

**City Council:** May 11, 2021

**Ordinance:** ORD-0584

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**SUBJECT:** Approving an ordinance for Park Crest Middle School located at 1500 N. Railroad Ave, to allow for new athletic field lighting per Subchapter 13.9 of the Unified Development Code. The athletic field lighting is proposed to exceed the maximum light fixture height and maximum foot candle allowances in order to meet the University Interscholastic League (UIL) standards for a football field.



**LOCATION:** Park Crest Middle School is located on the west side of N Railroad Avenue on the northwest corner of the N Railroad and Pfennig Lane Intersection. The school is within the central portion of Pflugerville's city limits and is adjacent to the Meadow Ridge neighborhood to the west of the middle school and the Park Crest neighborhood to the south across from Pfennig Lane.

**REQUEST:**

The Pflugerville Independent School District is updating the existing football field at Park Crest Middle

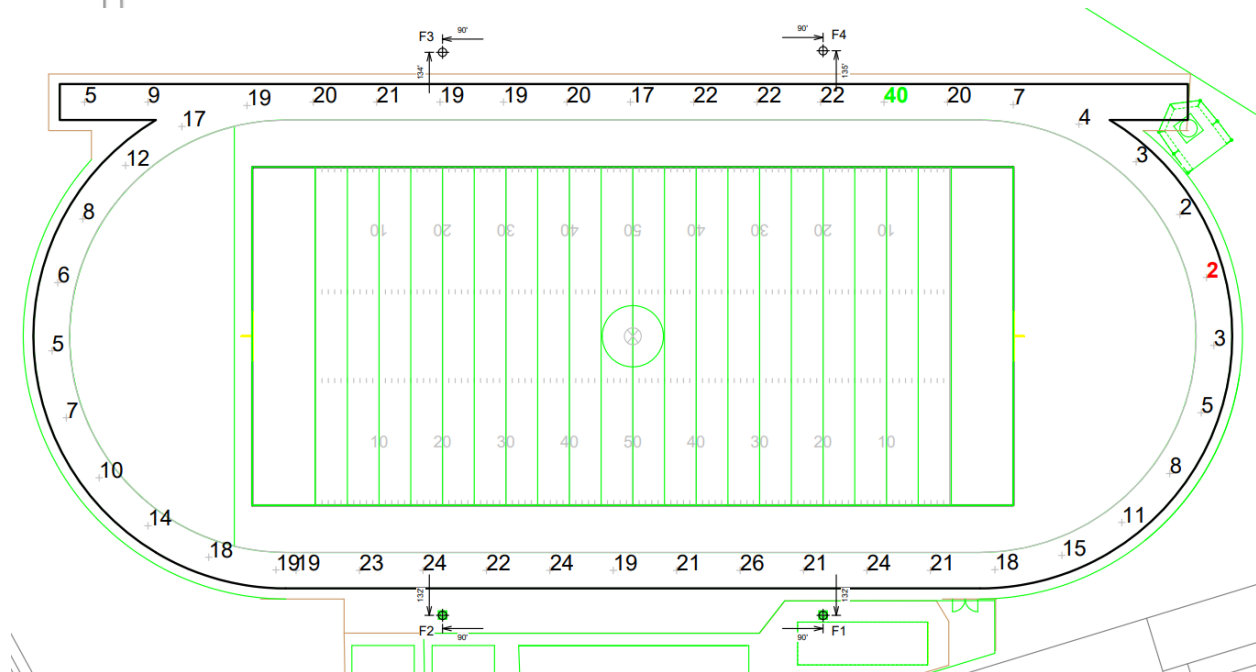
School and has proposed to replace the former lights with new athletic field lighting that adheres to the University Interscholastic League (UIL) standards. Per Subchapter 13.9 all new athletic field lighting is required to be approved by City Council prior to being constructed. With the athletic field lighting request the School District has stated that the proposed lighting would need to exceed the Unified Development Codes standards for the permitted maximum light fixture height from 60-ft to 70-ft. Additionally in order to meet University Interscholastic League (UIL) football field lighting standards the proposed maximum foot candle levels would need to exceed the UDC's permitted 30-fc maximum to a maximum 58-fc's within the field.

**PROJECT DESCRIPTION:**

Location:



The applicant has proposed four (4) athletic field lighting poles with 12 luminaires attached to each pole proposed at 70-ft, to be constructed within the new athletic football field, west of the Park Crest Middle School primary structure. The new poles are proposed generally at each corner of the football field to ensure the full field is provided with illumination. The foot-candle values lining the track are to demonstrate light levels along the perimeter of the proposed track and field being constructed at Park Crest Middle School.



Light Fixture:

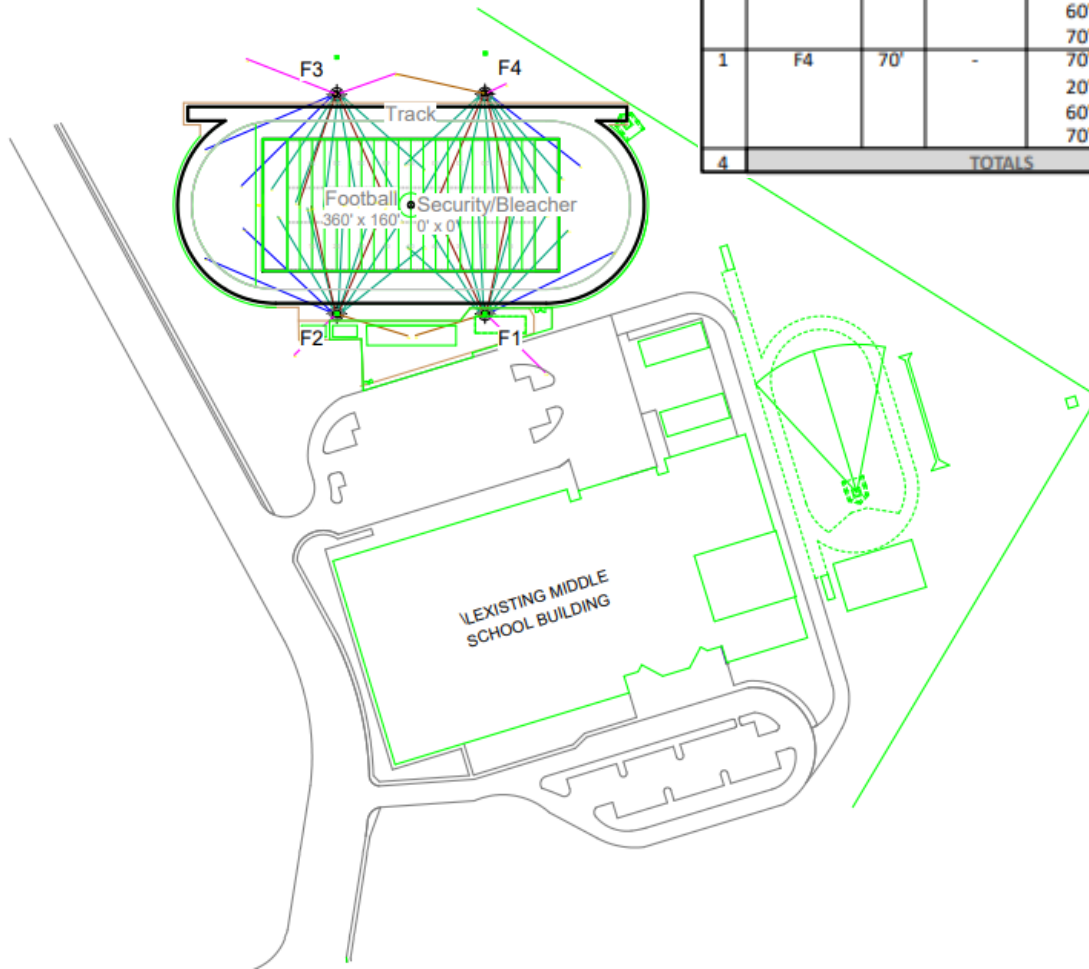
The proposed wattage and luminaires are 575-1430 watt, LED lamps, which is within the 1000–1500-watt range permitted by Subchapter 13 Section 13.9.1 A2 of the UDC. Each luminaire will be directed downward and contains a shielded cap to ensure the light is fully cut off from casting unwanted glare to nearby properties and into the night sky.

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1500	LED 5700K - 75 CRI	1430W	160,000	>120,000	>120,000	>120,000	29
TLC-LED-600	LED 5700K - 75 CRI	580W	65,600	>120,000	>120,000	>120,000	8
TLC-LED-900	LED 5700K - 75 CRI	890W	89,600	>120,000	>120,000	>120,000	3
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>120,000	>120,000	>120,000	8

FIXTURE/POLE	QUANTITY	DIRECTION
F1:	12 luminaires	west facing
F2:	12 luminaires	west facing
F3:	12 luminaires	east facing
F4:	12 luminaires	east facing



EQUIPMENT LIST FOR AREAS SHOWN						
QTY	LOCATION	Pole		MOUNTING HEIGHT	Luminaires	
		SIZE	GRADE ELEVATION		LUMINAIRE TYPE	QTY / POLE
3	F1-F3	70'	-	20'	TLC-BT-575	2
				60'	TLC-LED-600	2
				70'	TLC-LED-1500	8
1	F4	70'	-	70'	TLC-LED-900	3
				20'	TLC-BT-575	2
				60'	TLC-LED-600	2
5				70'	TLC-LED-1500	5
4	TOTALS					48



Height:

The Pflugerville Independent School District has proposed a pole height of 70-ft., which is above the 60-ft maximum allowance in the UDC per pole. The school district stated that this height will give the school more light control and enable the lights to have less light spill over and glare while also reducing the number of light fixtures required to illuminate the field.

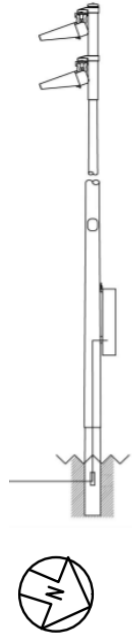
Electricity:

Power to serve the poles is supported by an on-site control switch connected through an underground electric extension as well as a remote-control system that allows the lights to be turned on and off on and scheduled from a web-enabled device. This will allow the owner to ensure the field lighting is not operational past designated shut off times.

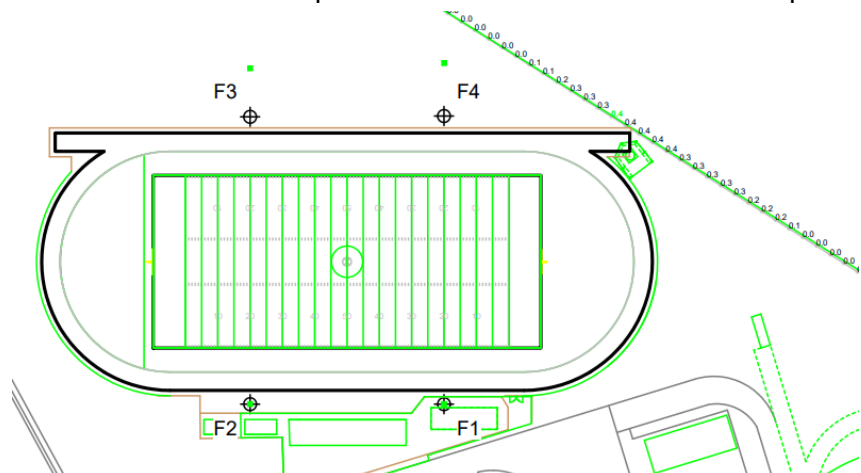
Illumination Period:

According to the Pflugerville Independent School District, the lights are intended to be used during the evening hours and will shut off by a web-enabled device to ensure the lights do not run past the 10pm designated shut off time.

**LAND USE COMPATIBILITY:**



To the west of Park Crest Middle School is the Meadow Ridge single family neighborhood and to the south is the Park Crest single family neighborhood. The lights have been placed on the east and west sides of the field to help ensure that the lights project fully onto the field and do not provide glare or spill lighting to the surrounding area past the field. The fixture closest to the nearest residential property line is approximately 113-ft and faces away from the residential dwellings. The maximum foot candle illumination at the adjacent Meadow Ridge property line is less than the allowed 0.5-foot candle requirement for any property with a residential zoning per Subchapter 13 Section 13.9.4 of the UDC. Each light fixture is equipped with a down cast shield to help ensure the illumination does not spill in all directions.



**CRITERIA FOR APPROVAL OF ATHLETIC FIELD LIGHTING**

The City Council is recommended to consider the following requirements which derive from the cities Specific Use Permit (SUP) standards and criteria for approval. Please note the following standards are not required per the Unified Development Code but instead are recommended for the approval of the athletic field lighting:

- (a) Whether the use is harmonious and compatible with its surrounding existing uses or proposed uses;
- (b) Whether the nature of the use is reasonable; and
- (c) Whether any impact on the surrounding area has been mitigated.

In granting approval, the City Council may impose written conditions that the owner or grantee must comply with prior to installation of the proposed four (4) athletic field light poles.

**STAFF RECOMMENDATION:**

Approving the four (4) athletic field lighting poles will help assist Pflugerville Independent School District to host University Interscholastic League (UIL) field events for Park Crest Middle School. Athletic field lighting has been located at the football field and the proposed athletic field lighting will be updated and shielded. The proposed lighting will continue to allow Pflugerville Independent School teams to practice and utilize the space during evening hours. The School District has stated the proposed lighting meets the conditions for a UIL regulated football field and will be harmonious with the adjacent Meadow Ridge single-family neighborhood by not producing any unnecessary glare from the football field into the adjacent properties, and by following the cities regulated shut off time at 10pm.

Staff recommends approval to allow for athletic field lighting at the Park Crest Middle School located at 1500 N. Railroad Avenue E. with the following conditions:

1. Only four (4) poles shall be installed as shown on the proposed site plan, equipment layout and illumination summary included with the application.
2. The proposed lighting shall be as provided in the application and subject to the minimum requirements for a University Interscholastic League (UIL) football field lighting standard.

**ATTACHMENTS:**

- General Location Map
- Separation Distance Exhibit
- Foot-candle Illumination Grid and Calculation Table Site Plan
- Site Photos
- Musco Athletic Field lighting photos (UIL Standards)

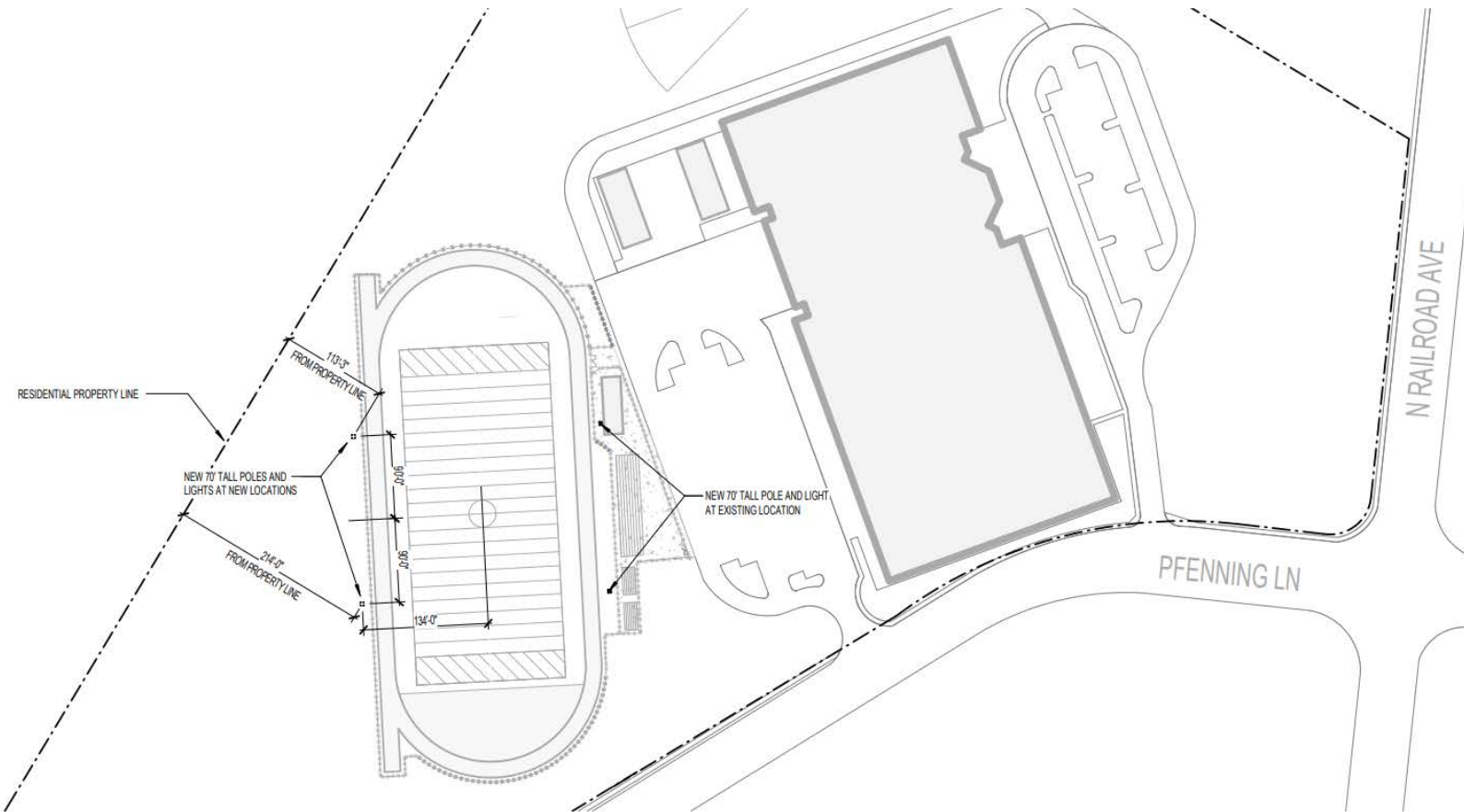


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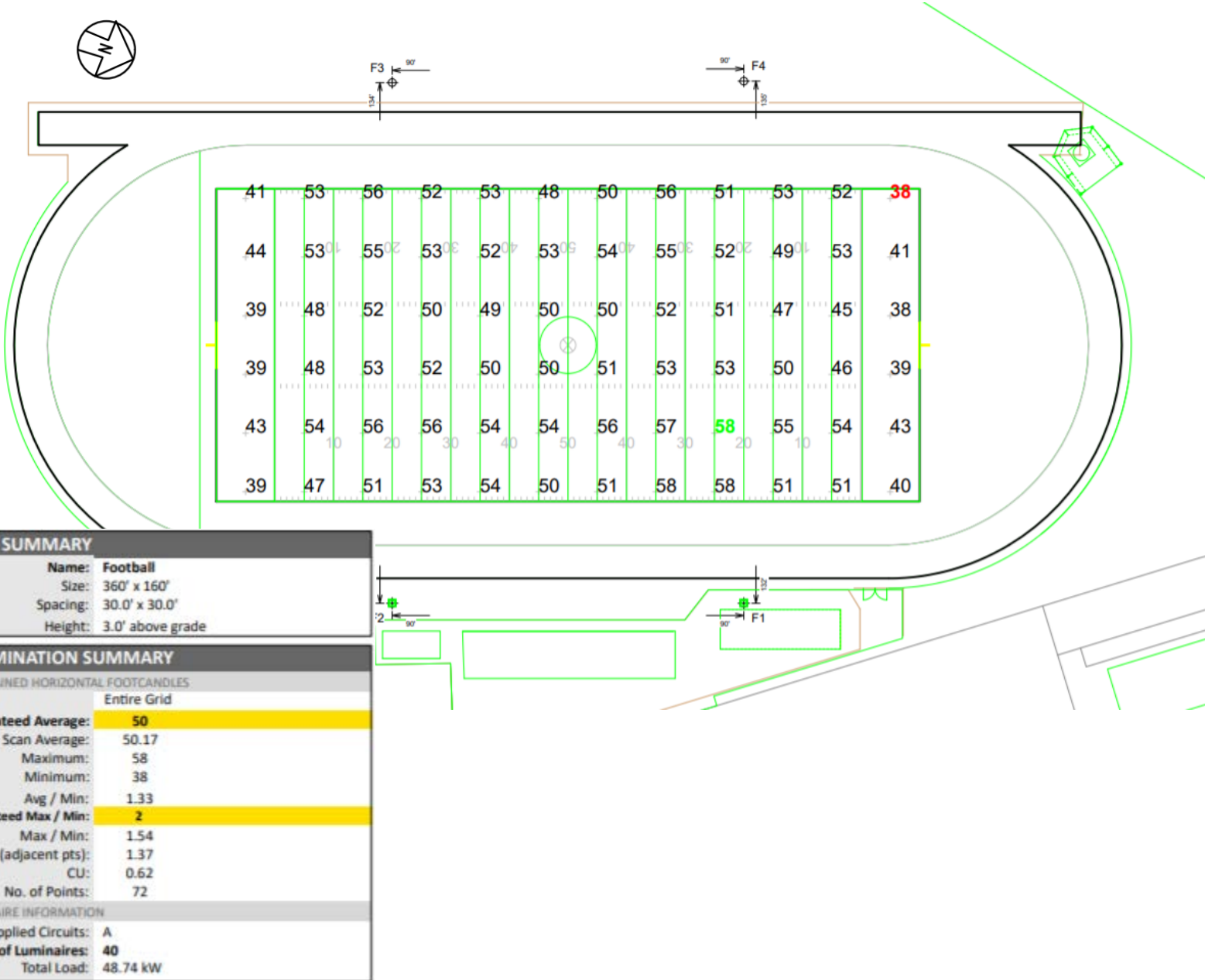
General Location Map:



Separation Distance Exhibit:



Foot Candle Illumination Grid and Calculation Table:





Site Photos:



Musco Athletic Field Lighting photos (UIL) standards:

