Project Plans





MATERIAL LEGEND









– Replace Gate Hardware and Add Kickplate at Existing Pedestrian Gates



Enlargement A - Stadium Accessibility Improvements North Salinas High School Salinas Union High School District Salinas, CA

	MATERIAL LEGEND
SYM	DESCRIPTION
	CONCRETE PAVING
	PROPOSED ASPHALT PAVING
	NATURAL SOD TURF FOR TRENCHING



VERDE DESIGN

LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN 2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7260 www.verdedesigninc.com



	MATERIAL LEGEND
SYM	DESCRIPTION
	CONCRETE PAVING
	PROPOSED ASPHALT PAVING
	NATURAL SOD TURF FOR TRENCHING



Enlargement B - Stadium Accessibility Improvements North Salinas High School Salinas Union High School District Salinas, CA







LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN 2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7260 www.verdedesigninc.com



	MATERIAL LEGEND								
SYM DESCRIPTION									
	PROPOSED CONCRETE PAVING								
	PROPOSED ASPHALT PAVING								



Enlargement C - Stadium Accessibility Improvements North Salinas High School Salinas Union High School District Salinas, CA



VERDE DESIGN



LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN 2455 The Alameda, Ste. 200 Santa Clara, CA 95050 tel: 408.985.7200 fax: 408.985.7260 www.verdedesigninc.com

Musco Lighting Plans



North Salinas High School Salinas,CA

Lighting System

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
F1	90'	90'	1	TLC-LED-1200	1.17 kW	A
		90'	6	TLC-LED-1500	8.46 kW	A
		70'	1	TLC-LED-550	0.54 kW	В
		25'	2	TLC-BT-575	1.15 kW	A
F2	90'	90'	1	TLC-LED-1200	1.17 kW	А
		90'	2	TLC-LED-900	1.76 kW	A
		90'	5	TLC-LED-1500	7.05 kW	A
		70'	1	TLC-LED-550	0.54 kW	В
		25'	2	TLC-BT-575	1.15 kW	A
F3	80'	80'	2	TLC-LED-900	1.76 kW	A
		80'	6	TLC-LED-1500	8.46 kW	A
		70'	1	TLC-LED-550	0.54 kW	В
		16'	2	TLC-BT-575	1.15 kW	A
F4	80'	80'	7	TLC-LED-1500	9.87 kW	A
		70'	1	TLC-LED-550	0.54 kW	В
		16'	2	TLC-BT-575	1.15 kW	A
4			42		46.46 kW	

Circuit Summary											
Circuit	Description	Load	Fixture Qty								
A	Football	44.30 kW	38								
В	Egress	2.16 kW	4								

Fixture Type Summary							
Туре	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8
TLC-LED-1200	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	2
TLC-LED-1500	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	24
TLC-LED-550	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	4
TLC-LED-900	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	4

Single Luminaire Amperage Draw Chart												
Driver Specifications	Line Amperage Per Luminaire											
(.90 min power factor)		(max draw)										
Single Phase Voltage	208	220	240	277	347	380	480					
Single Phase Voltage	(60)	(60)	(60)	(60)	(60)	(60)	(60)					
TLC-BT-575	3.3	3.2	2.9	2.5	2.0	1.8	1.5					
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0					
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6					
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4					
TLC-LED-900	5.2	4.9	4.5	3.9	3.1	2.9	2.3					

Light Level Summary

Grid Name	Calculation Metric			Circuits	Fixture			
Grid Name		Ave	Min	Max	Max/Min	Ave/Min	Circuits	Qty
Away Bleachers	Horizontal Illuminance	7.76	7	9	1.24	1.09	В	4
Football	Horizontal Illuminance	41.08	35	50	1.42	1.18	A	38
Home Bleacher	Horizontal Illuminance	8.18	2	17	9.08	4.32	В	4
Property Spill	Horizontal	0.05	0	0	-	-	A	38
Property Spill	Max Vertical Illuminance Metric	0.10	0	1	-	-	A	38
Property Spill 2	Horizontal Illuminance	0.1265	0.00	0.93	-	-	A	38
Property Spill 2	Max Candela Metric	2783.7424	0.00	18738.53	-	-	A	38
Property Spill 2	Max Vertical Illuminance Metric	0.1797	0.00	0.95	-	-	A	38
Soccer	Horizontal Illuminance	41.20	33	50	1.51	1.25	A	38
Track	Horizontal Illuminance	18.02	1	41	44.37	19.27	A	38
Track Spill	Horizontal Illuminance	0.0029	0.00	0.01	-	-	A	38
Track Spill	Max Candela Metric	410.2253	0.20	983.42	4968.891	2072.720	A	38
Track Spill	Max Vertical Illuminance Metric	0.0092	0.00	0.03	-	-	Α	38



From Hometown to Professional



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PROJECT SUMMARY

Equ	ipment Lis	st For <i>i</i>	Areas S	Shown	_															
	Pole				Luminair		1													
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE	THIS OT GRID GI	ER DS												
1	F1	90'	-	90' 90'	TLC-LED-1200 TLC-LED-1500	1 6	1 6													
				70'	TLC-LED-550	1	0													
1	F2	90'	-	25' 90'	TLC-BT-575 TLC-LED-1200	2	2	100		Share -		the lat		52	in it				C.C. Marriel In	1997
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				90' 70'	TLC-LED-900 TLC-LED-550	2	2 0	100	Mar 1	and the second				1803	100	1	1 - 1	1		
	F3	80'	-	25' 80'	TLC-BT-575 TLC-LED-1500	2 6	2 6		6 Mar				-			1		deriver -	-	The second
	15			80'	TLC-LED-900	2	2		1000	1000	and a	4				*			- 2	and the same
				70' 15.5'	TLC-LED-550 TLC-BT-575	1 2	0 2						10.00	1	1 - 17	-	之介质	State and all	61.0	and all a
1	F4	80'	-	80' 70'	TLC-LED-1500 TLC-LED-550	7	7 0		200		118'				-			122' 50		- MANNEN P
				15.5'	TLC-BT-575	2	2	1		F1				e • • • • •	• • • •			$\xrightarrow{122}$ F2		1
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SCALE IN FEET 1 : 60 C 50' 120' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

0

Name Football Size 360' x 160' Spacing 30.0' x 30.0' Height 3.0' above grade

Illumination Summary

	MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid	
40	
41.08	
50	
35	
1.18	
2	
1.42	
1.21	
0.48	
72	
А	
38	
44.30 kW	
	Entire Grid 40 41.08 50 35 1.18 2 1.42 1.21

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



Equi	pment Lis		Areas	Shown																		
QTY	Pole LOCATION	e SIZE	GRADE	ABOVE GRADE LEVEL	Luminaires	QTY/POLE	THIS GRID	OTHER GRIDS														
1	F1	90'	-	90' 90'	TLC-LED-1200 TLC-LED-1500	1	1	0														
				90 70' 25'	TLC-LED-550	6	6 0	0 1														
1	F2	90'	-	90'	TLC-BT-575 TLC-LED-1200	2	2	0	22		S.S. A	1.43	100					1	-	1000		87
				90' 90'	TLC-LED-1500 TLC-LED-900	5 2	5 2	0 0	30	1	10	29	PR.		316	20		\sim	30.20		10	AAAB
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1	F3	80'	-	80' 80'	TLC-LED-1500 TLC-LED-900	6 2	6 2	0 0		1-12	1	-	4	-	with						- 100	En alla and
				70' 15.5'	TLC-LED-550 TLC-BT-575	1	0 2	1 0		1 at		200		20	1		-	12.00	15-1:03	in a state	10.00	LANE .
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SCALE IN FEET 1 : 60 C' 60' 120' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

0

Name Soccer Size 360' x 210' Spacing 30.0' x 30.0' Height 3.0' above grade

Illumination Summary

MAINTAINED HORIZONTAL FOOTCANDLES
Entire Grid
40
41.20
50
33
1.25
2
1.51
1.24
0.56
84
A
38
44.30 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





120' 60' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24 Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) 💢

North Salinas High School Salinas,CA

Grid Summary

Name Track Size Irregular Spacing 30.0' x 30.0' ht 2 0' above grade

	Height	3.0° above grade
	Illumination Summa	ry
86		MAINTAINED HORIZONTAL FOOT
		Entire Grid
	Scan Average	18.02
	Maximum	41
-	Minimum	1
	Avg/Min	19.27
12	Max/Min	44.37
	UG (adjacent pts)	0.00
	CU	0.14
	No. of Points	48
	LUMINAIRE INFORMATION	
	Applied Circuits	A
	No. of Luminaires	38
	Total Load	44.30 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

4





0' 60' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24 Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) 💢

North Salinas High School Salinas,CA

Grid Summary

Name Home Bleacher Size 360' x 160' Spacing 10.0' x 10.0' Height 12.2' above grade

Illumination Summary					
MAINTAINED HORIZONTAL FOOTCANDLES					
	Entire Grid				
Scan Average	8.18				
Maximum	17				
Minimum	2				
Avg/Min	4.32				
Max/Min	9.08				
UG (adjacent pts)	0.00				
CU	0.24				
No. of Points	80				
LUMINAIRE INFORMATION					
Applied Circuits	В				
No. of Luminaires	4				
Total Load	2.16 kW				

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





o' 30' 60' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

Name Away Bleachers Size 360' x 160' Spacing 10.0' x 10.0' Height 5.8' above grade



Illumination Summary				
	MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid			
Scan Average	7.76			
Maximum	9			
Minimum	7			
Avg/Min	1.09			
Max/Min	1.24			
UG (adjacent pts)	0.00			
CU	0.02			
No. of Points	8			
LUMINAIRE INFORMATION				
Applied Circuits	В			
No. of Luminaires	4			
Total Load	2.16 kW			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





o' 100' 200' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

SCALE IN FEET 1:100

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

NameTrack SpillSpacing30.0' x 30.0'Height6.0' above grade

0.00 0.00 0.00 0.00 0.0

liumination Summary				
	MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid			
Scan Average	0.0029			
Maximum	0.01			
Minimum	0.00			
CU	0.00			
No. of Points	82			
LUMINAIRE INFORMATION				
Applied Circuits	A			
No. of Luminaires	38			
Total Load	44.30 kW			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





o' 100' 200' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

SCALE IN FEET 1:100

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

Name Track Spill Spacing 30.0' x 30.0' Height 6.0' above grade

0.01 00 0.00 0.00 0.0

Illumination Summary				
	MAINTAINED MAX VERTICAL FOOTCANDLES			
	Entire Grid			
Scan Average	0.0092			
Maximum	0.03			
Minimum	0.00			
CU	0.00			
No. of Points	82			
LUMINAIRE INFORMATION				
Applied Circuits	A			
No. of Luminaires	38			
Total Load	44.30 kW			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





o' 100' 200' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

SCALE IN FEET 1:100

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

Name Track Spill Spacing 30.0' x 30.0' Height 6.0' above grade

Illumination Summary

	MAINTAINED CANDELA (PER FIXTURE)
	Entire Grid
Scan Average	410.2253
Maximum	983.42
Minimum	0.20
CU	0.00
No. of Points	82
LUMINAIRE INFORMATION	
Applied Circuits	A
No. of Luminaires	38
Total Load	44.30 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





0' 150' 300' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) 🚫

North Salinas High School Salinas,CA

Grid Summary

Name Property Spill Spacing 30.0' x 10.0' Height 3.0' above grade

	Illumination Summa	ry
1		MAINTAINED HORIZONTAL FOOTCANDLES
		Entire Grid
X	Scan Average	0.05
	Maximum	0
100	Minimum	0
and	Avg/Min	-
2	Max/Min	-
	UG (adjacent pts)	0.00
A.	CU	0.00
-	No. of Points	72
	LUMINAIRE INFORMATION	
a 1	Applied Circuits	A
	No. of Luminaires	38
-14	Total Load	44.30 kW
200	Guaranteed Performance: 1 is guaranteed per your Musco includes a 0.95 dirt depreciati	
in the	Field Measurements: Individ	dual field measurements may vary

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





0' 150' 300' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) 🚫

North Salinas High School Salinas,CA

Grid Summary

Name Property Spill Spacing 30.0' x 10.0' Height 3.0' above grade

Illumination Summary							
MAINTAINED MAX VERTICAL FOOTCANDLES							
1	Entire Grid						
Scan Average	0.10						
Maximum	1						
Minimum	0						
Avg/Min	-						
Max/Min	-						
UG (adjacent pts)	0.00						
CU	0.00						
No. of Points	72						
LUMINAIRE INFORMATION							
Applied Circuits	A						
No. of Luminaires	38						
Total Load	44.30 kW						

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.







Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

......

NameProperty Spill 2Spacing30.0' x 30.0'Height0.0' above grade

numination Summary				
	MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid			
Scan Average	0.1265			
Maximum	0.93			
Minimum	0.00			
CU	0.00			
No. of Points	63			
LUMINAIRE INFORMATION				
Applied Circuits	A			
No. of Luminaires	38			
Total Load	44.30 kW			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.







Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) \bigotimes

North Salinas High School Salinas,CA

Grid Summary

Name Property Spill 2 Spacing 30.0' x 30.0' Height 0.0' above grade

llumination Summary				
	MAINTAINED MAX VERTICAL FOOTCANDLES			
	Entire Grid			
Scan Average	0.1797			
Maximum	0.95			
Minimum	0.00			
CU	0.00			
No. of Points	63			
LUMINAIRE INFORMATION				
Applied Circuits	A			
No. of Luminaires	38			
Total Load	44.30 kW			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.





0' 80' 160' ENGINEERED DESIGN By: A.Rose • File #192345G_NoP1_Environmental • 11-Apr-24

Pole location(s) \oplus dimensions are relative to 0,0 reference point(s) 🚫

North Salinas High School Salinas,CA

Equipment Layout

- INCLUDES: · Football · Soccer · Track

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

Equipment List For Areas Shown								
Pole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	ABOVE GRADE LEVEL	LUMINAIRE TYPE	QTY/POLE		
1	F1	90'	-	90'	TLC-LED-1200	1		
				90'	TLC-LED-1500	6		
				70'	TLC-LED-550	1		
				25'	TLC-BT-575	2		
1	F2	90'	-	90'	TLC-LED-1200	1		
				90'	TLC-LED-1500	5		
				90'	TLC-LED-900	2		
				70'	TLC-LED-550	1		
				25'	TLC-BT-575	2		
1	F3	80'	-	80'	80' TLC-LED-1500			
				80' TLC-LED-900		2		
				70'	70' TLC-LED-550			
				15.5'	TLC-BT-575	2		
1	F4	80'	-	80' TLC-LED-1500		7		
				70'	TLC-LED-550	1		
				15.5'	TLC-BT-575	2		
4	4 Totals				42			

Single Luminaire Amperage Draw Chart							
Driver Specifications Line Amperage Per Luminaire							
(.90 min power factor)	(max draw)						
Cinela Dhana Maltana	208	220	240	277	347	380	480
Single Phase Voltage	(60)	(60)	(60)	(60)	(60)	(60)	(60)
TLC-BT-575	3.3	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4
TLC-LED-900	5.2	4.9	4.5	3.9	3.1	2.9	2.3



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EQUIPMENT LAYOUT

Visual Simulations







Digital Photography:

Based on viewshed analysis, seen-area mapping, digital and field reconnaissance, 14 sensitive receptors were identified. Of those 14 sensitive receptors, 3 locations were selected due to their potential visibility as KOPs, Key Observation Points. The design visualization methodology, and the corresponding software platforms employed in the visual simulation process, are described herein, and are consistent with best industry practices:

First, high resolution digital photography was captured from the 3 key observation points, (KOPs), verified by the use of GPS location support data. A standard 35mm digital, SLR camera with a 35mm focal length was utilized consistently throughout the process, resulting in what is referred to as a "normal" view. A normal view allows for viewing of the 3D model under similar circumstances to the proposed project physically viewed in the field.

3D Model Generation:

Next, the digital photography, along with the corresponding GPS support data was referenced in real world scale to 3D Computer Aided Design (CAD) platforms; (3D Studio & AutoCAD) respectively. To ensure a high degree of visual accuracy in the simulations, Computer Aided Design (CAD) allows for life-size 3D modeling within the computer. This translates to using real world scale and dimension to locate and portray facilities/structures and terrain features. Other data utilized to verify simulation precision includes: aerial photography, existing reference points, and Google Earth topographical data.

To verify proposed structure location, elevation, and orientation, Google Earth topographical and aerial photography data were initially employed as background reference files. Then 3D Studio massing models of the proposed structures were constructed, based upon AutoCAD data provided by the Applicant. Camera positions and orientations were also recorded in the same 3D coordinate space, according to the aforementioned GPS location data and aerial photography. Completing these stages of the process, the 3D Studio massing models of the proposed structures, and the camera locations, now exist together in real world scale with respect to distance, elevation and orientation.

3D Camera Design and Production:

To generate the correct view relative to the digital photography, a 3D 35mm digital camera lens, matching the physical lens from the field, was set up at its appropriate position in 3D coordinate space; again verified by the GPS location support data. Next, the digital photography was imported into the 3D database and loaded as an environment map, generating the digital camera view of the 3D model.

From here, the 3D massing models of the proposed structures were displayed, along with any significant existing structures, so that proper alignment, scale, angle, and distance could be verified. To complete the process, materials and texture mapping were applied to the 3D models. Then, a reality-based lighting solution was generated, based on lighting engineering data provided by the Applicant. To achieve this, physically based, photometric light sources were placed within the 3D model to represent each fixture. Light source characteristics were then matched, according to the engineering lighting data, including; light fixture type, light power, temperature/color, and angle. And finally, the visual simulation was then generated with a physically based rendering engine, utilizing a multi-threaded image processing algorithm widely known as, *ray tracing*.

NORTH SALINAS HIGH SCHOOL STADIUM

VISUAL SIMULATION METHODOLOGY N. SALINAS HS STADIUM

KEY MAP LEGEND:

- STADIUM LIGHTS
- CAMERA POSITION & ORIENTATION
- EXISTING REFERENCE POINTS

WWW.3DSCAPE.NET





Visual Simulation-Day





KOP FIELD DATA

POSITION (GPS): 36.7076069, -121.6471488

ELEVATION: 94 FT

DISTANCE: 1,110 FT

HEADING: 204°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET



KOP-01: E. ALVIN DR N. SALINAS HS STADIUM

Visual Simulation-Night





KOP FIELD DATA

POSITION (GPS): 36.7076069, -121.6471488

ELEVATION: 94 FT

DISTANCE: 1,110 FT

HEADING: 204°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET







Visual Simulation-Day





KOP LOCATION

SITE LOCATION

KOP FIELD DATA

POSITION (GPS): 36.7047977, -121.6445860

ELEVATION: 93 FT

DISTANCE: 1,230 FT

HEADING: 271°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET







Visual Simulation-Day





KOP LOCATION

KOP FIELD DATA

POSITION (GPS): 36.7021089, -121.6474137

> ELEVATION: 87 FT

DISTANCE: 1,093 FT

HEADING: 339°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET



KOP-03: DORORO DR N. SALINAS HS STADIUM

Visual Simulation-Night





KOP LOCATION

KOP FIELD DATA

POSITION (GPS): 36.7021089, -121.6474137

> **ELEVATION:** 87 FT

DISTANCE: 1,093 FT

HEADING: 339°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET







KOP FIELD DATA

POSITION (GPS): 36.7041891, -121.6526403

ELEVATION: 87 FT

DISTANCE: 1,174 FT

HEADING: 77°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET









KOP FIELD DATA

POSITION (GPS): 36.7041891, -121.6526403

ELEVATION: 87 FT

DISTANCE: 1,174 FT

HEADING: 77°

CAMERA LENS: 35 mm

WWW.3DSCAPE.NET

Environmental Noise Assessment


ENVIRONMENTAL NOISE ASSESSMENT

NORTH SALINAS HIGH SCHOOL STADIUM BLEACHERS AND LIGHTING IMPROVEMENTS

WJVA Report No. 23-03

PREPARED FOR

EMC PLANNING 601 ABREGO STREET MONTEREY, CA 93940

PREPARED BY

WJV ACOUSTICS, INC. VISALIA, CALIFORNIA



JULY 7, 2023

113 N. Church Street, Suite 203 · Visalia, CA 93291 · (559) 627-4923 ·

1. INTRODUCTION

Project Description

The project proposes to install new stadium lighting at the school's existing football field stadium and to replace the existing stadium seating for both the home and visitor seating areas, which currently accommodates up to 1,250 spectators. Proposed upgraded bleacher facilities at the existing stadium site would accommodate up to 1,716 spectators (1,548 seats for the east-facing home bleachers and 168 seats for the west-facing visitor bleachers). Based on information provided by the Salinas Union High School District, up to 1,500 tickets are planned to be distributed for non-Homecoming football games while up to 2,250 tickets would be distributed for Homecoming football games. Though the improvements will include seating for up to 1,716 attendees, graduation ceremonies held at the stadium may have up to 3,000 attendees with standing room only. Additionally, accessibility improvements are also proposed within the existing parking lots on-site and along egress pathways between the parking lots and stadium. The installation of new ADA parking stalls will result in a net reduction of three existing parking stalls. A project site plan is provided as Figure 1.

The stadium lights would allow the school to provide flexible nighttime use of the field for various sporting and school events. Table 1 provides a summary of the anticipated use of the stadium with the proposed lighting. It is estimated that the stadium lights would be utilized during weekdays and Saturday evenings, between 5:00 PM to 9:00 PM during practice days and could be on until 10:30 PM to 11:00 PM on game nights for games ending at 10:00 PM.

Currently, Friday evening football games with up to 1,000 attendees are played off-site at Rabobank Stadium at the Salinas Sports Complex, approximately ½-mile south of the NSHS campus. Upon installation of new stadium lights, all home football games will be played at the NSHS stadium. The number of attendees is expected to increase from 1,000 to 1,500 for most football games. Factors such as team record, opponent and conflicting events are expected to affect attendance. Attendance at all other sports games (soccer and field hockey) is expected to be lower than that of football games. Because the new Friday evening football games on campus are expected to generate the greatest number of attendees and associated vehicle trips, the VMT assessment focuses on the potential impacts resulting from the Friday evening football games with an anticipated 1,500 attendees for the majority of games. All other regularly-scheduled field uses are expected to have lesser impact since the total attendance at non-football events will be much less than Friday night football games. Special events, such as graduation ceremonies, would occur only once a year with up to 3,000 attendees.

Additional Stadium Improvements

In addition to new stadium lighting and replaced spectator seating, the following improvements are proposed at the North Salinas High School Stadium site:

• Egress lighting along the existing pedestrian pathway which follows the western boundary of the campus from the on-campus parking lot along E. Alvin Drive;

- Electrical trenching underneath existing concrete paved pathway from E. Alvin Drive parking lot to stadium;
- A new Public Address (PA) system;
- Lighting of the existing parking area along E. Alvin Drive;
- Various improvements to existing stormwater infrastructure improvements including catch basins, concrete swales, etc.;
- Renovations to existing restroom facility located at northwest corner (entry area) to stadium site;
- Drinking fountain improvements throughout stadium;
- New football goal posts; and
- A new, 8-foot by 36-foot press box on top of the home side bleachers.

Environmental Noise Assessment

This environmental noise assessment has been prepared to determine if significant noise impacts would be produced by the project and to describe mitigation measures for noise if significant impacts are determined. The environmental noise assessment, prepared by WJV Acoustics, Inc. (WJVA), is based upon the project description provided by the project applicant, project-related traffic data provided by Hexagon Transportation Consultants (dated June 1, 2023) and a project site visit on May 10 and 11, 2023. Revisions to the project description, project-related traffic data or other project-related information available to WJVA at the time the analysis was prepared may require a reevaluation of the findings and/or recommendations of the report.

Appendix A provides definitions of the acoustical terminology used in this report. Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise. Appendix B provides typical A-weighted sound levels for common noise sources.

In terms of human perception, a 5 dB increase or decrease is considered to be a noticeable change in noise levels. Additionally, a 10 dB increase or decrease is perceived by the human ear as half as loud or twice as loud. In terms of perception, generally speaking the human ear cannot perceive an increase (or decrease) in noise levels less than 3 dB.

2. THRESHOLDS OF SIGNIFICANCE

The CEQA Guidelines apply the following questions for the assessment of significant noise impacts for a project:

- a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

a. Noise Level Standards

City of Salinas

General Plan

The Noise Element of the City of Salinas General Plan (adopted September 2002) establishes land use compatibility criteria in terms of the Day-Night Average Level (L_{dn}/DNL) for transportation noise sources. The L_{dn} is the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and is therefore calculated based upon *annual average* conditions.

The General Plan Noise Element states "To ensure that noise producers do not adversely affect sensitive receptors, the City uses land use compatibility standards when planning and making development decisions. Table N-2 summarizes the City noise standards for various types of land uses. The standards represent the maximum acceptable noise level as measured at the property boundary, which is used to determine noise impacts." Table N-2 of the General Plan Noise Element is presented below as Table I

Designation/District of Property Receiving Noise	Maximum Noise Level, Ldn or CNEL, dBA			
Agricultural	70			
Residential	60			
Commercial	65			
Industrial	70			
Public and Semipublic	60			

Table 1Exterior Noise Standards

While not explicitly stated in the General Plan, exterior noise standards are typically applied at outdoor activity areas of residential (and otherwise sensitive) land uses. Outdoor activity areas generally include backyards of single-family residences and individual patios or decks and common outdoor activity areas of multi-family developments. The intent of the exterior noise level requirement is to provide an acceptable noise environment for outdoor activities and recreation.

The General Plan Noise Element further states "These noise standards are the basis for development of the land use compatibility guidelines presented in Table N-3. If the noise level of a project falls within Zone A or Zone B, the project is considered compatible with the noise environment. Zone A implies that no mitigation will be needed. Zone B implies that minor mitigation may be required to meet the City's and Title 24 noise standards. All development project proponents are required to demonstrate that the noise standards will be met prior to human occupation of a building.

If the noise level falls within Zone C, substantial mitigation is likely needed to meet City noise standards. Substantial mitigation may involve construction of noise barriers and substantial building sound insulation. Projects in Zone C can be successfully mitigated; however, project proponents with a project in Zone C must demonstrate that the noise standards can be met prior to issuance of a building permit.

If noise levels fall outside of Zones A, B and C, projects are considered clearly incompatible with the noise environment and should not be approved." Table N-3 of the General Plan Noise Element is presented below as Table II.

Table II

Noise/Land Use Compatibility Matrix

Land Use	Community Noise Exposure (Ldn or CNEL)							
	50	55	60	65	70	75	80	85
Residential								
Transient Lodging – Motel, Hotel								
Schools, Libraries, Churches, Hospitals, Nursing Homes								
Auditoriums, Conce rt Halls, Amphitheaters						- Araberte		r gor Neti
Sports Arena, Outdoor Spectator Sports							tion after a	i. An the second
Playgrounds, Parks			ole in the			1. 		ij de se se
Golf Course, Riding Stables, Water Recreation, Cemeteries								
Office Buildings, Business Commercial, and Professional		70. 3	ter fan					
Industrial, Manufacturing, Utilities, Agriculture								

Source: Modified by CBA from 1998 State of California General Plan Guidelines.



ZONE A - Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.



ZONE B - Conditionally Acceptable: New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.



Zone C- Normally Unacceptable: New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.



ZONE D- Clearly Unacceptable: New construction or development clearly should not be undertaken.

The City of Salinas General Plan also provides an interior noise standard of 45 dB CNEL/L_{dn}. The interior standard is to ensure interior noise levels attributable to exterior sources not exceed 45 dB CNEL (or L_{dn}) within residential land uses. This is consistent with Title 24 of the California Code of Regulations for residential construction and consistent with U.S. Department of Housing and Urban Development (HUD). The intent of the interior noise level guideline is to provide an acceptable noise environment for indoor communication and sleep.

Additionally, Section 1207.4 of the California Building Code states *"Interior noise levels attributable to exterior sources should not exceed 45 dB in any inhabitable room. The noise metric*

shall be the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise level of the local general plan." The section of the California Building Code applies to Hotels and Motels.

Municipal Code

The City of Salinas Municipal Code provides the same noise standards as those provided in the General Plan, as provided above in Table I. Section 37-50.180 The Municipal Code provides the following exemption to the noise standards, that is relevant to the proposed project:

• Exceptions. Sporting events and the like shall be exempt from these noise standards. Events issued a special event permit by the city may also be exempted from these noise standards as part of the review and approval process for that permit.

State of California

There are no state noise standards that are applicable to the project.

Federal Noise Standards

There are no federal noise standards that are applicable to the project.

b. Construction Noise and Vibration

The City of Salinas does not provide specific standards or guidelines that apply to construction noise. Some guidance can be found in the Monterey County General Plan. The "Noise Hazards" section of the Safety Element of the Monterey County General Plan provides the following Policies pertaining to construction noise and vibration:

- Policy S-7.8: All discretionary projects that propose the use of heavy construction equipment that has the potential to create vibrations that could cause structural damage to adjacent structures within 100 feet shall be required to submit a pre-construction vibration study prior to the approval of a building permit. Projects shall be required to incorporate specified measures and monitoring identified to reduce impacts. Pile driving or blasting are illustrative of the type of equipment that could subject to this policy.
- Policy S-7.9: No construction activities pursuant to a County permit that exceed "acceptable" levels listed in Policy S-7.1 shall be allowed within 500 feet of a noise sensitive land use during the evening hours of Monday through Saturday, or anytime on Sunday or holidays, prior to completion of a noise mitigation study. Noise protection

measures, in the event of any identified impact, may include but not be limited to:

- Constructing temporary barriers, or
- Using quieter equipment than normal.
- Policy S-7.10: Construction projects shall include the following standard noise protection measures:
 - Construction shall occur only during times allowed by ordinance/code unless such limits are waived for public convenience;
 - All equipment shall have properly operating mufflers; and
 - Lay-down yards and semi-stationary equipment such as pumps or generators shall be located as far from noise-sensitive land uses as practical.

Neither the City of Salinas or Monterey County General Plans or Code of Ordinances provide specific prohibited hours of construction activities, however, it is typical to limit construction to the hours of (at a minimum) 7:00 a.m. to 7:00 p.m.

There are no City of Salinas or Monterey County Vibration level standards. Some guidance is provided by the Caltrans Transportation and Construction Vibration Guidance Manual³. The Manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided below in Table III and Table IV, and are presented in terms of peak particle velocity (PPV) in inches per second (in/sec).

GUIDELINE VIBRATION ANNOYANCE POTENTIAL CRITERIA Maximum PPV (in/sec)										
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources								
Barely Perceptible	0.04	0.01								
Distinctly Perceptible	0.25	0.04								
Strongly Perceptible	0.9	0.1								
Severe										
Source: Caltrans										

TABLE IV

GUIDELINE VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA

	Maximum PPV (in/sec)				
Structure and Condition	Transient Sources	Continuous/Frequent Intermittent Sources			
Extremely fragile, historic buildings, ancient monuments	0.12	0.08			
Fragile buildings	0.2	0.1			
Historic and some old buildings	0.5	0.25			
Older residential structures	0.5	0.3			
New residential structures	1.0	0.5			
Modern industrial/commercial buildings	2.0	0.5			
Source: Caltrans		•			

3. <u>SETTING</u>

North Salinas High School (high school), located at 55 Kip Drive in the city of Salinas, is one of several high schools in the Salinas Union High School District (school district). The approximate 38-acre high school campus is surrounded by East Alvin Drive, apartments, Harden Middle School, and places of worship to the north; a single-family residential neighborhood to the south; Kip Drive, a place of worship, and a single-family residential neighborhood to the east, and multi-family residential neighborhoods to the west. Further to the west along the commercially-oriented North Main Street is (from north to south) an office park which includes employment training college campus (Central Coast College), a satellite campus for California State University, Monterey Bay, a public library (El Gabilan Library), and a small produce market.

The high school campus is accessed via five (5) total parking lots with four separate lots reserved for students along E. Alvin Drive totaling 343 parking stalls and one for teachers and staff along Kip Drive totaling 65 parking stalls. The high school's football field, track and stadium (also known as the Marv Beguhl Sports Complex) is located in the southwest corner of the high school campus, immediately adjacent to multi-family residential development (known as the Pointe at Northridge) to the west and single-family residences to the south (along Chaparral Street). The existing stadium facilities feature home and visitor bleachers totaling approximately 1,250 seats, a rubberized track, artificial turf playfield, storage sheds at the southeast and southwest corner of the stadium site, a restroom facility at the northwest corner of the stadium site, and a digital scoreboard that sits along the southeast edge of the track (along the southern campus boundary fence-line).

a. Background Noise Level Measurements

Existing ambient noise levels in the project vicinity are dominated by roadway traffic noise, noise associated with school activities (alarm bells, on-site vehicle movements, voices, etc.), noise associated with residential activities (including landscaping activities) and occasional aircraft overflights.

Measurements of existing ambient noise levels in the project vicinity were conducted on May 10 and 11, 2023. Long-term (24-hour) ambient noise level measurements were conducted at two (2) locations (sites LT-1 and LT-2). The locations of the two long-term ambient noise measurement sites are provided as Figure 2.

- Long-term ambient noise measurement site LT-1 was located in the vicinity of existing multi-family residential land uses west of the stadium, along school property line, and was exposed to traffic noise associated with parking lot movements within the multi-family residential complex, noise associated with landscaping activities, noise associated with school activities and occasional aircraft overflights.
- Long-term ambient noise measurement site LT-2 was located in the vicinity of existing single-family residential land uses south of the stadium, along school property line, and

was exposed to noise associated with residential land uses (landscaping activities, barking dogs, voices), noise associated with school activities and occasional aircraft overflights.

Noise monitoring equipment consisted of Larson-Davis Laboratories Model LDL-820 sound level analyzers equipped with B&K Type 4176 1/2" microphones. The equipment complies with the specifications of the American National Standards Institute (ANSI) for Type I (Precision) sound level meters. The meters were calibrated with a B&K Type 4230 acoustic calibrator to ensure the accuracy of the measurements.

Measured hourly energy average noise levels (L_{eq}) at site LT-1 ranged from a low of 41.9 dB between midnight and 1:00 a.m. to a high of 63.6 dB between 8:00 a.m. and 9:00 a.m. Hourly maximum (L_{max}) noise levels at site LT-1 ranged from 58.9 to 87.5 dB. Residual noise levels at the monitoring site, as defined by the L₉₀ statistical descriptor ranged from 37.7 to 46.0 dB. The L₉₀ is a statistical descriptor that defines the noise level exceeded 90% of the time during each hour of the sample period. The L₉₀ is generally considered to represent the residual (or background) noise level in the absence of identifiable single noise events from traffic, aircraft and other local noise sources. The measured L_{dn} value at site LT-1 during the 24-hour noise measurement period was 55.5 dB. Figure 3 graphically depicts hourly variations in ambient noise levels at the LT-1 long-term monitoring site as well as a site photograph.

Measured hourly energy average noise levels (L_{eq}) at site LT-2 ranged from a low of 37.2 dB between midnight and 1:00 a.m. to a high of 59.0 dBA between 6:00 p.m. and 7:00 p.m. Hourly maximum (L_{max}) noise levels at site LT-2 ranged from 46.6 to 93.8 dB. Residual noise levels at the monitoring site, as defined by the L_{90} , ranged from 34.2 to 48.8 dB. The measured L_{dn} value at site LT-2 during the 24-hour noise measurement period was 53.5 dB. Figure 4 graphically depicts hourly variations in ambient noise levels at the LT-2 long-term monitoring site as well as a site photograph.

Short-term (15-minute) noise measurements were conducted at an additional four (4) sites, ST-1 through ST-4. Two (2) individual measurements were taken at each of the four short-term sites to quantify ambient noise levels in the morning and afternoon hours. The locations of the long-term and short-term noise monitoring sites are shown as Figure 2.

The short-term site noise measurement data included energy average (L_{eq}) maximum (L_{max}) as well as five (5) individual statistical parameters. Observations were made of the dominant noise sources affecting the measurements. The statistical parameters describe the percent of time a noise level was exceeded during the measurement period. Table V summarizes short-term noise measurement results. A description of the short-term sites is provided below:

- ST-1: Short-term ambient noise measurement site ST-1 was located within a multi-family
 residential complex (The Pointe at Northridge). The residential complex is located west of
 the stadium site. Noise sources observed at ST-1 included traffic noise associated with
 parking lot movements, noise associated with landscaping activities, human voices and
 occasional aircraft overflights.
- ST-2: Short-term ambient noise measurement site ST-2 was located in a residential area

southwest of the stadium site, near the intersection of Noice Drive and Chaparral Street. Noise sources observed at site ST-2 included noise associated with vehicle traffic along Noice Drive and Chaparral Street, noise associated with landscaping activities, barking dogs, birds and human voices.

- ST-3: Short-term ambient noise measurement site ST-3 was located in a residential area, southeast of the stadium site along Chaparral Street. Noise sources observed at site ST-3 include noise associated with vehicle traffic along Chaparral Street, landscaping activities, barking dogs and occasional aircraft overflights.
- ST-4: Short-term ambient noise measurement site ST-4 was located in a residential area, east of the stadium site, along Maryal Drive, north of Chaparral Street. Noise sources observed at site ST-4 include noise associated with vehicle traffic along Maryal Drive and Chaparral Street, barking dogs and human voices.

TABLE V SUMMARY OF SHORT-TERM NOISE MEASUREMENT DATA NORTH SALINAS HIGH SCHOOL STADIUM LIGHTS MAY 10 & 11, 2023									
Site	Time		1	A-Weighte	d Decibe	ls, dBA	r		Sources
Site	Time	L _{eq}	L _{max}	L ₂	L ₈	L ₂₅	L ₅₀	L ₉₀	Jources
ST-1	8:20 a.m.	51.6	64.9	52.0	50.8	49.5	48.3	45.6	TR, L, V
ST-1	4:50 p.m.	57.1	72.3	55.1	52.7	49.9	47.0	54.7	TR, AC, V
ST-2	8:45 a.m.	62.0	72.5	71.1	67.9	61.9	52.5	45.2	TR, B, L
ST-2	5:15 p.m.	63.5	76.2	70.4	66.6	62.8	54.1	45.0	TR, D, V
ST-3	9:05 a.m.	58.2	76.4	67.0	61.1	53.9	51.3	44.6	TR, AC, L
ST-3	5:35 p.m.	57.5	71.7	66.1	59.4	53.3	50.1	44.0	TR, D
ST-4	9:25 a.m.	52.8	66.4	62.0	56.0	51.4	48.4	44.8	TR, D, V
ST-4	5:55 p.m.	55.2	72.1	63.8	57.0	52.4	46.2	43.1	TR, D, V
TR: Traffic	TR: Traffic AC: Aircraft V: Voices D: Dogs Barking B: Birds R: Landscaping Activities: L								

Source: WJV Acoustics, Inc.

4. PROJECT IMPACTS

a. Project Traffic Noise Impacts on Existing Noise-Sensitive Land Uses (Less Than Significant)

WJVA consulted with Hexagon Traffic Consultants, the project traffic engineer, regarding projectrelated traffic. The following is a description of project-related traffic, provided by Hexagon Traffic Consultants (June 1, 2023), regarding anticipated increases in stadium attendance and subsequent associated traffic.

The proposed stadium lighting is expected to result in an increase in attendance at football games and other sporting events. The increase in attendees will result in an increase in vehicular trips that is currently generated by the sporting events. Currently, Friday evening football games with up to 1,000 attendees are played off-site at Rabobank Stadium at the Salinas Sports Complex. The stadium improvements are expected to increase the attendance of home football games on Friday nights from the current approximately 1,000 attendees to up to 1,500 attendees. The football season typically runs for 10 weeks between August and November with approximately 5 to 6 home games hosted by NSHS.

This evaluation utilizes a vehicle occupancy rate based on data previously collected for a homecoming football game on a Friday night at Mitty High School in San Jose, California. Hexagon counted the number of vehicles parked at Mitty High School, at an adjacent church, and on the surrounding streets during the homecoming game on Friday, October 5, 2018, and on a regular Friday night on October 26, 2018. The difference between the two parking counts represents Mitty game night traffic. Based on the number of additional parked vehicles and the estimated attendance at the surveyed Friday night game, the vehicle occupancy rate was calculated to be an average of 3.24 persons per vehicle for the game attendees.

Utilizing the surveyed vehicle occupancy rate and anticipated attendance projections, the average trip increase per day for Friday night football games in the vicinity of North Salinas High School would be approximately 62 trips (500 attendees / 3.24 persons per vehicle x 2 trips (inbound and outbound) x 1 event per week / 5 days per week = 62 trips per day). During a homecoming or rivalry game, attendance is expected to increase from the current 2,000 attendees to an anticipated 2,250 attendees, resulting in an increase of approximately 31 trips per day for the homecoming and rivalry games.

The stadium lighting also could allow the school to host sporting events into the evening hours, such as a football jamboree/scrimmage and a field hockey tournament in the fall, soccer tournament in winter, and track & field meets in spring. The largest of these events is a track and field invitational, which has attracted approximately 500 participants in previous years. However, the total vehicular trips and resulting VMT of non-football events would be lower and less frequent than those of evening football games since the total attendance for non-football sports events will be less than Friday night football games. Moreover, fall sports (football), winter sports (soccer), and spring sports (track & field) would the evaluation of Friday evening football games represents a worst-case scenario in terms of total trips and VMT throughout the year.

The distribution of project-related traffic over local roadways was not analyzed as part of the traffic assessment. However, WJVA reviewed the project traffic data provided by Hexagon Transportation Consultants to determine total gameday vehicle trips, based upon average daily conditions. During the anticipated highest attended football games (homecoming or rivalry game), the estimated attendance is 2,250. Based upon the above-described average vehicle occupancy rate of 3.24 persons/vehicle, the resulting total would be 694 vehicles, multiplied by two (2) vehicle movements (vehicles in/vehicles out), the total number of gameday trips was determined to be 1,389. Based upon the assumption of one (1) event per week, the average total daily trips would be 278 trips (1,389 trips x 1 event per week / 5 days per week = 278).

WJVA modeled these average daily traffic trips to provide a generalized understanding of overall increases in traffic noise associated with the project. WJVA utilized the FHWA Traffic Noise Model⁴ to quantify generalized increases in traffic noise. The FHWA Model is a standard analytical method used for roadway traffic noise calculations. The model is based upon reference energy emission levels for automobiles, medium trucks (2 axles) and heavy trucks (3 or more axles), with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model was developed to predict hourly L_{eq} values for free-flowing traffic conditions, and is generally considered to be accurate within ±1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical day and adjust the traffic volume input data to yield an equivalent hourly traffic volume.

As stated above, the project is anticipated to result in 278 average daily trips in the vicinity of the stadium. The distribution of these trips across local roadways in the vicinity of NSHS was not analyzed as part of the traffic assessment.

For a generalized (and worst-case analysis), WJVA modeled anticipated noise levels that would occur if all 278 trips were along one single roadway. Assuming a vehicle speed of 35 miles per hour (mph) and a generalized setback distance of 75 feet from the roadway, noise levels associated with 278 vehicle trips on a single roadway would result in traffic noise exposure of approximately 41 dB L_{dn}. Such noise exposure levels would not exceed applicable City of Salinas noise level standards and would be considerably lower than existing ambient noise levels in the project vicinity, and would not be expected to result in any increase in overall traffic noise exposure levels throughout the greater project vicinity.

b. Noise Impacts from Stadium Events (Less Than Significant)

As described above, Section 37-50.180 of the City of Salinas Municipal Code provides specific exemptions to the local noise standards, the following is relevant to the proposed project: *"Sporting events and the like shall be exempt from these noise standards. Events issued a special event permit by the city may also be exempted from these noise standards as part of the review and approval process for that permit."* However, noise levels associated with high school sporting events (specifically football games) are discussed below.

The stadium is currently utilized for a number of sporting event practices and games including field hockey (practices and games), football (practices only), soccer (practices and games), and

track and field (practices and meets). The stadium currently hosts approximately 21-26 practices per week and approximately 20 field hockey home games during the fall sports season, approximately 10-12 practices per week and approximately 40 home soccer games during the winter sports season, and approximately 10-12 practices per week and 10 track and field meets during the spring sports season.

The proposed project would result in the addition of approximately 10 home football games (5 varsity and 5 junior varsity) games during the fall sports season and approximately 10-12 additional soccer practices during the winter sports season.

The estimated attendance for athletic competitions upon construction and installation of the proposed stadium improvements would vary by sport and other factors, such as level of competition (e.g., regular season vs. postseason) and weather conditions. Football games are anticipated to have the largest crowd attendance as compared to other sporting events to be held at the stadium.

Under existing conditions, the highest attendance is typically for football games hosted at Rabobank Stadium, with up to 1,000 spectators for most football games, increasing to up to 2,000 spectators for a rivalry, playoff, or homecoming game. All varsity football games would have the ability to be hosted on the North Salinas High School campus on either Thursday, Friday, or Saturday evenings depending on officials' availability. There would be an increase in games only if the football team makes the playoffs and stadium capacity allows North Salinas High School to host a home playoff game. Additionally, an increase in number of spectators is expected by having the majority of games at night as opposed to afternoon events. The proposed stadium improvements at North Salinas High School are expected to increase attendance from 1,000 spectators to 1,500 spectators for most football games and from 2,000 spectators to 2,250 spectators for rivalry, playoff, or homecoming games, which are played in the fall.

The noise levels associated with activities such as high school football games, other sporting events and other events held in the stadium cannot be precisely defined due to variables such as the number of attendees, atmospheric conditions and the topographical relationship between the stadium and off-site sensitive receptors. WJVA reviewed noise level data previously collected during two high school football games.

Football Games (and other stadium events): Noise due to football games and other events held within the stadium would be extremely variable based upon such factors as the size of the crowd, volume of the public address system, and time of the day. As such quantifying and describing such noise levels can be problematic. Noise levels associated with football games would generally be limited to a few evening hours during each event, and would typically be limited to up to five (5) home games per year. As such, associated noise would occur very infrequently.

In order to assess potential football game noise levels, WJVA staff reviewed reference noise level measurements previously obtained by WJVA at Mineral King Bowl in Visalia, California on November 9, 2018 during a high school football game and at Carmel High School Stadium in Carmel, California on October 1, 2022. Noise levels measured during these two high school football games are described below.

Visalia, California: WJVA staff conducted reference noise level measurements during a high school football game on November 9, 2018, at Mineral King Stadium in Visalia, California. It should be noted; the game was a sectional playoff game and crowd size and volume was likely louder than a "typical" game. Additionally, crowd size and PA system may not be comparable to that which would be expected at North Salinas High School. The exact attendance at the football game was not determined, however, the Mineral King Bowl has a capacity of up to 8,500 during football games. The reference stadium (Mineral King Bowl) has existing lighting, and the game occurred during evening hours.

During the football game WJVA collected numerous 15-minute noise level samples. Noise level measurements were taken at a distance of approximately 200 feet from the center of the playing field. Figure 5 provides a graphic showing the reference noise measurement site at The Mineral King Bowl in Visalia.

At the above-described reference noise measurement site, average noise levels during the football game were approximately 60-66 dB L_{eq} with maximum (L_{max}) noise levels ranging between approximately 70-75 dB. The closest residential land uses to the football stadium are located at distance of 300 feet to the west and the south. Applying the noise levels measured at the Visalia stadium location, such levels would be in the range of approximately 57-63 dB L_{eq} and 67-72 dB L_{max} , at the closest residential land uses.

The Mineral King Bowl reference noise levels measurements described above are likely higher than those which would typically occur at North Salinas High School due to crowd size of the event and overall stadium size and design.

Carmel, California: WJVA staff conducted reference noise level measurements during a high school football game on October 1, 2022, at Carmel High School Stadium in Carmel, California. Noise levels were measured continuously during the span of the football game, at a setback distance of approximately 525 feet from the center of the football field. Figure 6 provides a graphic showing the reference noise measurement site at Carmel High School Stadium.

At the above-described reference noise measurement site, average noise levels during the football game were approximately 47-51 dB L_{eq} with maximum (L_{max}) noise levels ranging between approximately 54-68 dB. The closest residential land uses to the football stadium are located at distance of 300 feet to the west and the south. Applying the noise levels measured at the Carmel High School stadium location, such levels would be in the range of approximately 51-55 dB L_{eq} and 58-72 dB L_{max} , at the closest residential land uses.

Football Game Noise Levels at Nearby Residential Land Uses: As described above, WJVA reviewed reference noise level measurements previously collected at two High School Football game events, to assess potential project-related (football game) noise levels at the closest residential land uses to the North Salinas High School Stadium.

The closest existing residential land uses to the stadium are located approximately 300 feet from the stadium (as measured between the distance of the residential land uses to the center of the

field). Based upon the above-described reference noise level measurements at the two high school football games, noise levels associated with football games at the North Salinas High School Stadium are anticipated to be approximately as follows:

- 51-63 dB L_{eq}
- 58-72 dB L_{max}
- 56 dB L_{dn} (calculated assuming the highest hourly noise levels of 63 dB L_{eq})

Football Game Noise Levels- Compliance With Noise Standards:

The City of Salinas has established an exterior noise level standard of 60 dB L_{dn} for residential land uses. The L_{dn} is the time-weighted energy average noise level for a 24-hour day, with a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.). The L_{dn} represents cumulative exposure to noise over an extended period of time and is therefore calculated based upon *annual average* conditions.

Based upon the above-described reference noise level measurements conducted by WJVA during two individual high school football games, it was estimated that noise levels associated with football games at North Salinas High School could be up to 63 dB L_{eq} at nearby residential land uses. In order to calculate the noise levels in terms of the L_{dn} metric (City of Salinas noise standard metric), WJVA applied the highest hourly noise level range, 63 dB L_{eq} and assumed a 5-hour event. These are considered conservative estimates and would provide a worst-case assessment of football game noise levels at nearby residential land uses, in terms of the L_{dn} metric. Applying these assumptions, a noise exposure level of 56 dB L_{dn} was calculated at nearby residential land uses. This calculated football game day exposure level was added to the existing measured ambient noise levels (54-56 dB L_{dn}), and the resulting noise levels would be 58-59 dB L_{dn} . Such levels do not exceed the City's 60 dB L_{dn} exterior noise level standard, for residential land uses.

It should be noted, however, that the calculation of 56 dB L_{dn} is based upon one individual day (worst-case football game noise levels), and the L_{dn} metric is generally based upon "annual average conditions". Therefore, levels associated with football events, as well as other events at the stadium, would technically be averaged over 365 days to determine "annual average conditions" to accurately describe project-related noise levels in terms of the L_{dn} metric. As such, the project would not result in any measurable increase of noise, as measured by the L_{dn} metric, when considering "annual average conditions."

c. Noise Impacts from Parking Areas (Less Than Significant)

Parking Lots

It is assumed that stadium event parking would occur at existing school parking lot areas. As described above, the high school campus is accessed via five (5) total parking lots with four separate lots reserved for students along E. Alvin Drive totaling 343 parking stalls and one for teachers and staff along Kip Drive totaling 65 parking stalls.

Noise due to traffic in parking lots is typically limited by low speeds and is not usually considered to be significant. Human activity in parking lots that can produce noise includes voices, stereo

systems and the opening and closing of car doors and trunk lids. Such activities can occur at any time the parking lot is open. The noise levels associated with these activities cannot be precisely defined due to variables such as the number of parking movements, time of day and other factors. It is typical for a passing car in a parking lot to produce a maximum noise level of 60 to 65 dBA at a distance of 50 feet, which is comparable to the level of a raised voice.

The parking lot-related noise levels at the closest residential land uses would not be expected to exceed any of the applicable noise levels standards. Additionally, parking lot noise levels would not be expected to exceed existing ambient noise levels at the closest residential land uses to the proposed new parking areas.

d. Noise From Construction (Less Than Significant)

The project construction timeline and anticipated construction equipment was not known at the time this analysis was prepared. Typical construction equipment would likely be used, such as an excavator, boring machine, concrete truck and pump, and a crane for pole installation and field lighting mounting, as well as semi-trucks for materials delivery. Construction would likely occur during daylight hours. Construction crews would primarily access the site via the access road (accessible only to school district personnel) which runs from E. Alvin Drive to the stadium. Access gates to the site would be locked outside of construction hours. Construction vehicles, equipment, and materials would be stored on the project site.

Construction noise is typically not considered to be a significant impact if construction is limited to the daytime hours and construction equipment is adequately maintained and muffled. Extraordinary noise-producing activities (e.g., pile driving) are not anticipated. The City of Salinas General Plan and the Municipal Code do not provide specified hours of construction. As a point of reference, the Monterey County Noise Element of the General Plan prohibits construction activity in the evening/nighttime hours as well as Sundays on Holidays. Neither the General Plan nor the County's Code of Ordinances provide specific prohibited hours of construction activities, however, it is typical to limit construction activities to the hours of (at a minimum) 7:00 a.m. to 7:00 p.m. Construction noise impacts could result in annoyance or sleep disruption for nearby residents if nighttime operations were to occur or if equipment is not properly muffled or maintained. For the purpose of providing generalized reference noise levels for typical construction activities, Table VI provides typical construction-related noise levels at distances of 100 feet, 200 feet, and 300 feet.

TABLE VI

TYPICAL CONSTRUCTION EQUIPMENT MAXIMUM NOISE LEVELS, dBA

Type of Equipment	100 Ft.	200 Ft.	300 Ft.
Concrete Saw	84	78	74
Crane	75	69	65
Excavator	75	69	65
Front End Loader	73	67	63
Jackhammer	83	77	73
Paver	71	65	61
Pneumatic Tools	79	73	69
Dozer	76	70	66
Rollers	74	68	64
Trucks	80	72	70
Pumps	74	68	64
Scrapers	81	75	71
Portable Generators	74	68	64
Backhoe	80	74	70
Grader	80	74	70

Source: FHWA

Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek & Newman, 1987

e. Vibration Impacts (Less Than Significant)

The dominant sources of man-made vibration are sonic booms, blasting, pile driving, pavement breaking, demolition, diesel locomotives, and rail-car coupling. None of these activities are anticipated to occur with construction or operation of the proposed project. Typical vibration levels at distances of 100 feet and 300 feet are summarized in Table VII. These levels would not exceed any significant threshold levels for annoyance or damage, as provided above in Table III and Table IV.

TABLE VII									
TYPICAL VIBRATION LEVELS DURING CONSTRUCTION									
PPV (in/sec)								
@ 100´	@ 300´								
0.011	0.006								
0.0004	0.00019								
0.01	0.005								
0.005	0.002								
.03	0.013								
.01	0.006								
	L VIBRATION LEVELS DURING CON PPV (i @ 100' 0.011 0.0004 0.01 0.005 .03								

e. Noise Impacts from Nearby Airports or Airstrips (No Impact)

The Project site is not located within two miles of a public airport or private airstrip. The Salinas Municipal Airport is located approximately 3.5 miles southeast of the project site.

5. IMPACT SUMMARY

The project would not be expected to result in any significant noise impacts at nearby noisesensitive receptors, in respect to City of Salinas noise standards for residential land uses (60 dB L_{dn}). Project-related increases in traffic noise exposure would not exceed any City of Salinas noise standards and would generally not increase traffic noise above existing (without project) noise exposure levels. Additionally, noise levels associated with stadium events would not be expected to result in noise levels exceeding any City of Salinas noise level standards.

Noise levels associated with evening football games would generally be limited to a few evening hours during each event, and would typically be limited to up to six (6) home games per year. As such, associated noise would occur very infrequently. While noise associated with football games (and other events) such as cheering of crowds, PA announcements, band performances and half-time events would be expected to result in localized, short-term, and periodic increases in noise at nearby residential land uses, these noise levels would not result in any increase of noise, as defined by the applicable L_{dn} metric, based upon annual average conditions.

6. <u>SOURCES CONSULTED</u>

- 1. City of Salinas General Plan, September 2002.
- 2. City of Salinas Municipal Code, 1995.
- 3. Monterey County General Plan, October 2010.
- 4. California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, April 2020.
- 5. Federal Highway Administration, *Traffic Noise Model, Version 2.5,* April 14, 2004





FIGURE 2: PROJECT VICINITY AND AMBIENT NOISE MEASUREMENT SITES





FIGURE 3: HOURLY NOISE LEVELS AT LONG-TERM MONITORING SITE LT-1





FIGURE 4: HOURLY NOISE LEVELS AT LONG-TERM MONITORING SITE LT-2



FIGURE 5: LOCATION OF REFENCE NOISE MEASUREMENT SITE AT MINERAL KING BOWL, VISALIA



FIGURE 6: LOCATION OF REFENCE NOISE MEASUREMENT SITE AT CARMEL HIGH SCHOOL STADIUM



APPENDIX A-1

ACOUSTICAL TERMINOLOGY

AMBIENT NOISE LEVEL:	The composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.
CNEL:	Community Noise Equivalent Level. The average equivalent sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and ten decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.
DECIBEL, dB:	A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).
DNL/L _{dn} :	Day/Night Average Sound Level. The average equivalent sound level during a 24-hour day, obtained after addition of ten decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.
L _{eq} :	Equivalent Sound Level. The sound level containing the same total energy as a time varying signal over a given sample period. L_{eq} is typically computed over 1, 8 and 24-hour sample periods.
NOTE:	The CNEL and DNL represent daily levels of noise exposure averaged on an annual basis, while L_{eq} represents the average noise exposure for a shorter time period, typically one hour.
L _{max} :	The maximum noise level recorded during a noise event.
L _n :	The sound level exceeded "n" percent of the time during a sample interval (L_{90} , L_{50} , L_{10} , etc.). For example, L_{10} equals the level exceeded 10 percent of the time.

A-2

ACOUSTICAL TERMINOLOGY

NOISE EXPOSURE CONTOURS:	Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and DNL contours are frequently utilized to describe community exposure to noise.
NOISE LEVEL REDUCTION (NLR):	The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of "noise level reduction" combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.
SEL or SENEL:	Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.
SOUND LEVEL:	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.
SOUND TRANSMISSION CLASS (STC):	The single-number rating of sound transmission loss for a construction element (window, door, etc.) over a frequency range where speech intelligibility largely occurs.

APPENDIX B EXAMPLES OF SOUND LEVELS



Vehicle Miles Traveled (VMT) Assessment Memorandum



HEXAGON TRANSPORTATION CONSULTANTS, INC.

Memorandum

Date:	June 1, 2023
То:	Stuart Poulter, EMC Planning Group
From:	Robert Del Rio, T.E., Luis Descanzo
Subject:	VMT Assessment for the Proposed North Salinas High School Stadium Improvements in Salinas, California

Hexagon Transportation Consultants, Inc. has completed a vehicle-miles traveled (VMT) assessment for the proposed stadium improvements at North Salinas High School football field. North Salinas High School (NSHS) is located at 55 Kip Drive in Salinas, California. The location of the NSHS stadium and the surrounding study area are shown on Figure 1. The purpose of this memorandum is to provide an assessment of the project's effect on VMT. The VMT assessment methodology and results are discussed below.

Project Description

The project proposes to install new stadium lighting at the school's existing football field stadium and to replace the existing stadium seating for both the home and visitor seating areas, which currently accommodates up to 1,250 spectators. Proposed upgraded bleacher facilities at the existing stadium site would accommodate up to 1,716 spectators (1,548 seats for the east-facing home bleachers and 168 seats for the west-facing visitor bleachers). Based on information provided by the Salinas Union High School District, up to 1,500 tickets are planned to be distributed for non-Homecoming football games while up to 2,250 tickets would be distributed for Homecoming football games. Though the improvements will include seating for up to 1,716 attendees, graduation ceremonies held at the stadium may have up to 3,000 attendees with standing room only. Additionally, accessibility improvements are also proposed within the existing parking lots on-site and along egress pathways between the parking lots and stadium. The installation of new ADA parking stalls will result in a net reduction of three existing parking stalls.

The stadium lights would allow the school to provide flexible nighttime use of the field for various sporting and school events. Table 1 provides a summary of the anticipated use of the stadium with the proposed lighting. It is estimated that the stadium lights would be utilized during weekdays and Saturday evenings, between 5:00 PM to 9:00 PM during practice days and could be on until 10:30 PM to 11:00 PM on game nights for games ending at 10:00 PM.

Currently, Friday evening football games with up to 1,000 attendees are played off-site at Rabobank Stadium at the Salinas Sports Complex, approximately ½-mile south of the NSHS campus. Upon installation of new stadium lights, all home football games will be played at the NSHS stadium. The number of attendees is expected to increase from 1,000 to 1,500 for most football games. Factors such as team record, opponent and conflicting events are expected to affect attendance. Attendance at all other sports games (soccer and field hockey) is expected to be lower than that of football games. Because the new Friday evening football games on campus are expected to generate the greatest



Figure 1 Site Location





Table 2Proposed Schedule of Stadium Uses (After Installation of Field Lights)

		Timing Timing (Practices) (Games/Meet)			Approx. Number of Participants (Student-Athletes, Coaches, and	Estimated Number of Practices per Week (at	Estimated Home Games/Meets per Year	
	Start End Start End	End	Start	End	Staff)	Stadium)	(Range)	
Fall Sports (Au	igust to No	ovember)						
Cross Country	(Boys & G	Girls)						
All (no Sun)	3:45	6:00			50	1-2	0	
Field Hockey (Girls) - Va	rsity					'	
All (no Sun)	3:45	8:30	5:45	7:15	25	5-6	10	
Field Hockey (Girls) – Ju	nior Varsi	ity	1				
All (no Sun)	3:45	8:30	4:00	5:15	25	5-6	10	
Football - Vars	iity	1	•	1				
All (no Sun)	3:45	8:30	7:30	10:00	75	5-6	5	
Football – Juni	or Varsity		1	•	'	'	'	
All (no Sun)	3:45	8:30	5:00	7:00	75	5-6	5	
Winter Sports	(Novembe	r to Febru	Jary)					
Soccer (Boys)	- Varsity							
All (no Sun)	3:45	8:30	5:45	7:15	30	5-6	10	
Soccer (Boys)	– Junior V	arsity					·	
All (no Sun)	3:45	8:30	4:00	5:15	30	5-6	10	
Soccer (Girls)	- Varsity							
All (no Sun)	3:45	8:30	5:45	7:15	30	5-6	10	
Soccer (Girls)	– Junior V	arsity						
All (no Sun)	3:45	8:30	4:00	5:15	30	5-6	10	
Spring Sports	(February	to May)			·	·		

HEXAGON

Track & Field (Boys)										
All (no Sun)	3:45	6:30	3:30	7:30	50	5-6	5			
Track & Field	Track & Field (Girls)									
All (no Sun)	3:45	6:30	3:30	7:30	50	5-6	5			

SOURCE: Salinas Union High School District 2023



number of attendees and associated vehicle trips, the VMT assessment focuses on the potential impacts resulting from the Friday evening football games with an anticipated 1,500 attendees for the majority of games. All other regularly-scheduled field uses are expected to have lesser impact since the total attendance at non-football events will be much less than Friday night football games. Special events, such as graduation ceremonies, would occur only once a year with up to 3,000 attendees.

VMT Assessment Methodology and Results

Pursuant to Senate Bill (SB) 743, the California Environmental Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that VMT will be the metric in analyzing transportation impacts for CEQA purposes. VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle-trips with one end within the project.

City of Salinas VMT Policy Screening Recommendations

In adherence to SB 743, the City of Salinas has adopted its *Senate Bill 743 Vehicle Miles Traveled Implementation Policy*, adopted in October 2020. The City of Salinas's VMT policy provides recommendations regarding VMT evaluation methodology, significance thresholds, and screening thresholds for land use projects. The City's policy is based on guidelines published by the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018. The Salinas Union High School District does not have its own VMT policy and therefore chooses to use the City's policy, which is consistent with State guidelines.

The City's VMT screening thresholds are intended to identify when a project would be expected to cause a less-than-significant impact without conducting a detailed VMT evaluation. The City's screening thresholds are based on project size, estimated trip generation, maps, transit availability, and provision of affordable housing. The City's screening threshold criteria are listed below.

- Small projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant impact on VMT.
- Project Near High Quality Transit, including office, residential, retail, and mixed-use developments, within ½ mile of an existing major transit stop with service frequency of 15 minutes or less during commute periods may be presumed to have a less-than-significant impact on VMT.
- Local-serving retail developments with no single store on site exceeding 50,000 s.f. in size, as determined by the City, may be assumed to cause a less-than-significant impact on VMT.
- Residential developments with a high percentage of affordable housing, as determined by the City, may be presumed to have a less-than-significant impact on VMT.
- Development that consists of local-serving essential services (considered to be less than 50,000 s.f. in size and is a proposed day care center, public K-12 school, police or fire facility, medical/dental office building, or government services facility) may be assumed to cause a less-than-significant impact on VMT. All school activities (i.e., sports activities, school events, etc.) are presumed to be part of a high school's overall function and can thus also be assumed to be part of the less-than-significant impact on VMT consideration.
- Office or residential projects not exceeding a level of 15 percent below existing VMT per capita and employee thresholds, as shown in screening maps, may indicate a less-than-significant impact on VMT.
- Redevelopment of a project site which replaces an existing VMT-generating land use without resulting in a net overall increase (or remains equal) in VMT may be assumed to cause a less-than-significant impact on VMT



The VMT assessment is based on the City's VMT screening criteria listed above and estimates of daily trips for the project is based on information provided by the Salinas Union High School District regarding the use of the stadium for various games, practices, and events as well as attendance of Friday night football games currently being held at Rabobank Stadium. It should be noted that the daily trips and VMT associated with the current attendees of NSHS football games are already being generated at Rabobank Stadium, less than ½-mile away from the NSHS stadium. Therefore, this VMT assessment reflects the net increase in VMT within the local area encompassing Rabobank Stadium and the NSHS stadium.

Daily Trip Generation Estimates

For typical land uses such as residential, office, and commercial developments that generate trips on a consistent basis, daily VMT estimates are calculated based on land use travel patterns during an average weekday. Unlike these typical uses, however, there is a significant variance in day-to-day project generated trips for a high school stadium. The stadium would generate the greatest number of trips when utilized for Friday night home football games which would occur only once per week during only the football season. Significantly less vehicular traffic would be generated by non-football game use of the stadium on a daily basis. Therefore, calculating only the VMT generated during Friday game days would not accurately represent average weekday VMT generated by the stadium. Instead, it is necessary to divide the total number of trips generated during a game week (i.e. the trips generated during a Friday football game) by the five weekdays to provide an average weekly trip and VMT estimates to reflect the average daily trip generation for the peak uses of the stadium.

The proposed stadium lighting is expected to result in an increase in attendance at football games and other sporting events. The increase in attendees will result in an increase in vehicular trips and VMT that is currently generated by the sporting events. Currently, Friday evening football games with up to 1,000 attendees are played off-site at Rabobank Stadium at the Salinas Sports Complex. The stadium improvements are expected to increase the attendance of home football games on Friday nights from the current approximately 1,000 attendees to up to 1,500 attendees. The football season typically runs for 10 weeks between August and November with approximately 5 to 6 home games hosted by NSHS.

This evaluation utilizes a vehicle occupancy rate based on data previously collected for a homecoming football game on a Friday night at Mitty High School in San Jose, California¹. Hexagon counted the number of vehicles parked at Mitty High School, at an adjacent church, and on the surrounding streets during the homecoming game on Friday, October 5, 2018, and on a regular Friday night on October 26, 2018. The difference between the two parking counts represents Mitty game night traffic. Based on the number of additional parked vehicles and the estimated attendance at the surveyed Friday night game, the vehicle occupancy rate was calculated to be an average of 3.24 persons per vehicle for the game attendees.

Utilizing the surveyed vehicle occupancy rate and anticipated attendance projections, the average trip increase per day for Friday night football games in the vicinity of North Salinas High School would be approximately 62 trips (500 attendees / 3.24 persons per vehicle x 2 trips (inbound and outbound) x 1 event per week / 5 days per week = 62 trips per day). During a homecoming or rivalry game, attendance is expected to increase from the current 2,000 attendees to an anticipated 2,250 attendees, resulting in an increase of approximately 31 trips per day for the homecoming and rivalry games.

The stadium lighting also could allow the school to host sporting events into the evening hours, such as a football jamboree/scrimmage and a field hockey tournament in the fall, soccer tournament in winter, and track & field meets in spring. The largest of these events is a track and field invitational, which has

¹ VMT Analysis and Local Transportation Analysis for a Project to Add Field Lights at Archbishop Mitty High School in San Jose, Ca., Hexagon Transportation, January 9, 2019.



attracted approximately 500 participants in previous years. However, the total vehicular trips and resulting VMT of non-football events would be lower and less frequent than those of evening football games since the total attendance for non-football sports events will be less than Friday night football games. Moreover, fall sports (football), winter sports (soccer), and spring sports (track & field) would not occur concurrently. Therefore, the evaluation of Friday evening football games represents a worst-case scenario in terms of total trips and VMT throughout the year.

VMT Assessment

As discussed above, the average trip increase per day in the project area as a result of the proposed project would range from 31 trips for homecoming and rivalry games and up to 62 trips per day for normal Friday night football games. Per the City's VMT screening threshold recommendations, since the additional daily trips estimated to be generated by the proposed project would be on average less than 110 daily trips, it may be presumed to be a small project and would therefore be considered to have a less-than-significant impact on VMT. In addition, the City VMT policy also states that public K-12 schools may be presumed to have a less-than-significant impact on VMT. In addition, the City VMT policy also states that public K-12 schools may be presumed to have a less-than-significant impact on VMT. In addition, the City trips, school events, etc.) are presumed to be part of a high school's overall function. The proposed project consists of the addition of seating and lighting to an existing public high school and therefore can be considered to be a component of Salinas High School and it's local serving essential service consideration.

