



# BOZEMAN HIGH SCHOOL - VAN WINKLE STADIUM RENOVATION + EXPANSION

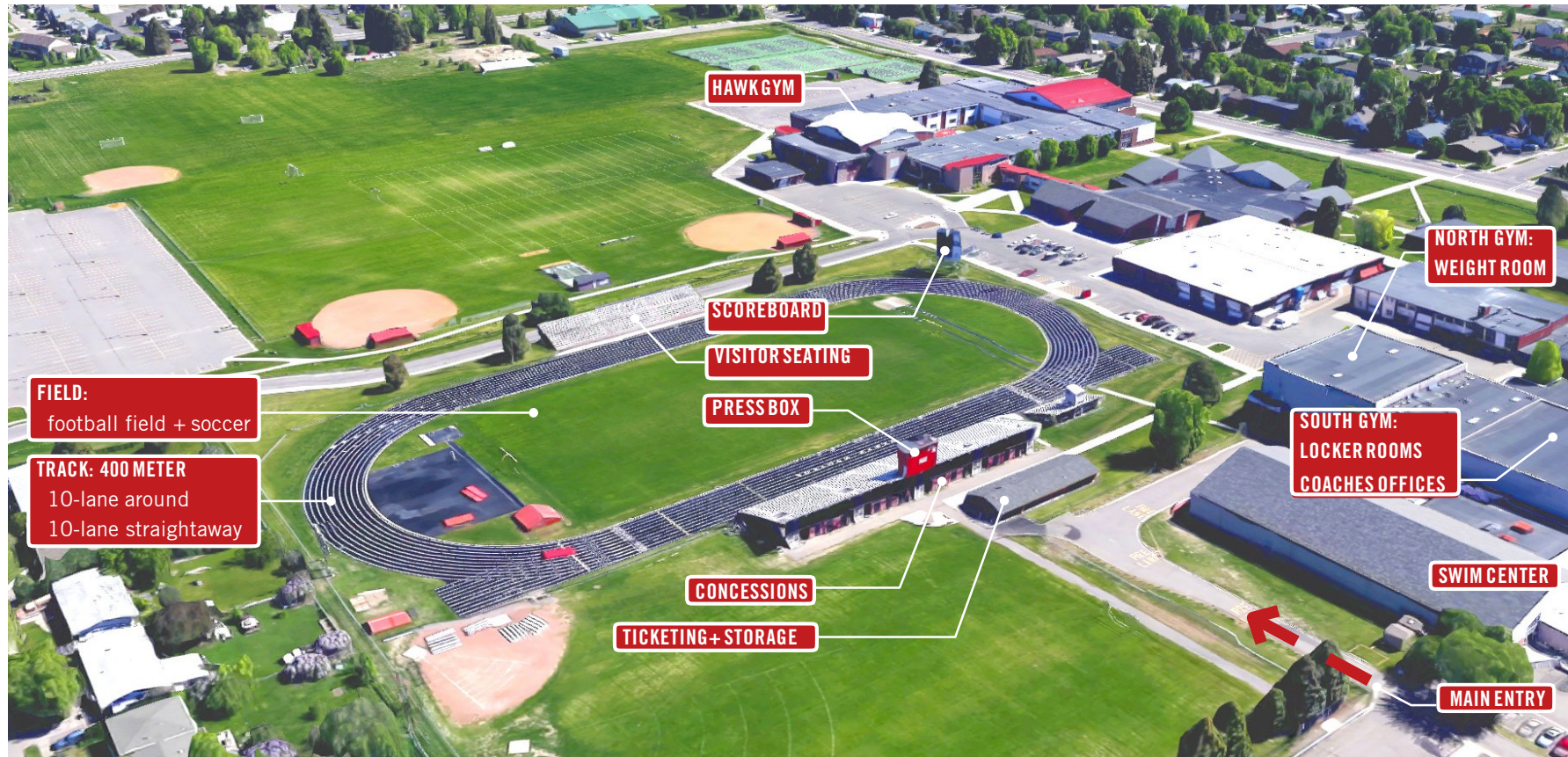
BOZEMAN, MT 2017/12/14

PERKINS+WILL





## EXISTING SITE AMENITIES



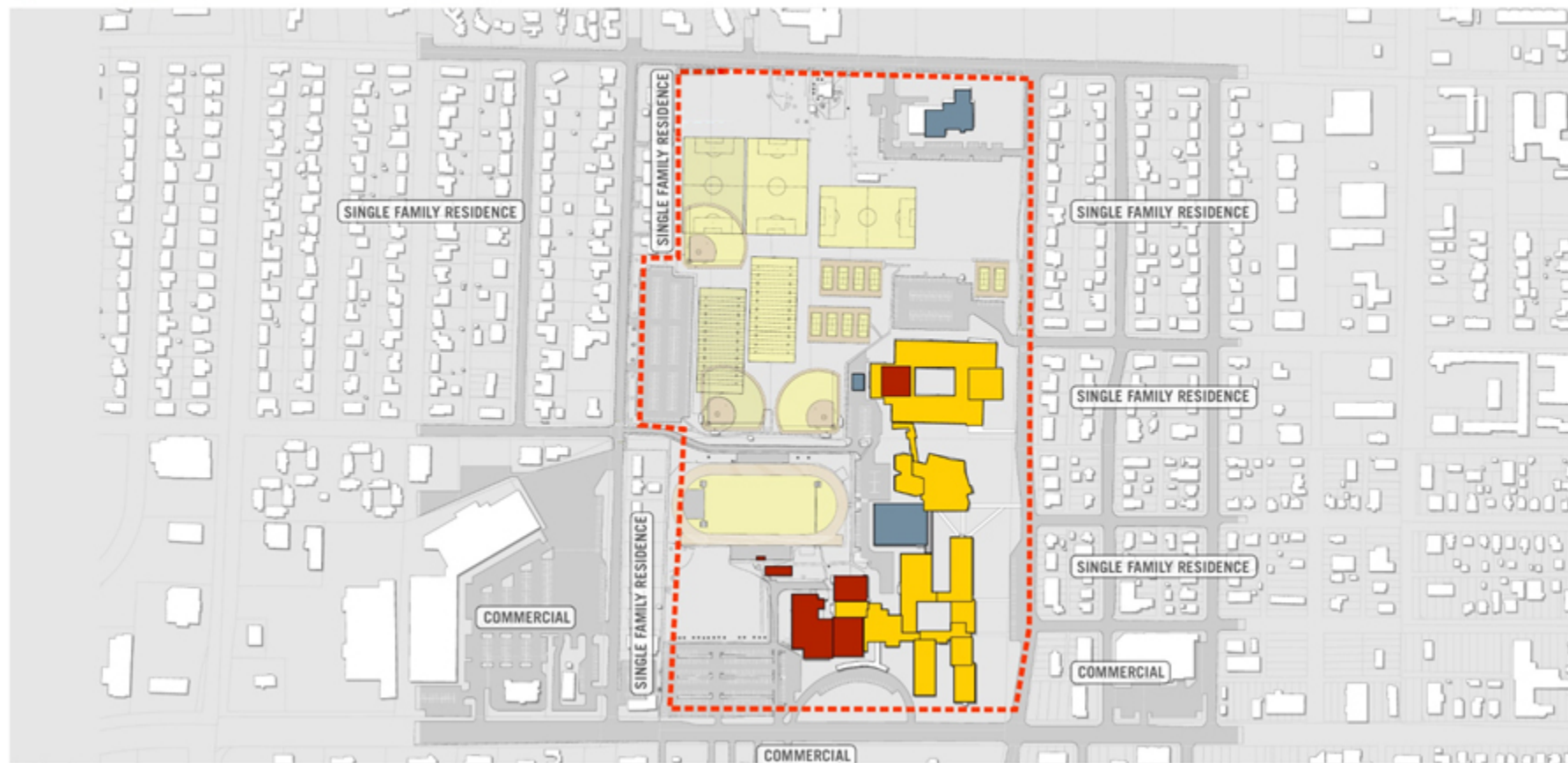








■ Athletic ■ Academic / Administrative ■ Support



# STADIUM PROGRAM

*BHS - VAN WINKLE STADIUM RENOVATION + EXPANSION*



## Butte High School

Naranche Stadium // 1937 // 2011 (reconstructed)

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## Butte High School

Naranche Stadium // 1937 // 2011 (reconstructed)

### SITE FEATURES:

1 synthetic turf field (east-west)

concrete bleachers (north sideline)

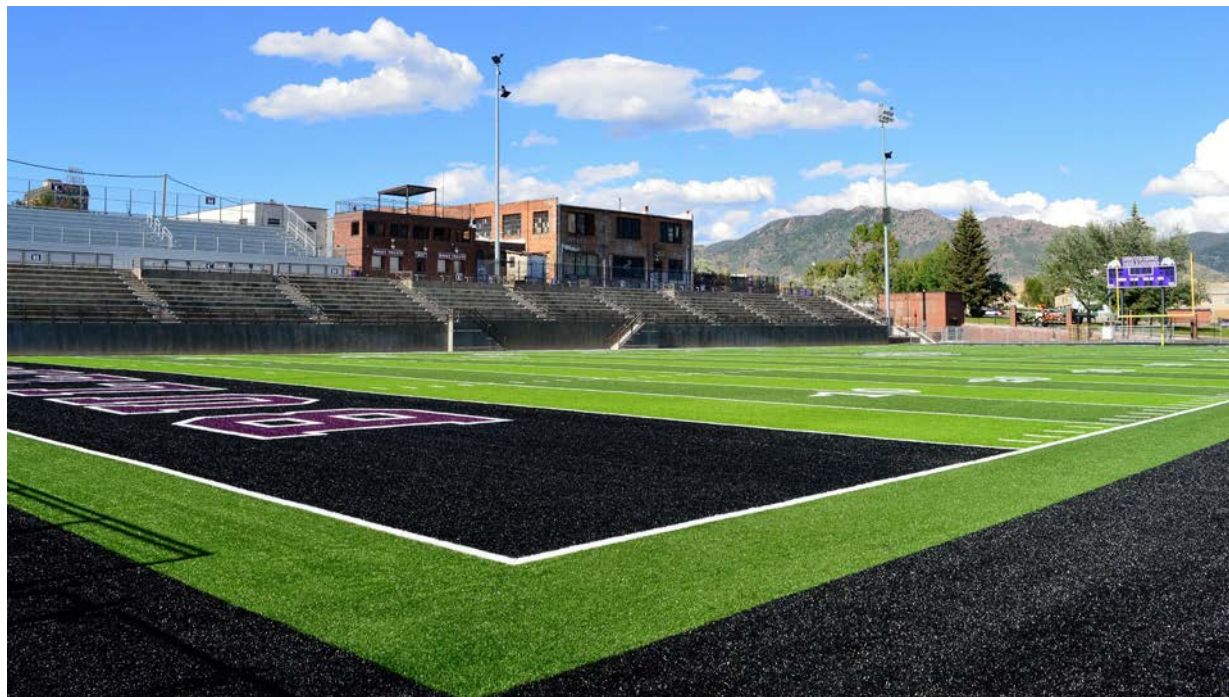
restrooms (original warming houses) serve as bookends

seating stands (south sideline)

west end zone seating

main entry (Gate 1) is located at the NW corner

*The stadium embodies the rugged characteristics of Butte, the Mining City*



## Laurel High School

Sports Complex // 2009 // \$3.6 million





## Laurel High School

Sports Complex // 2009 // \$3.6 million

### SITE FEATURES:

1 synthetic turf field (east-west)  
10-lane all-weather track

field: 50-50 rubber-sand infill

4,500-seat bleachers (north sideline)

scoreboard with 8ft x 25ft video screen

ticket booths at the east and west grandstands

facility to hold state track meets and championships

practice fields next to the stadium

residents can use the facility for walking and jogging



## WHAT WE HEARD

## MULTIPURPOSE TRACK + FIELD



## IDEAL FIELD SIZE AND TYPE:

- Football: 120-yard (360') field with no less than 16-20' runoff

- Soccer: 195' x 360'

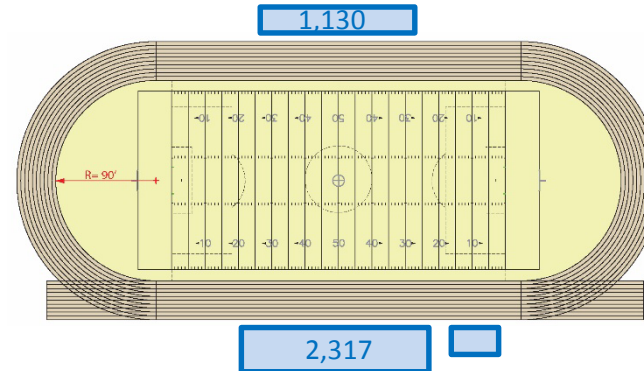
NFHS Recommended soccer field:

300' -360' in length, 165' - 240' in width

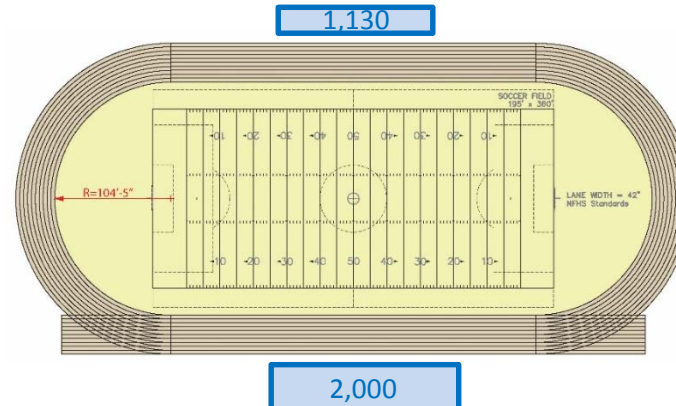
## IDEAL TRACK TYPE: 400 METER

- Track: 10-lane around + 10-lane straightaway
- Lane Width = 42" (National Federation of State High School Associations - NFHS)
- rubberized asphalt

*The radius of tracks may differ, depending on the configuration for activities inside the oval. – NFHS Track and Field Rules*

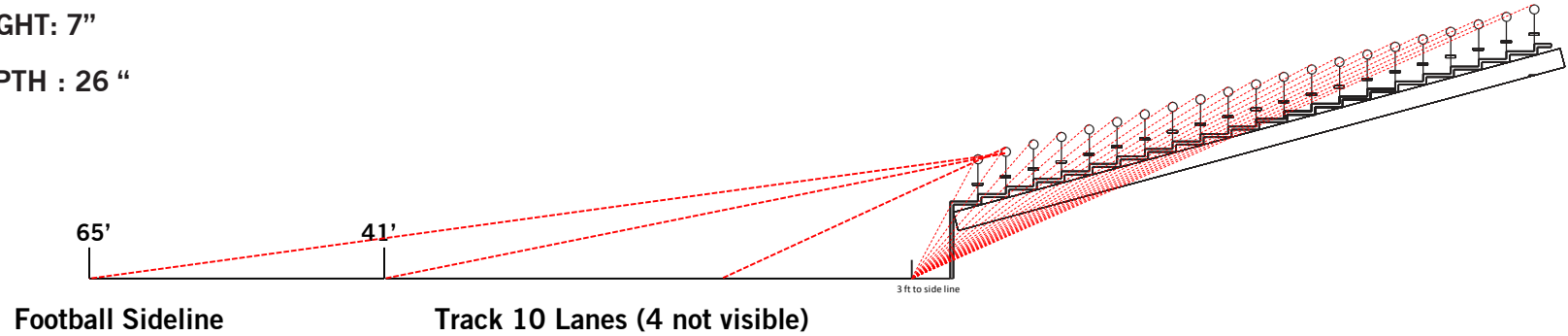
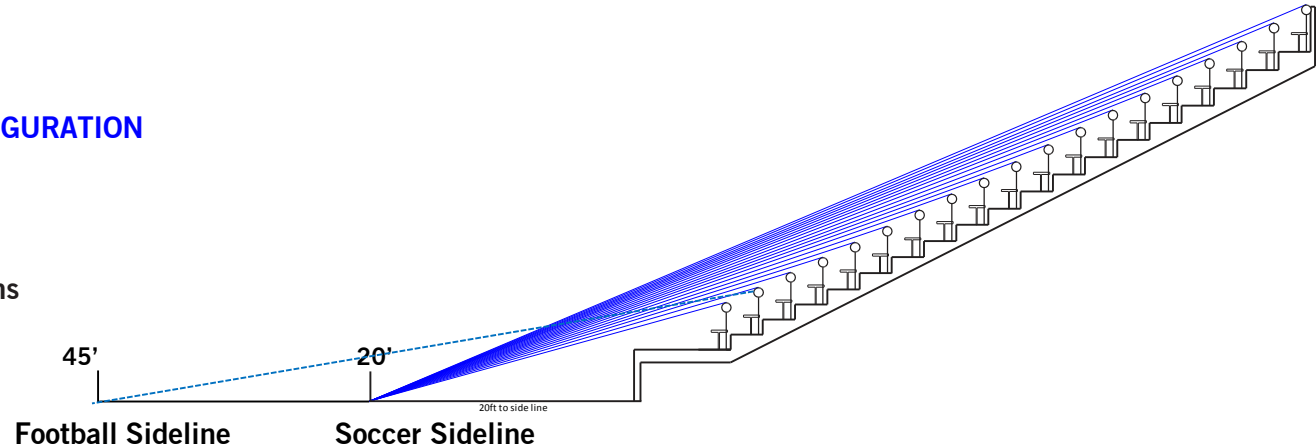


EXISTING TRACK + FIELD (Radius=90')



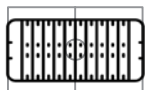
NEW TRACK + FIELD (Ideal Radius =104'-5")



**EXISTING BLEACHER AT TRACK AND FIELD****RISER HEIGHT: 7"****TREAD DEPTH : 26 "****IDEAL STADIUM SEATING CONFIGURATION****RISER HEIGHT: 14-17"****TREAD DEPTH : 30 "****ADA Enhanced Sightlines Positions**

## WHAT WE HEARD

## COMPETITION FIELD



## ARTIFICIAL TURF TYPE:

- Football: 120-yard (360') field
- Soccer: 120yrd x 70yrd (360' x 210') with 20' runoff

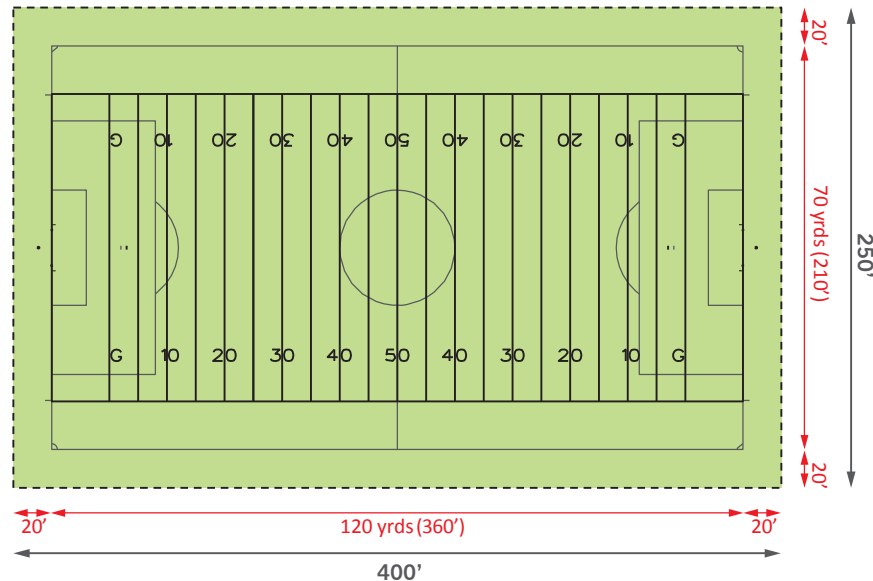
*NFHS Recommended soccer field:*

*300' -360' in length, 165' - 240' in width*

## TOTAL TURF SIZE:

- 400' x 250'**

*turf can accommodate 120yd x 75yrd  
(360' x 225') soccer field with 12'-6" runoff*

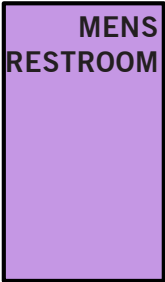
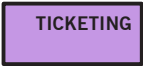
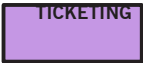
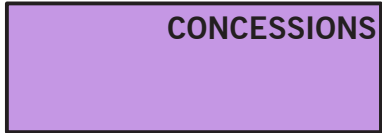




PRESS BOX



SPECTATOR AMENITIES



STADIUM SUPPORT



## B. SUPPORT BUILDING - PROGRAM BLOCKS

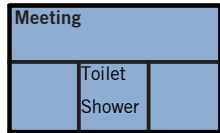
### HIGH SCHOOL 1 TEAM ROOM



### HIGH SCHOOL 2 TEAM ROOM



### OFFICIALS LOCKERS



### TEAM SUPPORT FIRST AID-TRAINING



### EQUIPMENT STORAGE



### BUILDING SUPPORT



# SCHEMATIC DESIGN OPTIONS

*BHS - VAN WINKLE STADIUM RENOVATION + EXPANSION*

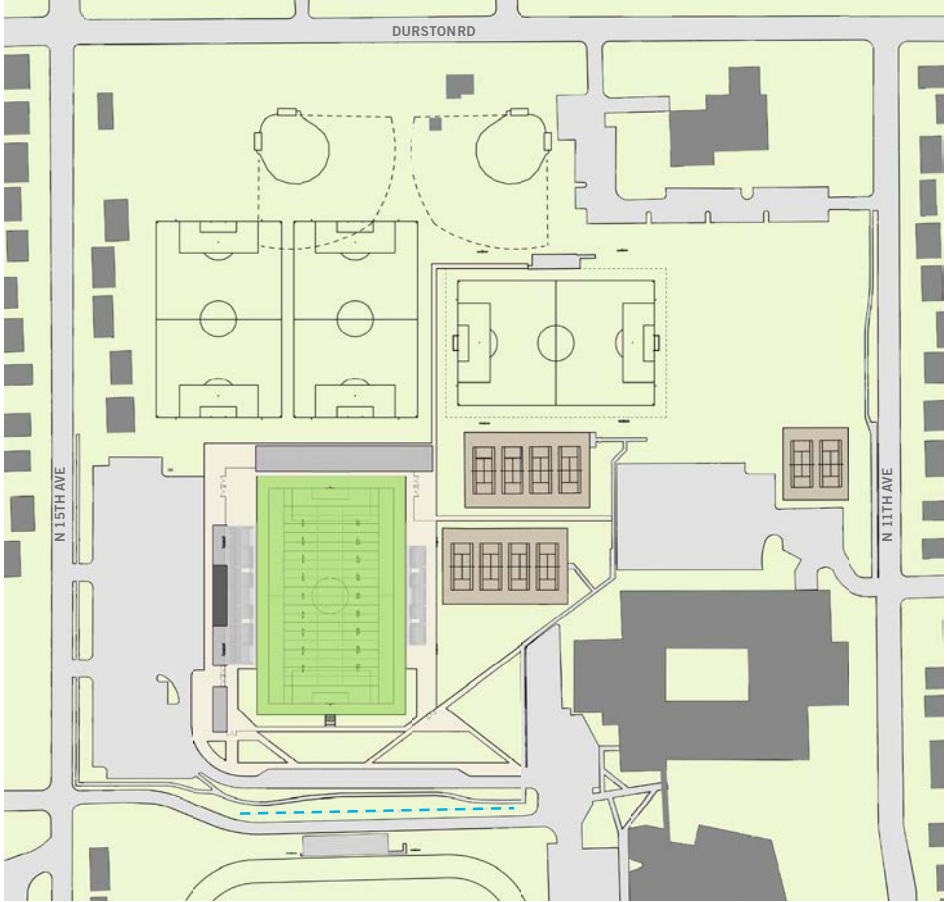




OPTION 3B - SOUTH

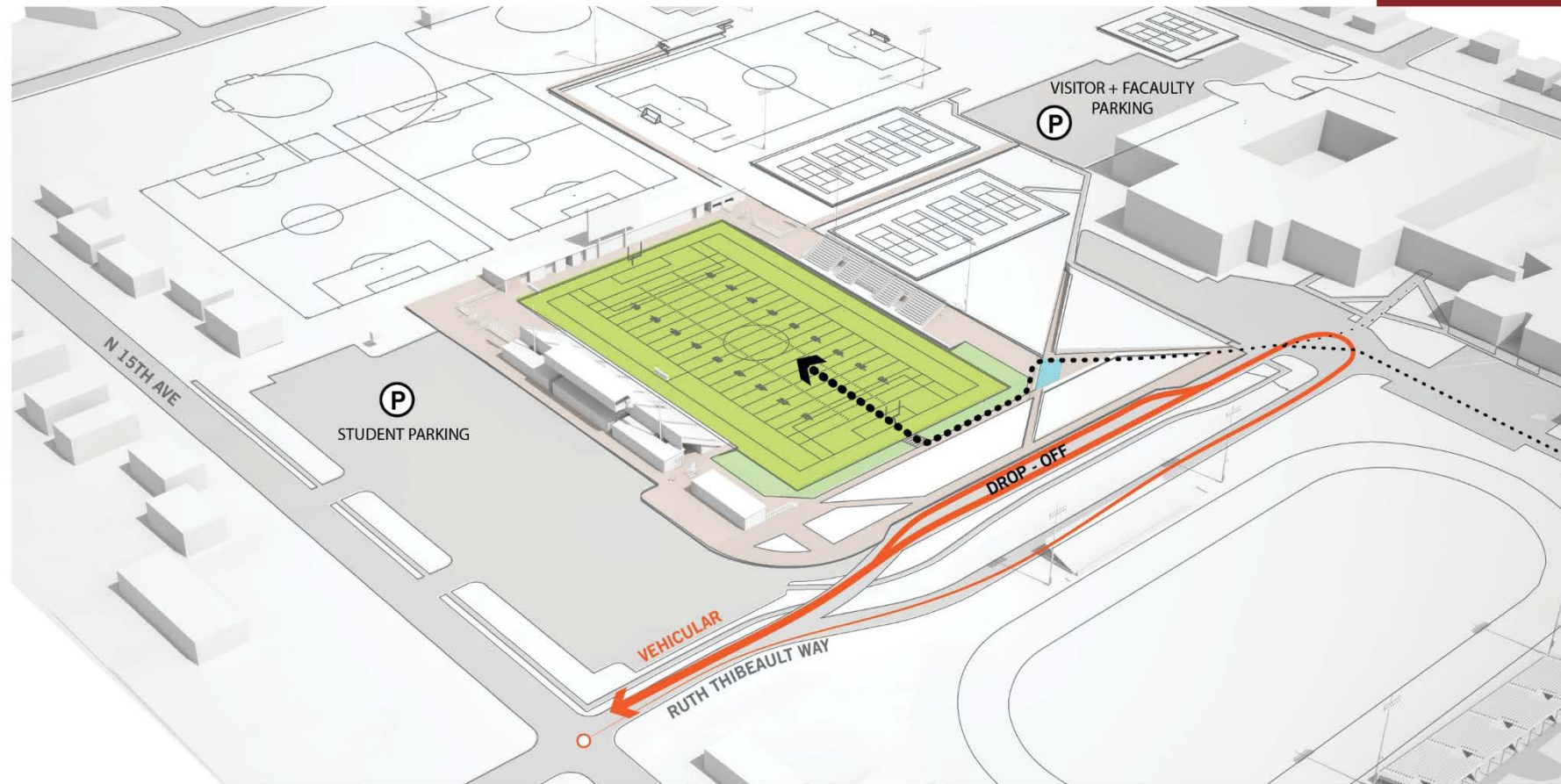


OPTION 3B - NORTH



## NON-GAME DAY CIRCULATION - SCHEME 1

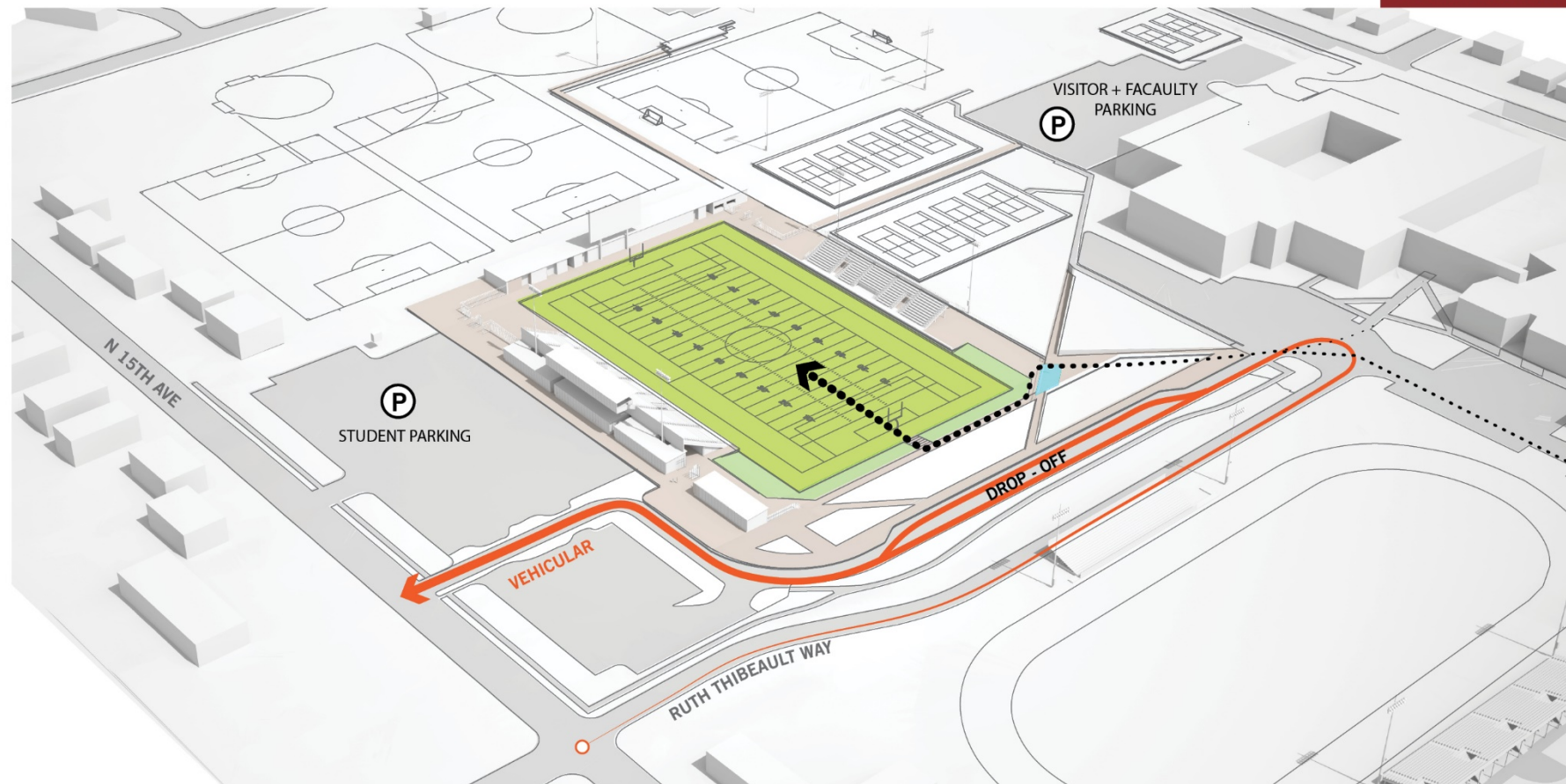
## SITE DIAGRAM





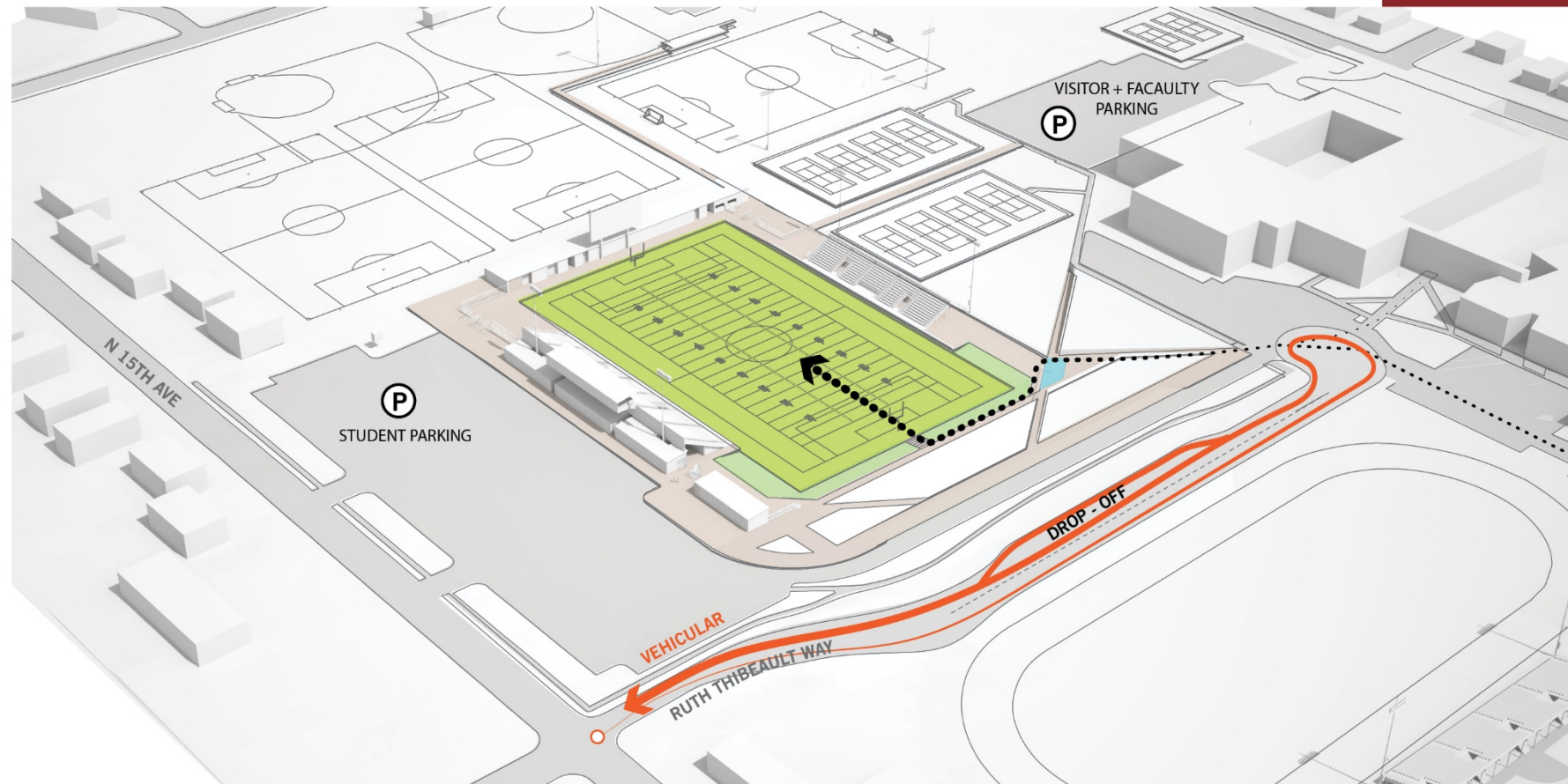
## NON-GAME DAY CIRCULATION - SCHEME 2

## SITE DIAGRAM



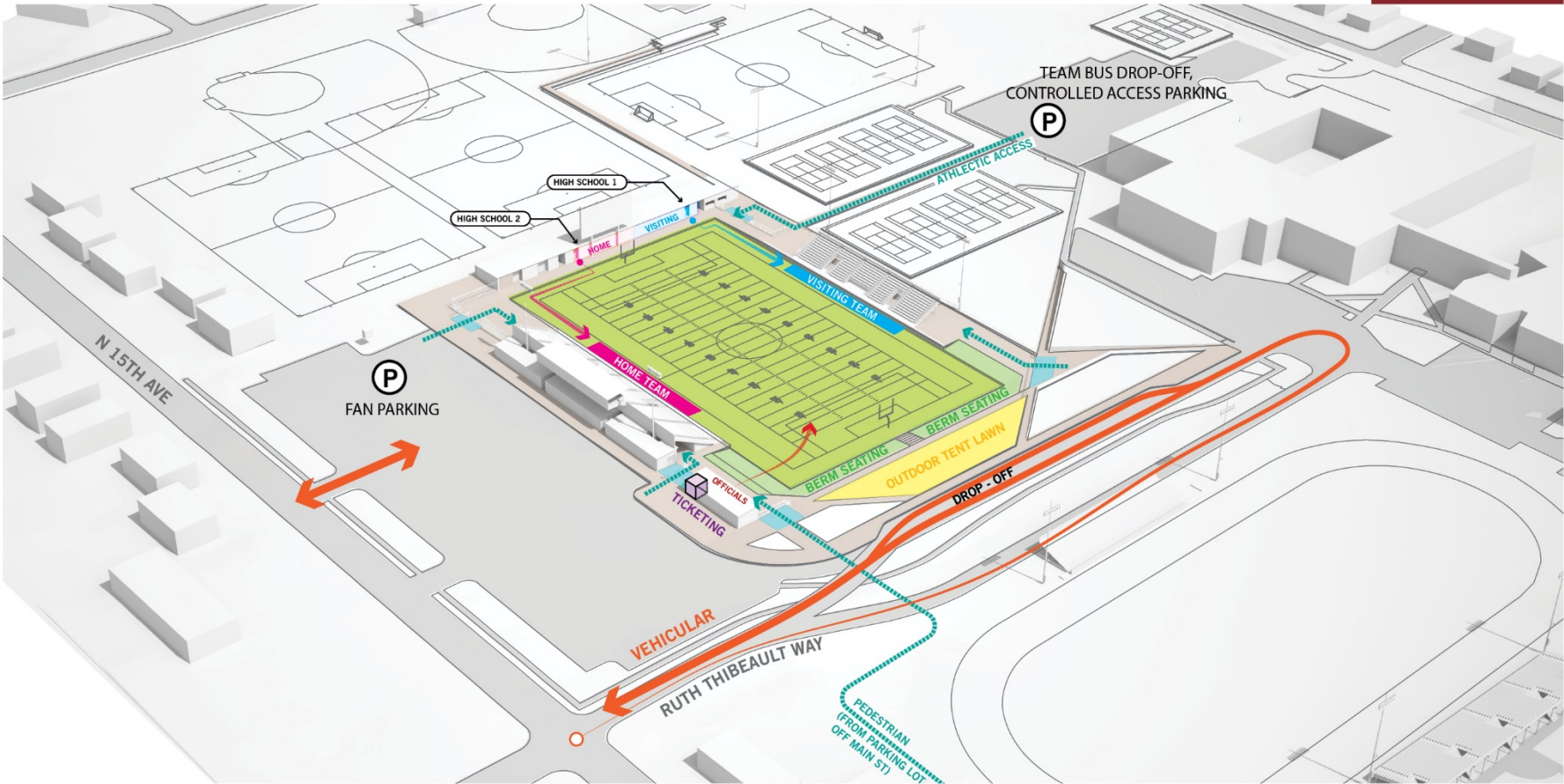
## NON-GAME DAY CIRCULATION - SCHEME 3

## SITE DIAGRAM



GAME DAY CIRCULATION

SITE DIAGRAM

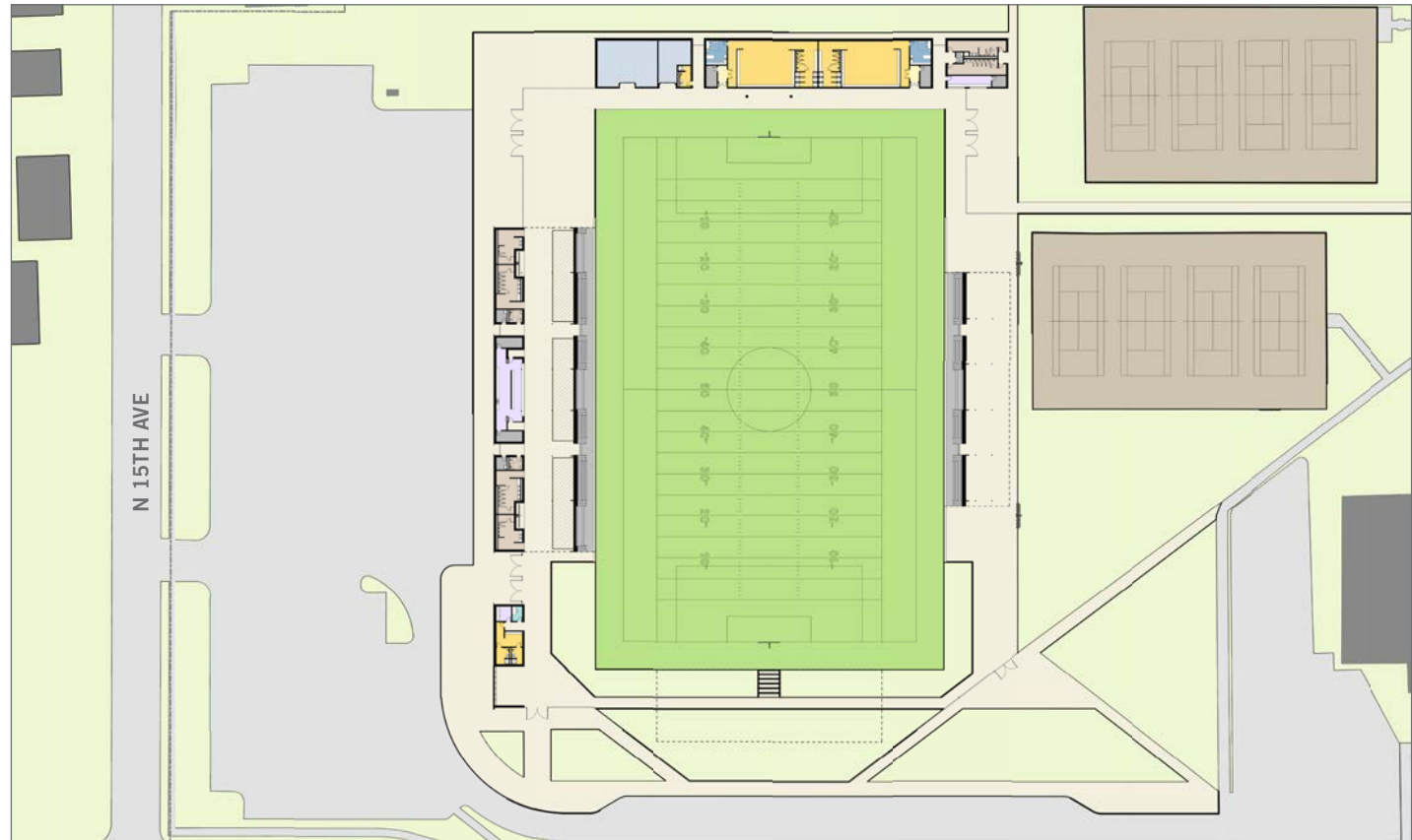






## OVERALL PLAN - CONCOURSE LEVEL

- CHANGING ROOMS
- TRAINING + FIRST AID
- ATHLETIC / FIELD STORAGE
- PRESS BOX
- RESTROOMS
- CONCESSIONS
- OFFICE
- BUILDING SUPPORT



## OVERALL PLAN - PRESS BOX LEVEL

- CHANGING ROOMS
- TRAINING + FIRST AID
- ATHLETIC / FIELD STORAGE
- PRESS BOX
- RESTROOMS
- CONCESSIONS
- OFFICE
- BUILDING SUPPORT





## ENLARGED PLAN - STADIUM

### CHANGING ROOMS

- 1 Team Changing Rooms
- 2 Gender Neutral Locker
- 3 Officials Changing Room

### TEAM SUPPORT

- 4 Training / First Aid

### PRESS BOX

- 5 Coaches Booth
- 6 Radio
- 7 Scoreboard
- 8 Film / Video
- 9 Public Address

### OFFICE

- 10 Building Manager's Office

### RESTROOMS

- 11 Women's Restroom
- 12 Men's Restroom
- 13 Family Restroom

### SPECTATOR AMENITIES

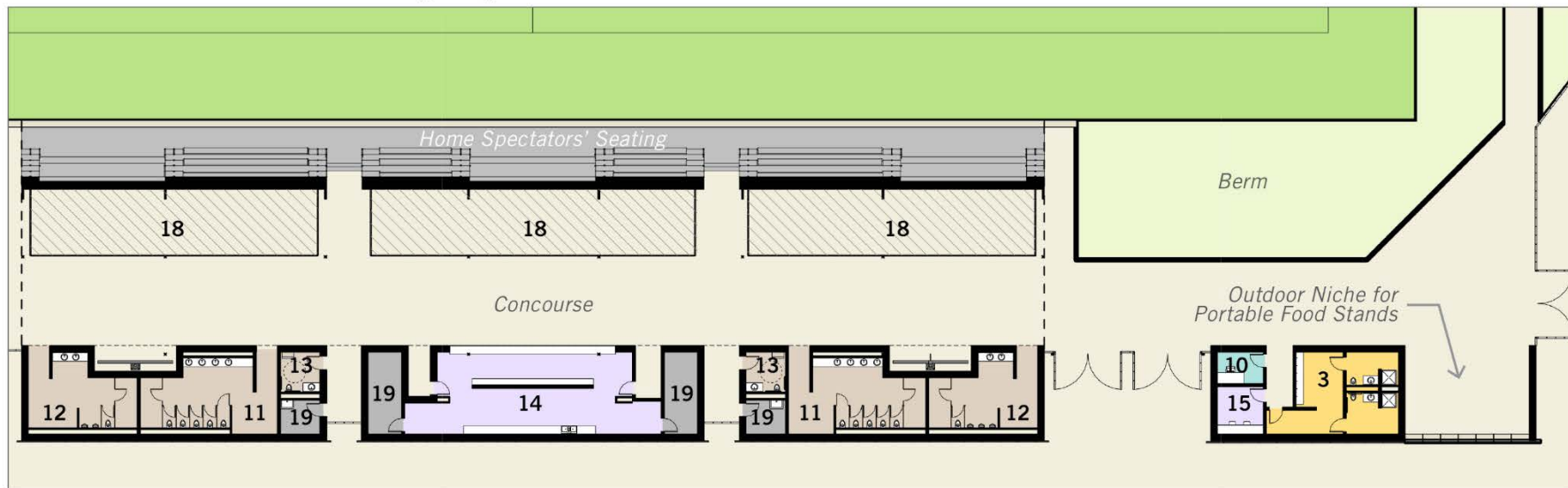
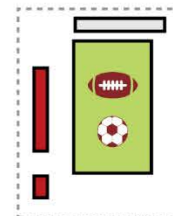
- 14 Concessions
- 15 Ticketing

### ATHLETIC STORAGE

- 16 Field Maintenance Storage
- 17 Outdoor Athletic Equipment Storage
- 18 Storage Cages

### BUILDING SUPPORT

- 19 Storage (incl. janitorial closet)



## ENLARGED PLAN - STADIUM

### CHANGING ROOMS

- 1 Team Changing Rooms
- 2 Gender Neutral Locker
- 3 Officials Changing Room

### TEAM SUPPORT

- 4 Training / First Aid

### PRESS BOX

- 5 Coaches Booth
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### OFFICE

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### SPECTATOR AMENITIES

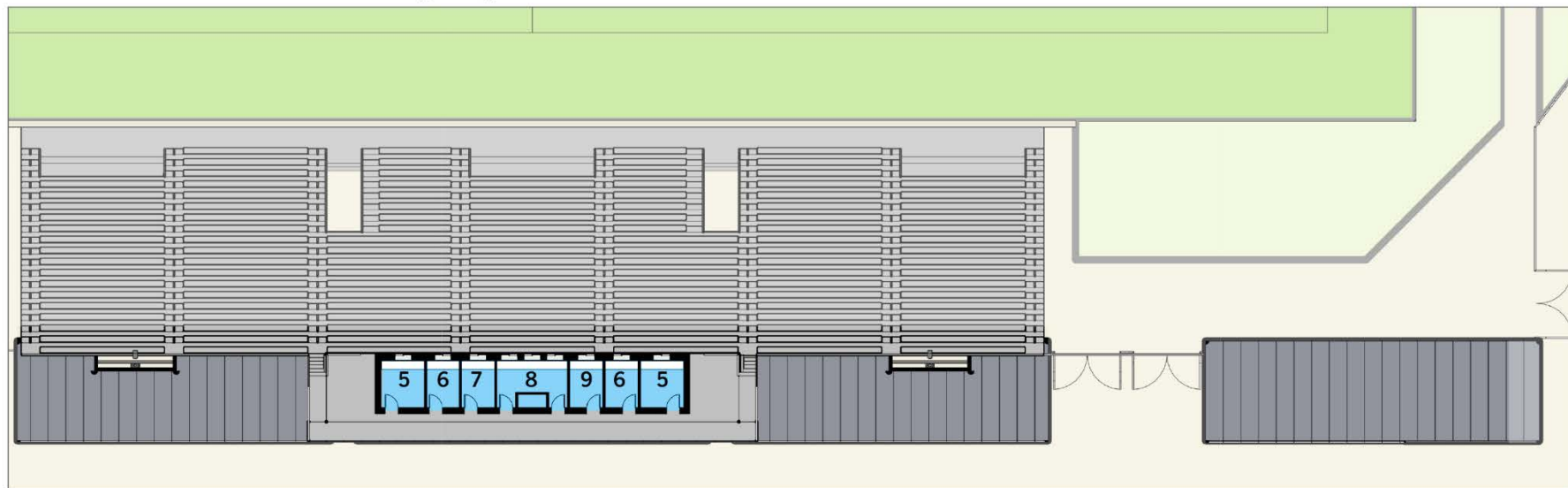
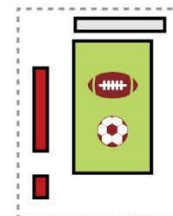
- 14 Concessions
- 15 Ticketing

### ATHLETIC STORAGE

- 16 Field Maintenance Storage
- 17 Outdoor Athletic Equipment Storage
- 18 Storage Cages

### BUILDING SUPPORT

- 19 Storage (incl. janitorial closet)



## ENLARGED PLAN - TEAM FACILITY

### CHANGING ROOMS

- 1 Team Changing Rooms
- 2 Gender Neutral Locker
- 3 Officials Changing Room

### TEAM SUPPORT

- 4 Training / First Aid

### PRESS BOX

- 5 Coaches Booth
- 6 Radio
- 7 Scoreboard
- 8 Film / Video
- 9 Public Address

### OFFICE

- 10 Building Manager's Office

### RESTROOMS

- 11 Women's Restroom
- 12 Men's Restroom
- 13 Family Restroom

### SPECTATOR AMENITIES

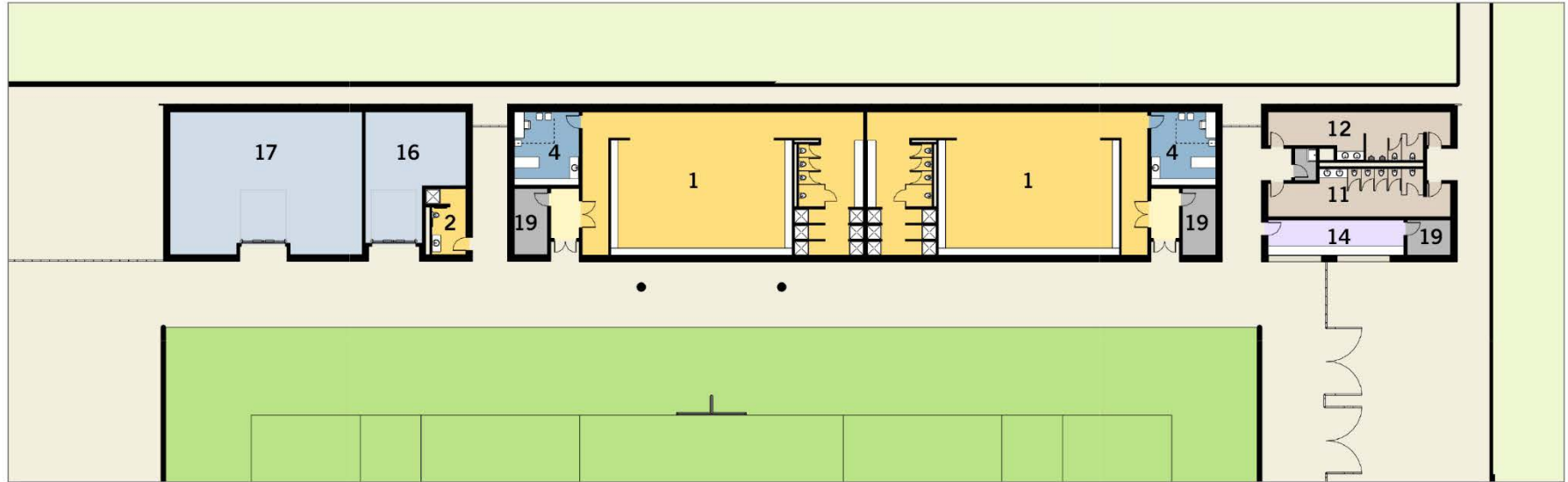
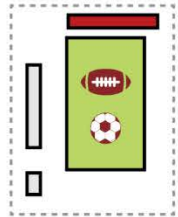
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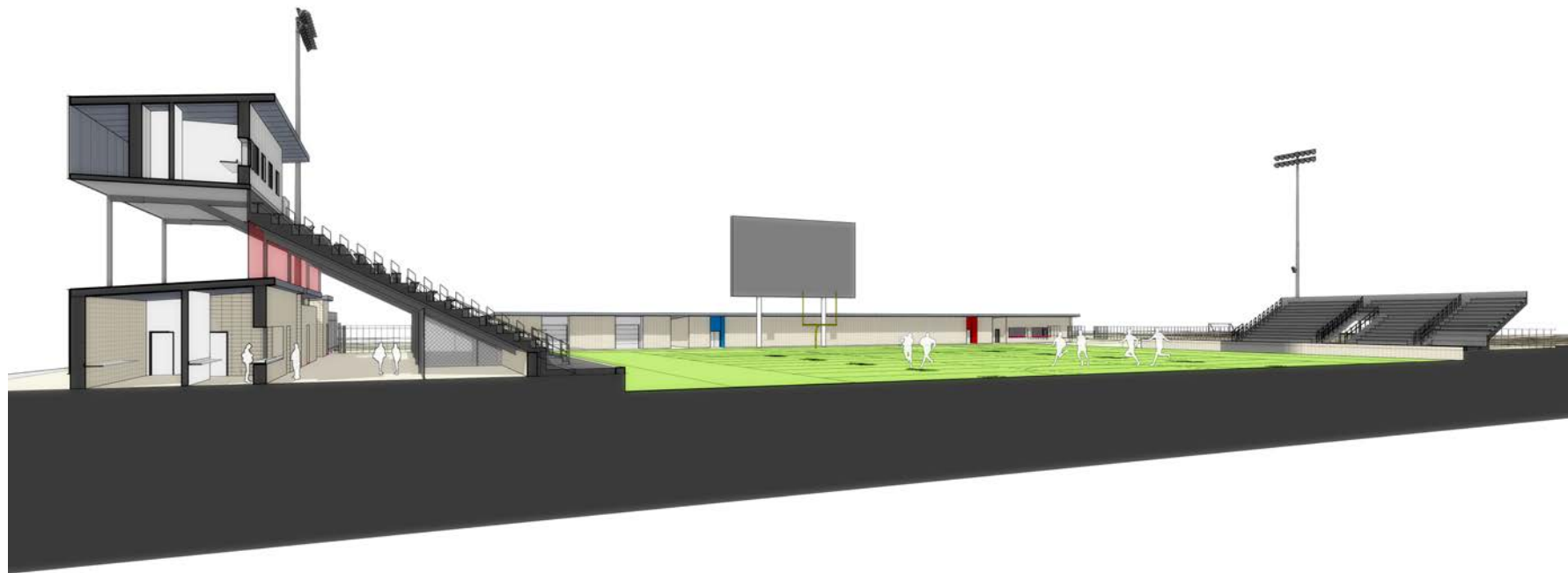
### ATHLETIC STORAGE

- 16 Field Maintenance Storage
- 17 Outdoor Athletic Equipment Storage
- 18 Storage Cages

### BUILDING SUPPORT

- 19 Storage (incl. janitorial closet)



















## Musco cares as much about preserving darkness as it does about creating light.

Emitting light is easy. But LED fixtures that can't effectively control the light being emitted brings the unintended consequences of glare for players and neighbors, and wasteful spill into the night sky.

With Musco's Total Light Control—TLC for LED™, we've taken LED to a level of performance and precision never before seen in sports lighting. It means no disruptive glare into nearby homes and the preservation of dark skies above.

And it opens up new opportunities for where fields can be located within a community, and for existing fields that, until now, weren't able to install lights because of community push back.

# Control

preserving the night sky.

*"Glyndon Park is in a naturally wooded residential area. We didn't want to illuminate the homes of neighbors in the area. I initially wasn't supportive of putting in traditional lights. The product Musco has developed allows us to light this field, yet light nothing else around it."*

— Cathy Salgado,  
Parks and Recreation Director, Vienna, VA



Glyndon Park Little League, Vienna, Virginia



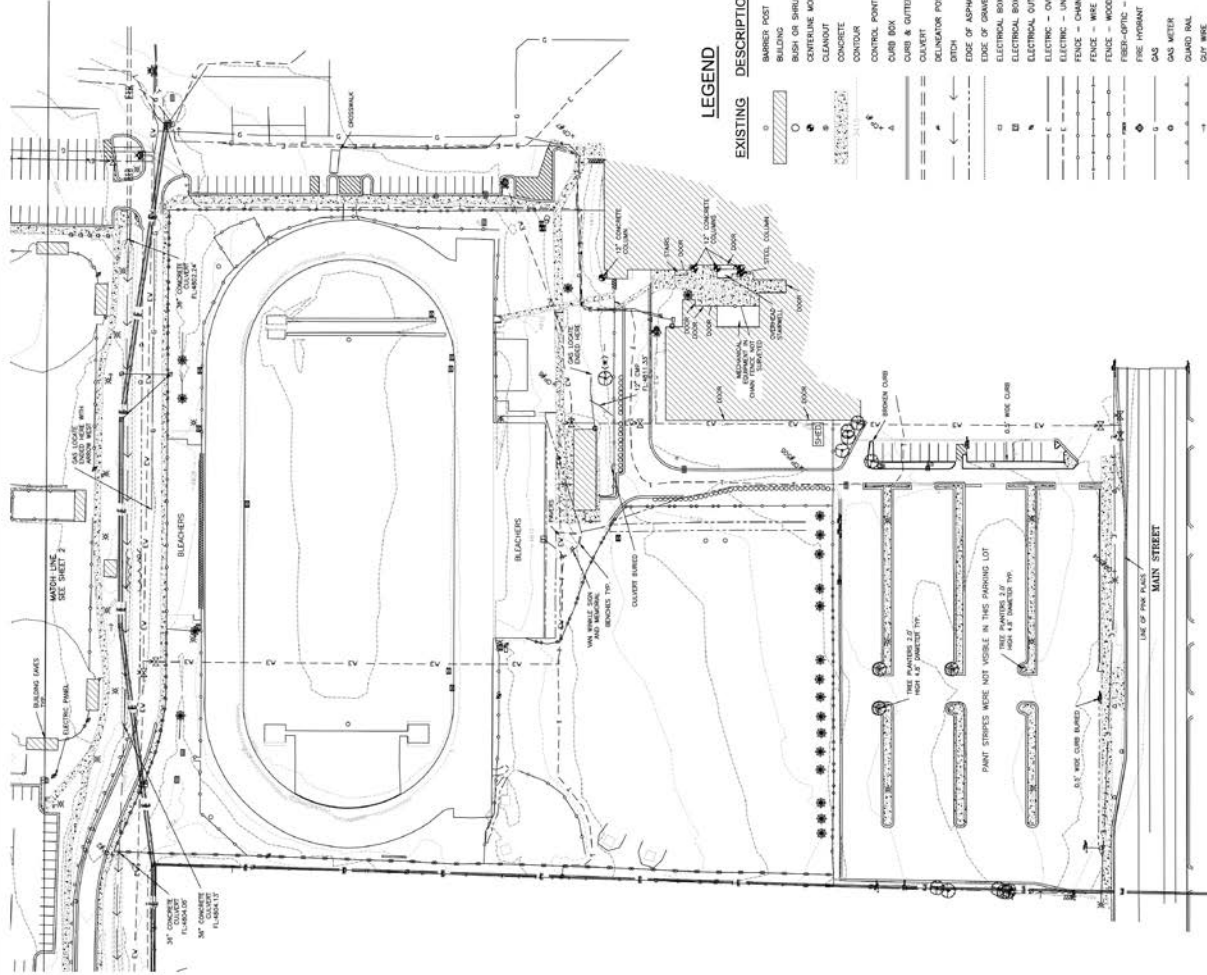
## WAUKESHA SOUTH HIGH SCHOOL

Waukesha, Wisconsin, USA

Football Field – 40 horizontal footcandles

System Energy Comparison:  
38.4 kW – 58% reduction from typical HID equipment





# NOTES

1. A SIGNED & SEALED COPY OF THIS SURVEY IS AVAILABLE TO THE CLIENT UPON REQUEST.
2. THE LOCATIONS OF UNDERGROUND UTILITIES ARE SHOWN BASED ON MARKS PLACED BY ONE-CALL UTILITY LOCATORS IN RESPONSE TO THE FOLLOWING UTILITY LOCATE TICKET NUMBER: 17102406, 17102409, & 17102410. THESE UTILITIES WERE LOCATED BY THE SURVEYOR ON THE DATE OF THE SURVEY. THE LOCATION OF THESE UTILITIES IS BASED ON THE 1988 SURVEY OF THE UTILITY CO'S STATION WITH AN ELEVATION OF 4442.7.
3. BEARING BASES: NAD 83, BEARING BASES: NAD 83, AS DETERMINED BY SURVEY OF THE UTILITY CO'S STATION WITH AN ELEVATION OF 4442.7.
4. GRADE: 0% RISE OVER THE ENTIRE DISTANCE. GRADE: 0% RISE OVER THE ENTIRE DISTANCE.



CONTROL TABLE

Point	North	East	Elevation	Description
501	508540.269	598346.622	4792.41	CE/Spline
502	508540.151	597637.062	4793.26	CE/Spline
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BOZEMAN HIGH SCHOOL  
BOZEMAN, MT

SITE TOPOGRAPHY

LOCATED IN THE NW1/4 SEC. 12, T2S, R5E, P.M.M. GALLATIN COUNTY



DRAWN BY: BSB  
CHECKED BY: BSB  
DATE: 11/1/2017  
JOB NO: 17102406  
SHEET NO: 1 OF 2

DRAFT

REVISION



