# AIR INSTALLATIONS COMPATIBLE USE ZONES SUGGESTED LAND USE COMPATIBILITY IN NOISE ZONES

Land Use		Suggested Land Use Compatibility							
		Noise Zone		Noise Zone 2 (DNL or CNEL)		Noise Zone 3 (DNL or CNEL)			
		(DNL or CNEL)							
SLUCM NO	LAND USE NAME	< 55	55- 64	65- 69	70 -74	75- 79	80-84	85+	
10	Residential		•	•	•		•	,	
11	Household Units	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.11	Single units, detached	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.12	Single units, semidetached	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.13	Single units: attached row	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.21	Two units, side-by-side	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.22	Two units, one above the other	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
11.31	Apartments: walk-up	Y	Y1	$N^1$	$N^1$	N	N	N	
11.3	Apartment: elevator	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
12	Group quarters	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
13	Residential Hotels	Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
14	Mobile home parks or courts	Y	Y <sup>1</sup>	N	$N^1$	N	N	N	
15	Transient lodgings	Y	Y1	$N^{1}$	$N^1$	$N^1$	N	N	
16 Other residential		Y	Y <sup>1</sup>	$N^1$	$N^1$	N	N	N	
20	Manufacturing		1	•	1	1		1	
21	Food & kindred products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N	
22	Textile mill products; manufacturing	Y	Y	Y	<b>Y</b> <sup>2</sup>	Y3	Y <sup>4</sup>	N	
23	Apparel and other finished products; products made from fabrics, leather and similar materials; manufacturing	Y	Y	Y	Y <sup>2</sup>	У3	Y <sup>4</sup>	N	
24	Lumber and wood products (except furniture); manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N	
25	Furniture and fixtures; manufacturing	Y	Y	Y	Y <sup>2</sup>	У3	Y <sup>4</sup>	N	
26	Paper and allied products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N	
27	Printing, publishing, and allied industries	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	$Y^4$	N	
28	Chemicals and allied products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y3	Y <sup>4</sup>	N	
29	Petroleum refining and related industries	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N	

## AIR INSTALLATIONS COMPATIBLE USE ZONES SUGGESTED LAND USE COMPATIBILITY NOISE ZONES (Continued)

Suggested Land Use Compatibility  Suggested Land Use Compatibility								
Land Use		Noise Zone 1 (DNL or		Noise Zone 2 (DNL or CNEL)		Noise Zone 3 (DNL or CNEL)		
		CNEL)						T
SLUCM NO	LAND USE NAME	< 55	55- 64	65- 69	70 -74	75-79	80-84	85+
30	Manufacturing (Continued)							
31	Rubber and misc. plastic products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
32	Stone, clay and glass products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
33	Primary metal products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
34	Fabricated metal products; manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
35	Professional scientific, and controlling instruments; photographic and optical goods; watches and clocks	Y	Y	Y	25	30	N	N
39	Miscellaneous manufacturing	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
	Transportation, Communication	and uti	lities				•	
41	Railroad, rapid rail transit, and street railway transportation	Y	Y	Y	Y <sup>2</sup>	Y3	Y <sup>4</sup>	N
42	Motor vehicle transportation	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
43	Aircraft transportation	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
44	Marine craft transportation	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
45	Highway and street right-of- way	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
46	Automobile parking	Y	Y	Y	Y <sup>2</sup>	$Y^3$	$Y^4$	N
47	Communication	Y	Y	Y	25 <sup>5</sup>	30 <sup>5</sup>	N	N
48	Utilities	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
49	Other transportation, communication and utilities	Y	Y	Y	25⁵	305	N	N
50	Trade					1		,
51	Wholesale trade	Y	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
52	Retail trade - building materials, hardware and farm equipment	Y	Y	Y	Y <sup>2</sup>	Y3	Y <sup>4</sup>	N
53	Retail trade - shopping centers	Y	Y	Y	25	30	N	N
54	Retail trade - food	Y	Y	Y	25	30	N	N
55	Retail trade - automotive, marine craft, aircraft and accessories	Y	Y	Y	25	30	N	N
56	Retail trade - apparel and accessories	Y	Y	Y	25	30	N	N

	Land Use		Suggested Land Use Compatibility							
			e Zone 1	Noise Zone 2 (DNL or CNEL)		Noise Zone 3 (DNL or CNEL)				
SLUCM NO	LAND USE NAME	< 55	55- 64	65- 69	70 -74	75-79	80-84	85+		
57	Retail trade - furniture, home, furnishings and equipment	Y	Y	Y	25	30	N	N		
58	Retail trade - eating and drinking establishments	Y	Y	Y	25	30	N	N		
59	Other retail trade	Y	Y	Y	25	30	N	N		
60	Services		- J			II.		1		
61	Finance, insurance and real estate services	Y	Y	Y	25	30	N	N		
62	Personal services	Y	Y	Y	25	30	N	N		
62.4	Cemeteries	Y	Y	Y	Y <sup>2</sup>	У3	Y <sup>4</sup> ,11	Y <sup>6,11</sup>		
63	Business services	Y	Y	Y	25	30	N	N		
63.7	Warehousing and storage	Y	Y	Y	Y <sup>2</sup>	Y3	Y <sup>4</sup>	N		
64	Repair Services	Y	Y	Y	Y <sup>2</sup>	У3	Y <sup>4</sup>	N		
65	Professional services	Y	Y	Y	25	30	N	N		
65.1	Hospitals, other medical fac.	Y	Y <sup>1</sup>	25	30	N	N	N		
65.16	Nursing Homes	Y	Y	$N^1$	$N^1$	N	N	N		
66	Contract construction services	Y	Y	Y	25	30	N	N		
67	Government Services	Y	Y <sup>1</sup>	Y1	25	30	N	N		
68	Educational services	Y	Y <sup>1</sup>	25	30	N	N	N		
69	Miscellaneous	Y	Y	Y	25	30	N	N		
70	Cultural, entertain	nment a	and recreat	tional						
71	Cultural activities ( & churches)	Y	Y <sup>1</sup>	25	30	N	N	N		
71.2	Nature exhibits	Y	Y <sup>1</sup>	Y1	N	N	N	N		
72	Public assembly	Y	Y <sup>1</sup>	Y	N	N	N	N		
72.1	Auditoriums, concert halls	Y	Y	25	30	N	N	N		
72.11	Outdoor music shells, amphitheaters	Y	Y <sup>1</sup>	N	N	N	N	N		
72.2	Outdoor sports arenas, spectator sports	Y	Y	Y <sup>1</sup>	Y <sup>7</sup>	N	N	N		
73	Amusements	Y	Y	Y	Y	N	N	N		
74	Recreational activities (include golf courses, riding stables, water rec. 1	Y	Y <sup>1</sup>	Y <sup>1</sup>	25	30	N	N		
75	Resorts and group camps	Y	Y <sup>1</sup>	Y <sup>1</sup>	Y	N	N	N		
76	Parks	Y	Y <sup>1</sup>	Y <sup>1</sup>	Y	N	N	N		
79	Other cultural, entertainment and recreation	Y	Y <sup>1</sup>	Y <sup>1</sup>	Y	N	N	N		
80	Resource Production	n and i	Extraction							
81	Agriculture (except live	Y	Y	<b>A</b> 8	Y <sup>9</sup>	Y <sup>10</sup>	Y10,11	Y <sup>10</sup> ,11		
	stock)									

# AIR INSTALLATIONS COMPATIBLE USE ZONES SUGGESTED LAND USE COMPATIBILITY IN NOISE ZONES (Continued)

	Land Use	Sugge	sted Land	d Use Com	patibili	ty		
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SLUCM NO	LAND USE NAME	< 55	55- 64	65- 69	70 -74	75-79	80-84	85+
81.5	Livestock farming	Y	Y	Y8	Y <sup>9</sup>	N	N	N
81. 7	Animal breeding	Y	Y	Х8	Y <sup>9</sup>	N	N	N
82	Agriculture related activities	Y	Y	Y8	Y <sup>9</sup>	Y <sup>10</sup>	Y <sup>10</sup> ,11	Y <sup>10</sup> ,11
83	Forestry Activities	Y	Y	X <sub>8</sub>	Y <sup>9</sup>	Y <sup>10</sup>	Y <sup>10</sup> ,11	Y <sup>10</sup> ,11
8-4	Fishing Activities	Y	Y	Y	Y	Y	Y	Y
85	Mining Activities	Y	Y	Y	Y	Y	Y	Y
89	Other resource production or extraction	Y	Y	Y	Y	Y	Y	Y

#### KEY TO TABLE 1 - SUGGESTED LAND USE COMPATIBILITY IN. NOISE ZONES

SLUCM	Standard Land Use Coding Manual, U.S. Department of
DIOCH	Transportation
Y (Yes)	Land use and related structures compatible without
	restrictions.
N (No)	Land Use and related structures are not compatible
	and should be prohibited
Y <sup>x</sup> (Yes with	
Restrictions)	compatible. However, see notes indicated by the superscript.
N <sup>x</sup> (No with	The land use and related structures are generally
exceptions)	incompatible. However, see notes indicated by the
<u>-</u>	superscript.
NLR (Noise	NLR (outdoor to indoor) to be achieved through
Level	incorporation of noise attenuation into the design
Reduction)	and construction of the structure.
25,30, or 35	The numbers refer to NLR levels. Land Use and
	related structures generally compatible however,
	measures to achieve NLR of 2 5, 30 or35 must be
	incorporated into design and construction of
	structures. However, measures to achieve an overall
	noise reduction do not necessarily solve noise
	difficulties outside the
DNL	Day Night Average Sound Level.
CNEL	Community Noise Equivalent Level (normally within a
	very small decibel difference of DNL)
Ldn	Mathematical symbol for DNL.

### NOTES - SUGGESTED LAND USE COMPATIBILITY IN NOISE ZONES

#### 1. General

a. Although local conditions regarding the need for housing may require residential use in these zones, residential use is discouraged in DNL 65 to 69 and strongly discouraged in DNL 70 to 74. The absence of viable alternative development options should be determined and an evaluation should be conducted locally prior to local approvals indicating that a demonstrated community need for the residential use would not be met if development were prohibited in these zones.

Where the community determines that these uses must be allowed measures to achieve and outdoor to indoor NLR of at least 25 Decibels (dB) in DNL 65 to 69 and NLR of 30 dB in DNL 70 to 74 should be incorporated into building codes and be in individual approvals; for transient housing a NLR of at least 35 dB should be incorporated in DNL 75 to 79.

- b. Normal permanent construction can be expected to provide a NLR of 20 dB, thus the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation, upgraded sound transmission class ratings in windows and doors and closed windows Year round. Additional consideration should be given to modifying NLR levels based on peak noise levels or vibrations.
- c. NLR criteria will not eliminate outdoor noise problems. However, building location and site planning, design and use of berms and barriers can help mitigate outdoor noise exposure NLR particularly from ground level sources. Measures that reduce noise at a site should be used wherever practical in preference to measures that only protect interior spaces.
- 2. Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- 3. Measures to achieve NLR of 30 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
- 4. Measures to achieve NLR of 35 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where

the normal noise level is low.

- 5. If project or proposed development is noise sensitive, use indicated NLR; if not, land use is compatible without NLR.
- 6. No buildings.
- 7. Land use compatible provided special sound reinforcement systems are installed.
- B. Residential buildings require a NLR of 25
- 9. Residential buildings require a NLR of 30.
- 10. Residential buildings not permitted.
- 11. Land use not recommended, but if the community decides use is necessary, hearing protection devices should be worn.