

**Appendix H:
Combined Noise Data**

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Construction

Receptor: Project Boundary

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 (Lmax)	Energy (Leq)	
		25 ft						Lmax	Leq			
1	Equipment maximum permissible noise level	83	1	40	25	0.5	0	83.0	79.0	199526231.5	79810492.6	
2	Equipment maximum permissible noise level	83	1	40	50	0.5	0	77.0	71.5	49881557.87	14108635.13	
3	Equipment maximum permissible noise level	83	1	40	50	0.5	0	77.0	71.5	49881557.87	14108635.13	
4	Equipment maximum permissible noise level	83	1	40	75	0.5	0	73.5	67.1	22169581.28	5119845.487	
5	Equipment maximum permissible noise level	83	1	40	75	0.5	0	73.5	67.1	22169581.28	5119845.487	
6												
7												
8												
9												
10												
Notes:									Lmax	85	Leq	81

* Percentage of time during a construction noise operation that a piece of equipment is operating at full power

Construction

Receptor: Closest Residential Receptor

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 (Lmax)	Energy (Leq)	
		25 ft						Lmax	Leq			
1	Equipment maximum permissible noise level	83	1	40	300	0.5	0	61.4	52.0	1385598.83	159995.1715	
2	Equipment maximum permissible noise level	83	1	40	325	0.5	0	60.7	51.2	1180628.589	130978.982	
3	Equipment maximum permissible noise level	83	1	40	325	0.5	0	60.7	51.2	1180628.589	130978.982	
4	Equipment maximum permissible noise level	83	1	40	350	0.5	0	60.1	50.4	1017990.977	108827.8131	
5	Equipment maximum permissible noise level	83	1	40	350	0.5	0	60.1	50.4	1017990.977	108827.8131	
6												
7												
8												
9												
10												
Notes:									Lmax	68	Leq	58

* Percentage of time during a construction noise operation that a piece of equipment is operating at full power

Loading/Unloading

Receptor: Closest residential property line

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor ^[1]	Distance to Receptor	Ground Effect ^[2]	Shielding (dBA) ^[3]	Calculated (dBA)		Energy	
		Lmax						Lmax	Leq		
1	Loading/unloading activity	80	2	10	350	1	10	53.1	37.7	5830.90379	
2											
3											
4											
5											
6											
7											
8											
9											
10											
								Lmax ^[4]	53	Leq	38

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures
- [4] Calculated Lmax is the Loudest value.

Receptor: Closest residential property with Direct line of sight

No.	Equipment Description	Reference (dBA) 50 ft	Quantity	Usage factor ^[1]	Distance to Receptor	Ground Effect ^[2]	Shielding (dBA) ^[3]	Calculated (dBA)		Energy	
		Lmax						Lmax	Leq		
1	Loading/unloading activity	80	2	100	630	1	0	58.0	50.0	99981.20353	
2											
3											
4											
5											
6											
7											
8											
9											
10											
								Lmax ^[4]	58	Leq	50

Notes:

- [1] Percentage of time activity occurs each hour
- [2] Soft ground terrain between project site and receptor.
- [3] Shielding due to terrain or structures

Parking Lot Activity

Receptor: Multi-family residential receptor south of Stoneridge Drive and west of Springdale Avenue

No.	Equipment Description	Reference (dBA) 50 ft		Usage factor[1]	Distance to Receptor	Ground Effect[2]	Shielding (dBA)[3]	Calculated (dBA)		Energy	
		Lmax	Quantity					Lmax	Leq		
1	parking lot activity	70	7	1	350	0.5	0	53.1	37.3	5399.492472	
2	parking lot activity	70	7	1	375	0.5	0	52.5	36.6	4544.068625	
3	parking lot activity	70	7	1	400	0.5	0	51.9	35.9	3866.99021	
4	parking lot activity	70	8	1	410	0.5	0	51.7	36.2	4154.850064	
5	parking lot activity	70	8	1	415	0.5	0	51.6	36.1	4030.832542	
6											
7											
8											
9											
10											
								Lmax[4]	53.0	Leq	43

Notes:

[1] Percentage of time activity occurs each hour

[2] Hard ground terrain between project site and receptor.

[3] Shielding due to terrain or structures

[4] Calculated Lmax is the Loudest value.

Mechanical Equipment Noise Calculation

Receptor: Nearest residential property line

Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements											
No.	Equipment Description	Reference (dBA) 25 ft	Quantity	Usage factor**	Distance to Receptor	Ground Effect	Shielding (dBA)	Calculated (dBA)		Energy	
		Lmax						Lmax	Leq		
1	Commercial grade mechanical ventilation equipment	60	1	100	210	0.5	0	41.5	36.9	4889.920347	
2	Commercial grade mechanical ventilation equipment	60	1	100	235	0.5	0	40.5	35.7	3691.308698	
3	Commercial grade mechanical ventilation equipment	60	1	100	260	0.5	0	39.7	34.6	2866.927112	
4	Commercial grade mechanical ventilation equipment	60	1	100	285	0.5	0	38.9	33.6	2278.966135	
5											
6											
7											
8											
9											
10											
								Lmax*	42	Leq	41

Notes:

*Calculated Lmax is the Loudest value.

** Percentage of time per hour of operation

Shielding accounts for rooftop parapet shielding

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive
NOTES: 10x Genomics Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23600 SPEED (MPH): 30 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) = 64.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	72.1	148.3	316.2

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue
NOTES: 10x Genomics Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14900 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	99.7	209.9	449.7

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge Mall Road
NOTES: 10x Genomics Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22100 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.82

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
63.2	128.1	272.1	584.4

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road
NOTES: 10x Genomics Project - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44200 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): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
97.4	201.9	431.1	926.9

TABLE Existing Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive
NOTES: 10x Genomics Project - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23700 SPEED (MPH): 30 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) = 64.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	72.3	148.8	317.1

TABLE Existing Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue

NOTES: 10x Genomics Project - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15900 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	103.9	219.0	469.6

TABLE Existing Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge
Mall Road

NOTES: 10x Genomics Project - Existing Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24100 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
66.4	135.5	288.2	619.1

TABLE Existing Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road
NOTES: 10x Genomics Project - Existing Plus 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): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.67

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
100.3	208.4	445.3	957.4

TABLE Near-Term No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive

NOTES: 10x Genomics Project - Near-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24300 SPEED (MPH): 30 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) = 64.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	73.3	151.2	322.4

TABLE Near-Term No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue
NOTES: 10x Genomics Project - Near-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17900 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.91

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
56.2	112.0	236.8	507.9

TABLE Near-Term No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge
Mall Road

NOTES: 10x Genomics Project - Near-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26700 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.65

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70.5	144.8	308.4	662.8

TABLE Near-Term No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road

NOTES: 10x Genomics Project - Near-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 49300 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): 30 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
-----	-----	-----	-----
104.1	216.8	463.5	996.8

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

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive
NOTES: 10x Genomics Project - Near-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24400 SPEED (MPH): 30 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) = 64.95

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	73.5	151.6	323.3

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

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue
NOTES: 10x Genomics Project - Near-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18800 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): 24 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
-----	-----	-----	-----
57.7	115.5	244.6	524.8

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

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge
Mall Road

NOTES: 10x Genomics Project - Near-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28200 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
72.8	150.0	319.8	687.4

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

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road

NOTES: 10x Genomics Project - Near-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51000 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): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
106.3	221.7	474.1	1019.6

TABLE Far-Term No Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive

NOTES: 10x Genomics Project - Far-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24600 SPEED (MPH): 30 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) = 64.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	73.9	152.4	325.1

TABLE Far-Term No Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue
NOTES: 10x Genomics Project - Far-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18700 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.10

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
57.5	115.1	243.7	522.9

TABLE Far-Term No Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge
Mall Road

NOTES: 10x Genomics Project - Far-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27400 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): 24 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.76

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
71.6	147.2	313.8	674.3

TABLE Far-Term No Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road

NOTES: 10x Genomics Project - Far-Term No Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50400 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): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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105.5	220.0	470.4	1011.6

TABLE Far-Term Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Mall Road - north of Stonebridge Drive
NOTES: 10x Genomics Project - Far-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24700 SPEED (MPH): 30 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) = 65.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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0.0	74.1	152.8	325.9

TABLE Far-Term Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - west of Springdale Avenue
NOTES: 10x Genomics Project - Far-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19500 SPEED (MPH): 45 GRADE: .5

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
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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) = 68.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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58.9	118.2	250.5	537.7

TABLE Far-Term Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021

ROADWAY SEGMENT: Stonebridge Drive - Springdale Avenue to Stonebridge
Mall Road

NOTES: 10x Genomics Project - Far-Term Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

	DAY	EVENING	NIGHT
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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) = 69.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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73.9	152.4	325.1	698.7

TABLE Far-Term Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 02/03/2021
ROADWAY SEGMENT: Stonebridge Drive - east of Stonebridge Mall Road
NOTES: 10x Genomics Project - Far-Term Plus Project

* * ASSUMPTIONS * *

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

	TRAFFIC DISTRIBUTION PERCENTAGES		
	DAY	EVENING	NIGHT
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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) = 72.15

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
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107.4	224.2	479.6	1031.5