



STAFF REPORT
Special Hearing by the Zoning Administrator
October 23, 2024
Item No. 1

Staff Contact: Parya Seif, Associate Planner
(408) 299-5783, parya.seif@pln.sccgov.org

PLN24-176 (STANFORD UNIVERSITY)
Entertainment Event License for the 2025 Spring Pilot Concert Series at Stanford Football Stadium

Summary: Consider a request for an Entertainment Event License for the 2025 Spring Pilot Concert Series (commercial concerts) at Stanford Football Stadium. The event will include a two-night music concert with firework displays, to be held on May 31, 2025, and June 1, 2025, from 5:00 p.m. to 10 p.m. The proposed event will include approximately 42,000 people (spectators, participants, and operations staff).

Owner:	Stanford University	Community Plan Designation:	Academic Campus
Applicant:	Deborah Cullinan, Project Manager	Zoning:	A1
Address:	625 Nelson Road, Stanford	Supervisory District:	5
APN:	142-04-036		

RECOMMENDED ACTIONS

- A. Approve the use of prior California Environmental Quality Act (CEQA) document [2000 Stanford Community Plan and General Use Permit (GUP) Program Environmental Impact Report (EIR)]; and,
- B. Grant an Entertainment Event License for the 2025 Spring *Pilot* Concert Series (commercial concerts) at Stanford Football Stadium, pursuant to Conditions of Approval outlined in Attachment B.

ATTACHMENTS INCLUDED

Attachment A – CEQA Determination – Use of a Prior CEQA Document
Attachment B – Preliminary Conditions of Approval

- Attachment C – Location Map
- Attachment D – Proposed Plan
- Attachment E – Stanford Football Stadium Map
- Attachment F – Parking Map
- Attachment G – Noise Study
- Attachment H – Sample Special Effects

PROJECT DESCRIPTION

The proposed project is for an Entertainment Event License for a two-night *pilot* music concert series (commercial concerts) with fireworks displays at the Stanford football stadium. The proposed dates to hold the events are on May 31, 2025, and June 1, 2025, from 5:00 p.m. to 10 p.m. The proposed event will include approximately 42,000 people (spectators, participants, and operations staff).

Additionally, the proposed two-night music concert will feature firework displays (pyrotechnics) and several special effects including haze, and flashing LED lights (refer to Attachment H for sample special effects). The firework displays will include three bursts, totaling 1 minute and 20 seconds, synchronized with specific songs, followed by a finale display lasting 1 minute and 25 seconds at the conclusion of the last song. All musical performances, fireworks, and special effects will conclude by 10 p.m.

Setting/Location Information

The Stanford Football Stadium is situated in Stanford’s Department of Athletics, Physical Education, and Recreation (DAPER) and Administrative Development District, in the northeastern portion of the campus, near the intersection of Galvez Street and El Camino Real (Highway 82). Lands to the north and east are designated Campus Open Space, and El Camino Real is approximately 600 feet east of the stadium. There are several university athletic facilities in the general vicinity of the stadium, including Maloney Soccer Field, Cobb Track and Angell Field, along with baseball, swimming, and tennis facilities. The City of Palo Alto is located to the north, east, and south of the parcel that encompasses the stadium. Nearby land uses within Palo Alto include Palo Alto High School, located approximately 830 feet northeast of the stadium at the corner of Embarcadero Road and El Camino Real, and Town and Country Shopping Center, on the northwest side of the same intersection. There is a single-family neighborhood east of the High School bordering El Camino Real. The closest residence is approximately 1,700 feet from the stadium across El Camino Real. The properties to the west of the subject parcel are Stanford properties including the Stanford Shopping Center and medical facilities (refer to Attachment C).

REASONS FOR RECOMMENDATION

A. Environmental Review and Determination (CEQA)

The proposed project is a two-night *pilot* music concert (commercial concerts) event with firework displays, scheduled for May 31, 2025 and June 1, 2025, from 5:00 p.m. to 10:00 p.m. Review of the application documents has resulted in a determination that the project is

in conformance with both the 2023-updated Stanford Community Plan (SCP) and the General Use Permit (GUP), as both allow for special events, upon securing an Entertainment Event Permit. The event will take place at the Stanford Football Stadium, where similar large sporting events and yearly firework displays already occur (two firework displays are permitted per calendar year pursuant to GUP condition R.4), resulting in comparable traffic generation, and subject to the traffic and noise mitigations for such events. Given the limited, two-evening duration of the proposed music concert, there are no lasting environmental effects beyond those already analyzed and approved in the 2000 Program EIR certified by the Board of Supervisors. The Program EIR had assessed the environmental impacts of campus development allowed under the SCP and GUP, and considered temporary events, including fireworks, that necessitate permitting for up to two events per year on an on-going basis. As the nature of the proposed event does not involve any new building(s) or site improvements, it falls within the scope of the campus development previously analyzed, and use of the 2000 CEQA document and associated mitigation measures for events are adequate for this project, including the Stanford University Special Events Traffic Management Plan, which was approved by the County in April 2003 pursuant to the 2000 GUP Condition H. Additional details on the Special Events Traffic Mitigation Program can be found in section C(1) of this report.

B. Project/Proposal

The venue for the proposed music-concert is the Stanford Football Stadium which is for sporting events and not designed for conducting public performances. The proposed 2025 Spring Pilot Concert Series (commercial concerts) at Stanford Stadium is considered a Special Event, subject to an Entertainment Event Permit under the provisions of Ordinance Code section B3-111:.

Entertainment Event: “...means any entertainment or amusement event to which the public is admitted, and which is organized or promoted for commercial or noncommercial...[and] include[s] any entertainment or amusement for the purposes of listening, engaging in or participating in musical...performances...to which the public is admitted...Entertainment event shall not include any event...that is conducted or held in any structure that has been lawfully constructed and designed for the conducting of public performances or to an event conducted entirely within a stadium, arena or amphitheater that has been lawfully constructed and designed for the conducting of public performances.”

As such, the proposed 2025 Spring Pilot Concert Series at Stanford Football Stadium is subject to an Entertainment Event License as the Stanford Football Stadium is designed for sports, educational functions such as sports events, commencement ceremonies, etc.

C. Entertainment Event Findings:

Pursuant to Ordinance Code Section B3-111 – B3-125, a written application for an entertainment event license shall be filed with the Planning Office at least 90 days prior to the commencement of the event. The Zoning Administrator shall either approve the application and issue the license, or notify the applicant that that a referral and public

hearing is required if the event and associated activities may create impacts upon the surrounding neighborhood. As the proposed event will include a concert in the Stanford stadium with amplified sounds and will include fireworks, a public hearing was required. All Entertainment Event Licenses are reviewed by County Staff, including the County Sheriff's Office who advise the Zoning Administrator. The licenses are subject to specific considerations, pursuant to Ordinance Code sections B3-111 through B3-125, for which the Zoning Administrator **may refuse to issue a license**. Any one of these considerations is sufficient for the Zoning Administrator to refuse to issue the license. In the following discussion, the findings for approval of the requested license are listed in **bold**, and an explanation of how the finding applies to the proposed event (project) is in plain text below.

1. The event or associated activity would be injurious to the public health, safety or welfare.

The proposed event will be contained in the existing Stanford Football Stadium, which has the capacity for approximately 51,000 people with associated public facilities including restrooms, water fountains and visitor aid stations at each level of the stadium Refer to Attachment E for the stadium map identifying public facilities.

Parking and Traffic

Parking will be available in seven lots, detailed below and illustrated on the Parking Map in Attachment F. These proposed parking areas comply with the Stanford University Special Events Traffic Management Plan, which was approved by the County in April 2003 pursuant to the 2000 GUP Condition H.

- Lot 2 - 104 Sam McDonald Road
- Lot 7/8 - 573 Arboretum Road
- Lot 9 - 260 Lasuen Street
- Lot 10 - 572 Arboretum Road
- Sunken Lot - 625 Nelson Road
- Track Lot - 295 Galvez Street
- Knight Management Parking Garage - 655 Knight Way

The overall purpose of this Special Events Management Plan is to alleviate congestion within Stanford University's local transportation infrastructure, and more specifically ensure that effective traffic control mechanisms, trained personnel, and procedures are maintained to allow an orderly flow of traffic, as well as sufficient parking spaces during special events. In addition, Stanford is required to provide public notification for events where attendance meets or exceeds 8,500 persons and establish and maintain communication mechanisms for special events (social media, hotline, and website) that on-campus residents and the general public can access for information regarding the special event and available public transit and Stanford shuttle transportation options.

Noise

The applicant submitted a noise study prepared by Chris Sanchez, Senior Acoustical Associate at ESA, which assessed sound levels for the proposed live music event (refer to Attachment G). This study included monitoring existing sound levels and modeling future community sound levels at nine stations to evaluate the potential increase in ambient noise from the concerts. The location of the stations was selected based on proximity to the stadium as well as locations from which the University has historically received noise complaints from music events at Frost Amphitheater (primarily within the City of Menlo Park). The study concluded that the proposed event would comply with the Santa Clara County Noise Ordinance Standard at eight monitoring stations, although noise levels would exceed the standard by +3 dBA at one station in the City of Menlo Park. To ensure compliance at all stations, the Department of Environmental Health (DEH) has conditioned the project to implement real-time noise monitoring during both concerts. If noise thresholds are exceeded at any monitoring station (per Santa Clara County Ordinance Code Section B11-152), “real-time” mitigating actions will be required, including adjusting volume levels at the concert soundboard until all monitoring stations fall within acceptable limits. The project has been conditioned by DEH (refer to Attachment B) to comply with the County Noise Ordinance.

Additionally, in accordance with the GUP condition R.4, firework displays are permitted for two events per calendar year. The proposed firework displays for the two-night concerts will count as the two annually permitted firework displays.

Lighting

No new lighting for illumination of the stadium is proposed as part of this application, as the stadium is equipped with standard and emergency backup lighting.

While no new lighting is proposed for the event, the project does propose to use laser units, infrared head mounts and wristbands as special effects during the concerts. Given that the open-air stadium is located directly under flight paths for surrounding airports (specifically Palo Alto Airport), Condition of Approval No. 14 has been added to ensure that laser and concentrated lighting effects associated with the music concerts are fully contained within the stadium bowl. No effects may be directed or angled vertically in a way that allows lighting or pyrotechnics to project beyond the upper portion of the stadium bowl to avoid glare and disruption to aircraft flying overhead.

As such, the proposed event, as conditioned, would **not** be injurious to the public health, safety or welfare and this required consideration **would not** constitute a reason for denial.

2. The proposed mode of operation of the event is not in compliance with the provisions of this chapter.

The County Code of Ordinances provides for several requirements in Section B3-113, some of which directly relate to the operation of the event including event details, logistics and infrastructure, food provider and cleanup plan after the events. The applicant provided all the required documents listed in Section B3-113.

As required by Section B3-115, the application was referred to the Sheriff, DEH, the Building Official, the Fire Marshal and City of Palo Alto Planning and Development Department. The proposed event has received recommendations for approval from all these offices, and their conditions are incorporated into the Conditions of Approval.

As such, the operation of the event would comply with the provisions of Chapter VI of Division B3 and this required consideration would not constitute a reason for denial.

- 3. The person or organization applying for the license, or any officer or member thereof, or any owner of the real property upon which the event is proposed to occur has previously violated the provisions of this chapter or of any similar ordinance, law, rule or regulation of the County or another public agency that regulates circuses or entertainment events.**

Stanford has not previously violated the provisions of this chapter. Pursuant to the 2000 GUP (and as reported in the Stanford Annual Report each year), two firework displays at events per calendar year are permitted at Stanford. All firework displays require an Entertainment Event License from the County's Planning Division. Stanford has been submitting the required applications for all firework displays over the years, including the two that are permitted per calendar year.

As such, the Applicant does not have any violations on record and this required consideration would not constitute a reason for denial.

- 4. The applicant knowingly made a material misstatement of fact in the license application.**

The County is unaware of any material misstatement of facts in the license application. As such, this finding required consideration would not constitute a reason for denial.

- 5. The activity is inconsistent with the applicable zoning regulations or any other law, ordinance or regulation.**

The proposed event will be consistent with applicable laws, ordinances, and regulations if: 1) this Entertainment Event License is issued, 2) noise is maintained at a level below the threshold listed in the County Noise Ordinance, and 3) a County Fire Marshal Permit is issued. As such, with the required the Conditions of Approval, the required consideration would not constitute a reason for denial.

- 6. The Zoning Administrator shall deny a license application if a potential fire hazard or threat to life safety exists at the proposed location.**

Pursuant to Condition of Approval No. 20, the proposed event will require additional permitting from the Fire Marshal's Office to ensure there is no potential fire hazard or threat to life safety. As such, if the Conditions of Approval are met and a Fire Marshal Permit is issued, the required consideration would not constitute a reason for denial.

In conclusion, based on the analysis of facts described in the body of this report, staff recommends that the Zoning Administrator **grant** an Entertainment Event License for the 2025 Spring *Pilot* Concert Series (commercial concerts) at Stanford Stadium to allow a two-night music concert series with lighting effects and firework displays to be held on May 31, 2025 and June 1, 2025, from 5:00 p.m. to 10 p.m. for approximately 42,000 people (spectators, participants, and operations staff).

BACKGROUND

On August 23, 2024 an Entertainment Event License for the 2025 Spring *Pilot* Concert Series (commercial concert) at Stanford Stadium was submitted for a two-night music concert with firework displays. The application was deemed complete on September 19, 2024 for processing.

A public notice was mailed to all property owners within a 300-foot radius and the interested parties list on October 11, 2024, and was also published in the San Jose Post Record on October 11, 2024.¹ As of writing this report, no public comments were received for this application.

STAFF REPORT REVIEW

Project Planner: Parya Seif, Associate Planner, 408-299-5783, *Parya Seif*
parya.seif@pln.sccgov.org

Reviewed by: Charu Ahluwalia, Senior Planner, 408-299-5740, *Charu Ahluwalia*
charu.ahluwalia@pln.sccgov.org

Reviewed by: Samuel Gutierrez, Principal Planner, 408-299-5787,
samuel.gutierrez@pln.sccgov.org



¹ San Jose Post Record; <https://www.postrecord.news/home.cfm?ref=legalnotices&disp=1> – Legal Notices October 11, 2024; <https://www.postrecord.news/LegalNotices/SJR-2024-10-11.pdf>

ATTACHMENT A
CEQA Determination – Use of a Prior CEQA Document


USE OF A PRIOR CEQA DOCUMENT PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR)

Pursuant to Section 15162 of the CEQA Guidelines, the County of Santa Clara has determined that the project described below is pursuant to or in furtherance of an Environmental Impact Report which has been previously adopted and does not involve new significant impacts beyond those analyzed in the previous Environmental Impact Report.

File Number	APN(s)	
PLN24-176	142-04-036	October 9, 2024
Project Name	Project Type	
2025 Spring Pilot Concert Series at Stanford Stadium	Entertainment Event License	
Owner	Applicant	
Stanford University	Deborah Cullinan, Project Manager	
Project Location		
625 Nelson Road, Stanford		
Project Description		
Entertainment Event License for the 2025 Spring Pilot Concert Series (commercial concerts) at Stanford Football Stadium. The event will include a two-night music concert with firework displays, to be held on May 31, 2025, and June 1, 2025, from 5:00 p.m. to 10 p.m. The proposed event will include approximately 42,000 people (spectators, participants, and operations staff).		
Background and Summary of Findings		

Per the California Environmental Quality Act (CEQA) of 1970 (as amended), all development permits processed by the County Planning Office which require discretionary approval are subject to environmental review. A new Negative Declaration or EIR is not required if a previous CEQA document has been prepared and adopted or certified which adequately addresses all the possible environmental impacts of the proposed project and (a) no substantial changes are proposed in the project which will result in new significant environmental effects, (b) no substantial changes have occurred with respect to the circumstances under which will result in the identification of new significant impacts, or (c) no new information is available which shows that the project will have new significant impacts or mitigation measures and alternatives which were previously found to be infeasible would now in fact be feasible (CEQA Guidelines 15162).

The Planning Office evaluated the project described above and has determined that none of the circumstances exist which would require additional environmental review. As such the environmental impacts of the project have been adequately evaluated in the Environmental Impact Report adopted by the Board of Supervisors on December 15, 2000, for the project entitled “Stanford University Community Plan and General Use Permit” and that no further environmental review is required under the California Environmental Quality Act.

Prepared by:		
Parya Seif, Associate Planner	 _____ Signature	_____ Date

ATTACHMENT B
Preliminary Conditions of Approval

**PRELIMINARY CONDITIONS OF APPROVAL
FOR
Entertainment Event Permit for the 2025 Spring Pilot Concert Series at Stanford Football Stadium**

Date: October 23, 2024
 Owner/Applicant: Stanford University
 Location: 625 Nelson Road, Stanford (APN: 142-04-036)
 File Number: PLN24-176
 CEQA: Prior CEQA - 2000 Stanford Community Plan and General Use Permit (GUP) Program Environmental Impact Report (EIR)
 Project Description: Entertainment Event License for the 2025 Spring Pilot Concert Series (commercial concerts) at Stanford Football Stadium. The event will include a two-night music concert with firework displays, to be held on May 31, 2025, and June 1, 2025, from 5:00 p.m. to 10 p.m. The proposed event will include approximately 42,000 people (spectators, participants, and operations staff).

If you have any questions regarding the following preliminary conditions of approval, call the person whose name is listed as the contact for that agency. They represent a specialty or office and can provide details about the conditions of approval.

Agency	Name	Phone	E-mail
Planning	Parya Seif	(408) 299-5783	parya.seif@pln.sccgov.org
Environmental Health	Darrin Lee Jeff Camp	(408) 573-2464 (408) 918-3473	darrin.lee@cep.sccgov.org jeff.camp@deh.sccgov.org
Fire Marshal	Alex Goff	(408) 299-5763	alex.goff@sccfd.org

STANDARD CONDITIONS OF APPROVAL

Planning

1. The entertainment event is a two-night music concert with firework displays, to be held on May 31, 2025 and June 1, 2025, from 5:00 p.m. to 10 p.m. The events shall be coordinated with the Stanford Planning Office to ensure compliance with the approved Stanford University Special Event Management Plan.
2. All musical performances (amplified music), fireworks and special effects must conclude no later than 10:00 p.m. County of Santa Clara Ordinance Code Section B11-154.
3. Stanford University shall provide public notification in compliance with Condition G13 of the 2000 General Use Permit (GUP), including all requirements of the Special Events Traffic Management Plan.
4. Stanford University is responsible for implementing an adequate onsite lighting plan that provides adequate illumination for parking and pedestrian areas.

5. Stanford shall provide on-site parking (to include provision for disabled parking) as is generally authorized for special events (e.g. football games).
6. Stanford University is responsible for implementing a first aid plan to include provision of an onsite first aid station staffed with trained and certified personnel.
7. The event shall comply with the California Fire and Building Code (2022 Edition), California Code of Regulations Title 19, Santa Clara County Ordinance(s), and any other applicable codes and/or regulations.
8. Stanford University shall provide the same private security services for the two-night music concert with firework displays event as it provides for outdoor athletic events (e.g., football & baseball games).
9. Stanford University has provided documents demonstrating financial assurances sufficient to respond to any claims for damages or other liability, should the need arise. Copies of these documents are on file with the County Planning Office. Stanford University shall also retain copies of these same documents.
10. Stanford has provided documents showing that adequate insurance is being provided for the event by an insurance company authorized to do business in the state of California. Stanford University shall also retain copies of these same documents.
11. Within 18 hours immediately following the event, all event-generated refuse and debris shall be removed from the site and appropriately disposed of.
12. The Santa Clara County Sheriff's Department Bomb Squad shall have full access to inspect the site and all equipment/fireworks at any time prior to, during, and after the event.
13. In the event of a pyrotechnic failure to function correctly and/or become beyond the pyrotechnic contractor's scope of training, Stanford shall request the Sheriff's Office Bomb Squad by contacting the Sheriff's Office Operations Desk at 408-808-4401.
14. The location of a two-night music concert with firework displays is within an open-air stadium that is directly under airplane flight paths for surrounding airports. To avoid hazards to flying aircraft, laser and concentrated lighting effects associated with the music performances must be fully contained within the stadium bowl. No such effects may be directed or positioned vertically or angled in such a manner that the lighting and/or pyrotechnics would project beyond the upper portion of the stadium bowl.

Department of Environmental Health

15. Real-time noise monitoring will be required for each concert at the monitoring locations detailed in the noise study by Stanford, with oversight by a County – contracted Noise Consultant (Noise Monitor). Additionally, coordination with County-contracted noise monitor, funded by Stanford is required to coordinate with event personnel to ensure

compliance with County ordinances. If noise thresholds are exceeded at any of the monitoring stations per Santa Clara County ordinance Code Section B11-152,) then immediate mitigating actions including, but are not limited to, turning down volume levels at the concert soundboard until noise levels at all monitoring stations fall within acceptable levels will be required. Stanford shall also provide noise data from both concerts to DEH for review, within seven business days of the concert.

16. The two-night music concert (commercial concerts) must adhere to all pertinent noise level thresholds as indicated in Santa Clara County Ordinance Code Sections B11-152 and 154.
17. The fireworks display must comply with Santa Clara County Ordinance Code Sections B11-152 and 154.
18. For any food sales provided in conjunction with the concerts other than those that are currently permitted by the Department of Environmental Health, a Temporary Event permit must be obtained. Contact Environmental Health at 408-918-3476 (Todd Naffziger) for further information. A food permit is required prior to commencing any food sales and a permit must be obtained to operate food concession at least two weeks prior to the event.

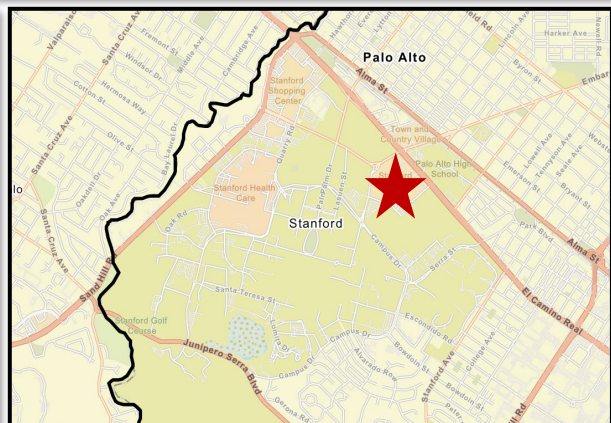
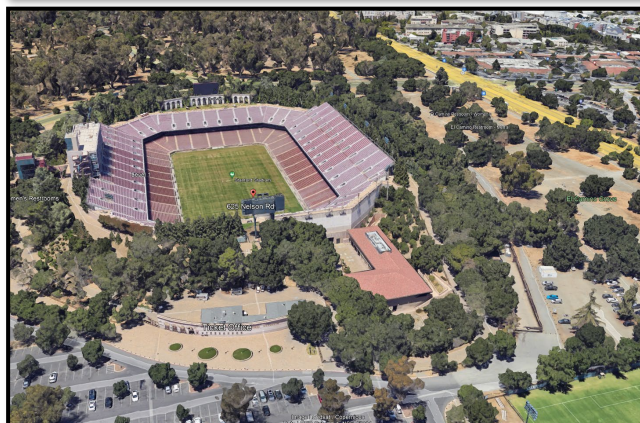
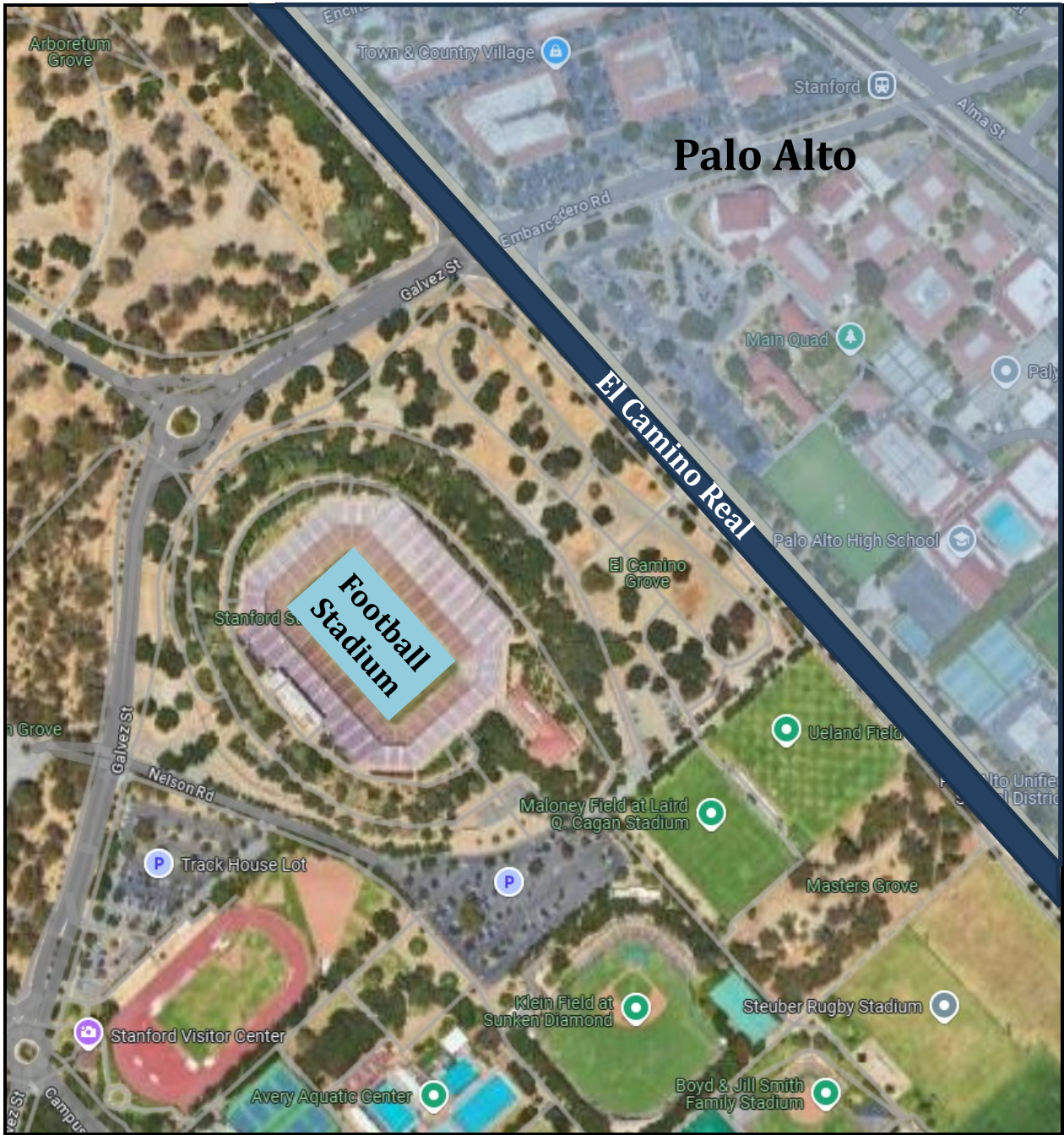
Fire Marshal's Office

19. A separate Fire Permit will be required for the concert series (commercial concerts). This includes and not limited to an Event Permit and a Pyrotechnics Permit.

Note 1: Ensure this process starts early to allow time for necessary plan review and response times.

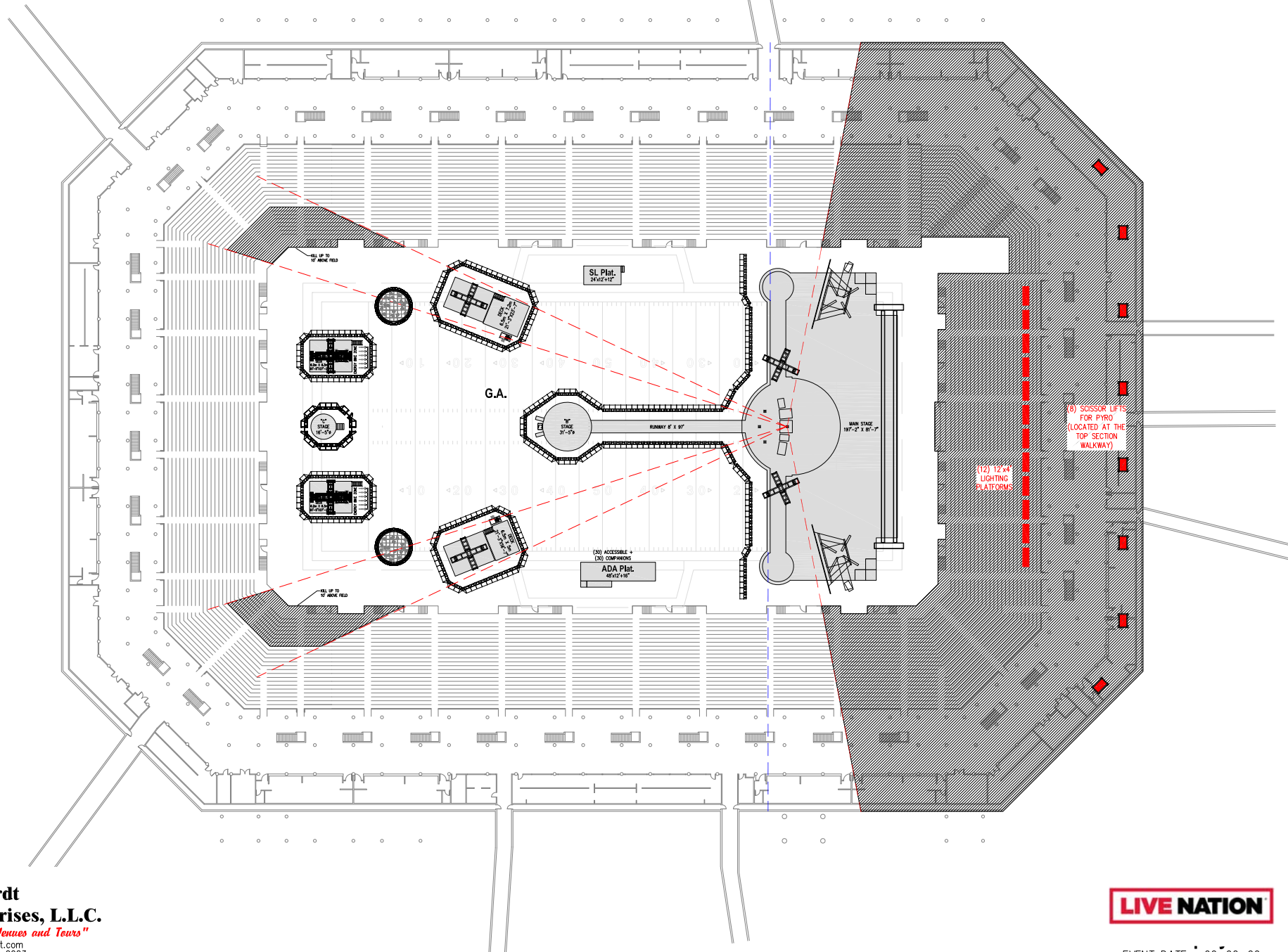
Note 2: Overtime inspections by the Santa Clara County Fire Department (SCCFD) will be required due to the pyrotechnics (fireworks) associated with the two-night music concert.

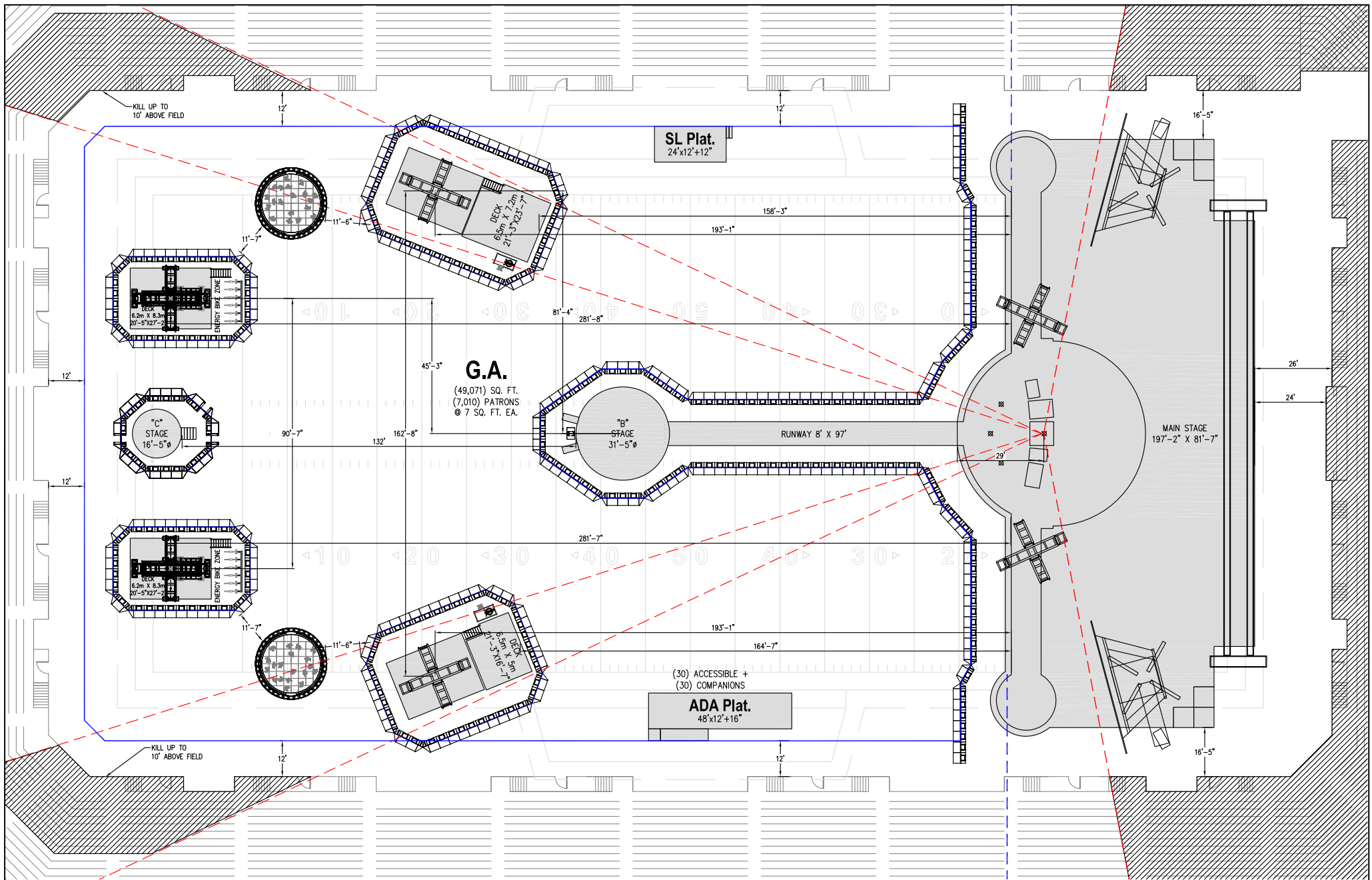
ATTACHMENT C
Location and Vicinity Map



ATTACHMENT D

Proposed Plans





ESTIMATED FIELD CAPACITY = 7,010 G.A. PATRONS

::PYRO:: STANFORD

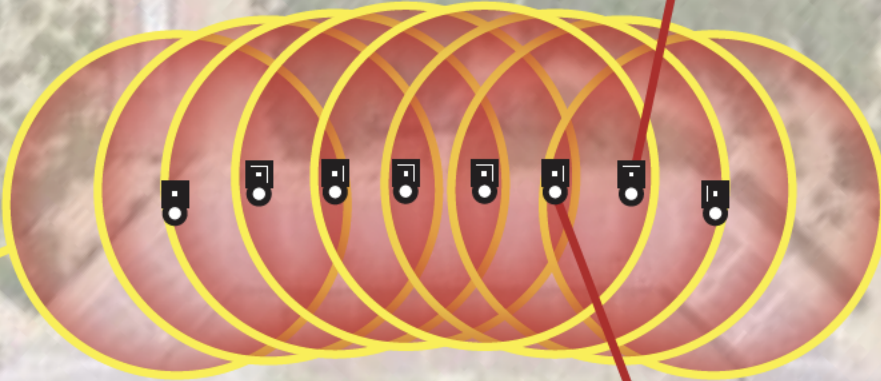


Effects Layout 2025

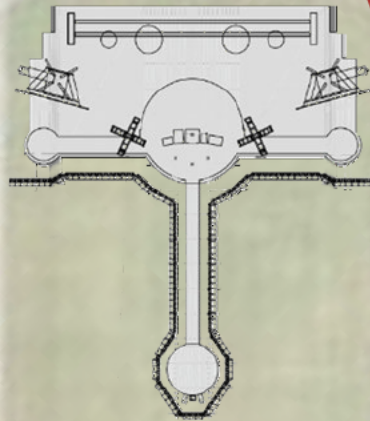
TOP VIEW



Safety Zone



Shells, Sky Bursts and Crossettes
 48mm Shells
 Crossettes
 Sky Bursts
 Multi Crossette Plates



Comets, Mines, Gemini Mines
 Comets
 Mines
 Gemini Mines

**ALL PYRO
 ON LIFTS
 ABOVE SEATS**

Scale = NTS

NOTE: All product 15' min away from audience.
 All product placement TBD at show site.

Legend

- 
 = PYRO: LARGE PYROTECHNICS (120' - 400' height)
 Location: ON LIFTS ABOVE SEATS
 (48mm Shells, Crossettes, Skybursts, Multi Crossette Plates)
- 
 = PYRO: LARGE PYROTECHNICS (120' - 400' height)
 Location: ON LIFTS ABOVE SEATS
 (Comets, Mines, Gemini Mines)

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REVISED: 2025.09.30

STRICTLY FX, L.L.C.

PYROTECHNICS FLAMES CRYOGENICS LASERS CONFETTI MISCHIEF

120 Airpark Center East Nashville, TN USA 37217

P: 630.694.2394 F: 630.694.2395

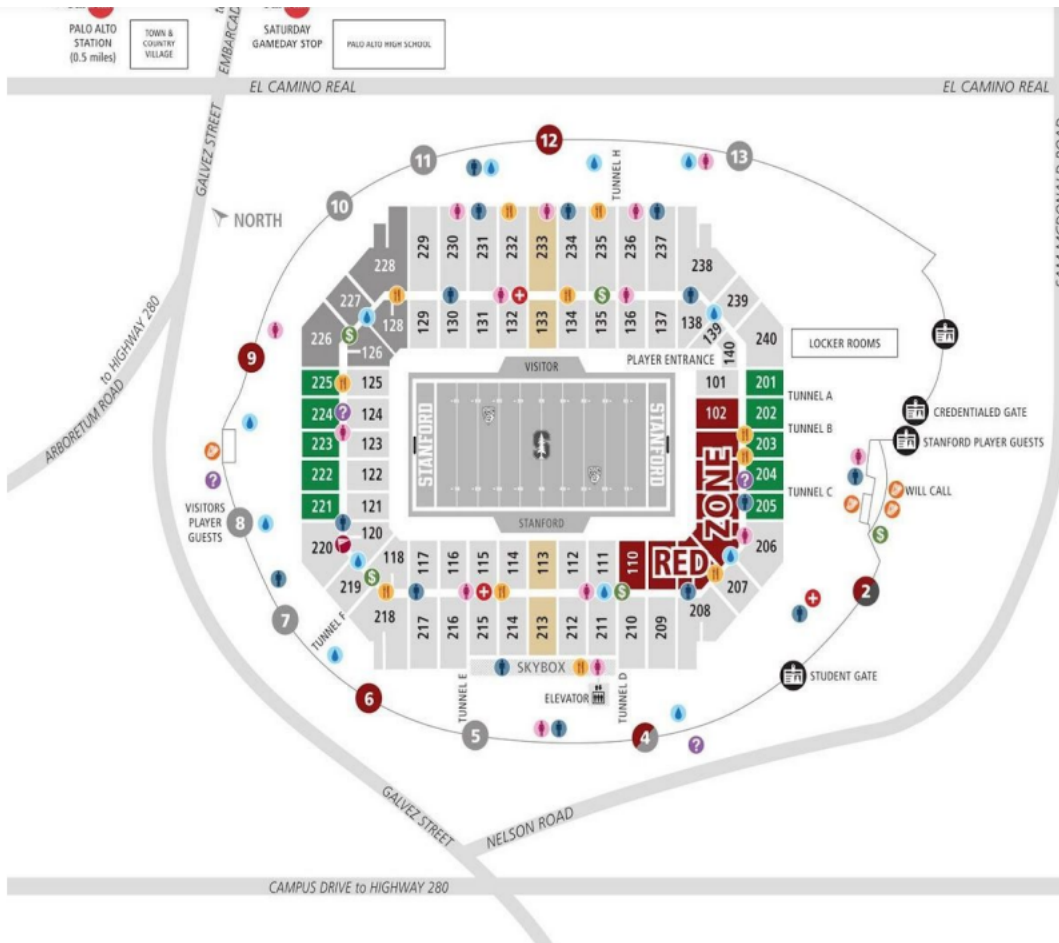
strictlyfx.com

ATTACHMENT E

Stanford Football Stadium Map

STANFORD STADIUM GAMEDAY MAP

UPDATED 2016



- | | |
|--|-------------------------------|
| | Premium Sections |
| | Reserved Seats |
| | General Admission |
| | The Red Zone Student Sections |
| | Visitors Sections |
-
- | | |
|--|------------------------|
| | Ticket Sales & Service |
| | Food & Beverage |
| | Restrooms |
| | The Stadium Shop |
| | Water Fountains |
| | First Aid |
| | Guest Services |
| | ATM |
-
- | | |
|--|--|
| | Season Ticket Members-Only Gate |
| | Season Ticket Members & General |
| | General Public Gate (all tickets accepted) |
| | Credentials or Pass Lists |










ATTACHMENT F

Parking Map








STANFORD STADIUM PARKING MAP

LEGEND




-  **Accessible Parking**
Sunken Diamond Lot
(Valid ADA placard required)
-  **Bicycle Parking**
-  **Bus Parking**
On Galvez Street, west of Campus Drive
(Bus enters at Serra St & El Camino Real)
-  **Vendor Parking**
On Galvez Street, west of Campus Drive
(Parking in Sunken Lot NOT permitted)
-  **Guest Services**
-  **Bag Check Station**
-  **Restrooms**
-  **Lot Entrance / Exit**
-  **One Way Street**

LOT ACCESS

YELLOW	GREEN
Access via Arboretum Rd or Lasuen St	Access via El Camino Real
General Lot #8 	General Lot #4
General Lot #9 	Lot #2   
General Lot #13	Masters Grove
Media Lot	
BLUE	CARDINAL
Access via Galvez St	Access via Galvez St or Arboretum Rd
Sunken Diamond Lot	Lot #3
Galvez Lot	Lot #7 
Track Lot	Lot #10 
Toyon Grove	

ATTACHMENT G

Noise Study

	787 The Alameda Suite 250 San Jose, CA 95126 408.660.4000 phone 408.660.4001 fax	esassoc.com
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memorandum

date	October 7, 2024
to	Diana O'Dell, Director & Erin Efner, AVP Land Use and Environmental Planning Stanford University
cc	
from	Chris Sanchez, Senior Acoustical Associate, ESA
subject	FINAL DRAFT: Sound Level Assessment Technical Summary Report in Support of the Entertainment Use of Stanford Stadium

Introduction

Since 1921, Stanford Stadium has been a multi-purpose facility for athletic events, ceremonial gatherings such as commencement, and arts and cultural opportunities for the larger community. Stanford is currently considering a pilot series of two concerts in 2025 as it looks to resume Stadium use as an occasional concert venue. This Sound Level Assessment Technical Memorandum has been prepared to assist the University in its understanding of the acoustical characteristics of potential future live music events at the Stadium. In addition, this Report includes a review and assessment of applicable regulations.

Data used to prepare this analysis were obtained from the Santa Clara County General Plan: Book A (Santa Clara County, 1994a); Santa Clara County Municipal Code (Santa Clara County, 2003); City of Menlo Park Municipal Code (Ord. 892 § 2 (part), 1999); the City of Palo Alto Municipal Code (City of Palo Alto, 2000); and by measuring and modeling existing and future sound levels at the Stadium site and the surrounding area.

Existing Sound Levels

Land uses potentially affected by concert operations would be located within the Stanford Campus (Santa Clara County) and residential and sensitive non-residential uses in Palo Alto and Menlo Park. Based on consultations with the University with respect to public responses from existing music events at Frost Amphitheater, a combination of long-term and short-term sound level measurements were conducted during the planned hours of events to establish the existing noise environment to assist in the assessment of potential noise impacts of concert events at the Stadium.

The monitoring was conducted to respond to specific provisions in the noise ordinances of both Santa Clara County and the City of Palo Alto¹. More specifically:

- Santa Clara County Exterior Noise Standards (55 dBA daytime and 45 dBA nighttime) provide allowances for when the existing ambient noise levels already exceed the standards. Specifically, if the measured ambient level exceeds the permissible limit within any of the noise limits, the allowable noise exposure standard is to be increased in five dB increments in each category as appropriate to encompass or reflect the ambient noise level. Due to the urban nature of the areas surrounding the Stadium, many locations warrant this adjustment to the numeric exterior noise standards of the County.
- The City of Palo Alto exterior noise standards at residential properties are established as an allowance above the existing ambient noise level. Specifically, the Code prohibits a noise level of more than six (6) dB above the local ambient at any point outside of the property plane. More lenient standards are established for noise emanating from commercial or industrial properties as well as public properties.

Table 1 provides a summary of the sound levels monitored at each location and the applicable Santa Clara County exterior noise standard for that location. Sound levels were monitored during a representative 20-minute period for the hours of between 7:00 and 11:00 p.m. when concert events at the Stadium may be proposed to occur, although events could start as early as 5:00 p.m. Locations were selected based on proximity to the Stadium as well as locations from which the University has historically received noise complaints from music events at Frost Amphitheater (primarily within the City of Menlo Park). Long-term measurements were collected at the closest representative receptor locations in the City of Palo Alto. Refer to **Figure 1** for monitoring locations.

¹ The City of Menlo Park noise ordinance does not contain adjustment mechanisms for its noise standards if they are already exceeded and, therefore, are not included in this discussion of existing noise levels.

TABLE 1
SUMMARY OF AMBIENT ²SOUND LEVEL SURVEY RESULTS

Measurement Location	Sound Levels in dBA	
	7:00 to 11.00 P.M. hourly average Leq	Applicable ^a County Standard
LT-1. 1501 El Camino Real, Southgate Neighborhood	70	70
LT-2. 800 High Street at Channing Avenue	46	55
LT-3. Kellog Avenue at Alma Street	72	75
ST-1: Building 84 Hulme Court Stanford Housing	51	55
ST-2: 3 Hawthorne Avenue and Alma Street: North Palo Alto	61	65
ST-3: Creek Drive and Cornell Road; Menlo Park	46	55
ST-4: Daisy Lane and Valparaiso Avenue; Menlo Park	65	65
ST-5: Pope Street, approximately 230 feet south of Gilbert Avenue; Menlo Park	53	55
ST-6: Yale Street and Stanford Avenue; Stanford	56	60

a. Applicable standard is adjusted because the ambient noise level exceeds County Standard. Adjustment in accordance with Section B11-152(3) of the County noise ordinance

NOTE: See Figure 1 for sound level measurement locations.

SOURCE: Environmental Science Associates, 2024.

Modeled Sound Levels from Concert Events

Sound levels associated with a large-scale concert event were predicted using the CadnaA (Computer-Aided Noise Abatement) three-dimensional noise model. CadnaA is a computer tool that calculates sound levels after considering the noise reductions or enhancements caused by distance, topography, varying ground surfaces, atmospheric absorption, intervening buildings, acoustic reflection or absorption by building surfaces, and meteorological conditions three-dimensional noise model.

The primary analysis addressed a proposed large performance event where the speakers and stage configuration were provided to the University by an interested promotor/artist. The analysis was calibrated to a sound level of 100 dBA at the sound board³. The speaker set up and orientation was developed by a prospective event operator and designed to minimize sound propagation off site. Specifically, the configuration provided by the promotor/artist provides for the main stage toward the southern end of the Stadium, with the speaker systems aimed toward the north/northwest end of the Stadium.

² The definition of ambient noise level can vary from how it is defined in a given jurisdictions’ noise ordinance. These levels reflect the Santa Clara County noise ordinance which defines ambient noise level as “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.” Based on this definition, this analysis is using the average Leq for hours during which events are proposed.

³ 100 dBA at the soundboard was assumed, consistent with sound levels used at Frost Amphitheater.

The results of the CadnaA modeling indicate that sound levels of 70 dBA and greater are largely confined to the Stanford University campus immediately surrounding the Stadium and extending northward through the majority of the Arboretum. The CadnaA model propagates noise in accordance with acoustical algorithms associated with soundwave transmission. While sound levels generally dissipate at a rate of 6 dBA per doubling of distance in urbanized areas, the model also adjusts for topography, varying ground surfaces, atmospheric absorption, intervening buildings, acoustic reflection or absorption by building surfaces, and meteorological conditions. The presence of large structures in and around the Stanford University Medical Center and Stanford Shopping Center reduce the effects of noise traveling in this northwest direction, and large structures east of El Camino Real reduce the intensity of sound traveling toward Palo Alto. Nevertheless, modeled sound levels of 60 dBA extend northwest into Menlo Park and eastward into Palo Alto, just beyond Alma Street and along some uninterrupted residential roadway corridors to the northeast.

Concert-related sound would be generated within the unincorporated jurisdiction of Santa Clara County and, consequently, the applicable regulations that would apply to concert operations are those contained in the Santa Clara County Code. As shown in Table 1, the applicable County Noise Control Ordinance standards vary by receptor location depending on the existing sound level and proximity to major roadways. Consequently, this phenomenon limits the usefulness of sound level contours and this analysis uses a tabular comparison of representative receptor locations to demonstrate potential exceedances of County standards.

Table 2 presents the resultant modeled sound levels and compares them to the applicable Santa Clara County daytime and nighttime noise standard at each location. As can be seen from the table, the applicable Santa Clara County daytime standard would only be exceeded at one of the representative monitoring locations, which is in Menlo Park. Table 2 also compares modeled sound levels with the County's nighttime noise standard, as events could extend to 11:00 p.m., with County approval, which would include the first nighttime hour as defined in the ordinance (10:00 p.m. to 11:00 p.m.). The Santa Clara County nighttime standard would be exceeded at two of the representative monitoring locations, one in the City of Palo Alto and one in the City of Menlo Park.

TABLE 2
COMPARISON OF MODELING RESULTS TO COUNTY NOISE CONTROL ORDINANCE STANDARD

Monitoring Location Number	Location Description	Measured ambient Sound Level (dBA) ^a	Applicable County Standard Daytime (7:00 a.m. to 10:00 p.m.)	Modeled Sound Level – Large Event (dBA)	Increase over Daytime Standard	Applicable County Standard Nighttime (10:00 p.m. to 7:00 a.m.)	Increase over Nighttime Standard
ST-1	Hulme Court Student Housing (Stanford Campus)	51	55	42	Below Standard	55 ^b	Below Standard
ST-2	Alma Street at Hawthorne Avenue	61	65 ^b	51	Below Standard	65 ^b	Below Standard
ST-3	Creek Drive near Cornell Road in Menlo Park	46	55	58	+3	50 ^b	+8
ST-4	800 block Valparaiso Avenue	65	65 ^b	39	Below Standard	65 ^b	Below Standard
ST-5	Pope Street Menlo Park residences San Mateo	53	55	44	Below Standard	55 ^b	Below Standard
ST-6	College Terrace off Stanford Avenue and	56	60 ^b	44	Below Standard	60 ^b	Below Standard
LT-1	Southgate Neighborhood off El Camino Real	70	70 ^b	60	Below Standard	70 ^b	Below Standard
LT-2	Channing Avenue and High Street	46	55	50	Below Standard	50 ^b	At Standard
LT-3	Kellogg Avenue at Alma Street	72	75 ^b	54	Below Standard	75 ^b	Below Standard

SOURCE: ESA/Landau, 2024

NOTES:

- a. Per Section N11-151(d) of the County Code, the ambient noise level constitutes the normal or existing level of environmental noise at a given location. Reported values are the average Leq over the 20-minute monitoring period without a concert event for the short-term measurements. Ambient values for the long-term measurements are the average of the hourly Leq values between 7:00 p.m. and 11:00 p.m.
- b. Applicable standard is adjusted because the ambient noise level exceeds County Standard. Adjustment in accordance with Section B11-152(3) of the County noise ordinance.

Concert events at the Stadium would potentially affect the residents and other land uses within the cities of Palo Alto and Menlo Park. Because the events generating the noise would be conducted within unincorporated Santa Clara County, technically, only the noise standards of Santa Clara County would apply. However, in the interest of full disclosure, the following analysis assesses the consistency of event sound levels with respect to local noise ordinances of both the City of Palo Alto and the City of Menlo Park.

Table 3 presents the modeled sound levels for representative receptor locations within the City of Palo Alto and compares them to the City’s noise standard at each location. The City’s noise standard is not a specific defined noise level and is irrespective of daytime or nighttime hours. Rather, the noise standard in the City of Palo Alto is established in terms of an increase over ambient levels. The ambient noise level is defined as the lowest sound level repeating itself during a six-minute period as measured with a precision sound level meter, using slow response and "A" weighting. As can be seen from the table, the City of Palo Alto daytime standard would not be exceeded at the four representative Palo Alto monitoring locations.

**TABLE 3
COMPARISON OF MODELING RESULTS TO PALO ALTO NOISE ORDINANCE STANDARD**

Monitoring Location Number	Location Description	Measured Ambient Sound Level (dBA) ^a	Applicable City Standard (> 6 dBA over ambient)	Modeled Sound Level – Large Event (dBA)	Increase over Standard
Table Row Heading					
ST-2	Alma Street at Hawthorne Avenue	61	67	51	Below Standard
LT-1	Southgate Neighborhood off El Camino Real	58	64	60	Below Standard
LT-2	Channing Avenue and High Street	54	60	50	Below Standard
LT-3	Kellogg Avenue at Alma Street	65	71	54	Below Standard

SOURCE: ESA/Landau, 2024

NOTES:

- a. Per Section 9.10.020(d) of the Palo Alto Municipal Code, the ambient sound level is the lowest sound level repeating itself during a six-minute period as measured with a precision sound level meter, using slow response and "A" weighting.

Table 4 presents the modeled sound levels for representative receptor locations within the City of Menlo Park and compares them to the City’s noise standard at each location which are defined noise levels of 60 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.). As can be seen from the table, the City of Menlo Park daytime standard would be exceeded at one of the representative Menlo Park monitoring locations. The nighttime standard, which would apply to the proposed 10:00 p.m. to 11:00 p.m. hour of events, would also be exceeded at the same representative Menlo Park monitoring location. It is reasonable to expect that other residences in the Allied Arts area of southern Menlo Park that are located away from major roadways like El Camino Real could also experience sound levels in excess of City of Menlo Park standard, were they to apply, during concert events.

**TABLE 4
COMPARISON OF MODELING RESULTS TO MENLO PARK NOISE ORDINANCE STANDARD**

Monitoring Location Number	Location Description	Measured Sound Level (dBA)	Applicable City Standard Daytime (7:00 a.m. to 10:00 p.m.)	Modeled Sound Level – Large Event (dBA)	Increase over Daytime Standard	Applicable City Standard nighttime Standard (10:00 – 11:00 p.m.)	Increase over nighttime Standard (10:00 – 11:00 p.m.)
ST-3	Creek Drive near Cornell	46	60	58	Below Standard	50	+8

Monitoring Location Number	Location Description	Measured Sound Level (dBA)	Applicable City Standard Daytime (7:00 a.m. to 10:00 p.m.)	Modeled Sound Level – Large Event (dBA)	Increase over Daytime Standard	Applicable City Standard nighttime Standard (10:00 – 11:00 p.m.)	Increase over nighttime Standard (10:00 – 11:00 p.m.)
	Road in Menlo Park						
ST-4	800 block Valparaiso Avenue	65	60	39	Below Standard	50	Below Standard
ST-5	Pope Street Menlo Park residences San Mateo	53	60	44	Below Standard	50	Below Standard

SOURCE: ESA/Landau, 2024

NOTES:

Conclusions

Stanford University proposes resuming the use of Stanford Stadium for live music and entertainment events, starting with a 2-night pilot in late-May 2025. ESA has conducted an environmental sound level assessment for the proposed live music and entertainment event that included both monitoring of existing sound levels and modeling of future community sound levels for the purposes of evaluating the increase in ambient noise that would be associated with the proposed concert events. Additionally, the assessment includes an evaluation of the extent to which sound levels created by such occasional events may be inconsistent with the applicable noise standards of the Santa Clara County noise ordinance.

Given that the Santa Clara County Noise Control Ordinance provides for adjusted noise standards when the existing sound levels already exceed the standard, which is the case in many locations with the surrounding suburban communities, our analysis indicates that a majority of the noise-sensitive receptors closest to the stadium would experience increased noise levels consistent with those allowed by the County Noise Control Ordinance. Only one quieter location within southern Menlo Park was shown to experience sound levels in excess of Santa Clara County standards.

All off-campus residential sound levels are predicted to be below 65 dBA, which is the upper sound level that the County General Plan considers cautionary⁴ for residential land uses as a long-term (24 hour) metric. Similarly, the City of Palo Alto Comprehensive Plan identifies a guideline for maximum outdoor noise levels in residential areas is an Ldn of 60 dB (also a 24-hour metric) but recognizes that it cannot necessarily be reached in all residential areas. The City of Menlo Park has similar goals for residential noise exposure, discouraging such uses where the noise levels exceed 65 CNEL (also a 24-hour metric).

It should further be noted that the CadnaA noise model is inherently conservative, employing an algorithm that assumes downwind propagation from each sound source toward each receiver or a light temperature inversion,

⁴ Cautionary is defined in the General Plan as noise levels which could potentially pose a threat to a proposed land use. The ambient noise level is great enough to require study on the compatibility of the proposed project. However, Stanford Stadium is an existing and not a proposed land use.

resulting in somewhat elevated sound levels at a distance. Therefore, predicted noise levels could be lower than those predicted in this analysis.

Stanford acknowledges that measures will be needed to ensure compliance with the Santa Clara County Noise Ordinance. The University and the concert promoter have discussed various measures that could be implemented. These include implementing different configurations of sound equipment at the stadium to reduce noise at the one affected location in Menlo Park. Another approach could involve real-time noise monitoring in the affected area to adjust concert noise levels in real time. The concert promoter has committed to implementing the needed noise-reducing measures to ensure compliance with the Noise Ordinance. A suite of specific measures will be modeled using the methodology described throughout this report and final measures will be selected based on their effectiveness, feasibility, and documented compliance with the Noise Ordinance. A supplemental memo will be submitted to the County in advance of the concert to demonstrate the effectiveness of selected mitigation measures.

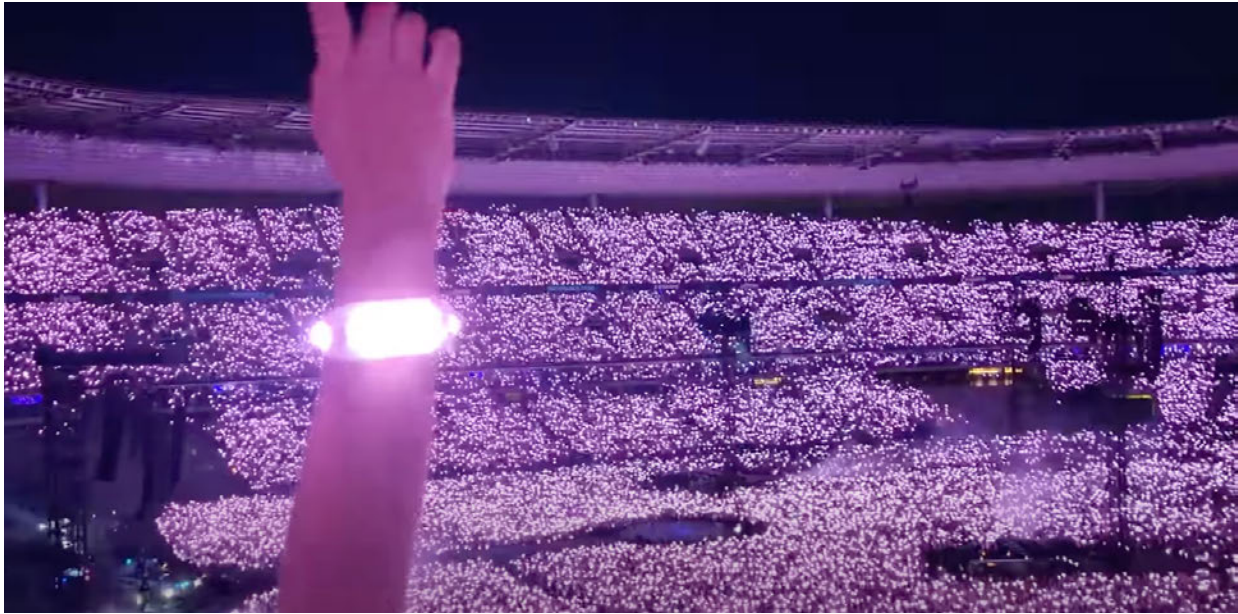
ATTACHMENT H

Sample Special Effect

PIX MOB WRISTBANDS –

This is an infrared system that uses moving heads mounted on overhead trusses to scan the crowd. The non-branded, biodegradable, wristbands will be handed out to each audience member as they enter the venue. This shouldn't require any inspection or local authority approval. Post show, all wristbands to be returned into Pix Mob bins at all exit points.

Pix Mob will require a large working space (6 x 15 meters, concourse or tent) for wristband prep near the main gates. They will also gather 50-60 locals to assist them with their process on load-in and show days.



SPECIAL FX – Production uses Pyrotechnics, Lasers and Confetti... All permitting to be procured by Strictly FX

laser variance #2013V-0784

PYROTECHNICS – Production uses a large number of pyrotechnics to include:

- Comets
- Mines
- Shells
- Gerbs
- Sky bursts
- Gas fueled flames

Effects to travel 120' to 500' into the air. All pyrotechnics boards will be placed as far upstage into the stadium as possible. If there are any roof obstructions, boards may have to place on the stadium roof or outside behind on scissor lifts. This to be advanced. This may require the use of a crane.

LASERS – Production uses the following Strictly FX laser units. Please let me know if you anticipate an inspection.

- 8 x 10-watt audience scanning lasers
- 22 x 15-watt lasers
- 12 x 36-watt lasers
- 1 x 120-watt laser

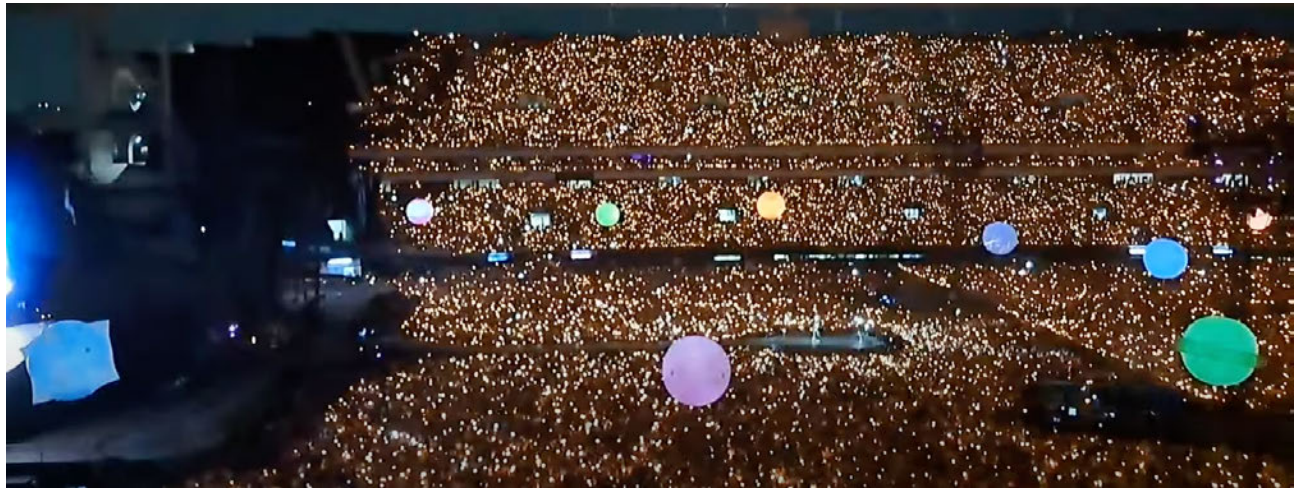
CONFETTI – Be aware there will be a large amount of confetti & streamers used during the performance. All confetti and streamers fire from floor mounted pressurized cannons. Post show, have custodial staff standing by with brooms and bins to start clearing the floor of confetti and debris. All product is biodegradable. **PLEASE NO BLOWERS!**

BALLOONS – Production launches 200 x 1.5-meter diameter air filled balloons into the crowd during the show from both the down stage edge and front of house delay towers. This takes place during the second song of the show.



INFLATABLE PLANETS - Production uses 11 x large helium filled buoyant spheres that are paraded through the audience for the last 20 minutes of the performance. **There will be a security element that will be implemented.** All spheres will deploy from the upstage area where they are filled and clipped to a clothesline for safe keeping.

Production carries a compression system that harvests the helium from the spheres and feeds it back into the cylinders that we tour.



GASES – Please have the following on site by steel day #3 latest

- 8 x tall torpedo bottles of balloon helium
- 32 x 20lb non-syphon co2 cylinders
- 6 x 320cf Nitrogen vapor draw cylinders
- 4 x water pressure fire extinguishers
- 4 x co2 extinguishers

SPOTLIGHTS

- Production requires two “Robert Juliat” 4000w spotlights to cover C-Stage performance
- Spotlights to be provided locally
- Scaffold platforms may also be needed to support each spot
- Location to be determined during advance with Site Coordinator
- No locally supplied comms required