



2024 MiAPPA

Summer Annual Conference

**Future Proofing Outdoor Sports Complexes:
Strategies for Sustainable Success**



06/06/2024

**FANNING
HOWEY**

Introduction



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The Why



Future Proofing Outdoor Sports Complexes

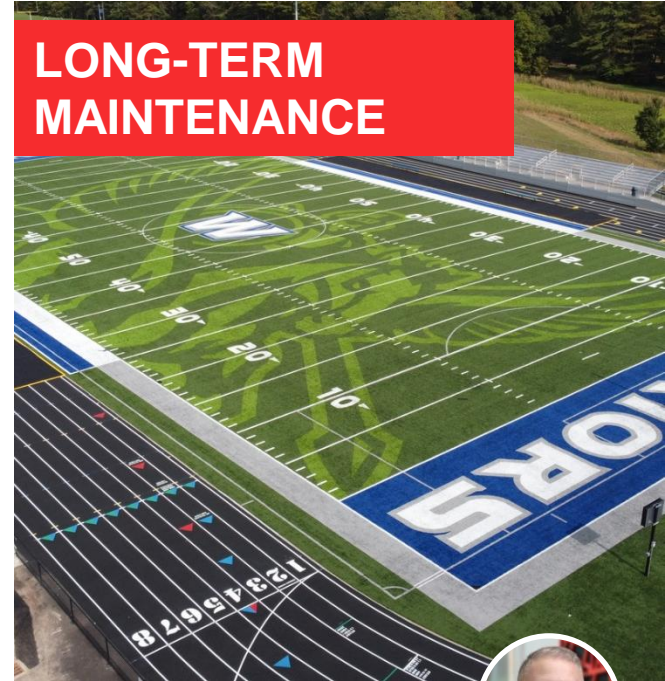
ATHLETE EXPERIENCE



FAN EXPERIENCE



LONG-TERM MAINTENANCE



Sam



Athlete Experience - Sports Complex Layout

- Systems that support athlete performance & safety
- Values-based design process
- Early Involvement
 - Athletes
 - Manufacturers
- Interactions between athletes and spectators



Ernso



Athlete Experience - Sports Complex Layout

**Athletic
Fields**

**Practice
Fields**

**Support
Facilities**



Fan Experience - Memorable Game Day Experience

- Wayfinding
- Sense of Security
- Interactions
 - Home and Visitor Teams
 - Home Team and Fans
- Sense of Belonging
- Branding
- Photo Opportunities



Ernso



Long-Term Maintenance

- Materials determine your long-term maintenance plan
- Cleaning and Grooming Frequencies
- HVAC Systems



Erns



Pre-Planning Checklist

- Survey
- Borings
- Manufacturer's Inspection of Existing Conditions
- Create a list of challenges and athlete performance issues
- Include your coaches and top athletes within the planning and design



The How



Athlete Experience



Removable Mounds



D-Zone



Shelter

Athlete Experience – Turf Systems

Top 5 Considerations

1. Turf type
2. Turf backing
3. Turf weight
4. Pile height
5. Site retention



Athlete Experience – Turf Systems

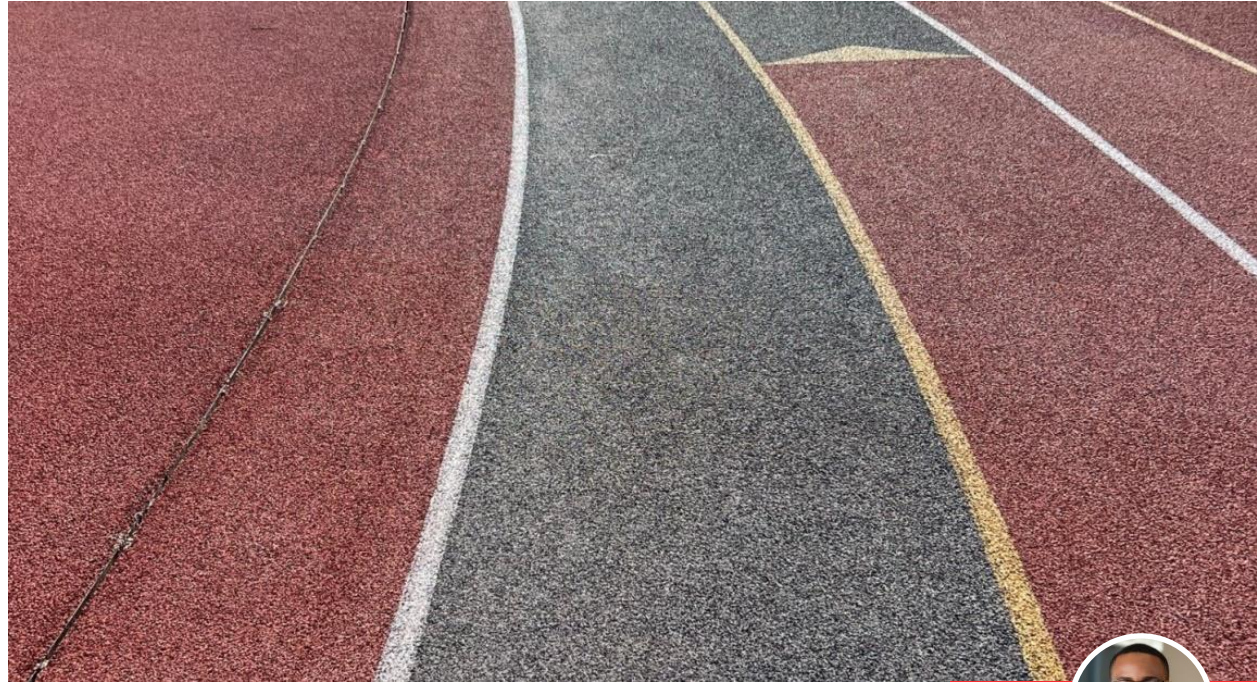




Indiana University - Women's Field Hockey

 ARCHITECTURE | INTERIORS | ENGINEERING

Track - Post-Tension Benefits

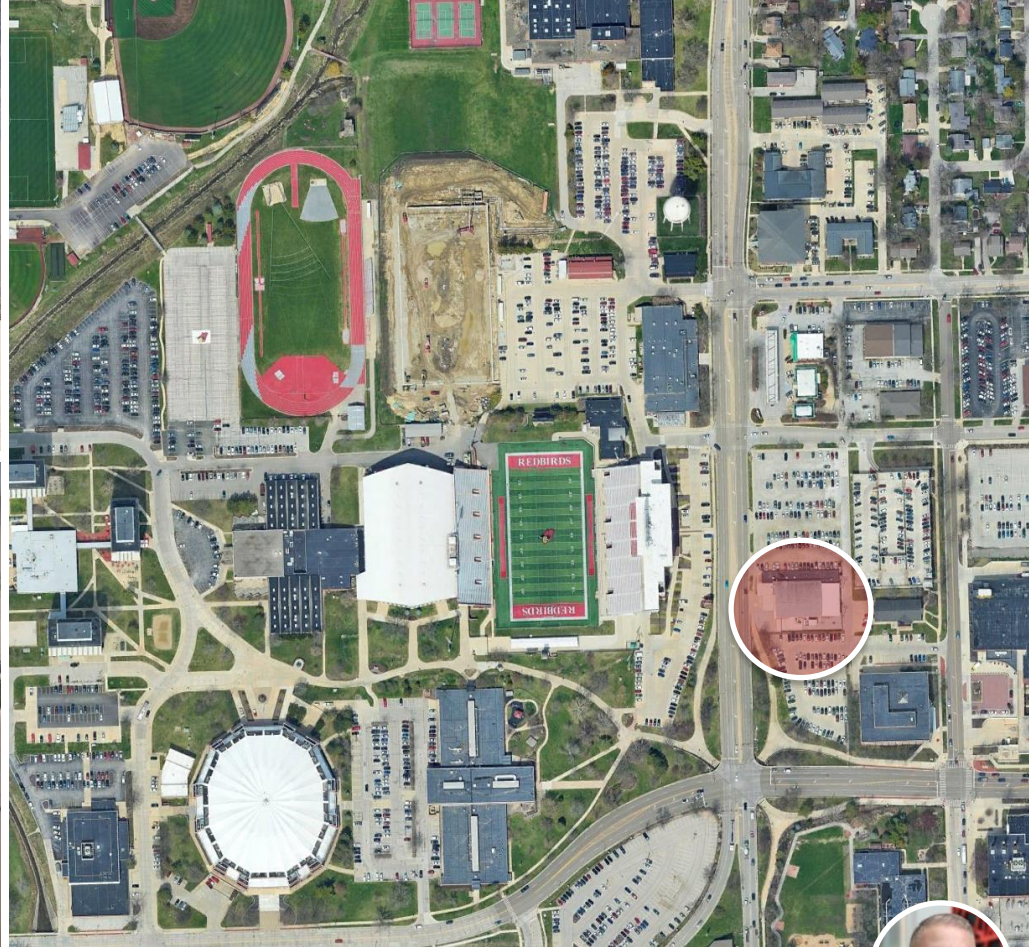


Indiana University - Hayes Track



Tennis - Post-Tension Benefits





Illinois State University – Student Athlete Center Study

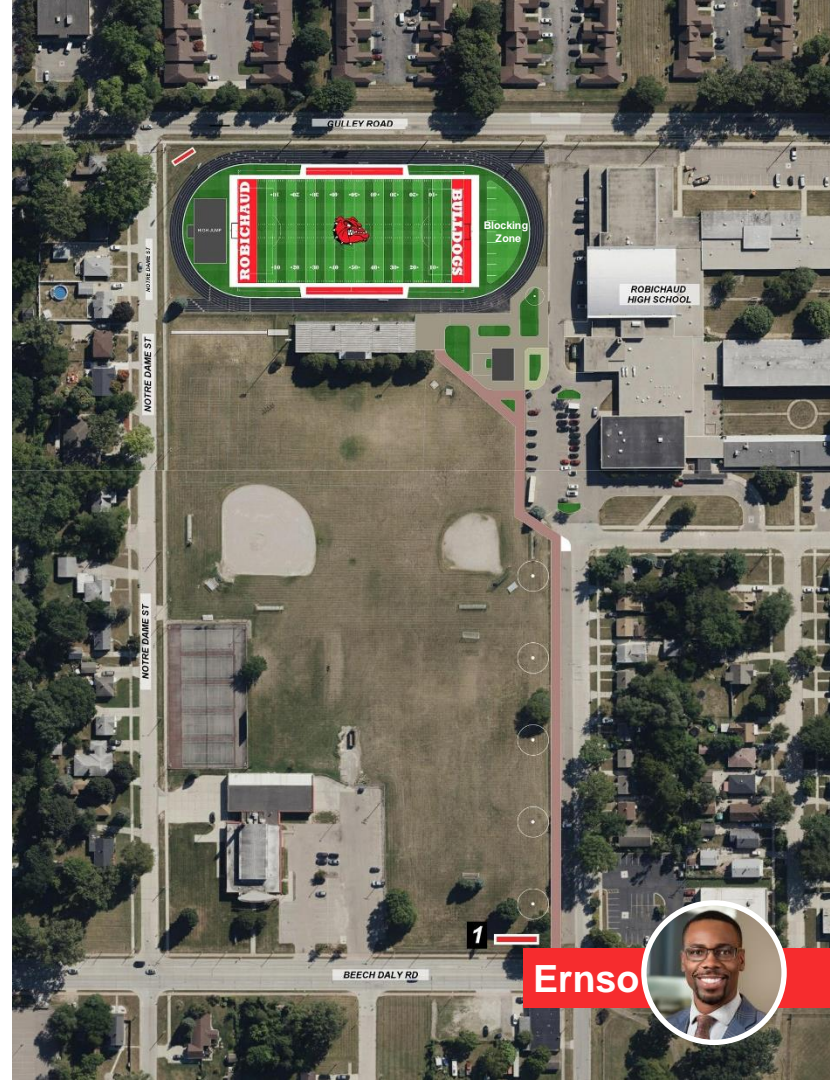
ARCHITECTURE | INTERIORS | ENGINEERING

Sam



Fan Experience - Circulation

- Pedestrian Circulation to athletic complex
- Site Parking for athletics



Fan Experience



Proposed Improvements - Phase I

1. Womens Locker Room on Home Side
2. Visitors' Locker Room / Restrooms / Concessions Building
3. ADA upgrades to Visitors Side Grandstand
- 4a. Training Room on Home Side

Proposed Improvements - Phase II

- 4b. Home Side Additions/Renovations:
Restroom / Concessions / Training
5. New Video Scoreboard
6. Existing Home Grandstands: VIP Seating
7. Home Grandstand Expansion
8. Home Grandstand Press Box Replacement
9. Visitor Grandstand Expansion
10. Hosting Pavilion



Fan Experience - Donor Recognition

- Located on the site
- Artwork / Sculptures
- Efficient
- Scalable
- Maintainable



Sam



Fan Experience - Involving Advancement



Image provided by Forty Nine Degrees



Image provided by Forty Nine Degrees

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Maintenance - Support Buildings

- Easy to maintain
- Long-lasting
- Year-Round Building



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Maintenance - Support Building HVAC

Split System

- Ventilation will not be taken care of at each unit. An additional mechanical unit will be needed to distribute outside air to all rooms or look at the use of natural ventilation.
- Mechanical ventilation is introduced through an energy recovery ventilator. Outside air would be somewhat preconditioned.
- **Ideal Use:** Projects with very tight budgets.

Furnace

- Outside air is not preconditioned. Outside air ductwork will typically be tapped into the return ductwork near the furnace.
- Heating is taken care of at the heating coil internal to each furnace. The coil will be either electric, gas, or hot water.
- Limited to the amount of outside air a furnace can handle.
- **Ideal Use:** Spaces that require less outside air.

RTU/AHU

- Ventilation is taken care of at the units.
- Heating is taken care of with a hot water system (boilers/pumps) or gas fired heat exchangers at the units.
- Cooling is taken care of with a chilled water system (chiller/pumps) or DX coils at the unit and remote condensing units.
- **Ideal Use:** Large spaces with offices and locker rooms.

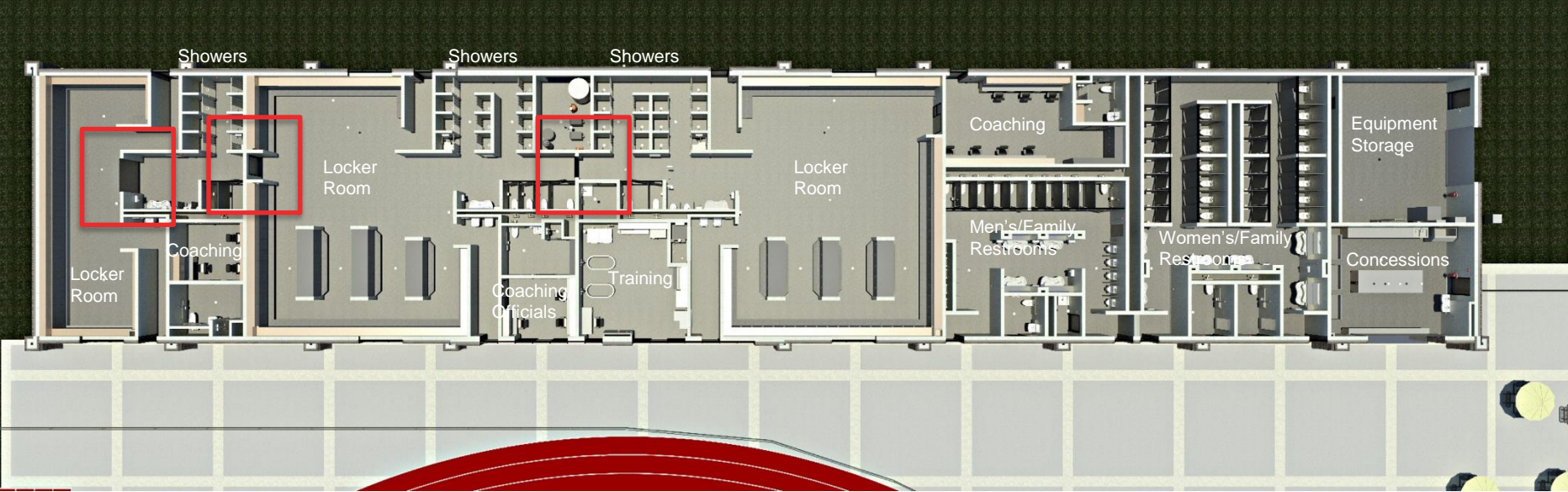
Radiant Heat

- Ventilation will not be taken care of at each unit. An additional mechanical unit will be needed to distribute outside air to all rooms or look at the use of natural ventilation.
- Radiant heating systems supply heat directly to the floor.
- Radiant panels generate infrared heat waves that only travel straight.
- **Ideal Use:** Maintaining temperature in small spaces.

Sam



Maintenance - Support Building Flexibility



Maintenance - Materials

- Exterior
 - 20 to 40 Year Building
- Interior
 - Durable and easily maintainable



Sam



Maintenance – Security and Wayfinding





Q&A

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