

Appendix E: Noise Supporting Information

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Project Number: 3766.0005
 Project Name: Dublin Ikea
 Test Personnel: Spencer

Sheet ___ of ___

Noise Measurement Survey

Site Number: ST-1 Date: 10/10 Time: From 11:04 a.m. To 11:19 a.m.

Site Location: 10 yards from center of Martinelli Way, On the corner of of Project site near north west corner

Primary Noise Sources: Traffic along Martinelli Way, Highway 580

Measurement Results

	dBA
Leq	57.9
Lmax	78.4
Lmin	50.9
Lpeak	88.0
L5	63.4
L10	60.6
L50	54.3
L90	52.0
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: _____

Equipment: LXT-1
 Settings: A-Weighted Other

Measured Difference: .11 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
2.9	1.0	79.4	24%
Comments: <u>Warm, sunny day w/ low winds and clear skies</u>			

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts

Diagram/Further Comments:

Traffic Count

small med Large

30 1

Project Number: 3766.0005
 Project Name: Dublin Ikea
 Test Personnel: Spencer

Sheet ___ of ___

Noise Measurement Survey

Site Number: ST-2 Date: 10/10 Time: From 10:21 a.m. To 10:36 a.m.

Site Location: On the northeast corner of the site, on the sidewalk 10 yards to the center of Hacienda Dr.

Primary Noise Sources: Car and truck traffic on Hacienda Dr.

Measurement Results

	dBA
Leq	68.4
Lmax	86.3
Lmin	54.1
Lpeak	98.4
L5	73.5
L10	71.4
L50	63.7
L90	58.4
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA

Comments: _____

Equipment: LXT-1
 Settings: A-Weighted Other

Measured Difference: .11 dBA
 Slow Fast Windscreen

Atmospheric Conditions:

Maximum Wind Velocity (mph)	Average Wind Velocity (mph)	Temperature (F)	Relative Humidity (%)
3.1	1.0	72.5	24%
Comments:			

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts

Diagram/Further Comments:

Traffic Count

<u>Small</u> 223	<u>Med</u> 1	<u>Large</u> 6
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Summary

Filename LxT_Data.023
Serial Number 4397
Model SoundTrack LxT®
Firmware Version 2.301
User
Location
Job Description
Note
Measurement Description
Start 2017/10/10 11:42:05
Stop 2017/10/11 16:56:12
Duration 1 Day 05:14:06.3
Run Time 1 Day 05:14:06.3
Pause 0:00:00.0

Pre Calibration 2017/10/10 11:38:45
Post Calibration None
Calibration Deviation ---

Overall Settings

RMS Weight A Weighting
Peak Weight A Weighting
Detector Slow
Preamp PRMLxT2L
Microphone Correction Off
Integration Method Exponential
Overload 124.7 dB

	A	C	Z
Under Range Peak	80.9	77.9	82.9 dB
Under Range Limit	27.1	27.1	31.8 dB
Noise Floor	18.0	18.0	22.6 dB

Results

LASeq 67.8 dB
LASE 118.0 dB
EAS 69.890 mPa²h
EAS8 19.125 mPa²h
EAS40 95.625 mPa²h
LAp_{peak} (max) 2017/10/10 15:46:04 106.1 dB
LAS_{max} 2017/10/10 15:46:05 92.2 dB
LAS_{min} 2017/10/11 1:24:02 49.5 dB
SEA -99.9 dB

LAS > 85.0 dB (Exceedence Counts / Duration) 2 5.3 s
LAS > 115.0 dB (Exceedence Counts / Duration) 0 0.0 s
LAp_{peak} > 135.0 dB (Exceedence Counts / Duration) 0 0.0 s
LAp_{peak} > 137.0 dB (Exceedence Counts / Duration) 0 0.0 s
LAp_{peak} > 140.0 dB (Exceedence Counts / Duration) 0 0.0 s

Community Noise

	Ldn	LDay 07:00-22:00	LNight 22:00-07:00	Lden
	74.1	67.8	67.7	74.4
LCSeq	75.3 dB			
LASeq	67.8 dB			

LCSeq - LASeq	7.6 dB
LAleq	68.5 dB
LAeq	67.8 dB
LAleq - LAeq	0.8 dB
# Overloads	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exch. Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	0.01	0.03 %
Projected Dose	0.00	0.01 %
TWA (Projected)	11.7	21.6 dB
TWA (t)	21.1	31.0 dB
Lep (t)	73.4	73.4 dB

Statistics

LAS5.00	71.3 dB
LAS10.00	70.4 dB
LAS33.30	68.1 dB
LAS50.00	67.0 dB
LAS75.00	65.3 dB
LAS90.00	63.0 dB

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/1/2017
 Case Description: Site Preparation

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 1	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	850	0
Tractor	No	40	84		870	0
Front End Loader	No	40		79.1	870	0
Backhoe	No	40		77.6	910	0
Excavator	No	40		80.7	910	0
Grader	No	40	85		910	0
Dump Truck	No	40		76.5	960	0
Grader	No	40	85		960	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Dozer	57.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.2	55.2	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.3	50.3	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	52.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.5	51.5	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.8	55.8	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	50.8	46.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.3	55.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.8	62.1	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 2	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1240	0
Tractor	No	40	84		1260	0
Front End Loader	No	40		79.1	1260	0
Backhoe	No	40		77.6	1300	0
Excavator	No	40		80.7	1300	0
Grader	No	40	85		1300	0
Dump Truck	No	40		76.5	1350	0
Grader	No	40	85		1350	0

Equipment	Results							
	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Evening Leq	Evening Lmax	Night Leq	Night Lmax	
Dozer	53.8	49.8	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	56	52	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	51.1	47.1	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	49.3	45.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A
Grader	56.7	52.7	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	47.8	43.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader	56.4	52.4	N/A	N/A	N/A	N/A	N/A	N/A
Total	56.7	59	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 3	Residential	65	60	55

Description	Device	Impact	Equipment			
			Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)
Dozer	No		40	81.7	820	0
Tractor	No		40	84	840	0
Front End Loader	No		40	79.1	840	0
Backhoe	No		40	77.6	880	0
Excavator	No		40	80.7	880	0
Grader	No		40	85	880	0
Dump Truck	No		40	76.5	930	0
Grader	No		40	85	930	0

Equipment	Results							
	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Evening Leq	Evening Lmax	Night Leq	Night Lmax	
Dozer	57.4	53.4	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.5	55.5	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.6	50.6	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	52.6	48.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.8	51.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader	60.1	56.1	N/A	N/A	N/A	N/A	N/A	N/A
Dump Truck	51.1	47.1	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.6	55.6	N/A	N/A	N/A	N/A	N/A	N/A
Total	60.1	62.4	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/1/2017
 Case Description: Building Construction

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 1	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1040	0
Tractor	No	40	84		1060	0
Front End Loader	No	40		79.1	1060	0
Backhoe	No	40		77.6	1100	0
Excavator	No	40		80.7	1100	0
Grader	No	40	85		1100	0
Crane	No	16		80.6	1100	0
All Other Equipment > 5 HP	No	50	85		1100	0
Generator	No	50		80.6	1100	0
Welder / Torch	No	40		74	1100	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)					
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	
Dozer	55.3	51.3	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	57.5	53.5	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	52.6	48.6	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	50.7	46.7	N/A	N/A	N/A	N/A	N/A	N/A	
Excavator	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A	
Grader	58.2	54.2	N/A	N/A	N/A	N/A	N/A	N/A	
Crane	53.7	45.7	N/A	N/A	N/A	N/A	N/A	N/A	
All Other Equipment > 5 HP	58.2	55.1	N/A	N/A	N/A	N/A	N/A	N/A	
Generator	53.8	50.8	N/A	N/A	N/A	N/A	N/A	N/A	
Welder / Torch	47.2	43.2	N/A	N/A	N/A	N/A	N/A	N/A	
Total	58.2	61.3	N/A	N/A	N/A	N/A	N/A	N/A	

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 2	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	1380	0
Tractor	No	40	84		1400	0
Front End Loader	No	40		79.1	1400	0
Backhoe	No	40		77.6	1440	0

Excavator	No	40		80.7	1440	0
Grader	No	40	85		1440	0
Crane	No	16		80.6	1440	0
All Other Equipment > 5 HP	No	50	85		1440	0
Generator	No	50		80.6	1440	0
Welder / Torch	No	40		74	1440	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Dozer	52.9	48.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	55.1	51.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	50.2	46.2	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	48.4	44.4	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	51.5	47.5	N/A	N/A	N/A	N/A	N/A	N/A
Grader	55.8	51.8	N/A	N/A	N/A	N/A	N/A	N/A
Crane	51.4	43.4	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	55.8	52.8	N/A	N/A	N/A	N/A	N/A	N/A
Generator	51.4	48.4	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	44.8	40.8	N/A	N/A	N/A	N/A	N/A	N/A
Total	55.8	58.9	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 3	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	840	0
Tractor	No	40	84		860	0
Front End Loader	No	40		79.1	860	0
Backhoe	No	40		77.6	900	0
Excavator	No	40		80.7	900	0
Grader	No	40	85		900	0
Crane	No	16		80.6	900	0
All Other Equipment > 5 HP	No	50	85		900	0
Generator	No	50		80.6	900	0
Welder / Torch	No	40		74	900	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Dozer	57.2	53.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.3	55.3	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.4	50.4	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	52.5	48.5	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.6	51.6	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.9	55.9	N/A	N/A	N/A	N/A	N/A	N/A
Crane	55.4	47.5	N/A	N/A	N/A	N/A	N/A	N/A
All Other Equipment > 5 HP	59.9	56.9	N/A	N/A	N/A	N/A	N/A	N/A

Generator		55.5	52.5	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch		48.9	44.9	N/A	N/A	N/A	N/A	N/A	N/A
	Total	59.9	63	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/1/2017
 Case Description: Paving

---- Receptor #1 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 1	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Dozer	No	40			81.7	860	0
Tractor	No	40		84		880	0
Front End Loader	No	40			79.1	880	0
Backhoe	No	40			77.6	920	0
Excavator	No	40			80.7	920	0
Grader	No	40		85		920	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						
	*Lmax	Leq	Day		Evening		Night		
			Lmax	Leq	Lmax	Leq	Lmax	Leq	
Dozer	57		53	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.1		55.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.2		50.2	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	52.3		48.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	55.4		51.4	N/A	N/A	N/A	N/A	N/A	N/A
Grader	59.7		55.7	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.7		60.8	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 2	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)	
			Spec Lmax (dBA)	Actual Lmax (dBA)			
Dozer	No	40			81.7	1230	0
Tractor	No	40		84		1250	0
Front End Loader	No	40			79.1	1250	0
Backhoe	No	40			77.6	1290	0
Excavator	No	40			80.7	1290	0
Grader	No	40		85		1290	0

Equipment	Results							
	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night	
Lmax			Lmax		Leq	Lmax	Leq	
Dozer	53.9	49.9	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	56	52.1	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	51.2	47.2	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	49.3	45.3	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.5	48.5	N/A	N/A	N/A	N/A	N/A	N/A
Grader	56.8	52.8	N/A	N/A	N/A	N/A	N/A	N/A
Total	56.8	57.8	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA)		
		Daytime	Evening	Night
Receptor 3	Residential	65	65	55

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)	Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)		
			Dozer	No		
Tractor	No	40	84		1200	0
Front End Loader	No	40		79.1	1200	0
Backhoe	No	40		77.6	1240	0
Excavator	No	40		80.7	1240	0
Grader	No	40	85		1240	0

Equipment	Results							
	Calculated (dBA)			Noise Limits (dBA)				
	*Lmax	Leq	Day	Leq	Evening		Night	
Lmax			Lmax		Leq	Lmax	Leq	
Dozer	54.2	50.2	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	56.4	52.4	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	51.5	47.5	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	49.7	45.7	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	52.8	48.8	N/A	N/A	N/A	N/A	N/A	N/A
Grader	57.1	53.1	N/A	N/A	N/A	N/A	N/A	N/A
Total	57.1	58.2	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30300 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
80.5	159.3	336.1	720.8

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
78.0	153.2	322.8	692.0

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon
place
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
70.2	134.8	282.0	603.6

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
68.4	130.4	272.4	582.7

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	65.2	128.1	270.0

TABLE Existing-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	99.5	211.7

TABLE Existing-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	0.0	98.2

TABLE Existing-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5600 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	94.2	194.7

TABLE Existing-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9500 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	69.1	131.9	275.8

TABLE Existing-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin
Boulevard
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	96.0	185.3	388.6

TABLE Existing-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
69.6	133.3	278.8	596.6

TABLE Existing-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
66.3	125.2	260.9	557.8

TABLE Existing-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.18

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
69.2	132.2	276.4	591.4

TABLE Existing-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: I-580 - East of Hopyard Road
NOTES: Dublin IKEA Supplemental EIR - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

TABLE Existing + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
83.9	167.2	353.5	758.3

TABLE Existing + Project-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
 NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 30700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
81.1	160.6	339.1	727.1

TABLE Existing + Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon place
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.32

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
70.2	134.8	282.0	603.6

TABLE Existing + Project-04
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
 NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
68.7	131.1	274.0	586.2

TABLE Existing + Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 13200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	66.2	130.7	275.5

TABLE Existing + Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	101.0	214.8

TABLE Existing + Project-07
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
 NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	78.2	162.0

TABLE Existing + Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	67.3	133.1	280.9

TABLE Existing + Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17800 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	96.5	196.2	417.1

TABLE Existing + Project-10
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin
 Boulevard
 NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	98.8	192.1	403.5

TABLE Existing + Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
71.3	137.3	287.6	615.6

TABLE Existing + Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
69.5	132.9	278.0	594.9

TABLE Existing + Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
70.8	136.2	285.2	610.5

TABLE Existing + Project-14
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: I-580 - East of Hopyard Road
 NOTES: Dublin IKEA Supplemental EIR - Existing + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

TABLE Near Term Without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 45500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
101.1	206.6	439.7	944.7

TABLE Near Term Without Project-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
99.3	202.5	430.7	925.2

TABLE Near Term Without Project-03
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon
 place
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
90.0	181.2	384.2	824.7

TABLE Near Term Without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
91.3	184.3	391.0	839.4

TABLE Near Term Without Project-05
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	75.5	152.3	323.1

TABLE Near Term Without Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	56.5	116.8	249.3

TABLE Near Term Without Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 59.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	72.5	149.2

TABLE Near Term Without Project-08
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8000 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	60.5	117.2	245.8

TABLE Near Term Without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	73.9	143.7	301.8

TABLE Near Term Without Project-10
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin
 Boulevard
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	109.3	217.0	458.3

TABLE Near Term Without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
92.4	186.8	396.4	851.1

TABLE Near Term Without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.41

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
90.6	182.7	387.6	832.1

TABLE Near Term Without Project-13
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
 NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
92.0	185.9	394.4	846.7

TABLE Near Term Without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: I-580 - East of Hopyard Road
NOTES: Dublin IKEA Supplemental EIR - Near Term Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

TABLE Near Term + Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
104.9	215.3	458.7	985.7

TABLE Near Term + Project-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
102.2	209.3	445.5	957.1

TABLE Near Term + Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon place
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
90.0	181.2	384.2	824.7

TABLE Near Term + Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
91.6	184.9	392.4	842.4

TABLE Near Term + Project-05
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	76.5	154.6	328.1

TABLE Near Term + Project-06
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	57.1	118.2	252.2

TABLE Near Term + Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8500 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.98

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	0.0	97.9	205.8

TABLE Near Term + Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	76.2	153.8	326.3

TABLE Near Term + Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19300 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	101.1	206.8	440.0

TABLE Near Term + Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin Boulevard
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	112.2	223.7	473.1

TABLE Near Term + Project-11
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
94.0	190.5	404.5	868.5

TABLE Near Term + Project-12
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
92.3	186.5	395.7	849.7

TABLE Near Term + Project-13
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
 NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
93.6	189.5	402.5	864.2

TABLE Near Term + Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: I-580 - East of Hopyard Road
NOTES: Dublin IKEA Supplemental EIR - Near Term + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

TABLE Cumulative Without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 56400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
114.8	237.5	507.0	1089.9

TABLE Cumulative Without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
110.8	228.7	487.7	1048.3

TABLE Cumulative Without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon place
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 49700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
106.5	218.8	466.2	1001.9

TABLE Cumulative Without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
109.7	226.1	482.2	1036.5

TABLE Cumulative Without Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19800 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	83.0	169.3	360.2

TABLE Cumulative Without Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12400 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	59.5	123.4	263.6

TABLE Cumulative Without Project-07
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
 NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12100 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
	---	-----	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	60.7	122.4	259.7

TABLE Cumulative Without Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21600 SPEED (MPH): 40 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	106.3	221.6	473.9

TABLE Cumulative Without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23700 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.14

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
61.9	114.2	236.2	504.1

TABLE Cumulative Without Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin
Boulevard
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 35700 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
71.6	124.1	251.1	533.0

TABLE Cumulative Without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
109.5	225.6	481.0	1033.8

TABLE Cumulative Without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
107.7	221.6	472.4	1015.2

TABLE Cumulative Without Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
108.8	224.2	478.0	1027.2

TABLE Cumulative Without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: I-580 - East of Hopyard Road
NOTES: Dublin IKEA Supplemental EIR - Cumulative Without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

TABLE Cumulative + Project-01
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - DeMarcus Boulevard to Iron HorseParkway
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 58900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
117.8	244.3	521.8	1121.8

TABLE Cumulative + Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Iron Horse Parkway to Arnold Road
NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 55500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
113.7	235.0	501.6	1078.3

TABLE Cumulative + Project-03
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Arnold Road to Persimmon
 place
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 49700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
106.5	218.8	466.2	1001.9

TABLE Cumulative + Project-04
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Persimmon place to Hacienda Drive
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
110.0	226.7	483.5	1039.1

TABLE Cumulative + Project-05
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Dublin Boulevard to Central Parkway
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20200 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	83.9	171.5	365.0

TABLE Cumulative + Project-06
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Central Parkway to Gleason Drive
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	60.1	124.7	266.4

TABLE Cumulative + Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Arnold Road - Dublin Boulevard to Martinelli Way
NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15400 SPEED (MPH): 35 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.56

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
0.0	69.7	143.0	304.7

TABLE Cumulative + Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Arnold Road to Persimmon Place
NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25900 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
61.3	118.9	249.6	534.6

TABLE Cumulative + Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Martinelli Way - Persimmon Place to Hacienda Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32100 SPEED (MPH): 40 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
71.3	137.5	288.0	616.6

TABLE Cumulative + Project-10
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Hacienda Drive - Martinelli Way to Dublin
 Boulevard
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37100 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 48 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
72.6	126.8	257.3	546.7

TABLE Cumulative + Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
ROADWAY SEGMENT: Dublin Boulevard - Hacienda Drive to Hibernia Drive
NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
111.0	228.9	488.3	1049.6

TABLE Cumulative + Project-12
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Hibernia Drive to Myrtle Drive
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
109.2	225.0	479.8	1031.2

TABLE Cumulative + Project-13
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: Dublin Boulevard - Myrtle Drive to Glynnis Rose Drive
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 36 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
110.3	227.5	485.3	1043.1

TABLE Cumulative + Project-14
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 10/06/2017
 ROADWAY SEGMENT: I-580 - East of Hopyard Road
 NOTES: Dublin IKEA Supplemental EIR - Cumulative + Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 219000 SPEED (MPH): 65 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY ---	EVENING -----	NIGHT -----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 72 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 80.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL -----	65 CNEL -----	60 CNEL -----	55 CNEL -----
506.3	1081.8	2326.2	5008.9

Mechanical Equipment Noise Calculation

Receptor: Nearest residential land use west of the site

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements											
No.	Equipment Description	Reference (dBA)	Quantity	Usage factor**	Distance to Receptor	Ground Effect	Shielding (dBA)	Calculated (dBA)		Energy	
		25 ft						Lmax	Leq		
1	Commercial grade mechanical ventilation equipment	60	1	100	1000	0.5	3	25.0	16.9	49.52791226	
2	Commercial grade mechanical ventilation equipment	60	1	100	1010	0.5	3	24.9	16.8	48.3110623	
3	Commercial grade mechanical ventilation equipment	60	1	100	1020	0.5	3	24.8	16.7	47.13565997	
4	Commercial grade mechanical ventilation equipment	60	1	100	1030	0.5	3	24.7	16.6	45.99990766	
5	Commercial grade mechanical ventilation equipment	60	1	100	1040	0.5	3	24.6	16.5	44.90210214	
6	Commercial grade mechanical ventilation equipment	60	1	100	1050	0.5	3	24.5	16.4	43.84062875	
7	Commercial grade mechanical ventilation equipment	60	1	100	1060	0.5	3	24.5	16.3	42.81395601	
8	Commercial grade mechanical ventilation equipment	60	1	100	1070	0.5	3	24.4	16.2	41.82063063	
9	Commercial grade mechanical ventilation equipment	60	1	100	1080	0.5	3	24.3	16.1	40.8592728	
10	Commercial grade mechanical ventilation equipment	60	1	100	1090	0.5	3	24.2	16.0	39.92857185	
								Lmax*	25	Leq	26

Notes:

*Calculated Lmax is the Loudest value.

** Percentage of time per hour of operation

Shielding accounts for rooftop parapet shielding