

Receptors 1 & 2  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIR**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptors 1 and 2 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			X	Y	Z		mph	%		
90W Street	20.0	point1	1	6,474,748.5	2,065,513.9	0.00	Stop	0.00	100	Average	
		point2	2	6,474,761.0	2,062,746.6	0.00					
Ave L W West of 90W	12.0	point3	3	6,474,761.0	2,062,746.6	0.00				Average	
		point4	4	6,468,360.5	2,062,772.2	0.00					
Ave L W 90-70W	20.0	point5	5	6,481,948.5	2,062,728.4	0.00	Stop	0.00	100	Average	
		point6	6	6,480,172.5	2,062,728.4	0.00					
		point7	7	6,479,820.0	2,062,738.9	0.00					
		point8	8	6,477,450.5	2,062,747.5	0.00					
		point9	9	6,476,004.0	2,062,749.2	0.00					
		point10	10	6,475,421.0	2,062,751.0	0.00				Average	
		point11	11	6,474,762.0	2,062,759.6	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec			13 October 20											
George Dix, Stantec			TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Percentages														
PROJECT/CONTRACT:			Lancaster Solar Project EIR											
RUN:			Receptors 1 and 2 Existing											
Roadway	Points													
Name	Name	No.	Segment	Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
				Volume	P	S	P	S	P	S	P	S	P	S
				veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
90W Street	point1	1		37	96	50	0	0	0	0	1	50	3	50
	point2	2												
Ave L W West of 90W	point3	3		1	97	25	0	0	0	0	0	0	3	25
	point4	4												
Ave L W 90-70W	point5	5		41	96	50	0	0	0	0	1	50	3	50
	point6	6		41	96	50	0	0	0	0	1	50	3	50
	point7	7		41	96	50	0	0	0	0	1	50	3	50
	point8	8		41	96	50	0	0	0	0	1	50	3	50
	point9	9		41	96	50	0	0	0	0	1	50	3	50
	point10	10		41	96	50	0	0	0	0	1	50	3	50
	point11	11												

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptors 1 and 2 Existing									
<b>Receiver</b>											
Name	No.	#DUs	Coordinates (ground)			Height above Ground	Input Sound Levels and Criteria				Active in Calc.
			X	Y	Z		Existing LAeq1h	Impact LAeq1h	Criteria Sub'l	NR Goal	
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 1	1	1	6,475,217.0	2,062,905.1	0.00	4.92	0.00	0	0.0	0.0	Y
Receptor 2	2	1	6,476,889.0	2,062,827.0	0.00	4.92	0.00	0	0.0	0.0	Y

INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec										13 October 2014									
George Dix, Stantec										TNM 2.5									
INPUT: BARRIERS																			
PROJECT/CONTRACT:										Lancaster Solar Project EIR									
RUN:										Receptors 1 and 2 Existing									
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				
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**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR										
<b>RUN:</b>		Receptors 1 and 2 Existing										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			dB	dB	dB	dB			dB	dB	dB	dB
Receptor 1	1	1	0.0	45.8	0	45.8	0	Snd Lvl	45.8	0.0	0	0.0
Receptor 2	2	1	0.0	52.7	0	52.7	0	Snd Lvl	52.7	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		2	0.0	0.0	0.0							
All Impacted		2	0.0	0.0	0.0							
All that meet NR Goal		2	0.0	0.0	0.0							

Receptors 1 & 2  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages****Lancaster Solar Project EIR**

<b>Stantec</b>														
<b>George Dix, Stantec</b>														
<b>INPUT: TRAFFIC FOR LAeq1h Percentages</b>														
<b>PROJECT/CONTRACT:</b>		<b>Lancaster Solar Project EIR</b>												
<b>RUN:</b>		<b>Receptors 1 and 2 Existing</b>												
<b>Roadway</b>		<b>Points</b>												
<b>Name</b>		<b>Name</b>	<b>No.</b>	<b>Segment</b>	<b>Autos</b>		<b>MTrucks</b>		<b>HTrucks</b>		<b>Buses</b>		<b>Motorcycles</b>	
				<b>Total</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>
				veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
90W Street		point1	1	38	95	50	0	0	1	50	1	50	3	50
		point2	2											
Ave L W West of 90W		point3	3	2	50	25	0	0	49	25	0	0	1	25
		point4	4											
Ave L W 90-70W		point5	5	42	95	50	0	0	1	50	1	50	3	50
		point6	6	42	95	50	0	0	1	50	1	50	3	50
		point7	7	42	95	50	0	0	1	50	1	50	3	50
		point8	8	42	95	50	0	0	1	50	1	50	3	50
		point9	9	42	95	50	0	0	1	50	1	50	3	50
		point10	10	42	95	50	0	0	1	50	1	50	3	50
		point11	11											



**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014					
George Dix, Stantec							TNM 2.5					
<b>INPUT: RECEIVERS</b>												
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR									
<b>RUN:</b>			Receptors 1 and 2 Existing									
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>	
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>	
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receptor 1	1	1	6,475,217.0	2,062,905.1	0.00	4.92	45.80	0	0.0	0.0	Y	
Receptor 2	2	1	6,476,889.0	2,062,827.0	0.00	4.92	52.70	0	0.0	0.0	Y	

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR										
<b>RUN:</b>		Receptors 1 and 2 Existing										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			<b>dB</b>	<b>dB</b>	<b>dB</b>	<b>dB</b>			<b>dB</b>	<b>dB</b>	<b>dB</b>	<b>dB</b>
Receptor 1	1	1	45.8	46.4	0	0.6	0	Both	46.4	0.0	0	0.0
Receptor 2	2	1	52.7	53.1	0	0.4	0	Both	53.1	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		2	0.0	0.0	0.0							
All Impacted		2	0.0	0.0	0.0							
All that meet NR Goal		2	0.0	0.0	0.0							

Receptor 3  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIR**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptor 3 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control	Speed	Percent	Pvmt	On
				X	Y	Z	Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	%		
Ave L W 60-50W	56.0	point1	1	6,495,827.5	2,062,732.4	0.00	Signal	0.00	100	Average	
		point2	2	6,490,601.0	2,062,747.9	0.00					
Roadway2	56.0	point3	3	6,490,601.0	2,062,747.9	0.00	Signal	0.00	100	Average	
		point4	4	6,490,479.0	2,062,719.0	0.00				Average	
		point5	5	6,485,311.5	2,062,730.5	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec															
George Dix, Stantec															

13 October 20  
TNM 2.5

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptor 3 Existing

Roadway	Points													
Name	Name	No.	Segment	Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
				<b>Volume</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>
				veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Ave L W 60-50W	point1	1		479	96	50	0	0	0	0	1	50	3	50
	point2	2												
Roadway2	point3	3		183	96	50	0	0	0	0	1	50	3	50
	point4	4		183	96	50	0	0	0	0	1	50	3	50
	point5	5												

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014					
George Dix, Stantec							TNM 2.5					
<b>INPUT: RECEIVERS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR										
<b>RUN:</b>		Receptor 3 Existing										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>	
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>	
						<b>Ground</b>	<b>L<sub>Aeq</sub>1h</b>	<b>L<sub>Aeq</sub>1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receptor 3	1	1	6,491,109.5	2,062,908.5	0.00	4.92	0.00	0	0.0	0.0	Y	

INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec		13 October 2014																		
George Dix, Stantec		TNM 2.5																		
INPUT: BARRIERS																				
PROJECT/CONTRACT:		Lancaster Solar Project EIR																		
RUN:		Receptor 3 Existing																		
Barrier									Points											
Name	Type	Height		If Wall		If Berm			Add'tnl \$ per Unit Length	Name	No.	Coordinates (bottom)			Height at Point	Segment				Important
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise ft:ft	X				Y	Z	Incre- ment		#Up	#Dn	Struct?	Reflec- tions?	
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft				
Barrier1	W	5.00	5.00	0.00				0.00	point1	1	6,491,579.5	2,063,397.5	0.00	5.00	0.00	0	0			
									point2	2	6,491,581.0	2,062,803.8	0.00	5.00	0.00	0	0			
									point3	3	6,491,331.0	2,062,803.8	0.00	5.00	0.00	0	0			
									point4	4	6,491,143.5	2,062,812.9	0.00	5.00	0.00	0	0			
									point5	5	6,490,700.5	2,062,816.8	0.00	5.00	0.00	0	0			
									point6	6	6,490,670.5	2,062,853.2	0.00	5.00	0.00	0	0			
									point7	7	6,490,655.0	2,063,777.8	0.00	5.00						

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014		
George Dix, Stantec													TNM 2.5		
													Calculated with TNM 2.5		
<b>RESULTS: SOUND LEVELS</b>															
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR												
<b>RUN:</b>			Receptor 3 Existing												
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.		
<b>ATMOSPHERICS:</b>			68 deg F, 50% RH												
<b>Receiver</b>															
<b>Name</b>		<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>			<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
					<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Goal</b>	<b>Calculated minus Goal</b>	
								<b>Sub'l Inc</b>							
				dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	
Receptor 3		1	1	0.0	53.5	0	53.5	0	Snd Lvl	53.5	0.0	0	0.0		
<b>Dwelling Units</b>			<b># DUs</b>	<b>Noise Reduction</b>											
				<b>Min</b>	<b>Avg</b>	<b>Max</b>									
				<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			1	0.0	0.0	0.0									



Receptor 3  
Construction Noise Level Analysis

INPUT: TRAFFIC FOR LAeq1h Percentages

Lancaster Solar Project EIR

Stantec								13 October 20					
George Dix, Stantec								TNM 2.5					

INPUT: TRAFFIC FOR LAeq1h Percentages

PROJECT/CONTRACT:	Lancaster Solar Project EIR
RUN:	Receptor 3 Existing

Roadway	Points												
Name	Name	No.	Segment										
			Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Volume	P	S	P	S	P	S	P	S	P	S
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Ave L W 60-50W	point1	1	480	95	50	0	0	1	50	1	50	3	50
	point2	2											
Roadway2	point3	3	184	95	50	0	0	1	50	1	50	3	50
	point4	4	184	95	50	0	0	1	50	1	50	3	50
	point5	5											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 3 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 3	1	1	6,491,109.5	2,062,908.5	0.00	4.92	53.50	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR										
<b>RUN:</b>		Receptor 3 Existing										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			dB	dB	dB	dB			dB	dB	dB	dB
Receptor 3	1	1	53.5	54.4	0	0.9	0	Both	54.4	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		1	0.0	0.0	0.0							
All Impacted		1	0.0	0.0	0.0							
All that meet NR Goal		1	0.0	0.0	0.0							

Receptor 4  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIR**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptor 4 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control	Speed	Percent	Pvmt	On
				X	Y	Z	Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	%		
Ave L W 60-50W	56.0	point1	1	6,495,860.5	2,062,732.9	0.00				Average	
		point2	2	6,494,039.5	2,062,735.9	0.00					
Ave L W 50-45W	56.0	point3	3	6,498,497.5	2,062,712.6	0.00	Signal	0.00	100	Average	
		point4	4	6,495,860.5	2,062,732.9	0.00					
Ave L W 45-42W	56.0	point5	5	6,499,803.0	2,062,714.4	0.00	Signal	0.00	100	Average	
		point6	6	6,498,497.5	2,062,712.6	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec		13 October 20											
George Dix, Stantec		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Percentages													
PROJECT/CONTRACT:		Lancaster Solar Project EIR											
RUN:		Receptor 4 Existing											
Roadway	Points												
Name	Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
				P	S	P	S	P	S	P	S	P	S
			Total	%	mph	%	mph	%	mph	%	mph	%	mph
			Volume										
			veh/hr										
Ave L W 60-50W	point1	1	479	96	50	0	0	0	0	1	50	3	50
	point2	2											
Ave L W 50-45W	point3	3	625	96	50	0	0	0	0	1	50	3	50
	point4	4											
Ave L W 45-42W	point5	5	625	96	50	0	0	0	0	1	50	3	50
	point6	6											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 4 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 5	1	1	6,496,491.5	2,062,665.5	0.00	4.92	0.00	0	0.0	0.0	Y



INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec										13 October 2014									
George Dix, Stantec										TNM 2.5									
INPUT: BARRIERS																			
PROJECT/CONTRACT:										Lancaster Solar Project EIR									
RUN:										Receptor 4 Existing									
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				
<< This table is empty >>																			

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014	
George Dix, Stantec													TNM 2.5	
													Calculated with TNM 2.5	
<b>RESULTS: SOUND LEVELS</b>														
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR											
<b>RUN:</b>			Receptor 4 Existing											
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS											
<b>ATMOSPHERICS:</b>			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.														
<b>Receiver</b>														
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>			<b>Type</b>	<b>With Barrier</b>					
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>				
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>		
			dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	
Receptor 5	1	1	0.0	66.7	0	66.7	0	Snd Lvl	66.7	0.0	0	0.0	0.0	
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>											
			<b>Min</b>	<b>Avg</b>	<b>Max</b>									
			<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected		1	0.0	0.0	0.0									
All Impacted		1	0.0	0.0	0.0									
All that meet NR Goal		1	0.0	0.0	0.0									

Receptor 4  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

<b>Stantec</b>													
<b>George Dix, Stantec</b>													
<b>INPUT: TRAFFIC FOR LAeq1h Percentages</b>													
<b>PROJECT/CONTRACT:</b>		<b>Lancaster Solar Project EIR</b>											
<b>RUN:</b>		<b>Receptor 4 Construction</b>											
<b>Roadway</b>		<b>Points</b>											
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Segment</b>	<b>Autos</b>		<b>MTrucks</b>		<b>HTrucks</b>		<b>Buses</b>		<b>Motorcycles</b>	
			<b>Total</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>
			<b>Volume</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>
			<b>veh/hr</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>
Ave L W 60-50W	point1	1	480	95	50	0	0	1	50	1	50	3	50
	point2	2											
Ave L W 50-45W	point3	3	626	95	50	0	0	1	50	1	50	3	50
	point4	4											
Ave L W 45-42W	point5	5	626	95	50	0	0	1	50	1	50	3	50
	point6	6											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 4 Construction									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 5	1	1	6,496,491.5	2,062,665.5	0.00	4.92	66.70	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR										
<b>RUN:</b>		Receptor 4 Construction										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receptor 5	1	1	66.7	67.0	0	0.3	0	Both	67.0	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		1	0.0	0.0	0.0							
All Impacted		1	0.0	0.0	0.0							
All that meet NR Goal		1	0.0	0.0	0.0							

Receptor 5  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIS**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIS

**RUN:** Receptor 5 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control	Speed	Percent	Pvmt	On
				X	Y	Z	Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	%		
Ave L W 35-30W	90.0	point1	1	6,504,699.0	2,062,717.1	0.00	Signal	0.00	100	Average	
		point2	2	6,503,824.0	2,062,717.1	0.00					
Ave L W 40-35W	90.0	point3	3	6,503,824.0	2,062,717.1	0.00	Signal	0.00	100	Average	
		point4	4	6,501,115.5	2,062,708.5	0.00					
Ave L W 42-40W	90.0	point5	5	6,501,115.5	2,062,708.5	0.00				Average	
		point6	6	6,499,544.5	2,062,701.5	0.00					



**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIS**

Stantec			13 October 20																									
George Dix, Stantec			TNM 2.5																									
INPUT: TRAFFIC FOR LAeq1h Percentages																												
PROJECT/CONTRACT:			Lancaster Solar Project EIS																									
RUN:			Receptor 5 Existing																									
Roadway			Points																									
Name			Name		No.		Segment		Total		Autos		MTrucks		HTrucks		Buses		Motorcycles									
							Total		P		S		P		S		P		S									
							veh/hr		%		mph		%		mph		%		mph									
Ave L W 35-30W			point1		1		1033		97		50		1		50		0		0		1		50		1		50	
			point2		2																							
Ave L W 40-35W			point3		3		946		97		50		1		50		0		0		1		50		1		50	
			point4		4																							
Ave L W 42-40W			point5		5		946		97		50		1		50		0		0		1		50		1		50	
			point6		6																							

**INPUT: RECEIVERS**

**Lancaster Solar Project EIS**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIS									
<b>RUN:</b>		Receptor 5 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 5	1	1	6,502,285.0	2,062,794.0	0.00	4.92	0.00	0	0.0	0.0	Y

Stantec		13 October 2014																	
George Dix, Stantec		TNM 2.5																	
INPUT: BARRIERS																			
PROJECT/CONTRACT:		Lancaster Solar Project EIS																	
RUN:		Receptor 5 Existing																	
Barrier									Points										
Name	Type	Height		If Wall		If Berm			Add'tnl \$ per Unit Length	Name	No.	Coordinates (bottom)			Height at Point	Segment			
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise ft:ft	X				Y	Z	Seg Ht		Perturbs Incr-	On #Up	Struct? #Dn	Important Reflec- tions?
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft			
Barrier 1	W	4.50	4.50	0.00				0.00	point1	1	6,503,785.5	2,063,000.0	0.00	4.50	0.00	0	0		
									point2	2	6,503,783.0	2,062,787.8	0.00	4.50	0.00	0	0		
									point3	3	6,503,767.0	2,062,774.6	0.00	4.50	0.00	0	0		
									point4	4	6,502,510.5	2,062,777.2	0.00	4.50	0.00	0	0		
									point5	5	6,502,497.5	2,062,796.9	0.00	4.50					
Barrier 2	W	4.50	4.50	0.00				0.00	point6	6	6,502,452.0	2,062,796.9	0.00	4.50	0.00	0	0		
									point7	7	6,502,439.0	2,062,776.0	0.00	4.50	0.00	0	0		
									point8	8	6,501,206.0	2,062,769.5	0.00	4.50	0.00	0	0		
									point9	9	6,501,181.0	2,062,794.2	0.00	4.50	0.00	0	0		
									point10	10	6,501,180.0	2,062,904.9	0.00	4.50					

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIS**

Stantec													13 October 2014		
George Dix, Stantec													TNM 2.5		
													Calculated with TNM 2.5		
<b>RESULTS: SOUND LEVELS</b>															
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIS												
<b>RUN:</b>			Receptor 5 Existing												
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS												
<b>ATMOSPHERICS:</b>			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.															
<b>Receiver</b>															
<b>Name</b>		<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>			<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
					<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Goal</b>	<b>Calculated minus Goal</b>	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	dB
Receptor 5		1	1	0.0	63.1	0	63.1	0	Snd Lvl	63.1	0.0	0	0	0.0	
<b>Dwelling Units</b>			<b># DUs</b>	<b>Noise Reduction</b>											
				<b>Min</b>	<b>Avg</b>	<b>Max</b>									
				<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			1	0.0	0.0	0.0									

Receptor 5  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIS**

Stantec			13 October 20																	
George Dix, Stantec			TNM 2.5																	
INPUT: TRAFFIC FOR LAeq1h Percentages																				
PROJECT/CONTRACT:			Lancaster Solar Project EIS																	
RUN:			Receptor 5 Construction																	
Roadway			Points																	
Name			Name		No.		Segment		Total		Autos		MTrucks		HTrucks		Buses		Motorcycles	
							Total		P		S		P		S		P		S	
							Volume		%		mph		%		mph		%		mph	
							veh/hr		%		mph		%		mph		%		mph	
Ave L W 35-30W			point1		1		1034		96		50		1		50		1		50	
			point2		2															
Ave L W 40-35W			point3		3		947		96		50		1		50		1		50	
			point4		4															
Ave L W 42-40W			point5		5		947		96		50		1		50		1		50	
			point6		6															

**INPUT: RECEIVERS**

**Lancaster Solar Project EIS**

Stantec											13 October 2014
George Dix, Stantec											TNM 2.5
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>											Lancaster Solar Project EIS
<b>RUN:</b>											Receptor 5 Construction
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 5	1	1	6,502,285.0	2,062,794.0	0.00	4.92	63.10	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIS**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIS										
<b>RUN:</b>		Receptor 5 Construction										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Calculated</b>
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receptor 5	1	1	63.1	63.5	0	0.4	0	Both	63.5	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		1	0.0	0.0	0.0							
All Impacted		1	0.0	0.0	0.0							
All that meet NR Goal		1	0.0	0.0	0.0							



Receptor 6  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIS**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIS

**RUN:** Receptor 6 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control	Speed	Percent	Pvmt	On
				X	Y	Z	Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	%		
Ave L W East of 20W	90.0	point3	3	6,513,960.0	2,062,747.0	0.00	Signal	0.00	100	Average	
		point4	4	6,511,856.0	2,062,762.6	0.00					
Ave L W 25-20W	90.0	point5	5	6,511,856.0	2,062,762.6	0.00	Signal	0.00	100	Average	
		point6	6	6,509,173.5	2,062,747.0	0.00					
Ave L W 30-25W	90.0	point7	7	6,509,173.5	2,062,747.0	0.00	Signal	0.00	100	Average	
		point8	8	6,507,163.0	2,062,731.4	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIS**

Stantec			13 October 20																									
George Dix, Stantec			TNM 2.5																									
INPUT: TRAFFIC FOR LAeq1h Percentages																												
PROJECT/CONTRACT:			Lancaster Solar Project EIS																									
RUN:			Receptor 6 Existing																									
Roadway			Points																									
Name			Name		No.		Segment		Total		Autos		MTrucks		HTrucks		Buses		Motorcycles									
							Total		P		S		P		S		P		S									
							Volume		%		mph		%		mph		%		mph									
							veh/hr		%		mph		%		mph		%		mph									
Ave L W East of 20W			point3		3		1233		97		50		1		50		0		0		1		50		1		50	
			point4		4																							
Ave L W 25-20W			point5		5		1212		97		50		1		50		0		0		1		50		1		50	
			point6		6																							
Ave L W 30-25W			point7		7		1271		97		50		1		50		0		0		1		50		1		50	
			point8		8																							

**INPUT: RECEIVERS**

**Lancaster Solar Project EIS**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIS									
<b>RUN:</b>		Receptor 6 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 6	1	1	6,511,055.5	2,062,849.5	0.00	4.92	0.00	0	0.0	0.0	Y

Stantec		13 October 2014																	
George Dix, Stantec		TNM 2.5																	
INPUT: BARRIERS																			
PROJECT/CONTRACT:		Lancaster Solar Project EIS																	
RUN:		Receptor 6 Existing																	
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-
		ft	ft	Area	Vol.			Length			ft	ft	ft	ft	ment				tions?
				\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft											
Barrier1	W	4.50	4.50	0.00				0.00	point1	1	6,511,798.5	2,063,437.1	0.00	4.50	0.00	0	0		
									point2	2	6,511,783.0	2,062,840.8	0.00	4.50	0.00	0	0		
									point3	3	6,511,757.0	2,062,809.5	0.00	4.50	0.00	0	0		
									point4	4	6,511,233.5	2,062,806.9	0.00	4.50	0.00	0	0		
									point5	5	6,511,220.5	2,062,822.5	0.00	4.50					
Barrier 2	W	4.50	4.50	0.00				0.00	point6	6	6,510,906.5	2,062,818.4	0.00	4.50	0.00	0	0		
									point7	7	6,510,919.0	2,062,813.1	0.00	4.50	0.00	0	0		
									point8	8	6,511,146.0	2,062,813.1	0.00	4.50	0.00	0	0		
									point9	9	6,511,156.0	2,062,820.1	0.00	4.50					
Barrier 3	W	4.50	4.50	0.00				0.00	point10	10	6,510,833.0	2,062,845.2	0.00	4.50	0.00	0	0		
									point11	11	6,510,833.0	2,062,818.4	0.00	4.50	0.00	0	0		
									point12	12	6,510,813.0	2,062,809.8	0.00	4.50	0.00	0	0		
									point13	13	6,510,635.0	2,062,808.9	0.00	4.50	0.00	0	0		
									point14	14	6,510,622.0	2,062,815.8	0.00	4.50	0.00	0	0		
									point15	15	6,510,621.0	2,063,045.0	0.00	4.50					
Barrier 4	W	4.50	4.50	0.00				0.00	point16	16	6,510,474.0	2,062,873.2	0.00	4.50	0.00	0	0		
									point17	17	6,510,472.5	2,062,826.8	0.00	4.50	0.00	0	0		
									point18	18	6,510,457.0	2,062,818.1	0.00	4.50	0.00	0	0		
									point19	19	6,510,093.5	2,062,818.1	0.00	4.50	0.00	0	0		
									point20	20	6,510,095.0	2,062,883.6	0.00	4.50					

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIS**

Stantec													13 October 2014		
George Dix, Stantec													TNM 2.5		
													Calculated with TNM 2.5		
<b>RESULTS: SOUND LEVELS</b>															
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIS												
<b>RUN:</b>			Receptor 6 Existing												
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS												
<b>ATMOSPHERICS:</b>			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.															
<b>Receiver</b>															
<b>Name</b>		<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>			<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
					<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Goal</b>	<b>Calculated minus Goal</b>	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	dB
Receptor 6		1	1	0.0	62.6	0	62.6	0	Snd Lvl	62.6	0.0	0	0	0.0	
<b>Dwelling Units</b>			<b># DUs</b>	<b>Noise Reduction</b>											
				<b>Min</b>	<b>Avg</b>	<b>Max</b>									
				<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			1	0.0	0.0	0.0									

Receptor 6  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIS**

Stantec			13 October 20																	
George Dix, Stantec			TNM 2.5																	
INPUT: TRAFFIC FOR LAeq1h Percentages																				
PROJECT/CONTRACT:			Lancaster Solar Project EIS																	
RUN:			Receptor 6 Construction																	
Roadway			Points																	
Name			Name		No.		Segment		Total		Autos		MTrucks		HTrucks		Buses		Motorcycles	
							Total		P		S		P		S		P		S	
							Volume		%		mph		%		mph		%		mph	
							veh/hr		%		mph		%		mph		%		mph	
Ave L W East of 20W			point3		3		1234		96		50		1		50		1		50	
			point4		4															
Ave L W 25-20W			point5		5		1213		96		50		1		50		1		50	
			point6		6															
Ave L W 30-25W			point7		7		1272		96		50		1		50		1		50	
			point8		8															



**INPUT: RECEIVERS**

**Lancaster Solar Project EIS**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIS									
<b>RUN:</b>		Receptor 6 Construction									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 6	1	1	6,511,055.5	2,062,849.5	0.00	4.92	62.60	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIS**

Stantec		13 October 2014										
George Dix, Stantec		TNM 2.5										
		Calculated with TNM 2.5										
<b>RESULTS: SOUND LEVELS</b>												
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIS										
<b>RUN:</b>		Receptor 6 Construction										
<b>BARRIER DESIGN:</b>		INPUT HEIGHTS										
<b>ATMOSPHERICS:</b>		68 deg F, 50% RH										
<b>Receiver</b>												
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Calculated</b>
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>
			dB	dB	dB	dB	dB		dB	dB	dB	dB
Receptor 6	1	1	62.6	63.2	0	0.6	0	Both	63.2	0.0	0	0.0
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>									
			<b>Min</b>	<b>Avg</b>	<b>Max</b>							
			<b>dB</b>	<b>dB</b>	<b>dB</b>							
All Selected		1	0.0	0.0	0.0							
All Impacted		1	0.0	0.0	0.0							
All that meet NR Goal		1	0.0	0.0	0.0							

Receptor 7  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIR**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptor 7 Existing

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

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement)			Control	Speed	Percent	Pvmt	On
				X	Y	Z	Device	Constraint	Vehicles	Type	Struct?
	ft			ft	ft	ft		mph	%		
Roadway3	82.0	point3	3	6,511,831.5	2,068,070.1	0.00	Signal	0.00	100	Average	
		point4	4	6,509,155.5	2,068,052.5	0.00				Average	
		point5	5	6,506,467.5	2,068,034.9	0.00				Average	
		point6	6	6,503,453.0	2,068,015.2	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec		13 October 20											
George Dix, Stantec		TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Percentages													
PROJECT/CONTRACT:		Lancaster Solar Project EIR											
RUN:		Receptor 7 Existing											
Roadway	Points												
Name	Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Total	P	S	P	S	P	S	P	S	P	S
			Volume	%	mph	%	mph	%	mph	%	mph	%	mph
			veh/hr										
Roadway3	point3	3	1083	97	50	1	50	0	0	1	50	1	50
	point4	4	971	97	50	1	50	0	0	1	50	1	50
	point5	5	875	97	50	1	50	0	0	1	50	1	50
	point6	6											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 7 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 7	1	1	6,508,326.5	2,068,134.2	0.00	4.92	0.00	0	0.0	0.0	Y

INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec										13 October 2014									
George Dix, Stantec										TNM 2.5									
INPUT: BARRIERS																			
PROJECT/CONTRACT:										Lancaster Solar Project EIR									
RUN:										Receptor 7 Existing									
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				
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**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014		
George Dix, Stantec													TNM 2.5		
													Calculated with TNM 2.5		
<b>RESULTS: SOUND LEVELS</b>															
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR												
<b>RUN:</b>			Receptor 7 Existing												
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS												
<b>ATMOSPHERICS:</b>			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.															
<b>Receiver</b>															
<b>Name</b>		<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>			<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>				
					<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Goal</b>	<b>Calculated minus Goal</b>	
								<b>Sub'l Inc</b>							
				dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	
Receptor 7		1	1	0.0	66.0	0	66.0	0	Snd Lvl	66.0	0.0	0	0	0.0	
<b>Dwelling Units</b>			<b># DUs</b>	<b>Noise Reduction</b>											
				<b>Min</b>	<b>Avg</b>	<b>Max</b>									
				<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			1	0.0	0.0	0.0									



Receptor 7  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec		13 October 20											
George Dix, Stantec		TNM 2.5											
<b>INPUT: TRAFFIC FOR LAeq1h Percentages</b>													
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR											
<b>RUN:</b>		Receptor 7 Construction											
<b>Roadway</b>	<b>Points</b>												
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Segment</b>	<b>Autos</b>		<b>MTrucks</b>		<b>HTrucks</b>		<b>Buses</b>		<b>Motorcycles</b>	
			<b>Total</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>
			veh/hr	%	mph	%	mph	%	mph	%	mph	%	mph
Roadway3	point3	3	1084	96	50	1	50	1	50	1	50	1	50
	point4	4	1084	96	50	1	50	1	50	1	50	1	50
	point5	5	1084	96	50	1	50	1	50	1	50	1	50
	point6	6											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 7 Construction									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>L<sub>Aeq</sub>1h</b>	<b>L<sub>Aeq</sub>1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 7	1	1	6,508,326.5	2,068,134.2	0.00	4.92	66.00	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014	
George Dix, Stantec													TNM 2.5	
													Calculated with TNM 2.5	
<b>RESULTS: SOUND LEVELS</b>														
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR											
<b>RUN:</b>			Receptor 7 Construction											
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS											
<b>ATMOSPHERICS:</b>			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.														
<b>Receiver</b>														
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>			<b>Type</b>	<b>With Barrier</b>					
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>				
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>		
			dB	dB	dB	dB	dB		dB	dB	dB	dB		
Receptor 7	1	1	66.0	66.9	0	0.9	0	Both	66.9	0.0	0	0.0		
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>											
			<b>Min</b>	<b>Avg</b>	<b>Max</b>									
			<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected		1	0.0	0.0	0.0									
All Impacted		1	0.0	0.0	0.0									
All that meet NR Goal		1	0.0	0.0	0.0									

Receptor 8  
Ambient Noise Level Analysis

**INPUT: ROADWAYS**

**Lancaster Solar Project EIR**

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

**INPUT: ROADWAYS**

**PROJECT/CONTRACT:** Lancaster Solar Project EIR

**RUN:** Receptor 8 Existing

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

Roadway	Width	Points	No.	Coordinates (pavement)			Flow Control			Segment	
Name		Name		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Roadway1	24.0	point1	1	6,501,032.5	2,068,009.4	0.00				Average	
		point2	2	6,499,795.0	2,068,023.2	0.00					
Roadway2	60.0	point3	3	6,499,795.0	2,068,023.2	0.00	Signal	0.00	100	Average	
		point4	4	6,499,680.0	2,068,038.8	0.00				Average	
		point5	5	6,498,470.0	2,068,047.0	0.00					
Roadway3	80.0	point6	6	6,498,470.0	2,068,047.0	0.00	Signal	0.00	100	Average	
		point7	7	6,498,362.5	2,068,033.1	0.00				Average	
		point8	8	6,496,336.5	2,068,069.2	0.00					
Roadway4	24.0	point9	9	6,496,336.5	2,068,069.2	0.00	Stop	0.00	100	Average	
		point10	10	6,495,791.5	2,068,066.6	0.00					

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec			13 October 20										
George Dix, Stantec			TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Percentages													
PROJECT/CONTRACT:			Lancaster Solar Project EIR										
RUN:			Receptor 8 Existing										
Roadway	Points												
Name	Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			Total	P	S	P	S	P	S	P	S	P	S
			Volume	%	mph	%	mph	%	mph	%	mph	%	mph
			veh/hr										
Roadway1	point1	1	412	98	50	0	0	0	0	1	50	1	50
	point2	2											
Roadway2	point3	3	296	98	50	0	0	0	0	1	50	1	50
	point4	4	296	98	50	0	0	0	0	1	50	1	50
	point5	5											
Roadway3	point6	6	296	98	50	0	0	0	0	1	50	1	50
	point7	7	296	98	50	0	0	0	0	1	50	1	50
	point8	8											
Roadway4	point9	9	296	98	50	0	0	0	0	1	50	1	50
	point10	10											

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 8 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 8	1	1	6,497,950.5	2,067,961.5	0.00	4.92	0.00	0	0.0	0.0	Y



INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec										13 October 2014										
George Dix, Stantec										TNM 2.5										
INPUT: BARRIERS																				
PROJECT/CONTRACT:										Lancaster Solar Project EIR										
RUN:										Receptor 8 Existing										
Barrier										Points										
Name	Type	Height		If Wall		If Berm			Add'tnl \$ per Unit Length	Name	No.	Coordinates (bottom)			Height at Point	Segment				Important
		Min	Max	\$ per Unit Area	\$ per Unit Vol.	Top Width	Run:Rise ft:ft	X				Y	Z	Incre- ment		#Up	#Dn	Struct?	Reflec- tions?	
		ft	ft	\$/sq ft	\$/cu yd	ft	ft:ft	\$/ft				ft	ft	ft	ft	ft				
Barrier1	W	4.50	4.50	0.00				0.00	point1	1	6,497,676.0	2,067,902.5	0.00	4.50	0.00	0	0			
									point2	2	6,497,677.0	2,067,966.8	0.00	4.50	0.00	0	0			
									point3	3	6,497,698.5	2,067,987.6	0.00	4.50	0.00	0	0			
									point4	4	6,498,132.5	2,067,980.6	0.00	4.50	0.00	0	0			
									point5	5	6,498,133.5	2,067,661.2	0.00	4.50						

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014	
George Dix, Stantec													TNM 2.5	
													Calculated with TNM 2.5	
<b>RESULTS: SOUND LEVELS</b>														
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR											
<b>RUN:</b>			Receptor 8 Existing											
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS											
<b>ATMOSPHERICS:</b>			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.														
<b>Receiver</b>														
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>			<b>Type</b>	<b>With Barrier</b>					
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>				
							<b>Sub'l Inc</b>			<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>		
			dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	
Receptor 8	1	1	0.0	56.4	0	56.4	0	Snd Lvl	56.4	0.0	0	0.0	0.0	
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>											
			<b>Min</b>	<b>Avg</b>	<b>Max</b>									
			<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected		1	0.0	0.0	0.0									
All Impacted		1	0.0	0.0	0.0									
All that meet NR Goal		1	0.0	0.0	0.0									

Receptor 8  
Construction Noise Level Analysis

**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

Stantec			13 October 20											
George Dix, Stantec			TNM 2.5											
INPUT: TRAFFIC FOR LAeq1h Percentages														
PROJECT/CONTRACT:			Lancaster Solar Project EIR											
RUN:			Receptor 8 Construction											
Roadway	Points													
Name	Name	No.	Segment	Autos		MTrucks		HTrucks		Buses		Motorcycles		
			Total	P	S	P	S	P	S	P	S	P	S	
			Volume	%	mph	%	mph	%	mph	%	mph	%	mph	
			veh/hr											
Roadway1	point1	1	413	97	50	0	0	1	50	1	50	1	50	
	point2	2												
Roadway2	point3	3	297	97	50	0	0	1	50	1	50	1	50	
	point4	4	297	97	50	0	0	1	50	1	50	1	50	
	point5	5												
Roadway3	point6	6	297	97	50	0	0	1	50	1	50	1	50	
	point7	7	297	97	50	0	0	1	50	1	50	1	50	
	point8	8												
Roadway4	point9	9	297	97	50	0	0	1	50	1	50	1	50	
	point10	10												

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 8 Construction									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 8	1	1	6,497,950.5	2,067,961.5	0.00	4.92	56.40	0	0.0	0.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014		
George Dix, Stantec													TNM 2.5		
													Calculated with TNM 2.5		
<b>RESULTS: SOUND LEVELS</b>															
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR												
<b>RUN:</b>			Receptor 8 Construction												
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS												
													Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.		
<b>ATMOSPHERICS:</b>			68 deg F, 50% RH												
<b>Receiver</b>															
<b>Name</b>		<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>		<b>Type</b>	<b>With Barrier</b>						
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>		<b>Goal</b>	<b>Calculated minus Goal</b>		
							<b>Sub'l Inc</b>								
				dB	dB	dB	dB		dB	dB	dB	dB	dB		
Receptor 8		1	1	56.4	57.2	0	0.8	0	Both	57.2	0.0	0	0.0		
<b>Dwelling Units</b>			<b># DUs</b>	<b>Noise Reduction</b>											
				<b>Min</b>	<b>Avg</b>	<b>Max</b>									
				<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			1	0.0	0.0	0.0									

Receptor 9  
Ambient Noise Level Analysis

INPUT: ROADWAYS

Lancaster Solar Project EIR

Stantec											
George Dix, Stantec											

13 October 2014

TNM 2.5

INPUT: ROADWAYS

PROJECT/CONTRACT: Lancaster Solar Project EIR

RUN: Receptor 9 Existing

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

Roadway	Width	Points	No.	Coordinates (pavement)			Flow Control			Segment	
Name		Name		X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Roadway1	24.0	point1	1	6,492,063.0	2,068,060.1	0.00				Average	
		point2	2	6,496,111.5	2,068,064.4	0.00					
Roadway2	60.0	point3	3	6,491,129.5	2,068,052.5	0.00				Average	
		point4	4	6,492,063.0	2,068,060.1	0.00					
Roadway3	80.0	point5	5	6,491,129.5	2,068,052.5	0.00	Signal	0.00	100	Average	
		point6	6	6,490,649.0	2,068,053.6	0.00				Average	
		point7	7	6,490,498.0	2,068,011.2	0.00				Average	
		point8	8	6,490,134.0	2,068,012.8	0.00				Average	
		point9	9	6,489,812.0	2,068,036.2	0.00				Average	
		point10	10	6,489,247.0	2,068,038.0	0.00					
Roadway4	60.0	point11	11	6,488,675.0	2,068,032.8	0.00				Average	
		point12	12	6,489,247.0	2,068,038.0	0.00					
Roadway5	24.0	point13	13	6,485,302.5	2,068,032.8	0.00				Average	
		point14	14	6,488,675.0	2,068,032.8	0.00					



**INPUT: TRAFFIC FOR LAeq1h Percentages**

**Lancaster Solar Project EIR**

<b>Stantec</b>														
<b>George Dix, Stantec</b>														
<b>INPUT: TRAFFIC FOR LAeq1h Percentages</b>														
<b>PROJECT/CONTRACT:</b>		<b>Lancaster Solar Project EIR</b>												
<b>RUN:</b>		<b>Receptor 9 Existing</b>												
<b>Roadway</b>		<b>Points</b>												
<b>Name</b>	<b>Name</b>	<b>No.</b>	<b>Segment</b>	<b>Autos</b>		<b>MTrucks</b>		<b>HTrucks</b>		<b>Buses</b>		<b>Motorcycles</b>		
			<b>Total</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	<b>P</b>	<b>S</b>	
			<b>Volume</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	
			<b>veh/hr</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	<b>%</b>	<b>mph</b>	
Roadway1	point1	1	238	98	50	0	0	0	0	1	50	1	50	
	point2	2												
Roadway2	point3	3	238	98	50	0	0	0	0	1	50	1	50	
	point4	4												
Roadway3	point5	5	238	98	50	0	0	0	0	1	50	1	50	
	point6	6	238	98	50	0	0	0	0	1	50	1	50	
	point7	7	238	98	50	0	0	0	0	1	50	1	50	
	point8	8	238	98	50	0	0	0	0	1	50	1	50	
	point9	9	238	98	50	0	0	0	0	1	50	1	50	
	point10	10												
Roadway4	point11	11	63	98	50	0	0	0	0	1	50	1	50	
	point12	12												
Roadway5	point13	13	63	98	50	0	0	0	0	1	50	1	50	
	point14	14												

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 9 Existing									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>L<sub>Aeq</sub>1h</b>	<b>L<sub>Aeq</sub>1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 9	1	1	6,489,855.5	2,067,945.0	0.00	4.92	0.00	66	10.0	8.0	Y

INPUT: BARRIERS

Lancaster Solar Project EIR

Stantec		13 October 2014																	
George Dix, Stantec		TNM 2.5																	
INPUT: BARRIERS		Lancaster Solar Project EIR																	
PROJECT/CONTRACT:		Lancaster Solar Project EIR																	
RUN:		Receptor 9 Construction																	
Barrier									Points										
Name	Type	Height		If Wall	If Berm			Add'tnl	Name	No.	Coordinates (bottom)			Height	Segment				Important
		Min	Max	\$ per	\$ per	Top	Run:Rise	\$ per			X	Y	Z	at	Seg Ht	Perturbs	On	Reflec-	
				Unit	Unit	Width		Unit					Point	Incre-	#Up	#Dn	Struct?	Reflec-	
		ft	ft	Area	Vol.		ft:ft	Length			ft	ft	ft	ft	ment			tions?	
				\$/sq ft	\$/cu yd			\$/ft											
Barrier1	W	4.50	4.50	0.00				0.00	point1	1	6,489,243.0	2,067,525.2	0.00	4.50	0.00	0	0		
									point2	2	6,489,242.5	2,067,794.8	0.00	4.50	0.00	0	0		
									point3	3	6,489,341.0	2,067,795.4	0.00	4.50					
Barrier2	W	4.50	4.50	0.00				0.00	point4	4	6,489,270.0	2,067,866.1	0.00	4.50	0.00	0	0		
									point5	5	6,489,270.0	2,067,949.6	0.00	4.50	0.00	0	0		
									point6	6	6,489,299.0	2,067,975.8	0.00	4.50	0.00	0	0		
									point7	7	6,489,822.0	2,067,974.6	0.00	4.50	0.00	0	0		
									point8	8	6,490,192.0	2,067,955.1	0.00	4.50	0.00	0	0		
									point9	9	6,490,454.5	2,067,957.2	0.00	4.50	0.00	0	0		
									point10	10	6,490,480.5	2,067,933.4	0.00	4.50	0.00	0	0		
									point11	11	6,490,495.0	2,067,370.2	0.00	4.50					
Barrier3	W	4.50	4.50	0.00				0.00	point12	12	6,488,704.5	2,068,551.9	0.00	4.50	0.00	0	0		
									point13	13	6,488,709.0	2,068,091.8	0.00	4.50	0.00	0	0		
									point14	14	6,489,181.0	2,068,090.8	0.00	4.50	0.00	0	0		
									point15	15	6,489,209.0	2,068,123.9	0.00	4.50	0.00	0	0		
									point16	16	6,489,207.5	2,068,201.0	0.00	4.50					
Barrier4	W	4.50	4.50	0.00				0.00	point17	17	6,489,270.0	2,068,182.2	0.00	4.50	0.00	0	0		
									point18	18	6,489,270.0	2,068,125.2	0.00	4.50	0.00	0	0		
									point19	19	6,489,290.0	2,068,104.4	0.00	4.50	0.00	0	0		
									point20	20	6,489,477.0	2,068,105.9	0.00	4.50	0.00	0	0		
									point21	21	6,489,530.0	2,068,094.0	0.00	4.50	0.00	0	0		
									point22	22	6,489,728.5	2,068,094.0	0.00	4.50					

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014	
George Dix, Stantec													TNM 2.5	
													Calculated with TNM 2.5	
<b>RESULTS: SOUND LEVELS</b>														
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR											
<b>RUN:</b>			Receptor 9 Existing											
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS											
<b>ATMOSPHERICS:</b>			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.														
<b>Receiver</b>														
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>			<b>Type</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>				
				<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Impact</b>		<b>Calculated</b>	<b>Goal</b>	<b>Calculated</b>	<b>Goal</b>	
							<b>Sub'l Inc</b>					<b>minus</b>	<b>Goal</b>	
			dB	dB	dB	dB	dB		dB	dB	dB	dB	dB	
Receptor 9	1	1	0.0	55.0	0	55.0	0	Snd Lvl	55.0	0.0	0	0.0	0.0	
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>											
			<b>Min</b>	<b>Avg</b>	<b>Max</b>									
			<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected		1	0.0	0.0	0.0									
All Impacted		1	0.0	0.0	0.0									
All that meet NR Goal		1	0.0	0.0	0.0									

Receptor 9  
Construction Noise Level Analysis

INPUT: TRAFFIC FOR LAeq1h Percentages

Lancaster Solar Project EIR

Stantec									13 October 20					
George Dix, Stantec									TNM 2.5					

INPUT: TRAFFIC FOR LAeq1h Percentages

<b>PROJECT/CONTRACT:</b>	Lancaster Solar Project EIR
<b>RUN:</b>	Receptor 9 Construction

Roadway	Points		Segment	Total	Autos		MTrucks		HTrucks		Buses		Motorcycles	
	Name	No.			P	S	P	S	P	S	P	S	P	S
			Volume	%	mph	%	mph	%	mph	%	mph	%	mph	
Roadway1	point1	1	239	97	50	0	0	1	50	1	50	1	50	
	point2	2												
Roadway2	point3	3	239	97	50	0	0	1	50	1	50	1	50	
	point4	4												
Roadway3	point5	5	239	97	50	0	0	1	50	1	50	1	50	
	point6	6	239	97	50	0	0	1	50	1	50	1	50	
	point7	7	239	97	50	0	0	1	50	1	50	1	50	
	point8	8	239	97	50	0	0	1	50	1	50	1	50	
	point9	9	239	97	50	0	0	1	50	1	50	1	50	
	point10	10												
Roadway4	point11	11	64	97	50	0	0	1	50	1	50	1	50	
	point12	12												
Roadway5	point13	13	64	97	50	0	0	1	50	1	50	1	50	
	point14	14												

**INPUT: RECEIVERS**

**Lancaster Solar Project EIR**

Stantec							13 October 2014				
George Dix, Stantec							TNM 2.5				
<b>INPUT: RECEIVERS</b>											
<b>PROJECT/CONTRACT:</b>		Lancaster Solar Project EIR									
<b>RUN:</b>		Receptor 9 Construction									
<b>Receiver</b>											
<b>Name</b>	<b>No.</b>	<b>#DUs</b>	<b>Coordinates (ground)</b>			<b>Height</b>	<b>Input Sound Levels and Criteria</b>				<b>Active</b>
			<b>X</b>	<b>Y</b>	<b>Z</b>	<b>above</b>	<b>Existing</b>	<b>Impact Criteria</b>		<b>NR</b>	<b>in</b>
						<b>Ground</b>	<b>LAeq1h</b>	<b>LAeq1h</b>	<b>Sub'l</b>	<b>Goal</b>	<b>Calc.</b>
			ft	ft	ft	ft	dBA	dBA	dB	dB	
Receptor 9	1	1	6,489,855.5	2,067,945.0	0.00	4.92	55.00	66	10.0	8.0	Y

**RESULTS: SOUND LEVELS**

**Lancaster Solar Project EIR**

Stantec													13 October 2014	
George Dix, Stantec													TNM 2.5	
													Calculated with TNM 2.5	
<b>RESULTS: SOUND LEVELS</b>														
<b>PROJECT/CONTRACT:</b>			Lancaster Solar Project EIR											
<b>RUN:</b>			Receptor 9 Construction											
<b>BARRIER DESIGN:</b>			INPUT HEIGHTS											
<b>ATMOSPHERICS:</b>			68 deg F, 50% RH											
<b>Receiver</b>														
<b>Name</b>														
<b>No.</b>	<b>#DUs</b>	<b>Existing LAeq1h</b>	<b>No Barrier LAeq1h</b>	<b>Increase over existing</b>				<b>Type</b>	<b>With Barrier</b>					
			<b>Calculated</b>	<b>Crit'n</b>	<b>Calculated</b>	<b>Crit'n</b>	<b>Sub'l Inc</b>	<b>Impact</b>	<b>Calculated LAeq1h</b>	<b>Noise Reduction</b>			<b>Calculated</b>	
										<b>Calculated</b>	<b>Goal</b>	<b>Calculated minus Goal</b>		
		dB	dB	dB	dB	dB			dB	dB	dB	dB		
Receptor 9	1	1	55.0	55.6	0	0.6	0	Both	55.6	0.0	0	0.0		
<b>Dwelling Units</b>		<b># DUs</b>	<b>Noise Reduction</b>											
			<b>Min</b>	<b>Avg</b>	<b>Max</b>									
			<b>dB</b>	<b>dB</b>	<b>dB</b>									
All Selected		1	0.0	0.0	0.0									
All Impacted		1	0.0	0.0	0.0									
All that meet NR Goal		1	0.0	0.0	0.0									



Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/21/2014

Case Description:

---- Receptor #1 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Site 1	Residential	58.3	63.8	62.4

Description	Impact Device	Usage(%)	Equipment			Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	
Backhoe	No	40		77.6	20	0
Compactor (ground)	No	20		83.2	20	0
Compressor (air)	No	40		77.7	20	0
Crane	No	16		80.6	20	0
Dozer	No	40		81.7	20	0
Excavator	No	40		80.7	20	0
Flat Bed Truck	No	40		74.3	20	0
Front End Loader	No	40		79.1	20	0
Generator	No	50		80.6	20	0
Grader	No	40	85		20	0
Man Lift	No	20		74.7	20	0
Pickup Truck	No	40		75	20	0
Pneumatic Tools	No	50		85.2	20	0
Roller	No	20		80	20	0
Vibratory Pile Driver	No	20		100.8	20	0

Results

Equipment	Calculated (dBA)			Noise Limits (dBA)				Noise Limit Exceedance (dBA)						
	*Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq	Day Lmax	Leq	Evening Lmax	Leq	Night Lmax	Leq
Backhoe	85.5	81.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	91.2	84.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	85.6	81.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	88.5	80.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	89.6	85.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	88.7	84.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	82.2	78.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	87.1	83.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	88.6	85.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	93	89	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	82.7	75.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	83	79	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	93.1	90.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	88	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Pile Driver	108.8	101.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	108.8	102.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

		Baselines (dBA)		
Descriptor	Land Use	Daytime	Evening	Night
Site 2	Residential	49	46.9	32.6

Description	Impact Device	Usage(%)	Equipment			Estimated Shielding (dBA)
			Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	
Backhoe	No	40		77.6	10	0
Compactor (ground)	No	20		83.2	10	0
Compressor (air)	No	40		77.7	10	0
Crane	No	16		80.6	10	0
Dozer	No	40		81.7	10	0
Excavator	No	40		80.7	10	0
Flat Bed Truck	No	40		74.3	10	0
Front End Loader	No	40		79.1	10	0
Generator	No	50		80.6	10	0
Grader	No	40	85		10	0
Man Lift	No	20		74.7	10	0
Pickup Truck	No	40		75	10	0
Pneumatic Tools	No	50		85.2	10	0
Roller	No	20		80	10	0
Vibratory Pile Driver	No	20		100.8	10	0

Equipment	Results														
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Leq	Lmax	Leq	Lmax	Leq	Lmax	Day	Leq	Lmax	Leq	Lmax	Leq
			Lmax							Evening					
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	97.2	90.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	91.6	87.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	94.5	86.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	95.6	91.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	94.7	90.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	88.2	84.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	93.1	89.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	94.6	91.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	99	95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	88.7	81.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	89	85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	99.2	96.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	94	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Pile Driver	114.8	107.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	114.8	108.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

--- Receptor #3 ---

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use	Site 3 Residential	62.2	54.8	63.4

  

Description	Impact Device	Usage(%)	Equipment			
			Spec Lmax	Actual Lmax	Receptor Distance (feet)	Estimated Shielding (dBA)
			(dBA)	(dBA)		
Backhoe	No	40		77.6	10	0
Compactor (ground)	No	20		83.2	10	0
Compressor (air)	No	40		77.7	10	0
Crane	No	16		80.6	10	0
Dozer	No	40		81.7	10	0
Excavator	No	40		80.7	10	0
Flat Bed Truck	No	40		74.3	10	0
Front End Loader	No	40		79.1	10	0
Generator	No	50		80.6	10	0
Grader	No	40	85		10	0
Man Lift	No	20		74.7	10	0
Pickup Truck	No	40		75	10	0
Pneumatic Tools	No	50		85.2	10	0
Roller	No	20		80	10	0
Vibratory Pile Driver	No	20		100.8	10	0

Equipment	Results														
	Calculated (dBA)			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Leq	Lmax	Leq	Lmax	Leq	Lmax	Day	Leq	Lmax	Leq	Lmax	Leq
			Lmax							Evening					
Backhoe	91.5	87.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	97.2	90.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	91.6	87.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	94.5	86.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	95.6	91.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	94.7	90.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	88.2	84.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	93.1	89.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	94.6	91.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	99	95	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	88.7	81.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	89	85	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	99.2	96.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	94	87	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Pile Driver	114.8	107.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	114.8	108.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

--- Receptor #4 ---

Baselines (dBA)		Daytime	Evening	Night
Descriptor Land Use	Site 4 Residential	65.6	63.7	74

  

Equipment			



Flat Bed Truck	42.2	38.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	47.1	43.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	48.6	45.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	53	49	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	42.7	35.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	43	39	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	53.1	50.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	48	41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Pile Driver	68.8	61.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	68.8	62.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

---- Receptor #6 ----

Baselines (dBA)

Descriptor Land Use	Daytime	Evening	Night
Site 6 Residential	29.4	37.7	34.9

Equipment

Description	Impact Device	Usage(%)	Spec	Actual	Receptor	Estimated
			Lmax (dBA)	Lmax (dBA)	Distance (feet)	Shielding (dBA)
Backhoe	No	40		77.6	75	0
Compactor (ground)	No	20		83.2	75	0
Compressor (air)	No	40		77.7	75	0
Crane	No	16		80.6	75	0
Dozer	No	40		81.7	75	0
Excavator	No	40		80.7	75	0
Flat Bed Truck	No	40		74.3	75	0
Front End Loader	No	40		79.1	75	0
Generator	No	50		80.6	75	0
Grader	No	40	85		75	0
Man Lift	No	20		74.7	75	0
Pickup Truck	No	40		75	75	0
Pneumatic Tools	No	50		85.2	75	0
Roller	No	20		80	75	0
Vibratory Pile Driver	No	20		100.8	75	0

Results

Equipment	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
	*Lmax	Leq	Day	Evening		Night		Day	Evening		Night			
			Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq		
Backhoe	74	70.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	79.7	72.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compressor (air)	74.1	70.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	77	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	78.1	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	77.2	73.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Flat Bed Truck	70.7	66.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	75.6	71.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	77.1	74.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	81.5	77.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	71.2	64.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pickup Truck	71.5	67.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic Tools	81.7	78.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	76.5	69.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vibratory Pile Driver	97.3	90.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	97.3	91.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

\*Calculated Lmax is the Loudest value.

## City of Lancaster Solar Project EIR

### Construction Traffic Noise Analysis

#### Existing Ambient Noise Levels (Hourly Equivalent)\*

Receptor	Noise Level (dBA)
1	45.8
2	52.7
3	53.5
4	66.7
5	63.1
6	62.6
7	66.0
8	56.4
9	55

\* Based on the FHWA Traffic Noise Model using traffic counts provided by the City of Lancaster. Existing retaining walls/barriers were determined from aerial photography and street-level photography.

#### Construction Traffic Impacts (Hourly Equivalent)\*

Receptor	Existing Noise Level (dBA)	Construction Noise Level (dBA)	Increased from Construction Traffic (dBA)
1	45.8	46.4	0.6
2	52.7	53.1	0.4
3	53.5	54.4	0.9
4	66.7	67	0.3
5	63.1	63.5	0.4
6	62.6	63.2	0.6
7	66.0	66.9	0.9
8	56.4	57.2	0.8
9	55	55.6	0.6

\* Based on an estimated 12,168 heavy trucks travelling on W. Avenue K, W. Avenue L, and 90th Street W throughout a 2-year construction period.