INITIAL STUDY AND NEGATIVE DECLARATION

ADDENDUM No. 3

HOLLISTER HIGH SCHOOL BALER ALLEY CLOSURE AND MULTI-PURPOSE FIELD LIGHTS MODIFICATIONS TO MEASURE U PROJECT SCH #2018031086



Prepared for San Benito High School District

February 2024

Prepared by
Amy O. Skewes-Cox, AICP
Environmental Planner

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In conjunction with
BASELINE ENVIRONMENTAL CONSULTING
PARAMETRIX
PEARCE SERVICES

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CHAPTER I

This Initial Study and Negative Declaration Addendum addresses the proposed modifications to the Measure U Project, specifically the proposed Baler Alley closure and proposed lighting for the Hollister High School multi-purpose field (MPF) in Hollister, CA. The Lead Agency is the San Benito High School District, and the San Benito School District Board of Trustees is the District's governing board.

BACKGROUND

This Addendum is the third addendum (and therefore titled "Addendum No. 3") to the San Benito High School District's approved 2018 Initial Study/Mitigated Negative Declaration for the Measure U Project (State Clearinghouse Number [SCH] 2018031086), which is incorporated herein by reference (School Site Solutions, 2018). The 2018 Initial Study addressed site-wide improvements to the then San Benito High School (now Hollister High School) campus, including the addition of a Student Quad, Multi-Purpose and Associated Student Body (ASB) Project; bus drop-off zone, an extended parking lot, and staff parking; replacement of the softball field; track and field with lighting; track and field locker rooms; and an aquatics complex with replacement lighting and locker room. After adoption of the Initial Study/Negative Declaration, a change to the project involving the installation of four sports light poles in addition to the replacement softball field improvements previously covered by the Negative Declaration was proposed in or around 2020. An Addendum to the adopted Negative Declaration was considered, and together with the softball field lighting modification, was approved by the District's board in April 2020. Similarly, in or around 2022, the need for removal of contaminated soils in the area of the ASB building and adjoining Student Quad was identified after the approval of the 2018 Initial Study/Negative Declaration and 2020 Addendum. As this change to the project involved only minor technical changes or additions, a subsequent Addendum was considered, together with the soil removal modification, and was approved by the District's board in April 2022.

While the Negative Declaration and subsequent Addendum addressed lighting of certain athletic facilities and parking lot and drop-off improvements, at that time it was not known that additional lighting for the MPF field would be a specific component of the new development on the campus or that the proposed closure of Baler Alley would be part of the District's traffic and safety improvement efforts.

The proposed Baler Alley closure and the new lighting for the MPF were proposed after the approval of the 2018 Initial Study/Negative Declaration, as well as after the approval of the previous addenda. For this reason, an addendum was selected as the best document to meet the requirements of the California Environmental Quality Act (CEQA). Section 15164(b) of the CEQA Guidelines states that "an addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for preparation of a subsequent EIR or negative declaration have occurred." Pursuant to Section 15162(a), a subsequent negative declaration

¹ It should also be noted that since the earlier addenda were prepared, the high school's name has been changed from San Benito High School to Hollister High School.

would be necessary if substantial changes are proposed in the project or have occurred in its circumstances, requiring major revisions to the previous negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. Likewise, a subsequent negative declaration would be necessary if the District, as the Lead Agency, determined, based on substantial evidence in light of the whole record, that new information of substantial importance, which was not known and could not have been know at the time the previous negative declaration was adopted, shows new significant effects not previously discussed. If changes to a project or its circumstances occur, or if new information becomes available after adoption of a negative declaration, the Lead Agency shall prepare a subsequent EIR if required. Otherwise, the Lead Agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation (CEQA Guidelines Section 15162(b)).

The proposed Baler Alley closure and MPF lights modifications to the Measure U Project are not substantial changes that would require major revisions to the previous negative declaration (or the addenda thereto). The modifications would not result in new significant environmental effects, nor substantially increase the severity of the previously addressed less-than-significant impacts. Similarly, although there are changes in the surrounding circumstances in that portions of the Measure U Project have subsequently been built, including the installation and/or replacement of lights at the track and field, softball field, and aquatics center, as well as the recent addition of the girls flag football team and its use of the MPF at Hollister High School², such changes are not substantial changes that require major revisions to the Negative Declaration, as no new significant environmental impacts or increases in the severity of impacts previously addressed would occur, even cumulatively. The project's overall impacts, including the changed circumstances, are essentially the same as had been projected in, and covered by, the Negative Declaration. As discussed herein, the increment of impact resulting from the project modifications would not result in new or more severe significant environmental effects, nor impacts substantially different from those described in the Negative Declaration; the impacts of the project, as modified, remain less-than-significant. Moreover, the proposed Baler Alley closure and MPF lights modifications are not substantial in proportion the Measure U Project as a whole. Given the information on the proposed lighting and Baler Alley closure, existing conditions on the high school campus and in the vicinity, the data supporting the Negative Declaration's findings and subsequent incremental changes to such data, and the impacts identified in the 2018 Initial Study, it was determined that an addendum would be the appropriate document for evaluating the proposed Baley Alley closure and proposed lighting to meet the statutory requirements of CEQA.

ADDENDUM CONTENTS AND REVIEW

As required pursuant to CEQA Guidelines Sections 15162(a) and 15164(b), this Addendum provides substantial evidence supporting the Lead Agency's decision not to prepare a subsequent EIR or negative declaration. The environmental analysis evaluates the potential impacts of the proposed modifications to the Measure U Project in relation to the current environmental conditions and in consideration of the environmental findings for the project. As summarized below, the changes proposed are relatively minor and would not result in any new significant environmental impacts. The analysis contained herein demonstrates that all of the impact issues previously examined in the approved Negative Declaration would remain unchanged with the proposed modifications. Therefore, the analysis of the modifications to the

² This Addendum conservatively assumes no current use of the MPF by the recently added girls flag football team.

project supports the determination that the proposed changes would not involve new significant environmental effects, or result in a substantial increase in the severity of previously identified significant effects that would require the preparation of a subsequent EIR or negative declaration pursuant to Section 15162 of the CEQA Guidelines.

An addendum does not require circulation for public review but can be included or attached to the final adopted negative declaration, as stated in Section 15164(c) of the CEQA Guidelines. Before making a decision on the project, the decision-making body (which in this case is the Board of Trustees of the San Benito High School District) shall consider the Addendum with the adopted Negative Declaration and subsequent Addenda thereto.

This Addendum and approval of the proposed lighting and Baler Alley closure will be heard by the Board of Trustees as follows:

Location:	Hollister High School Davis Library at 1220 Monterey Street, Hollister, CA
Date:	March 12, 2024
Time:	7:00 PM

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CHAPTER II PROJECT DESCRIPTION AND MODIFICATIONS

- 1. **Project Title:** Hollister High School Baler Alley Closure and Multi-Purpose Field (MPF) Lights Modifications to Measure U Project
- 2. Lead Agency Name and Address:

San Benito High School District 1220 Monterey Street Hollister, CA 95023

- 3. Contact Person and Phone Number: Mr. Shawn Tennenbaum, Superintendent (831-637-5831)
- **4. Project Location:** 1220 Monterey Street, Hollister, CA (cross streets are Nash Road and San Benito Street)
- 5. Project Sponsor's Name and Address:

San Benito High School District 1220 Monterey Street Hollister, CA 95023

- 6. **General Plan Designation:** Public Facility
- **7. Zoning:** Public Facility
- 8. Description of Project: Hollister High School is located on an 11.6-acre site and has a capacity for 3,000 students. The 2018 Measure U Project, as modified by the 2020 and 2022 Addendums, provides for the addition of a Student Quad, Multi-Purpose and Associated Student Body (ASB) Project; bus drop-off zone, an extended parking lot, and staff parking; replacement of the softball field with the addition of softball field lights; track and field with lighting; track and field locker rooms; an aquatics complex with replacement lighting and locker room on the campus, and soil removal in accordance with the Removal Action Workplan (RAW).

This Addendum addresses a proposed change to the project that would provide for the following:

- Addition of ten Musco light poles to the existing MPF lights constructed in 2017/2018;
- Minimal site grading, since existing electrical systems would be upgraded;
- Minimal trenching to support addition of conduit at each pole;
- Increase in events for field hockey, girls flag football, boys lacrosse, cheer (winter), and outside entities (see Table 1 for specific changes); and

TABLE 1 ANTICIPATED CHANGES IN USE OF THE MULTI-PURPOSE FIELD (MPF) AS A RESULT OF THE PROJECT

Events per Year: Existing	Proposed Events per Year: After Project	Net Change in No. of Yearly Events: After Project	Typical Timing of Events: Existing	Typical Timing of Events: After Project	Average Number Participants/ Spectators per Event: Existing	Proposed Participants/ Spectators per Event: After Project	Net Change in Participants/ Spectators per Event: After Project
54	64	+10	3:30-6:00	3:30-6:00	50	50	0
48	48	0	3:30-6:00	3:30-6:00	20	20	0
27	27	0	4:00-6:30	4:00-6:30	20/80	20/80	0
60	60	0	3:30-6:30	3:30-6:30	30	30	0
10	10	0	4:00-6:15	4:00-6:15	100/120	100/120	0
57	57	0	3:30-6:00	3:30-6:00	45	45	0
64	64	0	3:30-6:15	3:30-6:15	130	130	0
64	64	0	3:30-6:30	3:30-6:30	55	55	0
0	54	+54	N/A	6:30-9:00	0	40	+40
0	5	+5	N/A	6:30-9:00	0	50	+50
0	64	+64	N/A	6:30-9:00	0	64	+64
10	30	+20	Weekend, all day into evening	6:00-9:00	35/40	80/100	+45/60
60	60	0	6:00-9:00 Weekly 9:00-5:00 Weekend	Same	85-90	85-90	0
	per Year: Existing 54 48 27 60 10 57 64 64 0 0 0 10	Events per Year: Events per Year: Existing After Project 54 64 48 48 27 27 60 60 10 10 57 57 64 64 64 64 0 54 0 5 0 64 10 30	Events per Year: Existing Proposed Events per Year: After Project in No. of Yearly Events: After Project 54 64 +10 48 48 0 27 27 0 60 60 0 10 10 0 57 57 0 64 64 0 64 64 0 0 54 +54 0 5 +5 0 64 +64 10 30 +20	Events per Year: Existing Proposed Events per Year: Project in No. of Yearly Events: Events: Events: Events: Events: After Project Typical Timing of Events: Existing 54 64 +10 3:30-6:00 48 48 0 3:30-6:00 27 27 0 4:00-6:30 60 60 0 3:30-6:30 10 10 0 4:00-6:15 57 57 0 3:30-6:00 64 64 0 3:30-6:15 64 64 0 3:30-6:30 0 54 +54 N/A 0 54 +54 N/A 0 64 +64 N/A 0 64 +64 N/A 0 60 60 6:00-9:00 Weekly	Events per Year: Proposed Events in No. of Yearly per Yearly Pevents: Typical Timing of Events: Typical Timing of Events: 54 64 +10 3:30-6:00 3:30-6:00 48 48 0 3:30-6:00 3:30-6:00 27 27 0 4:00-6:30 4:00-6:30 60 60 0 3:30-6:30 3:30-6:30 10 10 0 4:00-6:15 4:00-6:15 57 57 0 3:30-6:00 3:30-6:00 64 64 0 3:30-6:15 3:30-6:00 64 64 0 3:30-6:30 3:30-6:30 0 54 +54 N/A 6:30-9:00 0 64 +64 N/A 6:30-9:00 0 64 +64 N/A 6:30-9:00 0 60 0 0 6:00-9:00 Weekly Same	Events per Year: Existing Proposed Events per Year: Existing Number Participants/ Yearly per Year: Existing Typical Timing of Events: Existing Typical Timing of Events: Existing Number Participants/ Spectators per Event: Existing 54 64 +10 3:30-6:00 3:30-6:00 50 48 48 0 3:30-6:00 3:30-6:00 20 27 27 0 4:00-6:30 4:00-6:30 20/80 60 60 0 3:30-6:30 3:30-6:30 30 10 10 0 4:00-6:15 4:00-6:15 100/120 57 57 0 3:30-6:00 3:30-6:00 45 64 64 0 3:30-6:15 3:30-6:15 130 64 64 0 3:30-6:30 3:30-6:30 55 0 54 +54 N/A 6:30-9:00 0 0 64 +64 N/A 6:30-9:00 0 0 60 60 0 6:00-9:00 Weekly 6:00-9:00 35/40	Events per Year: Existing Proposed Events per Year: Participants/ Spectators per Year; Per Year: Participants/ Spectators per Events: Per Year After Project Number of Events: Participants/ Spectators per Event: Existing of Events: After Project Number Participants/ Spectators per Event: Existing of Events: Existing Per Event: Existing After Project Number Participants/ Spectators per Event: Existing Per Event: E

Note: N/A = Not Applicable Source: Hollister High School, 2024. Closure of Baler Alley, an internal campus asphalt road that is 466 feet long and 27 feet wide and separates the farthest northeast building on the main campus from the large parking lot. This road is now used for loading and unloading of over 50 special education students. Baler Alley would have a pole gate installed at either end of the alley; access for loading and unloading of students with special needs would be maintained as needed from this roadway.

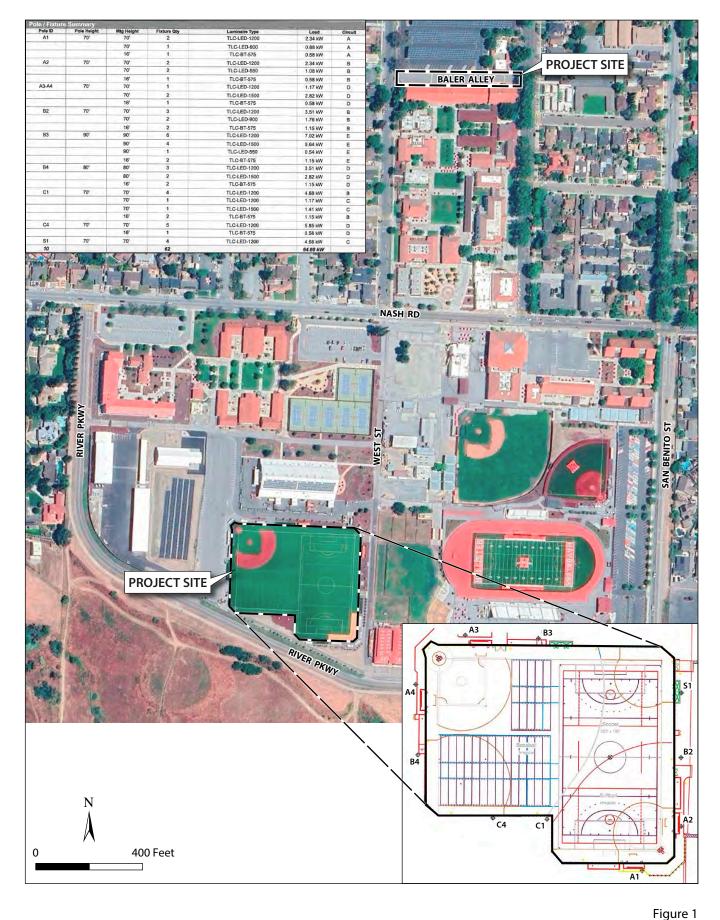
Proposed Lighting: The existing MPF is comprised of a soccer field and JV baseball field. The proposed MPF lighting project consists of the addition of ten Musco lights on the existing MPF located on the southwest part of campus, as follows (see **Figure 1**):

- Light pole A1 would be 70 feet tall and would have four fixtures on it.
- Light pole A2 would be 70 feet tall and would have five light fixtures on it.
- Light pole A3 would be 70 feet tall and would have four fixtures on it.
- Light pole A4 would be 70 feet tall and would have four light fixtures on it. This light pole would be located approximately 50 feet from home plate at the JV baseball field.
- Light pole B2 would be 70 feet tall would have seven light fixtures on it. This pole would be set back 135 feet from the center of the soccer field.
- Light pole B3 would be 90 feet tall and would have 13 fixtures on it.
- Light pole B4 would be 80 feet tall and would have seven light fixtures on it.
- Light pole C1 would be 70 feet tall and would have eight light fixtures on it.
- Light pole C4 would be 70 feet tall and would have six light fixtures on it.
- Light pole S1 would be 70 feet tall and would have four light fixtures on it. This pole would be located 163 feet from home plate and 62 feet from the foul line of the JV softball field.

The proposed Musco design uses fixtures that have a guaranteed level of light from 30 to 50 footcandles.

The MPF lights would be operated in accordance with the District's standard practices designed to minimize light impact on residences and the environment, which include the following:

- All outdoor lighting shall be controlled, shielded, and directed to minimize both sky-light and spill-light, in accordance with California Code of Regulations (CCR) Title 24 outdoor lighting requirements.
- Any need to re-aim or adjust the luminaires during the initial nighttime testing or the field lights shall be part of the project scope. This will ensure that no excessive trespass/spill remains uncorrected.
- The proposed field lights shall be provided with programmable controls to turn off the lights at a pre-set time, as recommended by School District Standards. Manual controls shall only be provided for testing the lights.



SOURCE: Musco Lighting, 2023 BASE MAP: Google Earth, 2023

PROJECT LOCATION AND SITE PLAN



Additional control features that can be considered are dimming controls that would allow the operation of the field illumination to be reduced for the practice play when there are no spectators present, as well as for the after-game clean-up work. This has the benefit of allowing the same degree of illumination after the prescribed time when the lights must be turned off immediately after the game.

A light fixture could be misaligned during installation. Therefore, the District would test the installation and have the manufacturer re-aim and adjust the luminaires as needed during the initial nighttime testing of the field lights to ensure that no excessive spill light remains uncorrected.

Anticipated Changes in Use of Multi-Purpose Field (MPF): The project would increase the number of events on the MPF (see Table 1), and would also increase the amount of time that athletes/spectators would be able to use the MPF. Currently, portable construction lights are used for nighttime sports events, and events are cut short so that each sport/band can use the facility. With the addition of the new lights, each entity would have adequate time to practice or play. Most recently, consistent with Title IX requirements, the high school has added an additional sport, girls flag football, that would also affect the use of this facility. Table 1 shows anticipated changes in use of the MPF as a result of the project.

Project Timeline: The District expects that the Division of the State Architect (DSA) review process for the project will take 6 to 8 weeks. Musco estimates a 12-week fabrication period. The District plans on an 8-week construction schedule that would start on June 15, 2024, and end on August 15, 2024.

- 9. Surrounding Land Uses and Setting: The high school campus is surrounded by San Benito Street on the east, Nash Road on the north, and River Parkway on the south. Residential development is located north, west, and east of the campus. Undeveloped lands are located south of River Parkway. A church is located near the intersection of River Parkway and San Benito Street.
- 10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

Development of the project site is controlled by the San Benito High School District. Approval by the Division of the State Architect (DSA) would be required.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

According to the 2018 Initial Study, San Benito High School District staff met with Mr. Valentin Lopez, representative of the Amah Mutsun Tribal Band, on February 21, 2018. After review of the project evaluated in the 2018 Initial Study, Mr. Lopez informed the District that the tribe had no specific concerns regarding the project at that time. Given that the original project included lighting

of the track and football field and aquatic center, it is assumed that the proposed lighting of the MPF would also be considered acceptable.

REFERENCES

- Hollister High School, 2024. Data on usage provided by Tod Thatcher, Athletic Director. January and February.
- School Site Solutions, 2018. Final Initial Study and Negative Declaration for the San Benito High School Measure U Project, May.
- Skewes-Cox, Amy O., AICP, 2020. Final Initial Study and Negative Declaration Addendum, San Benito High School Measure U Project (Softball Field Lighting Modification), March.
- Skewes-Cox, Amy O. AICP, 2022. Initial Study an Negative Declaration Addendum, San Benito High School Measure U Project Removal Action Workplan, April.
- Zimmerman, Rob, Construction Project Manager, 2020. Email to A. Skewes-Cox, February 28.

Environmental Factors Potentially Affected:

	t one impact that is a "Poter			cted by this project, involving at ed by the checklist on the following		
 □ Aesthetics □ Biological Resources □ Geology and Soils □ Hydrology and Water Quality □ Noise □ Recreation □ Utilities and Service Systems 		00000	Agricultural and Forestry Resources Cultural Resources Greenhouse Gas Emissions Land Use and Planning Population and Housing Transportation Wildfire	☐ Air Quality ☐ Energy ☐ Hazards and Hazardous Materials ☐ Mineral Resources ☐ Public Services ☐ Tribal Cultural Resources ☐ Mandatory Findings of Significance		
Dete	ermination.					
On t	he basis of this initial evalua	tio	n:			
			t COULD NOT have a significar DDENDUM will be prepared.	nt effect on the environment, and a		
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.					
	I find that the proposed pro ENVIRONMENTAL IMPAC		t MAY have a significant effect of REPORT is required.	on the environment, and an		
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.					
_	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.					
	(Plu			February 27, 2024		
Signa	ature //			Date		
Sha	wn Tennenbaum, Ed.D., Supe	rint	endent			
	ed Name Benito High School District					

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CHAPTER III ENVIRONMENTAL CHECKLIST

INTRODUCTION

The Checklist below addresses the three topics that were considered relevant to the proposed lighting and closure of internal roadway Baler Alley: Aesthetics (Section I of the full CEQA Guidelines Appendix G Checklist), Noise (Section XIII of the full Checklist), and Traffic (Section XVII of the full Checklist). Whenever a potentially significant impact is identified, a mitigation measure is identified. However, no significant impacts were identified for the proposed lighting and Baler Alley closure modifications.

			Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
l.		STHETICS. Except as provided in Public Resources Code ction 21099, would the project:				
	a)	Have a substantial adverse effect on a scenic vista?				
	b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				
	c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				•
	d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

IMPACT EVALUATION

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact

Land and development surrounding the project site are on level ground where only short-distance views are generally available. No scenic vistas are located within this portion of Hollister. Thus, the project would not have a substantial adverse effect on a scenic vista.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

No Impact

The project site is not located near a State scenic highway; therefore, the project would have no impact related to this significance criterion.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact

The project site is in an urbanized area, surrounded by residential and commercial development and other facilities of the fully developed and operating Hollister High School. No public views would be significantly affected, and the project would not conflict with zoning or other regulations related to scenic quality.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact

The potential environmental impacts of outdoor sports lighting are generally evaluated as "light trespass," which is defined as light spilling onto adjacent properties. Additionally, evaluation of outdoor sports lighting should also consider the impact of glare, which is the brightness of the fixtures, in this case as seen from neighboring residences.

The physical characteristics of outdoor sports lighting can also be an issue for residents if (1) the nighttime glow of the lights presents a visual intrusion on views from their homes, or (2) the light standards either individually or cumulatively block a view corridor.

Applicable Design Criteria

The design of the proposed sports lighting system would provide light levels in accordance with recommendations of the Illuminating Engineering Society (IES) RP-6-22 Recommended Practice for Sports and Recreational Area Lighting. Using these recommendations, the average-maintained illuminance, measured 3 feet above field, for softball and other sports on the MPF would be:

- Baseball/Softball Class III of play: 50 footcandles in the infield and 30 footcandles in the outfield.
- Soccer Class III of play: 30 footcandles in the infield.

Other Standards and Criteria

Other than the above design criteria, there are no other standards or criteria by which to evaluate potential impacts of outdoor sports lighting. This is typical of jurisdictions nationwide; currently, there is no legal or uniformly accepted definition of light trespass or glare. Commonly, the terms are employed in reference to unwanted light at a property line, or at a specified distance beyond the property line, that would disturb the natural nighttime tranquility of an adjacent property owner.

The State of California presently includes standards for spill, trespass, and sky glow in the California Green Building Standards Code (CALGreen Code), but these standards do not address issues of light trespass associated with sports lighting.

Methodology for Assessing Light and Glare

One method for analyzing the potential for light trespass from sports lighting is to compute the illuminance (measured in lux or footcandles) on horizontal planes (typically at 3 feet above ground or pavement), and the maximum <u>vertical</u> illumination, at various locations distant from the sports field that may be of concern.

An additional useful and very powerful method for analyzing the potential for glare from sports lighting is to compute the luminance (brightness) of the sports light fixtures (measured in candelas) as seen from perspectives away from the sports fields. For the site of the proposed MPF lighting, this would be at the property line of residences located across San Benito Street on the east side of the campus site and River Parkway residences on the west side of the fields. This analysis is provided in the lighting study prepared by Musco (see **Appendix A**) on behalf of the San Benito High School District.

Glare values below 1,000 candelas should not be considered as intrusive or a nuisance to residents.

Proposed Lighting Plan

Major considerations in the design of a sports lighting system include illumination level, pole heights and location, light output of lamps, optical control of fixture and glare shielding, and proximity to surrounding land uses. The Musco lighting plan for the project illustrates the proposed locations for poles for the facilities, as shown in **Figure 2**. The configuration of the poles and light fixture clusters are illustrated in the Musco Sports Lighting Report attached as Appendix A.

Spill Light from Proposed Lighting

The computer-predicted spill light values used by Musco Lighting were analyzed at a 600-foot distance along the residences on River Parkway. Residences along San Benito Street would not be affected by the proposed lighting system because they are more than 1,000 feet from the fields. The predicted values are as indicated in the Musco Illumination Summary (see **Appendix A**). Horizontal spill light levels from the proposed lighting would be 0.0 footcandle, which indicates no horizontal light impact.

Vertical illumination values (that is, light directly onto vertical surfaces) would be 0.0 footcandle, which also indicates no vertical light impact.

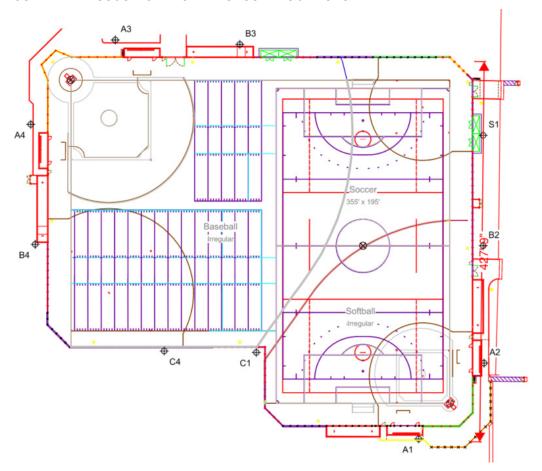


FIGURE 2 MUSCO LIGHT POLE PROPOSED LOCATIONS

Based on the manufacturer's analysis, glare from the proposed sports lights would be below 23 candelas, which is very low and would not have the potential for disturbing neighbors.

While the impact would be less than significant, the MPF lights would still be operated in accordance with the District's standard practices designed to minimize light impact on residences and the environment. These standard practices include the following:

- All outdoor lighting shall be controlled, shielded, and directed to minimize both sky-light and spill-light, in accordance with California Code of Regulations (CCR) Title 24 outdoor lighting requirements.
- b. Any need to re-aim or adjust the luminaires during the initial nighttime testing or the field lights shall be part of the project scope. This will ensure that no excessive trespass/spill remains uncorrected.
- c. The proposed field lights shall be provided with programmable controls to turn off the lights at a pre-set time, as recommended by School District Standards. Manual controls shall only be provided for testing the lights.

d. Additional control features that can be considered are dimming controls that would allow the operation of the field illumination to be reduced for the practice play when there are no spectators present, as well as for the after-game clean-up work. This has the benefit of allowing the same degree of illumination after the prescribed time when the lights must be turned off immediately after the game.

A light fixture could be misaligned during installation. Therefore, the District would test the installation and have the manufacturer re-aim and adjust the luminaires as needed during the initial nighttime testing of the field lights to ensure that no excessive spill light remains uncorrected.

REFERENCES

Musco Lighting, 2024. San Benito Softball Lighting Study, January 24.

VIII			Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.	NO	ISE. Would the project result in:				
	a)	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)	Generation of excessive ground borne vibration or ground borne 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?				

IMPACT EVALUATION

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?

Less Than Significant Impact

Noise from Project Construction

Construction of the project is anticipated to begin on June 15, 2024, and end on August 15, 2024, lasting approximately 8 weeks. Summer school would be in session during the anticipated construction

period. The construction hours of the project would be scheduled from 7:00 AM to 3:30 PM, with the possibility to extend for concrete pours.

The primary source of noise during construction would be off-road equipment activities on the project site. Construction noise levels would vary from day to day, depending on the number and type of equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers, if any, between the noise source and receptor. Pile driving, which can generate extreme levels of noise, is not proposed as part of the project.

To evaluate potential impacts on nearby noise-sensitive receptors during construction, the noise threshold of 90 dBA L_{eq} recommended by the Federal Transit Administration (FTA) is used in this analysis (FTA, 2006). The types of construction equipment that would be used for the project were provided by the District (**Appendix B**). In accordance with guidance from FTA, construction noise impacts were evaluated by quantifying the maximum noise levels that would result from the simultaneous operation of the two noisiest pieces of equipment near the perimeter of the project site closest to a sensitive receptor (FTA, 2018). Detailed calculations are provided in Appendix B.

As shown in **Table 2**, the project's construction noise levels were estimated at the nearest residential receptor (a single-family home located about 620 feet west of the project site) and nearest summer school student receptor (conservatively assuming the nearest school building about 90 feet north of the project site). Based on the analysis, project construction would not generate noise levels that exceed the threshold of 90 dBA at the nearest noise-sensitive receptors. Therefore, off-road construction equipment activities on the project site would not generate excessive noise at nearby sensitive receptors.

TABLE 2 POTENTIAL NOISE IMPACT FROM PROJECT CONSTRUCTION EQUIPMENT (DBA Leg)

Nearest Residence (620 feet distance)	Nearest Student (90 feet distance)		
58	75		
60	77		
No	No		
	(620 feet distance) 58 60		

Source. Noise calculations are included in Appendix B.

Noise from Project Operation

Existing after-school events at the MPF include field hockey, baseball, softball, soccer, football, flag football, lacrosse, cheer practice, band practice, and outside entities events (weekends only). The primary types of noise generated by typical sport events at the MPF include mechanical noise (e.g., whistles and equipment impact) and vocal noise (e.g., cheering and shouting). Noise levels vary by the sport type and the number of participants for existing practice events at the MPF ranges from 20 to 130. The typical attendance numbers at baseball and softball games are 80 and 120 spectators, respectively.

Currently, after-school events occur on the MPF until 9:00 PM, with the field illuminated by portable construction lights. The proposed lighting under the project would replace the existing use of portable construction lights and keep the hours of operation similar to the existing condition to allow each entity to continue to have adequate time to practice or play. The proposed project would not include the installation of an amplified-sound system or introduce any new sources of noise relative to the existing condition. The potential overlapping of events is not expected to result in a substantial increase in noise levels at nearby noise-sensitive receptors because noise from MPF practice and games is an existing condition and the distance between the MPF and the noise-sensitive receptors (620 feet and beyond) would not change. In addition, consistent with Title IX, Hollister High School recently (in March 2023) added a new after-school event at the MPF, girls flag football, with approximately 40 participants per school team practice. Noise from girls flag football practice is expected to be similar to existing sport practice events occurring at the MPF. The addition of girls flag football would not result in a substantial increase in ambient noise levels in the vicinity of the project. In summary, the proposed lighting and continued sport activities at the MPF would not generate a substantial permanent increase in ambient noise levels in the project vicinity, and this impact would be less than significant.

Noise levels near the project site would potentially increase due to the additional vehicle trips contributed by the project. Due to the logarithmic nature of noise levels, the project would need to double the existing traffic volume on nearby roadways to cause a perceivable increase of 3 dBA in ambient noise levels. As discussed in *Section XVII, Transportation*, operation of the project would generate about 43 trips per day. The average daily traffic volumes along Nash Road and San Benito Street in the project vicinity are 8,450 and 9,750 vehicles, respectively (PlaceWorks, 2023). Since the project would not double the amount of traffic on nearby roadways, the project would not result in a substantial permanent increase in ambient noise levels from project-generated traffic trips, and this impact would be less than significant.

b) Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Less Than Significant Impact

Construction activities can result in varying degrees of ground vibration, depending on the equipment, activity, and relative proximity to sensitive receptors. Construction of the proposed lighting would not involve pile driving or other activities that could generate substantial ground vibration. Therefore, the impact would be less than significant.

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 2 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?

No Impact

The proposed lighting and Baler Alley closure would not be located in the vicinity of a private or public airstrip or within an area covered by an airport land use plan. The nearest airport is the Hollister Municipal Airport located about 3.2 miles to the north of the project site. Therefore, the project would have no impact related to the exposure of people to excess noise levels from aircraft noise.

REFERENCES

Federal Transit Administration (FTA), Office of Planning and Environment, 2006. Transit Noise and Vibration Impact Assessment. FTA-VA-90-1003-06.

Federal Transit Administration (FTA), 2018. Transit Noise and Vibration Impact Assessment Manual, FTA Report No.0123, September.

PlaceWorks, 2023. Hollister 2040 General Plan, Climate Action Plan, and Agricultural Lands Preservation Program Draft EIR, May.

XVII.	TR/	ANSPORTATION. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	a)	Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			•	
	b)	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?				
	c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			•	
	d)	Result in inadequate emergency access?				

IMPACT EVALUATION

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less Than Significant Impact

Adopted plans and policies that address the circulation system applicable to the project include the City of Hollister General Plan, the Hollister Complete Streets Plan, and the San Benito County Bikeway and Pedestrian Master Plan. These plans aim to minimize potential environmental impact and provide multimodal transportation options through pedestrian enhancements, bikeway improvements, the integration of the "Safe Routes to School" program, and initiatives ensuring robust pedestrian connections to major public facilities, schools, and employment centers. The project does not conflict with any goals or programs contained in these plans, and therefore would have a less-than-significant impact.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b)?

Less Than Significant Impact

In accordance with the Technical Advisory on Evaluating Transportation Impacts in CEQA, published by the California Governor's Office of Planning and Research, proposed land use projects are presumed to have a less-than-significant impact if they would generate fewer than 110 net vehicle trips per day.

The introduction of field lighting would result in additional attendees and spectators compared to existing conditions, as described in Table 1, for the new events allowed by the presence of lighting. Vehicle trips generated by the project were estimated based on these figures. Projected after-school events are included in **Table 3**, which shows the anticipated net change in after-school sporting events with the project. The project would result in a net increase of 42.7 daily vehicle trips from increased usage of the field. The closure of Baler Alley would not result in any trip increases.

TABLE 3 PROJECT VEHICLE TRIP GENERATION RESULTS

	Average Vehicle Trips Generated per Event			Events per Year			Average Daily	
After School Event	ln	Out	Total	Existing	Proposed	Net Change	Project- Generated Vehicle Trips	
Field Hockey	22	43	65	54	64	+10	1.78	
Baseball – School Team Practices	9	17	26	48	48	0	0	
Baseball – School Team Competitions	45	90	135	27	27	0	0	
Softball – School Team Practices	13	26	39	60	60	0	0	
Softball – School Team Competitions	52	105	157	10	10	0	0	
Soccer – School Team Practices	20	39	59	57	57	0	0	
Football – School Team Practices	57	113	170	64	64	0	0	
Cheer – Fall	24	48	72	64	64	0	0	
Girls Flag Football – School Team Practices	17	35	52	0	54	+54	7.69	
Boys Lacrosse- School Team Practices	22	43	65	0	5	+5	0.89	
Cheer – Winter	28	56	84	0	64	+64	14.73	
Outside Entities Events	161	161	322	10	30	+20	17.64	
Band – Practices	39	78	117	60	60	0	0	
Total Project	509	854	1,363	454	607	+153	42.7	

Source: Hollister High School, 2024.

As the project would generate fewer than 110 net vehicle trips per day, it is considered to have a less-than-significant impact on vehicle miles traveled (VMT), which is the measure of transportation impact established by CEQA Guidelines Section 15064.3, Subdivision (b).

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact

The project would result in the closure of Baler Alley to the public through installation of a pole gate at either end of the alley. Access for loading and unloading students with special needs would be maintained as needed; the pole gates would be opened for vehicle access during these times. The school bus drivers would meet the assigned campus supervisor at a designated time to enter and exit Baler Alley. Also, there would be communication via cell-based radios in the event that Baler Alley needed to be opened or closed.

The project would not change the existing roadway geometric design or increase hazards due to a roadway alignment or design modification. Neither the proposed closure of Baler Alley nor the proposed lighting would introduce incompatible roadway uses.

d) Would the project result in inadequate emergency access?

Less Than Significant Impact

The emergency access requirements applicable to the project are governed by the City of Hollister Fire Code, which adopts the California Fire Code, 2022 Edition, with local amendments. The project would result in the closure of Baler Alley to the public through installation of a pole gate at either end of the alley's intersections with West Street and Monterey Street. The pole gates would meet the requirements of fire apparatus access road gates for school grounds as described in the California Fire Code, Section 503.5.2. Baler Alley would continue to serve as a fire apparatus access road, with adequate public travelways to the gates retained from West Street and Monterey Street.

Emergency access to the MPF during construction would be an integral component of the fire safety plan, ensuring that adequate provisions are made for fire apparatus access. Any potential impacts on roadway emergency access during installation of the proposed lighting would be thoroughly addressed in the construction traffic control plan. An inspector from the Division of the State Architect (DSA) would monitor construction.

As the project would adhere to the City of Hollister's Fire Code requirements and undergo review by local fire officials as part of the design review process, the project would have a less-than-significant impact on emergency access.

REFERENCES

California Code of Regulations, Title 24, Part 9, Section 503.5.2.

California Governor's Office of Planning and Research, 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA, December.

City of Hollister, 2005. City of Hollister General Plan, December.

City of Hollister, 2020. Complete Streets Plans to Remove Cultural Barriers for Transitioning Neighborhoods.

Council of San Benito County Governments, 2009. San Benito County Bikeway and Pedestrian Master Plan, December.

XXI.	MAI	NDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI.	a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?				•
	b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)				•
	c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				•

IMPACT EVALUATION

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below selfsustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

No Impact

No significant impacts would occur with the introduction of night lighting at the MPF or closure of Baler Alley. No impacts on biological or cultural resources would occur.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

No Impact

The proposed lighting and Baler Alley closure would not have impacts that would combine with past, current, or probable future projects. The Initial Study/Negative Declaration completed for the high school in 2018, together with the 2020 and 2022 Addenda, addressed cumulative impacts of various developments on the campus and no significant impacts were identified. With previous lighting installed on the campus (see 2020 Initial Study Addendum) and increased field use allowed by such lighting, campus usage would not significantly increase in a way that would result in environmental impacts.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact

The proposed lighting and Baler Alley closure would not cause substantial direct or indirect impacts on human beings. As set forth in the Initial Study/Negative Declaration and this Addendum, the project would result in less-than-significant impacts or no impacts for all environmental topics reviewed.

Appendix A Musco Light Levels Study

INITIAL STUDY AND NEGATIVE DECLARATION ADDENDUM FOR THE							
HOLLISTER HIGH SCHOOL BALER ALLEY CLOSURE AND MULTI-PURPOSE FIELD LIGHTS MODIFICATIONS TO MEASURE U PROJECT							

San Benito HS

Hollister, CA

Lighting System

Pole / Fixture Summary								
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit		
A1	70'	70'	2	TLC-LED-1200	2.34 kW	Α		
		70'	1	TLC-LED-900	0.88 kW	Α		
		16'	1	TLC-BT-575	0.58 kW	Α		
A2	70'	70'	2	TLC-LED-1200	2.34 kW	В		
		70'	2	TLC-LED-550	1.08 kW	В		
		16'	1	TLC-BT-575	0.58 kW	В		
A3-A4	70'	70'	1	TLC-LED-1200	1.17 kW	D		
		70'	2	TLC-LED-1500	2.82 kW	D		
		16'	1	TLC-BT-575	0.58 kW	D		
B2	70'	70'	3	TLC-LED-1200	3.51 kW	В		
		70'	2	TLC-LED-900	1.76 kW	В		
		16'	2	TLC-BT-575	1.15 kW	В		
В3	90'	90'	6	TLC-LED-1200	7.02 kW	E		
		90'	4	TLC-LED-1500	5.64 kW	E		
		90'	1	TLC-LED-550	0.54 kW	E		
		16'	2	TLC-BT-575	1.15 kW	Е		
B4	80'	80'	3	TLC-LED-1200	3.51 kW	D		
		80'	2	TLC-LED-1500	2.82 kW	D		
		16'	2	TLC-BT-575	1.15 kW	D		
C1	70'	70'	4	TLC-LED-1200	4.68 kW	В		
		70'	1	TLC-LED-1200	1.17 kW	С		
		70'	1	TLC-LED-1500	1.41 kW	С		
		16'	2	TLC-BT-575	1.15 kW	В		
C4	70'	70'	5	TLC-LED-1200	5.85 kW	D		
		16'	1	TLC-BT-575	0.58 kW	D		
S1	70'	70'	4	TLC-LED-1200	4.68 kW	С		
10			62		64.69 kW			

Circuit Summary									
Circuit	Description	Load	Fixture Qty						
Α	SB	3.8 kW	4						
В	SB/SO	16.25 kW	18						
С	SO/SB/BB	7.26 kW	6						
D	BB	23.04 kW	21						
E	BB/SO	14.35 kW	13						

Fixture Type Summary								
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity	
TLC-LED-1200	LED 5700K - 75 CRI	1170W	150,000	>120,000	>120,000	>120,000	32	
TLC-LED-900	LED 5700K - 75 CRI	880W	104,000	>120,000	>120,000	>120,000	3	
TLC-LED-1500	LED 5700K - 75 CRI	1410W	181,000	>120,000	>120,000	>120,000	11	
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	13	
TLC-LED-550	LED 5700K - 75 CRI	540W	67,000	>120,000	>120,000	>120,000	3	

Single Luminaire Amperage Draw Chart							
Driver (.90 min power factor)	Max Line Amperage Per Luminaire						re
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0
TLC-LED-900	5.2	4.9	4.5	3.9	3.1	2.9	2.3
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4

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San Benito HS

Hollister, CA

Light Level Summary

Calculation Grid Summary										
Grid Name	Calculation Metric			Illumination			Circuits	Fixture Qty		
		Ave	Min	Max	Max/Min	Ave/Min	- Cili Guillo	· ixture Qty		
Baseball (Infield)	Horizontal Illuminance	51	36	60	1.66	1.42	C,D,E	40		
Baseball (Outfield)	Horizontal Illuminance	31.4	25	41	1.68	1.26	C,D,E	40		
River Parkway Spill (6')	Horizontal	0.03	0	0.28	0.00		A,B,C,D,E	62		
River Parkway Spill (6')	Max Vertical Illuminance Metric	0.06	0	0.62	0.00		A,B,C,D,E	62		
River Parkway Spill (Cd)	Max Candela (by Fixture)	1430	0	7302	0.00		A,B,C,D,E	62		
River Parkway Spill	Horizontal	0.04	0	0.36	0.00		A,B,C,D,E	62		
River Parkway Spill	Max Vertical Illuminance Metric	0.08	0	0.85	0.00		A,B,C,D,E	62		
Soccer	Horizontal Illuminance	32.3	22	47	2.12	1.47	B,C,E	37		
Softball (Infield)	Horizontal Illuminance	50.5	35	60	1.72	1.44	A,B,C	28		
Softball (Outfield)	Horizontal Illuminance	33.4	26	49	1.90	1.29	A,B,C	28		

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EQUIPMENT LIST FOR AREAS SHOWN LOCATION TLC-BT-575 15.5' TLC-LED-1200 TLC-LED-550 A2 70' TLC-BT-575 15.5' TLC-LED-1200 TLC-LED-900 TLC-BT-575 В2 15.5' TLC-LED-1200 TLC-LED-1500 TLC-BT-575 C1 70' 15.5' TLC-LED-1200 TLC-LED-1200 4 4 0 28 28 0 33 32 28 34 33 30 34 32 35 29 34 31 27 27 32 30 29 27 37 32 30 39 32 32 29 _28 28 34 36 `42 54 45 50 40 37 36 50 32 SCALE IN FEET 1:40 to 0,0 reference point(s) \otimes

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San Benito HS

Hollister, CA

GRID SUMMARY Name: Softball Size: Irregular 208' / 199' / 206' Spacing: 20.0' x 20.0' Height: 3.0' above grade

ILLUMINATION SUMMARY								
MAINTAINED HORIZONTAL FOOTCANDLES								
	Infield	Outfield						
Guaranteed Average:	50	30						
Scan Average:	50.46	33.42						
Maximum:	60	49						
Minimum:	35	26						
Avg / Min:	1.45	1.29						
Guaranteed Max / Min:	2	2.5						
Max / Min:	1.72	1.90						
UG (adjacent pts):	1.26	1.27						
CU:	0.45							
No. of Points:	25	73						
LUMINAIRE INFORMATIO	N							
Applied Circuits: No. of Luminaires:	A, B, C 28							
Total Load:	27.3 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.



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EQUIPMENT LIST FOR AREAS SHOWN LOCATION SIZE 15.5' TLC-BT-575 TLC-LED-1200 TLC-LED-900 70' 15.5' TLC-BT-575 TLC-LED-1200 TLC-LED-1500 В3 90' 90' 90' TLC-LED-550 15.5' TLC-BT-575 TLC-LED-1200 TLC-LED-1500 C1 70' 70' TLC-BT-575 15.5' TLC-LED-1200 70' TLC-LED-1200 70' 39 35 31 32 32 31 28 27 31 36 28 26 32 37 27 30 28 33 35 33 30 30 36 33 33 28 31 30 31 28 26 33 32 39 38 36 24 33 SCALE IN FEET 1:60 to 0,0 reference point(s) \otimes

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San Benito HS

Hollister, CA

GRID SUMMARY Name: Soccer Size: 355' x 195' Spacing: 30.0' x 30.0' Height: 3.0' above grade

ILLUMINATION SUMMARY **Guaranteed Average:** Scan Average: 32.29 Maximum: 47 22 Minimum: Avg / Min: 1.47 Guaranteed Max / Min: Max / Min: 2.12 UG (adjacent pts): 1.44 CU: 0.53 No. of Points: LUMINAIRE INFORMATION Applied Circuits: B, C, E No. of Luminaires: 37 Total Load: 37.86 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.



EQUIPMENT LIST FOR AREAS SHOWN LOCATION SIZE A3-A4 TLC-BT-575 15.5' TLC-LED-1500 TLC-LED-1500 90' 90' TLC-LED-550 15.5' TLC-BT-575 TLC-LED-1200 TLC-LED-1500 15.5' TLC-BT-575 TLC-LED-1200 TLC-LED-1500 C1 70' TLC-BT-575 15.5' TLC-LED-1200 15.5' 70' TLC-BT-575 C4 70' TLC-LED-1200 TLC-LED-1200 70' 4 4 0 46 40 6 53 51 58 54 35 38 36 37 31 33 53 46 37 40 33, 33 32 38 42 36 55 46 40 33 30 30 33 _33 29 29 28. ..26......26.... 28 29 26 28 25 25 30 35 25 28 25 30 28 28 27 27 32 35 27 34 33 36 30 33 31 31 32 26 35 30 31 28 SCALE IN FEET 1:60

ENGINEERED DESIGN By: Aaron Rose · File #230254B · 05-Feb-24

San Benito HS

Hollister, CA

GRID SUMMARY Name: Baseball Size: Irregular 310' / 349' / 300' Spacing: 30.0' x 30.0' Height: 3.0' above grade

ILLUMINATION S	ILLUMINATION SUMMARY									
MAINTAINED HORIZONTA	MAINTAINED HORIZONTAL FOOTCANDLES									
	Infield	Outfield								
Guaranteed Average:	50	30								
Scan Average:	50.99	31.43								
Maximum:	60	41								
Minimum:	36	25								
Avg / Min:	1.41	1.28								
Guaranteed Max / Min:	2	2.5								
Max / Min:	1.66	1.68								
UG (adjacent pts):	1.19	1.39								
CU:	0.66									
No. of Points:	25	89								
LUMINAIRE INFORMATIO	N									
Applied Circuits:	C, D, E									
No. of Luminaires:	40									

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

Total Load: 44.65 kW

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

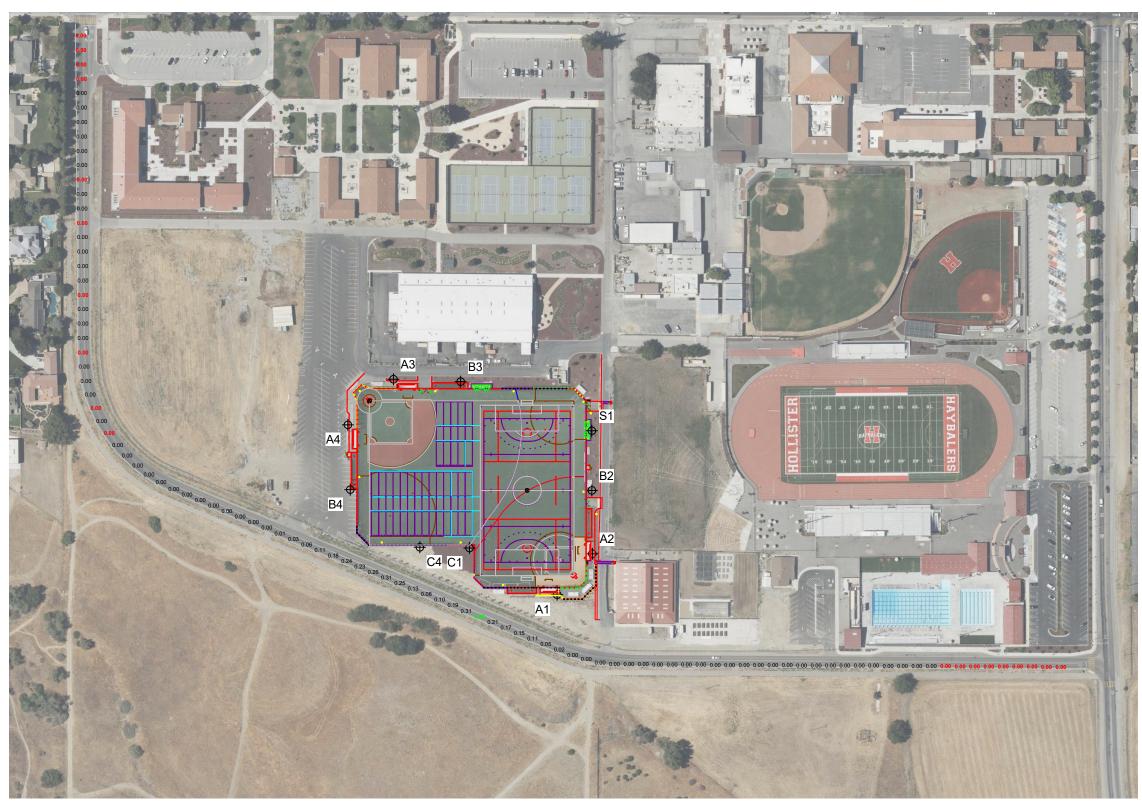
Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

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



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to 0,0 reference point(s) \otimes



SCALE IN FEET 1 : 200 0' 200' 400'

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

San Benito HS

Hollister, CA

River Parkway Spill Spacing: 30.0' Height: 3.0' above grade

ILLUMINATION S	UMMARY	
HORIZONTAL FOOTCAND	LES	
	Entire Grid	
Scan Average:	0.0360	
Maximum:	0.36	
Minimum:	0.00	
No. of Points:	101	
LUMINAIRE INFORMATIO	N	
Applied Circuits:	A, B, C, D, E	
No. of Luminaires:	62	
Total Load:	64.68 kW	

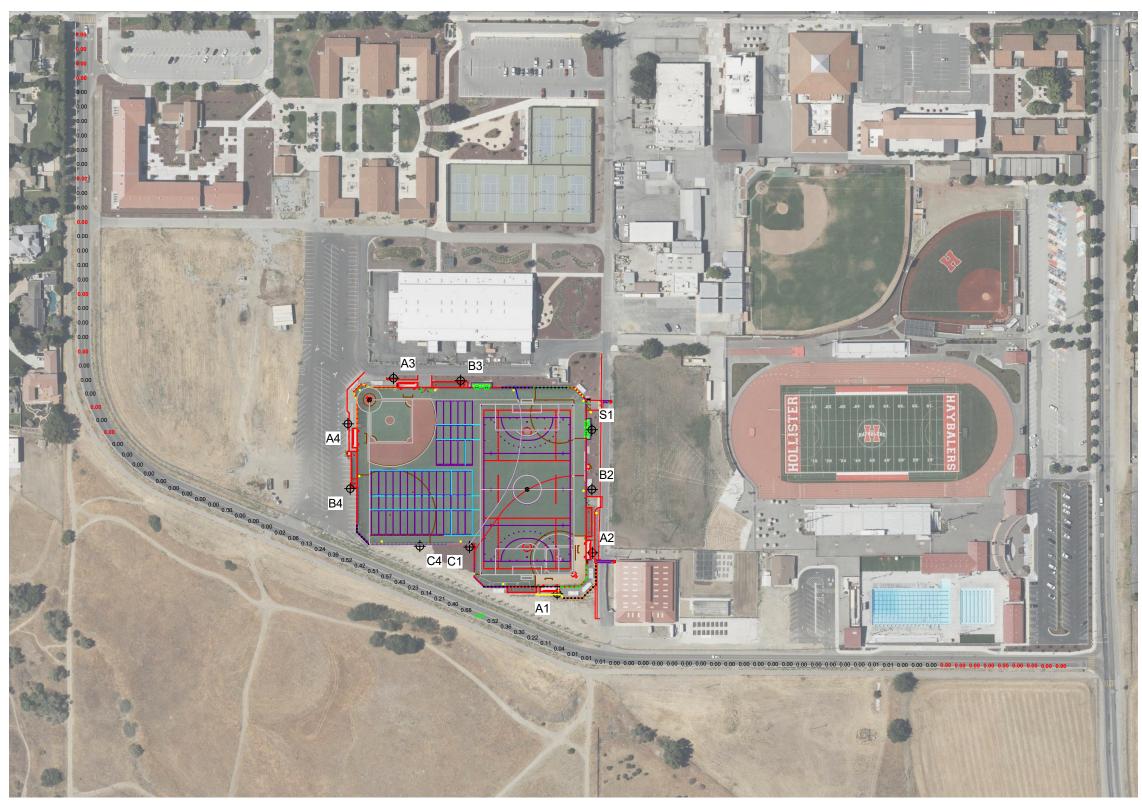
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document.

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.





SCALE IN FEET 1 : 200 0' 200' 400' ENGINEERED DESIGN By: Aaron Rose · File #230254B · 05-Feb-24

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

San Benito HS

Hollister, CA

River Parkway Spill Spacing: 30.0' Height: 3.0' above grade

ILLUMINATION S	UMMARY	
MAX VERTICAL FOOTCAN	DLES	
	Entire Grid	
Scan Average:	0.0751	
Maximum:	0.85	
Minimum:	0.00	
No. of Points:	101	
LUMINAIRE INFORMATIO	N	
Applied Circuits:	A, B, C, D, E	
No. of Luminaires:	62	
Total Load:	64.68 kW	

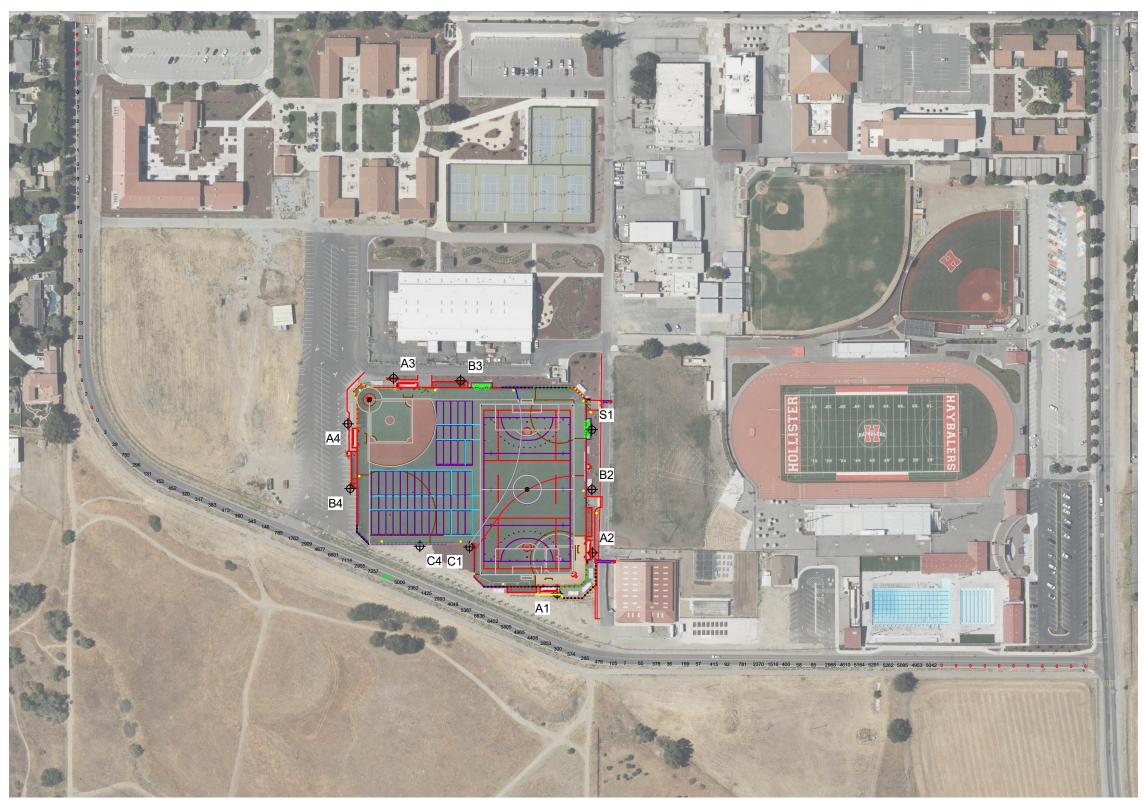
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

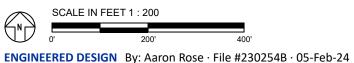
Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

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) \bigoplus dimensions are relative to 0,0 reference point(s) \bigotimes

San Benito HS

Hollister, CA

River Parkway Spill (Cd)
Spacing: 30.0'
Height: 6.0' above grade

ILLUMINATION SUMMARY

CANDELA (PER FIXTURE)

Entire Grid

Scan Average: 1429.9417

Maximum: 7302.41

Minimum: 0.00

No. of Points: 101

LUMINAIRE INFORMATION

Applied Circuits: A, B, C, D, E

No. of Luminaires: 62

Total Load: 64.68 kW

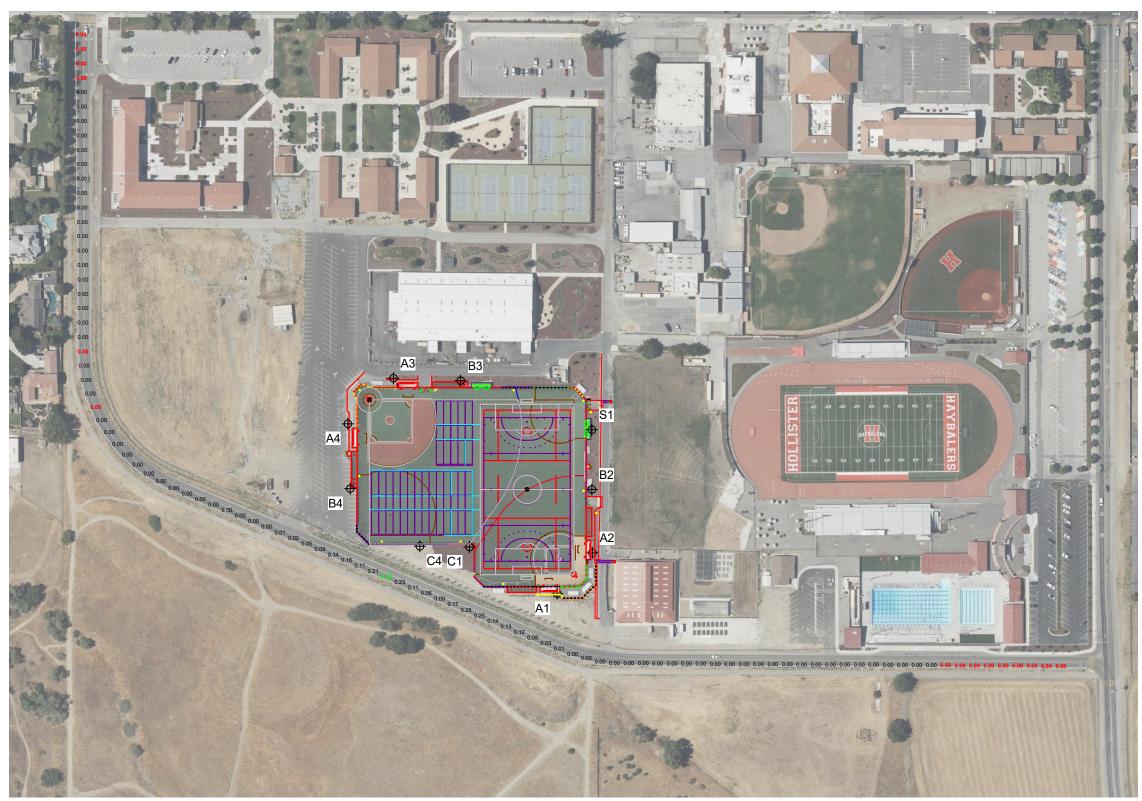
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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.





SCALE IN FEET 1:200

ENGINEERED DESIGN By: Aaron Rose · File #230254B · 05-Feb-24

to 0,0 reference point(s) \otimes

San Benito HS

Hollister, CA

GRID SUMMARY Name: River Parkway Spill (6') Spacing: 30.0' Height: 6.0' above grade

ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES **Entire Grid** Scan Average: Maximum: Minimum: 0.00 No. of Points: 101 LUMINAIRE INFORMATION Applied Circuits: A, B, C, D, E No. of Luminaires: 62 Total Load: 64.68 kW

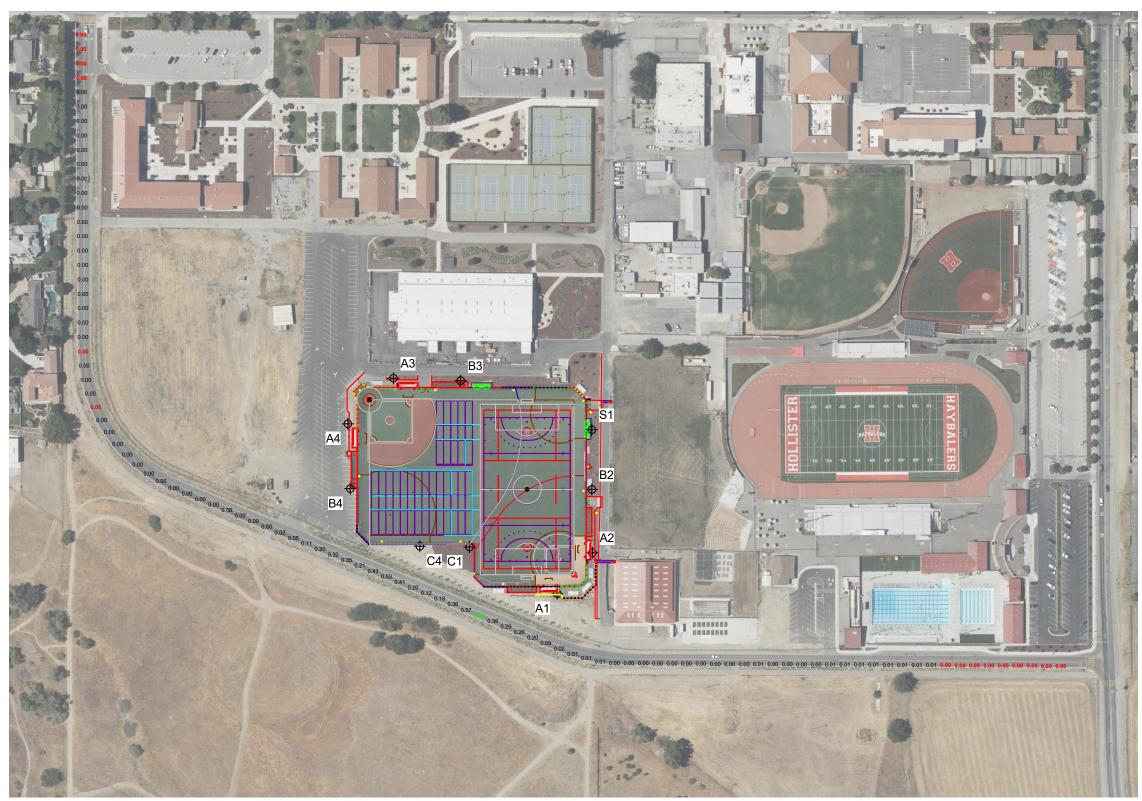
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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.





SCALE IN FEET 1:200 **ENGINEERED DESIGN** By: Aaron Rose · File #230254B · 05-Feb-24

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

San Benito HS

Hollister, CA

GRID SUMMARY Name: River Parkway Spill (6') Spacing: 30.0' Height: 6.0' above grade

ILLUMINATION S	UMMARY	
MAX VERTICAL FOOTCAN	IDLES	
Scan Average:	Entire Grid 0.0608	
Maximum: Minimum: No. of Points:	0.62 0.00 101	
LUMINAIRE INFORMATIO	N	
Applied Circuits: No. of Luminaires: Total Load:	A, B, C, D, E 62 64.68 kW	

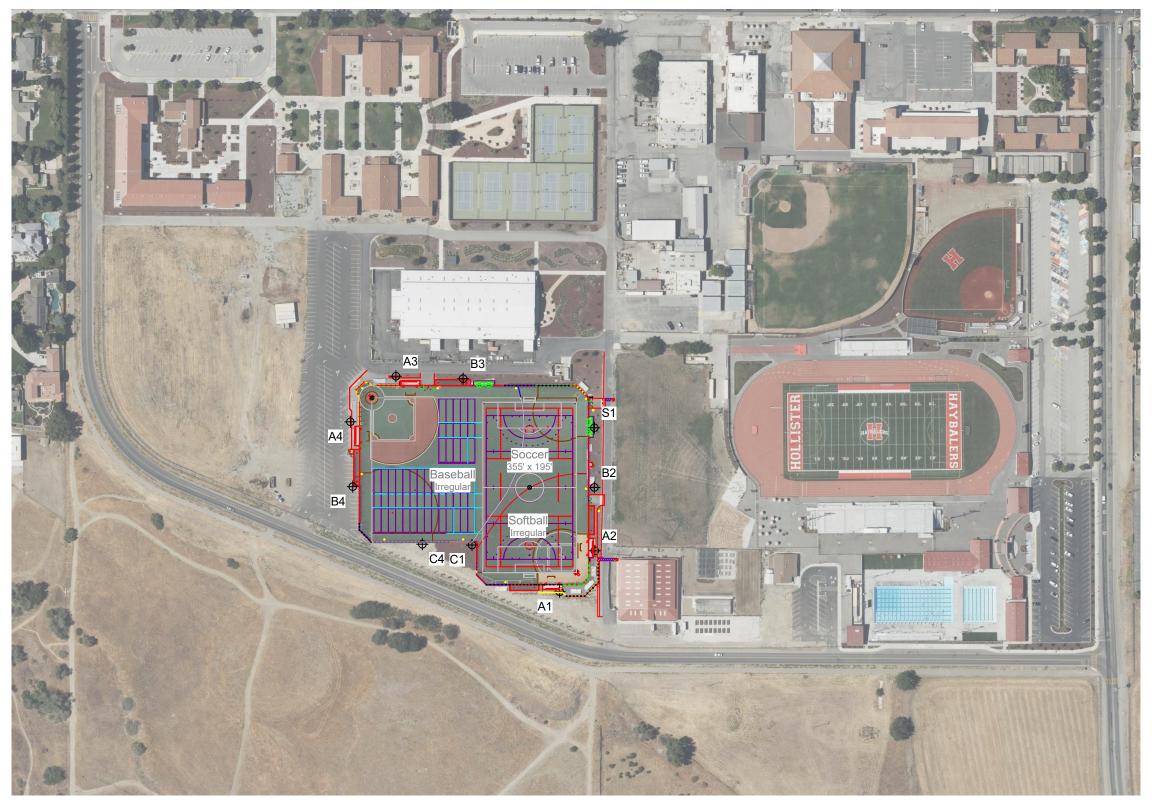
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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.





SCALE IN FEET 1:200

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

San Benito HS

Hollister, CA

EQUIPMENT LAYOUT

INCLUDES: - Baseball

· Soccer · Softball

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

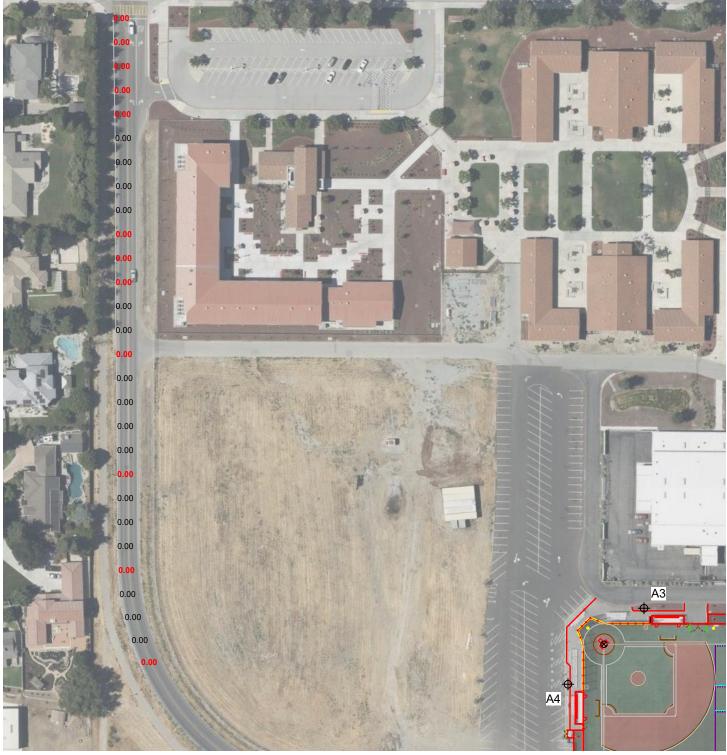
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN									
	Po	ole			Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE			
1	A1	70'	ELEVATION	70'	TLC-LED-900	1			
1	AI	/0	_	15.5'	TLC-BT-575	1			
				70'	TLC-LED-1200	2			
1	A2	70'	_	70'	TLC-LED-550	2			
-	/ 12	/ "		15.5'	TLC-BT-575	1			
				70'	TLC-LED-1200	2			
2	A3-A4	70'	-	70'	TLC-LED-1200	1			
-	/.5/	'		15.5'	TLC-BT-575	1			
				70'	TLC-LED-1500	2			
1	B2	70'	-	70'	TLC-LED-900	2			
_				15.5'	TLC-BT-575	2			
				70'	TLC-LED-1200	3			
1	В3	90'	-	90'	TLC-LED-1500	4			
				90'	TLC-LED-550	1			
				15.5'	TLC-BT-575	2			
				90'	TLC-LED-1200	6			
1	B4	80'	-	80'	TLC-LED-1500	2			
				15.5'	TLC-BT-575	2			
				80'	TLC-LED-1200	3			
1	C1	70'	-	70'	TLC-LED-1500	1			
				15.5'	TLC-BT-575	2			
				70'	TLC-LED-1200	5			
1	C4	70'	-	15.5'	TLC-BT-575	1			
				70'	TLC-LED-1200	5			
1	S1	70'	-	70'	TLC-LED-1200	4			
10			TOTAL	S		62			

SINGLE LUMINAIRE AMPERAGE DRAW CHART										
Line Amperage Per Luminaire (max draw)										
208	220 (60)	240 (60)	277 (60)	347 (60)	380	480 (60)				
6.9	6.5	6.0	5.2	4.2	3.8	3.0				
5.2	4.9	4.5	3.9	3.1	2.9	2.3				
8.4	7.9	7.3	6.3	5.0	4.6	3.6				
3.4	3.2	2.9	2.5	2.0	1.8	1.5				
3.2	3.0	2.8	2.4	1.9	1.8	1.4				
	208 (60) 6.9 5.2 8.4 3.4	208 (60) (60) (60) (6.5 5.2 4.9 8.4 7.9 3.4 3.2	208 220 240 (60) 6.9 6.5 6.0 5.2 4.9 4.5 8.4 7.9 7.3 3.4 3.2 2.9	Line Amperage Per (max drav drav drav drav drav drav drav drav	Line Amperage Per Lum 208 220 240 277 347 (60) (60) (60) (60) 460 6.9 6.5 6.0 5.2 4.2 5.2 4.9 4.5 3.9 3.1 8.4 7.9 7.3 6.3 5.0 3.4 3.2 2.9 2.5 2.0	208 220 240 277 347 380				



EQI	QUIPMENT LIST FOR AREAS SHOWN									
	P	ole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE	THIS GRID	OTHER GRIDS		
1	A1	70'	-	70'	TLC-LED-900	1	1	0		
				15.5'	TLC-BT-575	1	1	0		
				70'	TLC-LED-1200	2	2	0		
1	A2	70'	-	70'	TLC-LED-550	2	2	0		
				15.5'	TLC-BT-575	1	1	0		
				70'	TLC-LED-1200	2	2	0		
2	A3-A4	70'	-	70'	TLC-LED-1200	1	1	0		
				15.5'	TLC-BT-575	1	1	0		
				70'	TLC-LED-1500	2	2	0		
1	B2	70'	-	70'	TLC-LED-900	2	2	0		
				15.5'	TLC-BT-575	2	2	0		
				70'	TLC-LED-1200	3	3	0		
1	В3	90'	-	90'	TLC-LED-1500	4	4	0		
				90'	TLC-LED-550	1	1	0		
				15.5'	TLC-BT-575	2	2	0		
				90'	TLC-LED-1200	6	6	0		
1	B4	80'	-	80'	TLC-LED-1500	2	2	0		
				15.5'	TLC-BT-575	2	2	0		
				80'	TLC-LED-1200	3	3	0		
1	C1	70'	-	70'	TLC-LED-1500	1	1	0		
				15.5'	TLC-BT-575	2	2	0		
				70'	TLC-LED-1200	5	5	0		
1	C4	70'	-	15.5'	TLC-BT-575	1	1	0		
				70'	TLC-LED-1200	5	5	0		
1	S1	70'	-	70'	TLC-LED-1200	4	4	0		
10			TOTALS			62	62	0		



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

San Benito HS

Hollister, CA

Rame: Neighbors Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY HORIZONTAL FOOTCANDLES Entire Grid Scan Average: 0.0000 Maximum: 0.00 Minimum: 0.00 No. of Points: 28 LUMINAIRE INFORMATION Applied Circuits: A, B, C, D, E No. of Luminaires: 62 Total Load: 64.68 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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

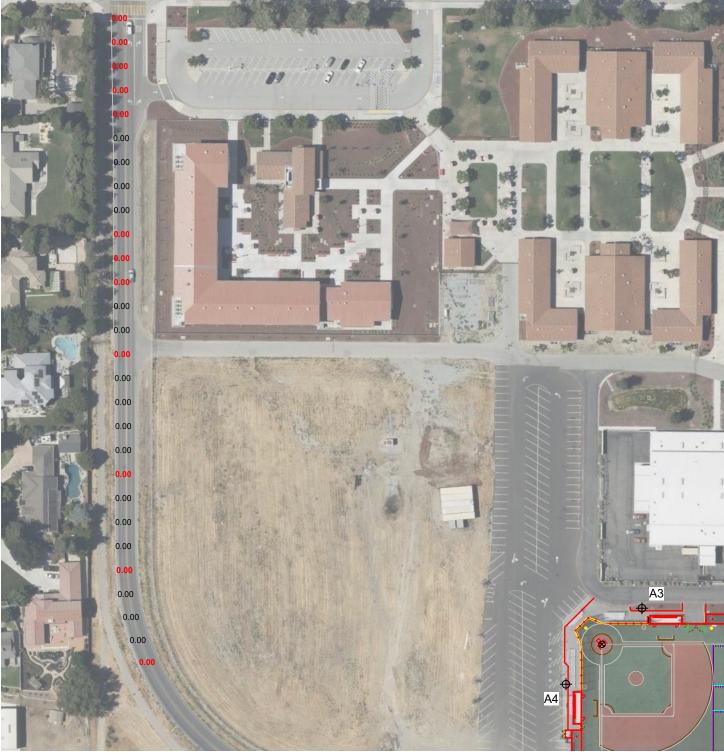
Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

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





EQI	QUIPMENT LIST FOR AREAS SHOWN										
	P	ole		Luminaires							
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE	THIS GRID	OTHER GRIDS			
1	A1	70'	-	70'	TLC-LED-900	1	1	0			
				15.5'	TLC-BT-575	1	1	0			
				70'	TLC-LED-1200	2	2	0			
1	A2	70'	-	70'	TLC-LED-550	2	2	0			
				15.5'	TLC-BT-575	1	1	0			
				70'	TLC-LED-1200	2	2	0			
2	A3-A4	70'	-	70'	TLC-LED-1200	1	1	0			
				15.5'	TLC-BT-575	1	1	0			
				70'	TLC-LED-1500	2	2	0			
1	B2	70'	-	70'	TLC-LED-900	2	2	0			
				15.5'	TLC-BT-575	2	2	0			
				70'	TLC-LED-1200	3	3	0			
1	В3	90'	-	90'	TLC-LED-1500	4	4	0			
				90'	TLC-LED-550	1	1	0			
				15.5'	TLC-BT-575	2	2	0			
				90'	TLC-LED-1200	6	6	0			
1	B4	80'	-	80'	TLC-LED-1500	2	2	0			
				15.5'	TLC-BT-575	2	2	0			
				80'	TLC-LED-1200	3	3	0			
1	C1	70'	-	70'	TLC-LED-1500	1	1	0			
				15.5'	TLC-BT-575	2	2	0			
				70'	TLC-LED-1200	5	5	0			
1	C4	70'	-	15.5'	TLC-BT-575	1	1	0			
				70'	TLC-LED-1200	5	5	0			
1	S1	70'	-	70'	TLC-LED-1200	4	4	0			
10			TOTALS			62	62	0			



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

San Benito HS

Hollister, CA

GRID SUMMARY

Name: Neighbors Spill
Spacing: 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY MAX VERTICAL FOOTCANDLES Entire Grid 0.0000 Maximum: 0.00 No. of Points: 28 LUMINAIRE INFORMATION Applied Circuits: No. of Luminaires: Total Load: 64.68 kW

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty

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.



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SCALE IN FEET 1:120



San Benito HS

Hollister, CA

EQUIPMENT LAYOUT

INCLUDES: - Baseball

Soccer · Softball

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.

EQ	EQUIPMENT LIST FOR AREAS SHOWN									
	Po	ole			Luminaires					
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE Type	QTY / POLE				
1	A1	70'	-	70'	TLC-LED-900	1				
				15.5'	TLC-BT-575	1				
				70'	TLC-LED-1200	2				
1	A2	70'	-	70'	TLC-LED-550	2				
				15.5'	TLC-BT-575	1				
				70'	TLC-LED-1200	2				
2	A3-A4	70'	-	70'	TLC-LED-1200	1				
				15.5'	TLC-BT-575	1				
				70'	TLC-LED-1500	2				
1	B2	70'	-	70'	TLC-LED-900	2				
				15.5'	TLC-BT-575	2				
				70'	TLC-LED-1200	3				
1	В3	90'	-	90'	TLC-LED-1500	4				
				90'	TLC-LED-550	1				
				15.5'	TLC-BT-575	2				
				90'	TLC-LED-1200	6				
1	B4	80'	-	80'	TLC-LED-1500	2				
				15.5'	TLC-BT-575	2				
				80'	TLC-LED-1200	3				
1	C1	70'	-	70'	TLC-LED-1500	1				
				15.5'	TLC-BT-575	2				
				70'	TLC-LED-1200	5				
1	C4	70'	-	15.5'	TLC-BT-575	1				
				70'	TLC-LED-1200	5				
1	S1	70'	-	70'	TLC-LED-1200	4				
10			TOTAL	S		62				

SINGLE LUMINAIRE AMPERAGE DRAW CHART										
Driver (.90 min power factor)	Line Amperage Per Luminaire (max draw)									
Single Phase Voltage	208	220	240 (60)	277 (60)	347 (60)	380	480 (60)			
TLC-LED-1200	6.9	6.5	6.0	5.2	4.2	3.8	3.0			
TLC-LED-900	5.2	4.9	4.5	3.9	3.1	2.9	2.3			
TLC-LED-1500	8.4	7.9	7.3	6.3	5.0	4.6	3.6			
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5			
TLC-LED-550	3.2	3.0	2.8	2.4	1.9	1.8	1.4			



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

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SCALE IN FEET 1:80

Appendix B Noise Background Information

Initial Study and Negative Declaration Addendum for the Hollister High School Baler Alley Closure and Multi-Purpose Field Lights Modifications to Measure U Project									
HOLLISTER HIGH SCHOOL BALER ALLEY CLOSURE AND MULTI-PURPOSE FIELD LIGHTS MODIFICATIONS TO MEASURE U PROJECT									

Construction Noise Calculations - Residence

Construction Phase	Equipment Type ¹	USDOT Equipment Type ²	No. Equipment ¹ Unit:	Acoustical Usage Factor ²	Maximum Noise Level @ 50 feet (Lmax) ³ dBA Lmax	Typical Noise Level @ 50 feet (dBA ₁) dBA Leg	Reference Distance (D ₁) feet	Distance to Receptor (D ₂) feet	Ground Absorption Constant (G) unitless	Noise Level at Receptor (dBA ₂) dBA Leq	Two Noisiest Equipment dBA Leg
Cita Duamanatian	Backhoe	Backhoe	1	40	80	76	50	620	0	54	
Site Preparation	Drill Rig	Auger Drill Rig	1	20	85	78	50	620	0	56	58
Musco Light	Cranes	Crane	1	16	88	80	50	620	0	58	60
Installation	Ariel Boom	Man Lift	1	20	85	78	50	620	0	56	00

Noise level at the receptor calculated based on the following equation:⁴

 $dBA_2 = dBA_1 + 10 * log_{10}(D_1/D_2)^{2+G}$

Where:

dBA₂ = Noise level at receptor

dBA₁ = Noise level at reference distance

 D_1 = Reference distance

D₂ = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

 $L = 10 * log_{10} (10^{(L_1/10)+10^{(L_2/10)})$

L = Combined noise level

L₁ = Noise level for first noisiest piece of equipment

L₂ = Noise level for second noisiest piece of equipment

SBHS Calculations.xlsb Page 1 of 2

¹ The type of construction equipment is based on construction equipment list provided by the applicant.

² U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

³ Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

⁴ California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.

Construction Noise Calculations - School

Construction Phase	Equipment Type ¹	USDOT Equipment Type ²	No. Equipment ¹ Unit:	Acoustical Usage Factor ²	Maximum Noise Level @ 50 feet (Lmax) ³ dBA Lmax	Typical Noise Level @ 50 feet (dBA ₁) dBA Leq	Reference Distance (D ₁) feet	Distance to Receptor (D ₂) feet	Ground Absorption Constant (G) unitless	Noise Level at Receptor (dBA ₂) dBA Leq	Two Noisiest Equipment dBA Leq
Site Preparation	Backhoe	Backhoe	1	40	80	76	50	95	0	70	75
	Drill Rig	Auger Drill Rig	1	20	85	78	50	95	0	72	
Musco Light	Cranes	Crane	1	16	88	80	50	95	0	74	77
Installation	Ariel Boom	Man Lift	1	20	85	78	50	95	0	72	//

Noise level at the receptor calculated based on the following equation:⁴

 $dBA_2 = dBA_1 + 10 * log_{10}(D_1/D_2)^{2+G}$

Where:

dBA₂ = Noise level at receptor

dBA₁ = Noise level at reference distance

 D_1 = Reference distance

D₂ = Receptor distance

G = Ground absorption constant (0 for hard surface, 0.5 for soft surface)

Combined noise levels at receptor calculated for two noisiest equipment using decibel addition:

 $L = 10 * log_{10} (10^{(L_1/10)+10^{(L_2/10)})$

L = Combined noise level

L₁ = Noise level for first noisiest piece of equipment

L₂ = Noise level for second noisiest piece of equipment

SBHS Calculations.xlsb Page 2 of 2

¹ The type of construction equipment is based on construction equipment list provided by the applicant.

² U.S. Department of Transportation, 2006. FHWA Highway Construction Noise Handbook, Table 9.1. August.

³ Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual, Table 7-1. September.

⁴ California Department of Transportation, 1998. Technical Noise Supplement (TeNS). Equation N-2141.2. October.