Appendix F

Noise Attachments

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Appendix F-1

Field Noise Data Sheets

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DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 56 F HUMIDITY 76 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 3 MPH DIR. N NE E SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 1403/7004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST-1) 1-2	9:58	10:13	57.5	79.7	40.9				

COMMENTS
READING TAKEN IN FRONT OF 4341 E. 3RD ST. (RESIDENTIAL); VERY LIGHT TRAFFIC ON E. 3RD ST.; SOME NOISE FROM NEARBY BUSINESSES (HUMMING MOVEMENT OF METAL OBJECTS); SOME CONVERSATION NOISE FROM NEARBY RESIDENCES.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT / MIXED DIRT & ASPHALT DIST. TO RDWY (C/L) OR EOP: 30'
TRAFFIC COUNT DURATION: 15 MIN SPEED ____ MIN SPEED

	DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB		NB/EB	SB/WB	NB/EB	SB/WB
COUNT 1 (OR RDWY 1)	AUTOS	11				IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓				
	MED TRKS	0								
	HVY TRKS	0								
	BUSES	0								
	MOTRCLS	0								

COUNT 2 (OR RDWY 2)

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): (DIST. AIRCRAFT) RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING (DIST. CONVRSTNS / YELLING) DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: DISTANT ROOSTER CROWING; ONE JET AIRCRAFT FLYOVER;

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 6991; 6992; 6993; 6994; 6995; 6996; 6997; 6998
OTHER COMMENTS / SKETCH

DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 57 F HUMIDITY 69 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT Piccolo SLM-3 TYPE 1 2 SERIAL # 1403170004
CALIBRATOR B&W CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST dBA SPL POST-TEST dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST-2) 5-6	~~11:00~~ 11:10	11:25	61.5	85.8	56.1				

COMMENTS
READING TAKEN IN FRONT OF 4361 MISSION BLVD (HACIENDA MOBILE HOME PARK);
PRIMARY NOISE SOURCE IS TRAFFIC ON MISSION BLVD;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 20'

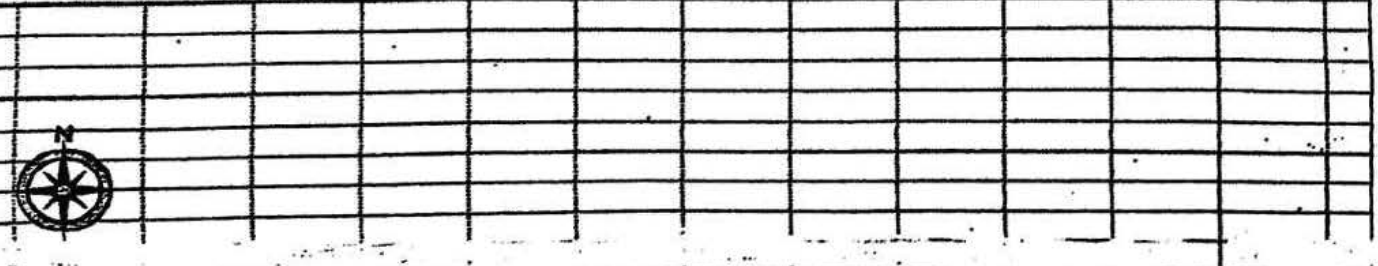
TRAFFIC COUNT DURATION: 15 MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	215									
MED TRKS	7									
HVY TRKS	4									
BUSES	1									
MOTRCLS	0									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) (DISTD GARDENERS/LANDSCAPING NOISE)
OTHER: GARDENER USING LEAF BLOWER ACROSS STREET FOR PART OF READING; ONE JET AIRCRAFT FLY-OVER

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 7015; 7016; 7017; 7018; 7019; 7020;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 57 F HUMIDITY 69 % R.H. WIND (CALM) LIGHT MODERATE
WINDSPD MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 140317004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST dBA SPL POST-TEST dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST-3) 7-8	11:35	11:50	65.3	86.5	53.9				

COMMENTS
READING TAKEN IN FRONT OF 1839 RAMONA AVE (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON RAMONA AVE.

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 15'

TRAFFIC COUNT DURATION: 15 MIN SPEED ___ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	198			
MED TRKS	1			
HVY TRKS	2			
BUSES	1			
MOTRCLS	0			

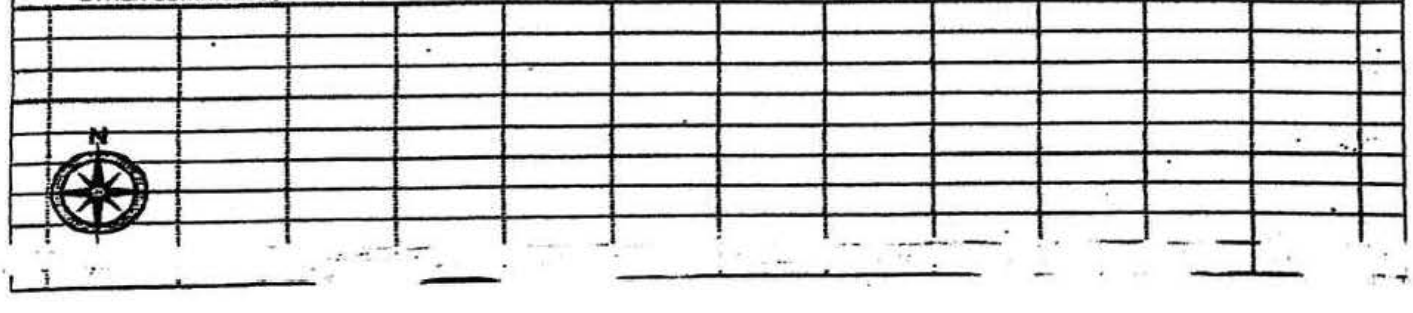
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) (DISTD GARDENERS/LANDSCAPING NOISE)
OTHER:

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 7022; 7023; 7024; 7025; 7026; 7027
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 58 F HUMIDITY 67 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 4 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 140317004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

(ST-4) REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
9-10	11:57	12:12	62.9	80.4	52.1				

COMMENTS
READING TAKEN IN FRONT OF 4513 MAINE ST (RESIDENTIAL);
PRIMARY NOISE SOURCE IS TRAFFIC ON RAMONA AVE TO THE WEST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 12'

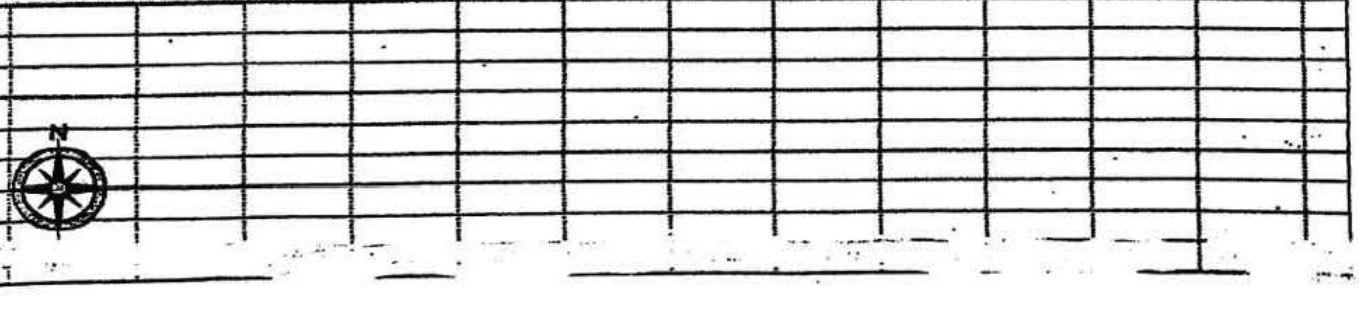
TRAFFIC COUNT DURATION: 15 MIN SPEED ____ MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	4									
MED TRKS	0									
HVY TRKS	0									
BUSES	0									
MOTRCLS	0									

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 7029; 7030; 7031; 7032; 7033; 7034;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 56 F HUMIDITY 76 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 3 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR OVRCAST (PRTLY CLDY) FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 140317004
CALIBRATOR B&W CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
ST-5 3-4	10:22	10:37	64.0	93.6	52.7				

COMMENTS
READING TAKEN AT NE CORNER OF PROPERTY AT 4329 STATE ST (INDUSTRIAL BUSINESS VAN WITH POSSIBLE RESIDENCE ON NE CORNER OF LOT); PRIMARY NOISE SOURCE IS TRAFFIC ON STATE ST;

SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT (RAIL) INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR EOP: 23'
TRAFFIC COUNT DURATION: 15 MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	32			
MED TRKS	1			
HVY TRKS	0			
BUSES	0			
MOTRCLS	0			

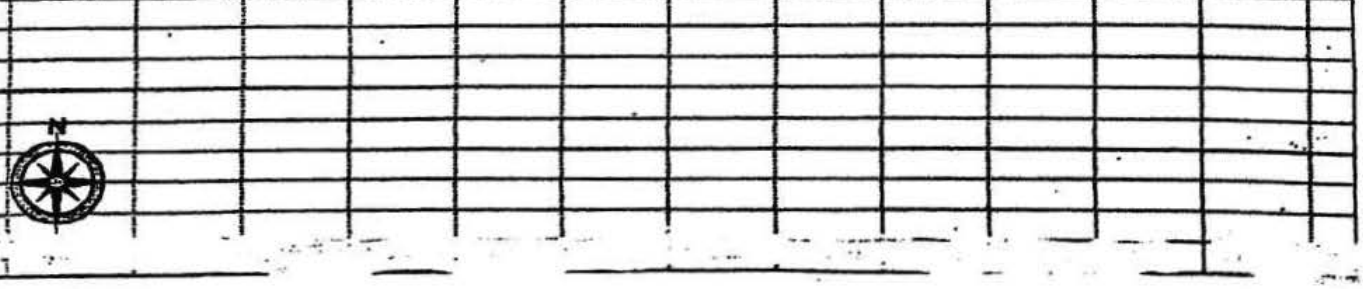
IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ☐

COUNT 2 (OR RDWY 2)	MIN	SPEED		
	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES (DIST. BARKING DOGS) BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER: FREIGHT TRAIN PASSING IN FRONT OF MEASR AT 10:31AM;

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 7001; 7002; 7003; 7004; 7005; 7006; 7007; 7008; 7010; 7011; 7013;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS
TEMP 58 F HUMIDITY 68 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 5 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS
MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 140317004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN FES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
(ST-6) 11-12	12:26	12:41	61.0	93.6	54.4				

COMMENTS
READING TAKEN ~~AT~~ NORTHSIDE OF PROPERTY AT 10462 CALICO COURT, ALONG YOSEMITE DR (RESIDENTIAL); PRIMARY NOISE SOURCE IS TRAFFIC ON RAMONA AVE;

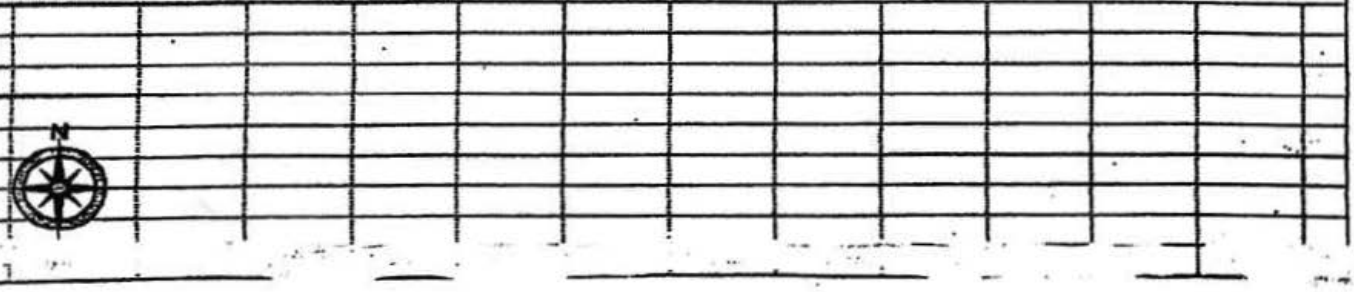
SOURCE INFO AND TRAFFIC COUNTS
PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 22' FROM YOSEMITE DR C/L
TRAFFIC COUNT DURATION: 15 MIN SPEED MIN 55' FROM RAMONA AVE C/L

	DIRECTION	COUNT 1 (OR RDWY 1) NB/EB	COUNT 1 SB/WB	COUNT 1 NB/EB SPEED	COUNT 1 SB/WB SPEED	IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE	COUNT 2 (OR RDWY 2) NB/EB	COUNT 2 SB/WB	COUNT 2 NB/EB SPEED	COUNT 2 SB/WB SPEED
	AUTOS	3								
	MED TRKS	0								
	HVY TRKS	0								
	BUSES	0								
	MOTRCLS	0								

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES (DIST. BARKING DOGS) BIRDS DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) (DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH
TERRAIN HARD SOFT (MIXED) FLAT OTHER:
PHOTOS 7036; 7037; 7038; 7039; 7040;
OTHER COMMENTS / SKETCH



DUDEK

FIELD NOISE MEASUREMENT DATA

PROJECT OAKMONT MISSION/RAMONA INDUST. PROJECT # 12296
SITE ID
SITE ADDRESS OBSERVER(S) PETE VITAR
START DATE 1/21/20 END DATE 1/21/20
START TIME END TIME

METEOROLOGICAL CONDITIONS

TEMP 58 F HUMIDITY 68 % R.H. WIND CALM (LIGHT) MODERATE
WINDSPD 7 MPH DIR. N NE S SE S SW W NW VARIABLE STEADY GUSTY
SKY SUNNY CLEAR (OVRCAST) PRTLY CLDY FOG RAIN

ACOUSTIC MEASUREMENTS

MEAS. INSTRUMENT PICCOLO SLM-3 TYPE 1 2 SERIAL # 140317004
CALIBRATOR BSWA CA 114 SERIAL # 480151
CALIBRATION CHECK PRE-TEST ____ dBA SPL POST-TEST ____ dBA SPL WINDSCRN YES

SETTINGS A-WTD (SLOW) FAST FRONTAL RANDOM ANSI OTHER:

REC. #	BEGIN	END	Leq	Lmax	Lmin	L90	L50	L10	OTHER (SPECIFY METRIC
ST-7 13-14	12:59	13:14	65.3	90.2	51.5				

COMMENTS
READING TAKEN AT NORTHERN PROPERTY LINE OF HOME AT 4706 RAWHIDE ST, ALONG MISSION BLVD; PRIMARY NOISE SOURCE IS TRAFFIC ON MISSION BLVD;

SOURCE INFO AND TRAFFIC COUNTS

PRIMARY NOISE SOURCE (TRAFFIC) AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: ASPHALT DIST. TO RDWY C/L OR (EOP): 25' TO EOP ON MISSION BLVD
TRAFFIC COUNT DURATION: 15 MIN SPEED MIN SPEED

COUNT 1 (OR RDWY 1) DIRECTION	NB/EB	SB/WB	NB/EB	SB/WB
AUTOS	301			
MED TRKS	8			
HVY TRKS	2			
BUSES	3			
MOTRCLS	0			

IF COUNTING BOTH DIRECTIONS AS ONE, CHECK HERE ✓

COUNT 2 (OR RDWY 2)	NB/EB	SB/WB	NB/EB	SB/WB

SPEEDS ESTIMATED BY: RADAR / DRIVING THE PACE
POSTED SPEED LIMIT SIGNS SAY:

OTHER NOISE SOURCES (BACKGROUND): DIST. AIRCRAFT RUSTLING LEAVES DIST. BARKING DOGS (BIRDS) DIST. INDUSTRIAL
DIST. KIDS PLAYING DIST. CONVRSTNS / YELLING DIST. TRAFFIC (LIST RDWYS BELOW) DISTD GARDENERS/LANDSCAPING NOISE
OTHER:

DESCRIPTION / SKETCH

TERRAIN (HARD) SOFT MIXED FLAT OTHER:
PHOTOS 7042; 7043; 7044; 7045; 7046; 7047; 7048; 7049
OTHER COMMENTS / SKETCH

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Appendix F-2

Construction Noise Modeling Inputs and Outputs

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Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Project - Demolition 062821

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	10	0
Excavator	No	40		80.7	20	0
Excavator	No	40		80.7	50	0
Concrete Saw	No	20		89.6	20	0
Dozer	No	40		81.7	40	0
Dozer	No	40		81.7	80	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Excavator	94.7	90.7	N/A	N/A	N/A	N/A
Excavator	88.7	84.7	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A
Concrete Saw	97.5	90.5	N/A	N/A	N/A	N/A
Dozer	83.6	79.6	N/A	N/A	N/A	N/A
Dozer	77.6	73.6	N/A	N/A	N/A	N/A
Total	97.5	94.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - 8-Hour Workday	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40		80.7	20	0
Excavator	No	40		80.7	40	0
Excavator	No	40		80.7	100	0
Concrete Saw	No	20		89.6	40	0
Dozer	No	40		81.7	80	0
Dozer	No	40		81.7	160	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Excavator	88.7	84.7	N/A	N/A	N/A	N/A
Excavator	82.6	78.7	N/A	N/A	N/A	N/A
Excavator	74.7	70.7	N/A	N/A	N/A	N/A

Concrete Saw		91.5	84.5	N/A	N/A	N/A	N/A
Dozer		77.6	73.6	N/A	N/A	N/A	N/A
Dozer		71.6	67.6	N/A	N/A	N/A	N/A
	Total	91.5	88.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Excavator	No	40		80.7	450	0
Excavator	No	40		80.7	450	0
Excavator	No	40		80.7	450	0
Concrete Saw	No	20		89.6	450	0
Dozer	No	40		81.7	450	0
Dozer	No	40		81.7	450	0

			Results			
	Calculated (dBA)			Noise Limits (dBA)		
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Excavator	61.6	57.6	N/A	N/A	N/A	N/A
Excavator	61.6	57.6	N/A	N/A	N/A	N/A
Excavator	61.6	57.6	N/A	N/A	N/A	N/A
Concrete Saw	70.5	63.5	N/A	N/A	N/A	N/A
Dozer	62.6	58.6	N/A	N/A	N/A	N/A
Dozer	62.6	58.6	N/A	N/A	N/A	N/A
Total	70.5	67.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Project - Site Prep 062821

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40		81.7	10	0
Dozer	No	40		81.7	20	0
Dozer	No	40		81.7	50	0
Backhoe	No	40		77.6	20	0
Front End Loader	No	40		79.1	40	0
Tractor	No	40	84		80	0

Front End Loader	No	40		79.1	60	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	95.6	91.7	N/A	N/A	N/A	N/A
Dozer	89.6	85.6	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A
Backhoe	85.5	81.5	N/A	N/A	N/A	N/A
Front End Loader	81	77.1	N/A	N/A	N/A	N/A
Tractor	79.9	75.9	N/A	N/A	N/A	N/A
Front End Loader	77.5	73.5	N/A	N/A	N/A	N/A
Total	95.6	93.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - 8-hour Workday	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	20	0
Dozer	No	40		81.7	40	0
Dozer	No	40		81.7	100	0
Backhoe	No	40		77.6	40	0
Front End Loader	No	40		79.1	80	0
Tractor	No	40	84		160	0
Front End Loader	No	40		79.1	120	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	89.6	85.6	N/A	N/A	N/A	N/A
Dozer	83.6	79.6	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A
Backhoe	79.5	75.5	N/A	N/A	N/A	N/A
Front End Loader	75	71	N/A	N/A	N/A	N/A
Tractor	73.9	69.9	N/A	N/A	N/A	N/A
Front End Loader	71.5	67.5	N/A	N/A	N/A	N/A
Total	89.6	87.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	450	0
Dozer	No	40		81.7	450	0

Dozer	No	40		81.7	450	0
Backhoe	No	40		77.6	450	0
Front End Loader	No	40		79.1	450	0
Tractor	No	40	84		450	0
Front End Loader	No	40		79.1	450	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer		62.6	58.6	N/A	N/A	N/A	N/A
Dozer		62.6	58.6	N/A	N/A	N/A	N/A
Dozer		62.6	58.6	N/A	N/A	N/A	N/A
Backhoe		58.5	54.5	N/A	N/A	N/A	N/A
Front End Loader		60	56	N/A	N/A	N/A	N/A
Tractor		64.9	60.9	N/A	N/A	N/A	N/A
Front End Loader		60	56	N/A	N/A	N/A	N/A
	Total	64.9	66.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Project - Grading 062821

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		80	0
Dozer	No	40		81.7	100	0
Scraper	No	40		83.6	120	0
Scraper	No	40		83.6	140	0
Scraper	No	40		83.6	100	0
Scraper	No	40		83.6	160	0
Scraper	No	40		83.6	180	0
Backhoe	No	40		77.6	130	0
Tractor	No	40	84		200	0

	Results					
	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	80.9	76.9	N/A	N/A	N/A	N/A
Dozer	75.6	71.7	N/A	N/A	N/A	N/A
Scraper	76	72	N/A	N/A	N/A	N/A
Scraper	74.6	70.7	N/A	N/A	N/A	N/A
Scraper	77.6	73.6	N/A	N/A	N/A	N/A
Scraper	73.5	69.5	N/A	N/A	N/A	N/A
Scraper	72.5	68.5	N/A	N/A	N/A	N/A

Backhoe		69.3	65.3	N/A	N/A	N/A	N/A
Tractor		72	68	N/A	N/A	N/A	N/A
	Total	80.9	81.5	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - 8-Hour Workday	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		160	0
Dozer	No	40		81.7	200	0
Scraper	No	40		83.6	240	0
Scraper	No	40		83.6	280	0
Scraper	No	40		83.6	200	0
Scraper	No	40		83.6	320	0
Scraper	No	40		83.6	360	0
Backhoe	No	40		77.6	260	0
Tractor	No	40	84		400	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		74.9	70.9	N/A	N/A	N/A	N/A
Dozer		69.6	65.6	N/A	N/A	N/A	N/A
Scraper		70	66	N/A	N/A	N/A	N/A
Scraper		68.6	64.6	N/A	N/A	N/A	N/A
Scraper		71.5	67.6	N/A	N/A	N/A	N/A
Scraper		67.5	63.5	N/A	N/A	N/A	N/A
Scraper		66.4	62.5	N/A	N/A	N/A	N/A
Backhoe		63.2	59.3	N/A	N/A	N/A	N/A
Tractor		65.9	62	N/A	N/A	N/A	N/A
	Total	74.9	75.4	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		450	0
Dozer	No	40		81.7	450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0
Scraper	No	40		83.6	450	0
Backhoe	No	40		77.6	450	0
Tractor	No	40	84		450	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		65.9	61.9	N/A	N/A	N/A	N/A
Dozer		62.6	58.6	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
Scraper		64.5	60.5	N/A	N/A	N/A	N/A
Backhoe		58.5	54.5	N/A	N/A	N/A	N/A
Tractor		64.9	60.9	N/A	N/A	N/A	N/A
	Total	65.9	69.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Proj - Building Const 062821

		---- Receptor #1 ----		
		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

				Equipment			
				Spec	Actual	Receptor	Estimated
		Impact		Lmax	Lmax	Distance	Shielding
Description		Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Crane		No	16		80.6	80	0
Man Lift		No	20		74.7	100	0
Man Lift		No	20		74.7	120	0
Man Lift		No	20		74.7	150	0
Generator		No	50		80.6	120	0
Tractor		No	40	84		160	0
Front End Loader		No	40		79.1	180	0
Backhoe		No	40		77.6	140	0
Welder / Torch		No	40		74	200	0

		Results					
		Calculated (dBA)		Noise Limits (dBA)			
				Day		Evening	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane		76.5	68.5	N/A	N/A	N/A	N/A
Man Lift		68.7	61.7	N/A	N/A	N/A	N/A
Man Lift		67.1	60.1	N/A	N/A	N/A	N/A
Man Lift		65.2	58.2	N/A	N/A	N/A	N/A
Generator		73	70	N/A	N/A	N/A	N/A
Tractor		73.9	69.9	N/A	N/A	N/A	N/A
Front End Loader		68	64	N/A	N/A	N/A	N/A
Backhoe		68.6	64.6	N/A	N/A	N/A	N/A
Welder / Torch		62	58	N/A	N/A	N/A	N/A
	Total	76.5	75.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - 8-Hour Workday	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	160	0
Man Lift	No	20		74.7	200	0
Man Lift	No	20		74.7	240	0
Man Lift	No	20		74.7	300	0
Generator	No	50		80.6	240	0
Tractor	No	40	84		320	0
Front End Loader	No	40		79.1	360	0
Backhoe	No	40		77.6	280	0
Welder / Torch	No	40		74	400	0

Equipment	Calculated (dBA) *Lmax	Leq	Results Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Crane	70.4	62.5	N/A	N/A	N/A	N/A
Man Lift	62.7	55.7	N/A	N/A	N/A	N/A
Man Lift	61.1	54.1	N/A	N/A	N/A	N/A
Man Lift	59.1	52.1	N/A	N/A	N/A	N/A
Generator	67	64	N/A	N/A	N/A	N/A
Tractor	67.9	63.9	N/A	N/A	N/A	N/A
Front End Loader	62	58	N/A	N/A	N/A	N/A
Backhoe	62.6	58.6	N/A	N/A	N/A	N/A
Welder / Torch	55.9	52	N/A	N/A	N/A	N/A
Total	70.4	69.6	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	450	0
Man Lift	No	20		74.7	450	0
Man Lift	No	20		74.7	450	0
Man Lift	No	20		74.7	450	0
Generator	No	50		80.6	450	0
Tractor	No	40	84		450	0
Front End Loader	No	40		79.1	450	0
Backhoe	No	40		77.6	450	0
Welder / Torch	No	40		74	450	0

Results

Calculated (dBA) Noise Limits (dBA)

Equipment		*Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq
Crane		61.5	53.5	N/A	N/A	N/A	N/A
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Man Lift		55.6	48.6	N/A	N/A	N/A	N/A
Generator		61.5	58.5	N/A	N/A	N/A	N/A
Tractor		64.9	60.9	N/A	N/A	N/A	N/A
Front End Loader		60	56	N/A	N/A	N/A	N/A
Backhoe		58.5	54.5	N/A	N/A	N/A	N/A
Welder / Torch		54.9	50.9	N/A	N/A	N/A	N/A
	Total	64.9	65.1	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Project - Paving 062821

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	10	0
Paver	No	50		77.2	20	0
Concrete Mixer Truck	No	40		78.8	30	0
Concrete Pump Truck	No	20		81.4	50	0
Roller	No	20		80	20	0
Roller	No	20		80	80	0

Results

Equipment		Calculated (dBA) *Lmax	Leq	Noise Limits (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq
Paver		91.2	88.2	N/A	N/A	N/A	N/A
Paver		85.2	82.2	N/A	N/A	N/A	N/A
Concrete Mixer Truck		83.2	79.3	N/A	N/A	N/A	N/A
Concrete Pump Truck		81.4	74.4	N/A	N/A	N/A	N/A
Roller		88	81	N/A	N/A	N/A	N/A
Roller		75.9	68.9	N/A	N/A	N/A	N/A
	Total	91.2	90.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Nearest Residences - 8-Hour Workday	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	20	0
Paver	No	50		77.2	40	0
Concrete Mixer Truck	No	40		78.8	60	0
Concrete Pump Truck	No	20		81.4	100	0
Roller	No	20		80	40	0
Roller	No	20		80	160	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	85.2	82.2	N/A	N/A	N/A	N/A
Paver	79.2	76.1	N/A	N/A	N/A	N/A
Concrete Mixer Truck	77.2	73.2	N/A	N/A	N/A	N/A
Concrete Pump Truck	75.4	68.4	N/A	N/A	N/A	N/A
Roller	81.9	74.9	N/A	N/A	N/A	N/A
Roller	69.9	62.9	N/A	N/A	N/A	N/A
Total	85.2	84.3	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Paver	No	50		77.2	450	0
Paver	No	50		77.2	450	0
Concrete Mixer Truck	No	40		78.8	450	0
Concrete Pump Truck	No	20		81.4	450	0
Roller	No	20		80	450	0
Roller	No	20		80	450	0

Results

	Calculated (dBA)		Noise Limits (dBA)			
			Day		Evening	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq
Paver	58.1	55.1	N/A	N/A	N/A	N/A
Paver	58.1	55.1	N/A	N/A	N/A	N/A
Concrete Mixer Truck	59.7	55.7	N/A	N/A	N/A	N/A
Concrete Pump Truck	62.3	55.3	N/A	N/A	N/A	N/A
Roller	60.9	53.9	N/A	N/A	N/A	N/A
Roller	60.9	53.9	N/A	N/A	N/A	N/A
Total	62.3	62.7	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Report date: 6/28/2021
Case Description: Mission and Ramona Industrial Proj - Arch Coating 062821

---- Receptor #1 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Nearest Work	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	80	0

		Results				
		Calculated (dBA)		Noise Limits (dBA)		
				Day	Evening	
Equipment		*Lmax	Leq	Lmax	Lmax	Leq
Compressor (air)		73.6	69.6	N/A	N/A	N/A
	Total	73.6	69.6	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - 8-Hour Workday	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	160	0

		Results				
		Calculated (dBA)		Noise Limits (dBA)		
				Day	Evening	
Equipment		*Lmax	Leq	Lmax	Lmax	Leq
Compressor (air)		67.6	63.6	N/A	N/A	N/A
	Total	67.6	63.6	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Nearest Residences - Typical	Residential	65	60	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	450	0

		Results				
		Calculated (dBA)		Noise Limits (dBA)		
				Day	Evening	
Equipment		*Lmax	Leq	Lmax	Lmax	Leq
Compressor (air)		58.6	54.6	N/A	N/A	N/A
	Total	58.6	54.6	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

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RAY-TRACE PROGRAM (FOR A POINT-SOURCE)

Uses the Equation: $(A_{e4})_{point}=20*\log[(2*pi*N)^{1/2}/\tanh(2*pi*N)^{1/2}]+5dB$

(Ref. Pg.174, Noise and Vibration Control, L.L. Beranek Editor, 1971 Ed.

Project: Mission & Ramona Warehouse Project, Montclair
Date: 07/28/21
By: MG

Please Enter: Using English (E) units or Metric (M) units ? E

Ray Trace Number/Description	Source-Receiver Distance (ft. or m)	Source Base Elev. (ft. or m)	Source Height above Ground (ft. or m)	Receiver Base Elev. (ft. or m)	Receiver Height above Ground (ft. or m)	Horizontal Barrier Dist. (in ref. to source) (ft. or m)	Barrier Base Elev. (ft. or m)	Barrier Height (ft. or m)	Dominant Freq.(Hz)	Source-Rcvr Straight-Line Dist. (ft. or m)	Source-Top-of-Barrier Dist. (ft. or m)	Receiver-Top-of-Barrier Dist. (ft. or m)	Lambda	N_{max}	$AE_{(barriers)}$ (dB)
1. Source -Construction Noise at Nearest Residence	200.0	0.0	8.0	0.0	5.0	190.0	0.0	**8.0**	500.0	200.0	190.0	10.4	2.3	0.4	**9.5**

Appendix F-3

Equipment Specifications and Noise Calculations

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TECHNICAL GUIDE

R-410A
ZE/ZF/ZR/XN/XP SERIES
3 - 6 TON
60 Hertz

Description

YORK® ZE/ZF/ZR/XN/XP Series units are convertible single package high efficiency rooftops with a common roof curb for the 3, 4, 5 and 6 Ton sizes (ZE, ZR, XN, XP not available in 6 Ton). Although the units are primarily designed for curb mounting on a roof, they can also be slab-mounted at ground level or set on steel beams above a finished roof.

All ZE/ZF/ZR/XN/XP Series units are self-contained and assembled on rigid full perimeter base rails allowing for overhead rigging. Every unit is completely charged, wired, piped and tested at the factory to provide a quick and easy field installation.

All models (including those with an economizer) are convertible between bottom and horizontal duct connections.

ZE/ZF/ZR Series units are available in the following configurations: cooling only, cooling with electric heat, and cooling with one or two stage gas heat. Electric heaters are available as factory-installed option or field installed accessory.

XN/XP Series units are available in the following configurations: cooling and heating only and cooling and heating with electric heat.

Tested in accordance with:

DESIGN CERTIFIED

C SA® US

CERTIFIED

AHRI CERTIFIED™ www.ahridirectory.org Unitary Small AC AHRI Standard 210/240

AHRI CERTIFIED™ www.ahridirectory.org Unitary Small HP AHRI Standard 210/240

Sound Performance

ZF/ZR/XP Indoor Sound Power Levels

Size (Tons)	CFM	ESP (IWG)	Blower		Sound Power, dB (10^{-12}) Watts							
					Sound Rating[1]	Octave Band Centerline Frequency (Hz)						
			RPM	BHP	dB (A)	63	125	250	500	1000	2000	4000	8000
036 (3.0)	1200	0.2	630	0.41	63	82	77	59	50	43	42	40	45
048 (4.0)	1600	0.2	791	0.54	72	95	84	58	54	46	44	45	44
060 (5.0)	2000	0.2	840	0.67	62	84	71	58	53	50	49	49	49
072 (6.0)	2200	0.3	920	1.45	76	61	71	68	67	72	66	61	54

1. These values have been accessed using a model of sound propagation from a point source into the hemispheric/free field. The dBA values provided are to be used for reference only. Calculation of dBA values cover matters of system design and the fan manufacture has no way of knowing the details of each system. This constitutes an exception to any specification or guarantee requiring a dBA value of sound data in any other form than sound power level ratings.

ZE/ZF/ZR Outdoor Sound Power Levels

Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	81	87.5	86.0	81.0	77.0	75.0	69.5	65.5	70.5
048 (4.0)	80	84.5	81.0	80.0	78.0	75.0	70.0	67.0	70.5
060 (5.0)	82	86.5	87.5	81.5	77.5	75.0	71.5	68.0	70.5
072 (6.0)	83	-	84.0	85.0	79.0	80.0	72.0	67.5	62.5

1. Rated in accordance with AHRI 270 standard.

XN/XP Outdoor Sound Power Levels

Size (Tons)	Sound Rating[1] dB (A)	Octave Band Centerline Frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
036 (3.0)	76	83.5	84.5	76.5	72.0	68.0	66.0	60.0	56.0
048 (4.0)	80	85.0	83.0	81.0	77.5	75.5	71.5	67.5	61.5
060 (5.0)	80	86.0	84.0	81.0	77.0	75.5	71.0	66.5	60.5

1. Rated in accordance with AHRI 270 standard.

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard
ST2	392	85	0	45
ST3	1104	580	0	45
ST5	-50	1436	0	45
N1	736	1510	0	60
S1	448	240	0	55
E1	1036	600	0	55
W1	0	924	0	66

Building Elevation 0

Roof Elevation 36.5

Output:

Location: N1 736 1510 0

Applicable Standard 60

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	736	1510	York ZF-048	48	5	39.5	938	25	913	36.5	3.5	0.04	6	23	17
Bldg 2	448	760	36.5	736	1510	York ZF-048	48	5	39.5	803	25	778	36.5	3.5	0.05	6	24	18
Bldg 3	312	760	36.5	736	1510	York ZF-048	48	5	39.5	862	25	837	36.5	3.5	0.04	6	24	18
Bldg 4	312	300	36.5	736	1510	York ZF-048	48	5	39.5	1,282	25	1,257	36.5	3.5	0.03	5	20	15
Bldg 5	448	300	36.5	736	1510	York ZF-048	48	5	39.5	1,244	25	1,219	36.5	3.5	0.03	5	20	15
Bldg 6	964	412	36.5	736	1510	York ZF-048	48	5	39.5	1,121	25	1,096	36.5	3.5	0.03	6	21	16
Bldg 7_1	162	924	36.5	736	1510	York ZF-048	51	5	39.5	820	25	795	36.5	3.5	0.04	6	27	21
Bldg 7_2	162	1436	36.5	736	1510	York ZF-048	51	5	39.5	579	25	554	36.5	3.5	0.07	7	30	24
Bldg 8_1	940	968	36.5	736	1510	York ZF-048	51	5	39.5	579	25	554	36.5	3.5	0.07	7	30	24
Bldg 8_2	736	1432	36.5	736	1510	York ZF-048	51	5	39.5	78	25	53	36.5	3.5	2.88	18	47	30
																TOTAL Leq:	48	33
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Building Elevation	Applicable Standard
			0	Roof Elevation 36.5
ST2	392	85	0	45
ST3	1104	580	0	45
ST5	-50	1436	0	45
N1	736	1510	0	60
S1	448	240	0	55
E1	1036	600	0	55
W1	0	924	0	66

Output:

Location: S1 448 240 0 Applicable Standard 55

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	448	240	York ZF-048	48	5	39.5	629	25	604	36.5	3.5	0.06	6	26	20
Bldg 2	448	760	36.5	448	240	York ZF-048	48	5	39.5	520	25	495	36.5	3.5	0.09	7	28	21
Bldg 3	312	760	36.5	448	240	York ZF-048	48	5	39.5	537	25	512	36.5	3.5	0.08	7	28	21
Bldg 4	312	300	36.5	448	240	York ZF-048	48	5	39.5	149	25	124	36.5	3.5	0.81	13	39	26
Bldg 5	448	300	36.5	448	240	York ZF-048	48	5	39.5	60	25	35	36.5	3.5	4.72	20	47	27
Bldg 6	964	412	36.5	448	240	York ZF-048	48	5	39.5	544	25	519	36.5	3.5	0.08	7	28	21
Bldg 7_1	162	924	36.5	448	240	York ZF-048	51	5	39.5	741	25	716	36.5	3.5	0.05	6	28	22
Bldg 7_2	162	1436	36.5	448	240	York ZF-048	51	5	39.5	1,230	25	1,205	36.5	3.5	0.03	5	24	18
Bldg 8_1	940	968	36.5	448	240	York ZF-048	51	5	39.5	879	25	854	36.5	3.5	0.04	6	26	21
Bldg 8_2	736	1432	36.5	448	240	York ZF-048	51	5	39.5	1,226	25	1,201	36.5	3.5	0.03	5	24	18
																TOTAL Leq:	48	32
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
					0	36.5
ST2	392	85	0	45		
ST3	1104	580	0	45		
ST5	-50	1436	0	45		
N1	736	1510	0	60		
S1	448	240	0	55		
E1	1036	600	0	55		
W1	0	924	0	66		

Output:

Location: E1 1036 600 0 Applicable Standard 55

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	1036	600	York ZF-048	48	5	39.5	72	25	47	36.5	3.5	3.36	18	45	27
Bldg 2	448	760	36.5	1036	600	York ZF-048	48	5	39.5	609	25	584	36.5	3.5	0.07	6	27	20
Bldg 3	312	760	36.5	1036	600	York ZF-048	48	5	39.5	741	25	716	36.5	3.5	0.05	6	25	19
Bldg 4	312	300	36.5	1036	600	York ZF-048	48	5	39.5	784	25	759	36.5	3.5	0.05	6	24	18
Bldg 5	448	300	36.5	1036	600	York ZF-048	48	5	39.5	660	25	635	36.5	3.5	0.06	6	26	20
Bldg 6	964	412	36.5	1036	600	York ZF-048	48	5	39.5	201	25	176	36.5	3.5	0.46	11	36	25
Bldg 7_1	162	924	36.5	1036	600	York ZF-048	51	5	39.5	932	25	907	36.5	3.5	0.04	6	26	20
Bldg 7_2	162	1436	36.5	1036	600	York ZF-048	51	5	39.5	1,209	25	1,184	36.5	3.5	0.03	5	24	18
Bldg 8_1	940	968	36.5	1036	600	York ZF-048	51	5	39.5	380	25	355	36.5	3.5	0.15	8	34	26
Bldg 8_2	736	1432	36.5	1036	600	York ZF-048	51	5	39.5	884	25	859	36.5	3.5	0.04	6	26	21
																TOTAL Leq:	46	33
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard
ST2	392	85	0	45
ST3	1104	580	0	45
ST5	-50	1436	0	45
N1	736	1510	0	60
S1	448	240	0	55
E1	1036	600	0	55
W1	0	924	0	55

Building Elevation 0

Roof Elevation 36.5

Output:

Location: W1 0 924 0

Applicable Standard 55

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	0	924	York ZF-048	48	5	39.5	1,017	25	992	36.5	3.5	0.03	6	22	17
Bldg 2	448	760	36.5	0	924	York ZF-048	48	5	39.5	477	25	452	36.5	3.5	0.10	7	29	22
Bldg 3	312	760	36.5	0	924	York ZF-048	48	5	39.5	352	25	327	36.5	3.5	0.17	8	31	23
Bldg 4	312	300	36.5	0	924	York ZF-048	48	5	39.5	698	25	673	36.5	3.5	0.06	6	25	19
Bldg 5	448	300	36.5	0	924	York ZF-048	48	5	39.5	768	25	743	36.5	3.5	0.05	6	25	19
Bldg 6	964	412	36.5	0	924	York ZF-048	48	5	39.5	1,092	25	1,067	36.5	3.5	0.03	6	22	16
Bldg 7_1	162	924	36.5	0	924	York ZF-048	51	5	39.5	162	25	137	36.5	3.5	0.69	12	41	29
Bldg 7_2	162	1436	36.5	0	924	York ZF-048	51	5	39.5	537	25	512	36.5	3.5	0.08	7	31	24
Bldg 8_1	940	968	36.5	0	924	York ZF-048	51	5	39.5	941	25	916	36.5	3.5	0.04	6	26	20
Bldg 8_2	736	1432	36.5	0	924	York ZF-048	51	5	39.5	894	25	869	36.5	3.5	0.04	6	26	20
																TOTAL Leq:	43	33
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard	Building Elevation	Roof Elevation
ST2	392	85	0	45	0	36.5
ST3	1104	580	0	45		
ST5	-50	1436	0	45		
N1	736	1510	0	60		
S1	448	240	0	55		
E1	1036	600	0	55		
W1	0	924	0	66		

Output:

Location: ST2 392 85 0 Applicable Standard 45

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	392	85	York ZF-048	48	5	39.5	770	25	745	36.5	3.5	0.05	6	25	19
Bldg 2	448	760	36.5	392	85	York ZF-048	48	5	39.5	677	25	652	36.5	3.5	0.06	6	26	19
Bldg 3	312	760	36.5	392	85	York ZF-048	48	5	39.5	680	25	655	36.5	3.5	0.06	6	26	19
Bldg 4	312	300	36.5	392	85	York ZF-048	48	5	39.5	229	25	204	36.5	3.5	0.36	10	35	25
Bldg 5	448	300	36.5	392	85	York ZF-048	48	5	39.5	222	25	197	36.5	3.5	0.38	10	35	25
Bldg 6	964	412	36.5	392	85	York ZF-048	48	5	39.5	659	25	634	36.5	3.5	0.06	6	26	20
Bldg 7_1	162	924	36.5	392	85	York ZF-048	51	5	39.5	870	25	845	36.5	3.5	0.04	6	27	21
Bldg 7_2	162	1436	36.5	392	85	York ZF-048	51	5	39.5	1,370	25	1,345	36.5	3.5	0.02	5	23	17
Bldg 8_1	940	968	36.5	392	85	York ZF-048	51	5	39.5	1,039	25	1,014	36.5	3.5	0.03	6	25	19
Bldg 8_2	736	1432	36.5	392	85	York ZF-048	51	5	39.5	1,390	25	1,365	36.5	3.5	0.02	5	22	17
																TOTAL Leq:	40	31
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity				Applicable Standard
ST2	392	85	0	45
ST3	1104	580	0	45
ST5	-50	1436	0	45
N1	736	1510	0	60
S1	448	240	0	55
E1	1036	600	0	55
W1	0	924	0	66

Building Elevation 0

Roof Elevation 36.5

Output:

Location: ST3 1104 580 0

Applicable Standard 45

Source Coordinates				Receiver Coordinates		Location-Equipment	Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y													
Bldg 1	964	600	36.5	1104	580	York ZF-048	48	5	39.5	141	25	116	36.5	3.5	0.90	13	39	26
Bldg 2	448	760	36.5	1104	580	York ZF-048	48	5	39.5	680	25	655	36.5	3.5	0.06	6	26	19
Bldg 3	312	760	36.5	1104	580	York ZF-048	48	5	39.5	812	25	787	36.5	3.5	0.04	6	24	18
Bldg 4	312	300	36.5	1104	580	York ZF-048	48	5	39.5	840	25	815	36.5	3.5	0.04	6	24	18
Bldg 5	448	300	36.5	1104	580	York ZF-048	48	5	39.5	713	25	688	36.5	3.5	0.05	6	25	19
Bldg 6	964	412	36.5	1104	580	York ZF-048	48	5	39.5	219	25	194	36.5	3.5	0.39	10	36	25
Bldg 7_1	162	924	36.5	1104	580	York ZF-048	51	5	39.5	1,003	25	978	36.5	3.5	0.03	6	25	20
Bldg 7_2	162	1436	36.5	1104	580	York ZF-048	51	5	39.5	1,273	25	1,248	36.5	3.5	0.03	5	23	18
Bldg 8_1	940	968	36.5	1104	580	York ZF-048	51	5	39.5	421	25	396	36.5	3.5	0.12	7	33	25
Bldg 8_2	736	1432	36.5	1104	580	York ZF-048	51	5	39.5	928	25	903	36.5	3.5	0.04	6	26	20
																TOTAL Leq:	42	32
																	Without Barrier	With Barrier/ Parapet

MECHANICAL EQUIPMENT NOISE LEVEL

Input:

Equipment Locations / Source Noise Data

Site	X	Y	Elev. At Roof or Ground	Source Height	LwA Single Source	Number of Units	Sound Level at 50 feet Total	Equip. Location Site / Number	
Bldg 1	964	600	36.5	3	80	1	48	Bldg 1	York ZF-048
Bldg 2	448	760	36.5	3	80	1	48	Bldg 2	York ZF-048
Bldg 3	312	760	36.5	3	80	1	48	Bldg 3	York ZF-048
Bldg 4	312	300	36.5	3	80	1	48	Bldg 4	York ZF-048
Bldg 5	448	300	36.5	3	80	1	48	Bldg 5	York ZF-048
Bldg 6	964	412	36.5	3	80	1	48	Bldg 6	York ZF-048
Bldg 7_1	162	924	36.5	3	80	2	51	Bldg 7_1	York ZF-048
Bldg 7_2	162	1436	36.5	3	80	2	51	Bldg 7_2	York ZF-048
Bldg 8_1	940	968	36.5	3	80	2	51	Bldg 8_1	York ZF-048
Bldg 8_2	736	1432	36.5	3	80	2	51	Bldg 8_2	York ZF-048

Frequency (in Hz) 500

Receivers at P.L. and Vicinity			Applicable Standard	Building Elevation	Roof Elevation
ST2	392	85	0 45	0	36.5
ST3	1104	580	0 45		
ST5	-50	1436	0 45		
N1	736	1510	0 60		
S1	448	240	0 55		
E1	1036	600	0 55		
W1	0	924	0 66		

Output:

Location: ST5 -50 1436 0 Applicable Standard 45

Source Coordinates				Receiver Coordinates		Location-Equipment		Leq (h) at 50' (dBA)	Receiver Elevation (feet)	Source Elevation (feet)	Source to Receiver (feet)	Source to Barrier (feet)	Receiver to Barrier (feet)	Barrier (base) (feet)	Barrier Height (feet)	Fresnel No. at 500 Hz	Barrier Attenuation (dBA)	Leq w/o Barrier (dBA)	Leq w/Barrier (dBA)
Equip Site	X	Y	Z	X	Y														
Bldg 1	964	600	36.5	-50	1436	York ZF-048		48	5	39.5	1,314	25	1,289	36.5	3.5	0.02	5	20	15
Bldg 2	448	760	36.5	-50	1436	York ZF-048		48	5	39.5	840	25	815	36.5	3.5	0.04	6	24	18
Bldg 3	312	760	36.5	-50	1436	York ZF-048		48	5	39.5	767	25	742	36.5	3.5	0.05	6	25	19
Bldg 4	312	300	36.5	-50	1436	York ZF-048		48	5	39.5	1,192	25	1,167	36.5	3.5	0.03	5	21	15
Bldg 5	448	300	36.5	-50	1436	York ZF-048		48	5	39.5	1,240	25	1,215	36.5	3.5	0.03	5	20	15
Bldg 6	964	412	36.5	-50	1436	York ZF-048		48	5	39.5	1,441	25	1,416	36.5	3.5	0.02	5	19	14
Bldg 7_1	162	924	36.5	-50	1436	York ZF-048		51	5	39.5	554	25	529	36.5	3.5	0.08	7	30	24
Bldg 7_2	162	1436	36.5	-50	1436	York ZF-048		51	5	39.5	212	25	187	36.5	3.5	0.41	11	39	28
Bldg 8_1	940	968	36.5	-50	1436	York ZF-048		51	5	39.5	1,095	25	1,070	36.5	3.5	0.03	6	25	19
Bldg 8_2	736	1432	36.5	-50	1436	York ZF-048		51	5	39.5	786	25	761	36.5	3.5	0.05	6	27	21
																	TOTAL Leq:	40	31
																		Without Barrier	With Barrier/ Parapet

RAY-TRACE PROGRAM (FOR A POINT-SOURCE)

Uses the Equation: $(A_{e4})_{point}=20*\log[(2*pi*N)^{1/2}/\tanh(2*pi*N)^{1/2}]+5dB$

(Ref. Pg.174, Noise and Vibration Control, L.L. Beranek Editor, 1971 Ed.

Project: Mission & Ramona Warehouse Project, Montclair
Date: 09/07/21
By: MG

Please Enter: Using English (E) units or Metric (M) units ? E

Ray Trace Number/Description	Source-Receiver Distance (ft. or m)	Source Base Elev. (ft. or m)	Source Height above Ground (ft. or m)	Receiver Base Elev. (ft. or m)	Receiver Height above Ground (ft. or m)	Horizontal Barrier Dist. (in ref. to source) (ft. or m)	Barrier Base Elev. (ft. or m)	Barrier Height (ft. or m)	Dominant Freq.(Hz)	Source-Rcvr Straight-Line Dist. (ft. or m)	Source-Top-of-Barrier Dist. (ft. or m)	Receiver-Top-of-Barrier Dist. (ft. or m)	Lambda	N_{max}	$AE_{(barriers)}$ (dB)
1. Source -Truck Noise at Nearest Residence	230.0	0.0	10.0	0.0	5.0	5.0	0.0	**35.0**	500.0	230.1	25.5	227.0	2.3	19.9	**26.0**
Parking Lot Noise	10.0	100.0	3.0	100.0	5.0	5.0	100.0	**7.0**	500.0	10.2	6.4	5.4	2.3	1.4	**14.5**

Appendix F-4

Traffic Noise Modeling Input and Output

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Dudek					**6 August 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS							**Average pavement type shall be used unless**					
PROJECT/CONTRACT:	**PN 12296**						**a State highway agency substantiates the use**					
RUN:	**Oakmont Montclair - Existing Rev 072121**						**of a different type with the approval of FHWA**					
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**			**Flow Control**			**Segment**		
				X	**Y**	**Z**	**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**	
	ft			ft	ft	ft		mph	%			
Holt Blvd. w. of Ramona Ave.	90.0	point1	1	2,455.3	4,426.9	910.00				Average		
		point3	3	2,708.8	4,424.1	910.00				Average		
		point4	4	3,298.5	4,426.9	910.00				Average		
		point5	5	4,008.0	4,425.5	910.00				Average		
		point6	6	4,797.5	4,426.6	910.00						
Ramona Ave n. of Holt Blvd	55.0	point70	70	4,804.5	5,889.7	910.00				Average		
		point10	10	4,804.5	4,432.3	910.00						
Monte Vista Ave. n. of Mission Blvd.	45.0	point72	72	7,533.0	2,365.6	910.00				Average		
		point30	30	7,558.4	1,736.2	910.00						
Silicon Ave	25.0	point74	74	2,497.3	3,080.4	910.00				Average		
		point34	34	2,494.5	2,449.5	910.00				Average		
		point35	35	2,491.8	2,441.2	910.00				Average		
		point36	36	2,501.8	1,781.9	910.00						
Mission Blvd. - w. of Silicon Ave	116.0	point76	76	1,483.5	1,758.0	910.00				Average		
		point58	58	2,499.0	1,765.0	910.00						
Co. Rd. 20010	20.0	point78	78	3,751.2	3,118.7	910.00				Average		
		point56	56	3,750.3	2,464.6	910.00						
State St. w. of Ramona Ave.	40.0	point80	80	2,533.0	3,104.8	910.00				Average		
		point38	38	3,844.6	3,135.1	910.00				Average		
		point39	39	3,878.5	3,136.0	910.00				Average		
		point40	40	4,385.5	3,147.1	910.00				Average		
		point41	41	4,404.8	3,149.8	910.00				Average		
		point42	42	5,168.1	3,167.3	910.00						
3rd St	44.0	point82	82	2,530.9	2,450.5	910.00				Average		
		point52	52	3,732.3	2,453.2	910.00				Average		

		point53	53	3,764.1	2,453.5	910.00				Average	
		point54	54	3,893.6	2,457.7	910.00					
Holt Blvd. e. of Ramona Ave.	90.0	point84	84	4,821.0	4,426.8	910.00				Average	
		point8	8	6,190.4	4,421.3	910.00					
Ramona Ave s. of Holt Blvd	55.0	point86	86	4,801.7	4,421.3	910.00				Average	
		point12	12	4,812.7	3,710.4	910.00				Average	
		point13	13	4,832.0	3,619.4	920.00				Average	
		point14	14	4,854.1	3,506.5	930.00				Average	
		point15	15	4,865.1	3,335.7	930.00				Average	
		point16	16	4,861.8	3,162.3	930.00					
Ramona Ave s. of Holt Blvd - 2	55.0	point87	87	4,861.6	3,158.6	930.00				Average	
		point18	18	4,865.2	2,925.7	910.00				Average	
		point19	19	4,856.9	2,807.2	910.00				Average	
		point20	20	4,848.6	2,708.0	910.00				Average	
		point21	21	4,840.4	2,562.0	910.00				Average	
		point22	22	4,843.6	2,439.5	910.00					
Camulos Ave / Dale St	45.0	point89	89	5,179.1	3,166.3	910.00				Average	
		point46	46	5,198.4	2,593.2	910.00				Average	
		point47	47	5,195.6	2,513.3	910.00				Average	
		point48	48	5,179.1	2,474.7	910.00				Average	
		point49	49	5,146.0	2,449.9	910.00				Average	
		point50	50	4,865.0	2,436.2	910.00					
Mission Blvd. - e. of Ramona Ave	116.0	point91	91	4,857.4	1,749.9	910.00				Average	
		point65	65	6,105.0	1,733.6	910.00				Average	
		point66	66	7,547.8	1,726.1	910.00				Average	
		point68	68	8,264.2	1,721.0	910.00					
Ramona Ave s. of Mission Blvd	55.0	point93	93	4,851.3	1,739.1	910.00				Average	
		point28	28	4,873.3	799.9	910.00					
Mission Blvd. - e. of Silicon Ave	116.0	point95	95	2,516.4	1,764.1	910.00				Average	
		point60	60	3,465.9	1,765.0	910.00				Average	
		point61	61	4,143.9	1,756.2	910.00					
State St. e. of Ramona Ave.	40.0	point97	97	5,199.9	3,168.2	910.00				Average	
		point44	44	6,212.5	3,184.7	910.00					
Mission Blvd. - w. of Ramona Ave	55.0	point99	99	4,155.6	1,756.3	910.00				Average	
		point63	63	4,842.5	1,751.3	910.00					
Ramona Ave n. of Mission Blvd	55.0	point101	101	4,845.2	2,431.4	910.00				Average	
		point24	24	4,840.8	2,129.6	910.00				Average	
		point25	25	4,840.7	2,112.4	910.00				Average	
		point26	26	4,848.6	1,756.2	910.00					

Monte Vista Ave. s. of Mission Blvd.	45.0	point102	102	7,559.2	1,722.7	910.00				Average	
		point32	32	7,616.1	699.1	910.00					

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6 August 2021
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Existing Rev 072121

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Holt Blvd. w. of Ramona Ave.	point1	1	1291	45	32	45	6	45	0	0	0	0
	point3	3	1291	45	32	45	6	45	0	0	0	0
	point4	4	1291	45	32	45	6	45	0	0	0	0
	point5	5	1291	45	32	45	6	45	0	0	0	0
	point6	6										
Ramona Ave n. of Holt Blvd	point70	70	782	35	17	35	2	35	0	0	0	0
	point10	10										
Monte Vista Ave. n. of Mission Blvd.	point72	72	1142	40	25	40	11	40	0	0	0	0
	point30	30										
Silicon Ave	point74	74	67	25	20	25	2	25	0	0	0	0
	point34	34	67	25	20	25	2	25	0	0	0	0
	point35	35	67	25	20	25	2	25	0	0	0	0
	point36	36										
Mission Blvd. - w. of Silicon Ave	point76	76	1734	45	85	45	29	45	0	0	0	0
	point58	58										
Co. Rd. 20010	point78	78	0	0	0	0	0	0	0	0	0	0
	point56	56										
State St. w. of Ramona Ave.	point80	80	482	45	13	45	1	45	0	0	0	0
	point38	38	482	45	13	45	1	45	0	0	0	0
	point39	39	482	45	13	45	1	45	0	0	0	0
	point40	40	482	45	13	45	1	45	0	0	0	0
	point41	41	482	45	13	45	1	45	0	0	0	0
	point42	42										

3rd St	point82	82	25	25	30	25	1	25	0	0	0	0
	point52	52	25	25	30	25	1	25	0	0	0	0
	point53	53	25	25	30	25	1	25	0	0	0	0
	point54	54										
Holt Blvd. e. of Ramona Ave.	point84	84	1126	45	31	45	6	45	0	0	0	0
	point8	8										
Ramona Ave s. of Holt Blvd	point86	86	1241	35	28	35	4	35	0	0	0	0
	point12	12	1241	35	28	35	4	35	0	0	0	0
	point13	13	1241	35	28	35	4	35	0	0	0	0
	point14	14	1241	35	28	35	4	35	0	0	0	0
	point15	15	1241	35	28	35	4	35	0	0	0	0
	point16	16										
Ramona Ave s. of Holt Blvd - 2	point87	87	1241	40	28	40	4	40	0	0	0	0
	point18	18	1302	40	29	40	4	40	0	0	0	0
	point19	19	1302	40	29	40	4	40	0	0	0	0
	point20	20	1302	40	29	40	4	40	0	0	0	0
	point21	21	1302	40	29	40	4	40	0	0	0	0
	point22	22										
Camulos Ave / Dale St	point89	89	118	25	3	25	1	25	0	0	0	0
	point46	46	118	25	3	25	1	25	0	0	0	0
	point47	47	118	25	3	25	1	25	0	0	0	0
	point48	48	118	25	3	25	1	25	0	0	0	0
	point49	49	118	25	3	25	1	25	0	0	0	0
	point50	50										
Mission Blvd. - e. of Ramona Ave	point91	91	1821	45	61	45	29	45	0	0	0	0
	point65	65	1821	45	61	45	29	45	0	0	0	0
	point66	66	1821	45	61	45	29	45	0	0	0	0
	point68	68										
Ramona Ave s. of Mission Blvd	point93	93	1177	45	31	45	2	45	0	0	0	0
	point28	28										
Mission Blvd. - e. of Silicon Ave	point95	95	1755	45	77	45	29	45	0	0	0	0
	point60	60	1755	45	77	45	29	45	0	0	0	0
	point61	61										
State St. e. of Ramona Ave.	point97	97	462	45	16	45	2	45	0	0	0	0
	point44	44										
Mission Blvd. - w. of Ramona Ave	point99	99	1861	45	68	45	29	45	0	0	0	0

	point63	63										
Ramona Ave n. of Mission Blvd	point101	101	1269	45	32	45	4	45	0	0	0	0
	point24	24	1269	45	32	45	4	45	0	0	0	0
	point25	25	1269	45	32	45	4	45	0	0	0	0
	point26	26										
Monte Vista Ave. s. of Mission Blvd.	point102	102	826	40	10	40	5	40	0	0	0	0
	point32	32										

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6 August 2021
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Existing Rev 072121

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria Existing LAeq1h	Impact Criteria LAeq1h	Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	3,801.7	2,425.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	3,991.7	1,565.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	4,927.4	2,242.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	4,979.9	1,120.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST5	5	1	3,703.6	3,035.4	910.00	5.00	0.00	66	10.0	8.0	Y
ST6	6	1	4,888.9	4,831.8	910.00	5.00	0.00	66	10.0	8.0	Y
ST7	7	1	6,877.3	1,589.4	910.00	5.00	0.00	66	10.0	8.0	Y

Dudek 6 August 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Existing Rev 072121

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier2	W	0.00	99.99	0.00				0.00	point1	1	2,755.5	4,361.1	910.00	20.00	0.00	0	0		
									point3	3	3,873.4	4,350.6	910.00	20.00	0.00	0	0		
									point4	4	3,876.9	4,104.1	910.00	20.00	0.00	0	0		
									point5	5	3,873.4	3,930.6	910.00	20.00	0.00	0	0		
									point6	6	3,751.9	3,930.6	910.00	20.00	0.00	0	0		
									point7	7	3,748.4	3,840.3	910.00	20.00	0.00	0	0		
									point8	8	2,762.4	3,840.3	910.00	20.00					
Barrier22	W	0.00	99.99	0.00				0.00	point76	76	4,342.1	4,270.8	910.00	20.00	0.00	0	0		
									point10	10	4,706.6	4,267.3	910.00	20.00	0.00	0	0		
									point11	11	4,706.6	4,201.4	910.00	20.00	0.00	0	0		
									point12	12	4,487.9	4,194.4	910.00	20.00	0.00	0	0		
									point13	13	4,491.4	4,149.3	910.00	20.00	0.00	0	0		
									point14	14	4,342.1	4,145.8	910.00	20.00					
Barrier222	W	0.00	99.99	0.00				0.00	point78	78	4,709.4	3,924.9	910.00	20.00	0.00	0	0		
									point16	16	3,899.2	3,927.7	910.00	20.00	0.00	0	0		
									point17	17	3,899.2	4,101.3	910.00	20.00	0.00	0	0		
									point18	18	4,684.6	4,101.3	910.00	20.00					
Barrier2222	W	0.00	99.99	0.00				0.00	point80	80	4,555.1	3,795.4	910.00	20.00	0.00	0	0		
									point30	30	4,714.9	3,795.4	910.00	20.00	0.00	0	0		
									point31	31	4,731.4	3,371.1	910.00	20.00	0.00	0	0		
									point32	32	4,508.2	3,371.1	910.00	20.00	0.00	0	0		
									point33	33	4,508.2	3,599.8	910.00	20.00					
Barrier22222	W	0.00	99.99	0.00				0.00	point82	82	4,921.5	3,351.8	910.00	20.00	0.00	0	0		
									point20	20	5,255.0	3,360.0	910.00	20.00	0.00	0	0		
									point21	21	5,241.2	3,671.4	910.00	20.00	0.00	0	0		
									point22	22	5,348.7	3,668.6	910.00	20.00	0.00	0	0		
									point23	23	5,334.9	3,743.0	910.00	20.00	0.00	0	0		
									point24	24	4,907.8	3,745.8	910.00	20.00					
Barrier222222	W	0.00	99.99	0.00				0.00	point84	84	5,460.9	4,249.2	910.00	20.00	0.00	0	0		
									point74	74	6,860.8	4,260.2	910.00	20.00	0.00	0	0		
									point2	2	6,877.3	3,940.6	910.00	20.00					
Barrier2222222	W	0.00	99.99	0.00				0.00	point86	86	5,224.5	3,074.3	910.00	20.00	0.00	0	0		
									point39	39	6,194.5	3,068.8	910.00	20.00	0.00	0	0		
									point40	40	6,202.7	2,713.4	910.00	20.00					
Barrier22222222	W	0.00	99.99	0.00				0.00	point88	88	4,957.2	2,862.2	910.00	20.00	0.00	0	0		

									point42	42	5,144.6	2,864.9	910.00	20.00	0.00	0	0		
									point43	43	5,144.6	2,509.5	910.00	20.00	0.00	0	0		
									point44	44	4,904.9	2,495.7	910.00	20.00					
Barrier2222222222	W	0.00	99.99	0.00				0.00	point90	90	2,577.7	3,039.6	910.00	20.00	0.00	0	0		
									point46	46	3,422.2	3,029.2	910.00	20.00	0.00	0	0		
									point47	47	3,430.9	2,478.9	910.00	20.00					
Barrier222222222222	W	0.00	99.99	0.00				0.00	point92	92	2,594.3	1,856.3	910.00	20.00	0.00	0	0		
									point56	56	4,736.5	1,863.2	910.00	20.00					
Barrier2222222222222	W	0.00	99.99	0.00				0.00	point94	94	5,472.9	3,577.8	910.00	20.00	0.00	0	0		
									point35	35	6,663.7	3,605.5	910.00	20.00	0.00	0	0		
									point36	36	6,670.7	3,431.9	910.00	20.00	0.00	0	0		
									point37	37	5,483.3	3,418.1	910.00	20.00					
Barrier22222222222222	W	0.00	99.99	0.00				0.00	point96	96	4,943.6	4,283.2	910.00	20.00	0.00	0	0		
									point26	26	5,084.1	4,283.2	910.00	20.00	0.00	0	0		
									point27	27	5,081.4	4,134.3	910.00	20.00	0.00	0	0		
									point28	28	4,929.8	4,137.1	910.00	20.00					
Barrier2222222222222222	W	0.00	99.99	0.00				0.00	point98	98	4,786.1	822.5	910.00	20.00	0.00	0	0		
									point61	61	4,772.4	1,514.6	910.00	20.00	0.00	0	0		
									point62	62	1,711.6	1,512.8	910.00	20.00					
Barrier22222222222222222	W	0.00	99.99	0.00				0.00	point100	100	2,549.1	2,394.9	910.00	20.00	0.00	0	0		
									point53	53	3,841.7	2,410.2	910.00	20.00	0.00	0	0		
									point54	54	4,753.8	2,397.1	910.00	20.00					
Barrier222222222222222222	W	0.00	99.99	0.00				0.00	point102	102	3,573.5	2,911.6	910.00	20.00	0.00	0	0		
									point49	49	3,574.6	2,696.2	910.00	20.00	0.00	0	0		
									point50	50	3,704.2	2,696.8	910.00	20.00	0.00	0	0		
									point51	51	3,704.2	2,920.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point104	104	1,622.2	1,897.9	910.00	20.00	0.00	0	0		
									point58	58	2,445.1	1,880.6	910.00	20.00	0.00	0	0		
									point59	59	2,472.8	3,054.1	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point106	106	5,003.4	828.7	910.00	20.00	0.00	0	0		
									point64	64	4,965.3	1,566.7	910.00	20.00	0.00	0	0		
									point65	65	7,472.4	1,541.1	910.00	20.00	0.00	0	0		
									point66	66	7,516.0	962.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point108	108	5,216.7	2,201.5	910.00	20.00	0.00	0	0		
									point71	71	5,216.7	1,877.8	910.00	20.00	0.00	0	0		
									point72	72	6,940.2	1,856.0	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point110	110	7,670.7	985.5	910.00	20.00	0.00	0	0		
									point68	68	7,648.8	1,650.4	910.00	20.00	0.00	0	0		
									point69	69	8,033.8	1,641.6	910.00	20.00					

Dudek
MG
6 August 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Existing Rev 072121
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	58.2	66	58.2	10	----	58.2	0.0	8	-8.0
ST2	2	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
ST3	3	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
ST4	4	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
ST5	5	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
ST6	6	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
ST7	7	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**6 August 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 12296**							**a State highway agency substantiates the use**				
RUN:	**Oakmont Montclair - Ex w Prj Rev 072121**							**of a different type with the approval of FHWA**				
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**				**Flow Control**			**Segment**	
				X	**Y**	**Z**		**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft			mph	%		
Holt Blvd. w. of Ramona Ave.	90.0	point1	1	2,455.3	4,426.9	910.00					Average	
		point3	3	2,708.8	4,424.1	910.00					Average	
		point4	4	3,298.5	4,426.9	910.00					Average	
		point5	5	4,008.0	4,425.5	910.00					Average	
		point6	6	4,797.5	4,426.6	910.00						
Ramona Ave n. of Holt Blvd	55.0	point70	70	4,804.5	5,889.7	910.00					Average	
		point10	10	4,804.5	4,432.3	910.00						
Monte Vista Ave. n. of Mission Blvd.	45.0	point72	72	7,533.0	2,365.6	910.00					Average	
		point30	30	7,558.4	1,736.2	910.00						
Silicon Ave	25.0	point74	74	2,497.3	3,080.4	910.00					Average	
		point34	34	2,494.5	2,449.5	910.00					Average	
		point35	35	2,491.8	2,441.2	910.00					Average	
		point36	36	2,501.8	1,781.9	910.00						
Mission Blvd. - w. of Silicon Ave	116.0	point76	76	1,483.5	1,758.0	910.00					Average	
		point58	58	2,499.0	1,765.0	910.00						
Co. Rd. 20010	20.0	point78	78	3,751.2	3,118.7	910.00					Average	
		point56	56	3,750.3	2,464.6	910.00						
State St. w. of Ramona Ave.	40.0	point80	80	2,533.0	3,104.8	910.00					Average	
		point38	38	3,844.6	3,135.1	910.00					Average	
		point39	39	3,878.5	3,136.0	910.00					Average	
		point40	40	4,385.5	3,147.1	910.00					Average	
		point41	41	4,404.8	3,149.8	910.00					Average	
		point42	42	5,168.1	3,167.3	910.00						
3rd St	44.0	point82	82	2,530.9	2,450.5	910.00					Average	
		point52	52	3,732.3	2,453.2	910.00					Average	

		point53	53	3,764.1	2,453.5	910.00				Average	
		point54	54	3,893.6	2,457.7	910.00					
Holt Blvd. e. of Ramona Ave.	90.0	point84	84	4,821.0	4,426.8	910.00				Average	
		point8	8	6,190.4	4,421.3	910.00					
Ramona Ave s. of Holt Blvd	55.0	point86	86	4,801.7	4,421.3	910.00				Average	
		point12	12	4,812.7	3,710.4	910.00				Average	
		point13	13	4,832.0	3,619.4	920.00				Average	
		point14	14	4,854.1	3,506.5	930.00				Average	
		point15	15	4,865.1	3,335.7	930.00				Average	
		point16	16	4,861.8	3,162.3	930.00					
Ramona Ave s. of Holt Blvd - 2	55.0	point87	87	4,861.6	3,158.6	930.00				Average	
		point18	18	4,865.2	2,925.7	910.00				Average	
		point19	19	4,856.9	2,807.2	910.00				Average	
		point20	20	4,848.6	2,708.0	910.00				Average	
		point21	21	4,840.4	2,562.0	910.00				Average	
		point22	22	4,843.6	2,439.5	910.00					
Camulos Ave / Dale St	45.0	point89	89	5,179.1	3,166.3	910.00				Average	
		point46	46	5,198.4	2,593.2	910.00				Average	
		point47	47	5,195.6	2,513.3	910.00				Average	
		point48	48	5,179.1	2,474.7	910.00				Average	
		point49	49	5,146.0	2,449.9	910.00				Average	
		point50	50	4,865.0	2,436.2	910.00					
Mission Blvd. - e. of Ramona Ave	116.0	point91	91	4,857.4	1,749.9	910.00				Average	
		point65	65	6,105.0	1,733.6	910.00				Average	
		point66	66	7,547.8	1,726.1	910.00				Average	
		point68	68	8,264.2	1,721.0	910.00					
Ramona Ave s. of Mission Blvd	55.0	point93	93	4,851.3	1,739.1	910.00				Average	
		point28	28	4,873.3	799.9	910.00					
Mission Blvd. - e. of Silicon Ave	116.0	point95	95	2,516.4	1,764.1	910.00				Average	
		point60	60	3,465.9	1,765.0	910.00				Average	
		point61	61	4,143.9	1,756.2	910.00					
State St. e. of Ramona Ave.	40.0	point97	97	5,199.9	3,168.2	910.00				Average	
		point44	44	6,212.5	3,184.7	910.00					
Mission Blvd. - w. of Ramona Ave	55.0	point99	99	4,155.6	1,756.3	910.00				Average	
		point63	63	4,842.5	1,751.3	910.00					
Ramona Ave n. of Mission Blvd	55.0	point101	101	4,845.2	2,431.4	910.00				Average	
		point24	24	4,840.8	2,129.6	910.00				Average	
		point25	25	4,840.7	2,112.4	910.00				Average	
		point26	26	4,848.6	1,756.2	910.00					

Monte Vista Ave. s. of Mission Blvd.	45.0	point102	102	7,559.2	1,722.7	910.00				Average	
		point32	32	7,616.1	699.1	910.00					

Dudek **6 August 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **PN 12296**
RUN: **Oakmont Montclair - Ex w Prj Rev 072121**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Holt Blvd. w. of Ramona Ave.	point1	1	1301	45	36	45	19	45	0	0	0	0
	point3	3	1301	45	36	45	19	45	0	0	0	0
	point4	4	1301	45	36	45	19	45	0	0	0	0
	point5	5	1301	45	36	45	19	45	0	0	0	0
	point6	6										
Ramona Ave n. of Holt Blvd	point70	70	789	35	17	35	2	35	0	0	0	0
	point10	10										
Monte Vista Ave. n. of Mission Blvd.	point72	72	1142	40	25	40	11	40	0	0	0	0
	point30	30										
Silicon Ave	point74	74	70	25	20	25	2	25	0	0	0	0
	point34	34	70	25	20	25	2	25	0	0	0	0
	point35	35	70	25	20	25	2	25	0	0	0	0
	point36	36										
Mission Blvd. - w. of Silicon Ave	point76	76	1745	45	87	45	35	45	0	0	0	0
	point58	58										
Co. Rd. 20010	point78	78	0	0	0	0	0	0	0	0	0	0
	point56	56										
State St. w. of Ramona Ave.	point80	80	482	45	20	45	27	45	0	0	0	0
	point38	38	482	45	20	45	27	45	0	0	0	0
	point39	39	482	45	20	45	27	45	0	0	0	0
	point40	40	482	45	20	45	27	45	0	0	0	0
	point41	41	482	45	20	45	27	45	0	0	0	0
	point42	42										

3rd St	point82	82	28	25	30	25	1	25	0	0	0	0
	point52	52	28	25	30	25	1	25	0	0	0	0
	point53	53	28	25	30	25	1	25	0	0	0	0
	point54	54										
Holt Blvd. e. of Ramona Ave.	point84	84	1137	45	33	45	11	45	0	0	0	0
	point8	8										
Ramona Ave s. of Holt Blvd	point86	86	1269	35	34	35	22	35	0	0	0	0
	point12	12	1269	35	34	35	22	35	0	0	0	0
	point13	13	1269	35	34	35	22	35	0	0	0	0
	point14	14	1269	35	34	35	22	35	0	0	0	0
	point15	15	1269	35	34	35	22	35	0	0	0	0
	point16	16										
Ramona Ave s. of Holt Blvd - 2	point87	87	1269	40	34	40	22	40	0	0	0	0
	point18	18	1269	40	34	40	22	40	0	0	0	0
	point19	19	1269	40	34	40	22	40	0	0	0	0
	point20	20	1269	40	34	40	22	40	0	0	0	0
	point21	21	1269	40	34	40	22	40	0	0	0	0
	point22	22										
Camulos Ave / Dale St	point89	89	118	25	10	25	27	25	0	0	0	0
	point46	46	118	25	10	25	27	25	0	0	0	0
	point47	47	118	25	10	25	27	25	0	0	0	0
	point48	48	118	25	10	25	27	25	0	0	0	0
	point49	49	118	25	10	25	27	25	0	0	0	0
	point50	50										
Mission Blvd. - e. of Ramona Ave	point91	91	1843	45	66	45	48	45	0	0	0	0
	point65	65	1843	45	66	45	48	45	0	0	0	0
	point66	66	1843	45	66	45	48	45	0	0	0	0
	point68	68										
Ramona Ave s. of Mission Blvd	point93	93	1184	45	31	45	2	45	0	0	0	0
	point28	28										
Mission Blvd. - e. of Silicon Ave	point95	95	1763	45	79	45	35	45	0	0	0	0
	point60	60	1763	45	79	45	35	45	0	0	0	0
	point61	61										
State St. e. of Ramona Ave.	point97	97	462	45	16	45	2	45	0	0	0	0
	point44	44										
Mission Blvd. - w. of Ramona Ave	point99	99	1874	45	71	45	37	45	0	0	0	0

	point63	63										
Ramona Ave n. of Mission Blvd	point101	101	1297	45	38	45	23	45	0	0	0	0
	point24	24	1297	45	38	45	23	45	0	0	0	0
	point25	25	1297	45	38	45	23	45	0	0	0	0
	point26	26										
Monte Vista Ave. s. of Mission Blvd.	point102	102	830	40	10	40	5	40	0	0	0	0
	point32	32										

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INPUT: RECEIVERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Ex w Prj Rev 072121

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	3,801.7	2,425.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	3,991.7	1,565.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	4,927.4	2,242.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	4,979.9	1,120.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST5	5	1	3,703.6	3,035.4	910.00	5.00	0.00	66	10.0	8.0	Y
ST6	6	1	4,888.9	4,831.8	910.00	5.00	0.00	66	10.0	8.0	Y
ST7	7	1	6,877.3	1,589.4	910.00	5.00	0.00	66	10.0	8.0	Y

Dudek 6 August 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Ex w Prj Rev 072121

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier2	W	0.00	99.99	0.00				0.00	point1	1	2,755.5	4,361.1	910.00	20.00	0.00	0	0		
									point3	3	3,873.4	4,350.6	910.00	20.00	0.00	0	0		
									point4	4	3,876.9	4,104.1	910.00	20.00	0.00	0	0		
									point5	5	3,873.4	3,930.6	910.00	20.00	0.00	0	0		
									point6	6	3,751.9	3,930.6	910.00	20.00	0.00	0	0		
									point7	7	3,748.4	3,840.3	910.00	20.00	0.00	0	0		
									point8	8	2,762.4	3,840.3	910.00	20.00					
Barrier22	W	0.00	99.99	0.00				0.00	point76	76	4,342.1	4,270.8	910.00	20.00	0.00	0	0		
									point10	10	4,706.6	4,267.3	910.00	20.00	0.00	0	0		
									point11	11	4,706.6	4,201.4	910.00	20.00	0.00	0	0		
									point12	12	4,487.9	4,194.4	910.00	20.00	0.00	0	0		
									point13	13	4,491.4	4,149.3	910.00	20.00	0.00	0	0		
									point14	14	4,342.1	4,145.8	910.00	20.00					
Barrier222	W	0.00	99.99	0.00				0.00	point78	78	4,709.4	3,924.9	910.00	20.00	0.00	0	0		
									point16	16	3,899.2	3,927.7	910.00	20.00	0.00	0	0		
									point17	17	3,899.2	4,101.3	910.00	20.00	0.00	0	0		
									point18	18	4,684.6	4,101.3	910.00	20.00					
Barrier2222	W	0.00	99.99	0.00				0.00	point80	80	4,555.1	3,795.4	910.00	20.00	0.00	0	0		
									point30	30	4,714.9	3,795.4	910.00	20.00	0.00	0	0		
									point31	31	4,731.4	3,371.1	910.00	20.00	0.00	0	0		
									point32	32	4,508.2	3,371.1	910.00	20.00	0.00	0	0		
									point33	33	4,508.2	3,599.8	910.00	20.00					
Barrier22222	W	0.00	99.99	0.00				0.00	point82	82	4,921.5	3,351.8	910.00	20.00	0.00	0	0		
									point20	20	5,255.0	3,360.0	910.00	20.00	0.00	0	0		
									point21	21	5,241.2	3,671.4	910.00	20.00	0.00	0	0		
									point22	22	5,348.7	3,668.6	910.00	20.00	0.00	0	0		
									point23	23	5,334.9	3,743.0	910.00	20.00	0.00	0	0		
									point24	24	4,907.8	3,745.8	910.00	20.00					
Barrier222222	W	0.00	99.99	0.00				0.00	point84	84	5,460.9	4,249.2	910.00	20.00	0.00	0	0		
									point74	74	6,860.8	4,260.2	910.00	20.00	0.00	0	0		
									point2	2	6,877.3	3,940.6	910.00	20.00					
Barrier2222222	W	0.00	99.99	0.00				0.00	point86	86	5,224.5	3,074.3	910.00	20.00	0.00	0	0		
									point39	39	6,194.5	3,068.8	910.00	20.00	0.00	0	0		
									point40	40	6,202.7	2,713.4	910.00	20.00					
Barrier22222222	W	0.00	99.99	0.00				0.00	point88	88	4,957.2	2,862.2	910.00	20.00	0.00	0	0		

									point42	42	5,144.6	2,864.9	910.00	20.00	0.00	0	0		
									point43	43	5,144.6	2,509.5	910.00	20.00	0.00	0	0		
									point44	44	4,904.9	2,495.7	910.00	20.00					
Barrier2222222222	W	0.00	99.99	0.00				0.00	point90	90	2,577.7	3,039.6	910.00	20.00	0.00	0	0		
									point46	46	3,422.2	3,029.2	910.00	20.00	0.00	0	0		
									point47	47	3,430.9	2,478.9	910.00	20.00					
Barrier222222222222	W	0.00	99.99	0.00				0.00	point92	92	2,594.3	1,856.3	910.00	20.00	0.00	0	0		
									point56	56	4,736.5	1,863.2	910.00	20.00					
Barrier2222222222222	W	0.00	99.99	0.00				0.00	point94	94	5,472.9	3,577.8	910.00	20.00	0.00	0	0		
									point35	35	6,663.7	3,605.5	910.00	20.00	0.00	0	0		
									point36	36	6,670.7	3,431.9	910.00	20.00	0.00	0	0		
									point37	37	5,483.3	3,418.1	910.00	20.00					
Barrier22222222222222	W	0.00	99.99	0.00				0.00	point96	96	4,943.6	4,283.2	910.00	20.00	0.00	0	0		
									point26	26	5,084.1	4,283.2	910.00	20.00	0.00	0	0		
									point27	27	5,081.4	4,134.3	910.00	20.00	0.00	0	0		
									point28	28	4,929.8	4,137.1	910.00	20.00					
Barrier2222222222222222	W	0.00	99.99	0.00				0.00	point98	98	4,786.1	822.5	910.00	20.00	0.00	0	0		
									point61	61	4,772.4	1,514.6	910.00	20.00	0.00	0	0		
									point62	62	1,711.6	1,512.8	910.00	20.00					
Barrier22222222222222222	W	0.00	99.99	0.00				0.00	point100	100	2,549.1	2,394.9	910.00	20.00	0.00	0	0		
									point53	53	3,841.7	2,410.2	910.00	20.00	0.00	0	0		
									point54	54	4,753.8	2,397.1	910.00	20.00					
Barrier222222222222222222	W	0.00	99.99	0.00				0.00	point102	102	3,573.5	2,911.6	910.00	20.00	0.00	0	0		
									point49	49	3,574.6	2,696.2	910.00	20.00	0.00	0	0		
									point50	50	3,704.2	2,696.8	910.00	20.00	0.00	0	0		
									point51	51	3,704.2	2,920.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point104	104	1,622.2	1,897.9	910.00	20.00	0.00	0	0		
									point58	58	2,445.1	1,880.6	910.00	20.00	0.00	0	0		
									point59	59	2,472.8	3,054.1	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point106	106	5,003.4	828.7	910.00	20.00	0.00	0	0		
									point64	64	4,965.3	1,566.7	910.00	20.00	0.00	0	0		
									point65	65	7,472.4	1,541.1	910.00	20.00	0.00	0	0		
									point66	66	7,516.0	962.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point108	108	5,216.7	2,201.5	910.00	20.00	0.00	0	0		
									point71	71	5,216.7	1,877.8	910.00	20.00	0.00	0	0		
									point72	72	6,940.2	1,856.0	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point110	110	7,670.7	985.5	910.00	20.00	0.00	0	0		
									point68	68	7,648.8	1,650.4	910.00	20.00	0.00	0	0		
									point69	69	8,033.8	1,641.6	910.00	20.00					

Dudek
MG
6 August 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Montclair - Ex w Prj Rev 072121
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	58.3	66	58.3	10	----	58.3	0.0	8	-8.0
ST2	2	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
ST3	3	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
ST4	4	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
ST5	5	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
ST6	6	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
ST7	7	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**6 August 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 12296**							**a State highway agency substantiates the use**				
RUN:	**Oakmont Mntclr-OpngYr 2024 Rev072121**							**of a different type with the approval of FHWA**				
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**				**Flow Control**			**Segment**	
				X	**Y**	**Z**		**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft			mph	%		
Holt Blvd. w. of Ramona Ave.	90.0	point1	1	2,455.3	4,426.9	910.00					Average	
		point3	3	2,708.8	4,424.1	910.00					Average	
		point4	4	3,298.5	4,426.9	910.00					Average	
		point5	5	4,008.0	4,425.5	910.00					Average	
		point6	6	4,797.5	4,426.6	910.00						
Ramona Ave n. of Holt Blvd	55.0	point70	70	4,804.5	5,889.7	910.00					Average	
		point10	10	4,804.5	4,432.3	910.00						
Monte Vista Ave. n. of Mission Blvd.	45.0	point72	72	7,533.0	2,365.6	910.00					Average	
		point30	30	7,558.4	1,736.2	910.00						
Silicon Ave	25.0	point74	74	2,497.3	3,080.4	910.00					Average	
		point34	34	2,494.5	2,449.5	910.00					Average	
		point35	35	2,491.8	2,441.2	910.00					Average	
		point36	36	2,501.8	1,781.9	910.00						
Mission Blvd. - w. of Silicon Ave	116.0	point76	76	1,483.5	1,758.0	910.00					Average	
		point58	58	2,499.0	1,765.0	910.00						
Co. Rd. 20010	20.0	point78	78	3,751.2	3,118.7	910.00					Average	
		point56	56	3,750.3	2,464.6	910.00						
State St. w. of Ramona Ave.	40.0	point80	80	2,533.0	3,104.8	910.00					Average	
		point38	38	3,844.6	3,135.1	910.00					Average	
		point39	39	3,878.5	3,136.0	910.00					Average	
		point40	40	4,385.5	3,147.1	910.00					Average	
		point41	41	4,404.8	3,149.8	910.00					Average	
		point42	42	5,168.1	3,167.3	910.00						
3rd St	44.0	point82	82	2,530.9	2,450.5	910.00					Average	
		point52	52	3,732.3	2,453.2	910.00					Average	

		point53	53	3,764.1	2,453.5	910.00				Average	
		point54	54	3,893.6	2,457.7	910.00					
Holt Blvd. e. of Ramona Ave.	90.0	point84	84	4,821.0	4,426.8	910.00				Average	
		point8	8	6,190.4	4,421.3	910.00					
Ramona Ave s. of Holt Blvd	55.0	point86	86	4,801.7	4,421.3	910.00				Average	
		point12	12	4,812.7	3,710.4	910.00				Average	
		point13	13	4,832.0	3,619.4	920.00				Average	
		point14	14	4,854.1	3,506.5	930.00				Average	
		point15	15	4,865.1	3,335.7	930.00				Average	
		point16	16	4,861.8	3,162.3	930.00					
Ramona Ave s. of Holt Blvd - 2	55.0	point87	87	4,861.6	3,158.6	930.00				Average	
		point18	18	4,865.2	2,925.7	910.00				Average	
		point19	19	4,856.9	2,807.2	910.00				Average	
		point20	20	4,848.6	2,708.0	910.00				Average	
		point21	21	4,840.4	2,562.0	910.00				Average	
		point22	22	4,843.6	2,439.5	910.00					
Camulos Ave / Dale St	45.0	point89	89	5,179.1	3,166.3	910.00				Average	
		point46	46	5,198.4	2,593.2	910.00				Average	
		point47	47	5,195.6	2,513.3	910.00				Average	
		point48	48	5,179.1	2,474.7	910.00				Average	
		point49	49	5,146.0	2,449.9	910.00				Average	
		point50	50	4,865.0	2,436.2	910.00					
Mission Blvd. - e. of Ramona Ave	116.0	point91	91	4,857.4	1,749.9	910.00				Average	
		point65	65	6,105.0	1,733.6	910.00				Average	
		point66	66	7,547.8	1,726.1	910.00				Average	
		point68	68	8,264.2	1,721.0	910.00					
Ramona Ave s. of Mission Blvd	55.0	point93	93	4,851.3	1,739.1	910.00				Average	
		point28	28	4,873.3	799.9	910.00					
Mission Blvd. - e. of Silicon Ave	116.0	point95	95	2,516.4	1,764.1	910.00				Average	
		point60	60	3,465.9	1,765.0	910.00				Average	
		point61	61	4,143.9	1,756.2	910.00					
State St. e. of Ramona Ave.	40.0	point97	97	5,199.9	3,168.2	910.00				Average	
		point44	44	6,212.5	3,184.7	910.00					
Mission Blvd. - w. of Ramona Ave	55.0	point99	99	4,155.6	1,756.3	910.00				Average	
		point63	63	4,842.5	1,751.3	910.00					
Ramona Ave n. of Mission Blvd	55.0	point101	101	4,845.2	2,431.4	910.00				Average	
		point24	24	4,840.8	2,129.6	910.00				Average	
		point25	25	4,840.7	2,112.4	910.00				Average	
		point26	26	4,848.6	1,756.2	910.00					

Monte Vista Ave. s. of Mission Blvd.	45.0	point102	102	7,559.2	1,722.7	910.00				Average	
		point32	32	7,616.1	699.1	910.00					

Dudek **6 August 2021**
MG **TNM 2.5**

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: **PN 12296**
RUN: **Oakmont Mntclr-OpngYr 2024 Rev072121**

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Holt Blvd. w. of Ramona Ave.	point1	1	1420	45	35	45	7	45	0	0	0	0
	point3	3	1420	45	35	45	7	45	0	0	0	0
	point4	4	1420	45	35	45	7	45	0	0	0	0
	point5	5	1420	45	35	45	7	45	0	0	0	0
	point6	6										
Ramona Ave n. of Holt Blvd	point70	70	835	35	18	35	2	35	0	0	0	0
	point10	10										
Monte Vista Ave. n. of Mission Blvd.	point72	72	1237	40	27	40	12	40	0	0	0	0
	point30	30										
Silicon Ave	point74	74	88	25	26	25	3	25	0	0	0	0
	point34	34	88	25	26	25	3	25	0	0	0	0
	point35	35	88	25	26	25	3	25	0	0	0	0
	point36	36										
Mission Blvd. - w. of Silicon Ave	point76	76	1949	45	96	45	33	45	0	0	0	0
	point58	58										
Co. Rd. 20010	point78	78	0	0	0	0	0	0	0	0	0	0
	point56	56										
State St. w. of Ramona Ave.	point80	80	516	45	14	45	1	45	0	0	0	0
	point38	38	516	45	14	45	1	45	0	0	0	0
	point39	39	516	45	14	45	1	45	0	0	0	0
	point40	40	516	45	14	45	1	45	0	0	0	0
	point41	41	516	45	14	45	1	45	0	0	0	0
	point42	42										

3rd St	point82	82	41	25	49	25	2	25	0	0	0	0
	point52	52	41	25	49	25	2	25	0	0	0	0
	point53	53	41	25	49	25	2	25	0	0	0	0
	point54	54										
Holt Blvd. e. of Ramona Ave.	point84	84	1243	45	34	45	7	45	0	0	0	0
	point8	8										
Ramona Ave s. of Holt Blvd	point86	86	1331	35	30	35	4	35	0	0	0	0
	point12	12	1331	35	30	35	4	35	0	0	0	0
	point13	13	1331	35	30	35	4	35	0	0	0	0
	point14	14	1331	35	30	35	4	35	0	0	0	0
	point15	15	1331	35	30	35	4	35	0	0	0	0
	point16	16										
Ramona Ave s. of Holt Blvd - 2	point87	87	1331	40	30	40	4	40	0	0	0	0
	point18	18	1331	40	30	40	4	40	0	0	0	0
	point19	19	1331	40	30	40	4	40	0	0	0	0
	point20	20	1331	40	30	40	4	40	0	0	0	0
	point21	21	1331	40	30	40	4	40	0	0	0	0
	point22	22										
Camulos Ave / Dale St	point89	89	128	25	3	25	1	25	0	0	0	0
	point46	46	128	25	3	25	1	25	0	0	0	0
	point47	47	128	25	3	25	1	25	0	0	0	0
	point48	48	128	25	3	25	1	25	0	0	0	0
	point49	49	128	25	3	25	1	25	0	0	0	0
	point50	50										
Mission Blvd. - e. of Ramona Ave	point91	91	2019	45	68	45	32	45	0	0	0	0
	point65	65	2019	45	68	45	32	45	0	0	0	0
	point66	66	2019	45	68	45	32	45	0	0	0	0
	point68	68										
Ramona Ave s. of Mission Blvd	point93	93	1262	45	33	45	2	45	0	0	0	0
	point28	28										
Mission Blvd. - e. of Silicon Ave	point95	95	1963	45	86	45	32	45	0	0	0	0
	point60	60	1963	45	86	45	32	45	0	0	0	0
	point61	61										
State St. e. of Ramona Ave.	point97	97	500	45	17	45	2	45	0	0	0	0
	point44	44										
Mission Blvd. - w. of Ramona Ave	point99	99	2066	45	75	45	32	45	0	0	0	0

	point63	63										
Ramona Ave n. of Mission Blvd	point101	101	1364	45	34	45	4	45	0	0	0	0
	point24	24	1364	45	34	45	4	45	0	0	0	0
	point25	25	1364	45	34	45	4	45	0	0	0	0
	point26	26										
Monte Vista Ave. s. of Mission Blvd.	point102	102	898	40	11	40	5	40	0	0	0	0
	point32	32										

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INPUT: RECEIVERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Mntclr-OpngYr 2024 Rev072121

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	3,801.7	2,425.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	3,991.7	1,565.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	4,927.4	2,242.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	4,979.9	1,120.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST5	5	1	3,703.6	3,035.4	910.00	5.00	0.00	66	10.0	8.0	Y
ST6	6	1	4,888.9	4,831.8	910.00	5.00	0.00	66	10.0	8.0	Y
ST7	7	1	6,877.3	1,589.4	910.00	5.00	0.00	66	10.0	8.0	Y

Dudek 6 August 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Mntclr-OpngYr 2024 Rev072121

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier2	W	0.00	99.99	0.00				0.00	point1	1	2,755.5	4,361.1	910.00	20.00	0.00	0	0		
									point3	3	3,873.4	4,350.6	910.00	20.00	0.00	0	0		
									point4	4	3,876.9	4,104.1	910.00	20.00	0.00	0	0		
									point5	5	3,873.4	3,930.6	910.00	20.00	0.00	0	0		
									point6	6	3,751.9	3,930.6	910.00	20.00	0.00	0	0		
									point7	7	3,748.4	3,840.3	910.00	20.00	0.00	0	0		
									point8	8	2,762.4	3,840.3	910.00	20.00					
Barrier22	W	0.00	99.99	0.00				0.00	point76	76	4,342.1	4,270.8	910.00	20.00	0.00	0	0		
									point10	10	4,706.6	4,267.3	910.00	20.00	0.00	0	0		
									point11	11	4,706.6	4,201.4	910.00	20.00	0.00	0	0		
									point12	12	4,487.9	4,194.4	910.00	20.00	0.00	0	0		
									point13	13	4,491.4	4,149.3	910.00	20.00	0.00	0	0		
									point14	14	4,342.1	4,145.8	910.00	20.00					
Barrier222	W	0.00	99.99	0.00				0.00	point78	78	4,709.4	3,924.9	910.00	20.00	0.00	0	0		
									point16	16	3,899.2	3,927.7	910.00	20.00	0.00	0	0		
									point17	17	3,899.2	4,101.3	910.00	20.00	0.00	0	0		
									point18	18	4,684.6	4,101.3	910.00	20.00					
Barrier2222	W	0.00	99.99	0.00				0.00	point80	80	4,555.1	3,795.4	910.00	20.00	0.00	0	0		
									point30	30	4,714.9	3,795.4	910.00	20.00	0.00	0	0		
									point31	31	4,731.4	3,371.1	910.00	20.00	0.00	0	0		
									point32	32	4,508.2	3,371.1	910.00	20.00	0.00	0	0		
									point33	33	4,508.2	3,599.8	910.00	20.00					
Barrier22222	W	0.00	99.99	0.00				0.00	point82	82	4,921.5	3,351.8	910.00	20.00	0.00	0	0		
									point20	20	5,255.0	3,360.0	910.00	20.00	0.00	0	0		
									point21	21	5,241.2	3,671.4	910.00	20.00	0.00	0	0		
									point22	22	5,348.7	3,668.6	910.00	20.00	0.00	0	0		
									point23	23	5,334.9	3,743.0	910.00	20.00	0.00	0	0		
									point24	24	4,907.8	3,745.8	910.00	20.00					
Barrier222222	W	0.00	99.99	0.00				0.00	point84	84	5,460.9	4,249.2	910.00	20.00	0.00	0	0		
									point74	74	6,860.8	4,260.2	910.00	20.00	0.00	0	0		
									point2	2	6,877.3	3,940.6	910.00	20.00					
Barrier2222222	W	0.00	99.99	0.00				0.00	point86	86	5,224.5	3,074.3	910.00	20.00	0.00	0	0		
									point39	39	6,194.5	3,068.8	910.00	20.00	0.00	0	0		
									point40	40	6,202.7	2,713.4	910.00	20.00					
Barrier22222222	W	0.00	99.99	0.00				0.00	point88	88	4,957.2	2,862.2	910.00	20.00	0.00	0	0		

									point42	42	5,144.6	2,864.9	910.00	20.00	0.00	0	0		
									point43	43	5,144.6	2,509.5	910.00	20.00	0.00	0	0		
									point44	44	4,904.9	2,495.7	910.00	20.00					
Barrier2222222222	W	0.00	99.99	0.00				0.00	point90	90	2,577.7	3,039.6	910.00	20.00	0.00	0	0		
									point46	46	3,422.2	3,029.2	910.00	20.00	0.00	0	0		
									point47	47	3,430.9	2,478.9	910.00	20.00					
Barrier222222222222	W	0.00	99.99	0.00				0.00	point92	92	2,594.3	1,856.3	910.00	20.00	0.00	0	0		
									point56	56	4,736.5	1,863.2	910.00	20.00					
Barrier2222222222222	W	0.00	99.99	0.00				0.00	point94	94	5,472.9	3,577.8	910.00	20.00	0.00	0	0		
									point35	35	6,663.7	3,605.5	910.00	20.00	0.00	0	0		
									point36	36	6,670.7	3,431.9	910.00	20.00	0.00	0	0		
									point37	37	5,483.3	3,418.1	910.00	20.00					
Barrier22222222222222	W	0.00	99.99	0.00				0.00	point96	96	4,943.6	4,283.2	910.00	20.00	0.00	0	0		
									point26	26	5,084.1	4,283.2	910.00	20.00	0.00	0	0		
									point27	27	5,081.4	4,134.3	910.00	20.00	0.00	0	0		
									point28	28	4,929.8	4,137.1	910.00	20.00					
Barrier2222222222222222	W	0.00	99.99	0.00				0.00	point98	98	4,786.1	822.5	910.00	20.00	0.00	0	0		
									point61	61	4,772.4	1,514.6	910.00	20.00	0.00	0	0		
									point62	62	1,711.6	1,512.8	910.00	20.00					
Barrier22222222222222222	W	0.00	99.99	0.00				0.00	point100	100	2,549.1	2,394.9	910.00	20.00	0.00	0	0		
									point53	53	3,841.7	2,410.2	910.00	20.00	0.00	0	0		
									point54	54	4,753.8	2,397.1	910.00	20.00					
Barrier222222222222222222	W	0.00	99.99	0.00				0.00	point102	102	3,573.5	2,911.6	910.00	20.00	0.00	0	0		
									point49	49	3,574.6	2,696.2	910.00	20.00	0.00	0	0		
									point50	50	3,704.2	2,696.8	910.00	20.00	0.00	0	0		
									point51	51	3,704.2	2,920.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point104	104	1,622.2	1,897.9	910.00	20.00	0.00	0	0		
									point58	58	2,445.1	1,880.6	910.00	20.00	0.00	0	0		
									point59	59	2,472.8	3,054.1	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point106	106	5,003.4	828.7	910.00	20.00	0.00	0	0		
									point64	64	4,965.3	1,566.7	910.00	20.00	0.00	0	0		
									point65	65	7,472.4	1,541.1	910.00	20.00	0.00	0	0		
									point66	66	7,516.0	962.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point108	108	5,216.7	2,201.5	910.00	20.00	0.00	0	0		
									point71	71	5,216.7	1,877.8	910.00	20.00	0.00	0	0		
									point72	72	6,940.2	1,856.0	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point110	110	7,670.7	985.5	910.00	20.00	0.00	0	0		
									point68	68	7,648.8	1,650.4	910.00	20.00	0.00	0	0		
									point69	69	8,033.8	1,641.6	910.00	20.00					

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6 August 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 12296
RUN: Oakmont Mntclr-OpngYr 2024 Rev072121
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
ST2	2	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
ST3	3	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
ST4	4	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
ST5	5	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
ST6	6	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
ST7	7	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Dudek					**6 August 2021**							
MG					**TNM 2.5**							
INPUT: ROADWAYS								**Average pavement type shall be used unless**				
PROJECT/CONTRACT:	**PN 12296**							**a State highway agency substantiates the use**				
RUN:	**OkmtMntclr-OpngYr wP 2024 Rev072121**							**of a different type with the approval of FHWA**				
Roadway		**Points**										
Name	**Width**	**Name**	**No.**	**Coordinates (pavement)**				**Flow Control**			**Segment**	
				X	**Y**	**Z**		**Control Device**	**Speed Constraint**	**Percent Vehicles Affected**	**Pvmt Type**	**On Struct?**
	ft			ft	ft	ft			mph	%		
Holt Blvd. w. of Ramona Ave.	90.0	point1	1	2,455.3	4,426.9	910.00					Average	
		point3	3	2,708.8	4,424.1	910.00					Average	
		point4	4	3,298.5	4,426.9	910.00					Average	
		point5	5	4,008.0	4,425.5	910.00					Average	
		point6	6	4,797.5	4,426.6	910.00						
Ramona Ave n. of Holt Blvd	55.0	point70	70	4,804.5	5,889.7	910.00					Average	
		point10	10	4,804.5	4,432.3	910.00						
Monte Vista Ave. n. of Mission Blvd.	45.0	point72	72	7,533.0	2,365.6	910.00					Average	
		point30	30	7,558.4	1,736.2	910.00						
Silicon Ave	25.0	point74	74	2,497.3	3,080.4	910.00					Average	
		point34	34	2,494.5	2,449.5	910.00					Average	
		point35	35	2,491.8	2,441.2	910.00					Average	
		point36	36	2,501.8	1,781.9	910.00						
Mission Blvd. - w. of Silicon Ave	116.0	point76	76	1,483.5	1,758.0	910.00					Average	
		point58	58	2,499.0	1,765.0	910.00						
Co. Rd. 20010	20.0	point78	78	3,751.2	3,118.7	910.00					Average	
		point56	56	3,750.3	2,464.6	910.00						
State St. w. of Ramona Ave.	40.0	point80	80	2,533.0	3,104.8	910.00					Average	
		point38	38	3,844.6	3,135.1	910.00					Average	
		point39	39	3,878.5	3,136.0	910.00					Average	
		point40	40	4,385.5	3,147.1	910.00					Average	
		point41	41	4,404.8	3,149.8	910.00					Average	
		point42	42	5,168.1	3,167.3	910.00						
3rd St	44.0	point82	82	2,530.9	2,450.5	910.00					Average	
		point52	52	3,732.3	2,453.2	910.00					Average	

		point53	53	3,764.1	2,453.5	910.00				Average	
		point54	54	3,893.6	2,457.7	910.00					
Holt Blvd. e. of Ramona Ave.	90.0	point84	84	4,821.0	4,426.8	910.00				Average	
		point8	8	6,190.4	4,421.3	910.00					
Ramona Ave s. of Holt Blvd	55.0	point86	86	4,801.7	4,421.3	910.00				Average	
		point12	12	4,812.7	3,710.4	910.00				Average	
		point13	13	4,832.0	3,619.4	920.00				Average	
		point14	14	4,854.1	3,506.5	930.00				Average	
		point15	15	4,865.1	3,335.7	930.00				Average	
		point16	16	4,861.8	3,162.3	930.00					
Ramona Ave s. of Holt Blvd - 2	55.0	point87	87	4,861.6	3,158.6	930.00				Average	
		point18	18	4,865.2	2,925.7	910.00				Average	
		point19	19	4,856.9	2,807.2	910.00				Average	
		point20	20	4,848.6	2,708.0	910.00				Average	
		point21	21	4,840.4	2,562.0	910.00				Average	
		point22	22	4,843.6	2,439.5	910.00					
Camulos Ave / Dale St	45.0	point89	89	5,179.1	3,166.3	910.00				Average	
		point46	46	5,198.4	2,593.2	910.00				Average	
		point47	47	5,195.6	2,513.3	910.00				Average	
		point48	48	5,179.1	2,474.7	910.00				Average	
		point49	49	5,146.0	2,449.9	910.00				Average	
		point50	50	4,865.0	2,436.2	910.00					
Mission Blvd. - e. of Ramona Ave	116.0	point91	91	4,857.4	1,749.9	910.00				Average	
		point65	65	6,105.0	1,733.6	910.00				Average	
		point66	66	7,547.8	1,726.1	910.00				Average	
		point68	68	8,264.2	1,721.0	910.00					
Ramona Ave s. of Mission Blvd	55.0	point93	93	4,851.3	1,739.1	910.00				Average	
		point28	28	4,873.3	799.9	910.00					
Mission Blvd. - e. of Silicon Ave	116.0	point95	95	2,516.4	1,764.1	910.00				Average	
		point60	60	3,465.9	1,765.0	910.00				Average	
		point61	61	4,143.9	1,756.2	910.00					
State St. e. of Ramona Ave.	40.0	point97	97	5,199.9	3,168.2	910.00				Average	
		point44	44	6,212.5	3,184.7	910.00					
Mission Blvd. - w. of Ramona Ave	55.0	point99	99	4,155.6	1,756.3	910.00				Average	
		point63	63	4,842.5	1,751.3	910.00					
Ramona Ave n. of Mission Blvd	55.0	point101	101	4,845.2	2,431.4	910.00				Average	
		point24	24	4,840.8	2,129.6	910.00				Average	
		point25	25	4,840.7	2,112.4	910.00				Average	
		point26	26	4,848.6	1,756.2	910.00					

Monte Vista Ave. s. of Mission Blvd.	45.0	point102	102	7,559.2	1,722.7	910.00				Average	
		point32	32	7,616.1	699.1	910.00					

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INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: PN 12296
RUN: OkmtMntclr-OpngYr wP 2024 Rev072121

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Holt Blvd. w. of Ramona Ave.	point1	1	1430	45	39	45	20	45	0	0	0	0
	point3	3	1430	45	39	45	20	45	0	0	0	0
	point4	4	1430	45	39	45	20	45	0	0	0	0
	point5	5	1430	45	39	45	20	45	0	0	0	0
	point6	6										
Ramona Ave n. of Holt Blvd	point70	70	842	35	18	35	2	35	0	0	0	0
	point10	10										
Monte Vista Ave. n. of Mission Blvd.	point72	72	1237	40	27	40	12	40	0	0	0	0
	point30	30										
Silicon Ave	point74	74	91	25	26	25	3	25	0	0	0	0
	point34	34	91	25	26	25	3	25	0	0	0	0
	point35	35	91	25	26	25	3	25	0	0	0	0
	point36	36										
Mission Blvd. - w. of Silicon Ave	point76	76	1960	45	98	45	39	45	0	0	0	0
	point58	58										
Co. Rd. 20010	point78	78	0	0	0	0	0	0	0	0	0	0
	point56	56										
State St. w. of Ramona Ave.	point80	80	516	45	21	45	27	45	0	0	0	0
	point38	38	516	45	21	45	27	45	0	0	0	0
	point39	39	516	45	21	45	27	45	0	0	0	0
	point40	40	516	45	21	45	27	45	0	0	0	0
	point41	41	516	45	21	45	27	45	0	0	0	0
	point42	42										

3rd St	point82	82	44	25	49	25	2	25	0	0	0	0
	point52	52	44	25	49	25	2	25	0	0	0	0
	point53	53	44	25	49	25	2	25	0	0	0	0
	point54	54										
Holt Blvd. e. of Ramona Ave.	point84	84	1254	45	36	45	12	45	0	0	0	0
	point8	8										
Ramona Ave s. of Holt Blvd	point86	86	1359	35	36	35	22	35	0	0	0	0
	point12	12	1359	35	36	35	22	35	0	0	0	0
	point13	13	1359	35	36	35	22	35	0	0	0	0
	point14	14	1359	35	36	35	22	35	0	0	0	0
	point15	15	1359	35	36	35	22	35	0	0	0	0
	point16	16										
Ramona Ave s. of Holt Blvd - 2	point87	87	1359	40	36	40	22	40	0	0	0	0
	point18	18	1359	40	36	40	22	40	0	0	0	0
	point19	19	1359	40	36	40	22	40	0	0	0	0
	point20	20	1359	40	36	40	22	40	0	0	0	0
	point21	21	1359	40	36	40	22	40	0	0	0	0
	point22	22										
Camulos Ave / Dale St	point89	89	128	25	10	25	27	25	0	0	0	0
	point46	46	128	25	10	25	27	25	0	0	0	0
	point47	47	128	25	10	25	27	25	0	0	0	0
	point48	48	128	25	10	25	27	25	0	0	0	0
	point49	49	128	25	10	25	27	25	0	0	0	0
	point50	50										
Mission Blvd. - e. of Ramona Ave	point91	91	2041	45	73	45	51	45	0	0	0	0
	point65	65	2041	45	73	45	51	45	0	0	0	0
	point66	66	2041	45	73	45	51	45	0	0	0	0
	point68	68										
Ramona Ave s. of Mission Blvd	point93	93	1269	45	33	45	2	45	0	0	0	0
	point28	28										
Mission Blvd. - e. of Silicon Ave	point95	95	1971	45	88	45	38	45	0	0	0	0
	point60	60	1971	45	88	45	38	45	0	0	0	0
	point61	61										
State St. e. of Ramona Ave.	point97	97	500	45	17	45	2	45	0	0	0	0
	point44	44										
Mission Blvd. - w. of Ramona Ave	point99	99	2079	45	78	45	40	45	0	0	0	0

	point63	63										
Ramona Ave n. of Mission Blvd	point101	101	1387	45	35	45	4	45	0	0	0	0
	point24	24	1387	45	35	45	4	45	0	0	0	0
	point25	25	1387	45	35	45	4	45	0	0	0	0
	point26	26										
Monte Vista Ave. s. of Mission Blvd.	point102	102	902	40	11	40	5	40	0	0	0	0
	point32	32										

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INPUT: RECEIVERS
PROJECT/CONTRACT: PN 12296
RUN: OkmtMntclr-OpngYr wP 2024 Rev072121

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
ST1	1	1	3,801.7	2,425.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST2	2	1	3,991.7	1,565.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST3	3	1	4,927.4	2,242.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST4	4	1	4,979.9	1,120.5	910.00	5.00	0.00	66	10.0	8.0	Y
ST5	5	1	3,703.6	3,035.4	910.00	5.00	0.00	66	10.0	8.0	Y
ST6	6	1	4,888.9	4,831.8	910.00	5.00	0.00	66	10.0	8.0	Y
ST7	7	1	6,877.3	1,589.4	910.00	5.00	0.00	66	10.0	8.0	Y

Dudek 6 August 2021
MG TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: PN 12296
RUN: OkmtMntclr-OpngYr wP 2024 Rev072121

Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				
		Min	Max	$ per	$ per	Top	Run:Rise	$ per			X	Y	Z	at	Seg Ht	Perturbs		On	Important
				Unit	Unit	Width		Unit						Point	Incre-	#Up	#Dn	Struct?	Reflec-
				Area	Vol.			Length							ment				tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Barrier2	W	0.00	99.99	0.00				0.00	point1	1	2,755.5	4,361.1	910.00	20.00	0.00	0	0		
									point3	3	3,873.4	4,350.6	910.00	20.00	0.00	0	0		
									point4	4	3,876.9	4,104.1	910.00	20.00	0.00	0	0		
									point5	5	3,873.4	3,930.6	910.00	20.00	0.00	0	0		
									point6	6	3,751.9	3,930.6	910.00	20.00	0.00	0	0		
									point7	7	3,748.4	3,840.3	910.00	20.00	0.00	0	0		
									point8	8	2,762.4	3,840.3	910.00	20.00					
Barrier22	W	0.00	99.99	0.00				0.00	point76	76	4,342.1	4,270.8	910.00	20.00	0.00	0	0		
									point10	10	4,706.6	4,267.3	910.00	20.00	0.00	0	0		
									point11	11	4,706.6	4,201.4	910.00	20.00	0.00	0	0		
									point12	12	4,487.9	4,194.4	910.00	20.00	0.00	0	0		
									point13	13	4,491.4	4,149.3	910.00	20.00	0.00	0	0		
									point14	14	4,342.1	4,145.8	910.00	20.00					
Barrier222	W	0.00	99.99	0.00				0.00	point78	78	4,709.4	3,924.9	910.00	20.00	0.00	0	0		
									point16	16	3,899.2	3,927.7	910.00	20.00	0.00	0	0		
									point17	17	3,899.2	4,101.3	910.00	20.00	0.00	0	0		
									point18	18	4,684.6	4,101.3	910.00	20.00					
Barrier2222	W	0.00	99.99	0.00				0.00	point80	80	4,555.1	3,795.4	910.00	20.00	0.00	0	0		
									point30	30	4,714.9	3,795.4	910.00	20.00	0.00	0	0		
									point31	31	4,731.4	3,371.1	910.00	20.00	0.00	0	0		
									point32	32	4,508.2	3,371.1	910.00	20.00	0.00	0	0		
									point33	33	4,508.2	3,599.8	910.00	20.00					
Barrier22222	W	0.00	99.99	0.00				0.00	point82	82	4,921.5	3,351.8	910.00	20.00	0.00	0	0		
									point20	20	5,255.0	3,360.0	910.00	20.00	0.00	0	0		
									point21	21	5,241.2	3,671.4	910.00	20.00	0.00	0	0		
									point22	22	5,348.7	3,668.6	910.00	20.00	0.00	0	0		
									point23	23	5,334.9	3,743.0	910.00	20.00	0.00	0	0		
									point24	24	4,907.8	3,745.8	910.00	20.00					
Barrier222222	W	0.00	99.99	0.00				0.00	point84	84	5,460.9	4,249.2	910.00	20.00	0.00	0	0		
									point74	74	6,860.8	4,260.2	910.00	20.00	0.00	0	0		
									point2	2	6,877.3	3,940.6	910.00	20.00					
Barrier2222222	W	0.00	99.99	0.00				0.00	point86	86	5,224.5	3,074.3	910.00	20.00	0.00	0	0		
									point39	39	6,194.5	3,068.8	910.00	20.00	0.00	0	0		
									point40	40	6,202.7	2,713.4	910.00	20.00					
Barrier22222222	W	0.00	99.99	0.00				0.00	point88	88	4,957.2	2,862.2	910.00	20.00	0.00	0	0		

									point42	42	5,144.6	2,864.9	910.00	20.00	0.00	0	0		
									point43	43	5,144.6	2,509.5	910.00	20.00	0.00	0	0		
									point44	44	4,904.9	2,495.7	910.00	20.00					
Barrier2222222222	W	0.00	99.99	0.00				0.00	point90	90	2,577.7	3,039.6	910.00	20.00	0.00	0	0		
									point46	46	3,422.2	3,029.2	910.00	20.00	0.00	0	0		
									point47	47	3,430.9	2,478.9	910.00	20.00					
Barrier222222222222	W	0.00	99.99	0.00				0.00	point92	92	2,594.3	1,856.3	910.00	20.00	0.00	0	0		
									point56	56	4,736.5	1,863.2	910.00	20.00					
Barrier2222222222222	W	0.00	99.99	0.00				0.00	point94	94	5,472.9	3,577.8	910.00	20.00	0.00	0	0		
									point35	35	6,663.7	3,605.5	910.00	20.00	0.00	0	0		
									point36	36	6,670.7	3,431.9	910.00	20.00	0.00	0	0		
									point37	37	5,483.3	3,418.1	910.00	20.00					
Barrier22222222222222	W	0.00	99.99	0.00				0.00	point96	96	4,943.6	4,283.2	910.00	20.00	0.00	0	0		
									point26	26	5,084.1	4,283.2	910.00	20.00	0.00	0	0		
									point27	27	5,081.4	4,134.3	910.00	20.00	0.00	0	0		
									point28	28	4,929.8	4,137.1	910.00	20.00					
Barrier2222222222222222	W	0.00	99.99	0.00				0.00	point98	98	4,786.1	822.5	910.00	20.00	0.00	0	0		
									point61	61	4,772.4	1,514.6	910.00	20.00	0.00	0	0		
									point62	62	1,711.6	1,512.8	910.00	20.00					
Barrier22222222222222222	W	0.00	99.99	0.00				0.00	point100	100	2,549.1	2,394.9	910.00	20.00	0.00	0	0		
									point53	53	3,841.7	2,410.2	910.00	20.00	0.00	0	0		
									point54	54	4,753.8	2,397.1	910.00	20.00					
Barrier222222222222222222	W	0.00	99.99	0.00				0.00	point102	102	3,573.5	2,911.6	910.00	20.00	0.00	0	0		
									point49	49	3,574.6	2,696.2	910.00	20.00	0.00	0	0		
									point50	50	3,704.2	2,696.8	910.00	20.00	0.00	0	0		
									point51	51	3,704.2	2,920.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point104	104	1,622.2	1,897.9	910.00	20.00	0.00	0	0		
									point58	58	2,445.1	1,880.6	910.00	20.00	0.00	0	0		
									point59	59	2,472.8	3,054.1	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point106	106	5,003.4	828.7	910.00	20.00	0.00	0	0		
									point64	64	4,965.3	1,566.7	910.00	20.00	0.00	0	0		
									point65	65	7,472.4	1,541.1	910.00	20.00	0.00	0	0		
									point66	66	7,516.0	962.9	910.00	20.00					
Barrier2222222222222222222	W	0.00	99.99	0.00				0.00	point108	108	5,216.7	2,201.5	910.00	20.00	0.00	0	0		
									point71	71	5,216.7	1,877.8	910.00	20.00	0.00	0	0		
									point72	72	6,940.2	1,856.0	910.00	20.00					
Barrier22222222222222222222	W	0.00	99.99	0.00				0.00	point110	110	7,670.7	985.5	910.00	20.00	0.00	0	0		
									point68	68	7,648.8	1,650.4	910.00	20.00	0.00	0	0		
									point69	69	8,033.8	1,641.6	910.00	20.00					

Dudek
MG
6 August 2021
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: PN 12296
RUN: OkmtMntclr-OpngYr wP 2024 Rev072121
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
ST1	1	1	0.0	60.4	66	60.4	10	----	60.4	0.0	8	-8.0
ST2	2	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
ST3	3	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
ST4	4	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
ST5	5	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
ST6	6	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
ST7	7	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Noise Reduction Avg	Noise Reduction Max
		dB	dB	dB
All Selected	7	0.0	0.0	0.0
All Impacted	2	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0