

# **Appendix L**

---

## **Detroit River International Crossing Study Noise Impact Analysis Technical Report Addendum**

# Detroit International River Crossing

## Noise Study Technical Report - Addendum

**November 2008**

This Addendum supports the noise analysis in the Detroit River International Crossing FEIS. It focuses on the Preferred Alternative. The Preferred Alternative is most like Alternative #1 along the north side of I-75, where noise walls were found to be reasonable and feasible for some alternatives in the DEIS. However, the Preferred Alternative differs from Alternative #1 in that it has an exit ramp southbound to Springwells Street. Traffic numbers change as well as the roadway geometry, due to the change in access. For this reason, new noise runs were made that followed the refined engineering performed for the Preferred Alternative.

An important difference with respect to the analysis for the Preferred Alternative and analysis for the Practical Alternatives is that the Preferred Alternative has the noise walls shifted closer to I-75. This means they overshadow I-75 better and provide better noise control. The noise walls will be constructed on top of retaining walls. The purpose of the shift of the noise walls was to provide greater spacing between the noise walls and the southbound service drive for safety.

The following pages show the modeling results from the Traffic Noise Model, version 2.5 for each of the three walls found to be reasonable and feasible for the Preferred Alternative, as listed below.

Location/Designation		Length (Feet)	Cost	Benefiting Receivers	Cost per Ben. Rec.
<i>Preferred Alternative</i>	<i>Green to Rademacher Wall 1</i>	1,820	\$919,410	41 <sup>a</sup>	\$22,425
	<i>East of Dragoon to East of Campbell Wall 2</i>	1,488	\$758,580	28 <sup>d</sup>	\$27,092
	<i>East of Campbell to Clark Wall 3</i>	2,234	\$1,148,270	36	\$31,896
	<i>Total</i>	5,542	\$2,826,260	105	\$26,917

For each wall the barrier description is followed by the sound level results for the relevant receivers related to that wall. Note that Walls 1 and 3 consists of several wall sections highlighted in yellow. The sections must be totaled to get the total length and cost of these walls. On the sound levels tables, the yellow highlights show those receivers that qualify as “benefitting” as they would experience a noise level decrease of five decibels or more. The tables for each wall are followed by a graphic showing the roads, receivers and walls. Road names have been added to the base TNM2.5 graphics output. Property lot lines have also been pulled into the TNM2.5 to provide reference points.

**RESULTS: BARRIER DESCRIPTIONS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5

**RESULTS: BARRIER DESCRIPTIONS**

**PROJECT/CONTRACT:** 3600

**RUN:** Preferred Alternative: **Wall 1**

**BARRIER DESIGN:** INPUT HEIGHTS

**Barriers**

Name	Type	Heights along Barrier			Length ft	If Wall		If Berm		Run:Rise ft:ft	Cost \$
		Min	Avg	Max		Area	Volume	Top Width			
		ft	ft	ft		sq ft	cu yd	ft			
Median Barrier 6	W	3.61	3.61	3.61	1528	5516					0
Median Barrier 5	W	3.61	3.61	3.61	875	3158					0
Median Barrier 3	W	3.61	3.61	3.61	1767	6378					0
Median Barrier 2	W	3.61	3.61	3.61	1724	6223					0
Median Barrier 1	W	3.61	3.61	3.61	738	2663					0
Median Barrier 4	W	3.61	3.61	3.61	4505	16263					0
Springwells to Solvey	W	10.00	10.00	10.00	320	3200					161614
<b>Green to Beard</b>	<b>W</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>685</b>	<b>6850</b>					<b>345938</b>
Livernois to Junction	W	10.00	10.00	10.00	1488	14880					751420
Junction to Morrell	W	10.00	10.00	10.00	342	3424					172930
Solvey Ped Bridge	W	12.19	12.19	12.19	15	186					8561
Solvey to Green	W	10.00	10.00	10.00	451	4513					227897
<b>Beard Ped Bridge</b>	<b>W</b>	<b>12.00</b>	<b>12.00</b>	<b>12.00</b>	<b>20</b>	<b>243</b>					<b>11251</b>
Beard to Waterman	W	10.00	10.00	10.00	649	6487					327605
Waterman Ped Bridge	W	7.70	7.70	7.70	16	124					7184
<b>Waterman to Livernois</b>	<b>W</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>450</b>	<b>4504</b>					<b>227432</b>
Morrell Ped Bridge	W	7.70	7.70	7.70	20	157					9099
Morrel to McKinstry	W	10.00	10.00	10.00	855	8548					431680
McKinstry Ped Bridge	W	12.00	12.00	12.00	14	173					8026
McKinstry to Clark	W	10.00	10.00	10.00	609	6095					307774
<b>Total Cost:</b>										<b>2998412</b>	

Detroit River International Crossing Study Final Environmental Impact Statement  
L-2

**RESULTS: SOUND LEVELS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

**PROJECT/CONTRACT:** 3600  
**RUN:** Preferred Alternative: Wall 1  
**BARRIER DESIGN:** INPUT HEIGHTS

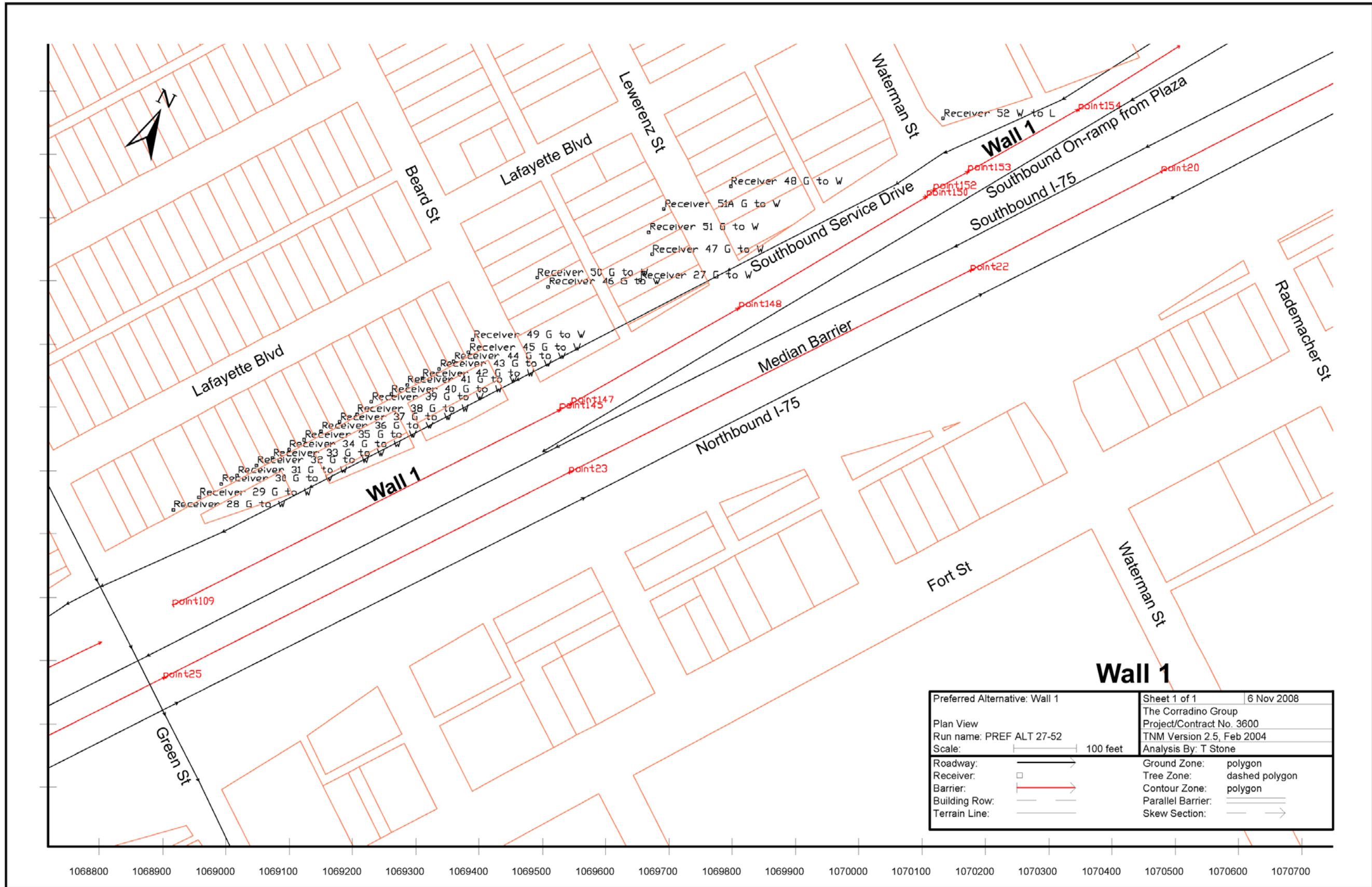
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.






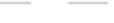


**ATMOSPHERICS:** 68 deg F, 50% RH

**Receiver**

Name	No.	#DUs	Existing LAeq1h dBA	No Barrier				With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h dBA	Noise Reduction		Calculated minus Goal dB
				Calculated dBA	Crit'n dBA	Calculated dB	Crit'n Sub'l Inc dB			Calculated dB	Goal dB	
Receiver 27 G to W	95	2	0.0	70.5	66	70.5	10	Snd Lvl	63.9	6.6	5	1.6
Receiver 28 G to W	96	4	0.0	70.0	66	70.0	10	Snd Lvl	66.2	3.8	5	-1.2
Receiver 29 G to W	97	2	0.0	69.9	66	69.9	10	Snd Lvl	65.4	4.5	5	-0.5
Receiver 30 G to W	98	2	0.0	69.4	66	69.4	10	Snd Lvl	64.5	4.9	5	-0.1
Receiver 31 G to W	99	1	0.0	69.2	66	69.2	10	Snd Lvl	64.1	5.1	5	0.1
Receiver 32 G to W	100	1	0.0	69.1	66	69.1	10	Snd Lvl	63.7	5.4	5	0.4
Receiver 33 G to W	101	1	0.0	68.8	66	68.8	10	Snd Lvl	63.4	5.4	5	0.4
Receiver 34 G to W	102	2	0.0	68.6	66	68.6	10	Snd Lvl	63.2	5.4	5	0.4
Receiver 35 G to W	103	2	0.0	68.5	66	68.5	10	Snd Lvl	62.9	5.6	5	0.6
Receiver 36 G to W	104	2	0.0	68.4	66	68.4	10	Snd Lvl	62.8	5.6	5	0.6
Receiver 37 G to W	105	2	0.0	68.7	66	68.7	10	Snd Lvl	62.8	5.9	5	0.9
Receiver 38 G to W	106	1	0.0	69.0	66	69.0	10	Snd Lvl	62.8	6.2	5	1.2
Receiver 39 G to W	107	1	0.0	68.7	66	68.7	10	Snd Lvl	62.9	5.8	5	0.8
Receiver 40 G to W	108	2	0.0	69.1	66	69.1	10	Snd Lvl	62.7	6.4	5	1.4
Receiver 41 G to W	109	1	0.0	69.0	66	69.0	10	Snd Lvl	62.6	6.4	5	1.4
Receiver 42 G to W	110	2	0.0	69.1	66	69.1	10	Snd Lvl	62.6	6.5	5	1.5
Receiver 43 G to W	111	1	0.0	69.0	66	69.0	10	Snd Lvl	62.6	6.4	5	1.4
Receiver 44 G to W	112	1	0.0	69.0	66	69.0	10	Snd Lvl	62.6	6.4	5	1.4
Receiver 45 G to W	113	2	0.0	68.9	66	68.9	10	Snd Lvl	62.6	6.3	5	1.3
Receiver 46 G to W	115	2	0.0	67.5	66	67.5	10	Snd Lvl	61.9	5.6	5	0.6
Receiver 47 G to W	116	1	0.0	69.1	66	69.1	10	Snd Lvl	63.0	6.1	5	1.1
Receiver 48 G to W	119	2	0.0	67.8	66	67.8	10	Snd Lvl	65.2	2.6	5	-2.4
Receiver 49 G to W	120	2	0.0	68.1	66	68.1	10	Snd Lvl	62.2	5.9	5	0.9

Receiver												
Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier			
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	
			dB	dB	dB	dB	dB		dB	dB	dB	
Receiver 50 G to W	121	2	0.0	66.8	66	66.8	10	Snd Lvl	62.6	4.2	5	-0.8
Receiver 51 G to W	124	1	0.0	67.6	66	67.6	10	Snd Lvl	62.1	5.5	5	0.5
Receiver 52 W to L	125	10	0.0	70.9	66	70.9	10	Snd Lvl	65.8	5.1	5	0.1
Receiver 51A G to W	289	1	0.0	67.0	66	67.0	10	Snd Lvl	62.0	5.0	5	0.0
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
		dB	dB	dB								
All Selected		53	2.6	5.5	6.6							
All Impacted		53	2.6	5.5	6.6							
All that meet NR Goal		41	5.0	5.8	6.6							



Preferred Alternative: Wall 1		Sheet 1 of 1	6 Nov 2008
Plan View		The Corradino Group	
Run name: PREF ALT 27-52		Project/Contract No. 3600	
Scale:  100 feet		TNM Version 2.5, Feb 2004	
		Analysis By: T Stone	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

I:\Projects\3600\Graphics\ReportGraphics\Noise\NoiseWallReceivers.cdr

**RESULTS: BARRIER DESCRIPTIONS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5

**RESULTS: BARRIER DESCRIPTIONS**

**PROJECT/CONTRACT:** 3600

**RUN:** Preferred Alternative: **Wall 2**

**BARRIER DESIGN:** INPUT HEIGHTS

**Barriers**

Name	Type	Heights along Barrier			Length	If Wall		If Berm		Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft		sq ft	cu yd	ft	ft:ft	
Median Barrier 6	W	3.61	3.61	3.61	1528	5516				0
Median Barrier 5	W	3.61	3.61	3.61	875	3158				0
Median Barrier 3	W	3.61	3.61	3.61	1767	6378				0
Median Barrier 2	W	3.61	3.61	3.61	1724	6223				0
Median Barrier 1	W	3.61	3.61	3.61	738	2663				0
Median Barrier 4	W	3.61	3.61	3.61	4505	16263				0
<b>Livernois to Junction</b>	<b>W</b>	<b>10.00</b>	<b>10.19</b>	<b>12.00</b>	<b>1488</b>	<b>15161</b>				<b>758584</b>
<b>Total Cost:</b>										<b>758584</b>

**RESULTS: SOUND LEVELS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

PROJECT/CONTRACT: 3600

RUN: Preferred Alternative: Wall 2

BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless  
a State highway agency substantiates the use  
of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

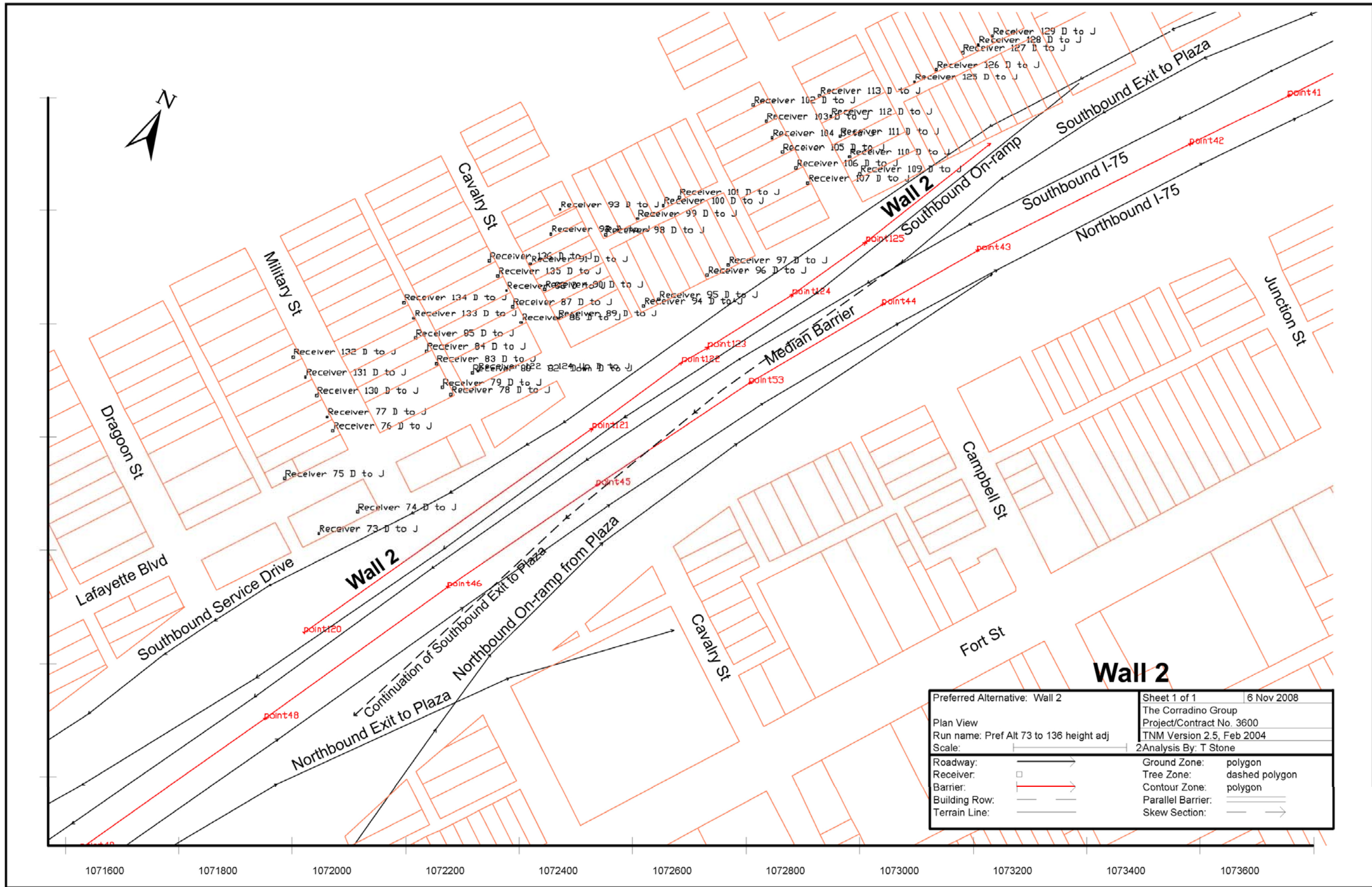
**Receiver**

Name	No.	#DUs	Existing LAeq1h dBA	No Barrier			With Barrier			Type Impact	Noise Reduction		
				LAeq1h	Crit'n	Increase over existing	Calculated LAeq1h	Calculated	Goal		Calculated minus Goal		
				Calculated								Calculated	Calculated
				dBA	dBA	dB	dB	dB	dB	dB	dB	dB	
Receiver 73 D to J	158	6	0.0	70.3	66	70.3	10	Snd Lvl	68.0	2.3	5	-2.7	
Receiver 74 D to J	159	10	0.0	70.1	66	70.1	10	Snd Lvl	66.9	3.2	5	-1.8	
Receiver 75 D to J	160	2	0.0	65.0	66	65.0	10	----	62.8	2.2	5	-2.8	
Receiver 76 D to J	161	1	0.0	64.6	66	64.6	10	----	61.3	3.3	5	-1.7	
Receiver 77 D to J	162	1	0.0	64.0	66	64.0	10	----	60.8	3.2	5	-1.8	
Receiver 78 D to J	163	10	0.0	66.9	66	66.9	10	Snd Lvl	61.8	5.1	5	0.1	
Receiver 79 D to J	164	1	0.0	66.3	66	66.3	10	Snd Lvl	61.4	4.9	5	-0.1	
Receiver 80 - 82 Down D to J	165	7	0.0	66.6	66	66.6	10	Snd Lvl	61.5	5.1	5	0.1	
Receiver 83 D to J	168	1	0.0	65.0	66	65.0	10	----	60.6	4.4	5	-0.6	
Receiver 84 D to J	169	1	0.0	64.3	66	64.3	10	----	60.2	4.1	5	-0.9	
Receiver 85 D to J	170	1	0.0	63.6	66	63.6	10	----	59.8	3.8	5	-1.2	
Receiver 86 D to J	171	1	0.0	65.5	66	65.5	10	----	62.8	2.7	5	-2.3	
Receiver 87 D to J	172	1	0.0	64.7	66	64.7	10	----	61.8	2.9	5	-2.1	
Receiver 88 D to J	173	1	0.0	64.1	66	64.1	10	----	60.1	4.0	5	-1.0	
Receiver 89 D to J	174	1	0.0	66.2	66	66.2	10	Snd Lvl	61.4	4.8	5	-0.2	
Receiver 90 D to J	175	1	0.0	64.7	66	64.7	10	----	61.5	3.2	5	-1.8	
Receiver 91 D to J	176	1	0.0	63.6	66	63.6	10	----	60.0	3.6	5	-1.4	
Receiver 92 D to J	177	1	0.0	62.9	66	62.9	10	----	61.1	1.8	5	-3.2	
Receiver 93 D to J	178	4	0.0	62.4	66	62.4	10	----	58.9	3.5	5	-1.5	
Receiver 94 D to J	179	1	0.0	68.3	66	68.3	10	Snd Lvl	62.3	6.0	5	1.0	
Receiver 95 D to J	180	1	0.0	68.5	66	68.5	10	Snd Lvl	62.4	6.1	5	1.1	
Receiver 96 D to J	189	1	0.0	69.1	66	69.1	10	Snd Lvl	62.8	6.3	5	1.3	
Receiver 97 D to J	190	1	0.0	69.5	66	69.5	10	Snd Lvl	63.0	6.5	5	1.5	

I:\PROJECTS\3600\NOISE\TNM\Pref Alt in FEIS I-75\Pref Alt 73 to 136 height adj



Receiver Name	No.	#DUs	Existing LAeq1h dBA	No Barrier				With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h dBA	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n			Calculated	Goal	Calculated minus Goal
				dBA	dBA	dB	dB	dB	dB	dB	dB	
Receiver 98 D to J	191	1	0.0	64.1	66	64.1	10	----	60.4	3.7	5	-1.3
Receiver 99 D to J	193	1	0.0	64.2	66	64.2	10	----	60.6	3.6	5	-1.4
Receiver 100 D to J	194	1	0.0	64.4	66	64.4	10	----	60.8	3.6	5	-1.4
Receiver 101 D to J	195	1	0.0	64.3	66	64.3	10	----	60.7	3.6	5	-1.4
Receiver 102 D to J	196	4	0.0	63.1	66	63.1	10	----	60.2	2.9	5	-2.1
Receiver 103 D to J	197	1	0.0	63.9	66	63.9	10	----	60.8	3.1	5	-1.9
Receiver 104 D to J	199	1	0.0	64.4	66	64.4	10	----	61.3	3.1	5	-1.9
Receiver 105 D to J	201	1	0.0	65.2	66	65.2	10	----	61.8	3.4	5	-1.6
Receiver 106 D to J	202	1	0.0	66.1	66	66.1	10	Snd Lvl	63.0	3.1	5	-1.9
Receiver 107 D to J	203	1	0.0	67.2	66	67.2	10	Snd Lvl	63.5	3.7	5	-1.3
Receiver 109 D to J	205	1	0.0	68.5	66	68.5	10	Snd Lvl	64.7	3.8	5	-1.2
Receiver 110 D to J	206	1	0.0	67.0	66	67.0	10	Snd Lvl	64.3	2.7	5	-2.3
Receiver 111 D to J	207	1	0.0	65.9	66	65.9	10	----	63.5	2.4	5	-2.6
Receiver 112 D to J	208	1	0.0	65.0	66	65.0	10	----	62.4	2.6	5	-2.4
Receiver 113 D to J	209	1	0.0	64.2	66	64.2	10	----	61.7	2.5	5	-2.5
Receiver 122 - 124 Up D to J	220	7	0.0	68.4	66	68.4	10	Snd Lvl	63.4	5.0	5	0.0
Receiver 125 D to J	221	1	0.0	65.8	66	65.8	10	----	64.3	1.5	5	-3.5
Receiver 126 D to J	222	2	0.0	66.0	66	66.0	10	Snd Lvl	64.8	1.2	5	-3.8
Receiver 127 D to J	223	1	0.0	66.2	66	66.2	10	Snd Lvl	65.4	0.8	5	-4.2
Receiver 128 D to J	224	1	0.0	66.4	66	66.4	10	Snd Lvl	65.7	0.7	5	-4.3
Receiver 129 D to J	225	1	0.0	66.5	66	66.5	10	Snd Lvl	66.1	0.4	5	-4.6
Receiver 130 D to J	226	1	0.0	62.7	66	62.7	10	----	59.3	3.4	5	-1.6
Receiver 131 D to J	227	1	0.0	62.0	66	62.0	10	----	58.8	3.2	5	-1.8
Receiver 132 D to J	228	1	0.0	61.3	66	61.3	10	----	58.2	3.1	5	-1.9
Receiver 133 D to J	229	1	0.0	63.0	66	63.0	10	----	58.9	4.1	5	-0.9
Receiver 134 D to J	230	1	0.0	62.4	66	62.4	10	----	58.5	3.9	5	-1.1
Receiver 135 D to J	231	1	0.0	63.8	66	63.8	10	----	59.2	4.6	5	-0.4
Receiver 136 D to J	232	1	0.0	63.2	66	63.2	10	----	58.9	4.3	5	-0.7
Dwelling Units		# DUs	Noise Reduction									
			Min	Avg	Max							
			dB	dB	dB							
All Selected		94	0.4	3.5	6.5							
All Impacted		55	0.4	3.8	6.5							
All that meet NR Goal		28	5.0	5.7	6.5							



I:\Projects\3600\Graphics\ReportGraphics\Noise\NoiseWallReceivers.cdr

**RESULTS: BARRIER DESCRIPTIONS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5

**RESULTS: BARRIER DESCRIPTIONS**

**PROJECT/CONTRACT:**

3600

**RUN:**

Preferred Alternative: **Wall 3**

**BARRIER DESIGN:**

**INPUT HEIGHTS**

**Barriers**

Name	Type	Heights along Barrier			Length ft	If Wall		If Berm		Cost \$
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft		sq ft	cu yd	ft	ft:ft	
Median Barrier 6	W	3.61	3.61	3.61	1528	5516				0
Median Barrier 5	W	3.61	3.61	3.61	875	3158				0
Median Barrier 3	W	3.61	3.61	3.61	1767	6378				0
Median Barrier 2	W	3.61	3.61	3.61	1724	6223				0
Median Barrier 1	W	3.61	3.61	3.61	738	2663				0
Median Barrier 4	W	3.61	3.61	3.61	4505	16263				0
Springwells to Solvey	W	10.00	10.00	10.00	320	3200				161614
Green to Beard	W	10.00	10.00	10.00	685	6850				345938
Livernois to Junction	W	10.00	10.19	12.00	1488	15161				758584
Junction to Morrell	W	10.00	11.06	12.00	736	8142				391689
Solvey Ped Bridge	W	12.19	12.19	12.19	15	186				8561
Solvey to Green	W	10.00	10.00	10.00	451	4513				227897
Beard Ped Bridge	W	12.00	12.00	12.00	20	243				11251
Beard to Waterman	W	10.00	10.00	10.00	649	6487				327605
Waterman Ped Bridge	W	7.70	7.70	7.70	16	124				7184
Waterman to Livernois	W	10.00	10.00	10.00	450	4504				227432
Morrell Ped Bridge	W	7.70	7.70	7.70	20	157				9099
Morrel to McKinstry	W	10.00	10.00	10.00	855	8548				431680
McKinstry Ped Bridge	W	12.00	12.00	12.00	14	173				8026
McKinstry to Clark	W	10.00	10.00	10.00	609	6095				307774
<b>Total Cost:</b>										<b>3224334</b>

I:\Projects\3600\Noise\TNM\Pref Alt in FEIS I-75\Preferred Alt 137 to 184 height adj

**RESULTS: SOUND LEVELS**

3600

The Corradino Group  
T Stone

6 November 2008  
TNM 2.5  
Calculated with TNM 2.5

**RESULTS: SOUND LEVELS**

PROJECT/CONTRACT:

3600

RUN:

Preferred Alternative: **Wall 3**

BARRIER DESIGN:

INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS:

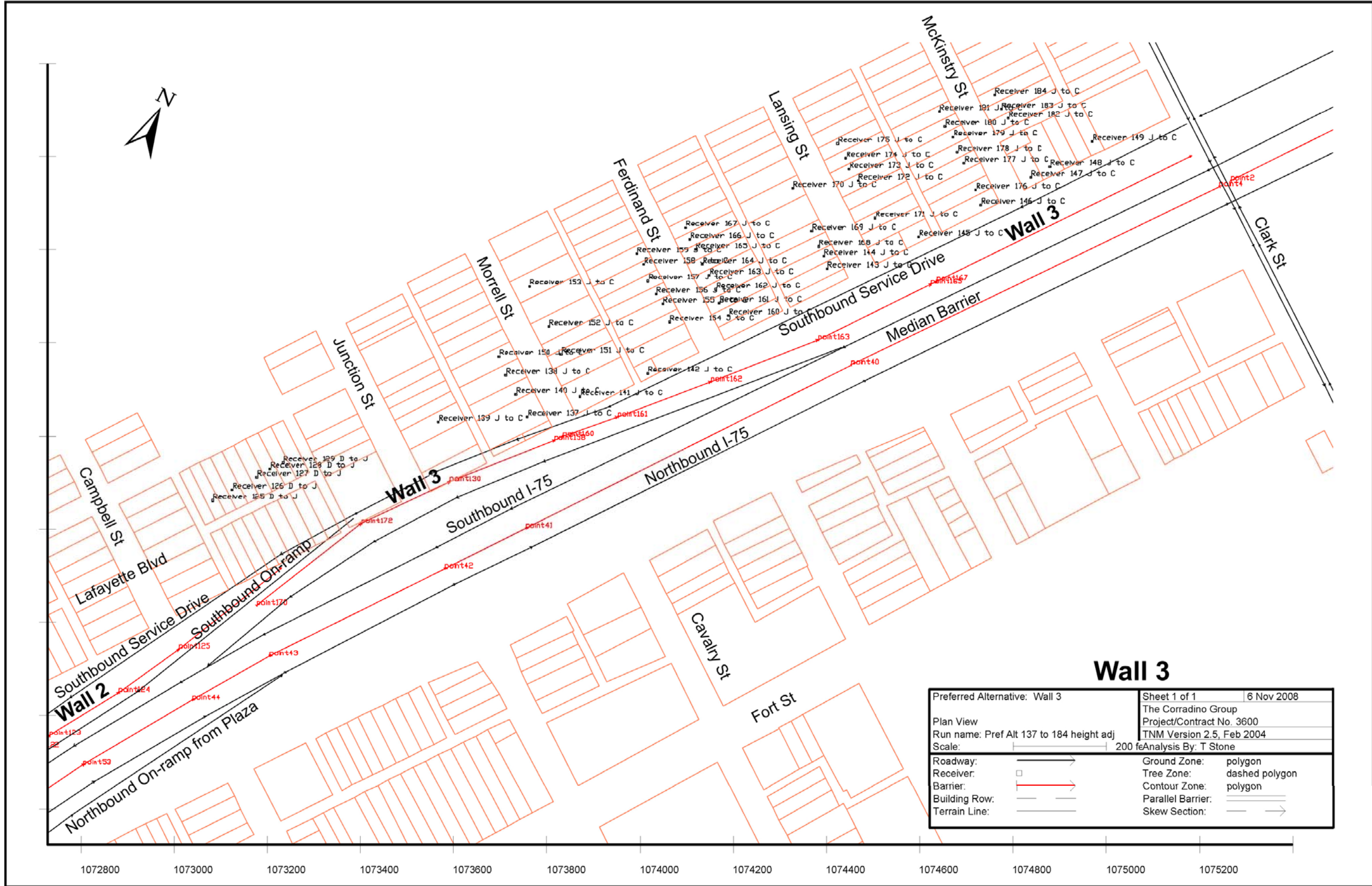
68 deg F, 50% RH

**Receiver**

Name	No.	#DUs	Existing LAeq1h dBA	No Barrier				Type Impact	With Barrier			
				LAeq1h dBA	Crit'n dBA	Increase over existing			Calculated LAeq1h dBA	Noise Reduction		
						Calculated dB	Crit'n dB			Calculated dB	Goal dB	Calculated minus Goal dB
Receiver 137 J to C	233	1	0.0	74.1	66	74.1	10	Snd Lvl	67.6	6.5	5	1.5
Receiver 138 J to C	234	1	0.0	67.7	66	67.7	10	Snd Lvl	63.5	4.2	5	-0.8
Receiver 139 J to C	235	1	0.0	69.2	66	69.2	10	Snd Lvl	64.7	4.5	5	-0.5
Receiver 140 J to C	236	1	0.0	70.0	66	70.0	10	Snd Lvl	65.1	4.9	5	-0.1
Receiver 141 J to C	237	1	0.0	74.7	66	74.7	10	Snd Lvl	67.4	7.3	5	2.3
Receiver 142 J to C	238	1	0.0	75.7	66	75.7	10	Snd Lvl	68.8	6.9	5	1.9
Receiver 143 J to C	239	2	0.0	72.5	66	72.5	10	Snd Lvl	66.0	6.5	5	1.5
Receiver 144 J to C	240	1	0.0	71.1	66	71.1	10	Snd Lvl	64.9	6.2	5	1.2
Receiver 145 J to C	241	1	0.0	73.9	66	73.9	10	Snd Lvl	67.6	6.3	5	1.3
Receiver 146 J to C	242	2	0.0	73.7	66	73.7	10	Snd Lvl	67.4	6.3	5	1.3
Receiver 147 J to C	243	1	0.0	73.0	66	73.0	10	Snd Lvl	67.3	5.7	5	0.7
Receiver 148 J to C	244	1	0.0	72.7	66	72.7	10	Snd Lvl	67.3	5.4	5	0.4
Receiver 149 J to C	245	2	0.0	72.2	66	72.2	10	Snd Lvl	67.7	4.5	5	-0.5
Receiver 150 J to C	246	1	0.0	66.3	66	66.3	10	Snd Lvl	61.9	4.4	5	-0.6
Receiver 151 J to C	247	1	0.0	68.4	66	68.4	10	Snd Lvl	63.6	4.8	5	-0.2
Receiver 152 J to C	248	1	0.0	66.4	66	66.4	10	Snd Lvl	61.5	4.9	5	-0.1
Receiver 153 J to C	249	1	0.0	63.8	66	63.8	10	----	59.2	4.6	5	-0.4
Receiver 154 J to C	250	1	0.0	70.4	66	70.4	10	Snd Lvl	64.4	6.0	5	1.0
Receiver 155 J to C	251	1	0.0	68.7	66	68.7	10	Snd Lvl	63.2	5.5	5	0.5
Receiver 156 J to C	252	1	0.0	67.8	66	67.8	10	Snd Lvl	62.4	5.4	5	0.4
Receiver 157 J to C	253	1	0.0	66.7	66	66.7	10	Snd Lvl	61.3	5.4	5	0.4
Receiver 158 J to C	254	1	0.0	65.6	66	65.6	10	----	60.3	5.3	5	0.3
Receiver 159 J to C	255	1	0.0	64.9	66	64.9	10	----	59.7	5.2	5	0.2

I:\Projects\3600\Noise\TNM\Pref Alt in FEIS I-75\Pref Alt 137 to 184 height adj

Receiver													
Name	No.	#DUs	Existing LAeq1h	No Barrier					With Barrier				
				LAeq1h		Increase over existing		Type Impact	Calculated LAeq1h	Noise Reduction		Calculated minus Goal	
				Calculated	Crit'n	Calculated	Crit'n			Sub'l Inc	Calculated		Goal
				dBA	dBA	dBA	dB	dB	dBA	dB	dB	dB	
Receiver 160 J to C	256	1	0.0	72.4	66	72.4	10	Snd Lvl	66.1	6.3	5	1.3	
Receiver 161 J to C	257	1	0.0	70.8	66	70.8	10	Snd Lvl	64.7	6.1	5	1.1	
Receiver 162 J to C	258	1	0.0	69.5	66	69.5	10	Snd Lvl	63.7	5.8	5	0.8	
Receiver 163 J to C	259	1	0.0	68.3	66	68.3	10	Snd Lvl	62.7	5.6	5	0.6	
Receiver 164 J to C	260	1	0.0	67.3	66	67.3	10	Snd Lvl	61.8	5.5	5	0.5	
Receiver 165 J to C	261	1	0.0	66.2	66	66.2	10	Snd Lvl	60.8	5.4	5	0.4	
Receiver 166 J to C	262	1	0.0	65.5	66	65.5	10	----	60.1	5.4	5	0.4	
Receiver 167 J to C	263	1	0.0	64.8	66	64.8	10	----	59.5	5.3	5	0.3	
Receiver 168 J to C	264	1	0.0	70.0	66	70.0	10	Snd Lvl	64.1	5.9	5	0.9	
Receiver 169 J to C	265	1	0.0	68.6	66	68.6	10	Snd Lvl	62.9	5.7	5	0.7	
Receiver 170 J to C	266	1	0.0	65.5	66	65.5	10	----	60.2	5.3	5	0.3	
Receiver 171 J to C	267	1	0.0	69.7	66	69.7	10	Snd Lvl	64.0	5.7	5	0.7	
Receiver 172 J to C	268	1	0.0	66.6	66	66.6	10	Snd Lvl	61.1	5.5	5	0.5	
Receiver 173 J to C	269	1	0.0	65.8	66	65.8	10	----	60.5	5.3	5	0.3	
Receiver 174 J to C	270	1	0.0	65.2	66	65.2	10	----	60.0	5.2	5	0.2	
Receiver 175 J to C	271	1	0.0	64.4	66	64.4	10	----	59.3	5.1	5	0.1	
Receiver 176 J to C	272	1	0.0	71.7	66	71.7	10	Snd Lvl	65.4	6.3	5	1.3	
Receiver 177 J to C	273	1	0.0	68.7	66	68.7	10	Snd Lvl	63.3	5.4	5	0.4	
Receiver 178 J to C	274	1	0.0	67.5	66	67.5	10	Snd Lvl	62.3	5.2	5	0.2	
Receiver 179 J to C	275	1	0.0	66.5	66	66.5	10	Snd Lvl	61.8	4.7	5	-0.3	
Receiver 180 J to C	276	1	0.0	65.5	66	65.5	10	----	60.8	4.7	5	-0.3	
Receiver 181 J to C	277	1	0.0	64.5	66	64.5	10	----	60.1	4.4	5	-0.6	
Receiver 182 J to C	278	1	0.0	66.7	66	66.7	10	Snd Lvl	62.1	4.6	5	-0.4	
Receiver 183 J to C	279	1	0.0	65.9	66	65.9	10	----	61.6	4.3	5	-0.7	
Receiver 184 J to C	280	1	0.0	64.8	66	64.8	10	----	60.8	4.0	5	-1.0	
Receiver 125 D to J	291	1	0.0	65.0	66	65.0	10	----	60.7	4.3	5	-0.7	
Receiver 126 D to J	292	2	0.0	65.2	66	65.2	10	----	60.9	4.3	5	-0.7	
Receiver 127 D to J	293	1	0.0	65.4	66	65.4	10	----	61.3	4.1	5	-0.9	
Receiver 128 D to J	294	1	0.0	65.5	66	65.5	10	----	61.3	4.2	5	-0.8	
Receiver 129 D to J	295	1	0.0	65.7	66	65.7	10	----	61.5	4.2	5	-0.8	
<b>Dwelling Units</b>		# DUs	Noise Reduction										
			Min	Avg	Max								
			dB	dB	dB								
All Selected		57	4.0	5.3	7.3								
All Impacted		38	4.2	5.6	7.3								
All that meet NR Goal		36	5.1	5.8	7.3								



### Wall 3

Preferred Alternative: Wall 3		Sheet 1 of 1	6 Nov 2008
Plan View		The Corradino Group	
Run name: Pref Alt 137 to 184 height adj		Project/Contract No. 3600	
Scale: 200 feet		TNM Version 2.5, Feb 2004	
Analysis By: T Stone			
Roadway:	→	Ground Zone:	polygon
Receiver:	□	Tree Zone:	dashed polygon
Barrier:	—→	Contour Zone:	polygon
Building Row:	—	Parallel Barrier:	—→
Terrain Line:	—	Skew Section:	—→

I:\Projects\3600\Graphics\Report\Graphics\Noise\NoiseWallReceivers.cdr