Appendix G
Noise Calculations

ESA

G.1 Noise Measurements

Summary

File Name on Meter	R1_Morning
File Name on PC	LxT_0004285-20231011 080120-LxT_Data.304.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:37:20
Stop	2023-10-11 07:52:20
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:34:20
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	146.0 dB

	A	C	Z
Under Range Peak	**101.9**	98.9	103.9 dB
Under Range Limit	**39.1**	38.7	45.8 dB
Noise Floor	29.9	29.6	36.7 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	71.5 dB	
LASE	101.0 dB	
EAS	1.413 mPa²h	
EAS8	45.201 mPa²h	
EAS40	226.006 mPa²h	
$LA_{peak\ (max)}$		96.5 dB
LAS_{max}		82.1 dB
LAS_{min}		46.2 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	70.7 dB
LA_{Seq}	71.5 dB
LC_{Seq} - LA_{Seq}	-0.8 dB
LAI_{eq}	73.1 dB
LA_{eq}	71.5 dB
LAI_{eq} - LA_{eq}	1.6 dB

	A		C		Z	
	dB		dB	Time Stamp	dB	Time Stamp
L_{eq}	71.5					
$L_{S(max)}$	82.1					
$L_{S(min)}$	46.2					
$L_{Peak(max)}$	96.5					

Summary

File Name on Meter	R2_Morning
File Name on PC	LxT_0007057-20231011 075047-LxT_Data.009.ldbin
Serial Number	0007057
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:50:47
Stop	2023-10-11 08:05:47
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:39:38
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.5 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**39.1**	38.6	45.5 dB
Noise Floor	29.9	29.5	36.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	68.7 dB		
LASE	98.2 dB		
EAS	741.310 µPa²h		
EAS8	23.722 mPa²h		
EAS40	118.610 mPa²h		
$LA_{peak\ (max)}$	2023-10-11 07:57:41	94.3 dB	
LAS_{max}	2023-10-11 07:51:14	78.7 dB	
LAS_{min}	2023-10-11 07:56:40	44.0 dB	
SEA	-99.9 dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	72.9 dB
LA_{Seq}	68.7 dB
LC_{Seq} - LA_{Seq}	4.2 dB
LAI_{eq}	70.7 dB
LA_{eq}	68.7 dB
LAI_{eq} - LA_{eq}	2.0 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	68.7					
$L_{S(max)}$	78.7	2023/10/11 7:51:14				
$L_{S(min)}$	44.0	2023/10/11 7:56:40				
$L_{Peak(max)}$	94.3	2023/10/11 7:57:41				

Summary

File Name on Meter	R3 Morning
File Name on PC	LxT_0007057-20231011 073206-LxT_Data.008.ldbin
Serial Number	0007057
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:32:06
Stop	2023-10-11 07:47:06
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:39:38
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.5 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**39.1**	38.6	45.5 dB
Noise Floor	29.9	29.5	36.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	62.8 dB	
LASE	92.3 dB	
EAS	190.546 µPa²h	
EAS8	6.097 mPa²h	
EAS40	30.487 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 07:36:55	93.9 dB
LAS_{max}	2023-10-11 07:35:44	76.8 dB
LAS_{min}	2023-10-11 07:41:27	49.9 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	73.8 dB
LA_{Seq}	62.8 dB
LC_{Seq} - LA_{Seq}	11.0 dB
LAI_{eq}	65.2 dB
LA_{eq}	62.8 dB
LAI_{eq} - LA_{eq}	2.4 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	62.8					
$L_{S(max)}$	76.8	2023/10/11 7:35:44				
$L_{S(min)}$	49.9	2023/10/11 7:41:27				
$L_{Peak(max)}$	93.9	2023/10/11 7:36:55				

Summary

File Name on Meter	R4 Morning
File Name on PC	LxT_0007057-20231011 071317-LxT_Data.007.ldbin
Serial Number	0007057
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:13:17
Stop	2023-10-11 07:28:17
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:39:39
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.5 dB

	A	C	Z
Under Range Peak	**100.8**	97.8	102.8 dB
Under Range Limit	**39.1**	38.6	45.5 dB
Noise Floor	29.9	29.5	36.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	64.3 dB	
LASE	93.8 dB	
EAS	269.154 µPa²h	
EAS8	8.613 mPa²h	
EAS40	43.065 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 07:21:50	105.0 dB
LAS_{max}	2023-10-11 07:25:51	81.3 dB
LAS_{min}	2023-10-11 07:22:08	46.8 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	72.1 dB
LA_{Seq}	64.3 dB
LC_{Seq} - LA_{Seq}	7.8 dB
LAI_{eq}	69.0 dB
LA_{eq}	64.3 dB
LAI_{eq} - LA_{eq}	4.7 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	64.3					
$L_{S(max)}$	81.3	2023/10/11 7:25:51				
$L_{S(min)}$	46.8	2023/10/11 7:22:08				
$L_{Peak(max)}$	105.0	2023/10/11 7:21:50				

Summary

File Name on Meter	R5 Morning
File Name on PC	LxT_0004285-20231011 064242-LxT_Data.300.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 06:42:42
Stop	2023-10-11 06:57:42
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:34:25
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	146.0 dB

	A	C	Z
Under Range Peak	**101.9**	98.9	103.9 dB
Under Range Limit	**39.1**	38.7	45.8 dB
Noise Floor	29.9	29.6	36.7 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	67.5 dB	
LASE	97.0 dB	
EAS	562.341 µPa²h	
EAS8	17.995 mPa²h	
EAS40	89.975 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 06:52:10	98.0 dB
LAS_{max}	2023-10-11 06:54:32	81.5 dB
LAS_{min}	2023-10-11 06:53:59	46.7 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	66.6 dB
LA_{Seq}	67.5 dB
LC_{Seq} - LA_{Seq}	-0.9 dB
LAI_{eq}	69.5 dB
LA_{eq}	67.5 dB
LAI_{eq} - LA_{eq}	2.0 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	67.5					
$L_{S(max)}$	81.5	2023/10/11 6:54:32				
$L_{S(min)}$	46.7	2023/10/11 6:53:59				
$L_{Peak(max)}$	98.0	2023/10/11 6:52:10				

Summary

File Name on Meter	R6 Morning
File Name on PC	LxT_0004285-20231011 070300-LxT_Data.301.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:03:00
Stop	2023-10-11 07:18:00
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:34:20
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	146.0 dB

	A	C	Z
Under Range Peak	**101.9**	98.9	103.9 dB
Under Range Limit	**39.1**	38.7	45.8 dB
Noise Floor	29.9	29.6	36.7 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	66.2 dB	
LASE	95.7 dB	
EAS	416.869 µPa²h	
EAS8	13.340 mPa²h	
EAS40	66.699 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 07:12:36	108.6 dB
LAS_{max}	2023-10-11 07:12:36	90.6 dB
LAS_{min}	2023-10-11 07:03:55	47.4 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	1	2.5 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	65.0 dB
LA_{Seq}	66.2 dB
LC_{Seq} - LA_{Seq}	-1.2 dB
LAI_{eq}	71.9 dB
LA_{eq}	66.2 dB
LAI_{eq} - LA_{eq}	5.7 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	66.2					
$L_{S(max)}$	90.6	2023/10/11 7:12:36				
$L_{S(min)}$	47.4	2023/10/11 7:03:55				
$L_{Peak(max)}$	108.6	2023/10/11 7:12:36				

Summary

File Name on Meter	R7 Morning
File Name on PC	LxT_0004285-20231011 072228-LxT_Data.302.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:22:28
Stop	2023-10-11 07:37:28
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:34:20
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	146.0 dB

	A	C	Z
Under Range Peak	**101.9**	98.9	103.9 dB
Under Range Limit	**39.1**	38.7	45.8 dB
Noise Floor	29.9	29.6	36.7 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	56.6 dB	
LASE	86.1 dB	
EAS	45.709 µPa²h	
EAS8	1.463 mPa²h	
EAS40	7.313 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 07:36:30	88.2 dB
LAS_{max}	2023-10-11 07:29:33	70.9 dB
LAS_{min}	2023-10-11 07:32:16	49.1 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	55.8 dB
LA_{Seq}	56.6 dB
LC_{Seq} - LA_{Seq}	-0.8 dB
LAI_{eq}	59.9 dB
LA_{eq}	56.6 dB
LAI_{eq} - LA_{eq}	3.3 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	56.6					
$L_{S(max)}$	70.9	2023/10/11 7:29:33				
$L_{S(min)}$	49.1	2023/10/11 7:32:16				
$L_{Peak(max)}$	88.2	2023/10/11 7:36:30				

Summary

File Name on Meter	R8 Morning
File Name on PC	LxT_0004285-20231011 074252-LxT_Data.303.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-11 07:42:52
Stop	2023-10-11 07:57:52
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-11 06:34:20
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	146.0 dB

	A	C	Z
Under Range Peak	**101.9**	98.9	103.9 dB
Under Range Limit	**39.1**	38.7	45.8 dB
Noise Floor	29.9	29.6	36.7 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	56.7 dB	
LASE	86.2 dB	
EAS	46.774 µPa²h	
EAS8	1.497 mPa²h	
EAS40	7.484 mPa²h	
$LA_{peak\ (max)}$	2023-10-11 07:49:20	92.7 dB
LAS_{max}	2023-10-11 07:54:08	66.7 dB
LAS_{min}	2023-10-11 07:55:47	47.3 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	55.9 dB	
LA_{Seq}	56.7 dB	
LC_{Seq} - LA_{Seq}	-0.8 dB	
LAI_{eq}	59.3 dB	
LA_{eq}	56.7 dB	
LAI_{eq} - LA_{eq}	2.6 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	56.7					
$L_{S(max)}$	66.7	2023/10/11 7:54:08				
$L_{S(min)}$	47.3	2023/10/11 7:55:47				
$L_{Peak(max)}$	92.7	2023/10/11 7:49:20				

Summary

File Name on Meter	R1 Daytime
File Name on PC	LxT_0004983-20231012 120928-LxT_Data.272.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 12:09:28
Stop	2023-10-12 12:24:28
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 11:00:37
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	145.1 dB

	A	**C**	**Z**
Under Range Peak	101.1	98.1	**103.1** dB
Under Range Limit	**38.3**	38.0	45.0 dB
Noise Floor	29.2	28.8	35.9 dB

	First	**Second**	**Third**
Instrument Identification			

Results

LA_{Seq}	63.0	
LASE	92.5	
EAS	197.446 µPa²h	
EAS8	6.318 mPa²h	
EAS40	31.591 mPa²h	
$LZ_{peak\ (max)}$	2023-10-12 12:09:37	99.7 dB
LAS_{max}	2023-10-12 12:22:32	78.3 dB
LAS_{min}	2023-10-12 12:12:36	52.6 dB
SEA	-99.9 dB	

	Exceedance Counts	**Duration**
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	70.7 dB
LA_{Seq}	63.0 dB
LC_{Seq} - LA_{Seq}	7.8 dB
LAI_{eq}	65.6 dB
LA_{eq}	63.0 dB
LAI_{eq} - LA_{eq}	2.6 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	63.0					
$L_{S(max)}$	78.3	2023/10/12 12:22:32				
$L_{S(min)}$	52.6	2023/10/12 12:12:36				
$L_{Peak(max)}$					99.7	2023/10/12 12:09:37

Summary

File Name on Meter	R2 Daytime
File Name on PC	LxT_0004983-20231012 115236-LxT_Data.271.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:52:36
Stop	2023-10-12 12:07:36
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 11:00:37
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	145.1 dB

	A	C	Z	
Under Range Peak	101.1	98.1	**103.1**	dB
Under Range Limit	**38.3**	38.0	45.0	dB
Noise Floor	29.2	28.8	35.9	dB

	First	Second	Third
Instrument Identification			

Results

LA_{Seq}	63.4	
LASE	93.0	
EAS	221.057 µPa²h	
EAS8	7.074 mPa²h	
EAS40	35.369 mPa²h	
$LZ_{peak\ (max)}$	2023-10-12 12:07:10	100.1 dB
LAS_{max}	2023-10-12 12:07:11	76.8 dB
LAS_{min}	2023-10-12 12:01:20	43.3 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	70.1 dB
LA_{Seq}	63.4 dB
LC_{Seq} - LA_{Seq}	6.6 dB
LAI_{eq}	66.0 dB
LA_{eq}	63.4 dB
LAI_{eq} - LA_{eq}	2.5 dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	63.4					
$L_{S(max)}$	76.8	2023/10/12 12:07:11				
$L_{S(min)}$	43.3	2023/10/12 12:01:20				
$L_{Peak(max)}$					100.1	2023/10/12 12:07:10

Overload Count	0
Overload Duration	0.0 s

Summary

File Name on Meter	R3 Daytime
File Name on PC	LxT_0004983-20231012 113457-LxT_Data.270.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:34:57
Stop	2023-10-12 11:49:57
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 11:00:37
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	145.1 dB

	A	**C**	**Z**
Under Range Peak	101.1	98.1	**103.1** dB
Under Range Limit	**38.3**	38.0	45.0 dB
Noise Floor	29.2	28.8	35.9 dB

	First	**Second**	**Third**
Instrument Identification			

Results

LA_{Seq}	59.6	
LASE	89.2	
EAS	91.581 µPa²h	
EAS8	2.931 mPa²h	
EAS40	14.653 mPa²h	
$LZ_{peak\ (max)}$	2023-10-12 11:45:52	96.0 dB
LAS_{max}	2023-10-12 11:44:13	71.9 dB
LAS_{min}	2023-10-12 11:39:04	48.7 dB
SEA	-99.9 dB	

	Exceedance Counts	**Duration**
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	70.0 dB
LA_{Seq}	59.6 dB
LC_{Seq} - LA_{Seq}	10.4 dB
LAI_{eq}	61.2 dB
LA_{eq}	59.6 dB
LAI_{eq} - LA_{eq}	1.6 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	59.6					
$L_{S(max)}$	71.9	2023/10/12 11:44:13				
$L_{S(min)}$	48.7	2023/10/12 11:39:04				
$L_{Peak(max)}$					96.0	2023/10/12 11:45:52

Summary

File Name on Meter	R4 Daytime
File Name on PC	LxT_0004983-20231012 111352-LxT_Data.269.ldbin
Serial Number	0004983
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:13:52
Stop	2023-10-12 11:28:52
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 11:00:37
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	Z Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Exponential
Overload	145.1 dB

	A	**C**	**Z**
Under Range Peak	101.1	98.1	**103.1** dB
Under Range Limit	**38.3**	38.0	45.0 dB
Noise Floor	29.2	28.8	35.9 dB

	First	**Second**	**Third**
Instrument Identification			

Results

LA_{Seq}	61.2	
LASE	90.8	
EAS	132.784 µPa²h	
EAS8	4.249 mPa²h	
EAS40	21.245 mPa²h	
$LZ_{peak\ (max)}$	2023-10-12 11:14:20	93.2 dB
LAS_{max}	2023-10-12 11:18:51	73.0 dB
LAS_{min}	2023-10-12 11:16:07	43.8 dB
SEA	-99.9 dB	

	Exceedance Counts	**Duration**
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LZ_{peak} > 135.0 dB	0	0.0 s
LZ_{peak} > 137.0 dB	0	0.0 s
LZ_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	69.0 dB
LA_{Seq}	61.2 dB
LC_{Seq} - LA_{Seq}	7.8 dB
LAI_{eq}	62.5 dB
LA_{eq}	61.2 dB
LAI_{eq} - LA_{eq}	1.3 dB

	A		**C**		**Z**	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	61.2					
$L_{S(max)}$	73.0	2023/10/12 11:18:51				
$L_{S(min)}$	43.8	2023/10/12 11:16:07				
$L_{Peak(max)}$					93.2	2023/10/12 11:14:20

Summary

File Name on Meter	R5 Daytime
File Name on PC	LxT_0004285-20231012 111154-LxT_Data.305.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:11:54
Stop	2023-10-12 11:26:54
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 10:58:36
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.9**	97.9	102.9 dB
Under Range Limit	**39.2**	38.7	45.5 dB
Noise Floor	30.0	29.6	36.4 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	63.2 dB		
LASE	92.7 dB		
EAS	208.930 µPa²h		
EAS8	6.686 mPa²h		
EAS40	33.429 mPa²h		
$LA_{peak\ (max)}$	2023-10-12 11:20:18	97.8 dB	
LAS_{max}	2023-10-12 11:12:24	76.9 dB	
LAS_{min}	2023-10-12 11:15:24	44.2 dB	
SEA	-99.9 dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	71.8 dB
LA_{Seq}	63.2 dB
LC_{Seq} - LA_{Seq}	8.6 dB
LA_{Ieq}	65.4 dB
LA_{eq}	63.2 dB
LA_{Ieq} - LA_{eq}	2.2 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	63.2					
$L_{S(max)}$	76.9	2023/10/12 11:12:24				
$L_{S(min)}$	44.2	2023/10/12 11:15:24				
$L_{Peak(max)}$	97.8	2023/10/12 11:20:18				

Summary

File Name on Meter	R6 Daytime
File Name on PC	LxT_0004285-20231012 112903-LxT_Data.306.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:29:03
Stop	2023-10-12 11:44:03
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 10:58:34
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.9**	97.9	102.9 dB
Under Range Limit	**39.2**	38.7	45.5 dB
Noise Floor	30.0	29.6	36.4 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	65.7 dB	
LASE	95.2 dB	
EAS	371.535 µPa²h	
EAS8	11.889 mPa²h	
EAS40	59.446 mPa²h	
$LA_{peak\ (max)}$	2023-10-12 11:33:17	108.9 dB
LAS_{max}	2023-10-12 11:32:45	87.5 dB
LAS_{min}	2023-10-12 11:36:24	46.0 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	3	5.7 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	79.0 dB
LA_{Seq}	65.7 dB
LC_{Seq} - LA_{Seq}	13.3 dB
LAI_{eq}	70.6 dB
LA_{eq}	65.7 dB
LAI_{eq} - LA_{eq}	4.9 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	65.7					
$L_{S(max)}$	87.5	2023/10/12 11:32:45				
$L_{S(min)}$	46.0	2023/10/12 11:36:24				
$L_{Peak(max)}$	108.9	2023/10/12 11:33:17				

Summary

File Name on Meter	R7 Daytime
File Name on PC	LxT_0004285-20231012 114527-LxT_Data.307.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 11:45:27
Stop	2023-10-12 12:00:27
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 10:58:34
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.9**	97.9	102.9 dB
Under Range Limit	**39.2**	38.7	45.5 dB
Noise Floor	30.0	29.6	36.4 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	57.1 dB	
LASE	86.6 dB	
EAS	51.286 µPa²h	
EAS8	1.641 mPa²h	
EAS40	8.206 mPa²h	
$LA_{peak\ (max)}$	2023-10-12 11:58:45	93.0 dB
LAS_{max}	2023-10-12 11:57:23	73.7 dB
LAS_{min}	2023-10-12 11:52:26	45.9 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	67.3 dB
LA_{Seq}	57.1 dB
LC_{Seq} - LA_{Seq}	10.2 dB
LAI_{eq}	60.4 dB
LA_{eq}	57.1 dB
LAI_{eq} - LA_{eq}	3.3 dB

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	57.1					
$L_{S(max)}$	73.7	2023/10/12 11:57:23				
$L_{S(min)}$	45.9	2023/10/12 11:52:26				
$L_{Peak(max)}$	93.0	2023/10/12 11:58:45				

Summary

File Name on Meter	R8 Daytime
File Name on PC	LxT_0004285-20231012 120239-LxT_Data.308.ldbin
Serial Number	0004285
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2023-10-12 12:02:39
Stop	2023-10-12 12:17:39
Duration	00:15:00.0
Run Time	00:15:00.0
Pause	00:00:00.0
Pre-Calibration	2023-10-12 10:58:34
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT2B
Microphone Correction	Off
Integration Method	Exponential
Overload	144.6 dB

	A	C	Z
Under Range Peak	**100.9**	97.9	102.9 dB
Under Range Limit	**39.2**	38.7	45.5 dB
Noise Floor	30.0	29.6	36.4 dB

	First	Second	Third
Instrument Identification		626 Wilshire Blvd., Ste. 1100	Los Angeles, CA 90017

Results

LA_{Seq}	53.5 dB	
LASE	83.0 dB	
EAS	22.387 µPa²h	
EAS8	716.391 µPa²h	
EAS40	3.582 mPa²h	
$LA_{peak\ (max)}$	2023-10-12 12:05:07	82.2 dB
LAS_{max}	2023-10-12 12:05:08	66.8 dB
LAS_{min}	2023-10-12 12:02:39	46.5 dB
SEA	-99.9 dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LA_{peak} > 135.0 dB	0	0.0 s
LA_{peak} > 137.0 dB	0	0.0 s
LA_{peak} > 140.0 dB	0	0.0 s

LC_{Seq}	64.4 dB	
LA_{Seq}	53.5 dB	
LC_{Seq} - LA_{Seq}	10.9 dB	
LAI_{eq}	55.5 dB	
LA_{eq}	53.5 dB	
LAI_{eq} - LA_{eq}	2.0 dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
L_{eq}	53.5					
$L_{S(max)}$	66.8	2023/10/12 12:05:08				
$L_{S(min)}$	46.5	2023/10/12 12:02:39				
$L_{Peak(max)}$	82.2	2023/10/12 12:05:07				

G.2 Construction Noise Calculations

5700 Hannum Project
On-Site Construction Noise
Unmitigated Summary

Receptor	Exterior Construction Noise	Interior Construction Noise with Windows Open	Interior Construction Noise with Windows Closed	Morning Noise Threshold (Ambient + 5 dBA)	Exceeds Threshold? (Exterior/Interior with Windows Open/Interior with Windows Closed)	Daytime Noise Threshold (Ambient + 5 dBA)	Exceeds Threshold? (Exterior/Interior with Windows Open/Interior with Windows Closed)
R1	66.4	53.4	41.4	76.5	No/No/No	68.0	No/No/No
R2	63.6	50.6	38.6	73.7	No/No/No	68.4	No/No/No
R3	**84.8**	**71.8**	59.8	67.8	Yes/Yes/No	64.6	Yes/Yes/No
R4	**84.8**	**71.8**	59.8	69.3	Yes/Yes/No	66.2	Yes/Yes/No
R5	65.5	52.5	40.5	72.5	No/No/No	68.2	No/No/No
R6	**78.8**	65.8	53.8	71.2	NA/No/No	70.7	NA/No/No
R7	**84.8**	**71.8**	59.8	61.6	NA/Yes/No	62.1	NA/Yes/No
R8	**71.6**	**58.6**	46.6	61.7	NA/No/No	58.5	NA/Yes/No

Mitigated Summary

Receptor	Exterior Construction Noise	Interior Construction Noise with Windows Open	Interior Construction Noise with Windows Closed	Morning Noise Threshold (Ambient + 5 dBA)	Exceeds Threshold? (Exterior/Interior with Windows Open/Interior with Windows Closed)	Daytime Noise Threshold (Ambient + 5 dBA)	Exceeds Threshold? (Exterior/Interior with Windows Open/Interior with Windows Closed)
R1	44.4	31.4	19.4	76.5	No/No/No	68.0	No/No/No
R2	41.6	28.6	16.6	73.7	No/No/No	68.4	No/No/No
R3	62.8	49.8	37.8	67.8	No/No/No	64.6	No/No/No
R4	62.8	47.8	35.8	69.3	No/No/No	66.2	No/No/No
R5	43.5	30.5	18.5	72.5	No/No/No	68.2	No/No/No
R6	**73.8**	60.8	48.8	71.2	NA/No/No	70.7	NA/No/No
R7	**62.8**	49.8	37.8	61.6	NA/NA/No	62.1	NA/No/No
R8	49.6	36.6	24.6	61.7	NA/NA/No	58.5	NA/No/No

Project: 5700 Hannum

Unmitigated Exterior Noise Levels

				R1					R3					R4					R5					R6					R7					R8					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L12	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L13	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L14	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L15	Estimated Noise Shielding, dBA
Demolition					***73***	***66***		**0**		***80***	***84***				***90***	***83***				***71***	***65***				***85***	***79***				***80***	***84***				***79***	***72***				***70***	***64***		
Concrete Saw	1	90	20%	750	66	59	62	0	200	78	71	74	0	230	77	70	73	0	750	66	59	62	0	300	74	67	70	0	200	78	71	74	0	400	72	65	68	0	950	64	57	60	0
Concrete Saw	1	90	20%	450	71	64	67	0	50	90	83	86	0	50	90	83	86	0	550	69	62	65	0	100	84	77	80	0	50	90	83	86	0	250	76	69	72	0	670	67	60	63	0
Generator	2	81	50%	750	60	57	60	0	200	72	69	72	0	230	71	68	71	0	750	60	57	60	0	300	68	65	68	0	200	72	69	72	0	400	66	63	66	0	950	58	55	58	0
Forklift	1	75	10%	950	49	39	42	0	425	56	46	49	0	450	56	46	49	0	1000	49	39	42	0	600	53	43	46	0	400	57	47	50	0	600	53	43	46	0	1200	47	37	40	0
Excavator	1	81	40%	750	57	53	56	0	200	69	65	68	0	230	68	64	67	0	750	57	53	56	0	300	65	61	64	0	200	69	65	68	0	400	63	59	62	0	950	55	51	54	0
Tractor/Loader/Backhoe	1	78	40%	750	54	50	53	0	200	66	62	65	0	230	65	61	64	0	750	54	50	53	0	300	62	58	61	0	200	66	62	65	0	400	60	56	59	0	950	52	48	51	0
Front End Loader	1 8	79	40%	950	53	49	52	0	425	60	56	59	0	450	60	56	59	0	1000	53	49	52	0	600	57	53	56	0	400	61	57	60	0	600	57	53	56	0	1200	51	47	50	0
Grading/Excavation					***68***	***62***				***85***	***79***				***85***	***79***				***67***	***62***				***79***	***73***				***85***	***79***				***73***	***68***				***65***	***60***		
Drill Rig Truck	1	79	20%	950	53	46	49	0	425	60	53	56	0	450	60	53	56	0	1000	53	46	49	0	600	57	50	53	0	400	61	54	57	0	600	57	50	53	0	1200	51	44	47	0
Drill Rig Truck	1	79	20%	750	55	48	51	0	200	67	60	63	0	230	66	59	62	0	750	55	48	51	0	300	63	56	59	0	200	67	60	63	0	400	61	54	57	0	950	53	46	49	0
Crane	1	81	16%	950	55	47	50	0	425	62	54	57	0	450	62	54	57	0	1000	55	47	50	0	600	59	51	54	0	400	63	55	58	0	600	59	51	54	0	1200	53	45	48	0
Excavator	1	81	40%	750	57	53	56	0	200	69	65	68	0	230	68	64	67	0	750	57	53	56	0	300	65	61	64	0	200	69	65	68	0	400	63	59	62	0	950	55	51	54	0
Excavator	1	81	40%	450	62	58	61	0	50	81	77	80	0	50	81	77	80	0	550	60	56	59	0	100	75	71	74	0	50	81	77	80	0	250	67	63	66	0	670	58	54	57	0
Generator	1	81	50%	750	57	54	57	0	200	69	66	69	0	230	68	65	68	0	750	57	54	57	0	300	65	62	65	0	200	69	66	69	0	400	63	60	63	0	950	55	52	55	0
Forklift	1	75	10%	950	49	39	42	0	425	56	46	49	0	450	56	46	49	0	1000	49	39	42	0	600	53	43	46	0	400	57	47	50	0	600	53	43	46	0	1200	47	37	40	0
Tractor/Loader/Backhoe	1	78	40%	750	54	50	53	0	200	66	62	65	0	230	65	61	64	0	750	54	50	53	0	300	62	58	61	0	200	66	62	65	0	400	60	56	59	0	950	52	48	51	0
Front End Loader	1	79	40%	750	55	51	54	0	200	67	63	66	0	230	66	62	65	0	750	55	51	54	0	300	63	59	62	0	200	67	63	66	0	400	61	57	60	0	950	53	49	52	0
Vacuum Street Sweeper	1	82	10%	450	63	53	56	0	50	82	72	75	0	50	82	72	75	0	550	61	51	54	0	100	76	66	69	0	50	82	72	75	0	250	68	58	61	0	670	59	49	52	0
Foundations/Concrete Pour					***68***	***64***				***86***	***81***				***86***	***81***				***67***	***62***				***80***	***75***				***86***	***81***				***73***	***69***				***65***	***61***		
Crane	1	81	16%	750	57	50	53	0	200	69	61	64	0	230	68	60	63	0	750	57	50	53	0	300	65	57	60	0	200	69	61	64	0	400	63	55	58	0	950	55	47	50	0
Grader	1	85	40%	450	66	62	65	0	50	85	81	84	0	50	85	81	84	0	550	64	60	63	0	100	79	75	78	0	50	85	81	84	0	250	71	67	70	0	670	62	58	61	0
Pumps	2	81	50%	950	58	55	58	0	425	65	62	65	0	450	65	62	65	0	1000	58	55	58	0	600	62	59	62	0	400	66	63	66	0	600	62	59	62	0	1200	56	53	56	0
Forklift	1	75	10%	450	56	46	49	0	50	75	65	68	0	50	75	65	68	0	550	54	44	47	0	100	69	59	62	0	50	75	65	68	0	250	61	51	54	0	670	52	42	45	0
Forklift	1	75	10%	750	51	41	44	0	200	63	53	56	0	230	62	52	55	0	750	51	41	44	0	300	59	49	52	0	200	63	53	56	0	400	57	47	50	0	950	49	39	42	0
Front End Loader	1	79	40%	950	53	49	52	0	425	60	56	59	0	450	60	56	59	0	1000	53	49	52	0	600	57	53	56	0	400	61	57	60	0	600	57	53	56	0	1200	51	47	50	0
Tractor/Loader/Backhoe	1	78	40%	750	54	50	53	0	200	66	62	65	0	230	65	61	64	0	750	54	50	53	0	300	62	58	61	0	200	66	62	65	0	400	60	56	59	0	950	52	48	51	0
Tractor/Loader/Backhoe	1 9	78	40%	950	52	48	51	0	425	59	55	58	0	450	59	55	58	0	1000	52	48	51	0	600	56	52	55	0	400	60	56	59	0	600	56	52	55	0	1200	50	46	49	0
Building Construction					***72***	***66***				***91***	***85***				***91***	***85***				***71***	***65***				***86***	***79***				***91***	***85***				***77***	***71***				***69***	***63***		
Man Lift	1	75	20%	450	56	49	52	0	50	75	68	71	0	50	75	68	71	0	550	54	47	50	0	100	69	62	65	0	50	75	68	71	0	250	61	54	57	0	670	52	45	48	0
Man Lift	2	75	20%	750	54	47	50	0	200	66	59	62	0	230	65	58	61	0	750	54	47	50	0	300	62	55	58	0	200	66	59	62	0	400	60	53	56	0	950	52	45	48	0
Man Lift	2	75	20%	950	52	45	48	0	425	59	52	55	0	450	59	52	55	0	1000	52	45	48	0	600	56	49	52	0	400	60	53	56	0	600	56	49	52	0	1200	50	43	46	0
Compressor (air)	1	78	40%	950	52	48	51	0	425	59	55	58	0	450	59	55	58	0	1000	52	48	51	0	600	56	52	55	0	400	60	56	59	0	600	56	52	55	0	1200	50	46	49	0
Compressor (air)	1	78	40%	450	59	55	58	0	50	78	74	77	0	50	78	74	77	0	550	57	53	56	0	100	72	68	71	0	50	78	74	77	0	250	64	60	63	0	670	55	51	54	0
Concrete Saw	1	90	20%	450	71	64	67	0	50	90	83	86	0	50	90	83	86	0	550	69	62	65	0	100	84	77	80	0	50	90	83	86	0	250	76	69	72	0	670	67	60	63	0
Crane	1	81	16%	950	55	47	50	0	425	62	54	57	0	450	62	54	57	0	1000	55	47	50	0	600	59	51	54	0	400	63	55	58	0	600	59	51	54	0	1200	53	45	48	0
Forklift	2	75	10%	750	54	44	47	0	200	66	56	59	0	230	65	55	58	0	750	54	44	47	0	300	62	52	55	0	200	66	56	59	0	400	60	50	53	0	950	52	42	45	0
Forklift	2	75	10%	950	52	42	45	0	425	59	49	52	0	450	59	49	52	0	1000	52	42	45	0	600	56	46	49	0	400	60	50	53	0	600	56	46	49	0	1200	50	40	43	0
Generator	1	81	50%	450	62	58	61	0	50	81	78	81	0	50	81	78	81	0	550	60	57	60	0	100	75	72	75	0	50	81	78	81	0	250	67	64	67	0	670	58	55	58	0
Generator	1 15	81	50%	750	57	54	57	0	200	69	66	69	0	230	68	65	68	0	750	57	54	57	0	300	65	62	65	0	200	69	66	69	0	400	63	60	63	0	950	55	52	55	0
Paving					***71***	***65***				***90***	***83***				***90***	***83***				***70***	***64***				***84***	***77***				***90***	***83***				***77***	***70***				***68***	***62***		
Paver	1	77	50%	950	51	48	51	0	425	58	55	58	0	450	58	55	58	0	1000	51	48	51	0	600	55	52	55	0	400	59	56	59	0	600	55	52	55	0	1200	49	46	49	0
Other Equipment	1	85	50%	750	61	58	61	0	200	73	70	73	0	230	72	69	72	0	750	61	58	61	0	300	69	66	69	0	200	73	70	73	0	400	67	64	67	0	950	59	56	59	0
Pavement Scarafier	1	90	20%	450	71	64	67	0	50	90	83	86	0	50	90	83	86	0	550	69	62	65	0	100	84	77	80	0	50	90	83	86	0	250	76	69	72	0	670	67	60	63	0
Architectural Coating					***60***	***55***				***78***	***74***				***78***	***74***				***58***	***53***				***72***	***68***				***78***	***74***				***65***	***60***				***56***	***52***		
Forklift	1	75	10%	750	51	41	44	0	200	63	53	56	0	230	62	52	55	0	750	51	41	44	0	300	59	49	52	0	200	63	53	56	0	400	57	47	50	0	950	49	39	42	0
Compressor (air)	1	78	40%	450	59	55	58	0	50	78	74	77	0	50	78	74	77	0	550	57	53	56	0	100	72	68	71	0	50	78	74	77	0	250	64	60	63	0	670	55	51	54	0
Maximum Noise Levels					**66.4**					**84.8**					**84.8**					**65.5**					**78.8**					**84.8**					**71.6**					**63.6**			
Daytime Ambient Noise Level					**63.0**					**59.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**			
Daytime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**			
Exceeds Threshold?					**No**					**Yes**					**Yes**					**No**					**Yes**					**Yes**					**Yes**					**No**			
Morning Ambient Noise Level				71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7			
Morning Ambient Threshold				**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**			
Exceeds Threshold?				**No**					**Yes**					**Yes**					**No**					**Yes**					**Yes**					**Yes**					**No**			

Source for Ref. Noise Levels: LA CEQA Guides. 2006 & FHWA RCNM. 2005

Project: 5700 Hannum

Interior with Windows Open Unmitigated Noise Levels

				R1					R3					R4					R5					R6					R7					R8					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L12	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L13	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L14	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L15	Estimated Noise Shielding, dBA
Demolition					***60***	***53***		***0***		***77***	***71***				***77***	***70***				***59***	***52***				***72***	***65***				***77***	***71***				***65***	***59***				***57***	***51***		
Concrete Saw	1	90	20%	750	53	46	49	13	200	65	58	61	13	230	64	57	60	13	750	53	46	49	13	300	61	54	57	13	200	65	58	61	13	400	59	52	55	13	950	51	44	47	13
Concrete Saw	1	90	20%	450	58	51	54	13	50	77	70	73	13	50	77	70	73	13	550	56	49	52	13	100	71	64	67	13	50	77	70	73	13	250	63	56	59	13	670	54	47	50	13
Generator	2	81	50%	750	47	44	47	13	200	59	56	59	13	230	58	55	58	13	750	47	44	47	13	300	55	52	55	13	200	59	56	59	13	400	53	50	53	13	950	45	42	45	13
Forklift	1	75	10%	950	36	26	29	13	425	43	33	36	13	450	43	33	36	13	1000	36	26	29	13	600	40	30	33	13	400	44	34	37	13	600	40	30	33	13	1200	34	24	27	13
Excavator	1	81	40%	750	44	40	43	13	200	56	52	55	13	230	55	51	54	13	750	44	40	43	13	300	52	48	51	13	200	56	52	55	13	400	50	46	49	13	950	42	38	41	13
Tractor/Loader/Backhoe	1	78	40%	750	41	37	40	13	200	53	49	52	13	230	52	48	51	13	750	41	37	40	13	300	49	45	48	13	200	53	49	52	13	400	47	43	46	13	950	39	35	38	13
Front End Loader	1 8	79	40%	950	40	36	39	13	425	47	43	46	13	450	47	43	46	13	1000	40	36	39	13	600	44	40	43	13	400	48	44	47	13	600	44	40	43	13	1200	38	34	37	13
Grading/Excavation					***55***	***49***				***72***	***66***				***72***	***66***				***54***	***49***				***66***	***60***				***72***	***68***				***60***	***55***				***52***	***47***		
Drill Rig Truck	1	79	20%	950	40	33	36	13	425	47	40	43	13	450	47	40	43	13	1000	40	33	36	13	600	44	37	40	13	400	48	41	44	13	600	44	37	40	13	1200	38	31	34	13
Drill Rig Truck	1	79	20%	750	42	35	38	13	200	54	47	50	13	230	53	46	49	13	750	42	35	38	13	300	50	43	46	13	200	54	47	50	13	400	48	41	44	13	950	40	33	36	13
Crane	1	81	16%	950	42	34	37	13	425	49	41	44	13	450	49	41	44	13	1000	42	34	37	13	600	46	38	41	13	400	50	42	45	13	600	46	38	41	13	1200	40	32	35	13
Excavator	1	81	40%	750	44	40	43	13	200	56	52	55	13	230	55	51	54	13	750	44	40	43	13	300	52	48	51	13	200	56	52	55	13	400	50	46	49	13	950	42	38	41	13
Excavator	1	81	40%	450	49	45	48	13	50	68	64	67	13	50	68	64	67	13	550	47	43	46	13	100	62	58	61	13	50	68	64	67	13	250	54	50	53	13	670	45	41	44	13
Generator	1	81	50%	750	44	41	44	13	200	56	53	56	13	230	55	52	55	13	750	44	41	44	13	300	52	49	52	13	200	56	53	56	13	400	50	47	50	13	950	42	39	42	13
Forklift	1	75	10%	950	36	26	29	13	425	43	33	36	13	450	43	33	36	13	1000	36	26	29	13	600	40	30	33	13	400	44	34	37	13	600	40	30	33	13	1200	34	24	27	13
Tractor/Loader/Backhoe	1	78	40%	750	41	37	40	13	200	53	49	52	13	230	52	48	51	13	750	41	37	40	13	300	49	45	48	13	200	53	49	52	13	400	47	43	46	13	950	39	35	38	13
Front End Loader	1	79	40%	750	42	38	41	13	200	54	50	53	13	230	53	49	52	13	750	42	38	41	13	300	50	46	49	13	200	54	50	53	13	400	48	44	47	13	950	40	36	39	13
Vacuum Street Sweeper	1	82	10%	450	50	40	43	13	50	69	59	62	13	50	69	59	62	13	550	48	38	41	13	100	63	53	56	13	50	69	59	62	13	250	55	45	48	13	670	46	36	39	13
Foundations/Concrete Pour					***55***	***51***				***73***	***68***				***73***	***68***				***54***	***49***				***67***	***62***				***73***	***68***				***60***	***56***				***52***	***48***		
Crane	1	81	16%	750	44	37	40	13	200	56	48	51	13	230	55	47	50	13	750	44	37	40	13	300	52	44	47	13	200	56	48	51	13	400	50	42	45	13	950	42	34	37	13
Grader	1	85	40%	450	53	49	52	13	50	72	68	71	13	50	72	68	71	13	550	51	47	50	13	100	66	62	65	13	50	72	68	71	13	250	58	54	57	13	670	49	45	48	13
Pumps	2	81	50%	950	45	42	45	13	425	52	49	52	13	450	52	49	52	13	1000	45	42	45	13	600	49	46	49	13	400	53	50	53	13	600	49	46	49	13	1200	43	40	43	13
Forklift	1	75	10%	450	43	33	36	13	50	62	52	55	13	50	62	52	55	13	550	41	31	34	13	100	56	46	49	13	50	62	52	55	13	250	48	38	41	13	670	39	29	32	13
Forklift	1	75	10%	750	38	28	31	13	200	50	40	43	13	230	49	39	42	13	750	38	28	31	13	300	46	36	39	13	200	50	40	43	13	400	44	34	37	13	950	36	26	29	13
Front End Loader	1	79	40%	950	40	36	39	13	425	47	43	46	13	450	47	43	46	13	1000	40	36	39	13	600	44	40	43	13	400	48	44	47	13	600	44	40	43	13	1200	38	34	37	13
Tractor/Loader/Backhoe	1	78	40%	750	41	37	40	13	200	53	49	52	13	230	52	48	51	13	750	41	37	40	13	300	49	45	48	13	200	53	49	52	13	400	47	43	46	13	950	39	35	38	13
Tractor/Loader/Backhoe	1 9	78	40%	950	39	35	38	13	425	46	42	45	13	450	46	42	45	13	1000	39	35	38	13	600	43	39	42	13	400	47	43	46	13	600	43	39	42	13	1200	37	33	36	13
Building Construction					***59***	***53***				***78***	***72***				***78***	***72***				***58***	***52***				***72***	***66***				***78***	***72***				***64***	***58***				***56***	***50***		
Man Lift	1	75	20%	450	43	36	39	13	50	62	55	58	13	50	62	55	58	13	550	41	34	37	13	100	56	49	52	13	50	62	55	58	13	250	48	41	44	13	670	39	32	35	13
Man Lift	2	75	20%	750	41	34	37	13	200	53	46	49	13	230	52	45	48	13	750	41	34	37	13	300	49	42	45	13	200	53	46	49	13	400	47	40	43	13	950	39	32	35	13
Man Lift	2	75	20%	950	39	32	35	13	425	46	39	42	13	450	46	39	42	13	1000	39	32	35	13	600	43	36	39	13	400	47	40	43	13	600	43	36	39	13	1200	37	30	33	13
Compressor (air)	1	78	40%	950	39	35	38	13	425	46	42	45	13	450	46	42	45	13	1000	39	35	38	13	600	43	39	42	13	400	47	43	46	13	600	43	39	42	13	1200	37	33	36	13
Compressor (air)	1	78	40%	450	46	42	45	13	50	65	61	64	13	50	65	61	64	13	550	44	40	43	13	100	59	55	58	13	50	65	61	64	13	250	51	47	50	13	670	42	38	41	13
Concrete Saw	1	90	20%	450	58	51	54	13	50	77	70	73	13	50	77	70	73	13	550	56	49	52	13	100	71	64	67	13	50	77	70	73	13	250	63	56	59	13	670	54	47	50	13
Crane	1	81	16%	950	42	34	37	13	425	49	41	44	13	450	49	41	44	13	1000	42	34	37	13	600	46	38	41	13	400	50	42	45	13	600	46	38	41	13	1200	40	32	35	13
Forklift	2	75	10%	750	41	31	34	13	200	53	43	46	13	230	52	42	45	13	750	41	31	34	13	300	49	39	42	13	200	53	43	46	13	400	47	37	40	13	950	39	29	32	13
Forklift	2	75	10%	950	39	29	32	13	425	46	36	39	13	450	46	36	39	13	1000	39	29	32	13	600	43	33	36	13	400	47	37	40	13	600	43	33	36	13	1200	37	27	30	13
Generator	1	81	50%	450	49	46	49	13	50	68	65	68	13	50	68	65	68	13	550	47	44	47	13	100	62	59	62	13	50	68	65	68	13	250	54	51	54	13	670	45	42	45	13
Generator	1 15	81	50%	750	44	41	44	13	200	56	53	56	13	230	55	52	55	13	750	44	41	44	13	300	52	49	52	13	200	56	53	56	13	400	50	47	50	13	950	42	39	42	13
Paving					***58***	***52***				***77***	***70***				***77***	***70***				***57***	***51***				***71***	***64***				***77***	***70***				***64***	***57***				***55***	***49***		
Paver	1	77	50%	950	38	35	38	13	425	45	42	45	13	450	45	42	45	13	1000	38	35	38	13	600	42	39	42	13	400	46	43	46	13	600	42	39	42	13	1200	36	33	36	13
Other Equipment	1	85	50%	750	48	45	48	13	200	60	57	60	13	230	59	56	59	13	750	48	45	48	13	300	56	53	56	13	200	60	57	60	13	400	54	51	54	13	950	46	43	46	13
Pavement Scarafier	1	90	20%	450	58	51	54	13	50	77	70	73	13	50	77	70	73	13	550	56	49	52	13	100	71	64	67	13	50	77	70	73	13	250	63	56	59	13	670	54	47	50	13
Architectural Coating					***47***	***42***				***65***	***61***				***65***	***61***				***45***	***40***				***59***	***55***				***65***	***61***				***52***	***47***				***43***	***39***		
Forklift	1	75	10%	750	38	28	31	13	200	50	40	43	13	230	49	39	42	13	750	38	28	31	13	300	46	36	39	13	200	50	40	43	13	400	44	34	37	13	950	36	26	29	13
Compressor (air)	1	78	40%	450	46	42	45	13	50	65	61	64	13	50	65	61	64	13	550	44	40	43	13	100	59	55	58	13	50	65	61	64	13	250	51	47	50	13	670	42	38	41	13
Maximum Noise Levels					**53.4**					**71.8**					**71.8**					**52.5**					**65.8**					**71.8**					**58.6**					**50.6**			
Davtime Ambient Noise Level					**63.0**					**55.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**			
Davtime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**			
Exceeds Threshold?					**No**					**Yes**					**No**					**No**					**No**					**Yes**					**Yes**					**No**			
Mornino Ambient Noise Level				71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7			
Mornino Ambient Threshold				**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**			
Exceeds Threshold?				**No**					**Yes**					**No**					**No**					**No**					**Yes**					**No**					**No**			

Source for Ref. Noise Levels: LA CEOA Guides. 2006 & FHWA RCNM. 2005

Project: 5700 Hannum

Interior with Windows Closed Unmitigated Noise Levels

Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	R1 Distance (ft)	R1 Lmax	R1 Leq	R1 L10	R1 Estimated Noise Shielding, dBA	R3 Distance (ft)	R3 Lmax	R3 Leq	R3 L10	R3 Estimated Noise Shielding, dBA	R4 Distance (ft)	R4 Lmax	R4 Leq	R4 L10	R4 Estimated Noise Shielding, dBA	R5 Distance (ft)	R5 Lmax	R5 Leq	R5 L10	R5 Estimated Noise Shielding, dBA	R6 Distance (ft)	R6 Lmax	R6 Leq	R6 L12	R6 Estimated Noise Shielding, dBA	R7 Distance (ft)	R7 Lmax	R7 Leq	R7 L13	R7 Estimated Noise Shielding, dBA	R8 Distance (ft)	R8 Lmax	R8 Leq	R8 L14	R8 Estimated Noise Shielding, dBA	R2 Distance (ft)	R2 Lmax	R2 Leq	R2 L15	R2 Estimated Noise Shielding, dBA
Demolition					***48***	***41***		***0***		***65***	***59***				***65***	***58***				***47***	***40***				***60***	***53***				***65***	***59***				***53***	***47***				***45***	***39***		
Concrete Saw	1	90	20%	750	41	34	37	25	200	53	46	49	25	230	52	45	48	25	750	41	34	37	25	300	49	42	45	25	200	53	46	49	25	400	47	40	43	25	950	39	32	35	25
Concrete Saw	1	90	20%	450	46	39	42	25	50	65	58	61	25	50	65	58	61	25	550	44	37	40	25	100	59	52	55	25	50	65	58	61	25	250	51	44	47	25	670	42	35	38	25
Generator	2	81	50%	750	35	32	35	25	200	47	44	47	25	230	46	43	46	25	750	35	32	35	25	300	43	40	43	25	200	47	44	47	25	400	41	38	41	25	950	33	30	33	25
Forklift	1	75	10%	950	24	14	17	25	425	31	21	24	25	450	31	21	24	25	1000	24	14	17	25	600	28	18	21	25	400	32	22	25	25	600	28	18	21	25	1200	22	12	15	25
Excavator	1	81	40%	750	32	28	31	25	200	44	40	43	25	230	43	39	42	25	750	32	28	31	25	300	40	36	39	25	200	44	40	43	25	400	38	34	37	25	950	30	26	29	25
Tractor/Loader/Backhoe	1	78	40%	750	29	25	28	25	200	41	37	40	25	230	40	36	39	25	750	29	25	28	25	300	37	33	36	25	200	41	37	40	25	400	35	31	34	25	950	27	23	26	25
Front End Loader	1 8	79	40%	950	28	24	27	25	425	35	31	34	25	450	35	31	34	25	1000	28	24	27	25	600	32	28	31	25	400	36	32	35	25	600	32	28	31	25	1200	26	22	25	25
Grading/Excavation					***43***	***37***				***60***	***54***				***60***	***54***				***42***	***37***				***54***	***48***				***60***	***54***				***48***	***43***				***40***	***35***		
Drill Rig Truck	1	79	20%	950	28	21	24	25	425	35	28	31	25	450	35	28	31	25	1000	26	21	24	25	600	32	25	28	25	400	36	29	32	25	600	32	25	28	25	1200	26	19	22	25
Drill Rig Truck	1	79	20%	750	30	23	26	25	200	42	35	38	25	230	41	34	37	25	750	30	23	26	25	300	38	31	34	25	200	42	35	38	25	400	36	29	32	25	950	28	21	24	25
Crane	1	81	16%	950	30	22	25	25	425	37	29	32	25	450	37	29	32	25	1000	30	22	25	25	600	34	26	29	25	400	38	30	33	25	600	34	26	29	25	1200	28	20	23	25
Excavator	1	81	40%	750	32	28	31	25	200	44	40	43	25	230	43	39	42	25	750	32	28	31	25	300	40	36	39	25	200	44	40	43	25	400	38	34	37	25	950	30	26	29	25
Excavator	1	81	40%	450	37	33	36	25	50	56	52	55	25	50	56	52	55	25	550	35	31	34	25	100	50	46	49	25	50	56	52	55	25	250	42	38	41	25	670	33	29	32	25
Generator	1	81	50%	750	32	29	32	25	200	44	41	44	25	230	43	40	43	25	750	32	29	32	25	300	40	37	40	25	200	44	41	44	25	400	38	35	38	25	950	30	27	30	25
Forklift	1	75	10%	950	24	14	17	25	425	31	21	24	25	450	31	21	24	25	1000	24	14	17	25	600	28	18	21	25	400	32	22	25	25	600	28	18	21	25	1200	22	12	15	25
Tractor/Loader/Backhoe	1	78	40%	750	29	25	28	25	200	41	37	40	25	230	40	36	39	25	750	29	25	28	25	300	37	33	36	25	200	41	37	40	25	400	35	31	34	25	950	27	23	26	25
Front End Loader	1	79	40%	750	30	26	29	25	200	42	38	41	25	230	41	37	40	25	750	30	26	29	25	300	38	34	37	25	200	42	38	41	25	400	36	32	35	25	950	28	24	27	25
Vacuum Street Sweeper	1	82	10%	450	38	28	31	25	50	57	47	50	25	50	57	47	50	25	550	36	26	29	25	100	51	41	44	25	50	57	47	50	25	250	43	33	36	25	670	34	24	27	25
Foundations/Concrete Pour					***43***	***39***				***61***	***56***				***61***	***56***				***42***	***37***				***55***	***50***				***61***	***56***				***48***	***44***				***40***	***36***		
Crane	1	81	16%	750	32	25	28	25	200	44	36	39	25	230	43	35	38	25	750	32	25	28	25	300	40	32	35	25	200	44	36	39	25	400	38	30	33	25	950	30	22	25	25
Grader	1	85	40%	450	41	37	40	25	50	60	56	59	25	50	60	56	59	25	550	39	35	38	25	100	54	50	53	25	50	60	56	59	25	250	46	42	45	25	670	37	33	36	25
Pumps	2	81	50%	950	33	30	33	25	425	40	37	40	25	450	40	37	40	25	1000	33	30	33	25	600	37	34	37	25	400	41	38	41	25	600	37	34	37	25	1200	31	28	31	25
Forklift	1	75	10%	450	31	21	24	25	50	50	40	43	25	50	50	40	43	25	550	29	19	22	25	100	44	34	37	25	50	50	40	43	25	250	36	26	29	25	670	27	17	20	25
Forklift	1	75	10%	750	26	16	19	25	200	38	28	31	25	230	37	27	30	25	750	26	16	19	25	300	34	24	27	25	200	38	28	31	25	400	32	22	25	25	950	24	14	17	25
Front End Loader	1	79	40%	950	28	24	27	25	425	35	31	34	25	450	35	31	34	25	1000	28	24	27	25	600	32	28	31	25	400	36	32	35	25	600	32	28	31	25	1200	26	22	25	25
Tractor/Loader/Backhoe	1	78	40%	750	29	25	28	25	200	41	37	40	25	230	40	36	39	25	750	29	25	28	25	300	37	33	36	25	200	41	37	40	25	400	35	31	34	25	950	27	23	26	25
Tractor/Loader/Backhoe	1 9	78	40%	950	27	23	26	25	425	34	30	33	25	450	34	30	33	25	1000	27	23	26	25	600	31	27	30	25	400	35	31	34	25	600	31	27	30	25	1200	25	21	24	25
Building Construction					***47***	***41***				***66***	***60***				***66***	***60***				***46***	***40***				***60***	***54***				***66***	***60***				***52***	***46***				***44***	***38***		
Man Lift	1	75	20%	450	31	24	27	25	50	50	43	46	25	50	50	43	46	25	550	29	22	25	25	100	44	37	40	25	50	50	43	46	25	250	36	29	32	25	670	27	20	23	25
Man Lift	2	75	20%	750	29	22	25	25	200	41	34	37	25	230	40	33	36	25	750	29	22	25	25	300	37	30	33	25	200	41	34	37	25	400	35	28	31	25	950	27	20	23	25
Man Lift	2	75	20%	950	27	20	23	25	425	34	27	30	25	450	34	27	30	25	1000	27	20	23	25	600	31	24	27	25	400	35	28	31	25	600	31	24	27	25	1200	25	18	21	25
Compressor (air)	1	78	40%	950	27	23	26	25	425	34	30	33	25	450	34	30	33	25	1000	27	23	26	25	600	31	27	30	25	400	35	31	34	25	600	31	27	30	25	1200	25	21	24	25
Comoressor (air)	1	78	40%	450	34	30	33	25	50	53	49	52	25	50	53	49	52	25	550	32	28	31	25	100	47	43	46	25	50	53	49	52	25	250	39	35	38	25	670	30	26	29	25
Concrete Saw	1	90	20%	450	46	39	42	25	50	65	58	61	25	50	65	58	61	25	550	44	37	40	25	100	59	52	55	25	50	65	58	61	25	250	51	44	47	25	670	42	35	38	25
Crane	1	81	16%	950	30	22	25	25	425	37	29	32	25	450	37	29	32	25	1000	30	22	25	25	600	34	26	29	25	400	38	30	33	25	600	34	26	29	25	1200	28	20	23	25
Forklift	2	75	10%	750	29	19	22	25	200	41	31	34	25	230	40	30	33	25	750	29	19	22	25	300	37	27	30	25	200	41	31	34	25	400	35	25	28	25	950	27	17	20	25
Forklift	2	75	10%	950	27	17	20	25	425	34	24	27	25	450	34	24	27	25	1000	27	17	20	25	600	31	21	24	25	400	35	25	28	25	600	31	21	24	25	1200	25	15	18	25
Generator	1	81	50%	450	37	34	37	25	50	56	53	56	25	50	56	53	56	25	550	35	32	35	25	100	50	47	50	25	50	56	53	56	25	250	42	39	42	25	670	33	30	33	25
Generator	1 15	81	50%	750	32	29	32	25	200	44	41	44	25	230	43	40	43	25	750	32	29	32	25	300	40	37	40	25	200	44	41	44	25	400	38	35	38	25	950	30	27	30	25
Paving					***46***	***40***				***65***	***58***				***65***	***58***				***45***	***39***				***59***	***52***				***65***	***58***				***52***	***45***				***43***	***37***		
Paver	1	77	50%	950	26	23	26	25	425	33	30	33	25	450	33	30	33	25	1000	26	23	26	25	600	30	27	30	25	400	34	31	34	25	600	30	27	30	25	1200	24	21	24	25
Other Equipment	1	85	50%	750	36	33	36	25	200	48	45	48	25	230	47	44	47	25	750	36	33	36	25	300	44	41	44	25	200	48	45	48	25	400	42	39	42	25	950	34	31	34	25
Pavement Scarafier	1	90	20%	450	46	39	42	25	50	65	58	61	25	50	65	58	61	25	550	44	37	40	25	100	59	52	55	25	50	65	58	61	25	250	51	44	47	25	670	42	35	38	25
Architectural Coating					***36***	***30***				***53***	***48***				***53***	***49***				***33***	***28***				***47***	***43***				***53***	***48***				***40***	***35***				***31***	***27***		
Forklift	1	75	10%	750	26	16	19	25	200	38	28	31	25	230	37	27	30	25	750	26	16	19	25	300	34	24	27	25	200	38	28	31	25	400	32	22	25	25	950	24	14	17	25
Compressor (air)	1	78	40%	450	34	30	33	25	50	53	49	52	25	50	53	49	52	25	550	32	28	31	25	100	47	43	46	25	50	53	49	52	25	250	39	35	38	25	670	30	26	29	25
Maximum Noise Levels					**41.4**					**59.8**					**59.8**					**40.5**					**53.8**					**59.8**					**46.6**					**38.6**			
Daytime Ambient Noise Level					**63.0**					**59.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**			
Daytime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**			
Exceeds Threshold?					**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			
Morning Ambient Noise Level					71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7			
Mornino Ambient Threshold					**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**			
Exceeds Threshold?					**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			

Source for Ref. Noise Levels: LA CEQA Guides. 2006 & FHWA RCNM. 2005

Project: 5700 Hannum

Exterior Mitigated Noise Levels

				R1					R3					R4					R5					R6					R7					R8					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L12	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L13	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L14	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L15	Estimated Noise Shielding, dBA
Demolition					***51***	***44***		***0***		***68***	***62***				***68***	***61***				***50***	***43***				***80***	***73***				***69***	***62***				***56***	***50***				***48***	***42***			
Concrete Saw	1	90	20%	750	44	37	40	22	200	56	49	52	22	230	55	48	51	22	750	44	37	40	22	300	69	62	65	5	200	56	49	52	22	400	50	43	46	22	950	42	35	38	22
Concrete Saw	1	90	20%	450	49	42	45	22	50	68	61	64	22	50	68	61	64	22	550	47	40	43	22	100	79	72	75	5	50	68	61	64	22	250	54	47	50	22	670	45	38	41	22
Generator	2	81	50%	750	38	35	38	22	200	50	47	50	22	230	49	46	49	22	750	38	35	38	22	300	63	60	63	5	200	50	47	50	22	400	44	41	44	22	950	36	33	36	22
Forklift	1	75	10%	950	27	17	20	22	425	34	24	27	22	450	34	24	27	22	1000	27	17	20	22	600	48	38	41	5	400	35	25	28	22	600	31	21	24	22	1200	25	15	18	22
Excavator	1	81	40%	750	35	31	34	22	200	47	43	46	22	230	46	42	45	22	750	35	31	34	22	300	60	56	59	5	200	47	43	46	22	400	41	37	40	22	950	33	29	32	22
Tractor/Loader/Backhoe	1	78	40%	750	32	28	31	22	200	44	40	43	22	230	43	39	42	22	750	32	28	31	22	300	57	53	56	5	200	44	40	43	22	400	38	34	37	22	950	30	26	29	22
Front End Loader	1 8	79	40%	950	31	27	30	22	425	38	34	37	22	450	38	34	37	22	1000	31	27	30	22	600	52	48	51	5	400	39	35	38	22	600	35	31	34	22	1200	29	25	28	22
Grading/Excavation					***46***	***40***				***63***	***57***				***63***	***57***				***45***	***40***				***74***	***68***				***63***	***57***				***51***	***46***				***43***	***39***			
Drill Rig Truck	1	79	20%	950	31	24	27	22	425	38	31	34	22	450	38	31	34	22	1000	31	24	27	22	600	52	45	48	5	400	39	32	35	22	600	35	28	31	22	1200	29	22	25	22
Drill Rig Truck	1	79	20%	750	33	26	29	22	200	45	38	41	22	230	44	37	40	22	750	33	26	29	22	300	58	51	54	5	200	45	38	41	22	400	39	32	35	22	950	31	24	27	22
Crane	1	81	16%	950	33	25	28	22	425	40	32	35	22	450	40	32	35	22	1000	33	25	28	22	600	54	46	49	5	400	41	33	36	22	600	37	29	32	22	1200	31	23	26	22
Excavator	1	81	40%	750	35	31	34	22	200	47	43	46	22	230	46	42	45	22	750	35	31	34	22	300	60	56	59	5	200	47	43	46	22	400	41	37	40	22	950	33	29	32	22
Excavator	1	81	40%	450	40	36	39	22	50	59	55	58	22	50	59	55	58	22	550	38	34	37	22	100	70	66	69	5	50	59	55	58	22	250	45	41	44	22	670	36	32	35	22
Generator	1	81	50%	750	35	32	35	22	200	47	44	47	22	230	46	43	46	22	750	35	32	35	22	300	60	57	60	5	200	47	44	47	22	400	41	38	41	22	950	33	30	33	22
Forklift	1	75	10%	950	27	17	20	22	425	34	24	27	22	450	34	24	27	22	1000	27	17	20	22	600	48	38	41	5	400	35	25	28	22	600	31	21	24	22	1200	25	15	18	22
Tractor/Loader/Backhoe	1	78	40%	750	32	28	31	22	200	44	40	43	22	230	43	39	42	22	750	32	28	31	22	300	57	53	56	5	200	44	40	43	22	400	38	34	37	22	950	30	26	29	22
Front End Loader	1	79	40%	750	33	29	32	22	200	45	41	44	22	230	44	40	43	22	750	33	29	32	22	300	58	54	57	5	200	45	41	44	22	400	39	35	38	22	950	31	27	30	22
Vacuum Street Sweeper	1	82	10%	450	41	31	34	22	50	60	50	53	22	50	60	50	53	22	550	39	29	32	22	100	71	61	64	5	50	60	50	53	22	250	46	36	39	22	670	37	27	30	22
Foundations/Concrete Pour					***46***	***42***				***64***	***59***				***64***	***59***				***45***	***40***				***75***	***70***				***64***	***59***				***51***	***47***				***43***	***39***			
Crane	1	81	16%	750	35	28	31	22	200	47	39	42	22	230	46	38	41	22	750	35	28	31	22	300	60	52	55	5	200	47	39	42	22	400	41	33	36	22	950	33	25	28	22
Grader	1	85	40%	450	44	40	43	22	50	63	59	62	22	50	63	59	62	22	550	42	38	41	22	100	74	70	73	5	50	63	59	62	22	250	49	45	48	22	670	40	36	39	22
Pumps	2	81	50%	950	36	33	36	22	425	43	40	43	22	450	43	40	43	22	1000	36	33	36	22	600	57	54	57	5	400	44	41	44	22	600	40	37	40	22	1200	34	31	34	22
Forklift	1	75	10%	450	34	24	27	22	50	53	43	46	22	50	53	43	46	22	550	32	22	25	22	100	64	54	57	5	50	53	43	46	22	250	39	29	32	22	670	30	20	23	22
Forklift	1	75	10%	750	29	19	22	22	200	41	31	34	22	230	40	30	33	22	750	29	19	22	22	300	54	44	47	5	200	41	31	34	22	400	35	25	28	22	950	27	17	20	22
Front End Loader	1	79	40%	950	31	27	30	22	425	38	34	37	22	450	38	34	37	22	1000	31	27	30	22	600	52	48	51	5	400	39	35	38	22	600	35	31	34	22	1200	29	25	28	22
Tractor/Loader/Backhoe	1	78	40%	750	32	28	31	22	200	44	40	43	22	230	43	39	42	22	750	32	28	31	22	300	57	53	56	5	200	44	40	43	22	400	38	34	37	22	950	30	26	29	22
Tractor/Loader/Backhoe	1 9	78	40%	950	30	26	29	22	425	37	33	36	22	450	37	33	36	22	1000	30	26	29	22	600	51	47	50	5	400	38	34	37	22	600	34	30	33	22	1200	28	24	27	22
Building Construction					***50***	***44***				***69***	***63***				***69***	***63***				***49***	***43***				***80***	***74***				***69***	***63***				***55***	***49***				***47***	***41***			
Man Lift	1	75	20%	450	34	27	30	22	50	53	46	49	22	50	53	46	49	22	550	32	25	28	22	100	64	57	60	5	50	53	46	49	22	250	39	32	35	22	670	30	23	26	22
Man Lift	2	75	20%	750	32	25	28	22	200	44	37	40	22	230	43	36	39	22	750	32	25	28	22	300	57	50	53	5	200	44	37	40	22	400	38	31	34	22	950	30	23	26	22
Man Lift	2	75	20%	950	30	23	26	22	425	37	30	33	22	450	37	30	33	22	1000	30	23	26	22	600	51	44	47	5	400	38	31	34	22	600	34	27	30	22	1200	28	21	24	22
Compressor (air)	1	78	40%	950	30	26	29	22	425	37	33	36	22	450	37	33	36	22	1000	30	26	29	22	600	51	47	50	5	400	38	34	37	22	600	34	30	33	22	1200	28	24	27	22
Compressor (air)	1	78	40%	450	37	33	36	22	50	56	52	55	22	50	56	52	55	22	550	35	31	34	22	100	67	63	66	5	50	56	52	55	22	250	42	38	41	22	670	33	29	32	22
Concrete Saw	1	90	20%	450	49	42	45	22	50	68	61	64	22	50	68	61	64	22	550	47	40	43	22	100	79	72	75	5	50	68	61	64	22	250	54	47	50	22	670	45	38	41	22
Crane	1	81	16%	950	33	25	28	22	425	40	32	35	22	450	40	32	35	22	1000	33	25	28	22	600	54	46	49	5	400	41	33	36	22	600	37	29	32	22	1200	31	23	26	22
Forklift	2	75	10%	750	32	22	25	22	200	44	34	37	22	230	43	33	36	22	750	32	22	25	22	300	57	47	50	5	200	44	34	37	22	400	38	28	31	22	950	30	20	23	22
Forklift	2	75	10%	950	30	20	23	22	425	37	27	30	22	450	37	27	30	22	1000	30	20	23	22	600	51	41	44	5	400	38	28	31	22	600	34	24	27	22	1200	28	18	21	22
Generator	1	81	50%	450	40	37	40	22	50	59	56	59	22	50	59	56	59	22	550	38	35	38	22	100	70	67	70	5	50	59	56	59	22	250	45	42	45	22	670	36	33	36	22
Generator	1 15	81	50%	750	35	32	35	22	200	47	44	47	22	230	46	43	46	22	750	35	32	35	22	300	60	57	60	5	200	47	44	47	22	400	41	38	41	22	950	33	30	33	22
Paving					***49***	***43***				***68***	***61***				***68***	***61***				***48***	***42***				***79***	***72***				***68***	***61***				***55***	***48***				***46***	***40***			
Paver	1	77	50%	950	29	26	29	22	425	36	33	36	22	450	36	33	36	22	1000	29	26	29	22	600	50	47	50	5	400	37	34	37	22	600	33	30	33	22	1200	27	24	27	22
Other Equipment	1	85	50%	750	39	36	39	22	200	51	48	51	22	230	50	47	50	22	750	39	36	39	22	300	64	61	64	5	200	51	48	51	22	400	45	42	45	22	950	37	34	37	22
Pavement Scarafier	1	90	20%	450	49	42	45	22	50	68	61	64	22	50	68	61	64	22	550	47	40	43	22	100	79	72	75	5	50	68	61	64	22	250	54	47	50	22	670	45	38	41	22
Architectural Coating					***38***	***33***				***56***	***52***				***56***	***52***				***36***	***31***				***67***	***63***				***56***	***52***				***43***	***38***				***34***	***30***			
Forklift	1	75	10%	750	29	19	22	22	200	41	31	34	22	230	40	30	33	22	750	29	19	22	22	300	54	44	47	5	200	41	31	34	22	400	35	25	28	22	950	27	17	20	22
Compressor (air)	1	78	40%	450	37	33	36	22	50	56	52	55	22	50	56	52	55	22	550	35	31	34	22	100	67	63	66	5	50	56	52	55	22	250	42	38	41	22	670	33	29	32	22
Maximum Noise Levels					**44.4**					**62.8**					**62.8**					**43.5**					**73.8**					**62.8**					**49.6**					**41.6**				
Daytime Ambient Noise Level					**63.0**					**59.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**				
Daytime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**				
Exceeds Threshold?					**No**					**No**					**No**					**No**					**Yes**					**Yes**					**No**					**No**				
Morning Ambient Noise Level				71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7				
Morning Ambient Threshold				**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**				
Exceeds Threshold?				**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**				

Source for Ref. Noise Levels: LA CEQA Guides. 2006 & FHWA RCNM. 2005

Project: 5700 Hannum

Interior with Windows Open Mitigated Noise Levels

				R1					R3					R4					R5					R6					R7					R8					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L12	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L13	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L14	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L15	Estimated Noise Shielding, dBA
Demolition					***30***	***31***		**0**		***55***	***49***				***53***	***46***				***37***	***30***				***67***	***60***				***55***	***49***				***43***	***37***				***35***	***29***		
Concrete Saw	1	90	20%	750	31	24	27	35	200	43	36	39	35	230	40	33	36	37	750	31	24	27	35	300	56	49	52	18	200	43	36	39	35	400	37	30	33	35	950	29	22	25	35
Concrete Saw	1	90	20%	450	36	29	32	35	50	55	48	51	35	50	53	46	49	37	550	34	27	30	35	100	66	59	62	18	50	55	48	51	35	250	41	34	37	35	670	32	25	28	35
Generator	2	81	50%	750	25	22	25	35	200	37	34	37	35	230	34	31	34	37	750	25	22	25	35	300	50	47	50	18	200	37	34	37	35	400	31	28	31	35	950	23	20	23	35
Forklift	1	75	10%	950	14	4	7	35	425	21	11	14	35	450	19	9	12	37	1000	14	4	7	35	600	35	25	28	18	400	22	12	15	35	600	18	8	11	35	1200	12	2	5	35
Excavator	1	81	40%	750	22	18	21	35	200	34	30	33	35	230	31	27	30	37	750	22	18	21	35	300	47	43	46	18	200	34	30	33	35	400	28	24	27	35	950	20	16	19	35
Tractor/Loader/Backhoe	1	78	40%	750	19	15	18	35	200	31	27	30	35	230	28	24	27	37	750	19	15	18	35	300	44	40	43	18	200	31	27	30	35	400	25	21	24	35	950	17	13	16	35
Front End Loader	1 8	79	40%	950	18	14	17	35	425	25	21	24	35	450	23	19	22	37	1000	18	14	17	35	600	39	35	38	18	400	26	22	25	35	600	22	18	21	35	1200	16	12	15	35
Grading/Excavation					***33***	***27***				***50***	***44***				***48***	***42***				***32***	***27***				***61***	***55***				***50***	***44***				***39***	***33***				***30***	***25***		
Drill Rig Truck	1	79	20%	950	18	11	14	35	425	25	18	21	35	450	23	16	19	37	1000	18	11	14	35	600	39	32	35	18	400	26	19	22	35	600	22	15	18	35	1200	16	9	12	35
Drill Rig Truck	1	79	20%	750	20	13	16	35	200	32	25	28	35	230	29	22	25	37	750	20	13	16	35	300	45	38	41	18	200	32	25	28	35	400	26	19	22	35	950	18	11	14	35
Crane	1	81	16%	950	20	12	15	35	425	27	19	22	35	450	25	17	20	37	1000	20	12	15	35	600	41	33	36	18	400	28	20	23	35	600	24	16	19	35	1200	18	10	13	35
Excavator	1	81	40%	750	22	18	21	35	200	34	30	33	35	230	31	27	30	37	750	22	18	21	35	300	47	43	46	18	200	34	30	33	35	400	28	24	27	35	950	20	16	19	35
Excavator	1	81	40%	450	27	23	26	35	50	46	42	45	35	50	44	40	43	37	550	25	21	24	35	100	57	53	56	18	50	46	42	45	35	250	32	28	31	35	670	23	19	22	35
Generator	1	81	50%	750	22	19	22	35	200	34	31	34	35	230	31	28	31	37	750	22	19	22	35	300	47	44	47	18	200	34	31	34	35	400	28	25	28	35	950	20	17	20	35
Forklift	1	75	10%	950	14	4	7	35	425	21	11	14	35	450	19	9	12	37	1000	14	4	7	35	600	35	25	28	18	400	22	12	15	35	600	18	8	11	35	1200	12	2	5	35
Tractor/Loader/Backhoe	1	78	40%	750	19	15	18	35	200	31	27	30	35	230	28	24	27	37	750	19	15	18	35	300	44	40	43	18	200	31	27	30	35	400	25	21	24	35	950	17	13	16	35
Front End Loader	1	79	40%	750	20	16	19	35	200	32	28	31	35	230	29	25	28	37	750	20	16	19	35	300	45	41	44	18	200	32	28	31	35	400	26	22	25	35	950	18	14	17	35
Vacuum Street Sweeper	1	82	10%	450	28	18	21	35	50	47	37	40	35	50	45	35	38	37	550	26	16	19	35	100	58	48	51	18	50	47	37	40	35	250	33	23	26	35	670	24	14	17	35
Foundations/Concrete Pour					***33***	***29***				***51***	***46***				***49***	***44***				***32***	***27***				***62***	***57***				***51***	***46***				***38***	***34***				***30***	***26***		
Crane	1	81	16%	750	22	15	18	35	200	34	26	29	35	230	31	23	26	37	750	22	15	18	35	300	47	39	42	18	200	34	26	29	35	400	28	20	23	35	950	20	12	15	35
Grader	1	85	40%	450	31	27	30	35	50	50	46	49	35	50	48	44	47	37	550	29	25	28	35	100	61	57	60	18	50	50	46	49	35	250	36	32	35	35	670	27	23	26	35
Pumps	2	81	50%	950	23	20	23	35	425	30	27	30	35	450	28	25	28	37	1000	23	20	23	35	600	44	41	44	18	400	31	28	31	35	600	27	24	27	35	1200	21	18	21	35
Forklift	1	75	10%	450	21	11	14	35	50	40	30	33	35	50	38	28	31	37	550	19	9	12	35	100	51	41	44	18	50	40	30	33	35	250	26	16	19	35	670	17	7	10	35
Forklift	1	75	10%	750	16	6	9	35	200	28	18	21	35	230	25	15	18	37	750	16	6	9	35	300	41	31	34	18	200	28	18	21	35	400	22	12	15	35	950	14	4	7	35
Front End Loader	1	79	40%	950	18	14	17	35	425	25	21	24	35	450	23	19	22	37	1000	18	14	17	35	600	39	35	38	18	400	26	22	25	35	600	22	18	21	35	1200	16	12	15	35
Tractor/Loader/Backhoe	1	78	40%	750	19	15	18	35	200	31	27	30	35	230	28	24	27	37	750	19	15	18	35	300	44	40	43	18	200	31	27	30	35	400	25	21	24	35	950	17	13	16	35
Tractor/Loader/Backhoe	1 9	78	40%	950	17	13	16	35	425	24	20	23	35	450	22	18	21	37	1000	17	13	16	35	600	38	34	37	18	400	25	21	24	35	600	21	17	20	35	1200	15	11	14	35
Building Construction					***37***	***31***				***56***	***50***				***54***	***48***				***36***	***30***				***67***	***61***				***56***	***50***				***42***	***36***				***34***	***28***		
Man Lift	1	75	20%	450	21	14	17	35	50	40	33	36	35	50	38	31	34	37	550	19	12	15	35	100	51	44	47	18	50	40	33	36	35	250	26	19	22	35	670	17	10	13	35
Man Lift	2	75	20%	750	19	12	15	35	200	31	24	27	35	230	28	21	24	37	750	19	12	15	35	300	44	37	40	18	200	31	24	27	35	400	25	18	21	35	950	17	10	13	35
Man Lift	2	75	20%	950	17	10	13	35	425	24	17	20	35	450	22	15	18	37	1000	17	10	13	35	600	38	31	34	18	400	25	18	21	35	600	21	14	17	35	1200	15	8	11	35
Compressor (air)	1	78	40%	950	17	13	16	35	425	24	20	23	35	450	22	18	21	37	1000	17	13	16	35	600	38	34	37	18	400	25	21	24	35	600	21	17	20	35	1200	15	11	14	35
Compressor (air)	1	78	40%	450	24	20	23	35	50	43	39	42	35	50	41	37	40	37	550	22	18	21	35	100	54	50	53	18	50	43	39	42	35	250	29	25	28	35	670	20	16	19	35
Concrete Saw	1	90	20%	450	36	29	32	35	50	55	48	51	35	50	53	46	49	37	550	34	27	30	35	100	66	59	62	18	50	55	48	51	35	250	41	34	37	35	670	32	25	28	35
Crane	1	81	16%	950	20	12	15	35	425	27	19	22	35	450	25	17	20	37	1000	20	12	15	35	600	41	33	36	18	400	28	20	23	35	600	24	16	19	35	1200	18	10	13	35
Forklift	2	75	10%	750	19	9	12	35	200	31	21	24	35	230	28	18	21	37	750	19	9	12	35	300	44	34	37	18	200	31	21	24	35	400	25	15	18	35	950	17	7	10	35
Forklift	2	75	10%	950	17	7	10	35	425	24	14	17	35	450	22	12	15	37	1000	17	7	10	35	600	38	28	31	18	400	25	15	18	35	600	21	11	14	35	1200	15	5	8	35
Generator	1	81	50%	450	27	24	27	35	50	46	43	46	35	50	44	41	44	37	550	25	22	25	35	100	57	54	57	18	50	46	43	46	35	250	32	29	32	35	670	23	20	23	35
Generator	1 15	81	50%	750	22	19	22	35	200	34	31	34	35	230	31	28	31	37	750	22	19	22	35	300	47	44	47	18	200	34	31	34	35	400	28	25	28	35	950	20	17	20	35
Paving					***36***	***30***				***55***	***48***				***53***	***46***				***35***	***29***				***66***	***59***				***55***	***48***				***42***	***35***				***33***	***27***		
Paver	1	77	50%	950	16	13	16	35	425	23	20	23	35	450	21	18	21	37	1000	16	13	16	35	600	37	34	37	18	400	24	21	24	35	600	20	17	20	35	1200	14	11	14	35
Other Equipment	1	85	50%	750	26	23	26	35	200	38	35	38	35	230	35	32	35	37	750	26	23	26	35	300	51	48	51	18	200	38	35	38	35	400	32	29	32	35	950	24	21	24	35
Pavement Scarafier	1	90	20%	450	36	29	32	35	50	55	48	51	35	50	53	46	49	37	550	34	27	30	35	100	66	59	62	18	50	55	48	51	35	250	41	34	37	35	670	32	25	28	35
Architectural Coating					***25***	***20***				***43***	***39***				***41***	***37***				***23***	***18***				***54***	***50***				***43***	***39***				***30***	***25***				***21***	***17***		
Forklift	1	75	10%	750	16	6	9	35	200	28	18	21	35	230	25	15	18	37	750	16	6	9	35	300	41	31	34	18	200	28	18	21	35	400	22	12	15	35	950	14	4	7	35
Compressor (air)	1	78	40%	450	24	20	23	35	50	43	39	42	35	50	41	37	40	37	550	22	18	21	35	100	54	50	53	18	50	43	39	42	35	250	29	25	28	35	670	20	16	19	35
Maximum Noise Levels					**31.4**					**49.8**					**47.8**					**30.5**					**60.8**					**49.8**					**36.6**					**28.6**			
Daytime Ambient Noise Level					**63.0**					**59.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**			
Daytime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**			
Exceeds Threshold?					**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			
Mornino Ambient Noise Level				71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7			
Mornino Ambient Threshold				**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**			
Exceeds Threshold?				**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			

Source for Ref. Noise Levels: LA CEQA Guides. 2006 & FHWA RCNM. 2005

Project: 5700 Hannum

Interior with Windows Closed Mitigated Noise Levels

				R1					R3					R4					R5					R6					R7					R8					R2				
Construction Phase Equipment Type	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L10	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L12	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L13	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L14	Estimated Noise Shielding, dBA	Distance (ft)	Lmax	Leq	L15	Estimated Noise Shielding, dBA
Demolition					***26***	***19***		***0***		***43***	***37***				***41***	***34***				***25***	***18***				***55***	***49***				***43***	***37***				***31***	***25***				***22***	***17***		
Concrete Saw	1	90	20%	750	19	12	15	47	200	31	24	27	47	230	28	21	24	49	750	19	12	15	47	300	44	37	40	30	200	31	24	27	47	400	25	18	21	47	950	17	10	13	47
Concrete Saw	1	90	20%	450	24	17	20	47	50	43	36	39	47	50	41	34	37	49	550	22	15	18	47	100	54	47	50	30	50	43	36	39	47	250	29	22	25	47	670	20	13	16	47
Generator	2	81	50%	750	13	10	13	47	200	25	22	25	47	230	22	19	22	49	750	13	10	13	47	300	38	35	38	30	200	25	22	25	47	400	19	16	19	47	950	11	8	11	47
Forklift	1	75	10%	950	2	-8	-5	47	425	9	-1	2	47	450	7	-3	0	49	1000	2	-8	-5	47	600	23	13	16	30	400	10	0	3	47	600	6	-4	-1	47	1200	0	-10	-7	47
Excavator	1	81	40%	750	10	6	9	47	200	22	18	21	47	230	19	15	18	49	750	10	6	9	47	300	35	31	34	30	200	22	18	21	47	400	16	12	15	47	950	8	4	7	47
Tractor/Loader/Backhoe	1	78	40%	750	7	3	6	47	200	19	15	18	47	230	16	12	15	49	750	7	3	6	47	300	32	28	31	30	200	19	15	18	47	400	13	9	12	47	950	5	1	4	47
Front End Loader	1 8	79	40%	950	6	2	5	47	425	13	9	12	47	450	11	7	10	49	1000	6	2	5	47	600	27	23	26	30	400	14	10	13	47	600	10	6	9	47	1200	4	0	3	47
Grading/Excavation					***21***	***15***				***38***	***32***				***36***	***30***				***20***	***15***				***49***	***43***				***38***	***32***				***26***	***21***				***18***	***13***		
Drill Rig Truck	1	79	20%	950	6	-1	2	47	425	13	6	9	47	450	11	4	7	49	1000	6	-1	2	47	600	27	20	23	30	400	14	7	10	47	600	10	3	6	47	1200	4	-3	0	47
Drill Rig Truck	1	79	20%	750	8	1	4	47	200	20	13	16	47	230	17	10	13	49	750	8	1	4	47	300	33	26	29	30	200	20	13	16	47	400	14	7	10	47	950	6	-1	2	47
Crane	1	81	16%	950	8	0	3	47	425	15	7	10	47	450	13	5	8	49	1000	8	0	3	47	600	29	21	24	30	400	16	8	11	47	600	12	4	7	47	1200	6	-2	1	47
Excavator	1	81	40%	750	10	6	9	47	200	22	18	21	47	230	19	15	18	49	750	10	6	9	47	300	35	31	34	30	200	22	18	21	47	400	16	12	15	47	950	8	4	7	47
Excavator	1	81	40%	450	15	11	14	47	50	34	30	33	47	50	32	28	31	49	550	13	9	12	47	100	45	41	44	30	50	34	30	33	47	250	20	16	19	47	670	11	7	10	47
Generator	1	81	50%	750	10	7	10	47	200	22	19	22	47	230	19	16	19	49	750	10	7	10	47	300	35	32	35	30	200	22	19	22	47	400	16	13	16	47	950	8	5	8	47
Forklift	1	75	10%	950	2	-8	-5	47	425	9	-1	2	47	450	7	-3	0	49	1000	2	-8	-5	47	600	23	13	16	30	400	10	0	3	47	600	6	-4	-1	47	1200	0	-10	-7	47
Tractor/Loader/Backhoe	1	78	40%	750	7	3	6	47	200	19	15	18	47	230	16	12	15	49	750	7	3	6	47	300	32	28	31	30	200	19	15	18	47	400	13	9	12	47	950	5	1	4	47
Front End Loader	1	79	40%	750	8	4	7	47	200	20	16	19	47	230	17	13	16	49	750	8	4	7	47	300	33	29	32	30	200	20	16	19	47	400	14	10	13	47	950	6	2	5	47
Vacuum Street Sweeper	1	82	10%	450	16	6	9	47	50	35	25	28	47	50	33	23	26	49	550	14	4	7	47	100	46	36	39	30	50	35	25	28	47	250	21	11	14	47	670	12	2	5	47
Foundations/Concrete Pour					***21***	***17***				***39***	***34***				***37***	***32***				***20***	***15***				***50***	***45***				***39***	***34***				***26***	***22***				***18***	***14***		
Crane	1	81	16%	750	10	3	6	47	200	22	14	17	47	230	19	11	14	49	750	10	3	6	47	300	35	27	30	30	200	22	14	17	47	400	16	8	11	47	950	8	0	3	47
Grader	1	85	40%	450	19	15	18	47	50	38	34	37	47	50	36	32	35	49	550	17	13	16	47	100	49	45	48	30	50	38	34	37	47	250	24	20	23	47	670	15	11	14	47
Pumps	2	81	50%	950	11	8	11	47	425	18	15	18	47	450	16	13	16	49	1000	11	8	11	47	600	32	29	32	30	400	19	16	19	47	600	15	12	15	47	1200	9	6	9	47
Forklift	1	75	10%	450	9	-1	2	47	50	28	18	21	47	50	26	16	19	49	550	7	-3	0	47	100	39	29	32	30	50	28	18	21	47	250	14	4	7	47	670	5	-5	-2	47
Forklift	1	75	10%	750	4	-6	-3	47	200	16	6	9	47	230	13	3	6	49	750	4	-6	-3	47	300	29	19	22	30	200	16	6	9	47	400	10	0	3	47	950	2	-8	-5	47
Front End Loader	1	79	40%	950	6	2	5	47	425	13	9	12	47	450	11	7	10	49	1000	6	2	5	47	600	27	23	26	30	400	14	10	13	47	600	10	6	9	47	1200	4	0	3	47
Tractor/Loader/Backhoe	1	78	40%	750	7	3	6	47	200	19	15	18	47	230	16	12	15	49	750	7	3	6	47	300	32	28	31	30	200	19	15	18	47	400	13	9	12	47	950	5	1	4	47
Tractor/Loader/Backhoe	1 9	78	40%	950	5	1	4	47	425	12	8	11	47	450	10	6	9	49	1000	5	1	4	47	600	26	22	25	30	400	13	9	12	47	600	9	5	8	47	1200	3	-1	2	47
Building Construction					***25***	***19***				***44***	***38***				***42***	***36***				***24***	***18***				***55***	***49***				***44***	***38***				***30***	***24***				***22***	***16***		
Man Lift	1	75	20%	450	9	2	5	47	50	28	21	24	47	50	26	19	22	49	550	7	0	3	47	100	39	32	35	30	50	28	21	24	47	250	14	7	10	47	670	5	-2	1	47
Man Lift	2	75	20%	750	7	0	3	47	200	19	12	15	47	230	16	9	12	49	750	7	0	3	47	300	32	25	28	30	200	19	12	15	47	400	13	6	9	47	950	5	-2	1	47
Man Lift	2	75	20%	950	5	-2	1	47	425	12	5	8	47	450	10	3	6	49	1000	5	-2	1	47	600	26	19	22	30	400	13	6	9	47	600	9	2	5	47	1200	3	-4	-1	47
Compressor (air)	1	78	40%	950	5	1	4	47	425	12	8	11	47	450	10	6	9	49	1000	5	1	4	47	600	26	22	25	30	400	13	9	12	47	600	9	5	8	47	1200	3	-1	2	47
Compressor (air)	1	78	40%	450	12	8	11	47	50	31	27	30	47	50	29	25	28	49	550	10	6	9	47	100	42	38	41	30	50	31	27	30	47	250	17	13	16	47	670	8	4	7	47
Concrete Saw	1	90	20%	450	24	17	20	47	50	43	36	39	47	50	41	34	37	49	550	22	15	18	47	100	54	47	50	30	50	43	36	39	47	250	29	22	25	47	670	20	13	16	47
Crane	1	81	16%	950	8	0	3	47	425	15	7	10	47	450	13	5	8	49	1000	8	0	3	47	600	29	21	24	30	400	16	8	11	47	600	12	4	7	47	1200	6	-2	1	47
Forklift	2	75	10%	750	7	-3	0	47	200	19	9	12	47	230	16	6	9	49	750	7	-3	0	47	300	32	22	25	30	200	19	9	12	47	400	13	3	6	47	950	5	-5	-2	47
Forklift	2	75	10%	950	5	-5	-2	47	425	12	2	5	47	450	10	0	3	49	1000	5	-5	-2	47	600	26	16	19	30	400	13	3	6	47	600	9	-1	2	47	1200	3	-7	-4	47
Generator	1	81	50%	450	15	12	15	47	50	34	31	34	47	50	32	29	32	49	550	13	10	13	47	100	45	42	45	30	50	34	31	34	47	250	20	17	20	47	670	11	8	11	47
Generator	1 15	81	50%	750	10	7	10	47	200	22	19	22	47	230	19	16	19	49	750	10	7	10	47	300	35	32	35	30	200	22	19	22	47	400	16	13	16	47	950	8	5	8	47
Paving					***24***	***18***				***43***	***36***				***41***	***34***				***23***	***17***				***54***	***47***				***43***	***36***				***30***	***23***				***21***	***15***		
Paver	1	77	50%	950	4	1	4	47	425	11	8	11	47	450	9	6	9	49	1000	4	1	4	47	600	25	22	25	30	400	12	9	12	47	600	8	5	8	47	1200	2	-1	2	47
Other Equipment	1	85	50%	750	14	11	14	47	200	26	23	26	47	230	23	20	23	49	750	14	11	14	47	300	39	36	39	30	200	26	23	26	47	400	20	17	20	47	950	12	9	12	47
Pavement Scarafier	1	90	20%	450	24	17	20	47	50	43	36	39	47	50	41	34	37	49	550	22	15	18	47	100	54	47	50	30	50	43	36	39	47	250	29	22	25	47	670	20	13	16	47
Architectural Coating					***13***	***8***				***31***	***27***				***29***	***25***				***11***	***6***				***42***	***38***				***31***	***27***				***18***	***13***				***9***	***5***		
Forklift	1	75	10%	750	4	-6	-3	47	200	16	6	9	47	230	13	3	6	49	750	4	-6	-3	47	300	29	19	22	30	200	16	6	9	47	400	10	0	3	47	950	2	-8	-5	47
Compressor (air)	1	78	40%	450	12	8	11	47	50	31	27	30	47	50	29	25	28	49	550	10	6	9	47	100	42	38	41	30	50	31	27	30	47	250	17	13	16	47	670	8	4	7	47
Maximum Noise Levels					**19.4**					**37.8**					**35.8**					**18.5**					**48.8**					**37.8**					**24.5**					**16.6**			
Daytime Ambient Noise Level					**63.0**					**59.6**					**61.2**					**63.2**					**65.7**					**57.1**					**53.5**					**63.4**			
Daytime Threshold					**68.0**					**64.6**					**66.2**					**68.2**					**70.7**					**62.1**					**58.5**					**68.4**			
Exceeds Threshold?					**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			
Morning Ambient Noise Level					71.5					62.8					64.3					67.5					66.2					56.6					56.7					68.7			
Morning Ambient Threshold					**76.5**					**67.8**					**69.3**					**72.5**					**71.2**					**61.6**					**61.7**					**73.7**			
Exceeds Threshold?					**No**					**No**					**No**					**No**					**No**					**No**					**No**					**No**			

Source for Ref. Noise Levels: LA CEQA Guides. 2006 & FHWA RCNM. 2005

TRAFFIC NOISE ANALYSIS TOOL

Project Name: 5700 Hannum
Analysis Scenario: Construction
Source of Traffic Volumes: Project Assumptions and Gibson

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Existing										
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	773	16	8	66.3	66.6
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	251	5	3	61.5	61.8
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	528	11	5	65.3	65.6
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	821	17	8	68.6	68.9
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1244	26	13	66.3	66.6
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1297	27	13	68.6	68.9
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	787	16	8	68.5	68.8
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	3892	80	40	72.8	73.1
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	1986	41	20	69.9	70.2
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4124	85	43	75.6	75.9
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1218	25	13	70.4	70.7
Construction Trips - Grading										
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	30	4	24	61.6	61.9
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	30	4	24	61.6	61.9
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	30	4	24	62.2	62.5
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	30	4	24	63.7	64.0
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	30	4	24	60.5	60.8
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	30	4	24	61.6	61.9
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	30	4	24	63.7	64.0
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	30	4	24	61.1	61.4
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	30	4	24	61.1	61.4
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	30	4	24	63.7	64.0
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	30	4	24	63.7	64.0
Existing + Construction										
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	803	20	32	67.6	67.9
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	281	9	26	64.6	64.9
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	558	15	29	67.0	67.3
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	851	21	32	69.8	70.1
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1274	30	37	67.3	67.6
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1327	31	37	69.4	69.7
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	817	20	32	69.7	70.0
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	3922	84	64	73.1	73.4
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	2016	45	44	70.5	70.8
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4154	89	66	75.9	76.2
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1248	29	36	71.2	71.5

G.3 Operational Noise Calculations

5700 Hannum Traffic Summary Tables
Existing plus Project

Roadway Segment	Existing Land Uses Located Along Roadway Segment	Traffic Noise Levels (dBA CNEL)			
		Existing	Existing with Project	Increase over Existing	Significant Impact?
Bristol Pkwy between Hannum Ave and Green Valley Cir	Commercial	71.2	71.2	0.1	No
Bristol Pkwy between Slauson Ave and Hannum Ave	Commercial	70.1	70.3	0.2	No
Bristol Pkwy n/o Slauson Ave	Cemetery	59.8	59.8	0.0	No
Bristol Pkwy s/o Green Valley Cir	Residential/Hotel/Cemetery	64.4	64.5	0.1	No
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Residential	70.7	70.7	0.0	No
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Residential/Commercial/Open Space	66.6	66.8	0.2	No
Buckingham Pkwy between Slauson Ave and Hannum Ave	Residential/Commercial	61.8	61.8	0.0	No
Buckingham Pkwy n/o Hannum Ave	Commercial	52.7	52.7	0.0	No
Buckingham Pkwy n/o Slauson Ave	Commercial	60.6	60.6	0.0	No
Centinela Ave e/o Green Valley Cir	Residential/Commercial	74.4	74.4	0.0	No
Centinela Ave w/o Green Valley Cir	Cemetery	72.9	72.9	0.0	No
Fox Hills Dr s/o Hannum Ave	Commercial	65.6	65.6	0.0	No
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Residential/Educational/Open Space	69.6	69.7	0.1	No
Green Valley Cir w/o Bristol Pkwy	Hotel/Commercial	70.5	70.5	0.1	No
Hannum Ave between Bristol Pkwy and Uplander Wy	Commercial	68.9	69.1	0.2	No
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Commercial	66.6	66.6	0.0	No
Hannum Ave between Slauson Ave and Fox Hills Dr	Commercial	68.9	68.9	0.0	No
Hannum Ave between Uplander Wy and Buckingham Pkwy	Commercial	68.8	69.1	0.3	No
Hannum Ave n/o Slauson Ave	Residential/Commercial	70.6	70.6	0.0	No
Marina Fwy s/o Slauson Ave	Freeway Off Ramp	73.1	73.2	0.0	No
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Commercial/Cemetery	74.8	74.8	0.0	No
Slauson Ave between Hannum Ave and Marina Fwy	Residential/Commercial	70.2	70.2	0.0	No
Slauson Ave between Marina Fwy and Bristol Pkwy	Commercial	73.8	73.8	0.0	No
Slauson Ave e/o Buckingham Pkwy	Residential/Commercial	75.9	76.0	0.0	No
Slauson Ave w/o Hannum Ave	Residential/Commercial	70.7	70.7	0.1	No
Uplander Wy n/o Hannum Ave	Commercial	53.9	53.9	0.0	No
Uplander Wy s/o Hannum Ave	Commercial	56.3	56.6	0.3	No

5700 Hannum Traffic Summary Tables
Cumulative plus Project

		Traffic Noise Levels (dBA CNEL)			
Roadway Segment	**Existing Land Uses Located Along Roadway Segment**	**Future Year (2027)**	**Future Year (2027) + Project**	**Increase over Existing**	**Significant Impact?**
Bristol Pkwy between Hannum Ave and Green Valley Cir	Commercial	71.9	71.9	0.0	No
Bristol Pkwy between Slauson Ave and Hannum Ave	Commercial	72.5	72.6	0.1	No
Bristol Pkwy n/o Slauson Ave	Cemetery	60.0	60.0	0.0	No
Bristol Pkwy s/o Green Valley Cir	Residential/Hotel/Cemetery	65.0	65.1	0.1	No
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Residential	71.5	71.5	0.0	No
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Residential/Commercial/Open Space	67.1	67.2	0.2	No
Buckingham Pkwy between Slauson Ave and Hannum Ave	Residential/Commercial	62.5	62.6	0.1	No
Buckingham Pkwy n/o Hannum Ave	Commercial	52.9	52.9	0.0	No
Buckingham Pkwy n/o Slauson Ave	Commercial	60.7	60.7	0.0	No
Centinela Ave e/o Green Valley Cir	Residential/Commercial	74.8	74.8	0.0	No
Centinela Ave w/o Green Valley Cir	Cemetery	73.1	73.1	0.0	No
Fox Hills Dr s/o Hannum Ave	Commercial	65.7	65.7	0.0	No
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Residential/Educational/Open Space	70.2	70.3	0.1	No
Green Valley Cir w/o Bristol Pkwy	Hotel/Commercial	71.7	71.7	0.0	No
Hannum Ave between Bristol Pkwy and Uplander Wy	Commercial	70.3	70.4	0.1	No
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Commercial	67.4	67.4	0.0	No
Hannum Ave between Slauson Ave and Fox Hills Dr	Commercial	69.6	69.6	0.0	No
Hannum Ave between Uplander Wy and Buckingham Pkwy	Commercial	69.2	69.5	0.3	No
Hannum Ave n/o Slauson Ave	Residential/Commercial	71.2	71.2	0.0	No
Marina Fwy s/o Slauson Ave	Freeway Off Ramp	73.9	73.9	0.0	No
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Commercial/Cemetery	75.1	75.1	0.0	No
Slauson Ave between Hannum Ave and Marina Fwy	Residential/Commercial	71.1	71.1	0.0	No
Slauson Ave between Marina Fwy and Bristol Pkwy	Commercial	74.4	74.4	0.0	No
Slauson Ave e/o Buckingham Pkwy	Residential/Commercial	76.3	76.3	0.0	No
Slauson Ave w/o Hannum Ave	Residential/Commercial	72.4	72.4	0.0	No
Uplander Wy n/o Hannum Ave	Commercial	54.1	54.1	0.0	No
Uplander Wy s/o Hannum Ave	Commercial	56.4	56.7	0.3	No

TRAFFIC NOISE ANALYSIS TOOL

Project Name: 5700 Hannum
Analysis Scenario: Existing
Source of Traffic Volumes: Gibson

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Bristol Pkwy between Hannum Ave and Green Valley Cir	Hard	30	45	45	40	1172	24	12	70.9	71.2
Bristol Pkwy between Slauson Ave and Hannum Ave	Hard	20	45	45	40	610	13	6	69.8	70.1
Bristol Pkwy n/o Slauson Ave	Hard	35	45	45	40	100	2	1	59.5	59.8
Bristol Pkwy s/o Green Valley Cir	Hard	45	30	30	25	1068	22	11	64.1	64.4
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	773	16	8	66.3	66.6
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	251	5	3	61.5	61.8
Buckingham Pkwy n/o Hannum Ave	Hard	35	45	45	40	19	0	0	52.4	52.7
Buckingham Pkwy n/o Slauson Ave	Hard	35	40	40	35	167	3	2	60.3	60.6
Centinela Ave e/o Green Valley Cir	Hard	25	40	40	35	2904	60	30	74.1	74.4
Centinela Ave w/o Green Valley Cir	Hard	25	40	40	35	2061	43	21	72.6	72.9
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	528	11	5	65.3	65.6
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Hard	25	40	40	35	949	20	10	69.3	69.6
Green Valley Cir w/o Bristol Pkwy	Hard	25	40	40	35	1169	24	12	70.2	70.5
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	20	40	40	35	981	20	10	70.4	70.7
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	821	17	8	68.6	68.9
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1244	26	13	66.3	66.6
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1297	27	13	68.6	68.9
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	787	16	8	68.5	68.8
Hannum Ave n/o Slauson Ave	Hard	35	40	40	35	1686	35	17	70.3	70.6
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	3892	80	40	72.8	73.1
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Hard	45	45	45	40	4013	83	41	74.5	74.8
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	1986	41	20	69.9	70.2
Slauson Ave between Marina Fwy and Bristol Pkwy	Hard	45	40	40	35	4517	93	47	73.5	73.8
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4124	85	43	75.6	75.9
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1218	25	13	70.4	70.7
Uplander Wy n/o Hannum Ave	Hard	35	30	30	25	74	2	1	53.6	53.9
Uplander Wy s/o Hannum Ave	Hard	50	40	40	35	89	2	1	56.0	56.3

TRAFFIC NOISE ANALYSIS TOOL

Project Name: 5700 Hannum
Analysis Scenario: Existing + Project
Source of Traffic Volumes: Gibson

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Bristol Pkwy between Hannum Ave and Green Valley Cir	Hard	30	45	45	40	1184	24	12	70.9	71.2
Bristol Pkwy between Slauson Ave and Hannum Ave	Hard	20	45	45	40	635	13	7	70.0	70.3
Bristol Pkwy n/o Slauson Ave	Hard	35	45	45	40	100	2	1	59.5	59.8
Bristol Pkwy s/o Green Valley Cir	Hard	45	30	30	25	1087	22	11	64.2	64.5
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	804	17	8	66.5	66.8
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	253	5	3	61.5	61.8
Buckingham Pkwy n/o Hannum Ave	Hard	35	45	45	40	19	0	0	52.4	52.7
Buckingham Pkwy n/o Slauson Ave	Hard	35	40	40	35	167	3	2	60.3	60.6
Centinela Ave e/o Green Valley Cir	Hard	25	40	40	35	2903	60	30	74.1	74.4
Centinela Ave w/o Green Valley Cir	Hard	25	40	40	35	2061	43	21	72.6	72.9
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	528	11	5	65.3	65.6
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Hard	25	40	40	35	977	20	10	69.4	69.7
Green Valley Cir w/o Bristol Pkwy	Hard	25	40	40	35	1183	24	12	70.2	70.5
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	20	40	40	35	980	20	10	70.4	70.7
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	856	18	9	68.8	69.1
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1247	26	13	66.3	66.6
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1299	27	13	68.6	68.9
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	848	17	9	68.8	69.1
Hannum Ave n/o Slauson Ave	Hard	35	40	40	35	1684	35	17	70.3	70.6
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	3904	81	40	72.9	73.2
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Hard	45	45	45	40	4013	83	41	74.5	74.8
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	1996	41	21	69.9	70.2
Slauson Ave between Marina Fwy and Bristol Pkwy	Hard	45	40	40	35	4543	94	47	73.5	73.8
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4141	85	43	75.7	76.0
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1233	25	13	70.4	70.7
Uplander Wy n/o Hannum Ave	Hard	35	30	30	25	74	2	1	53.6	53.9
Uplander Wy s/o Hannum Ave	Hard	50	40	40	35	95	2	1	56.3	56.6

TRAFFIC NOISE ANALYSIS TOOL

Project Name: 5700 Hannum
Analysis Scenario: Future (2027) Baseline
Source of Traffic Volumes: Gibson

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Bristol Pkwy between Hannum Ave and Green Valley Cir	Hard	30	45	45	40	1375	28	14	71.6	71.9
Bristol Pkwy between Slauson Ave and Hannum Ave	Hard	20	45	45	40	1064	22	11	72.2	72.5
Bristol Pkwy n/o Slauson Ave	Hard	35	45	45	40	104	2	1	59.7	60.0
Bristol Pkwy s/o Green Valley Cir	Hard	45	30	30	25	1225	25	13	64.7	65.0
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	857	18	9	66.8	67.1
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	297	6	3	62.2	62.5
Buckingham Pkwy n/o Hannum Ave	Hard	35	45	45	40	20	0	0	52.6	52.9
Buckingham Pkwy n/o Slauson Ave	Hard	35	40	40	35	173	4	2	60.4	60.7
Centinela Ave e/o Green Valley Cir	Hard	25	40	40	35	3191	66	33	74.5	74.8
Centinela Ave w/o Green Valley Cir	Hard	25	40	40	35	2143	44	22	72.8	73.1
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	549	11	6	65.4	65.7
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Hard	25	40	40	35	1102	23	11	69.9	70.2
Green Valley Cir w/o Bristol Pkwy	Hard	25	40	40	35	1541	32	16	71.4	71.7
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	20	40	40	35	1191	25	12	71.2	71.5
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	1116	23	12	70.0	70.3
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1485	31	15	67.1	67.4
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1539	32	16	69.3	69.6
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	877	18	9	68.9	69.2
Hannum Ave n/o Slauson Ave	Hard	35	40	40	35	1917	40	20	70.9	71.2
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	4653	96	48	73.6	73.9
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Hard	45	45	45	40	4328	89	45	74.8	75.1
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	2444	50	25	70.8	71.1
Slauson Ave between Marina Fwy and Bristol Pkwy	Hard	45	40	40	35	5159	106	53	74.1	74.4
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4475	92	46	76.0	76.3
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1815	37	19	72.1	72.4
Uplander Wy n/o Hannum Ave	Hard	35	30	30	25	77	2	1	53.8	54.1
Uplander Wy s/o Hannum Ave	Hard	50	40	40	35	92	2	1	56.1	56.4

TRAFFIC NOISE ANALYSIS TOOL

Project Name: 5700 Hannum
Analysis Scenario: Future (2027) + Project
Source of Traffic Volumes: Gibson

Segment	Ground Type	Distance from Roadway to Receiver (feet)	Speed (mph)			Peak Hour Volume			Peak Hour Noise Level (Leq(h) dBA)	Noise Level dBA CNEL
			Auto	MT	HT	Auto	MT	HT		
Bristol Pkwy between Hannum Ave and Green Valley Cir	Hard	30	45	45	40	1388	29	14	71.6	71.9
Bristol Pkwy between Slauson Ave and Hannum Ave	Hard	20	45	45	40	1089	22	11	72.3	72.6
Bristol Pkwy n/o Slauson Ave	Hard	35	45	45	40	104	2	1	59.7	60.0
Bristol Pkwy s/o Green Valley Cir	Hard	45	30	30	25	1245	26	13	64.8	65.1
Buckingham Pkwy between Hannum Ave and Green Valley Cir	Hard	40	40	40	35	889	18	9	66.9	67.2
Buckingham Pkwy between Slauson Ave and Hannum Ave	Hard	40	40	40	35	306	6	3	62.3	62.6
Buckingham Pkwy n/o Hannum Ave	Hard	35	45	45	40	20	0	0	52.6	52.9
Buckingham Pkwy n/o Slauson Ave	Hard	35	40	40	35	173	4	2	60.4	60.7
Centinela Ave e/o Green Valley Cir	Hard	25	40	40	35	3190	66	33	74.5	74.8
Centinela Ave w/o Green Valley Cir	Hard	25	40	40	35	2143	44	22	72.8	73.1
Fox Hills Dr s/o Hannum Ave	Hard	35	40	40	35	549	11	6	65.4	65.7
Green Valley Cir between Bristol Pkwy and Buckingham Pkwy	Hard	25	40	40	35	1130	23	12	70.0	70.3
Green Valley Cir w/o Bristol Pkwy	Hard	25	40	40	35	1556	32	16	71.4	71.7
Green Valley Circle between Buckingham Pkwy and Centinela Ave	Hard	20	40	40	35	1190	25	12	71.2	71.5
Hannum Ave between Bristol Pkwy and Uplander Wy	Hard	25	40	40	35	1138	23	12	70.1	70.4
Hannum Ave between Fox Hills Dr and Bristol Pkwy	Hard	45	35	35	30	1489	31	15	67.1	67.4
Hannum Ave between Slauson Ave and Fox Hills Dr	Hard	40	40	40	35	1541	32	16	69.3	69.6
Hannum Ave between Uplander Wy and Buckingham Pkwy	Hard	25	40	40	35	938	19	10	69.2	69.5
Hannum Ave n/o Slauson Ave	Hard	35	40	40	35	1915	39	20	70.9	71.2
Marina Fwy s/o Slauson Ave	Hard	45	40	40	35	4666	96	48	73.6	73.9
Slauson Ave between Bristol Pkwy and Buckingham Pkwy	Hard	45	45	45	40	4328	89	45	74.8	75.1
Slauson Ave between Hannum Ave and Marina Fwy	Hard	45	40	40	35	2455	51	25	70.8	71.1
Slauson Ave between Marina Fwy and Bristol Pkwy	Hard	45	40	40	35	5185	107	53	74.1	74.4
Slauson Ave e/o Buckingham Pkwy	Hard	25	40	40	35	4491	93	46	76.0	76.3
Slauson Ave w/o Hannum Ave	Hard	25	40	40	35	1829	38	19	72.1	72.4
Uplander Wy n/o Hannum Ave	Hard	35	30	30	25	77	2	1	53.8	54.1
Uplander Wy s/o Hannum Ave	Hard	50	40	40	35	98	2	1	56.4	56.7

Project: 5700 Hannum

Mechanical Equipment Noise Calculations

Receptor Location	R1	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	450	ft
	-39	dBA
	42.8	dBA
Noise Reduction by Enclosure	15	dBA
Noise Levels at R1	**27.8**	dBA

Receptor Location	R2	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	950	ft
	-46	dBA
	36.3	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R4	**21.3**	dBA

Receptor Location	R3	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	50	ft
	-20	dBA
	61.9	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R3	**46.9**	dBA

Receptor Location	R4	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	100	ft
	-26	dBA
	55.9	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R4	**40.9**	dBA

Receptor Location	R5	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	550	ft
	-41	dBA
	41.1	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R8	**26.1**	dBA

Receptor Location	R6	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	100	ft
	-26	dBA
	55.9	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R8	**40.9**	dBA

Receptor Location	R7	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	50	ft
	-20	dBA
	61.9	dBA
Noise Reduction by NOISE-PDF-2	0	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R8	**46.9**	dBA

Receptor Location	R8	
Mechanical Equipment Noise Levels	81.9	dBA
Reference Distance	5	ft
Distance to Receptor	250	ft
	-34	dBA
	47.9	dBA
Noise Reduction by NOISE-PDF-2	0	dBA
Noise Reduction by Existing Buildings	15	dBA
Noise Levels at R8	**32.9**	dBA

* Exterior reference noise levels for air condenser units, fans, and related equipment, the primary sources of noise from fixed mechanical equipment, would be 81.9 dBA Leq measured at a distance of 5 feet (based on noise data from large shopping center projects in Southern California). Refer to: City of Moreno Valley, Moreno Valley Walmart Noise Impact Analysis, Table 9-1, Page 71, February 10, 2015; and City of Pomona, Pomona Ranch Plaza Walmart Expansion Project, Table 4.4-5, Pg. 4.4-33, August 2014.

** Distance to receptors assumes that mechanical equipment would be located on the rooftop of the nearest Project Building.

***Assumes noise from the closest Project building mechanical equiment to each receptor

Project: 5700 Hannum

Loading Dock and Trash Collection Area Noise Calculations

Receptor Location	R1	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	750	ft
	-24	dBA
	35.7	dBA
Noise Reduction by Project buildings	0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R1	**35.7**	dBA

Receptor Location	R2	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	1000	ft
	-26	dBA
	33.2	dBA
Noise Reduction by Project buildings	5	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R2	**28.2**	dBA

Receptor Location	R3	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	70	ft
	-3	dBA
	56.3	dBA
Noise Reduction by Project buildings	0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R3	**56.3**	dBA

Receptor Location	R4	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	90	ft
	-5	dBA
	54.1	dBA
Noise Reduction by Project buildings	0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**54.1**	dBA

Receptor Location	R5	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	700	ft
	-23	dBA
	36.3	dBA
Noise Reduction by Project buildings	10	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R8	**26.3**	dBA

Receptor Location	R6	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	175	ft
	-11	dBA
	48.3	dBA
Noise Reduction by Project buildings	0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**48.3**	dBA

Receptor Location	R7	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	75	ft
	-4	dBA
	55.7	dBA
Noise Reduction by Project buildings	0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R8	**55.7**	dBA

Receptor Location	R8	
Loading Dock and Trash Collection		
Area Noise Levels	59.2	dBA
Reference Distance	50	ft
Distance to Receptor	750	ft
	-24	dBA
	35.7	dBA
Noise Reduction by Project buildings	5	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**30.7**	dBA

* Reference noise level of 70.5 dBA Leq is combine noise levels of loading dock activity (namely idling semi-trucks and backup alarm beeps) noise levels of approximately 70 dBA Leq and trash compactors noise levels of approxmately 66 dBA Leq.

Project: 5700 Hannum

Parking Structure Noise

Receptor Location	R1	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	450	ft
	-19	dBA
	25.0	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R1	**25**	dBA

Receptor Location	R2	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	950	ft
	-26	dBA
	18.5	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R2	**19**	dBA

Receptor Location	R3	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	50	ft
	0	dBA
	44.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R3	**44.1**	dBA

Receptor Location	R4	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	50	ft
	0	dBA
	44.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**44.1**	dBA

Receptor Location	R5	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	550	ft
	-21	dBA
	23.3	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R3	**23.3**	dBA

Receptor Location	R6	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	100	ft
	-6	dBA
	38.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**38.1**	dBA

Receptor Location	R7	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	50	ft
	0	dBA
	44.1	dBA
Noise Reduction by Existing Buildings		dBA
Noise Levels at R3	**44.1**	dBA

Receptor Location	R8	
Parking Structure Noise Level	44.1	dBA
Reference Distance	50	ft
Distance to Receptor	250	ft
	-14	dBA
	30.1	dBA
Noise Reduction by Existing Buildings	0	dBA
Noise Levels at R4	**30.1**	dBA

AM or PM Peak Hour Trips	59	trips
Leq	44	dBA

$$Leq(h) = SELref + 10\log(NA/1000) - 35.6$$

Where: Leq(h) = hourly Leq noise level at 50 feet
SELref (92 dBA SEL) = reference noise level for stationary noise source represented in
NA = number of automobiles per hour

5700 Hannum

Open Space Noise Calculation

Summary

Outdoor Space	Nearest Receptor	Capacity	Nearest Distance	Estimated Daytime Leq	Estimated Nighttime Leq	Open Space Noise Levels			
						Existing Ambient	Ambient + Project	Threshold	Exceed?
Level 1 Retail Dining	R5	99	50	49.4	49.4	59.6	60.0	64.6	No
Level 1 Plaza	R5	219	150	54.7	54.7	59.6	60.8	64.6	No
Level 2 Fire Pit	R2	41	50	44.5	44.5	59.6	59.7	64.6	No
Level 2 Courtyard	R2	385	150	39.8	39.8	59.6	59.6	64.6	No
Level 2 Seating Area	R2	24	50	42.0	42.0	59.6	59.7	64.6	No
Level 6 Pool Deck	R2	178	50	53.8	53.8	59.6	60.6	64.6	No
Level 6 Amenity Deck	R2	367	50	45.4	45.4	59.6	59.8	64.6	No
Total			**25**	**58.5**	**58.5**	**59.6**	**62.1**	**64.6**	**No**

Open Space Noise Levels by Receptor

Receptor	Distance to Nearest Receptor	Attenuation	Ambient	Ambient + Project	Threshold	Exceeds Threshold?
R1	450	39.4	63.0	63.0	68.0	No
R2	670	36.0	63.4	63.4	68.4	No
R3	50	58.5	59.6	62.1	64.6	No
R4	50	58.5	61.2	63.1	66.2	No
R5	550	37.7	63.2	63.2	68.2	No
R6	100	52.5	65.7	65.9	70.7	No
R7	135	49.9	57.1	57.9	62.1	No
R8	250	44.5	53.5	54.0	58.5	No

5700 Hannum
Open Space Noise Calculation

Level 1 Retail Dining							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	99						
Females (Adult)	24	12	3	55	65.8	54	40.7
Males (Adult)	25	13	3	58	69.1	54	44.1
Children	50	25	3	58	72.0	54	46.9
Total	**99**	**50**	-	-	**74.4**	-	**49.4**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 1 Plaza							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	219						
Females (Adult)	54	27	3	55	69.3	152	35.2
Males (Adult)	55	28	3	58	72.5	152	38.4
Children	109	55	3	58	75.4	152	41.3
Total	**218**	**110**	**-**	**-**	**77.8**	**-**	**43.8**
Amplified Music (85 dBA Leq at 25 feet per NOISE-PDF-5)			25	70	70.0	152	54.3
							54.7

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 2 Fire Pit							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	41						
Females (Adult)	10	5	3	55	62.0	61	35.8
Males (Adult)	11	6	3	58	65.8	61	39.6
Children	20	10	3	58	68.0	61	41.8
Total	**41**	**21**	-	-	**70.7**	-	**44.5**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 2 Courtyard								
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Barrier Attenuation**	**Noise Level at Receptor (dBA)**
Total Capacity	385							
Females (Adult)	97	49	3	55	71.9	154	15	22.7
Males (Adult)	97	49	3	58	74.9	154	15	25.7
Children	193	97	3	58	77.9	154	15	28.7
Total	**387**	**195**	-	-	**80.3**	-		**31.1**
Amplified Music (85 dBA Leq at 25 feet including			25	70	70.0	154	15	39.2
Total w/Amplified Music								39.8

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 2 Seating Area							
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Noise Level at Receptor (dBA)**
Total Capacity	24						
Females (Adult)	6	3	3	55	59.8	61	33.6
Males (Adult)	6	3	3	58	62.8	61	36.6
Children	12	6	3	58	65.8	61	39.6
Total	**24**	**12**	**-**	**-**	**68.2**	**-**	**42.0**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 6 Pool Deck								
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Barrier Attenuation**	**Noise Level at Receptor (dBA)**
Total Capacity	178							
Females (Adult)	44	22	3	55	68.4	91	5	33.8
Males (Adult)	45	23	3	58	71.6	91	5	37.0
Children	89	45	3	58	74.5	91	5	39.9
Total	**178**	**90**	**-**	**-**	**77.0**	**-**		**42.3**
Amplified Music (85 dBA Leq at 25 feet per NOISE-PDF-5)			25	70	70.0	91	5	53.8

54.1

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum
Open Space Noise Calculation

Level 6 Amenity Deck								
Category	**# of Individuals (estimated capacity)**	**# of Individuals Speaking (half of estimated capacity)**	**Reference Distance (ft)[1]**	**Reference Noise Level (dBA)[1]**	**Combined Noise Level (dBA)**	**Distance to Receptor (ft)**	**Barrier Attenuation**	**Noise Level at Receptor (dBA)**
Total Capacity	367							
Females (Adult)	91	46	3	55	71.6	91	5	37.0
Males (Adult)	92	46	3	58	74.6	91	5	40.0
Children	184	92	3	58	77.6	91	5	43.0
Total	**367**	**184**	**-**	**-**	**80.1**	**-**		**45.4**

Source:

[1] American Journal of Audiology Vol. 7, p. 3 (1998)

5700 Hannum

Composite Noise Levels

Exterior

Receptor Location	Calculated Project-Related Noise Levels (dBA)				Project Composite Noise Levels, (dBA)	Ambient Noise Levels,[a] (dBA)	Ambient Plus Project Composite Noise Levels, (dBA)	Increase in Noise Levels Due to Project, (dBA)	Significance Threshold	Significant Impact?
	Mechanical	Parking	Loading Dock	Open Space						
R1	27.8	25.0	35.7	39.4	41.2	63.0	63.0	0.0	68.0	No
R2	21.3	18.5	28.2	36.0	36.9	63.4	63.4	0.0	68.4	No
R3	46.9	44.1	56.3	58.5	60.8	59.6	63.3	3.7	64.6	No
R4	40.9	44.1	54.1	58.5	60.0	61.2	63.7	2.5	66.2	No
R5	26.1	23.3	26.3	37.7	38.4	63.2	63.2	0.0	68.2	No
R6	40.9	38.1	38.3	52.5	53.1	65.7	65.9	0.2	70.7	No
R7	46.9	44.1	55.7	49.9	57.4	56.6	60.0	3.4	61.6	No
R8	32.9	30.1	30.7	44.5	45.1	53.5	54.1	0.6	58.5	No

NOTES:

a The ambient noise level is based on the measured daytime and morning noise levels shown in Table IV.G-5, and the lower value (daytime or morning) is used for the purposes of impact determination.

SOURCE: ESA, 2023.

Interior with Windows Open

Receptor Location	Calculated Project-Related Noise Levels (dBA)				Project Composite Noise Levels, (dBA)	Ambient Noise Levels,[a] (dBA)	Ambient Plus Project Composite Noise	Increase in Noise Levels Due to Project,	Significance Threshold	Significant Impact?
	Mechanical	Parking	Loading Dock	Open Space						
R1	14.8	12.0	22.7	26.4	28.2	63.0	63.0	0.0	68.0	No
R2	8.3	5.5	15.2	23.0	23.9	63.4	63.4	0.0	68.4	No
R3	33.9	31.1	43.3	45.5	47.8	59.6	59.9	0.3	64.6	No
R4	27.9	31.1	41.1	45.5	47.0	61.2	61.4	0.2	66.2	No
R5	13.1	10.3	13.3	24.7	25.4	63.2	63.2	0.0	68.2	No
R6	27.9	25.1	25.3	39.5	40.1	65.7	65.7	0.0	70.7	No
R7	33.9	31.1	42.7	36.9	44.4	56.6	56.9	0.3	61.6	No
R8	19.9	17.1	17.7	31.5	32.1	53.5	53.5	0.0	58.5	No

NOTES:

a The ambient noise level is based on the measured daytime and morning noise levels shown in Table IV.G-5, and the lower value (daytime or morning) is used for the purposes of impact determination.

SOURCE: ESA, 2023.

Interior with Windows Closed

Receptor Location	Calculated Project-Related Noise Levels (dBA)				Project Composite Noise Levels, (dBA)	Ambient Noise Levels,[a] (dBA)	Ambient Plus Project Composite Noise	Increase in Noise Levels Due to Project	Significance Threshold	Significant Impact?
	Mechanical	Parking	Loading Dock	Open Space						
R1	2.8	0.0	10.7	14.4	16.2	63.0	63.0	0.0	68.0	No
R2	0.0	0.0	3.2	11.0	12.2	63.4	63.4	0.0	68.4	No
R3	21.9	19.1	31.3	33.5	35.8	59.6	59.6	0.0	64.6	No
R4	15.9	19.1	29.1	33.5	35.0	61.2	61.2	0.0	66.2	No
R5	1.1	0.0	1.3	12.7	13.5	63.2	63.2	0.0	68.2	No
R6	15.9	13.1	13.3	27.5	28.1	65.7	65.7	0.0	70.7	No
R7	21.9	19.1	30.7	24.9	32.4	56.6	56.6	0.0	61.6	No
R8	7.9	5.1	5.7	19.5	20.1	53.5	53.5	0.0	58.5	No

NOTES:

a The ambient noise level is based on the measured daytime and morning noise levels shown in Table IV.G-5, and the lower value (daytime or morning) is used for the purposes of impact determination.

SOURCE: ESA, 2023.