Appendix E
Noise Modeling Data

SOURCE: Dudek 2022

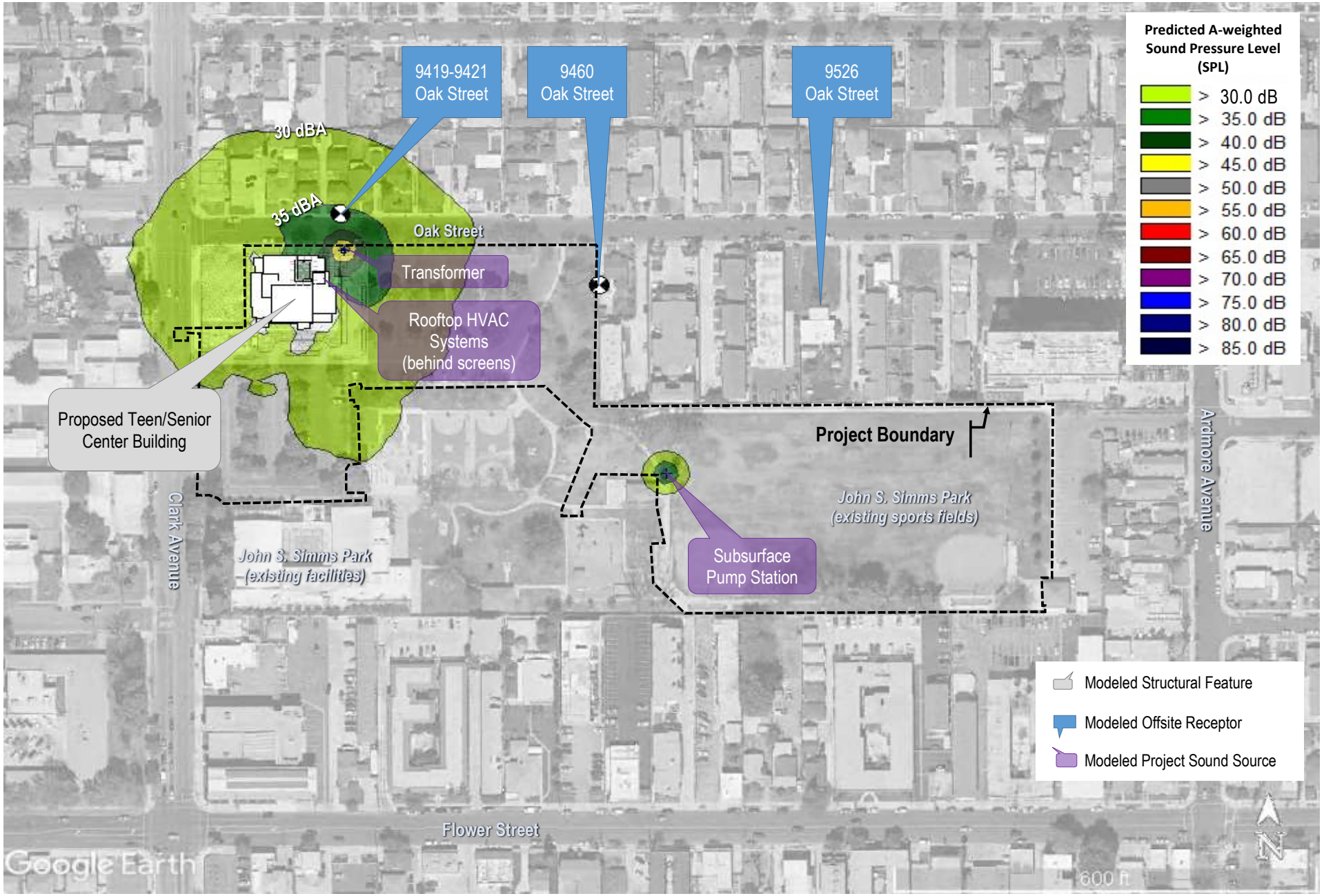
DUDEK

0 77.5 155 Feet

FIGURE 3.13-1

Predicted Project Operations (Stationary Sources) Noise Levels - with Teen/Senior Center hosted event

Craftwater Simms Park Stormwater Capture and Teen/Senior Center Project



SOURCE: Dudek 2022

DUDEK

0 77.5 155 Feet

FIGURE 3.13-2

Predicted Project Operations (Stationary Sources) Noise Levels - without Teen/Senior Center hosted event

Craftwater Simms Park Stormwater Capture and Teen/Senior Center Project

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs? 1
grnd abs? 1

magnitude of threshold (dBA) = 80
allowable hours over which Leq is to be averaged = 8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)
= Barrier of input height inserted between source and receptor

Project Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Demolition 1	backhoe	2	40	78	160	0		64.3	6	360	62	5	5	0	100	60	160	100.1	60.2	160.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dozer	1	40	82	160	0		68.3	1	60	55	5	5	0	100	60	160	100.1	60.2	160.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		concrete saw	1	20	90	160	0		76.3	8	480	69	5	5	0	100	60	160	100.1	60.2	160.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Demolition 1 Phase				**70.2**																	
2	Demolition 2	backhoe	2	40	78	130	0		66.6	6	360	64	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dozer	1	40	82	130	0		70.6	1	60	58	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		concrete saw	1	20	90	130	0		78.6	8	480	72	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Demolition 2 Phase				**72.5**																	
3	Site Preparation	grader	1	40	85	130	0		73.6	8	480	70	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		backhoe	1	40	78	130	0		66.6	8	480	63	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Site Preparation Phase				**70.4**																	
4	Grading	grader	1	40	85	130	0		73.6	6	360	68	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dozer	1	40	82	130	0		70.6	6	360	65	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		backhoe	1	40	78	130	0		66.6	7	420	62	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Grading Phase				**70.8**																	
5	Building Construction	crane	1	16	81	130	0		69.6	4	240	59	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		man lift	2	20	75	130	0		63.6	6	360	58	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		backhoe	2	40	78	130	0		66.6	8	480	66	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Building Construction Phase				**67.0**																	
6	Paving	backhoe	1	40	78	130	0		66.6	7	420	62	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		concrete mixer truck	4	40	79	130	0		67.6	6	360	68	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		paver	1	50	77	130	0		65.6	7	420	62	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		roller	1	20	80	130	0		68.6	7	420	61	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Paving Phase				**70.6**																	
7	Architectural Coating	compressor (air)	1	40	78	130	0		66.6	6	360	61	5	5	0	70	60	130	70.2	60.2	130.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
								Total Aggregate Noise Exposure from Architectural Coating Phase				**61.4**																	

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs? 1
grnd abs? 1

magnitude of threshold (dBA) = 80
allowable hours over which Leq is to be averaged = 8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)
= Barrier of input height inserted between source and receptor

Project Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Demolition 1	backhoe	2	40	78	650	3		47.4	6	360	45	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		dozer	1	40	82	650	3		51.4	1	60	38	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		concrete saw	1	20	90	650	3		59.4	8	480	52	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Demolition 1 Phase				**53.3**																	
2	Demolition 2	backhoe	2	40	78	650	3		47.4	6	360	45	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		dozer	1	40	82	650	3		51.4	1	60	38	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		concrete saw	1	20	90	650	3		59.4	8	480	52	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Demolition 2 Phase				**53.3**																	
3	Site Preparation	grader	1	40	85	650	3		54.4	8	480	50	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		backhoe	1	40	78	650	3		47.4	8	480	43	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Site Preparation Phase				**51.2**																	
4	Grading	grader	1	40	85	650	3		54.4	6	360	49	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		dozer	1	40	82	650	3		51.4	6	360	46	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		backhoe	1	40	78	650	3		47.4	7	420	43	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Grading Phase				**51.6**																	
5	Building Construction	crane	1	16	81	650	3		50.4	4	240	39	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		man lift	2	20	75	650	3		44.4	6	360	39	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		backhoe	2	40	78	650	3		47.4	8	480	46	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Building Construction Phase				**47.9**																	
6	Paving	backhoe	1	40	78	650	3		47.4	7	420	43	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		concrete mixer truck	4	40	79	650	3		48.4	6	360	49	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		paver	1	50	77	650	3		46.4	7	420	43	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
		roller	1	20	80	650	3		49.4	7	420	42	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Paving Phase				**51.4**																	
7	Architectural Coating	compressor (air)	1	40	78	650	3		47.4	6	360	42	5	5	12	400	250	650	400.1	250.1	650.0	0.16	5.5	17.0	5.0	0.4	0.7	3.1
								Total Aggregate Noise Exposure from Architectural Coating Phase				**42.2**																	

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1	Site mobilization, clearing, grubbing, and vegetation removal	dozer	1	40	82	850	0		51.9	8	480	48	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		grader	1	40	85	850	0		54.9	8	480	51	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dump truck	1	40	76	850	0		45.9	8	480	42	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Site mobilization, clearing, grubbing, and vegetation removal Phase					**53.8**																
2	Demolition of existing pavement	dozer	1	40	82	850	0		51.9	8	480	48	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		grader	1	40	85	850	0		54.9	8	480	51	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dump truck	1	40	76	850	0		45.9	8	480	42	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Demolition of existing pavement Phase					**53.8**																
3	Reservoir excavation	dozer	1	40	82	850	0		51.9	8	480	48	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		backhoe	1	40	78	850	0		47.9	8	480	44	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dump truck	1	40	76	850	0		45.9	8	480	42	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Reservoir excavation Phase					**51.5**																
4	Reservoir construction	crane	1	16	81	850	0		50.9	8	480	43	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dozer	1	40	82	850	0		51.9	8	480	48	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dozer	1	40	82	850	0		51.9	8	480	48	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Reservoir construction Phase					**52.6**																
5	Pipeline, diversion structure, and treatment facility/pump installation	slurry trenching machine	1	50	80	850	0		49.9	8	480	47	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		crane	1	16	81	850	0		50.9	8	480	43	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dump truck	1	40	76	850	0		45.9	8	480	42	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Pipeline, diversion structure, and treatment facility/pump installation Phase					**50.9**																
6	Field surface replacement	grader	1	40	85	850	0		54.9	8	480	51	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		soil mix drill rig	1	50	80	850	0		49.9	8	480	47	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		all other equipment > 5 hp	1	50	85	850	0		54.9	8	480	52	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Field surface replacement Phase					**55.6**																
7	Parking lot reconstruction	skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		roller	1	20	80	850	0		49.9	8	480	43	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		dump truck	1	40	76	850	0		45.9	8	480	39	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		concrete mixer truck	1	40	79	850	0		48.9	8	480	44	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		compactor (ground)	1	20	80	850	0		45.9	8	480	39	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		paver	1	50	77	850	0		46.9	8	480	44	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Parking lot reconstruction Phase					**50.9**																
8	Concrete pathway improvements	concrete mixer truck	1	40	79	850	0		48.9	8	480	45	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Concrete pathway improvements Phase					**44.9**																
9	Ancillary Park improvements	crane	1	16	81	850	0		50.9	8	480	43	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		skidsteer*	1	40	80	850	0		49.9	8	480	46	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		man lift	1	20	75	850	0		44.9	8	480	38	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
		concrete mixer truck	1	40	79	850	0		48.9	8	480	45	5	5	0	770	80	850	770.0	80.2	850.0	0.00	0.1	5.0	5.0	0.7	0.7	0.1
							Total Aggregate Noise Exposure from Ancillary Park improvements Phase					**49.8**																

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs? 1
grnd abs? 1

magnitude of threshold (dBA) = 80
allowable hours over which Leq is to be averaged = 8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)
= Barrier of input height inserted between source and receptor

Project Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	*Temporary Barrier Insertion Loss (dB)*	*Additional Noise Reduction*	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Site mobilization, clearing, grubbing, and vegetation removal	dozer	1	40	82	260	1		62.7	8	480	59	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		grader	1	40	85	260	1		65.7	8	480	62	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dump truck	1	40	76	260	1		56.7	8	480	53	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Site mobilization, clearing, grubbing, and vegetation removal Phase										**64.6**																
2	Demolition of existing pavement	dozer	1	40	82	260	1		62.7	8	480	59	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		grader	1	40	85	260	1		65.7	8	480	62	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dump truck	1	40	76	260	1		56.7	8	480	53	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Demolition of existing pavement Phase										**64.6**																
3	Reservoir excavation	dozer	1	40	82	260	1		62.7	8	480	59	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		backhoe	1	40	78	260	1		58.7	8	480	55	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dump truck	1	40	76	260	1		56.7	8	480	53	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Reservoir excavation Phase										**62.3**																
4	Reservoir construction	crane	1	16	81	260	1		61.7	8	480	54	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dozer	1	40	82	260	1		62.7	8	480	59	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dozer	1	40	82	260	1		62.7	8	480	59	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Reservoir construction Phase										**63.4**																
5	Pipeline, diversion structure, and treatment facility/pump installation	slurry trenching machine	1	50	80	260	1		60.7	8	480	58	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		crane	1	16	81	260	1		61.7	8	480	54	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dump truck	1	40	76	260	1		56.7	8	480	53	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Pipeline, diversion structure, and treatment facility/pump installation Phase										**61.7**																
6	Field surface replacement	grader	1	40	85	260	1		65.7	8	480	62	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		soil mix drill rig	1	50	80	260	1		60.7	8	480	58	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		all other equipment > 5 hp	1	50	85	260	1		65.7	8	480	63	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Field surface replacement Phase										**66.4**																
7	Parking lot reconstruction	skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		roller	1	20	80	260	1		60.7	8	480	54	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		dump truck	1	40	76	260	1		56.7	8	480	50	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		concrete mixer truck	1	40	79	260	1		59.7	8	480	55	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		compactor (ground)	1	20	80	260	1		56.7	8	480	50	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		paver	1	50	77	260	1		57.7	8	480	55	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Parking lot reconstruction Phase										**61.7**																
8	Concrete pathway improvements	concrete mixer truck	1	40	79	260	1		59.7	8	480	56	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Concrete pathway improvements Phase										**55.7**																
9	Ancillary Park improvements	crane	1	16	81	260	1		61.7	8	480	54	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		skidsteer*	1	40	80	260	1		60.7	8	480	57	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		man lift	1	20	75	260	1		55.7	8	480	49	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		concrete mixer truck	1	40	79	260	1		59.7	8	480	56	5	5	7	160	100	260	160.0	100.0	260.0	0.03	1.6	12.0	5.0	0.5	0.7	0.7
		Total Aggregate Noise Exposure from Ancillary Park improvements Phase										**60.6**																

Construction Schedule

Year	2023									2024									2025		
Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Construction Phase																					
Stormwater Capture																					
Site mobilization, clearing, grubbing, and vegetation removal	✔	✔																			
Demolition of existing pavement	✔																				
Reservoir excavation			✔	✔																	
Reservoir construction					✔	✔	✔	✔													
Pipeline, diversion structure, and treatment facility/pump installation								✔	✔	✔											
Field surface replacement										✔	✔										
Parking lot reconstruction														✔	✔	✔					
Concrete pathway improvements											✔	✔									
Ancillary Park improvements												✔	✔								
Teen & Senior Center																					
Demolition 1				✔																	
Demolition 2				✔	✔																
Site Preparation						✔															
Grading						✔															
Building Construction						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		
Paving																			✔	✔	
Architectural Coating																				✔	✔

Combined Construction Noise at Nearest Offsite Receptor:	9419 Oak Street																				
Site mobilization, clearing, grubbing, and vegetation removal	53.8	53.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition of existing pavement	53.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reservoir excavation	0.0	0.0	51.5	51.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reservoir construction	0.0	0.0	0.0	0.0	52.6	52.6	52.6	52.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pipeline, diversion structure, and treatment facility/pump installation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.9	50.9	50.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Field surface replacement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.6	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parking lot reconstruction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.9	50.9	50.9	0.0	0.0	0.0	0.0	0.0
Concrete pathway improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.9	44.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ancillary Park improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	49.8	49.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition 1	0.0	0.0	0.0	70.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition 2	0.0	0.0	0.0	72.5	72.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Site Preparation	0.0	0.0	0.0	0.0	0.0	70.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grading	0.0	0.0	0.0	0.0	0.0	70.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building Construction	0.0	0.0	0.0	0.0	0.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	0.0	0.0	0.0
Paving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.6	70.6	0.0
Architectural Coating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.4	61.4
Concurrent Total (dBA)	**57**	**54**	**51**	**75**	**73**	**74**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**67**	**72**	**71**	**61**

Construction Schedule

Year	2023									2024									2025		
Month	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Construction Phase																					
Stormwater Capture																					
Site mobilization, clearing, grubbing, and vegetation removal	✔	✔																			
Demolition of existing pavement	✔																				
Reservoir excavation			✔	✔																	
Reservoir construction					✔	✔	✔	✔													
Pipeline, diversion structure, and treatment facility/pump installation								✔	✔	✔											
Field surface replacement										✔	✔										
Parking lot reconstruction														✔	✔	✔					
Concrete pathway improvements											✔	✔									
Ancillary Park improvements												✔	✔								
Teen & Senior Center																					
Demolition 1				✔																	
Demolition 2				✔	✔																
Site Preparation						✔															
Grading						✔															
Building Construction						✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		
Paving																			✔	✔	
Architectural Coating																				✔	✔

Combined Construction Noise at Nearest Offsite Receptor:	9526 Oak Street																				
Site mobilization, clearing, grubbing, and vegetation removal	64.6	64.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition of existing pavement	64.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reservoir excavation	0.0	0.0	62.3	62.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reservoir construction	0.0	0.0	0.0	0.0	63.4	63.4	63.4	63.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pipeline, diversion structure, and treatment facility/pump installation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.7	61.7	61.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Field surface replacement	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.4	66.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Parking lot reconstruction	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.7	61.7	61.7	0.0	0.0	0.0	0.0	0.0
Concrete pathway improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.7	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ancillary Park improvements	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.6	60.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition 1	0.0	0.0	0.0	53.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Demolition 2	0.0	0.0	0.0	53.3	53.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Site Preparation	0.0	0.0	0.0	0.0	0.0	51.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grading	0.0	0.0	0.0	0.0	0.0	51.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Building Construction	0.0	0.0	0.0	0.0	0.0	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	0.0	0.0	0.0
Paving	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.4	51.4	0.0
Architectural Coating	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.2	42.2
Concurrent Total (dBA)	**68**	**65**	**62**	**63**	**64**	**64**	**64**	**66**	**62**	**68**	**67**	**62**	**61**	**62**	**62**	**62**	**48**	**48**	**53**	**52**	**42**

Equipment Description	Impact Device?	Acoustical Use Factor (%)	Lesser of or available Lmax	Spec. 721 Lmax	Measured L_{max} @50ft (dBA, slow)
All Other Equipment > 5 HP	No	50	85	85	-- N/A --
Auger Drill Rig	No	20	84	85	84
Backhoe	No	40	78	80	78
Bar Bender	No	20	80	80	-- N/A --
Blasting	Yes	-- N/A --	94	94	-- N/A --
Boring Jack Power Unit	No	50	80	80	83
Chain Saw	No	20	84	85	84
Clam Shovel (dropping)	Yes	20	87	93	87
Compactor (ground)	No	20	80	80	83
Compressor (air)	No	40	78	80	78
Concrete Batch Plant	No	15	83	83	-- N/A --
Concrete Mixer Truck	No	40	79	85	79
Concrete Pump Truck	No	20	81	82	81
Concrete Saw	No	20	90	90	90
Crane	No	16	81	85	81
Dozer	No	40	82	85	82
Drill Rig Truck	No	20	79	84	79
Drum Mixer	No	50	80	80	80
Dump Truck	No	40	76	84	76
Excavator	No	40	81	85	81
Flat Bed Truck	No	40	74	84	74
Front End Loader	No	40	79	80	79
Generator	No	50	72	72	81
Generator (<25KVA, VMS signs)	No	50	70	70	73
Gradall	No	40	83	85	83
Grader	No	40	85	85	-- N/A --
Grapple (on backhoe)	No	40	85	85	87
Horizontal Boring Hydr. Jack	No	25	80	80	82
Hydra Break Ram	Yes	10	90	90	-- N/A --
Impact Pile Driver	Yes	20	95	95	101
Jackhammer	Yes	20	85	85	89
Man Lift	No	20	75	85	75
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	90
Pavement Scarafier	No	20	85	85	90
Paver	No	50	77	85	77
Pickup Truck	No	40	55	55	75
Pneumatic Tools	No	50	85	85	85
Pumps	No	50	77	77	81
Refrigerator Unit	No	100	73	82	73
Rivit Buster/chipping gun	Yes	20	79	85	79
Rock Drill	No	20	81	85	81
Roller	No	20	80	85	80
Sand Blasting (Single Nozzle)	No	20	85	85	96
Scraper	No	40	84	85	84
Shears (on backhoe)	No	40	85	85	96
*Skidsteer**	*No*	*40*	*80*	*-- N/A --*	*-- N/A --*
Slurry Plant	No	100	78	78	78
Slurry Trenching Machine	No	50	80	82	80
Soil Mix Drill Rig	No	50	80	80	-- N/A --
Tractor	No	40	84	84	-- N/A --
Vacuum Excavator (Vac-truck)	No	40	85	85	85
Vacuum Street Sweeper	No	10	80	80	82
Ventilation Fan	No	100	79	85	79
Vibrating Hopper	No	50	85	85	87
Vibratory Concrete Mixer	No	20	80	80	80
Vibratory Pile Driver	No	20	95	95	101
Warning Horn	No	5	83	85	83
Welder / Torch	No	40	73	73	74

* https://ia.cpuc.ca.gov/Environment/info/ene/mesa/attachment/A1503003%20ED-SCE-01%20Q.PD-01%20Attachment%20(Revised%20Noise%20Levels%20Construction%20Equipment).pdf

Receivers

with no event at Teen/Senior Center…

Name	M.	ID	Level Lr Day (dBA)	Level Lr Night (dBA)	Limit. Value Day (dBA)	Limit. Value Night (dBA)	Land Use Type	Land Use Auto	Noise Type	Height (ft)		Coordinates X (ft)	Coordinates Y (ft)	Coordinates Z (ft)
9419-9421 Oak Street			36	36	0	0		x	Total	5	r	482.9	1073.1	5
9460 Oak Street			25.4	25.4	0	0		x	Total	5	r	853.41	961.48	5

with event at Teen/Senior Center…

Name	M.	ID	Level Lr Day (dBA)	Level Lr Night (dBA)	Limit. Value Day (dBA)	Limit. Value Night (dBA)	Land Use Type	Land Use Auto	Noise Type	Height (ft)		Coordinates X (ft)	Coordinates Y (ft)	Coordinates Z (ft)
9419-9421 Oak Street			41.6	41.6	0	0		x	Total	5	r	482.9	1073.1	5
9460 Oak Street			30.3	30.3	0	0		x	Total	5	r	853.41	961.48	5

Sound Levels (local)

Name	ID	Type	Oktave Spectrum (dB) Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	Source
Teen-Senior Ctr ACCs	TSCACC	Lw		71	71	71	75	77	75	69	67	65	79	82.2	Loren Cook and Storm calcs
Teen-Senior Ctr AHUs	TSCAHU	Lw		58	58	70	71	72	69	62	56	51	73.1	77	Loren Cook and Storm calcs
Speech Specta	SPCH	Lw		-14	-11	-8	-5	-5	-8	-13	-20	-27	-3.6	0.5	Hayne 2006
submerisble wet well pump 30 kW	SWWP	Lw		85	86	87	89	89	92	89	85	79	95.6	97.5	ENC Section 11.6 and Table 11.0 calcs

Point Sources

Name	M.	ID	Result. PWL Day (dBA)	Result. PWL Evening (dBA)	Result. PWL Night (dBA)	Lw / Li Type	Lw / Li Value	Lw / Li norm. dB(A)	Correction Day dB(A)	Correction Evening dB(A)	Correction Night dB(A)	Sound Reduction R	Sound Reduction Area (ft²)	Attenuatio	Operating Time Day (min)	Operating Time Special (min)	Operating Time Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Height (ft)		Coordinates X (ft)	Coordinates Y (ft)	Coordinates Z (ft)
500 kVA transformer		XMFR	70.2	70.2	70.2	SET												0		(none)	3	r	488.48	1015.16	3
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	420.54	998.8	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	431.88	998.8	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	442.05	998.8	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	442.05	991.05	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	442.05	984.27	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	442.05	968.96	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	431.39	968.96	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	420.73	968.96	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	420.73	983.68	11.75
in-ceiling mounted speaker - 80 dBA PWL		ICMS	80	80	80	Lw	SPCH		0	0	0			-83.6				0		(none)	11.75	r	420.73	994.15	11.75
subsurface wet well pump		SWWP	60.6	60.6	60.6	Lw	SWWP		0	0	0			35				0		(none)	0.25	r	947.37	665.15	0.25

Area Sources

Name	M.	ID	Result. PWL Day (dBA)	Result. PWL Evening (dBA)	Result. PWL Night (dBA)	Result. PWL" Day (dBA)	Result. PWL" Evening (dBA)	Result. PWL" Night (dBA)	Lw / Li Type	Lw / Li Value	Lw / Li norm. dB(A)	Correction Day dB(A)	Correction Evening dB(A)	Correction Night dB(A)	Sound Reduction R	Sound Reduction Area (ft²)	Attenuatio	Operating Time Day (min)	Operating Time Special (min)	Operating Time Night (min)	K0 (dB)	Freq. (Hz)	Direct.	Moving Pt. Src Number Day	Moving Pt. Src Number Evening	Moving Pt. Src Number Night
outdoor patio event speech - 10 loud talkers		OPES10L	90	90	90	73.8	73.8	73.8	Lw	SPCH		0	0	0			-93.6				0		(none)			
west rooftop HVAC		WRHVAC	80	80	80	65.4	65.4	65.4	Lw	TSCACC++TSCAHU		0	0	0							0		(none)			
east rooftop HVAC		ERHVAC	79	79	79	66.5	66.5	66.5	Lw	TSCACC		0	0	0							0		(none)			

AHUs (plenum-type return fan only, no condenser units [see separate worksheet]):

Building Minimum Ventilation

percent GSF actually occupied (and need ventilation): 90

														A-weighting adjustments	26	13	9	3	0	-1	-1	1	
														average of values for the two fan diameter ranges, per Guyer (Table 12)	plug	40	40	38	34	29	23	19	16	
														average of values for the two fan diameter ranges, per Guyer (Table 12)	tube	47	44	46	47	44	45	38	35	
														per Guyer (Table 12, presumed based on Bies & Hansen ENC)	prop	46	48	55	53	52	48	43	38	
																A-weighted PWL (for CadnaA inputs)									
Tag	**Building**	**GSF**	**Avail. SF**	**Height (ft)**	**Avg. minutes to change air***	**Volume (ft3)**	**CFM**	**m^2**	**comparable facility function**	**Pressure (iwg)**	**Pressure (Pa)**	**Q (m^3/s)**	**fantype = plug, tube, or prop**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**	**OA dB**
return air fans in building rooftop AHUs:																						
	Teen/Senior Center	11000	9900	10	5	99000	19800	920	Recreation Room	2	500	9	plug	58	70	71	72	69	62	56	51	**77**
														fan or AHU cabinet liner/interior attenuation (excludes inlet/outlet PWL split, already in calcs above:		2	3	4	5	6	8	10	10	

*average of 2-8 minute range for "Recreation Room" per Loren Cook's "Engineering Cookbook", 1999 edition, p. 41

ACCs (air-cooled chillers on rooftops):

Building Interior Comfort

with or without sound insulation? (enter Y/N): N

			unweighted PWL (dB) per OCBF (Hz) at full load (100%)								*data for models "without sound insulation" or no "sound blankets"*									*data for models "with sound insulation" or "sound blankets"*								
	tons	LWA	63	125	250	500	1000	2000	4000	8000	LWA	63	125	250	500	1000	2000	4000	8000	LWA	63	125	250	500	1000	2000	4000	8000
Bryant BH16-018 (no sound blanket)	1.5	68	66.2	66.2	63.8	64.1	64.6	59.9	57.7	53.6	68	*66.2*	66.2	63.8	64.1	64.6	59.9	57.7	53.6	67	*66.2*	66.2	63.9	63.8	62.3	58.4	56.4	50.3
Bryant BH16-024 (no sound blanket)	2	72	63.4	63.4	63.3	63.3	70.4	64.5	59.3	55.5	72	*63.4*	63.4	63.3	63.3	70.4	64.5	59.3	55.5	71	*65*	65	63.7	63.4	68.5	64.7	58.7	52.8
Bryant BH16-036 (no sound blanket)	3	72	67.7	67.7	66.8	68.1	69.9	62.8	60.3	55.2	72	*67.7*	67.7	66.8	68.1	69.9	62.8	60.3	55.2	71	*68.2*	68.2	66.4	67.5	68.4	59.6	58.2	52.4
Bryant BH16-048 (no sound blanket)	4	73	67.5	67.5	67.8	70.1	70.6	63.1	58.5	53.3	73	*67.5*	67.5	67.8	70.1	70.6	63.1	58.5	53.3	71	*68.4*	68.4	67.7	69.7	67.6	59.4	56.4	50
Bryant BH16-060 (no sound blanket)	5	70	61.7	61.7	65.6	68.1	65.8	59.8	58.4	56.1	70	*61.7*	61.7	65.6	68.1	65.8	59.8	58.4	56.1	69	*63.7*	63.7	65.4	67.3	64.9	58.3	56.2	51.9
Daikin AGZ-E 30 (w/out sound insulation)	30	88	92	91	88	87	83	78	73	68	88	92	91	88	87	83	78	73	68	85	84	84	83	84	77	75	74	70
Daikin AGZ-E 40 (w/out sound insulation)	40	89	92	91	90	88	84	79	74	69	89	92	91	90	88	84	79	74	69	85	84	84	83	84	77	75	74	70
Daikin AGZ-E 50 (w/out sound insulation)	50	90	93	93	91	89	85	79	74	69	90	93	93	91	89	85	79	74	69	87	85	85	85	86	80	77	75	70
Daikin AGZ-E 60 (w/out sound insulation)	60	91	94	93	94	89	86	81	76	71	91	94	93	94	89	86	81	76	71	87	85	85	85	86	80	77	75	70
Daikin AGZ-E 70 (w/out sound insulation)	70	92	95	95	94	89	87	81	76	71	92	95	95	94	89	87	81	76	71	87	85	85	85	86	80	77	75	70
Daikin AGZ-E 80 (w/out sound insulation)	80	92	95	95	95	89	87	81	76	71	92	95	95	95	89	87	81	76	71	88	88	85	87	86	81	81	77	71
Daikin AGZ-E 90 (w/out sound insulation)	90	93	94	95	92	91	89	83	81	81	93	94	95	92	91	89	83	81	81	88	88	87	87	86	83	80	77	71
Daikin AGZ-E 120 (w/out sound insulation)	120	95	93	96	92	92	90	84	84	82	95	93	96	92	92	90	84	84	82	89	91	85	88	86	82	81	79	72
Daikin AGZ-E 240 (w/out sound insulation)	241	100	98	98	98	95	96	90	90	86	100	98	98	98	95	96	90	90	86	94	94	88	91	90	91	84	82	75

actual percent of GSF occupied: 90

Phase	Building Tag	GSF	Avail. SF	comparable facility function	Avg. GSF per ton*	tons of refrig.	Approx. Qty. of ACCs	tons per ACC	Approx. Total PWL (dBA)
	Teen/Senior Center	11000	9900	Educational Facilities	240	41.3	8	5	**79**

unweighted PWL (dB) per OCBF (Hz) at full load (100%)							
63	125	250	500	1000	2000	4000	8000
71	71	75	77	75	69	67	65

*based upon "lo" value per Loren Cook's "Engineering Cookbook", 1999 edition, pp. 59-60