

# An Employee-Owned Company

October 30, 2017

Ms. Rebecca Malone, AICP Senior Planner, Environmental and Policy Analysis City of San Diego Planning Department 1010 Second Ave, Suite 1200, MS 413 San Diego, CA 92101

Reference: Supplemental Noise Analysis for the Proposed Uptown Community Plan Amendments (RECON Number 6086.4)

Dear Ms. Malone:

This letter provides a supplemental analysis to the Final Program Environmental Impact Report (PEIR) for the Uptown Community Plan Update (City of San Diego 2016a) and the Memorandum: Environmental Analysis of Uptown Community Plan Update with the Planning Commission Modification (City of San Diego 2016b). On November 14, 2016, the City of San Diego (City) adopted the Uptown Community Plan Update (adopted CPU). Since adoption, amendments have been proposed to increase the residential density designations of several parcels. This letter describes the results of the updated noise impact assessment associated with the proposed amendments.

The proposed amendments would result in a change in future vehicle traffic volumes on roadways in the adopted CPU area. This supplemental noise analysis provides calculations of the updated year 2035 vehicle traffic noise levels associated with the proposed amendments. This analysis also provides a qualitative discussion of land use compatibility, construction noise, stationary noise, and vibration, as these impacts would be the same as those analyzed in the previous Noise Technical Report (RECON 2016).

### 1.0 PROPOSED AMENDMENTS

The proposed amendments include:

- St. Paul's Redesignating 2.1 acres located along both sides of Third Avenue, between Maple Street and Nutmeg Street, from Residential High 45–73 dwelling units per acre to 109 dwelling units per acre and 0.69 acre located along the west side of Fourth Avenue between Maple Street and Nutmeg Street from Office Commercial 0–73 dwelling units per acre to Office Commercial 0–109 dwelling units per acre;
- Park and University Redesignating 1.1 acres located at the northwest corner of University Avenue and Park Boulevard from Community Commercial 0–73 dwelling units per acre to Community Commercial 0–109 dwelling units per acre; and
- Applying a Community Plan Implementation Overlay Zone (CPIOZ) Type B requiring a Process 3 Site Development Permit for development that exceeds a maximum building height of 30 feet within areas in the RM-2-5 zone of the University Heights neighborhood located west of Park Boulevard, east of Maryland Streets, south of Mission Cliffs Drive, and north of Tyler Avenue within the Uptown Community.

### 2.0 ANALYSIS METHODOLOGY AND TRAFFIC PARAMETERS

Traffic noise occurs adjacent to every roadway and is directly related to the traffic volume, speed, and mix of vehicles. Existing and future traffic volumes and speeds for the roadways were obtained from the Noise Technical Report (RECON 2016), the Uptown Supplemental Traffic Evaluation – St. Paul's (Kimley Horn 2017a), and the Uptown Supplemental Traffic Evaluation – Park and University (Kimley Horn 2017b).

Table 1 summarizes the vehicle traffic parameters used in this analysis for each roadway segment.

		Table 1				
	,	Vehicle Traffic Param	eters			
			Existing	Adopted CPU Future	Proposed Amendments	Speed
Roadway	From	То	ADT	ADT	Future ADT	(mph)
	University Avenue	Robinson Avenue	10,100	17,000	17,015	30
	Robinson Avenue	Pennsylvania Avenue	7,500	12,000	12,015	30
	Pennsylvania Avenue	Walnut Avenue	7,261	13,300	13,315	30
First Avenue	Walnut Avenue	Laurel Street	4,695	12,000	12,058	30
	Laurel Street	Juniper Street	7,290	9,000	9,029	30
	Juniper Street	Grape Street	7,330	7,000	7,029	30
	Grape Street	Elm Street	3,285	3,100	3,107	30
	University Avenue	Robinson Avenue	11,800	13,200	13,276	30
	Robinson Avenue	Walnut Avenue	6,946	11,600	11,676	30
Fourth Avenue	Walnut Avenue	Laurel Street	8,492	15,000	15,076	30
	Laurel Street	Grape Street	7,790	13,500	13,707	30
	Grape Street	Elm Street	7,570	12,800	12,884	30
	University Avenue	Robinson Avenue	10,300	14,300	14,376	30
	Robinson Avenue	Walnut Avenue	12,209	15,800	15,876	30
Fifth Avenue	Walnut Avenue	Laurel Street	11,400	14,900	14,976	30
1 11011 117 01140	Laurel Street	Hawthorn Street	9,260	14,300	14,507	30
	Hawthorn Street	Grape Street	10,045	14,400	14,607	30
	Grape Street	Elm Street	9,220	8,900	8,969	30
	Washington Street	University Avenue	16,877	50,500	50,835	30
	University Avenue	Robinson Avenue	24,900	33,100	33,267	30
g: .1 A	Robinson Avenue	Upas Street	15,000	30,500	30,667	30
Sixth Avenue	Upas Street	Laurel Street	15,128	26,000	26,138	30
	Laurel Street	Juniper Street	10,140	16,900	16,900	30
	Juniper Street	Grape Street	10,915	19,100	19,100	30
C1 1 1 4	Grape Street	Elm Street	10,650	23,000	23,000	30
Cleveland Avenue	Lincoln Street	Richmond Street	7,775	9,400	9,188	25
Grape Street	First Avenue	Third Avenue	4,289	5,900	5,907	25
*	Third Avenue	Sixth Avenue	2,097	9,000	9,015	25
II. dhaa Chaa	Brant Street	First Avenue	11,558	15,900	16,067	30
Hawthorn Street	First Avenue	Third Avenue	3,634	7,300	7,453	30
	Third Avenue	Sixth Avenue	3,577	7,000	7,138	
Laurel Street	First Avenue Third Avenue	Third Avenue Sixth Avenue	11,326	18,400	18,400 20,344	$\frac{25}{25}$
Lincoln Avenue		Park Boulevard	11,516	20,300 10,700		$\frac{25}{25}$
Lincom Avenue	Washington Street	Washington Street	8,155 22,296		10,488	30
Normal Street	Park Boulevard Washington Street	University Avenue	,	28,900	28,868 4,688	
	El Cajon Boulevard	Polk Avenue	4,974 11,524	4,900 18,700	18,668	30
	Polk Avenue		13,936	22,300	22,268	35
Park Boulevard	University Avenue	University Avenue		19,600		35
rark boulevard	Robinson Avenue	Robinson Avenue Upas Street	14,400		19,558	35
	Upas Street	Zoo Place	12,501	17,100	17,058	35
Richmond Street	*	University Avenue	13,807	17,600	17,558	
raciimona Street	Cleveland Avenue	Oniversity Avenue	7,085	9,000	8,894	25

		Table 1										
		Vehicle Traffic Parar	neters									
				Adopted	Proposed	~ ,						
			Existing	CPU Future	Amendments	Speed						
Roadway	From	То	ADT	ADT	Future ADT	(mph)						
	First Avenue	Fourth Avenue	20,250	13,900	13,915	25						
Fourth Avenue         Fifth Avenue         20,250         20,100         20,191         25												
University	Fifth Avenue	Sixth Avenue	21,184	26,100	26,267	25						
Avenue	Sixth Avenue	Eighth Avenue	24,400	29,400	29,400	25						
	Vermont Street	Richmond Street	23,938	25,400	25,379	25						
	Richmond Street	Park Boulevard	16,275	21,400	21,379	25						
	India Street	University Avenue	27,929	36,700	36,689	45						
	University Avenue	First Avenue	20,477	26,700	26,689	35						
Washington	First Avenue	Fourth Avenue	32,515	25,000	24,989	35						
Washington	Fourth Avenue	Fifth Avenue	30,900	38,100	38,089	35						
Street	Fifth Avenue	Sixth Avenue	38,428	42,200	42,189	35						
	Sixth Avenue	Richmond Street	41,778	39,400	39,294	35						
	Richmond Street	Normal Street	38,725	50,200	50,094	35						
ADT = average da	ily traffic; CPU = Commu	unity Plan Update: mph :	= miles per h	our								

ADT = average daily traffic; CPU = Community Plan Update; mph = miles per hour

Source: RECON 2015, Kimley Horn 2017a, 2017b

The Federal Highway Administration (FHWA) Traffic Noise Model algorithms were used to calculate distances to noise contours for each roadway. The FHWA model takes into account traffic mix, speed, and volume; roadway gradient; relative distances between sources, barriers, and sensitive receptors; and shielding provided by intervening terrain or structures.

The analysis of the noise environment considered that the topography was flat with no intervening terrain between sensitive land uses and roadways. Because there are no obstructions, predicted noise levels are higher than would actually occur. In actuality, buildings and other obstructions along the roadways would shield distant receivers from the traffic noise. Thus, the analysis is conservative.

### 3.0 IMPACT ANALYSIS

### 3.1 Increase in Ambient Noise

Table 2 summarizes the existing noise levels, future (year 2035) noise levels under the adopted CPU, future (year 2035) noise levels under the proposed amendments, and the incremental increases over existing noise levels. Calculations are contained in Attachment 1. Impacts are identified based on the thresholds discussed in the PEIR prepared for the approved CPU. The analysis uses a conservative noise compatibility level of 65 dB(A) CNEL, which is the compatibility criteria for single-family residential land uses. It should be noted that there are very few existing single-family residences within the transportation corridors assessed and the proposed land use plan amendments would not designate any of these areas for single-family residential use. Actual existing and future land uses would generally be compatible with noise levels up to 70 dB(A) CNEL; however, the 65 dB(A) CNEL level is uses to account for the potential for a few scattered single family residences to be located within the project areas.

		Table 2					
	Increases in A	Amendment Noise witl	n Proposed	Amendm	ents		
		(CNEL)				D	1
				Adont	ed CPU		posed idments
			Existing	Future	Increase	Future	Increase
			Noise	Noise	Over	Noise	Over
Roadway	From	To	Level	Level	Existing	Level	Existing
Hoadway	University Avenue	Robinson Avenue	65.0	67.2	2.2	67.3	2.3
	Robinson Avenue	Pennsylvania Avenue	63.7	65.7	2.0	65.7	2.0
	Pennsylvania Avenue	Walnut Avenue	63.6	66.2	2.6	66.2	2.6
First Avenue	Walnut Avenue	Laurel Street	61.7	65.7	4.0	65.8	4.1
111001111011110	Laurel Street	Juniper Street	63.6	64.5	0.9	64.5	0.9
	Juniper Street	Grape Street	63.6	63.4	-0.2	63.4	-0.2
	Grape Street	Elm Street	60.1	59.9	-0.2	59.9	-0.2
	University Avenue	Robinson Avenue	65.7	66.2	0.5	66.2	0.5
	Robinson Avenue	Walnut Avenue	63.4	65.6	2.2	65.6	2.2
Fourth Avenue	Walnut Avenue	Laurel Street	64.2	66.7	2.5	66.7	2.5
	Laurel Street	Grape Street	63.9	66.2	2.3	66.3	2.4
	Grape Street	Elm Street	63.7	66.0	2.3	66.0	2.3
	University Avenue	Robinson Avenue	65.1	66.5	1.4	66.5	1.4
	Robinson Avenue	Walnut Avenue	65.8	66.9	1.1	67.0	1.2
7101	Walnut Avenue	Laurel Street	65.5	66.7	1.2	66.7	1.2
Fifth Avenue	Laurel Street	Hawthorn Street	64.6	66.5	1.9	66.6	2.0
	Hawthorn Street	Grape Street	65.0	66.5	1.5	66.6	1.6
	Grape Street	Elm Street	64.6	64.4	-0.2	64.5	-0.1
	Washington Street	University Avenue	67.2	72.0	4.8	72.0	4.8
	University Avenue	Robinson Avenue	68.9	70.1	1.2	70.2	1.3
	Robinson Avenue	Upas Street	66.7	69.8	3.1	69.8	3.1
Sixth Avenue	Upas Street	Laurel Street	66.7	69.1	2.4	69.1	2.4
	Laurel Street	Juniper Street	65.0	67.2	2.2	67.2	2.2
	Juniper Street	Grape Street	65.3	67.8	2.5	67.8	2.5
	Grape Street	Elm Street	65.2	68.6	3.4	68.6	3.4
Cleveland Avenue	Lincoln Street	Richmond Street	62.3	63.1	0.8	63.0	0.7
G G, ,	First Avenue	Third Avenue	59.7	61.1	1.4	61.1	1.4
Grape Street	Third Avenue	Sixth Avenue	56.6	62.9	6.3	62.9	6.3
TT 41	Brant Street	First Avenue	65.6	67.0	1.4	67.0	1.4
Hawthorn Street	First Avenue	Third Avenue	60.5	63.6	3.1	63.7	3.2
Street	Third Avenue	Sixth Avenue	60.5	63.4	2.9	63.5	3.0
Laurel Street	First Avenue	Third Avenue	63.9	66.0	2.1	66.0	2.1
Laurei Street	Third Avenue	Sixth Avenue	64.0	66.5	2.5	66.5	2.5
Lincoln Avenue	Washington Street	Park Boulevard	62.5	63.7	1.2	63.6	1.1
Normal Street	Park Boulevard	Washington Street	68.4	69.6	1.2	69.5	1.1
Normai Street	Washington Street	University Avenue	61.9	61.8	-0.1	61.7	-0.2
	El Cajon Boulevard	Polk Avenue	65.6	67.7	2.1	67.7	2.1
	Polk Avenue	University Avenue	67.4	69.5	2.1	69.5	2.1
Park Boulevard	University Avenue	Robinson Avenue	67.6	68.9	1.3	68.9	1.3
	Robinson Avenue	Upas Street	67.0	68.3	1.3	68.3	1.3
	Upas Street	Zoo Place	67.4	68.5	1.1	68.4	1.0
Richmond Street	Cleveland Avenue	University Avenue	61.9	62.9	1.0	62.9	1.0
	First Avenue	Fourth Avenue	66.5	64.8	-1.7	64.8	-1.7
	Fourth Avenue	Fifth Avenue	66.5	66.4	-0.1	66.4	-0.1
University	Fifth Avenue	Sixth Avenue	66.7	67.6	0.9	67.6	0.9
Avenue	Sixth Avenue	Eighth Avenue	67.3	68.1	0.8	68.1	0.8
	Vermont Street	Richmond Street	67.2	67.4	0.2	67.4	0.2
	Richmond Street	Park Boulevard	65.5	66.7	1.2	66.7	1.2

	Increases in A	Table 2 Amendment Noise with (CNEL)	h Proposed	Amendm	ents		
							posed
				Adopte	ed CPU	Amen	dments
			Existing	Future	Increase	Future	Increase
			Noise	Noise	Over	Noise	Over
Roadway	From	То	Level	Level	Existing	Level	Existing
	India Street	University Avenue	73.0	74.2	1.2	74.2	1.2
	University Avenue	First Avenue	69.1	70.3	1.2	70.3	1.2
Washington	First Avenue	Fourth Avenue	71.1	70.0	-1.1	70.0	-1.1
Street	Fourth Avenue	Fifth Avenue	70.9	71.8	0.9	71.8	0.9
Street	Fifth Avenue	Sixth Avenue	71.8	72.3	0.5	72.3	0.5
	Sixth Avenue	Richmond Street	72.2	72.0	-0.2	71.9	-0.3
	Richmond Street	Normal Street	71.9	73.0	1.1	73.0	1.1

**Bold** = 2035 noise level would exceed the established exterior compatibility level for the surrounding land use and noise levels would increase by 3 dB or more or future noise levels would be below 65 dB(A) CNEL but ambient noise levels would increase by more than 5 dB(A) over existing ambient noise levels

As shown, noise impacts are identified along four roadway segments along Sixth Avenue and Grape Street with buildout of the adopted CPU. There are single-family and multi-family residences located adjacent to the segments of Sixth Avenue between Robinson Avenue and Upas Street and Grape Street between Third Avenue and Sixth Avenue, and there are multi-family residential uses located adjacent to the segments of Sixth Avenue between Washington Street and University Avenue and between Grape Street and Elm Street. However, the increases in noise adjacent to these four segments are the same under the proposed amendments as they are under the adopted CPU. The incremental increase in ambient noise at buildout of the proposed amendments is not considered a new impact, as this impact was already identified in the PEIR. Similar to the adopted CPU, impacts to noise sensitive land uses due to increases in ambient noise levels from both discretionary and ministerial projects (PEIR Impact 6.6-1 and 6.6-2) would be significant and unavoidable after mitigation.

The proposed amendments would not result in a significant impact to future noise sensitive land uses because there are no planned single-family residential land uses along these segments and the future noise levels would not trigger a significant increase in ambient noise in relation to the 70 dB(A) CNEL General Plan Noise Compatibility level for multi-family residential land uses.

### 3.2 Land Use Compatibility

Under the proposed amendments, roadway noise would generally increase slightly due to greater traffic volumes when compared to the adopted CPU. As a result, the vehicle traffic noise contour distances would increase slightly in some areas. In order to compare the vehicular noise impacts of build-out of the proposed amendments, updated modeling was completed using the traffic parameters shown in Table 1 to identify the vehicle traffic contour distances from area roadways with the proposed amendments.

The future vehicle traffic contour distances for the adopted CPU and the proposed amendment are shown in Table 3. As shown, when compared to the future vehicle traffic contour distances associated with build-out of the adopted CPU, the proposed amendments would very slightly increase the width of the identified contours. Graphically, the slight change in contour distances is not readily visible. The contours are shown in Figure 1.

Map Source: SanGIS MISSION VALLEY OLD TOWN SAN DIEGO NORTH PARK MIDWAY-PACIFIC HIGHWAY LEGEND Planning Commission Alternative Residential - Low: 5-9 Du/Ac Residential - Low Medium : 10-15 Du/Ac BALBOA PARK Residential - Medium : 16-29 Du/Ac Residential - Medium High: 30-44 Du/Ac Residential - High: 45-73 Du/Ac Residential - Very High: 74-109 Du/Ac Community Commercial: 0-29 Du/Ac Community Commercial: 0-44 Du/Ac Community Commercial: 0-73 Du/Ac Community Commercial: 0-109 Du/Ac Neighborhood Commercial: 0-15 Du/Ac Neighborhood Commercial: 0-29 Du/Ac Neighborhood Commercial: 0-44 Du/Ac Neighborhood Commercial: 0-73 Du/Ac Office Commercial: 0-29 Du/Ac Office Commercial: 0-44 Du/Ac Office Commercial: 0-73 Du/Ac DOWNTOWN Office Commercial: 0-109 Du/Ac Open Space GOLDEN Park HILL Institutional Future Noise Contours (CNEL) Community Plan Boundary Feet 1,600

FIGURE 1
Future (2035) Traffic Noise
Contours for Proposed Amendments

		Table 3								
	Future V	ehicle Traffic Noise Co	ntou	r Dist	ances					
				Adop	ted CP	U	Pro	posed	Amend	lments
			Ι	Distanc	e to CN	IEL	Ι		e to Cl	NEL
				(1	feet)			(	feet)	
Roadway	From	То	75	70	65	60	75	70	65	60
	University Avenue	Robinson Avenue	-	26	83	262	-	27	85	269
	Robinson Avenue	Pennsylvania Avenue	-	19	59	186	-	19	59	186
	Pennsylvania Avenue	Walnut Avenue	-	21	66	208	-	21	66	208
First Avenue	Walnut Avenue	Laurel Street	-	19	59	186	-	19	60	190
	Laurel Street	Juniper Street	-	14	45	141	4	14	45	141
	Juniper Street	Grape Street	-	-	35	109	-	-	35	109
	Grape Street	Elm Street	-	-	15	49	-	-	15	49
	University Avenue	Robinson Avenue	-	21	66	208	-	21	66	208
	Robinson Avenue	Walnut Avenue	-	18	57	182	-	18	57	182
Fourth Avenue	Walnut Avenue	Laurel Street	-	23	74	234	-	23	74	234
	Laurel Street	Grape Street	-	21	66	208	-	21	67	213
	Grape Street	Elm Street	-	20	63	199	-	20	63	199
	University Avenue	Robinson Avenue	-	22	71	223	-	22	71	223
	Robinson Avenue	Walnut Avenue	-	24	77	245	-	25	79	251
Fifth Avenue	Walnut Avenue	Laurel Street	-	23	74	234	-	23	74	234
Thui Avenue	Laurel Street	Hawthorn Street	-	22	71	223	-	23	72	229
	Hawthorn Street	Grape Street	-	22	71	223	-	23	72	229
	Grape Street	Elm Street	-	14	44	138	-	14	45	141
	Washington Street	University Avenue	25	79	251	792	25	79	251	792
	University Avenue	Robinson Avenue	16	51	162	512	17	52	166	524
	Robinson Avenue	Upas Street	15	48	151	477	15	48	151	477
Sixth Avenue	Upas Street	Laurel Street	13	41	129	406	13	41	129	406
	Laurel Street	Juniper Street	-	26	83	262	8	26	83	262
	Juniper Street	Grape Street	-	30	95	301	-	30	95	301
	Grape Street	Elm Street	-	36	115	362	-	36	115	362
Cleveland Avenue	Lincoln Street	Richmond Street	-	-	32	102	-	-	32	100
Grape Street	First Avenue	Third Avenue	-	-	20	64	-	-	20	64
Grape Street	Third Avenue	Sixth Avenue	-	-	31	97	-	-	31	97
	Brant Street	First Avenue	-	25	79	251	-	25	79	251
<b>Hawthorn Street</b>	First Avenue	Third Avenue	-	-	36	115	-	12	37	117
	Third Avenue	Sixth Avenue	-	-	35	109	-	-	35	112
Laurel Street	First Avenue	Third Avenue	-	20	63	199	-	20	63	199
Laurei Street	Third Avenue	Sixth Avenue	-	22	71	223	-	22	71	223
Lincoln Avenue	Washington Street	Park Boulevard	-	12	37	117	-	-	36	115
Normal Street	Park Boulevard	Washington Street	14	46	144	456	14	45	141	446
Normai Street	Washington Street	University Avenue	-	-	24	76	-	-	23	74
	El Cajon Boulevard	Polk Avenue	-	29	93	294	-	29	93	294
	Polk Avenue	University Avenue	14	45	141	446	14	45	141	446
Park Boulevard	University Avenue	Robinson Avenue	12	39	123	388	12	39	123	388
	Robinson Avenue	Upas Street	-	34	107	338	-	34	107	338
	Upas Street	Zoo Place	-	35	112	354	-	35	109	346
Richmond Street	Cleveland Avenue	University Avenue	-	-	31	97	-	-	31	97
	First Avenue	Fourth Avenue	-	15	48	151	-	15	48	151
	Fourth Avenue	Fifth Avenue	-	22	69	218	-	22	69	218
IImirromoit A	Fifth Avenue	Sixth Avenue	-	29	91	288	-	29	91	288
University Avenue	Sixth Avenue	Eighth Avenue	-	32	102	323	-	32	102	323
	Vermont Street	Richmond Street	-	27	87	275	-	27	87	275
	Richmond Street	Park Boulevard	-	23	74	234	-	23	74	234

	Future V	Table 3 ehicle Traffic Noise Co	ntou	r Dist	ances							
				Adopt	ted CP	U	Pro	posed.	Amend	lments		
			Ι	istanc	e to Cl	NEL	Ι	Distanc	e to Cl	NEL		
	(feet) (feet)											
Roadway	From	То	75	70	65	60	75	70	65	60		
	India Street	University Avenue	42	132	416	1,315	42	132	416	1,315		
	University Avenue	First Avenue	17	54	169	536	17	54	169	536		
Washington	First Avenue	Fourth Avenue	16	50	158	500	16	50	158	500		
Washington Street	Fourth Avenue	Fifth Avenue	24	76	239	757	24	76	239	757		
Street	Fifth Avenue	Sixth Avenue	27	85	269	849	27	85	269	849		
	Sixth Avenue Richmond Street						24	77	245	774		
Richmond Street         Normal Street         32         100         315         998         32         100         315         998										998		

Note: Distances less than 12 feet are not reported in this table because the noise contour would be within the right-of-way.

Similar to the adopted CPU, under the proposed amendments, a significant impact for ministerial projects exposed to vehicular traffic noise levels in excess of the compatibility levels established in the General Plan Noise Element would occur (PEIR Impact 6.6-3) and no feasible mitigation has been identified to reduce the impact to less than significant.

The PEIR also addresses noise compatibility with railway noise in the Uptown area. Noise associated with trolley, Amtrak, Coaster, and freight train operations was modeled, and the PEIR determined that noise level impacts resulting from trolley and train operations would be less than significant. The proposed amendments would not affect railway operations, and impacts would be the same as those identified in the PEIR.

### 3.3 ALUCP Consistency

The San Diego International Airport is located west of the Uptown area. As with the adopted CPU, the proposed amendments would not result in land use compatibility impacts related to airports. Because future development is required to provide noise attenuation consistent with the Noise Element of the General Plan and the Airport Land Use Compatibility Plan for the San Diego International Airport and follow procedures in the Municipal Code, implementation of the proposed amendments would result in a less than significant exposure to noise from aircraft.

### 3.4 Municipal Code - Stationary Noise

A significant impact would occur if implementation of the proposed amendments results in the exposure of people to noise levels that exceed property line limits established in the Noise Abatement and Control Ordinance of the Municipal Code. Policies are in place to control noise and reduce noise impacts between various land uses. Noise policies, as contained in the General Plan Noise Element, the adopted CPU, and regulations in the Noise Ordinance are in place to control noise and reduce noise impacts between various land uses. These include the requirement for noise studies, limits on hours of operation for various noise-generating activities, and standards for the compatibility of various land uses with the existing and future noise environment. In addition, enforcement of the federal, state, and local noise regulations would control impacts. As concluded in the PEIR, given implementation of these policies and enforcement of the Noise Abatement and Control Ordinance of the Municipal Code, impacts would be less than significant.

### 3.5 Municipal Code - Construction Noise

A significant impact would occur if implementation of the proposed amendments resulted in the exposure of people to significant temporary construction noise. As with the adopted CPU, future development as allowed under the proposed amendments could potentially result in temporary ambient noise increase due to

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construction activities. As identified in the PEIR, significant impacts would occur if sensitive land uses are located closer than 110 feet of construction activities (PEIR Impact 6.6-4). The same mitigation measure identified in Section 6.6.6 of the PEIR as mitigation measure NOISE 6.6-1 would be applied under the proposed amendments. Future construction projects would be required to incorporate the standard controls outlined in NOISE 6.6-1, which would reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance. With the implementation of these controls, and the limited duration of the noise-generating construction period, the substantial temporary increase in ambient noise levels would be less than significant.

### 3.6 Vibration

Based on Caltrans recommended standards, a significant vibration impact would occur where residences would be exposed to an exceedance of 0.2 inch per second peak particle velocity. Impacts associated with vibration would be the same as those identified in the PEIR for the adopted CPU. By use of administrative controls, such as scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect nearby properties, perceptible vibration can be kept to a minimum and as such would result in a less than significant impact with respect to perception. However, as with the adopted CPU, pile driving within 95 feet of existing structures has the potential to exceed 0.20 inch per second, and would be potentially significant (PEIR Impact 6.6-5). The same mitigation measure identified in Section 6.6.6 of the PEIR as mitigation measure NOISE 6.6-2 would be applied under the proposed amendments. However, at the program-level it cannot be known whether the measures would be adequate to minimize vibration levels to less than significant. Thus, as with the adopted CPU, even with implementation of mitigation measure NOISE 6.6-2, construction related vibration impacts would be significant and unavoidable.

### 4.0 CONCLUSIONS

Noise impacts associated with the proposed amendments would be the same as those identified for the adopted CPU. As calculated in this analysis, impacts related to an increase in ambient noise levels are identified at four roadway segments. However, the increases in noise adjacent to these four segments are the same under the proposed amendments as they are under the adopted CPU. The incremental increase in ambient noise at buildout of the proposed amendments is not considered a new impact, as this impact was already identified in the PEIR. Similar to the adopted CPU, impacts to noise sensitive land uses due to increases in ambient noise levels from both discretionary and ministerial projects would be significant and unavoidable after mitigation. Additionally, similar to the adopted CPU, under the proposed amendments, a significant impact for ministerial projects exposed to vehicular traffic noise levels in excess of the compatibility levels established in the General Plan Noise Element would occur and no feasible mitigation has been identified to reduce the impact to less than significant.

All other impacts associated with Airport Land Use Compatibility Plan compatibility, operational noise, construction noise, and vibration would be the same as those identified in the PEIR for the adopted CPU.

If you have any questions about the results of this analysis, please contact me at ifleming@reconenvironmental.com or (619) 308-9333 x177.

Sincerely, Jessich Herning

Jessica Fleming

**Environmental Analyst** 

JLF:jg

Attachment

Ms. Rebecca Malone Page 10 October 30, 2017

### REFERENCES CITED

### Kimley Horn

- 2017a Memorandum: Uptown Supplemental Traffic Evaluation St. Paul's. From Mychal Loomis, To Marlon Pangilinan and George Ghossain, City of San Diego. April 11, 2017.
- 2017b Memorandum: Uptown Supplemental Traffic Evaluation Park and University. From Mychal Loomis, To Marlon Pangilinan and George Ghossain, City of San Diego. April 11, 2017.

### RECON Environmental, Inc.

2016 Noise Analysis for the Uptown, North Park, and Golden Hill Community Plan Updates. Prepared for City of San Diego. RECON Number 6086. Project No. 30330/304032, SCH No. 2004651076. May 24, 2016.

### San Diego, City of

- 2016a Final Program Environmental Impact Report for the Uptown Community Plan Update. Project No. 380611, SCH No. 2016161023. September 2016.
- 2016b Memorandum: Environmental Analysis of Uptown Community Plan Update with the Planning Commission Modification. To Jeff Murphy, Planning Director, From Alyssa Muto, Deputy Director of Environment and Policy Analysis. November 10, 2016.
- 2016c California Environmental Quality Act Significance Determination Thresholds, July.

# **ATTACHMENT 1** FHWA RD-77-108 – Vehicle Traffic Noise Calculations

Segment	Roadway	From	То	Existing	2035 Adopted CPU	2035 Amendments	Adopted CPU - Existing	Amendments - Existing	Amendments - Adopted CPU
1	First Avenue	University Avenue	Robinson Avenue	65.0	67.2	67.3	2.2	2.3	0.1
2	First Avenue	Robinson Avenue	Pennsylvania Avenue	63.7	65.7	65.7	2.0	2.0	0.0
3	First Avenue	Pennsylvania Avenue	Walnut Avenue	63.6	66.2	66.2	2.6	2.6	0.0
4	First Avenue	Walnut Avenue	Laurel Street	61.7	65.7	65.8	4.0	4.1	0.1
5	First Avenue	Laurel Street	Juniper Street	63.6	64.5	64.5	0.9	0.9	0.0
6	First Avenue	Juniper Street	Grape Street	63.6	63.4	63.4	-0.2	-0.2	0.0
7	First Avenue	Grape Street	Elm Street	60.1	59.9	59.9	-0.2	-0.2	0.0
8	Fourth Avenue	University Avenue	Robinson Avenue	65.7	66.2	66.2	0.5	0.5	0.0
9	Fourth Avenue	Robinson Avenue	Walnut Avenue	63.4	65.6	65.6	2.2	2.2	0.0
10	Fourth Avenue	Walnut Avenue	Laurel Street	64.2	66.7	66.7	2.5	2.5	0.0
11	Fourth Avenue	Laurel Street	Grape Street	63.9	66.2	66.3	2.3	2.4	0.1
12	Fourth Avenue	Grape Street	Elm Street	63.7	66.0	66.0	2.3	2.3	0.0
13	Fifth Avenue	University Avenue	Robinson Avenue	65.1	66.5	66.5	1.4	1.4	0.0
14	Fifth Avenue	Robinson Avenue	Walnut Avenue	65.8	66.9	67.0	1.1	1.2	0.1
15	Fifth Avenue	Walnut Avenue	Laurel Street	65.5	66.7	66.7	1.2	1.2	0.0
16	Fifth Avenue	Laurel Street	Hawthorn Street	64.6	66.5	66.6	1.9	2.0	0.1
17	Fifth Avenue	Hawthorn Street	Grape Street	65.0	66.5	66.6	1.5	1.6	0.1
18	Fifth Avenue	Grape Street	Elm Street	64.6	64.4	64.5	-0.2	-0.1	0.1
19	Sixth Avenue	Washington Street	University Avenue	67.2	72.0	72.0	4.8	4.8	0.0
20	Sixth Avenue	University Avenue	Robinson Avenue	68.9	70.1	70.2	1.2	1.3	0.1
21	Sixth Avenue	Robinson Avenue	Upas Street	66.7	69.8	69.8	3.1	3.1	0.0
22	Sixth Avenue	Upas Street	Laurel Street	66.7	69.1	69.1	2.4	2.4	0.0
23	Sixth Avenue	Laurel Street	Juniper Street	65.0	67.2	67.2	2.2	2.2	0.0
24	Sixth Avenue	Juniper Street	Grape Street	65.3	67.8	67.8	2.5	2.5	0.0
25	Sixth Avenue	Grape Street	Elm Street	65.2	68.6	68.6	3.4	3.4	0.0
26	Cleveland Avenue	Lincoln Street	Richmond Street	62.3	63.1	63.0	0.8	0.7	-0.1
27	Grape Street	First Avenue	Third Avenue	59.7	61.1	61.1	1.4	1.4	0.0
28	Grape Street	Third Avenue	Sixth Avenue	56.6	62.9	62.9	6.3	6.3	0.0
29	Hawthorn Street	Brant Street	First Avenue	65.6	67.0	67.0	1.4	1.4	0.0
	Hawthorn Street	First Avenue	Third Avenue	60.5	63.6	63.7	3.1	3.2	0.1
31	Hawthorn Street	Third Avenue	Sixth Avenue	60.5	63.4	63.5	2.9	3.0	0.1
32	Laurel Street	First Avenue	Third Avenue	63.9	66.0	66.0	2.1	2.1	0.0
33	Laurel Street	Third Avenue	Sixth Avenue	64.0	66.5	66.5	2.5	2.5	0.0
34	Lincoln Avenue	Washington Street	Park Boulevard	62.5	63.7	63.6	1.2	1.1	-0.1
	Normal Street	Park Boulevard	Washington Street	68.4	69.6	69.5	1.2	1.1	-0.1
	Normal Street	Washington Street	University Avenue	61.9	61.8	61.7	-0.1	-0.2	-0.1
	Park Boulevard	El Cajon Boulevard	Polk Avenue	65.6	67.7	67.7	2.1	2.1	0.0
	Park Boulevard	Polk Avenue	University Avenue	67.4	69.5	69.5	2.1	2.1	0.0
	Park Boulevard	University Avenue	Robinson Avenue	67.6	68.9	68.9	1.3	1.3	0.0
	Park Boulevard	Robinson Avenue	Upas Street	67.0	68.3	68.3	1.3	1.3	0.0
	Park Boulevard	Upas Street	Zoo Place	67.4	68.5	68.4	1.1	1.0	-0.1
	Richmond Street	Cleveland Avenue	University Avenue	61.9	62.9	62.9	1.0	1.0	0.0
	University Avenue	First Avenue	Fourth Avenue	66.5	64.8	64.8	-1.7	-1.7	0.0
	University Avenue	Fourth Avenue	Fifth Avenue	66.5	66.4	66.4	-0.1	-0.1	0.0
	University Avenue	Fifth Avenue	Sixth Avenue	66.7	67.6	67.6	0.9	0.9	0.0
	University Avenue	Sixth Avenue	Eighth Avenue	67.3	68.1	68.1	0.8	0.8	0.0
	University Avenue	Vermont Street	Richmond Street	67.2	67.4	67.4	0.2	0.2	0.0
	University Avenue	Richmond Street	Park Boulevard	65.5	66.7	66.7	1.2	1.2	0.0
	Washington Street	India Street	University Avenue	73.0	74.2	74.2	1.2	1.2	0.0
	Washington Street	University Avenue	First Avenue	69.1	70.3	70.3	1.2	1.2	0.0
	Washington Street	First Avenue	Fourth Avenue	71.1	70.0	70.0	-1.1	-1.1	0.0
52	Washington Street	Fourth Avenue	Fifth Avenue	70.9	71.8	71.8	0.9	0.9	0.0
	Washington Street	Fifth Avenue	Sixth Avenue	71.8	72.3	72.3	0.5	0.5	0.0
	Washington Street	Sixth Avenue	Richmond Street	72.2	72.0	71.9	-0.2	-0.3	-0.1
55	Washington Street	Richmond Street	Normal Street	71.9	73.0	73.0	1.1	1.1	0.0

# FHWA RD-77-108 Traffic Noise Prediction Model

**Data Input Sheet** 

Project Name : Uptown CPU Project Number : 6086

Modeled Condition: 2035 Adopted CPU

Surface Refelction: CNEL Assessment Metric: Hard Peak ratio to ADT: 10.00 Traffic Desc. (Peak or ADT): ADT

		Seg	gment		Speed	Distance							
Segmen	t Roadway	From	То	Traffic Vol.	(Mph)	to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	First Avenue	University Avenue	Robinson Avenue	17,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
2	First Avenue	Robinson Avenue	Pennsylvania Avenue	12,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
3	First Avenue	Pennsylvania Avenue	Walnut Avenue	13,300	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
4	First Avenue	Walnut Avenue	Laurel Street	12,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
5	First Avenue	Laurel Street	Juniper Street	9,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
6	First Avenue	Juniper Street	Grape Street	7,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
7	First Avenue	Grape Street	Elm Street	3,100	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
8	Fourth Avenue	University Avenue	Robinson Avenue	13,200	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
9	Fourth Avenue	Robinson Avenue	Walnut Avenue	11,600	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
10	Fourth Avenue	Walnut Avenue	Laurel Street	15,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
11	Fourth Avenue	Laurel Street	Grape Street	13,500	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
12	Fourth Avenue	Grape Street	Elm Street	12,800	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
13	Fifth Avenue	University Avenue	Robinson Avenue	14,300	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
14	Fifth Avenue	Robinson Avenue	Walnut Avenue	15,800	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
15	Fifth Avenue	Walnut Avenue	Laurel Street	14,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
16	Fifth Avenue	Laurel Street	Hawthorn Street	14,300	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
17	Fifth Avenue	Hawthorn Street	Grape Street	14,400	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
18	Fifth Avenue	Grape Street	Elm Street	8,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
19	Sixth Avenue	Washington Street	University Avenue	50,500	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
20	Sixth Avenue	University Avenue	Robinson Avenue	33,100	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
21	Sixth Avenue	Robinson Avenue	Upas Street	30,500	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
22	Sixth Avenue	Upas Street	Laurel Street	26,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
23	Sixth Avenue	Laurel Street	Juniper Street	16,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
24	Sixth Avenue	Juniper Street	Grape Street	19,100	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
25	Sixth Avenue	Grape Street	Elm Street	23,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
26	Cleveland Avenue	Lincoln Street	Richmond Street	9,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
27	Grape Street	First Avenue	Third Avenue	5,900	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
28	Grape Street	Third Avenue	Sixth Avenue	9,000	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
29	Hawthorn Street	Brant Street	First Avenue	15,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
30	Hawthorn Street	First Avenue	Third Avenue	7,300	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
31	Hawthorn Street	Third Avenue	Sixth Avenue	7,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	

32	Laurel Street	First Avenue	Third Avenue	18,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00
33	Laurel Street	Third Avenue	Sixth Avenue	20,300	25	50	96.00	3.00	1.00	80.00	10.00	10.00
34	Lincoln Avenue	Washington Street	Park Boulevard	10,700	25	50	96.00	3.00	1.00	80.00	10.00	10.00
35	Normal Street	Park Boulevard	Washington Street	28,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00
36	Normal Street	Washington Street	University Avenue	4,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00
37	Park Boulevard	El Cajon Boulevard	Polk Avenue	18,700	30	50	96.00	3.00	1.00	80.00	10.00	10.00
38	Park Boulevard	Polk Avenue	University Avenue	22,300	35	50	96.00	3.00	1.00	80.00	10.00	10.00
39	Park Boulevard	University Avenue	Robinson Avenue	19,600	35	50	96.00	3.00	1.00	80.00	10.00	10.00
40	Park Boulevard	Robinson Avenue	Upas Street	17,100	35	50	96.00	3.00	1.00	80.00	10.00	10.00
41	Park Boulevard	Upas Street	Zoo Place	17,600	35	50	96.00	3.00	1.00	80.00	10.00	10.00
42	Richmond Street	Cleveland Avenue	University Avenue	9,000	25	50	96.00	3.00	1.00	80.00	10.00	10.00
43	University Avenue	First Avenue	Fourth Avenue	13,900	25	50	96.00	3.00	1.00	80.00	10.00	10.00
44	University Avenue	Fourth Avenue	Fifth Avenue	20,100	25	50	96.00	3.00	1.00	80.00	10.00	10.00
45	University Avenue	Fifth Avenue	Sixth Avenue	26,100	25	50	96.00	3.00	1.00	80.00	10.00	10.00
46	University Avenue	Sixth Avenue	Eighth Avenue	29,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00
47	University Avenue	Vermont Street	Richmond Street	25,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00
48	University Avenue	Richmond Street	Park Boulevard	21,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00
49	Washington Street	India Street	University Avenue	36,700	45	50	96.00	3.00	1.00	80.00	10.00	10.00
50	Washington Street	University Avenue	First Avenue	26,700	35	50	96.00	3.00	1.00	80.00	10.00	10.00
51	Washington Street	First Avenue	Fourth Avenue	25,000	35	50	96.00	3.00	1.00	80.00	10.00	10.00
52	Washington Street	Fourth Avenue	Fifth Avenue	38,100	35	50	96.00	3.00	1.00	80.00	10.00	10.00
53	Washington Street	Fifth Avenue	Sixth Avenue	42,200	35	50	96.00	3.00	1.00	80.00	10.00	10.00
54	Washington Street	Sixth Avenue	Richmond Street	39,400	35	50	96.00	3.00	1.00	80.00	10.00	10.00
55	Washington Street	Richmond Street	Normal Street	50,200	35	50	96.00	3.00	1.00	80.00	10.00	10.00

### FHWA RD-77-108

# **Traffic Noise Prediction Model**

**Predicted Noise Levels** 

Project Name : Uptown CPU Project Number : 6086

Modeled Condition: 2035 Adopted CPU

Assessment Metric: Hard

		Se	gment	No	ise Levels	, dBA Ha	rd		Distanc	e to Traffic	Noise Le	vel Contou	ırs, Feet
Segment	t Roadway	From	To	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	First Avenue	University Avenue	Robinson Avenue	64.3	59.8	62.2	67	8	26	83	262	830	2,624
2	First Avenue	Robinson Avenue	Pennsylvania Avenue	62.8	58.3	60.7	66	6	19	59	186	587	1,858
3	First Avenue	Pennsylvania Avenue	Walnut Avenue	63.2	58.8	61.1	66	7	21	66	208	659	2,084
4	First Avenue	Walnut Avenue	Laurel Street	62.8	58.3	60.7	66	6	19	59	186	587	1,858
5	First Avenue	Laurel Street	Juniper Street	61.5	57.1	59.4	65	4	14	45	141	446	1,409
6	First Avenue	Juniper Street	Grape Street	60.5	56.0	58.3	63	3	11	35	109	346	1,094
7	First Avenue	Grape Street	Elm Street	56.9	52.4	54.8	60	2	5	15	49	155	489
8	Fourth Avenue	University Avenue	Robinson Avenue	63.2	58.7	61.1	66	7	21	66	208	659	2,084
9	Fourth Avenue	Robinson Avenue	Walnut Avenue	62.6	58.2	60.5	66	6	18	57	182	574	1,815
10	Fourth Avenue	Walnut Avenue	Laurel Street	63.8	59.3	61.6	67	7	23	74	234	740	2,339
11	Fourth Avenue	Laurel Street	Grape Street	63.3	58.8	61.2	66	7	21	66	208	659	2,084
12	Fourth Avenue	Grape Street	Elm Street	63.1	58.6	60.9	66	6	20	63	199	629	1,991
13	Fifth Avenue	University Avenue	Robinson Avenue	63.6	59.1	61.4	67	7	22	71	223	706	2,233
14	Fifth Avenue	Robinson Avenue	Walnut Avenue	64.0	59.5	61.9	67	8	24	77	245	774	2,449
15	Fifth Avenue	Walnut Avenue	Laurel Street	63.7	59.3	61.6	67	7	23	74	234	740	2,339
16	Fifth Avenue	Laurel Street	Hawthorn Street	63.6	59.1	61.4	67	7	22	71	223	706	2,233
17	Fifth Avenue	Hawthorn Street	Grape Street	63.6	59.1	61.5	67	7	22	71	223	706	2,233
18	Fifth Avenue	Grape Street	Elm Street	61.5	57.0	59.4	64	4	14	44	138	435	1,377
19	Sixth Avenue	Washington Street	University Avenue	69.0	64.6	66.9	72	25	79	251	792	2,506	7,924
20	Sixth Avenue	University Avenue	Robinson Avenue	67.2	62.7	65.1	70	16	51	162	512	1,618	5,116
21	Sixth Avenue	Robinson Avenue	Upas Street	66.8	62.4	64.7	70	15	48	151	477	1,510	4,775
22	Sixth Avenue	Upas Street	Laurel Street	66.2	61.7	64.0	69	13	41	129	406	1,285	4,064
23	Sixth Avenue	Laurel Street	Juniper Street	64.3	59.8	62.2	67	8	26	83	262	830	2,624
24	Sixth Avenue	Juniper Street	Grape Street	64.8	60.3	62.7	68	10	30	95	301	953	3,013
25	Sixth Avenue	Grape Street	Elm Street	65.6	61.1	63.5	69	11	36	115	362	1,145	3,622
26	Cleveland Avenue	Lincoln Street	Richmond Street	59.5	56.0	58.9	63	3	10	32	102	323	1,021
27	Grape Street	First Avenue	Third Avenue	57.4	54.0	56.9	61	2	6	20	64	204	644
28	Grape Street	Third Avenue	Sixth Avenue	59.3	55.8	58.7	63	3	10	31	97	308	975
29	Hawthorn Street	Brant Street	First Avenue	64.0	59.5	61.9	67	8	25	79	251	792	2,506
30	Hawthorn Street	First Avenue	Third Avenue	60.6	56.2	58.5	64	4	11	36	115	362	1,145
31	Hawthorn Street	Third Avenue	Sixth Avenue	60.5	56.0	58.3	63	3	11	35	109	346	1,094
32	Laurel Street	First Avenue	Third Avenue	62.4	58.9	61.8	66	6	20	63	199	629	1,991
33	Laurel Street	Third Avenue	Sixth Avenue	62.8	59.4	62.2	67	7	22	71	223	706	2,233

34	Lincoln Avenue	Washington Street	Park Boulevard	60.0	56.6	59.4	64	4	12	37	117	371	1,172
35	Normal Street	Park Boulevard	Washington Street	66.6	62.1	64.5	70	14	46	144	456	1,442	4,560
36	Normal Street	Washington Street	University Avenue	58.9	54.4	56.8	62	2	8	24	76	239	757
37	Park Boulevard	El Cajon Boulevard	Polk Avenue	64.7	60.2	62.6	68	9	29	93	294	931	2,944
38	Park Boulevard	Polk Avenue	University Avenue	67.4	62.1	62.5	70	14	45	141	446	1,409	4,456
39	Park Boulevard	University Avenue	Robinson Avenue	66.9	61.5	61.9	69	12	39	123	388	1,227	3,881
40	Park Boulevard	Robinson Avenue	Upas Street	66.3	60.9	61.3	68	11	34	107	338	1,069	3,380
41	Park Boulevard	Upas Street	Zoo Place	66.4	61.0	61.4	69	11	35	112	354	1,119	3,540
42	Richmond Street	Cleveland Avenue	University Avenue	59.3	55.8	58.7	63	3	10	31	97	308	975
43	University Avenue	First Avenue	Fourth Avenue	61.1	57.7	60.6	65	5	15	48	151	477	1,510
44	University Avenue	Fourth Avenue	Fifth Avenue	62.8	59.3	62.2	66	7	22	69	218	690	2,183
45	University Avenue	Fifth Avenue	Sixth Avenue	63.9	60.5	63.3	68	9	29	91	288	910	2,877
46	University Avenue	Sixth Avenue	Eighth Avenue	64.4	61.0	63.8	68	10	32	102	323	1,021	3,228
47	University Avenue	Vermont Street	Richmond Street	63.8	60.3	63.2	67	9	27	87	275	869	2,748
48	University Avenue	Richmond Street	Park Boulevard	63.0	59.6	62.5	67	7	23	74	234	740	2,339
49	Washington Street	India Street	University Avenue	72.7	65.9	65.6	74	42	132	416	1,315	4,159	13,151
50	Washington Street	University Avenue	First Avenue	68.2	62.8	63.3	70	17	54	169	536	1,694	5,358
51	Washington Street	First Avenue	Fourth Avenue	67.9	62.5	63.0	70	16	50	158	500	1,581	5,000
52	Washington Street	Fourth Avenue	Fifth Avenue	69.7	64.4	64.8	72	24	76	239	757	2,393	7,568
53	Washington Street	Fifth Avenue	Sixth Avenue	70.2	64.8	65.2	72	27	85	269	849	2,685	8,491
54	Washington Street	Sixth Avenue	Richmond Street	69.9	64.5	64.9	72	25	79	251	792	2,506	7,924
55	Washington Street	Richmond Street	Normal Street	70.9	65.6	66.0	73	32	100	315	998	3,155	9,976

# FHWA RD-77-108 Traffic Noise Prediction Model

**Data Input Sheet** 

Project Name: Uptown CPU
Project Number: 6086

Modeled Condition: 2035 Proposed Amendments

Surface Refelction: CNEL Assessment Metric: Hard Peak ratio to ADT: 10.00

Traffic Desc. (Peak or ADT): ADT

		Seg	gment		Speed	Distance							
Segmen	t Roadway	From	То	Traffic Vol.	(Mph)	to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	First Avenue	University Avenue	Robinson Avenue	17,015	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
2	First Avenue	Robinson Avenue	Pennsylvania Avenue	12,015	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
3	First Avenue	Pennsylvania Avenue	Walnut Avenue	13,315	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
4	First Avenue	Walnut Avenue	Laurel Street	12,058	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
5	First Avenue	Laurel Street	Juniper Street	9,029	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
6	First Avenue	Juniper Street	Grape Street	7,029	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
7	First Avenue	Grape Street	Elm Street	3,107	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
8	Fourth Avenue	University Avenue	Robinson Avenue	13,276	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
9	Fourth Avenue	Robinson Avenue	Walnut Avenue	11,676	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
10	Fourth Avenue	Walnut Avenue	Laurel Street	15,076	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
11	Fourth Avenue	Laurel Street	Grape Street	13,707	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
12	Fourth Avenue	Grape Street	Elm Street	12,884	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
13	Fifth Avenue	University Avenue	Robinson Avenue	14,376	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
14	Fifth Avenue	Robinson Avenue	Walnut Avenue	15,876	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
15	Fifth Avenue	Walnut Avenue	Laurel Street	14,976	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
16	Fifth Avenue	Laurel Street	Hawthorn Street	14,507	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
17	Fifth Avenue	Hawthorn Street	Grape Street	14,607	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
18	Fifth Avenue	Grape Street	Elm Street	8,969	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
19	Sixth Avenue	Washington Street	University Avenue	50,835	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
20	Sixth Avenue	University Avenue	Robinson Avenue	33,267	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
21	Sixth Avenue	Robinson Avenue	Upas Street	30,667	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
22	Sixth Avenue	Upas Street	Laurel Street	26,138	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
23	Sixth Avenue	Laurel Street	Juniper Street	16,900	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
24	Sixth Avenue	Juniper Street	Grape Street	19,100	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
25	Sixth Avenue	Grape Street	Elm Street	23,000	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
26	Cleveland Avenue	Lincoln Street	Richmond Street	9,188	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
27	Grape Street	First Avenue	Third Avenue	5,907	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
28	Grape Street	Third Avenue	Sixth Avenue	9,015	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
29	Hawthorn Street	Brant Street	First Avenue	16,067	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
30	Hawthorn Street	First Avenue	Third Avenue	7,453	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
31	Hawthorn Street	Third Avenue	Sixth Avenue	7,138	30	50	96.00	3.00	1.00	80.00	10.00	10.00	
32	Laurel Street	First Avenue	Third Avenue	18,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00	
33	Laurel Street	Third Avenue	Sixth Avenue	20,344	25	50	96.00	3.00	1.00	80.00	10.00	10.00	

2.4	Linaala Avanua	\Mashimatan Ctuset	Park Boulevard	10 100	O.F.	<b>F</b> 0	00.00	2.00	4.00	00.00	10.00	10.00
34	Lincoln Avenue	Washington Street	=	10,488	25	50	96.00	3.00	1.00	80.00	10.00	10.00
35	Normal Street	Park Boulevard	Washington Street	28,868	30	50	96.00	3.00	1.00	80.00	10.00	10.00
36	Normal Street	Washington Street	University Avenue	4,688	30	50	96.00	3.00	1.00	80.00	10.00	10.00
37	Park Boulevard	El Cajon Boulevard	Polk Avenue	18,668	30	50	96.00	3.00	1.00	80.00	10.00	10.00
38	Park Boulevard	Polk Avenue	University Avenue	22,268	35	50	96.00	3.00	1.00	80.00	10.00	10.00
39	Park Boulevard	University Avenue	Robinson Avenue	19,558	35	50	96.00	3.00	1.00	80.00	10.00	10.00
40	Park Boulevard	Robinson Avenue	Upas Street	17,058	35	50	96.00	3.00	1.00	80.00	10.00	10.00
41	Park Boulevard	Upas Street	Zoo Place	17,558	35	50	96.00	3.00	1.00	80.00	10.00	10.00
42	Richmond Street	Cleveland Avenue	University Avenue	8,894	25	50	96.00	3.00	1.00	80.00	10.00	10.00
43	University Avenue	First Avenue	Fourth Avenue	13,915	25	50	96.00	3.00	1.00	80.00	10.00	10.00
44	University Avenue	Fourth Avenue	Fifth Avenue	20,191	25	50	96.00	3.00	1.00	80.00	10.00	10.00
45	University Avenue	Fifth Avenue	Sixth Avenue	26,267	25	50	96.00	3.00	1.00	80.00	10.00	10.00
46	University Avenue	Sixth Avenue	Eighth Avenue	29,400	25	50	96.00	3.00	1.00	80.00	10.00	10.00
47	University Avenue	Vermont Street	Richmond Street	25,379	25	50	96.00	3.00	1.00	80.00	10.00	10.00
48	University Avenue	Richmond Street	Park Boulevard	21,379	25	50	96.00	3.00	1.00	80.00	10.00	10.00
49	Washington Street	India Street	University Avenue	36,689	45	50	96.00	3.00	1.00	80.00	10.00	10.00
50	Washington Street	University Avenue	First Avenue	26,689	35	50	96.00	3.00	1.00	80.00	10.00	10.00
51	Washington Street	First Avenue	Fourth Avenue	24,989	35	50	96.00	3.00	1.00	80.00	10.00	10.00
52	Washington Street	Fourth Avenue	Fifth Avenue	38,089	35	50	96.00	3.00	1.00	80.00	10.00	10.00
53	Washington Street	Fifth Avenue	Sixth Avenue	42,189	35	50	96.00	3.00	1.00	80.00	10.00	10.00
54	Washington Street	Sixth Avenue	Richmond Street	39,294	35	50	96.00	3.00	1.00	80.00	10.00	10.00
55	Washington Street	Richmond Street	Normal Street	50,094	35	50	96.00	3.00	1.00	80.00	10.00	10.00

# FHWA RD-77-108

# **Traffic Noise Prediction Model**

**Predicted Noise Levels** 

Project Name: Uptown CPU Project Number: 6086

Modeled Condition: 2035 Proposed Amendments

**Assessment Metric:** Hard

		Seç	Noise Levels, dBA Hard					Distance to Traffic Noise Level Contours, Feet					
Segmen	t Roadway	From	То	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	First Avenue	University Avenue	Robinson Avenue	64.3	59.8	62.2	67	8	27	85	269	849	2,685
2	First Avenue	Robinson Avenue	Pennsylvania Avenue	62.8	58.3	60.7	66	6	19	59	186	587	1,858
3	First Avenue	Pennsylvania Avenue	Walnut Avenue	63.2	58.8	61.1	66	7	21	66	208	659	2,084
4	First Avenue	Walnut Avenue	Laurel Street	62.8	58.3	60.7	66	6	19	60	190	601	1,901
5	First Avenue	Laurel Street	Juniper Street	61.6	57.1	59.4	65	4	14	45	141	446	1,409
6	First Avenue	Juniper Street	Grape Street	60.5	56.0	58.3	63	3	11	35	109	346	1,094
7	First Avenue	Grape Street	Elm Street	56.9	52.4	54.8	60	2	5	15	49	155	489
8	Fourth Avenue	University Avenue	Robinson Avenue	63.2	58.8	61.1	66	7	21	66	208	659	2,084
9	Fourth Avenue	Robinson Avenue	Walnut Avenue	62.7	58.2	60.5	66	6	18	57	182	574	1,815
10	Fourth Avenue	Walnut Avenue	Laurel Street	63.8	59.3	61.7	67	7	23	74	234	740	2,339
11	Fourth Avenue	Laurel Street	Grape Street	63.4	58.9	61.2	66	7	21	67	213	674	2,133
12	Fourth Avenue	Grape Street	Elm Street	63.1	58.6	61.0	66	6	20	63	199	629	1,991
13	Fifth Avenue	University Avenue	Robinson Avenue	63.6	59.1	61.5	67	7	22	71	223	706	2,233
14	Fifth Avenue	Robinson Avenue	Walnut Avenue	64.0	59.5	61.9	67	8	25	79	251	792	2,506
15	Fifth Avenue	Walnut Avenue	Laurel Street	63.8	59.3	61.6	67	7	23	74	234	740	2,339
16	Fifth Avenue	Laurel Street	Hawthorn Street	63.6	59.1	61.5	67	7	23	72	229	723	2,285
17	Fifth Avenue	Hawthorn Street	Grape Street	63.6	59.2	61.5	67	7	23	72	229	723	2,285
18	Fifth Avenue	Grape Street	Elm Street	61.5	57.1	59.4	65	4	14	45	141	446	1,409
19	Sixth Avenue	Washington Street	University Avenue	69.1	64.6	66.9	72	25	79	251	792	2,506	7,924
20	Sixth Avenue	University Avenue	Robinson Avenue	67.2	62.7	65.1	70	17	52	166	524	1,656	5,236
21	Sixth Avenue	Robinson Avenue	Upas Street	66.9	62.4	64.7	70	15	48	151	477	1,510	4,775
22	Sixth Avenue	Upas Street	Laurel Street	66.2	61.7	64.0	69	13	41	129	406	1,285	4,064
23	Sixth Avenue	Laurel Street	Juniper Street	64.3	59.8	62.2	67	8	26	83	262	830	2,624
24	Sixth Avenue	Juniper Street	Grape Street	64.8	60.3	62.7	68	10	30	95	301	953	3,013
25	Sixth Avenue	Grape Street	Elm Street	65.6	61.1	63.5	69	11	36	115	362	1,145	3,622
26	Cleveland Avenue	Lincoln Street	Richmond Street	59.4	55.9	58.8	63	3	10	32	100	315	998
27	Grape Street	First Avenue	Third Avenue	57.4	54.0	56.9	61	2	6	20	64	204	644
28	Grape Street	Third Avenue	Sixth Avenue	59.3	55.8	58.7	63	3	10	31	97	308	975
29	Hawthorn Street	Brant Street	First Avenue	64.1	59.6	61.9	67	8	25	79	251	792	2,506
30	Hawthorn Street	First Avenue	Third Avenue	60.7	56.2	58.6	64	4	12	37	117	371	1,172
31	Hawthorn Street	Third Avenue	Sixth Avenue	60.5	56.1	58.4	64	4	11	35	112	354	1,119
32	Laurel Street	First Avenue	Third Avenue	62.4	58.9	61.8	66	6	20	63	199	629	1,991
33	Laurel Street	Third Avenue	Sixth Avenue	62.8	59.4	62.2	67	7	22	71	223	706	2,233

34	Lincoln Avenue	Washington Street	Park Boulevard	59.9	56.5	59.4	64	4	11	36	115	362	1,145
35	Normal Street	Park Boulevard	Washington Street	66.6	62.1	64.5	70	14	45	141	446	1,409	4,456
36	Normal Street	Washington Street	University Avenue	58.7	54.2	56.6	62	2	7	23	74	234	740
37	Park Boulevard	El Cajon Boulevard	Polk Avenue	64.7	60.2	62.6	68	9	29	93	294	931	2,944
38	Park Boulevard	Polk Avenue	University Avenue	67.4	62.0	62.5	70	14	45	141	446	1,409	4,456
39	Park Boulevard	University Avenue	Robinson Avenue	66.8	61.5	61.9	69	12	39	123	388	1,227	3,881
40	Park Boulevard	Robinson Avenue	Upas Street	66.2	60.9	61.3	68	11	34	107	338	1,069	3,380
41	Park Boulevard	Upas Street	Zoo Place	66.4	61.0	61.4	68	11	35	109	346	1,094	3,459
42	Richmond Street	Cleveland Avenue	University Avenue	59.2	55.8	58.6	63	3	10	31	97	308	975
43	University Avenue	First Avenue	Fourth Avenue	61.2	57.7	60.6	65	5	15	48	151	477	1,510
44	University Avenue	Fourth Avenue	Fifth Avenue	62.8	59.3	62.2	66	7	22	69	218	690	2,183
45	University Avenue	Fifth Avenue	Sixth Avenue	63.9	60.5	63.3	68	9	29	91	288	910	2,877
46	University Avenue	Sixth Avenue	Eighth Avenue	64.4	61.0	63.8	68	10	32	102	323	1,021	3,228
47	University Avenue	Vermont Street	Richmond Street	63.8	60.3	63.2	67	9	27	87	275	869	2,748
48	University Avenue	Richmond Street	Park Boulevard	63.0	59.6	62.4	67	7	23	74	234	740	2,339
49	Washington Street	India Street	University Avenue	72.7	65.9	65.6	74	42	132	416	1,315	4,159	13,151
50	Washington Street	University Avenue	First Avenue	68.2	62.8	63.3	70	17	54	169	536	1,694	5,358
51	Washington Street	First Avenue	Fourth Avenue	67.9	62.5	63.0	70	16	50	158	500	1,581	5,000
52	Washington Street	Fourth Avenue	Fifth Avenue	69.7	64.4	64.8	72	24	76	239	757	2,393	7,568
53	Washington Street	Fifth Avenue	Sixth Avenue	70.2	64.8	65.2	72	27	85	269	849	2,685	8,491
54	Washington Street	Sixth Avenue	Richmond Street	69.9	64.5	64.9	72	24	77	245	774	2,449	7,744
55	Washington Street	Richmond Street	Normal Street	70.9	65.6	66.0	73	32	100	315	998	3,155	9,976