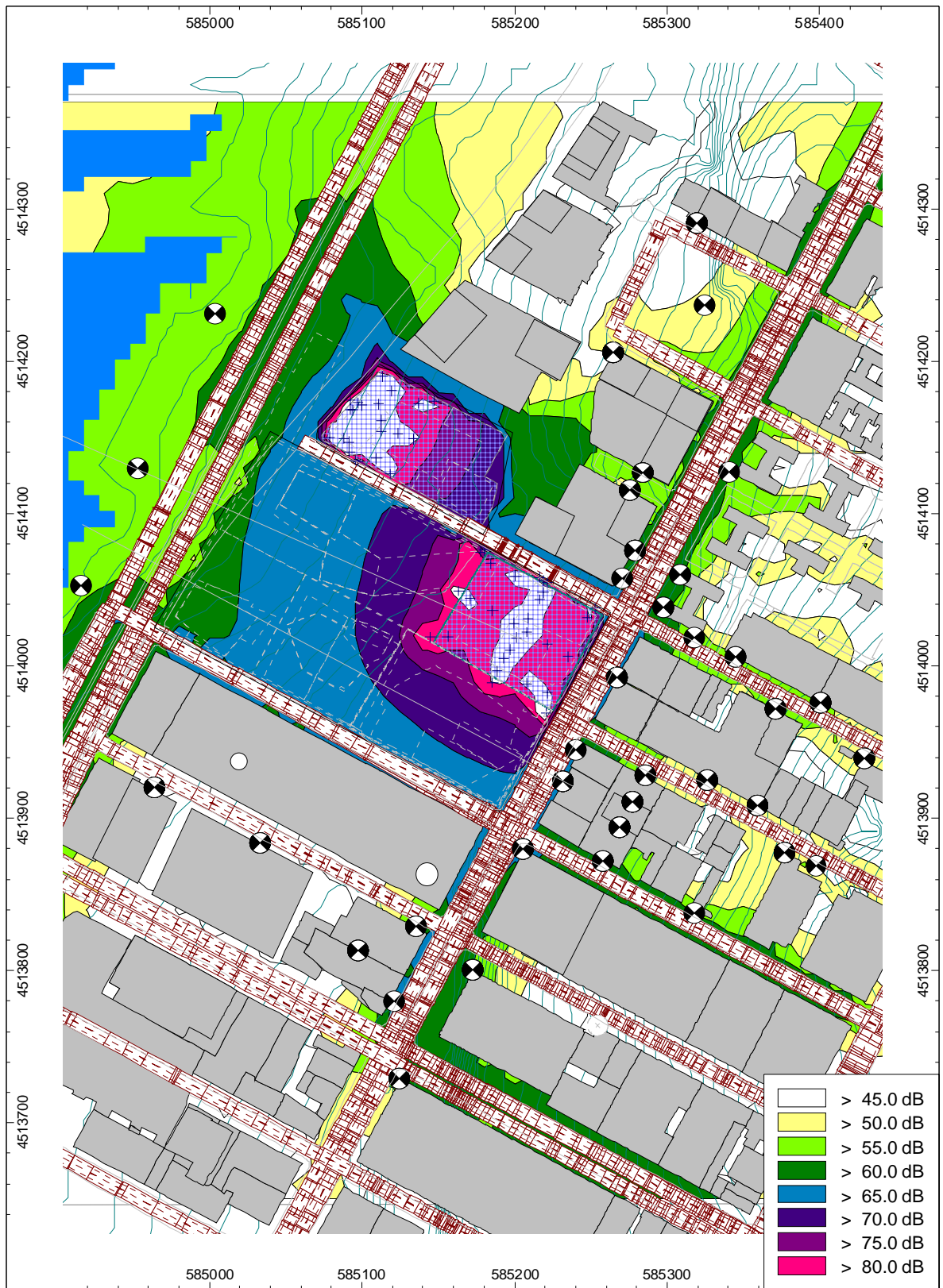
Podium Approach – Q4 2017



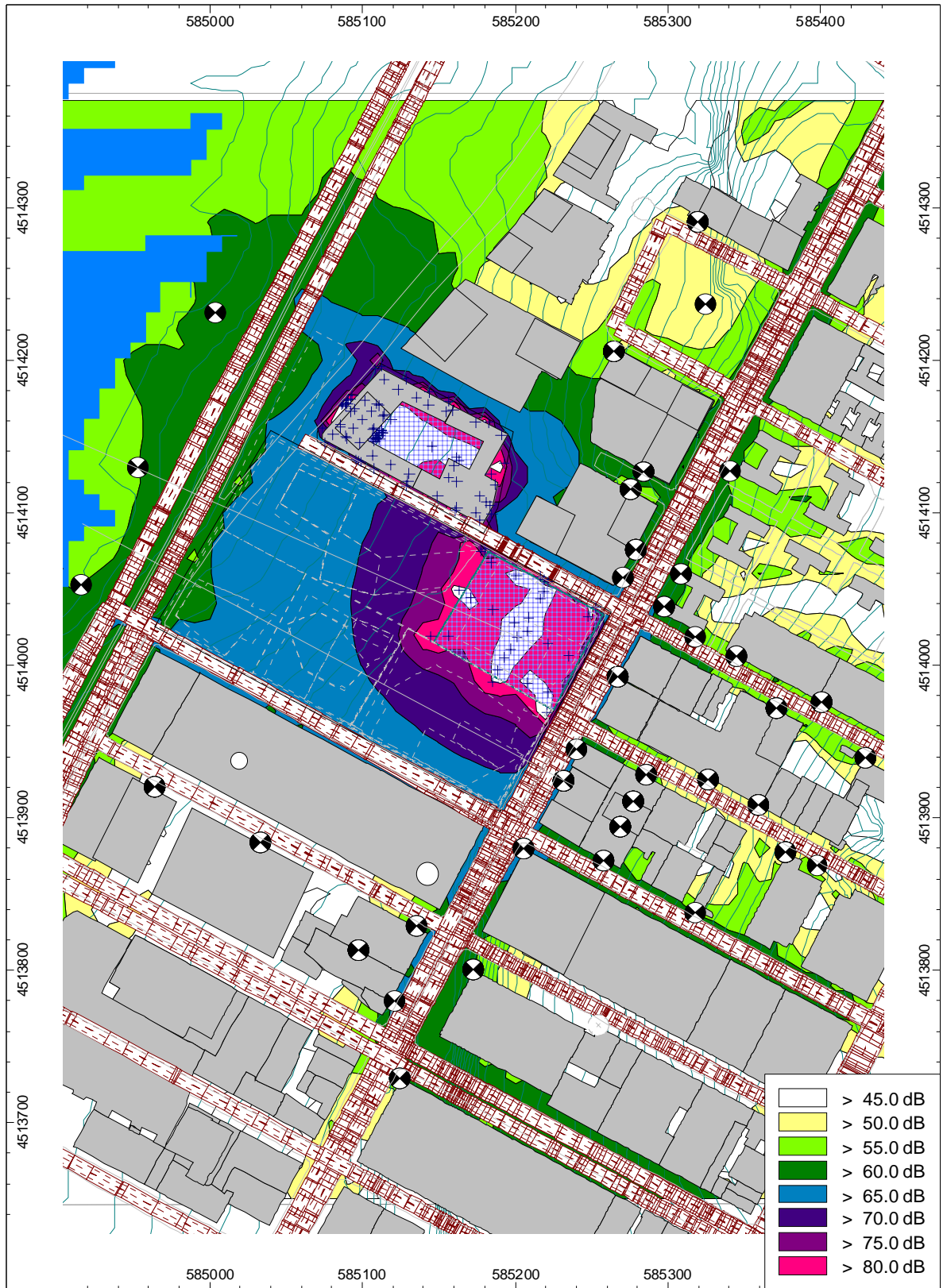
Podium Approach – Q4 2018



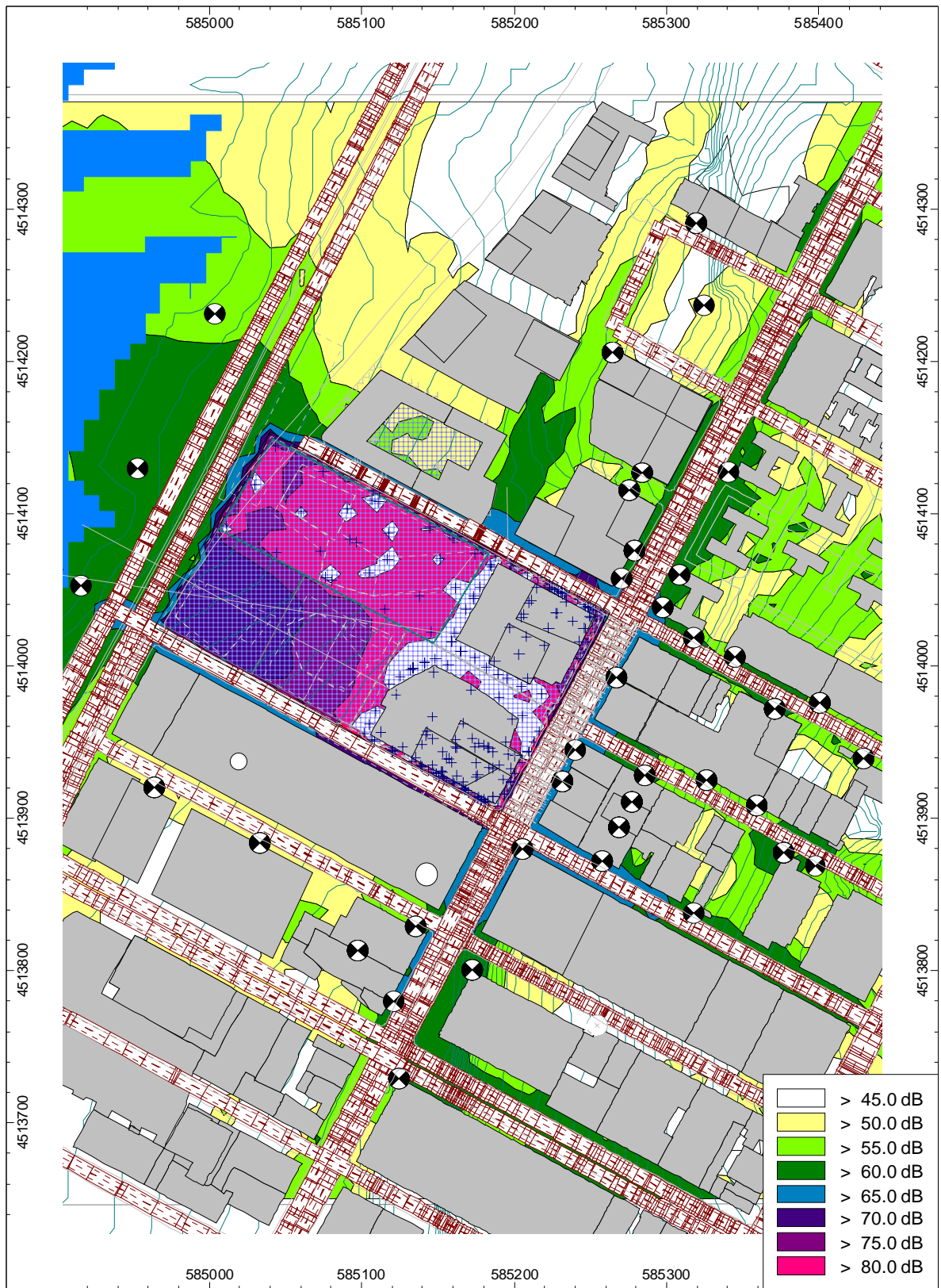
Individual Basement Approach – Q4 2010



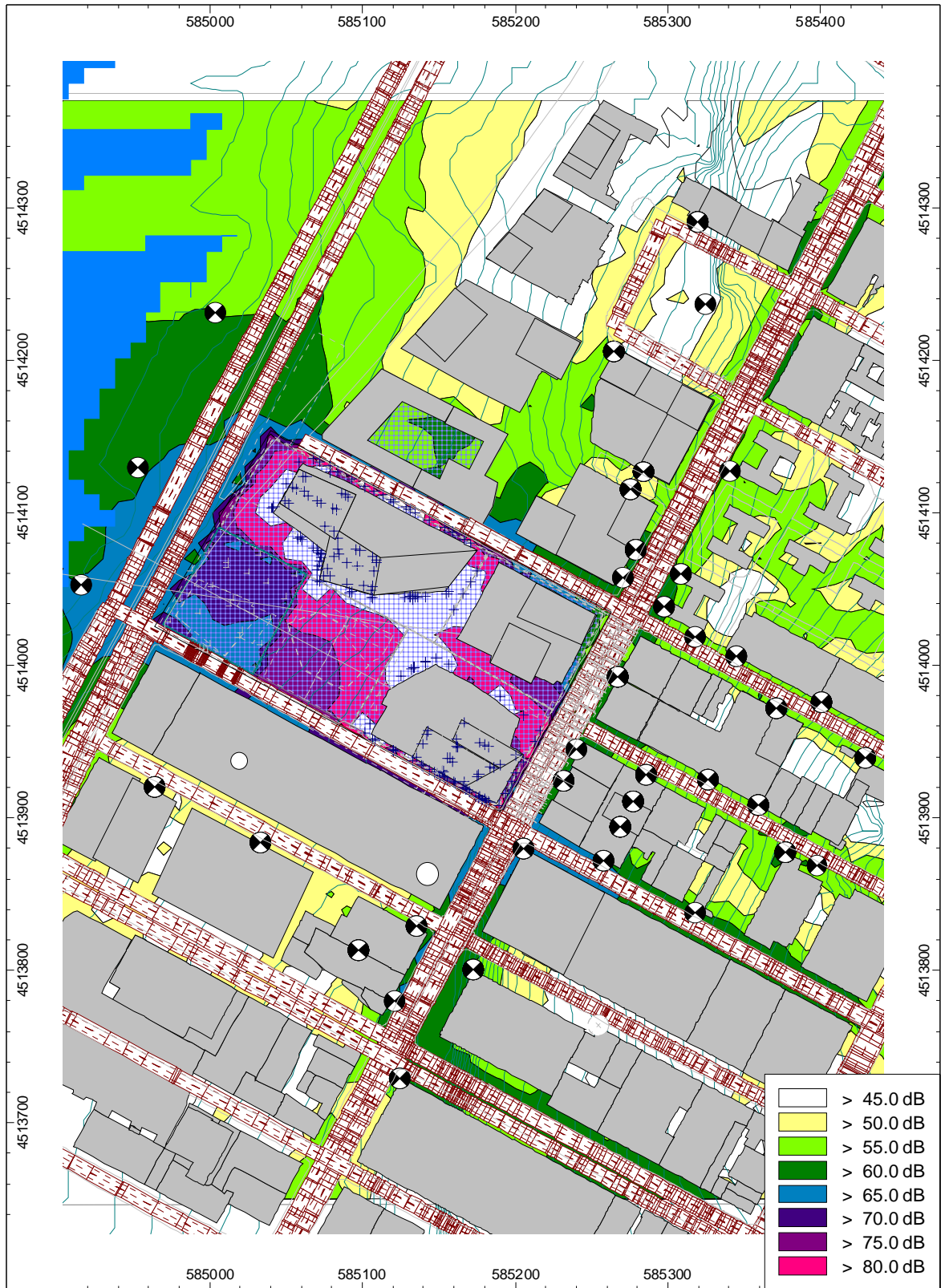
Individual Basement Approach – Q1 2011



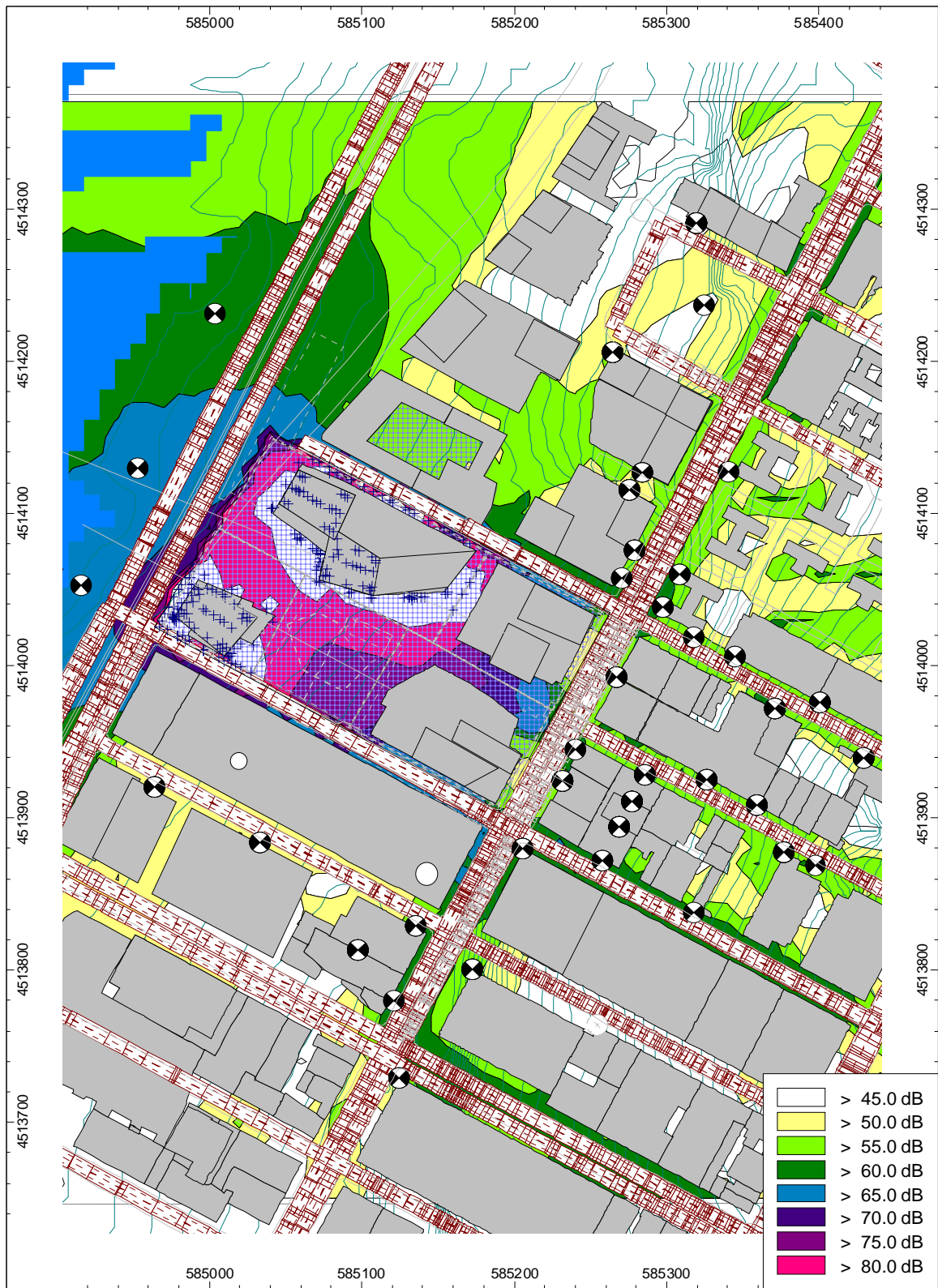
Individual Basement Approach – Q1 2012



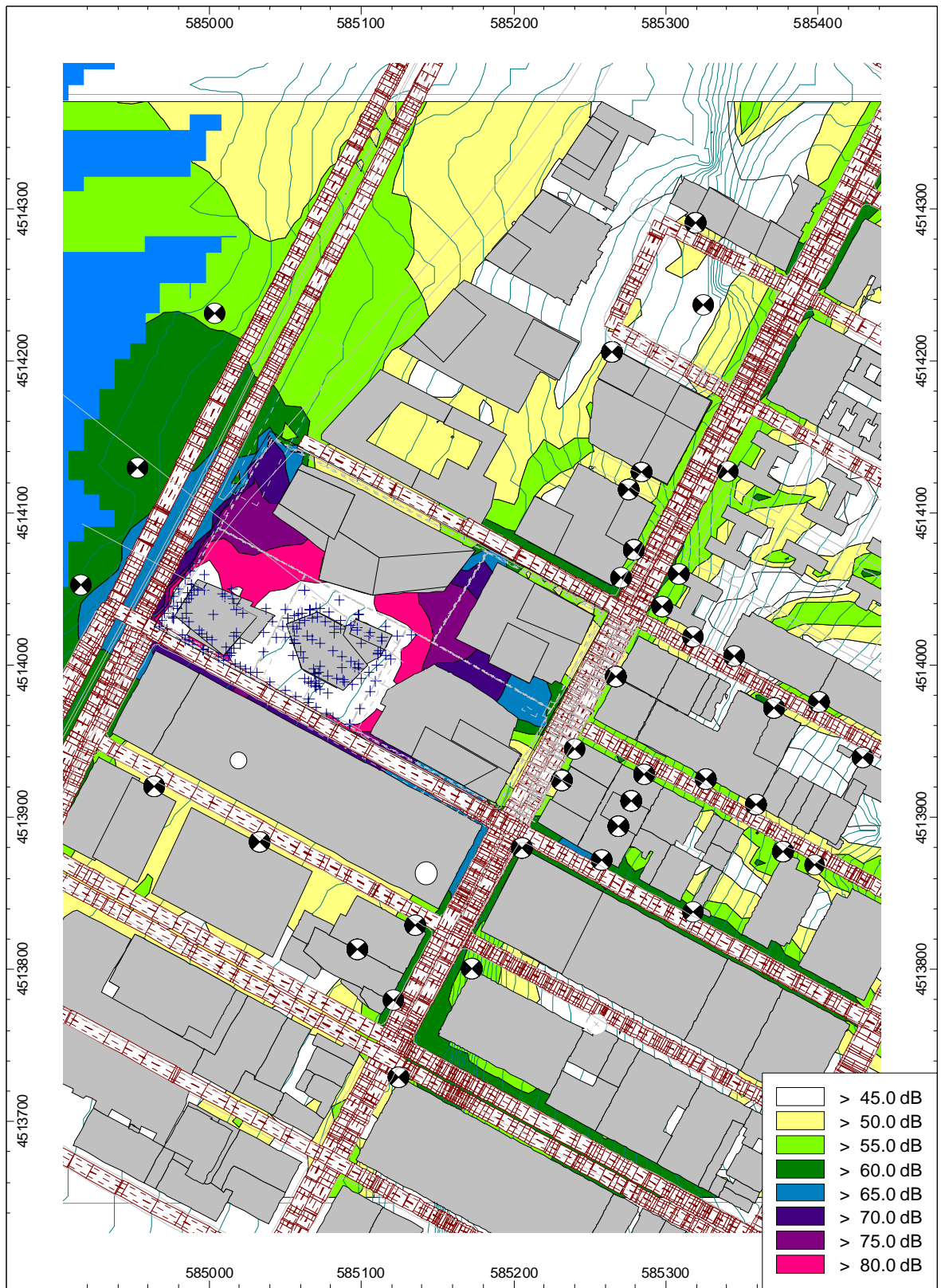
Individual Basement Approach – Q4 2013



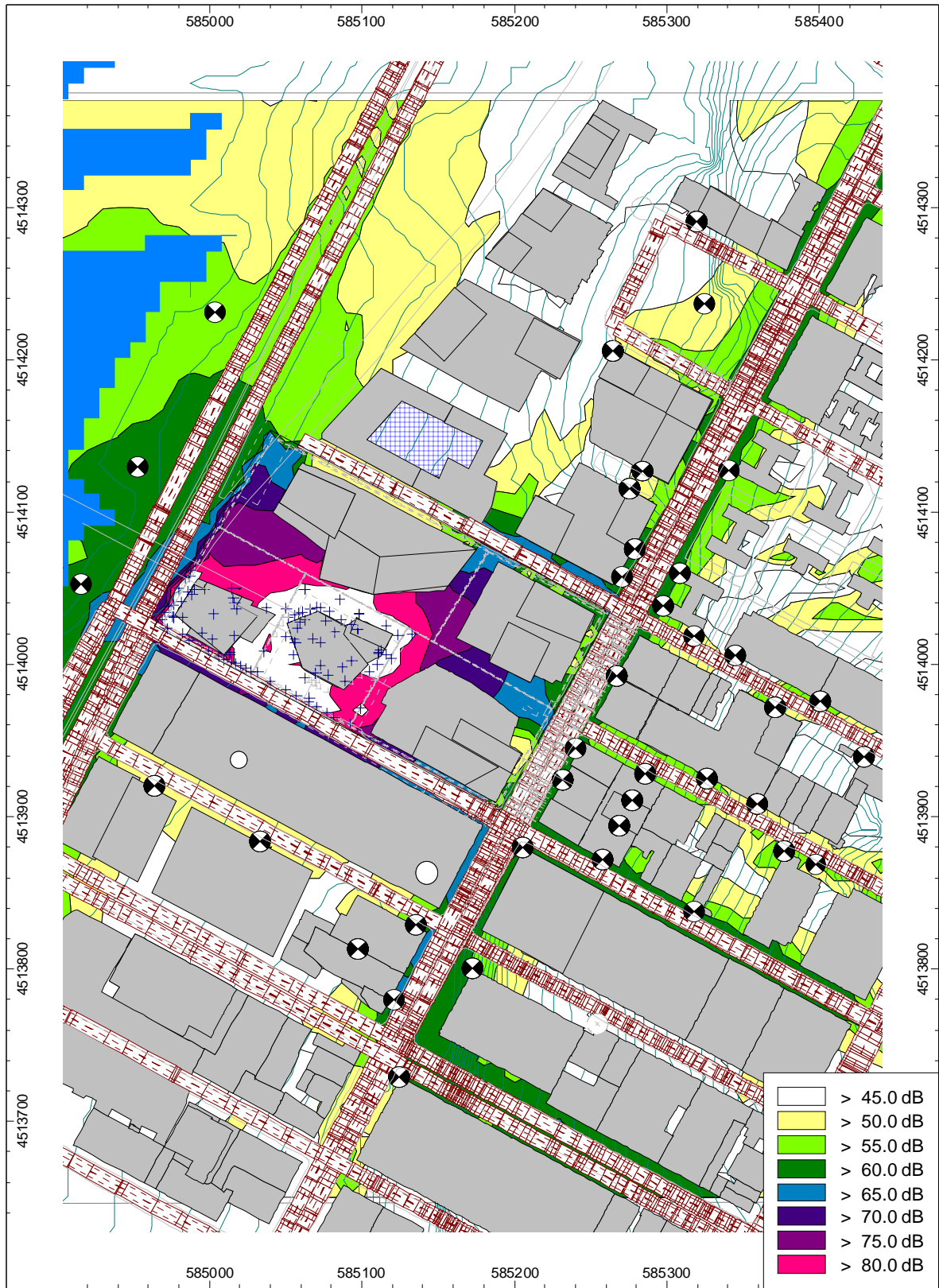
Individual Basement Approach – Q3 2014



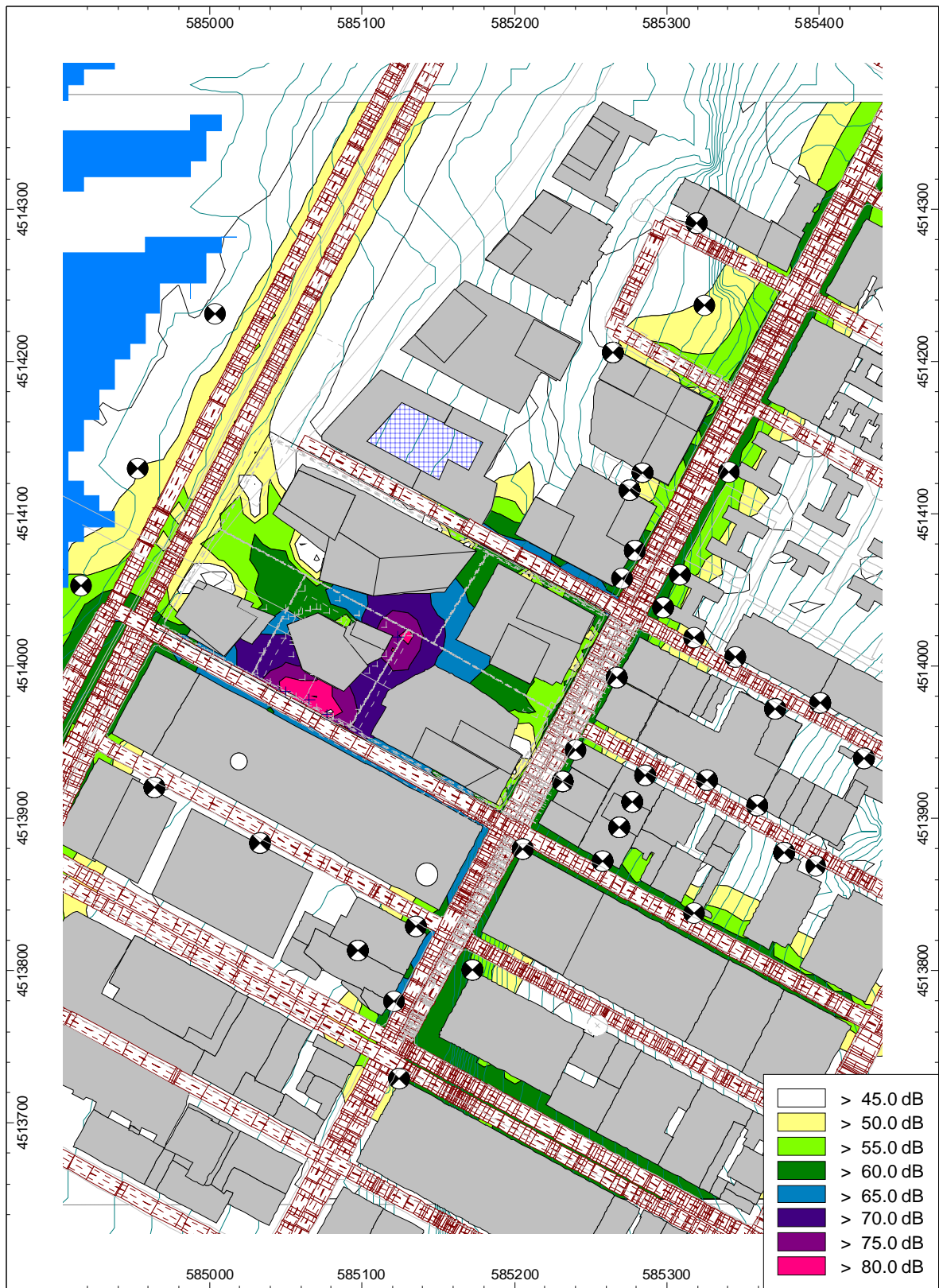
Individual Basement Approach – Q3 2015



Individual Basement Approach – Q4 2016



Individual Basement Approach – Q4 2017



Individual Basement Approach – Q4 2018

APPENDIX G-2c
SUMMARY TABLES WITH DETAILED EXISTING NOISE
CALCULATIONS

Riverside South Construction

Control level

* The ambient noise level was estimated based on the average Lmin value at monitoring site 9.

Noise Receptor Sites	Elevation (floor)	Governed Receptor				Predicted Existing Leq				
		Noise Monitoring Site	Measured AM Leq	TNM AM Leq	TNM Leq Level	Calibrate Factor	Adjust Level at Control Level	Ambient Level*	Adjust Factor on floors	Actual Leq
1	at-grade	1	71.7	69.6	69.6	0.0	71.7	59.9	0	71.7
2	at-grade	2	71.8	71.1	71.1	0.0	71.8	59.9	0	71.8
3	at-grade	3	70.0	63.0	63.0	0.0	70.0	59.9	0	70.0
4	at-grade	4	66.6	64.4	64.4	0.0	66.6	59.9	0	66.6
5	at-grade	5	71.3	73.1	73.1	0.0	71.3	59.9	0	71.3
6	at-grade	6	68.7	67.3	67.3	0.0	68.7	59.9	0	68.7
7	at-grade	7	73.2	71.0	71.0	0.0	73.2	59.9	0	73.2
8	at-grade	8	67.0	66.8	66.8	0.0	67.0	59.9	0	67.0
A1	1	2	71.8	71.1	69.2	1.9	69.9	59.9	0.0	69.9
A1	3	2	71.8	71.1			69.9	59.9	0.6	70.5
A1	5	2	71.8	71.1			69.9	59.9	-0.3	69.6
A1	10	2	71.8	71.1			69.9	59.9	-1.8	68.1
A1	15	2	71.8	71.1			69.9	59.9	-3.0	66.9
A1	Top Floor	2	71.8	71.1			69.9	59.9	-4.6	65.3
A2	1	2	71.8	71.1	57.7	13.4	58.4	59.9	0.0	59.9
A2	3	2	71.8	71.1			58.4	59.9	3.3	63.2
A2	5	2	71.8	71.1			58.4	59.9	3.3	63.2
A2	10	2	71.8	71.1			58.4	59.9	2.7	62.6
A2	15	2	71.8	71.1			58.4	59.9	2.0	61.9
A2	Top Floor	2	71.8	71.1			58.4	59.9	1.8	61.7
B1	1	2	71.8	71.1	67.3	3.8	68.0	59.9	0.0	68.0
B1	3	2	71.8	71.1			68.0	59.9	0.9	68.9
B1	Top Floor	2	71.8	71.1			68.0	59.9	0.1	68.1
B2	1	2	71.8	71.1	68.3	2.8	69.0	59.9	0.2	69.2
B2	3	2	71.8	71.1			69.0	59.9	1.1	70.1
B2	Top Floor	2	71.8	71.1			69.0	59.9	0.0	69.0
C	1	5	71.3	73.1	70.9	2.2	69.1	59.9	0.0	69.1
C	3	5	71.3	73.1			69.1	59.9	-0.6	68.5
C	5	5	71.3	73.1			69.1	59.9	-2.2	66.9
C	10	5	71.3	73.1			69.1	59.9	-3.9	65.2
C	15	5	71.3	73.1			69.1	59.9	-5.1	64.0
C	20	5	71.3	73.1			69.1	59.9	-5.9	63.2
C	25	5	71.3	73.1			69.1	59.9	-6.5	62.6
C	Top Floor	5	71.3	73.1			69.1	59.9	-7.2	61.9
D	1	5	71.3	73.1	71.4	1.7	69.6	59.9	0.0	69.6
D	3	5	71.3	73.1			69.6	59.9	0.0	69.6
D	5	5	71.3	73.1			69.6	59.9	-1.2	68.4
D	10	5	71.3	73.1			69.6	59.9	-2.9	66.7
D	15	5	71.3	73.1			69.6	59.9	-4.0	65.6
D	20	5	71.3	73.1			69.6	59.9	-5.0	64.6
D	25	5	71.3	73.1			69.6	59.9	-5.8	63.8
D	30	5	71.3	73.1			69.6	59.9	-6.4	63.2
D	35	5	71.3	73.1			69.6	59.9	-7.0	62.6
D	Top Floor	5	71.3	73.1			69.6	59.9	-7.5	62.1
E	1	5	71.3	73.1	73.6	-0.5	71.8	59.9	0.0	71.8
E	3	5	71.3	73.1			71.8	59.9	-0.9	70.9
E	5	5	71.3	73.1			71.8	59.9	-2.7	69.1
E	10	5	71.3	73.1			71.8	59.9	-4.8	67.0
E	Top Floor	5	71.3	73.1			71.8	59.9	-6.3	65.5
F	1	7	73.2	71.0	69.9	1.1	72.1	59.9	0.0	72.1
F	3	7	73.2	71.0			72.1	59.9	0.0	72.1
F	5	7	73.2	71			72.1	59.9	-1.3	70.8
F	10	7	73.2	71			72.1	59.9	-15.2	56.9
F	13	7	73.2	71			72.1	59.9	-8.9	63.2
F	20	7	73.2	71			72.1	59.9	-7.8	64.3
F	25	7	73.2	71			72.1	59.9	-7.6	64.5
F	30	7	73.2	71			72.1	59.9	-7.7	64.4
F	Top Floor	7	73.2	71			72.1	59.9	-8.0	64.1

Riverside South Construction

Control level

* The ambient noise level was estimated based on the average Lmin value at monitoring site 9.

Noise Receptor Sites	Elevation (floor)	Governed Receptor				Predicted Existing Leq				
		Noise Monitoring Site	Measured AM Leq	TNM AM Leq	TNM Leq Level	Calibrate Factor	Adjust Level at Control Level	Ambient Level*	Adjust Factor on floors	Actual Leq
G	1	1	71.7	69.6	55.6	14.0	57.7	59.9	0.0	59.9
G	3	1	71.7	69.6			57.7	59.9	0.3	60.2
G	5	1	71.7	69.6			57.7	59.9	0.2	60.1
G	10	1	71.7	69.6			57.7	59.9	0.3	60.2
G	15	1	71.7	69.6			57.7	59.9	0.2	60.1
G	20	1	71.7	69.6			57.7	59.9	0.3	60.2
G	25	1	71.7	69.6			57.7	59.9	1.2	61.1
G	30	1	71.7	69.6			57.7	59.9	1.0	60.9
G	Top Floor	1	71.7	69.6			57.7	59.9	0.8	60.7
H1	1	1	71.7	69.6	53.0	16.6	55.1	59.9	0.0	59.9
H1	3	1	71.7	69.6			55.1	59.9	0.5	60.4
H1	5	1	71.7	69.6			55.1	59.9	0.4	60.3
H1	10	1	71.7	69.6			55.1	59.9	0.7	60.6
H1	15	1	71.7	69.6			55.1	59.9	1.2	61.1
H1	20	1	71.7	69.6			55.1	59.9	1.3	61.2
H1	25	1	71.7	69.6			55.1	59.9	0.8	60.7
H1	Top Floor	1	71.7	69.6			55.1	59.9	1.2	61.1
H2	1	1	71.7	69.6	60.5	9.1	62.6	59.9	0.0	62.6
H2	3	1	71.7	69.6			62.6	59.9	3.0	65.6
H2	5	1	71.7	69.6			62.6	59.9	3.2	65.8
H2	10	1	71.7	69.6			62.6	59.9	2.4	65.0
H2	15	1	71.7	69.6			62.6	59.9	1.5	64.1
H2	Top Floor	1	71.7	69.6			62.6	59.9	1.0	63.6
I	at-grade	9	67.0	66.8	66.6	0.2	66.8	59.9	0.0	66.8
J	at-grade	9	67.0	66.8	66.6	0.2	66.8	59.9	0.0	66.8
K	at-grade	1	71.7	69.6	60.9	8.7	63.0	59.9	0.0	63.0
L1	1	3	70	63	60.0	3.0	67.0	59.9	0.0	67.0
L1	Top Floor	3	70	63			67.0	59.9	-0.4	66.6
L2	1	3	70	63	59.2	3.8	66.2	59.9	0.0	66.2
L2	3	3	70	63			66.2	59.9	-0.7	65.5
L2	5	3	70	63			66.2	59.9	-2.3	63.9
L2	Top Floor	3	70	63			66.2	59.9	-3.2	63.0
M	1	4	66.6	64.4	60.0	4.4	62.2	59.9	0.0	62.2
M	3	4	66.6	64.4			62.2	59.9	-0.4	61.8
M	5	4	66.6	64.4			62.2	59.9	1.2	63.4
M	Top Floor	4	66.6	64.4			62.2	59.9	0.3	62.5
N1	1	4	66.6	64.4	61.6	2.8	63.8	59.9	0.0	63.8
N1	3	4	66.6	64.4			63.8	59.9	-0.2	63.6
N1	5	4	66.6	64.4			63.8	59.9	-0.9	62.9
N1	10	4	66.6	64.4			63.8	59.9	-8.7	55.1
N1	15	4	66.6	64.4			63.8	59.9	-5.9	57.9
N1	20	4	66.6	64.4			63.8	59.9	-5.2	58.6
N1	25	4	66.6	64.4			63.8	59.9	-4.4	59.4
N1	30	4	66.6	64.4			63.8	59.9	-4.0	59.8
N1	35	4	66.6	64.4			63.8	59.9	-4.0	59.8
N1	Top Floor	4	66.6	64.4			63.8	59.9	-3.9	59.9
N2	1	4	66.6	64.4	67.0	-2.6	69.2	59.9	0.0	69.2
N2	3	4	66.6	64.4			63.8	59.9	0.1	63.9
N2	5	4	66.6	64.4			63.8	59.9	-1.2	62.6
N2	10	4	66.6	64.4			69.2	59.9	-10.5	58.7
N2	15	4	66.6	64.4			69.2	59.9	-8.8	60.4
N2	20	4	66.6	64.4			69.2	59.9	-8.5	60.7
N2	25	4	66.6	64.4			69.2	59.9	-8.6	60.6
N2	30	4	66.6	64.4			69.2	59.9	-8.9	60.3
N2	35	4	66.6	64.4			69.2	59.9	-9.1	60.1
N2	Top Floor	4	66.6	64.4			69.2	59.9	-9.3	59.9
O	1	3	70	63	58.7	4.3	65.7	59.9	0.0	65.7
O	3	3	70	63			65.7	59.9	-0.3	65.4
O	5	3	70	63			65.7	59.9	-1.8	63.9
O	10	3	70	63			65.7	59.9	-2.9	62.8
O	15	3	70	63			65.7	59.9	-3.2	62.5
O	20	3	70	63			65.7	59.9	-2.8	62.9
O	Top Floor	3	70	63			65.7	59.9	-2.6	63.1

Riverside South Construction

Control level

* The ambient noise level was estimated based on the average Lmin value at monitoring site 9.

Noise Receptor Sites	Elevation (floor)	Governed Receptor				Predicted Existing Leq				
		Noise Monitoring Site	Measured AM Leq	TNM AM Leq	TNM Leq Level	Calibrate Factor	Adjust Level at Control Level	Ambient Level*	Adjust Factor on floors	Actual Leq
P	1	3	70	63	58.9	4.1	65.9	59.9	0.0	65.9
P	3	3	70	63			65.9	59.9	0.1	66.0
P	Top Floor	3	70	63			65.9	59.9	-0.9	65.0
Q	1	4	66.6	64.4	60.1	4.3	62.3	59.9	0.0	62.3
Q	3	4	66.6	64.4			62.3	59.9	-0.4	61.9
Q	5	4	66.6	64.4			62.3	59.9	-1.5	60.8
Q	10	4	66.6	64.4			62.3	59.9	-1.6	60.7
Q	15	4	66.6	64.4			62.3	59.9	-1.5	60.8
Q	Top Floor	4	66.6	64.4			62.3	59.9	-1.3	61.0
R	1	4	66.6	64.4	61.3	3.1	63.5	59.9	0.0	63.5
R	3	4	66.6	64.4			63.5	59.9	-0.2	63.3
R	5	4	66.6	64.4			63.5	59.9	-0.8	62.7
R	10	4	66.6	64.4			63.5	59.9	-0.7	62.8
R	15	4	66.6	64.4			63.5	59.9	-1.1	62.4
R	20	4	66.6	64.4			63.5	59.9	-1.3	62.2
R	25	4	66.6	64.4			63.5	59.9	-1.6	61.9
R	30	4	66.6	64.4			63.5	59.9	-2.0	61.5
R	35	4	66.6	64.4			63.5	59.9	-2.0	61.5
R	Top Floor	4	66.6	64.4			63.5	59.9	-2.1	61.4
S	1	7	73.2	71.0	70.4	0.6	72.6	59.9	0.0	72.6
S	3	7	73.2	71			72.6	59.9	1.2	73.8
S	5	7	73.2	71			72.6	59.9	0.3	72.9
S	10	7	73.2	71			72.6	59.9	-1.4	71.2
S	15	7	73.2	71			72.6	59.9	-3.0	69.6
S	Top Floor	7	73.2	71			72.6	59.9	-4.9	67.7
T	1	7	73.2	71.0	70.9	0.1	73.1	59.9	0.0	73.1
T	3	7	73.2	71			73.1	59.9	-0.5	72.6
T	Top Floor	7	73.2	71			73.1	59.9	-2.0	71.1
U	1	7	73.2	71.0	63.4	7.6	65.6	59.9	0.0	65.6
U	3	7	73.2	71			65.6	59.9	-0.9	64.7
U	5	7	73.2	71			65.6	59.9	-2.7	62.9
U	Top Floor	7	73.2	71			65.6	59.9	-4.2	61.4
V	1	7	73.2	71.0	66.4	4.6	68.6	59.9	0.0	68.6
V	3	7	73.2	71			68.6	59.9	-0.3	68.3
V	5	7	73.2	71			68.6	59.9	-1.1	67.5
V	10	7	73.2	71			68.6	59.9	-2.8	65.8
V	15	7	73.2	71			68.6	59.9	-3.9	64.7
V	Top Floor	7	73.2	71			68.6	59.9	-4.7	63.9

APPENDIX G-2d
CONSTRUCTION NOISE ANALYSIS FOR PODIUM
APPROACH

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
A1	1	69.9	70.1	0.2	70.3	0.4	71.0	1.1	70.9	1.0	70.7	0.8	70.7	0.8	70.8	0.9	70.9	1.0	71.0	1.1
A1	3	70.5	70.7	0.2	70.9	0.4	71.7	1.2	71.7	1.2	71.4	0.9	71.3	0.8	71.4	0.9	71.5	1.0	71.6	1.1
A1	5	69.6	69.9	0.3	70.1	0.5	71.3	1.7	71.5	1.9	70.6	1.0	70.4	0.8	70.5	0.9	70.6	1.0	70.7	1.1
A1	10	68.1	68.4	0.3	68.6	0.5	70.4	2.3	71.0	2.9	69.3	1.2	68.9	0.8	69.0	0.9	69.1	1.0	69.2	1.1
A1	15	66.9	67.2	0.3	67.4	0.5	69.7	2.8	70.1	3.2	68.0	1.1	67.7	0.8	68.0	1.1	67.9	1.0	68.0	1.1
A1	Top floor	65.3	65.6	0.3	65.9	0.6	70.2	4.9	69.4	4.1	66.8	1.5	66.7	1.4	66.9	1.6	66.9	1.6	66.4	1.1
A2	1	59.9	60.1	0.3	60.4	0.5	61.6	1.8	61.2	1.4	61.5	1.7	61.1	1.2	61.2	1.4	61.3	1.4	61.3	1.5
A2	3	63.2	64.8	1.7	64.5	1.3	66.1	2.9	64.4	1.3	64.6	1.4	64.3	1.1	64.6	1.4	64.5	1.4	64.6	1.5
A2	5	63.2	66.3	3.2	66.1	2.9	67.4	4.2	64.6	1.4	64.9	1.7	64.3	1.1	64.6	1.4	64.5	1.4	64.6	1.5
A2	10	62.6	66.0	3.5	66.1	3.5	69.1	6.5	64.3	1.7	64.4	1.8	63.7	1.2	64.0	1.5	63.9	1.4	64.0	1.5
A2	15	61.9	65.6	3.7	65.7	3.8	69.5	7.7	64.4	2.5	64.3	2.5	63.1	1.2	63.4	1.6	63.3	1.4	63.3	1.5
A2	Top floor	61.7	65.4	3.7	65.5	3.8	70.0	8.3	64.3	2.6	64.3	2.6	62.9	1.3	63.3	1.6	63.1	1.4	63.1	1.5
B1	1	68.0	68.4	0.4	68.8	0.8	70.4	2.4	69.6	1.6	69.0	1.0	69.2	1.2	69.3	1.3	69.4	1.4	69.5	1.5
B1	3	68.9	69.2	0.3	69.6	0.7	71.2	2.3	70.6	1.7	70.1	1.2	70.0	1.1	70.2	1.3	70.3	1.4	70.4	1.5
B1	Top floor	68.1	68.4	0.3	68.8	0.7	71.1	3.0	70.5	2.4	69.3	1.2	69.4	1.3	69.5	1.4	69.5	1.4	69.6	1.5
B2	1	69.2	69.6	0.4	69.9	0.7	72.0	2.8	71.1	1.9	70.2	1.0	70.2	1.0	70.2	1.0	70.3	1.1	70.4	1.2
B2	3	70.1	70.5	0.4	70.7	0.6	72.9	2.8	72.2	2.1	71.3	1.2	71.1	1.0	71.1	1.0	71.2	1.1	71.2	1.1
B2	Top floor	69.0	69.4	0.4	69.7	0.7	73.3	4.3	72.9	3.9	70.4	1.4	70.1	1.1	70.0	1.0	70.1	1.1	70.1	1.1
C	1	69.1	69.6	0.5	69.6	0.5	72.0	2.9	70.3	1.2	69.5	0.4	69.4	0.3	69.4	0.3	69.4	0.3	69.4	0.3
C	3	68.5	69.2	0.7	69.2	0.7	72.0	3.5	71.2	2.7	69.8	1.3	68.9	0.4	69.2	0.7	69.0	0.5	68.9	0.4
C	5	66.9	68.0	1.1	68.0	1.1	73.0	6.1	71.8	4.9	68.7	1.8	67.4	0.5	67.4	0.5	67.3	0.4	67.3	0.4
C	10	65.2	66.7	1.5	66.7	1.5	74.1	8.9	72.4	7.2	68.2	3.0	66.2	1.0	65.8	0.6	65.7	0.5	65.6	0.4
C	15	64.0	65.9	1.9	65.9	1.9	74.0	10.0	72.1	8.1	68.1	4.1	66.1	2.1	65.7	1.7	64.6	0.6	64.5	0.5
C	20	63.2	65.2	2.0	65.3	2.1	73.6	10.4	71.8	8.6	67.8	4.6	66.8	3.6	65.8	2.6	64.1	0.9	63.7	0.5
C	25	62.6	64.6	2.0	64.8	2.2	73.1	10.5	71.3	8.7	67.6	5.0	67.5	4.9	66.5	3.9	64.2	1.6	63.1	0.5
C	Top floor	61.9	64.2	2.3	64.3	2.4	72.4	10.5	70.8	8.9	67.5	5.6	67.6	5.7	67.2	5.3	65.2	3.3	62.6	0.7
D	1	69.6	70.0	0.4	70.1	0.5	71.4	1.8	71.7	2.1	70.4	0.8	70.2	0.6	70.2	0.6	70.3	0.7	70.3	0.7
D	3	69.6	70.1	0.5	70.2	0.6	72.4	2.8	72.4	2.8	71.0	1.4	70.5	0.9	70.3	0.7	70.4	0.8	70.3	0.7
D	5	68.4	69.0	0.6	69.1	0.7	73.3	4.9	73.7	5.3	71.0	2.6	69.2	0.8	69.3	0.9	69.2	0.8	69.2	0.8
D	10	66.7	67.7	1.0	67.6	0.9	73.5	6.8	74.4	7.7	71.0	4.3	67.9	1.2	67.9	1.2	67.6	0.9	67.5	0.8
D	15	65.6	66.8	1.2	66.9	1.3	73.3	7.7	74.2	8.6	70.4	4.8	67.6	2.0	67.2	1.6	66.8	1.2	66.5	0.9
D	20	64.6	66.1	1.5	66.1	1.5	72.8	8.2	73.8	9.2	70.1	5.5	67.7	3.1	66.8	2.2	66.1	1.5	65.5	0.9
D	25	63.8	65.4	1.6	65.5	1.7	72.3	8.5	73.4	9.6	69.7	5.9	67.4	3.6	66.2	2.4	65.3	1.5	64.8	1.0
D	30	63.2	65.0	1.8	65.1	1.9	71.8	8.6	72.9	9.7	69.3	6.1	67.1	3.9	65.9	2.7	64.9	1.7	64.2	1.0
D	35	62.6	64.6	2.0	64.6	2.0	71.3	8.7	72.3	9.7	70.3	7.7	66.7	4.1	65.5	2.9	64.5	1.9	63.6	1.0
D	Top floor	62.1	64.2	2.1	64.2	2.1	70.7	8.6	71.7	9.6	70.2	8.1	66.4	4.3	65.1	2.98	64.1	2.0	63.2	1.1
E	1	71.8	72.0	0.2	72.4	0.6	72.8	1.0	73.4	1.6	72.9	1.1	72.7	0.9	72.7	0.9	72.7	0.9	72.7	0.9
E	3	70.9	71.2	0.3	71.7	0.8	72.6	1.7	73.7	2.8	72.7	1.8	72.0	1.1	72.1	1.2	72.0	1.1	71.9	1.0
E	5	69.1	69.5	0.4	70.0	0.9	72.6	3.5	75.3	6.2	74.2	5.1	70.5	1.4	70.7	1.6	70.4	1.3	70.2	1.1
E	10	67.0	67.7	0.7	68.0	1.0	72.7	5.7	76.3	9.3	74.8	7.8	68.9	1.9	69.2	2.2	68.9	1.9	68.2	1.2
E	Top floor	65.5	66.5	1.0	66.7	1.2	72.0	6.5	75.7	10.2	73.8	8.3	67.9	2.4	68.3	2.8	67.7	2.2	66.8	1.3

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
F	1	72.1	72.2	0.1	72.3	0.2	72.3	0.2	72.5	0.4	72.4	0.3	72.4	0.3	72.5	0.4	72.5	0.4	72.6	0.5
F	3	72.1	72.2	0.1	72.3	0.2	72.3	0.2	72.6	0.5	72.5	0.4	72.5	0.4	72.6	0.5	72.6	0.5	72.6	0.5
F	5	70.8	70.9	0.1	71.0	0.2	71.1	0.3	71.4	0.6	71.3	0.5	71.2	0.4	71.4	0.6	71.3	0.5	71.3	0.5
F	10	56.9	58.4	1.5	57.9	1.0	62.3	5.4	64.0	7.1	60.8	3.9	61.3	4.4	61.5	4.6	58.0	1.1	57.4	0.5
F	13	63.2	64.1	0.9	63.9	0.7	66.7	3.5	67.2	4.0	64.8	1.6	65.1	1.9	65.3	2.1	63.8	0.6	63.7	0.5
F	20	64.3	65.3	1.0	65.0	0.7	68.0	3.7	67.5	3.2	66.4	2.1	66.3	2.0	66.5	2.2	65.0	0.7	64.8	0.5
F	25	64.5	65.2	0.7	65.1	0.6	68.2	3.7	67.8	3.3	66.8	2.3	66.5	2.0	67.3	2.8	65.5	1.0	65.0	0.5
F	30	64.4	65.1	0.7	65.1	0.7	68.3	3.9	67.9	3.5	66.9	2.5	66.6	2.2	67.8	3.4	65.8	1.4	65.0	0.6
F	Top floor	64.1	64.9	0.8	64.9	0.8	68.3	4.2	67.7	3.6	66.9	2.8	66.6	2.5	68.1	4.0	65.7	1.6	64.7	0.6
G	1	59.9	59.9	0.1	60.0	0.1	60.8	0.9	60.5	0.7	60.2	0.3	60.0	0.2	60.3	0.4	60.0	0.1	59.9	0.0
G	3	60.2	60.3	0.1	60.3	0.2	61.1	0.9	60.9	0.7	60.5	0.3	60.4	0.2	60.7	0.5	60.3	0.1	60.2	0.1
G	5	60.1	60.2	0.1	60.3	0.2	61.1	1.0	61.5	1.4	61.0	0.9	60.3	0.3	60.8	0.8	60.4	0.3	60.2	0.1
G	10	60.2	60.3	0.2	60.5	0.3	61.3	1.2	61.9	1.8	61.3	1.2	60.8	0.6	61.0	0.8	60.5	0.4	60.3	0.2
G	15	60.1	60.3	0.2	60.4	0.3	62.1	2.0	61.9	1.9	61.4	1.4	60.8	0.7	61.0	0.9	60.4	0.4	60.2	0.2
G	20	60.2	60.3	0.2	60.5	0.3	62.5	2.3	62.2	2.0	61.5	1.4	60.8	0.6	61.1	0.9	60.6	0.4	60.3	0.1
G	25	61.1	61.2	0.2	61.4	0.3	63.7	2.6	63.1	2.1	62.3	1.3	61.8	0.7	62.2	1.1	61.5	0.4	61.2	0.1
G	30	60.9	61.0	0.2	61.1	0.3	63.7	2.9	63.1	2.2	62.6	1.7	61.6	0.7	62.2	1.3	61.3	0.4	61.0	0.1
G	Top floor	60.7	60.8	0.2	60.9	0.3	63.8	3.2	63.1	2.5	63.3	2.6	61.4	0.8	62.1	1.4	61.2	0.5	60.8	0.1
H1	1	59.9	59.9	0.1	59.9	0.1	62.1	2.3	62.2	2.3	61.2	1.4	60.3	0.4	60.3	0.4	60.0	0.1	59.9	0.0
H1	3	60.4	60.5	0.1	60.5	0.1	62.8	2.4	62.9	2.6	62.2	1.8	60.9	0.5	60.9	0.5	60.5	0.1	60.4	0.0
H1	5	60.3	60.5	0.3	60.5	0.3	63.0	2.7	63.7	3.4	62.8	2.5	61.0	0.7	61.3	1.0	60.7	0.5	60.3	0.1
H1	10	60.6	60.8	0.2	60.8	0.3	64.4	3.8	64.6	4.0	63.6	3.0	61.8	1.2	61.8	1.2	61.0	0.4	60.6	0.1
H1	15	61.1	61.3	0.2	61.3	0.2	65.5	4.5	65.2	4.1	64.3	3.2	62.4	1.3	62.3	1.3	61.5	0.5	61.1	0.1
H1	20	61.2	61.4	0.2	61.4	0.2	65.8	4.6	65.3	4.1	64.7	3.6	62.6	1.4	62.4	1.3	61.7	0.5	61.2	0.1
H1	25	60.7	60.9	0.2	60.9	0.2	66.2	5.6	65.3	4.7	64.6	3.9	62.3	1.6	62.4	1.7	61.3	0.7	60.7	0.1
H1	Top floor	61.1	61.5	0.4	61.5	0.4	66.6	5.6	65.7	4.7	65.2	4.1	62.7	1.6	62.7	1.7	61.8	0.7	61.1	0.1
H2	1	62.6	63.7	1.1	63.5	0.9	64.9	2.3	64.1	1.5	63.9	1.3	63.8	1.2	64.0	1.4	64.1	1.5	64.2	1.6
H2	3	65.6	66.7	1.1	66.7	1.1	67.6	2.0	66.8	1.2	66.9	1.3	66.8	1.2	66.9	1.3	67.1	1.5	67.2	1.6
H2	5	65.8	67.7	1.9	67.6	1.8	68.5	2.7	67.0	1.2	67.1	1.3	67.0	1.2	67.1	1.3	67.3	1.5	67.4	1.6
H2	10	65.0	67.2	2.2	67.2	2.2	69.8	4.8	66.4	1.4	66.7	1.7	66.2	1.2	66.3	1.3	66.5	1.5	66.6	1.6
H2	15	64.1	66.6	2.5	66.7	2.6	69.8	5.7	65.4	1.3	66.2	2.1	65.3	1.2	65.5	1.4	65.6	1.5	65.7	1.6
H2	Top floor	63.6	66.2	2.6	66.3	2.7	70.0	6.4	65.3	1.7	65.5	1.9	64.8	1.2	65.0	1.4	65.1	1.5	65.2	1.6
I	at-grade	66.8	67.0	0.2	67.2	0.4	68.4	1.6	69.3	2.5	68.7	1.9	69.8	3.0	68.7	1.9	68.3	1.5	67.7	0.9
J	at-grade	66.8	67.3	0.5	67.1	0.3	68.1	1.3	68.9	2.1	67.6	0.8	68.1	1.3	67.9	1.1	67.7	0.9	67.4	0.6
K	at-grade	63.0	63.1	0.1	63.2	0.2	63.3	0.3	63.2	0.2	63.1	0.1	63.1	0.1	63.1	0.1	63.1	0.1	63.1	0.1
L1	1	67.0	67.5	0.5	67.5	0.5	69.2	2.2	68.5	1.5	67.9	0.9	67.8	0.8	67.8	0.8	67.9	0.9	68.0	1.0
L1	Top floor	66.6	67.1	0.5	67.1	0.5	69.0	2.4	68.4	1.8	67.7	1.1	67.6	1.0	67.4	0.8	67.5	0.9	67.6	1.0
L2	1	66.2	66.5	0.3	66.6	0.4	67.8	1.6	67.8	1.6	67.2	1.0	67.5	1.3	67.8	1.6	67.5	1.3	67.3	1.1
L2	3	65.5	65.8	0.3	65.9	0.4	67.4	1.9	67.2	1.7	66.7	1.2	66.9	1.4	67.0	1.5	66.8	1.3	66.6	1.1
L2	5	63.9	64.4	0.5	64.5	0.6	66.4	2.5	66.4	2.5	65.4	1.5	65.5	1.6	65.6	1.7	65.3	1.4	65.0	1.1
L2	Top floor	63.0	63.5	0.5	63.6	0.6	66.1	3.1	65.8	2.8	64.6	1.6	64.3	1.3	64.1	1.1	64.1	1.1	64.1	1.1
M	1	62.2	62.2	0.0	62.3	0.1	63.0	0.8	64.0	1.8	63.1	0.9	63.0	0.8	63.3	1.1	62.7	0.5	62.4	0.2
M	3	61.8	61.9	0.1	61.9	0.1	63.3	1.5	64.3	2.5	63.8	2.0	63.5	1.7	63.5	1.7	62.8	1.0	62.0	0.2
M	5	63.4	63.5	0.1	63.5	0.1	64.6	1.2	65.9	2.5	64.7	1.3	64.2	0.8	64.8	1.4	64.3	0.9	63.6	0.2
M	Top floor	62.5	62.8	0.3	62.8	0.3	65.3	2.8	65.8	3.3	64.4	1.9	63.8	1.3	64.0	1.5	63.4	0.9	62.8	0.3

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
N1	1	63.8	63.9	0.1	63.9	0.1	64.5	0.7	65.5	1.7	64.7	0.9	64.5	0.7	64.9	1.1	64.5	0.7	64.3	0.5
N1	3	63.6	63.8	0.2	63.8	0.2	64.9	1.3	66.0	2.4	65.3	1.7	65.0	1.4	65.5	1.9	65.0	1.4	64.1	0.5
N1	5	62.9	63.4	0.5	63.2	0.3	66.5	3.6	66.8	3.9	65.5	2.6	64.6	1.7	64.9	2.0	64.6	1.7	63.5	0.6
N1	10	55.1	55.6	0.5	55.7	0.6	60.8	5.7	57.5	2.4	57.2	2.1	56.1	1.0	56.6	1.5	56.0	0.9	55.5	0.4
N1	15	57.9	60.6	2.7	60.3	2.4	65.9	8.0	62.7	4.8	62.0	4.1	60.9	3.0	60.6	2.7	59.3	1.4	58.3	0.4
N1	20	58.6	61.1	2.5	61.0	2.4	67.3	8.7	66.1	7.5	64.8	6.2	63.5	4.9	62.5	3.9	61.2	2.6	59.2	0.6
N1	25	59.4	61.6	2.2	61.5	2.1	68.0	8.6	67.0	7.6	65.2	5.8	63.9	4.5	62.7	3.3	61.4	2.0	60.0	0.6
N1	30	59.8	61.9	2.1	61.8	2.0	67.9	8.1	67.1	7.3	65.5	5.7	64.0	4.2	63.0	3.2	61.9	2.1	60.4	0.6
N1	35	59.8	61.9	2.1	61.8	2.0	67.9	8.1	66.9	7.1	65.4	5.6	63.9	4.1	63.1	3.3	61.9	2.1	60.5	0.7
N1	Top floor	59.9	61.9	2.0	61.9	2.0	67.8	7.9	66.9	7.0	65.4	5.5	63.9	4.0	63.2	3.3	62.1	2.2	60.7	0.8
N2	1	69.2	69.3	0.1	69.8	0.6	70.1	0.9	71.5	2.3	70.8	1.6	70.6	1.4	70.9	1.7	70.6	1.4	70.5	1.3
N2	3	63.9	64.1	0.2	65.2	1.3	66.5	2.6	69.1	5.2	67.6	3.7	66.4	2.5	67.0	3.1	66.1	2.2	65.4	1.5
N2	5	62.6	62.9	0.3	63.9	1.3	66.8	4.2	69.8	7.2	68.6	6.0	65.5	2.9	66.3	3.7	65.4	2.8	64.2	1.6
N2	10	58.7	58.8	0.1	59.3	0.6	59.8	1.1	60.4	1.7	60.2	1.5	59.8	1.1	59.9	1.2	59.9	1.2	59.9	1.2
N2	15	60.4	61.0	0.6	61.2	0.8	62.4	2.0	62.7	2.3	61.7	1.3	61.5	1.1	61.6	1.2	61.6	1.2	61.6	1.2
N2	20	60.7	60.8	0.1	61.2	0.5	62.8	2.1	63.2	2.5	62.3	1.6	61.8	1.1	61.9	1.2	61.9	1.2	61.9	1.2
N2	25	60.6	60.8	0.2	61.2	0.6	62.8	2.2	63.3	2.7	62.5	1.9	61.7	1.1	61.8	1.2	61.8	1.2	61.8	1.2
N2	30	60.3	60.5	0.2	60.9	0.6	62.2	1.9	64.1	3.8	63.4	3.1	61.4	1.1	61.5	1.2	61.5	1.2	61.5	1.2
N2	35	60.1	60.3	0.2	60.6	0.5	61.7	1.6	64.0	3.9	63.3	3.2	61.2	1.1	61.3	1.2	61.3	1.2	61.2	1.1
N2	Top floor	59.9	60.1	0.2	60.4	0.5	61.7	1.8	63.9	4.0	63.2	3.3	61.0	1.1	61.1	1.2	61.2	1.3	61.0	1.1
O	1	65.7	65.9	0.2	66.0	0.3	67.4	1.7	67.6	1.9	67.0	1.3	66.9	1.2	66.7	1.0	66.7	1.0	66.7	1.0
O	3	65.4	65.7	0.3	65.8	0.4	67.4	2.0	67.6	2.2	66.8	1.4	66.8	1.4	66.4	1.0	66.4	1.0	66.4	1.0
O	5	63.9	64.3	0.4	64.3	0.4	66.5	2.6	66.7	2.8	65.8	1.9	65.6	1.7	64.9	1.0	64.9	1.0	64.9	1.0
O	10	62.8	63.5	0.7	63.5	0.7	66.5	3.7	66.6	3.8	64.4	1.6	64.3	1.5	63.8	1.0	63.8	1.0	63.8	1.0
O	15	62.5	63.2	0.7	63.3	0.8	66.9	4.4	67.4	4.9	64.4	1.9	64.1	1.6	63.7	1.2	63.5	1.0	63.5	1.0
O	20	62.9	63.5	0.6	63.7	0.8	67.6	4.7	67.8	4.9	64.8	1.9	64.5	1.6	64.1	1.2	63.9	1.0	64.0	1.1
O	Top floor	63.1	63.7	0.6	63.9	0.8	67.7	4.6	67.9	4.8	65.0	1.9	64.8	1.7	64.3	1.2	64.1	1.0	64.1	1.0
P	1	65.9	66.1	0.2	66.2	0.3	67.7	1.8	67.5	1.6	67.0	1.1	67.0	1.1	66.9	1.0	67.0	1.1	67.1	1.2
P	3	66.0	66.3	0.3	66.4	0.4	67.5	1.5	67.6	1.6	67.1	1.1	67.1	1.1	67.0	1.0	67.1	1.1	67.2	1.2
P	Top floor	65.0	65.3	0.3	65.4	0.4	66.6	1.6	66.8	1.8	66.1	1.1	66.1	1.1	66.0	1.0	66.1	1.1	66.2	1.2
Q	1	62.3	62.4	0.1	62.4	0.1	63.7	1.4	64.2	1.9	64.3	2.0	63.7	1.4	63.2	0.9	62.9	0.6	62.6	0.3
Q	3	61.9	62.0	0.1	62.0	0.1	63.5	1.6	64.1	2.2	63.8	1.9	63.3	1.4	63.1	1.2	62.7	0.8	62.2	0.3
Q	5	60.8	60.9	0.1	60.9	0.1	62.9	2.1	64.6	3.8	63.4	2.6	62.7	1.9	62.9	2.1	62.3	1.5	61.3	0.5
Q	10	60.7	61.0	0.3	61.0	0.3	64.3	3.6	64.9	4.2	63.9	3.2	62.8	2.1	63.6	2.9	62.6	1.9	61.3	0.6
Q	15	60.8	61.8	1.0	61.7	0.9	65.9	5.1	65.7	4.9	64.1	3.3	63.1	2.3	63.7	2.9	62.4	1.6	61.4	0.6
Q	Top floor	61.0	62.4	1.4	62.3	1.3	66.3	5.3	65.9	4.9	64.5	3.5	63.3	2.3	63.9	2.9	62.5	1.5	61.6	0.6

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
R	1	63.5	63.5	0.0	63.6	0.1	64.3	0.8	65.8	2.3	65.2	1.7	64.4	0.9	65.4	1.9	64.9	1.4	63.8	0.3
R	3	63.3	63.4	0.1	63.5	0.2	64.4	1.1	65.5	2.2	64.9	1.6	64.4	1.1	65.1	1.8	64.6	1.3	63.6	0.3
R	5	62.7	62.8	0.1	62.9	0.2	64.1	1.4	65.6	2.9	65.0	2.3	63.7	1.0	64.0	1.3	63.7	1.0	63.1	0.4
R	10	62.8	62.9	0.1	63.0	0.2	64.4	1.6	65.7	2.9	65.0	2.2	63.9	1.1	64.2	1.4	63.7	0.9	63.2	0.4
R	15	62.4	62.9	0.5	63.0	0.6	65.0	2.6	65.6	3.2	64.8	2.4	64.0	1.6	64.3	1.9	63.5	1.1	62.9	0.5
R	20	62.2	62.8	0.6	62.8	0.6	65.1	2.9	65.6	3.4	64.8	2.6	63.8	1.6	64.5	2.3	63.4	1.2	62.7	0.5
R	25	61.9	62.5	0.6	62.6	0.7	65.4	3.5	65.6	3.7	64.6	2.7	63.6	1.7	64.2	2.3	63.1	1.2	62.4	0.5
R	30	61.5	62.2	0.7	62.2	0.7	65.4	3.9	65.4	3.9	64.3	2.8	63.4	1.9	63.8	2.3	62.7	1.2	62.0	0.5
R	35	61.5	62.2	0.7	62.3	0.8	65.7	4.2	65.4	3.9	64.3	2.8	63.4	1.9	63.8	2.3	62.7	1.2	62.0	0.5
R	Top floor	61.4	62.1	0.7	62.2	0.8	65.4	4.0	65.0	3.6	63.8	2.4	62.9	1.5	63.1	1.7	62.3	0.9	61.8	0.4
S	1	72.6	72.7	0.1	72.8	0.2	72.8	0.2	73.1	0.5	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2
S	3	73.8	73.9	0.1	74.0	0.2	74.0	0.2	74.3	0.5	74.0	0.2	74.0	0.2	74.0	0.2	74.0	0.2	74.0	0.2
S	5	72.9	73.0	0.1	73.1	0.2	73.2	0.3	73.5	0.6	73.2	0.3	73.1	0.2	73.2	0.3	73.1	0.2	73.1	0.2
S	10	71.2	71.3	0.1	71.4	0.2	71.9	0.7	72.2	1.0	71.6	0.4	71.5	0.3	71.5	0.3	71.4	0.2	71.4	0.2
S	15	69.6	69.8	0.2	69.9	0.3	71.0	1.4	71.0	1.4	70.2	0.6	70.0	0.4	70.1	0.5	69.8	0.2	69.8	0.2
S	Top floor	67.7	68.1	0.4	68.1	0.4	70.0	2.3	70.0	2.3	68.7	1.0	68.4	0.7	68.5	0.8	68.0	0.3	67.9	0.2
T	1	73.1	73.1	0.0	73.2	0.1	73.2	0.1	73.4	0.3	73.3	0.2	73.2	0.1	73.2	0.1	73.3	0.2	73.3	0.2
T	3	72.6	72.7	0.1	72.8	0.2	72.7	0.1	72.9	0.3	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2
T	Top floor	71.1	71.2	0.1	71.3	0.2	71.3	0.2	71.5	0.4	71.3	0.2	71.3	0.2	71.3	0.2	71.3	0.2	71.3	0.2
U	1	65.6	65.7	0.1	65.7	0.1	65.9	0.3	66.0	0.4	66.1	0.5	66.1	0.5	66.2	0.6	66.2	0.6	66.1	0.5
U	3	64.7	64.8	0.1	64.8	0.1	65.0	0.3	65.2	0.5	65.2	0.5	65.2	0.5	65.5	0.8	65.4	0.7	65.2	0.5
U	5	62.9	63.0	0.1	63.1	0.2	63.3	0.4	63.9	1.0	63.7	0.8	63.6	0.7	64.3	1.4	63.8	0.9	63.4	0.5
U	Top floor	61.4	62.4	1.0	62.1	0.7	65.7	4.3	67.3	5.9	64.6	3.2	65.4	4.0	64.5	3.1	62.7	1.3	62.0	0.6
V	1	68.6	68.7	0.1	68.8	0.2	68.9	0.3	68.9	0.3	69.0	0.4	69.1	0.5	69.2	0.6	69.2	0.6	69.2	0.6
V	3	68.3	68.4	0.1	68.5	0.2	68.6	0.3	68.7	0.4	68.7	0.4	68.8	0.5	68.9	0.6	68.9	0.6	68.9	0.6
V	5	67.5	67.6	0.1	67.7	0.2	67.9	0.4	68.1	0.6	68.1	0.6	68.2	0.7	68.7	1.2	68.2	0.7	68.1	0.6
V	10	65.8	66.7	0.9	66.4	0.6	68.3	2.5	69.1	3.3	68.5	2.7	69.2	3.4	68.2	2.4	66.8	1.0	66.5	0.7
V	15	64.7	66.0	1.3	65.7	1.0	69.3	4.6	70.2	5.5	70.5	5.8	69.8	5.1	69.1	4.4	66.6	1.9	65.4	0.7
V	Top floor	63.9	65.4	1.5	65.3	1.4	69.6	5.7	70.2	6.3	70.3	6.4	69.7	5.8	70.5	6.6	67.0	3.1	64.8	0.9

APPENDIX G-2e
CONSTRUCTION NOISE ANALYSIS FOR INDIVIDUAL
BASEMENTS APPROACH

Individual Basement Approach

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
A1	1	69.9	70.1	0.2	70.3	0.4	70.4	0.5	70.9	1.0	70.7	0.8	70.7	0.8	70.8	0.9	70.9	1.0	71.0	1.1
A1	3	70.5	70.7	0.2	71.0	0.5	71.1	0.6	71.7	1.2	71.4	0.9	71.3	0.8	71.4	0.9	71.5	1.0	71.6	1.1
A1	5	69.6	69.9	0.3	70.3	0.7	70.5	0.9	71.5	1.9	70.6	1.0	70.4	0.8	70.5	0.9	70.6	1.0	70.7	1.1
A1	10	68.1	68.4	0.3	69.3	1.2	69.4	1.3	70.9	2.8	69.3	1.2	68.9	0.8	69.0	0.9	69.1	1.0	69.2	1.1
A1	15	66.9	67.2	0.3	68.2	1.3	68.3	1.4	70.0	3.1	68.0	1.1	67.8	0.9	68.0	1.1	67.9	1.0	68.0	1.1
A1	Top floor	65.3	65.6	0.3	67.1	1.8	67.2	1.9	69.0	3.7	66.8	1.5	67.0	1.7	66.9	1.6	66.9	1.6	66.4	1.1
A2	1	59.9	60.1	0.3	60.5	0.6	61.3	1.4	61.2	1.4	61.3	1.4	61.3	1.5	61.2	1.4	61.3	1.4	61.3	1.5
A2	3	63.2	64.8	1.7	65.0	1.9	65.9	2.7	64.4	1.2	64.3	1.2	64.5	1.4	64.6	1.4	64.5	1.4	64.6	1.5
A2	5	63.2	66.3	3.2	66.5	3.3	67.1	3.9	64.5	1.4	64.5	1.3	64.6	1.4	64.6	1.4	64.5	1.4	64.6	1.5
A2	10	62.6	66.0	3.5	66.2	3.6	68.7	6.1	64.2	1.6	64.2	1.6	64.1	1.5	64.0	1.5	63.9	1.4	64.0	1.5
A2	15	61.9	65.6	3.7	65.8	3.9	69.0	7.1	64.3	2.4	64.6	2.7	63.8	2.0	63.4	1.6	63.3	1.4	63.3	1.5
A2	Top floor	61.7	65.4	3.7	65.6	4.0	69.2	7.5	64.2	2.5	64.3	2.7	64.0	2.4	63.3	1.6	63.1	1.4	63.1	1.5
B1	1	68.0	68.4	0.4	68.9	0.9	69.0	1.0	69.6	1.6	69.0	1.0	69.2	1.2	69.3	1.3	69.4	1.4	69.5	1.5
B1	3	68.9	69.2	0.3	69.8	0.9	69.9	1.0	70.6	1.7	70.1	1.2	70.0	1.1	70.2	1.3	70.3	1.4	70.4	1.5
B1	Top floor	68.1	68.4	0.3	69.5	1.4	69.6	1.5	70.5	2.4	69.3	1.2	69.4	1.3	69.5	1.4	69.5	1.4	69.6	1.5
B2	1	69.2	69.6	0.4	70.1	0.9	70.5	1.3	70.8	1.6	70.3	1.1	70.3	1.1	70.2	1.0	70.3	1.1	70.4	1.2
B2	3	70.1	70.5	0.4	71.1	1.0	71.4	1.3	72.0	1.9	71.4	1.3	71.2	1.1	71.1	1.0	71.2	1.1	71.2	1.1
B2	Top floor	69.0	69.4	0.4	71.3	2.3	71.4	2.4	73.0	4.0	70.4	1.4	70.2	1.2	70.0	1.0	70.1	1.1	70.1	1.1
C	1	69.1	69.6	0.5	70.0	0.9	70.2	1.1	70.2	1.1	69.5	0.4	69.4	0.3	69.4	0.3	69.4	0.3	69.4	0.3
C	3	68.5	69.2	0.7	70.7	2.2	70.9	2.4	71.0	2.5	69.8	1.3	69.0	0.5	69.2	0.7	69.0	0.5	68.9	0.4
C	5	66.9	68.0	1.1	72.5	5.6	72.5	5.6	71.6	4.7	68.7	1.8	67.6	0.7	67.4	0.5	67.3	0.4	67.3	0.4
C	10	65.2	66.7	1.5	72.1	6.9	72.1	6.9	72.1	6.9	68.3	3.1	66.4	1.2	65.8	0.6	65.7	0.5	65.6	0.4
C	15	64.0	65.9	1.9	71.4	7.4	71.6	7.6	71.6	7.6	68.1	4.1	66.3	2.3	65.7	1.7	64.6	0.6	64.5	0.5
C	20	63.2	65.2	2.0	70.8	7.6	71.1	7.9	71.3	8.1	67.9	4.7	67.1	3.9	65.8	2.6	64.1	0.9	63.7	0.5
C	25	62.6	64.6	2.0	70.0	7.4	70.3	7.7	70.7	8.1	67.6	5.0	67.7	5.1	66.5	3.9	64.2	1.6	63.1	0.5
C	Top floor	61.9	64.2	2.3	69.1	7.2	69.6	7.7	70.4	8.5	67.5	5.6	67.8	5.9	67.2	5.3	65.2	3.3	62.6	0.7
D	1	69.6	70.0	0.4	70.3	0.7	70.5	0.9	71.7	2.1	70.4	0.8	70.3	0.7	70.2	0.6	70.3	0.7	70.3	0.7
D	3	69.6	70.1	0.5	70.9	1.3	71.1	1.5	72.6	3.0	71.0	1.4	70.6	1.0	70.3	0.7	70.4	0.8	70.3	0.7
D	5	68.4	69.0	0.6	71.3	2.9	71.3	2.9	73.6	5.2	70.9	2.5	69.3	0.9	69.3	0.9	69.2	0.8	69.2	0.8
D	10	66.7	67.7	1.0	70.9	4.2	70.9	4.2	74.1	7.4	71.1	4.4	68.0	1.3	67.9	1.2	67.6	0.9	67.5	0.8
D	15	65.6	66.8	1.2	70.4	4.8	70.4	4.8	73.4	7.8	70.5	4.9	67.7	2.1	67.2	1.6	66.8	1.2	66.5	0.9
D	20	64.6	66.1	1.5	70.0	5.4	70.1	5.5	73.2	8.6	70.2	5.6	67.9	3.3	66.8	2.2	66.1	1.5	65.5	0.9
D	25	63.8	65.4	1.6	69.4	5.6	69.6	5.8	72.3	8.5	69.7	5.9	67.7	3.9	66.2	2.4	65.3	1.5	64.8	1.0
D	30	63.2	65.0	1.8	68.8	5.6	69.1	5.9	71.8	8.6	69.3	6.1	67.5	4.3	65.9	2.7	64.9	1.7	64.2	1.0
D	35	62.6	64.6	2.0	68.2	5.6	68.6	6.0	71.7	9.1	70.3	7.7	67.2	4.6	65.5	2.9	64.5	1.9	63.6	1.0
D	Top floor	62.1	64.2	2.1	67.7	5.6	68.2	6.1	71.4	9.3	70.2	8.1	67.1	5.0	65.1	3.0	64.1	2.0	63.2	1.1
E	1	71.8	72.0	0.2	72.5	0.7	72.6	0.8	73.3	1.5	72.9	1.1	72.6	0.8	72.7	0.9	72.7	0.9	72.7	0.9
E	3	70.9	71.2	0.3	72.0	1.1	72.1	1.2	73.5	2.6	72.7	1.8	71.9	1.0	72.1	1.2	72.0	1.1	71.9	1.0
E	5	69.1	69.5	0.4	70.8	1.7	70.9	1.8	75.1	6.0	74.2	5.1	70.5	1.4	70.7	1.6	70.4	1.3	70.2	1.1
E	10	67.0	67.7	0.7	69.7	2.7	69.8	2.8	76.0	9.0	74.8	7.8	68.9	1.9	69.2	2.2	68.9	1.9	68.2	1.2
E	Top floor	65.5	66.5	1.0	69.0	3.5	69.0	3.5	75.1	9.6	73.8	8.3	67.9	2.4	68.3	2.8	67.7	2.2	66.8	1.3

Individual Basement Approach

Construction Noise Results

Exceed the CEQR noise criterion
Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
F	1	72.1	72.2	0.1	72.3	0.2	72.4	0.3	72.5	0.4	72.4	0.3	72.4	0.3	72.5	0.4	72.5	0.4	72.6	0.5
F	3	72.1	72.2	0.1	72.3	0.2	72.4	0.3	72.5	0.4	72.5	0.4	72.5	0.4	72.6	0.5	72.6	0.5	72.6	0.5
F	5	70.8	70.9	0.1	71.1	0.3	71.2	0.4	71.3	0.5	71.3	0.5	71.2	0.4	71.4	0.6	71.3	0.5	71.3	0.5
F	10	56.9	58.4	1.5	59.6	2.7	60.2	3.3	62.0	5.1	60.9	4.0	61.6	4.7	61.5	4.6	58.0	1.1	57.4	0.5
F	13	63.2	64.1	0.9	65.2	2.0	65.2	2.0	65.5	2.3	65.2	2.0	65.3	2.1	65.3	2.1	63.8	0.6	63.7	0.5
F	20	64.3	65.3	1.0	66.6	2.3	66.4	2.1	66.6	2.3	66.5	2.2	66.7	2.4	66.5	2.2	65.0	0.7	64.8	0.5
F	25	64.5	65.2	0.7	66.7	2.2	66.7	2.2	66.9	2.4	66.8	2.3	66.9	2.4	67.3	2.8	65.5	1.0	65.0	0.5
F	30	64.4	65.1	0.7	66.5	2.1	66.5	2.1	67.1	2.7	66.9	2.5	67.0	2.6	67.8	3.4	65.8	1.4	65.0	0.6
F	Top floor	64.1	64.9	0.8	66.2	2.1	66.4	2.3	66.9	2.8	66.9	2.8	67.1	2.96	68.1	4.0	65.7	1.6	64.7	0.6
G	1	59.9	59.9	0.1	60.0	0.2	60.6	0.7	60.3	0.5	60.1	0.3	60.1	0.3	60.3	0.4	60.0	0.1	59.9	0.0
G	3	60.2	60.3	0.1	60.4	0.2	60.9	0.8	60.6	0.5	60.4	0.3	60.4	0.3	60.7	0.5	60.3	0.1	60.2	0.1
G	5	60.1	60.2	0.1	60.4	0.3	60.8	0.8	61.1	1.0	60.9	0.8	60.4	0.4	60.8	0.8	60.4	0.3	60.2	0.1
G	10	60.2	60.3	0.2	60.6	0.4	61.0	0.8	61.3	1.2	61.3	1.2	60.9	0.7	61.0	0.8	60.5	0.4	60.3	0.2
G	15	60.1	60.3	0.2	60.6	0.5	61.6	1.6	61.4	1.3	61.4	1.4	61.1	1.1	61.0	0.9	60.4	0.4	60.2	0.2
G	20	60.2	60.3	0.2	60.7	0.5	62.0	1.8	61.5	1.4	61.5	1.4	61.5	1.3	61.1	0.9	60.6	0.4	60.3	0.1
G	25	61.1	61.2	0.2	61.6	0.5	63.1	2.0	62.4	1.3	62.3	1.2	62.9	1.8	62.2	1.1	61.5	0.4	61.2	0.1
G	30	60.9	61.0	0.2	61.4	0.5	63.1	2.2	62.2	1.4	62.2	1.3	62.7	1.9	62.2	1.3	61.3	0.4	61.0	0.1
G	Top floor	60.7	60.8	0.2	61.2	0.5	63.1	2.5	62.1	1.5	62.4	1.7	62.8	2.2	62.1	1.4	61.2	0.5	60.8	0.1
H1	1	59.9	59.9	0.1	60.2	0.3	61.9	2.0	61.8	1.9	61.2	1.3	60.8	0.9	60.3	0.4	60.0	0.1	59.9	0.0
H1	3	60.4	60.5	0.1	60.7	0.3	62.4	2.1	62.5	2.1	62.0	1.6	61.3	1.0	60.9	0.5	60.5	0.1	60.4	0.0
H1	5	60.3	60.5	0.3	60.8	0.6	62.4	2.1	62.8	2.6	62.5	2.3	61.5	1.2	61.3	1.0	60.7	0.5	60.3	0.1
H1	10	60.6	60.8	0.2	61.4	0.8	63.3	2.8	63.7	3.1	63.4	2.9	62.4	1.9	61.8	1.2	61.0	0.4	60.6	0.1
H1	15	61.1	61.3	0.2	62.0	0.9	64.2	3.2	64.2	3.2	64.4	3.3	63.1	2.0	62.3	1.3	61.5	0.5	61.1	0.1
H1	20	61.2	61.4	0.2	62.1	1.0	64.5	3.3	64.3	3.2	64.8	3.6	63.3	2.1	62.4	1.3	61.7	0.5	61.2	0.1
H1	25	60.7	60.9	0.2	61.8	1.1	65.0	4.3	64.1	3.4	64.6	3.9	63.3	2.6	62.4	1.7	61.3	0.7	60.7	0.1
H1	Top floor	61.1	61.5	0.4	62.4	1.3	65.4	4.3	64.5	3.4	65.0	3.9	63.8	2.8	62.7	1.7	61.8	0.7	61.1	0.1
H2	1	62.6	63.7	1.1	63.9	1.3	64.7	2.1	64.0	1.4	63.8	1.2	64.0	1.4	64.0	1.4	64.1	1.5	64.2	1.6
H2	3	65.6	66.7	1.1	66.9	1.3	67.6	2.0	66.7	1.1	66.7	1.1	66.9	1.3	66.9	1.3	67.1	1.5	67.2	1.6
H2	5	65.8	67.7	1.9	67.8	2.0	68.4	2.6	66.9	1.1	66.9	1.1	67.1	1.3	67.1	1.3	67.3	1.5	67.4	1.6
H2	10	65.0	67.2	2.2	67.4	2.4	69.6	4.6	66.3	1.3	66.5	1.5	66.4	1.4	66.3	1.3	66.5	1.5	66.6	1.6
H2	15	64.1	66.6	2.5	66.8	2.7	69.5	5.4	65.4	1.3	66.2	2.1	65.7	1.6	65.5	1.4	65.6	1.5	65.7	1.6
H2	Top floor	63.6	66.2	2.6	66.4	2.8	69.4	5.8	65.3	1.7	65.5	1.9	65.4	1.8	65.0	1.4	65.1	1.5	65.2	1.6
I	at-grade	66.8	67.0	0.2	67.4	0.6	67.7	0.9	68.1	1.3	68.8	2.0	70.0	3.2	68.7	1.9	68.3	1.5	67.7	0.9
J	at-grade	66.8	67.3	0.5	67.4	0.6	67.8	1.0	67.6	0.8	67.9	1.1	68.2	1.4	67.9	1.1	67.7	0.9	67.4	0.6
K	at-grade	63.0	63.1	0.1	63.2	0.2	63.2	0.2	63.2	0.2	63.1	0.1	63.2	0.2	63.1	0.1	63.1	0.1	63.1	0.1
L1	1	67.0	67.5	0.5	67.8	0.8	68.6	1.6	68.2	1.2	67.9	0.9	67.8	0.8	67.8	0.8	67.9	0.9	68.0	1.0
L1	Top floor	66.6	67.1	0.5	67.4	0.8	68.2	1.6	68.0	1.4	67.7	1.1	67.6	1.0	67.4	0.8	67.5	0.9	67.6	1.0
L2	1	66.2	66.5	0.3	66.7	0.5	67.2	1.0	67.5	1.3	67.2	1.0	67.5	1.3	67.8	1.6	67.5	1.3	67.3	1.1
L2	3	65.5	65.8	0.3	66.1	0.6	66.6	1.1	66.9	1.4	66.6	1.1	67.0	1.5	67.0	1.5	66.8	1.3	66.6	1.1
L2	5	63.9	64.4	0.5	65.1	1.2	65.5	1.6	66.2	2.3	65.4	1.5	65.5	1.6	65.6	1.7	65.3	1.4	65.0	1.1
L2	Top floor	63.0	63.5	0.5	64.2	1.2	64.5	1.5	65.8	2.8	64.6	1.6	64.5	1.5	64.1	1.1	64.1	1.1	64.1	1.1
M	1	62.2	62.2	0.0	62.5	0.3	62.6	0.4	63.9	1.7	63.3	1.1	63.3	1.1	63.3	1.1	62.7	0.5	62.4	0.2
M	3	61.8	61.9	0.1	62.3	0.5	62.4	0.6	64.1	2.3	63.9	2.1	63.9	2.1	63.5	1.7	62.8	1.0	62.0	0.2
M	5	63.4	63.5	0.1	64.1	0.7	64.1	0.7	65.7	2.3	64.7	1.3	64.4	1.0	64.8	1.4	64.3	0.9	63.6	0.2
M	Top floor	62.5	62.8	0.3	63.9	1.4	64.3	1.8	65.7	3.2	64.3	1.8	64.1	1.6	64.0	1.5	63.4	0.9	62.8	0.3

Individual Basement Approach

Construction Noise Results

Exceed the CEQR noise criterion
 Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
N1	1	63.8	63.9	0.1	64.3	0.5	64.6	0.8	65.3	1.5	64.7	0.9	64.7	0.9	64.9	1.1	64.5	0.7	64.3	0.5
N1	3	63.6	63.8	0.2	64.5	0.9	64.8	1.2	65.7	2.1	65.3	1.7	65.2	1.6	65.5	1.9	65.0	1.4	64.1	0.5
N1	5	62.9	63.4	0.5	64.9	2.0	65.5	2.6	66.6	3.7	65.7	2.8	64.9	2.0	64.9	2.0	64.6	1.7	63.5	0.6
N1	10	55.1	55.6	0.5	56.8	1.7	57.4	2.3	57.5	2.4	57.0	1.9	57.6	2.5	56.6	1.5	56.0	0.9	55.5	0.4
N1	15	57.9	60.6	2.7	62.9	5.0	63.3	5.4	62.8	4.9	62.4	4.5	61.6	3.7	60.6	2.7	59.3	1.4	58.3	0.4
N1	20	58.6	61.1	2.5	65.5	6.9	65.8	7.2	66.0	7.4	64.8	6.2	63.9	5.3	62.5	3.9	61.2	2.6	59.2	0.6
N1	25	59.4	61.6	2.2	66.1	6.7	66.4	7.0	66.7	7.3	65.2	5.8	64.4	5.0	62.7	3.3	61.4	2.0	60.0	0.6
N1	30	59.8	61.9	2.1	66.2	6.4	66.6	6.8	66.8	7.0	65.4	5.6	64.6	4.8	63.0	3.2	61.9	2.1	60.4	0.6
N1	35	59.8	61.9	2.1	66.1	6.3	66.6	6.8	66.5	6.7	65.4	5.6	64.6	4.8	63.1	3.3	61.9	2.1	60.5	0.7
N1	Top floor	59.9	61.9	2.0	65.7	5.8	66.4	6.5	66.4	6.5	65.4	5.5	64.8	4.9	63.2	3.3	62.1	2.2	60.7	0.8
N2	1	69.2	69.3	0.1	69.9	0.7	70.0	0.8	71.2	2.0	70.8	1.6	70.6	1.4	70.9	1.7	70.6	1.4	70.5	1.3
N2	3	63.9	64.1	0.2	65.3	1.4	65.4	1.5	68.5	4.6	67.6	3.7	66.4	2.5	67.0	3.1	66.1	2.2	65.4	1.5
N2	5	62.6	62.9	0.3	64.1	1.5	64.2	1.6	69.3	6.7	68.6	6.0	65.6	3.0	66.3	3.7	65.4	2.8	64.2	1.6
N2	10	58.7	58.8	0.1	59.4	0.7	59.6	0.9	60.4	1.7	60.2	1.5	59.8	1.1	59.9	1.2	59.9	1.2	59.9	1.2
N2	15	60.4	61.0	0.6	62.2	1.8	62.0	1.6	62.0	1.6	61.7	1.3	61.5	1.1	61.6	1.2	61.6	1.2	61.6	1.2
N2	20	60.7	60.8	0.1	62.2	1.5	62.3	1.6	63.0	2.3	62.3	1.6	61.8	1.1	61.9	1.2	61.9	1.2	61.9	1.2
N2	25	60.6	60.8	0.2	61.3	0.7	61.4	0.8	63.1	2.5	62.5	1.9	61.7	1.1	61.8	1.2	61.8	1.2	61.8	1.2
N2	30	60.3	60.5	0.2	61.0	0.7	61.1	0.8	64.0	3.7	63.4	3.1	61.4	1.1	61.5	1.2	61.5	1.2	61.5	1.2
N2	35	60.1	60.3	0.2	60.7	0.6	60.9	0.8	63.9	3.8	63.3	3.2	61.2	1.1	61.3	1.2	61.3	1.2	61.2	1.1
N2	Top floor	59.9	60.1	0.2	60.6	0.7	60.8	0.9	64.1	4.2	63.1	3.2	61.9	2.0	61.1	1.2	61.2	1.3	61.0	1.1
O	1	65.7	65.9	0.2	66.3	0.6	66.4	0.7	67.5	1.8	67.0	1.3	67.1	1.4	66.7	1.0	66.7	1.0	66.7	1.0
O	3	65.4	65.7	0.3	66.2	0.8	66.4	1.0	67.5	2.1	66.8	1.4	67.0	1.6	66.4	1.0	66.4	1.0	66.4	1.0
O	5	63.9	64.3	0.4	65.1	1.2	65.1	1.2	66.5	2.6	65.8	1.9	65.9	2.0	64.9	1.0	64.9	1.0	64.9	1.0
O	10	62.8	63.5	0.7	64.6	1.8	65.1	2.3	66.7	3.9	64.4	1.6	64.4	1.6	63.8	1.0	63.8	1.0	63.8	1.0
O	15	62.5	63.2	0.7	64.5	2.0	65.1	2.6	67.3	4.8	64.4	1.9	64.2	1.7	63.7	1.2	63.5	1.0	63.5	1.0
O	20	62.9	63.5	0.6	65.0	2.1	65.5	2.6	67.7	4.8	64.8	1.9	64.6	1.7	64.1	1.2	63.9	1.0	64.0	1.1
O	Top floor	63.1	63.7	0.6	65.1	2.0	65.7	2.6	67.8	4.7	65.0	1.9	64.9	1.8	64.3	1.2	64.1	1.0	64.1	1.0
P	1	65.9	66.1	0.2	66.5	0.6	67.1	1.2	67.6	1.7	67.0	1.1	67.1	1.2	66.9	1.0	67.0	1.1	67.1	1.2
P	3	66.0	66.3	0.3	66.6	0.6	66.8	0.8	67.6	1.6	67.1	1.1	67.2	1.2	67.0	1.0	67.1	1.1	67.2	1.2
P	Top floor	65.0	65.3	0.3	65.7	0.7	65.9	0.9	66.8	1.8	66.1	1.1	66.2	1.2	66.0	1.0	66.1	1.1	66.2	1.2
Q	1	62.3	62.4	0.1	62.8	0.5	62.9	0.6	64.1	1.8	64.3	2.0	64.2	1.9	63.2	0.9	62.9	0.6	62.6	0.3
Q	3	61.9	62.0	0.1	62.5	0.6	62.6	0.7	64.0	2.1	63.9	2.0	63.8	1.9	63.1	1.2	62.7	0.8	62.2	0.3
Q	5	60.8	60.9	0.1	61.6	0.8	61.9	1.1	64.3	3.5	63.3	2.5	63.2	2.4	62.9	2.1	62.3	1.5	61.3	0.5
Q	10	60.7	61.0	0.3	62.2	1.5	62.7	2.0	64.7	4.0	63.3	2.6	63.4	2.7	63.6	2.9	62.6	1.9	61.3	0.6
Q	15	60.8	61.8	1.0	63.2	2.4	63.9	3.1	65.3	4.5	63.8	3.0	63.7	2.9	63.7	2.9	62.4	1.6	61.4	0.6
Q	Top floor	61.0	62.4	1.4	64.6	3.6	64.9	3.9	65.7	4.7	64.3	3.3	63.9	2.9	63.9	2.9	62.5	1.5	61.6	0.6

Individual Basement Approach

Construction Noise Results

Exceed the CEQR noise criterion
 Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA																	
			2010-Q4		2011-Q1		2012-Q1		2013-Q4		2014-Q3		2015-Q3		2016-Q4		2017-Q4		2018-Q4	
			Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change	Total	Change
R	1	63.5	63.5	0.0	63.8	0.3	63.8	0.3	65.6	2.1	65.2	1.7	64.6	1.1	65.4	1.9	64.9	1.4	63.8	0.3
R	3	63.3	63.4	0.1	63.7	0.4	63.8	0.5	65.3	2.0	64.9	1.6	64.6	1.3	65.1	1.8	64.6	1.3	63.6	0.3
R	5	62.7	62.8	0.1	63.4	0.7	63.6	0.9	65.3	2.6	64.9	2.2	64.0	1.3	64.0	1.3	63.7	1.0	63.1	0.4
R	10	62.8	62.9	0.1	63.6	0.8	63.8	1.0	65.5	2.7	64.9	2.1	64.2	1.4	64.2	1.4	63.7	0.9	63.2	0.4
R	15	62.4	62.9	0.5	63.8	1.4	63.9	1.5	65.3	2.9	64.7	2.3	64.4	2.0	64.3	1.9	63.5	1.1	62.9	0.5
R	20	62.2	62.8	0.6	64.0	1.8	64.1	1.9	65.5	3.3	64.7	2.5	64.2	2.0	64.5	2.3	63.4	1.2	62.7	0.5
R	25	61.9	62.5	0.6	64.3	2.4	64.4	2.5	65.5	3.6	64.6	2.7	64.1	2.2	64.2	2.3	63.1	1.2	62.4	0.5
R	30	61.5	62.2	0.7	64.1	2.6	64.3	2.8	65.4	3.9	64.3	2.8	63.9	2.4	63.8	2.3	62.7	1.2	62.0	0.5
R	35	61.5	62.2	0.7	64.2	2.7	64.5	3.0	65.2	3.7	64.3	2.8	64.0	2.5	63.8	2.3	62.7	1.2	62.0	0.5
R	Top floor	61.4	62.1	0.7	64.1	2.7	64.4	3.0	64.9	3.5	63.8	2.4	63.5	2.1	63.1	1.7	62.3	0.9	61.8	0.4
S	1	72.6	72.7	0.1	72.8	0.2	72.8	0.2	73.1	0.5	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2
S	3	73.8	73.9	0.1	74.0	0.2	74.0	0.2	74.2	0.4	74.0	0.2	74.0	0.2	74.0	0.2	74.0	0.2	74.0	0.2
S	5	72.9	73.0	0.1	73.2	0.3	73.2	0.3	73.4	0.5	73.2	0.3	73.1	0.2	73.2	0.3	73.1	0.2	73.1	0.2
S	10	71.2	71.3	0.1	71.7	0.5	71.7	0.5	72.0	0.8	71.6	0.4	71.6	0.4	71.5	0.3	71.4	0.2	71.4	0.2
S	15	69.6	69.8	0.2	70.4	0.8	70.4	0.8	70.7	1.1	70.2	0.6	70.1	0.5	70.1	0.5	69.8	0.2	69.8	0.2
S	Top floor	67.7	68.1	0.4	68.9	1.2	68.9	1.2	69.5	1.8	68.7	1.0	68.5	0.8	68.5	0.8	68.0	0.3	67.9	0.2
T	1	73.1	73.1	0.0	73.2	0.1	73.2	0.1	73.4	0.3	73.3	0.2	73.2	0.1	73.2	0.1	73.3	0.2	73.3	0.2
T	3	72.6	72.7	0.1	72.8	0.2	72.8	0.2	72.9	0.3	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2	72.8	0.2
T	Top floor	71.1	71.2	0.1	71.3	0.2	71.4	0.3	71.5	0.4	71.3	0.2	71.3	0.2	71.3	0.2	71.3	0.2	71.3	0.2
U	1	65.6	65.7	0.1	65.7	0.1	65.8	0.2	66.0	0.4	66.1	0.5	66.1	0.5	66.2	0.6	66.2	0.6	66.1	0.5
U	3	64.7	64.8	0.1	64.9	0.2	64.9	0.2	65.3	0.6	65.2	0.5	65.2	0.5	65.5	0.8	65.4	0.7	65.2	0.5
U	5	62.9	63.0	0.1	63.1	0.2	63.2	0.3	64.0	1.1	63.7	0.8	63.8	0.9	64.3	1.4	63.8	0.9	63.4	0.5
U	Top floor	61.4	62.4	1.0	63.1	1.7	63.6	2.2	65.7	4.3	65.3	3.9	65.7	4.3	64.5	3.1	62.7	1.3	62.0	0.6
V	1	68.6	68.7	0.1	68.8	0.2	68.8	0.2	68.9	0.3	69.0	0.4	69.1	0.5	69.2	0.6	69.2	0.6	69.2	0.6
V	3	68.3	68.4	0.1	68.5	0.2	68.6	0.3	68.7	0.4	68.7	0.4	68.8	0.5	68.9	0.6	68.9	0.6	68.9	0.6
V	5	67.5	67.6	0.1	67.7	0.2	67.8	0.3	68.0	0.5	68.1	0.6	68.3	0.8	68.7	1.2	68.2	0.7	68.1	0.6
V	10	65.8	66.7	0.9	67.1	1.3	67.1	1.3	67.8	2.0	68.8	3.0	69.5	3.7	68.2	2.4	66.8	1.0	66.5	0.7
V	15	64.7	66.0	1.3	67.3	2.6	67.2	2.5	69.0	4.3	70.6	5.9	70.4	5.7	69.1	4.4	66.6	1.9	65.4	0.7
V	Top floor	63.9	65.4	1.5	66.9	3.0	67.0	3.1	69.1	5.2	70.3	6.4	70.4	6.5	70.5	6.6	67.0	3.1	64.8	0.9

APPENDIX G-2f
CONSTRUCTION NOISE ANALYSIS FOR PODIUM
APPROACH—AMSTERDAM HOUSES

Podium Approach - Amsterdam Houses

Construction Noise Results

Exceed the CEQR noise criterion
 Exceed 65 dBA

CadnaA Receptor Sites	Elevation (floor)	Existing Leq(1)	Noise Level Leq in dBA							
			2012-Q1				2013-Q4			
			NoBuild	Cons.	Total	Change	NoBuild	Cons.	Total	Change
B2 (Amsterdam Houses West Facade)	1	69.2	69.5	68.3	72.0	2.8	69.6	65.6	71.1	1.9
	3	70.1	70.4	69.3	72.9	2.8	70.5	67.1	72.2	2.1
	4	69.7	70.1	70.0	73.0	3.3	70.2	68.1	72.3	2.5
	5	69.4	69.7	70.5	73.1	3.8	69.8	68.9	72.4	3.0
	Top floor	69.0	69.3	71.0	73.3	4.3	69.4	70.3	72.9	3.9
B2a (Amsterdam Houses South Facade)	1	67.4	67.7	66.8	70.3	2.9	67.8	64.0	69.3	1.9
	3	68.3	68.6	67.7	71.2	2.9	68.7	64.9	70.2	1.9
	4	67.9	68.3	69.0	71.7	3.7	68.4	65.8	70.3	2.4
	5	67.6	67.9	69.4	71.7	4.2	68.0	66.8	70.5	2.9
	Top floor	67.2	67.5	70.3	72.1	4.9	67.6	68.7	71.2	4.0

Note: Existing & NB levels at B2a = B2 Levels -1.8 (1.8 = 71.8-70 = Measured level at Site 2 - Measured level at Site 3)

APPENDIX G-3
POTENTIAL VIBRATION LEVELS WITH 230 FEET

Calculations for Construction Vibration

$$PPV_{\text{equipment}} = PPV_{\text{ref}} * (25/D)^{1.5}$$

where:

PPV_{equip} is the peak particle velocity in in/sec of the equipment at the receiver location

PPV_{ref} is the reference vibration level in in/sec at 25 feet

D is the distance from the equipment to the received location in feet

Equipment	PPVr	Criterion PPV	Impact Distance (ft)	PPVe
Clam Shovel drop (slurry wall)	0.202	0.5	14	0.50

Calculations for Construction Ground-Bore Vibration

$$Lv(D) = Lv(25ft) - 30 \log(D/25)$$

where:

L_v(D) is the vibration level in VdB of the equipment at the receiver location

L_v(ref) is the reference vibration level in VdB at 25 feet

D is the distance from the equipment to the receiver location in feet

Equipment	Lv(25ft)	Criterion VdB	Impact Distance (ft)	Lv(D)
Clam Shovel drop (slurry wall)	94.0	65	232	65.0