



## LEVERAGING SPORTS FACILITY DATA ANALYSIS TO CONNECT VENUE GOALS & BUSINESS GOALS

Understanding the relationship between a sports organization's business model, the facility's programmatic capabilities, and the costs to construct those spaces is crucial in achieving a competitive sports venue. Through extensive data analysis, we can now offer customers new insights into the sports facility construction process resulting in efficient construction, enhanced revenue streams, and better margins.

### ▶▶ A NEW ERA IN SPORTS FACILITY CONSTRUCTION

Mortenson has moved beyond simply evaluating historical cost, schedule, and material databases to estimate project budgets and timelines. Our approach optimizes sports stadium construction at the earliest stages of the planning journey.

Programmatic breakdowns, league comparative benchmarks, and construction cost options that consider revenue returns are examples of services offered as part of our sports facility development approach. By leveraging these data

insights, franchise and venue owners achieve deeper visibility into the overall success of a prospective sports facility's program, helping them make better decisions that maximize the return on their capital investments.

As shared with [TheStadiumBusiness.com](http://TheStadiumBusiness.com), Fiserv Forum General Manager Raj Saha states, "A stadium construction project can run into difficulty if the design is allowed to dictate the business plan rather than vice versa."

### ▶▶ DATA FOR ENHANCED DECISION MAKING

Traditionally, the earliest stages of a project are filled with ambiguity, intangibility, and disconnect with previous development studies. Instant access to robust, historical sports facility information drives early alignment and

confidence among project stakeholders. Building size, capacity, amenities, and operational needs can be validated across stadium build trends, benchmarks, consumer markets, and implementation costs.



Concerns and significant unknowns that are prevalent in early planning stages can be addressed immediately with empirical evidence. For example:

**Where does my facility rank in terms of square footage among peer markets?**

**Which seating product will yield the highest ROI over the life of the venue?**

**Does my concept offer enough canopy coverage?**

**Is it comparable to other venues in similar climates?**

**What is the incremental cost-benefit of fully enclosing the sports facility versus the incremental gains in revenue for an enclosed venue?**

**Which organizations offer best-in-class premium amenities?**

**What is the cost to replicate those concepts in my regions and does the strategy align with my market characteristics?**

**Should we consider renovating the current facility or build new?**

The navigation of highly complex and unique circumstances is inherent within these types of projects. Having sports facility data readily available allows for timely and smart decision-making that's required to bring a successful sports venue to life.

 **NASHVILLE SC  
GEODIS PARK**

Take a peek inside the MLS's  
newest soccer stadium



 We've recognized the benefits of having a more holistic view of the sports industry **across all facilities, not just Mortenson built venues.** We're getting smarter in this space every day. We're developing a relational database spanning ticket pricing, design elements, socioeconomic, demographics, and more. Incorporating this data with our already-strong estimating processes will continue to yield strong insights and impactful solutions for our customers. 

Jack Hogan, Business Development Manager  
Mortenson Sports + Entertainment



## ▶▶ THE INTERSECTION OF BUSINESS AND BUILDING

Significant amounts of data are inherently created as part of a sports facility project. Traditionally data existed in isolated areas or difficult-to-analyze formats. We've developed a new approach to catalog this information so we can better understand and learn from the data we've produced across \$15B worth of historical sports projects. These efforts also include managing data curated from our architect/engineer/contractor (AEC) relationships.

With many critical players at the table—consultants, design firms, engineers, facility managers, and owner's representatives—the sports construction AEC process creates vast amounts of siloed information across these specialties. Our exposure to this information over time allows us to synthesize and organize key data points, couple it with our strong historical cost data for estimating,

and ultimately create real advantages in the sports facility design and construction process.

The Sports + Entertainment group invests in resources that span market research, data infrastructure, and data science skill-sets to build out intelligence capabilities that tie corners of the construction and sports worlds together.

We've recognized the benefits of having a more holistic view of the sports industry—across all facilities, not just Mortenson built venues. We're getting smarter in this space every day. We're developing a relational database spanning ticket pricing, design elements, socioeconomic, demographics, and more. Incorporating this data with our already-strong estimating processes will continue to yield strong insights and impactful solutions for our customers.

### □ Facility Programmatic Analysis | Functional Spatial Mapping Sample



| COMP #1<br>GMP ROOM/AREA/SPACE | MAPPED TO: | CONFIDENTIAL CLIENT<br>PROGRAM CATEGORY | CONFIDENTIAL CLIENT<br>PROGRAM PARENT<br>GROUPING | CONFIDENTIAL CLIENT<br>PROGRAM CHILD<br>GROUPING |
|--------------------------------|------------|---|---|--|
| Loading Dock Office            |            | Service & Operations Facilities         | Truck & Trash Dock                                | Dock Office                                      |
| Event Staff Women's Lockers    | →          | Service & Operations Facilities         | Event Staff Employee Facilities                   | Women's Locker Room                              |
| Concession Stand               | →          | Food Service & Retail                   | Concession Stands                                 | Public Concourse                                 |
| Telecommunications Closet      | →          | Service & Operations Facilities         | Mech./Elect./Other Systems                        | N/A  |
| Visiting Radio Booth           | →          | Press Facilities                        | Press Box – Broadcast                             | Broadcast Booths                                 |
| Party Suite #1                 | →          | Spectator Facilities                    | Suites and Loge Boxes                             | Party Suites                                     |
| Upper Admin. Offices           | →          | Administrative Facilities               | Administration Offices                            | N/A  |
| Housekeeping Storage           | →          | Service & Operations Facilities         | Cleaning/Janitorial                               | Cleaning Storage                                 |
| Home Plate Club Kitchen        | →          | Food Service & Retail                   | Kitchens  | Home Plate Club Kitchen                          |
| Team Locker Room               | →          | Clubhouse Facilities                    | Home Clubhouse                                    | Home Team Clubhouse                              |
| Coaches Locker Room            | →          | Clubhouse Facilities                    | Home Clubhouse                                    | Home Team Clubhouse                              |
| Batting Tunnel                 | →          | Preliminary Sports Performance Center   | Hitting and Pitching Labs                         | N/A  |

*Mortenson standardized and normalized all functional and fan-facing spaces to ensure final ballpark plans were commensurate with active MLB venues.*



## STADIUM CONSTRUCTION ANALYTICS IN ACTION

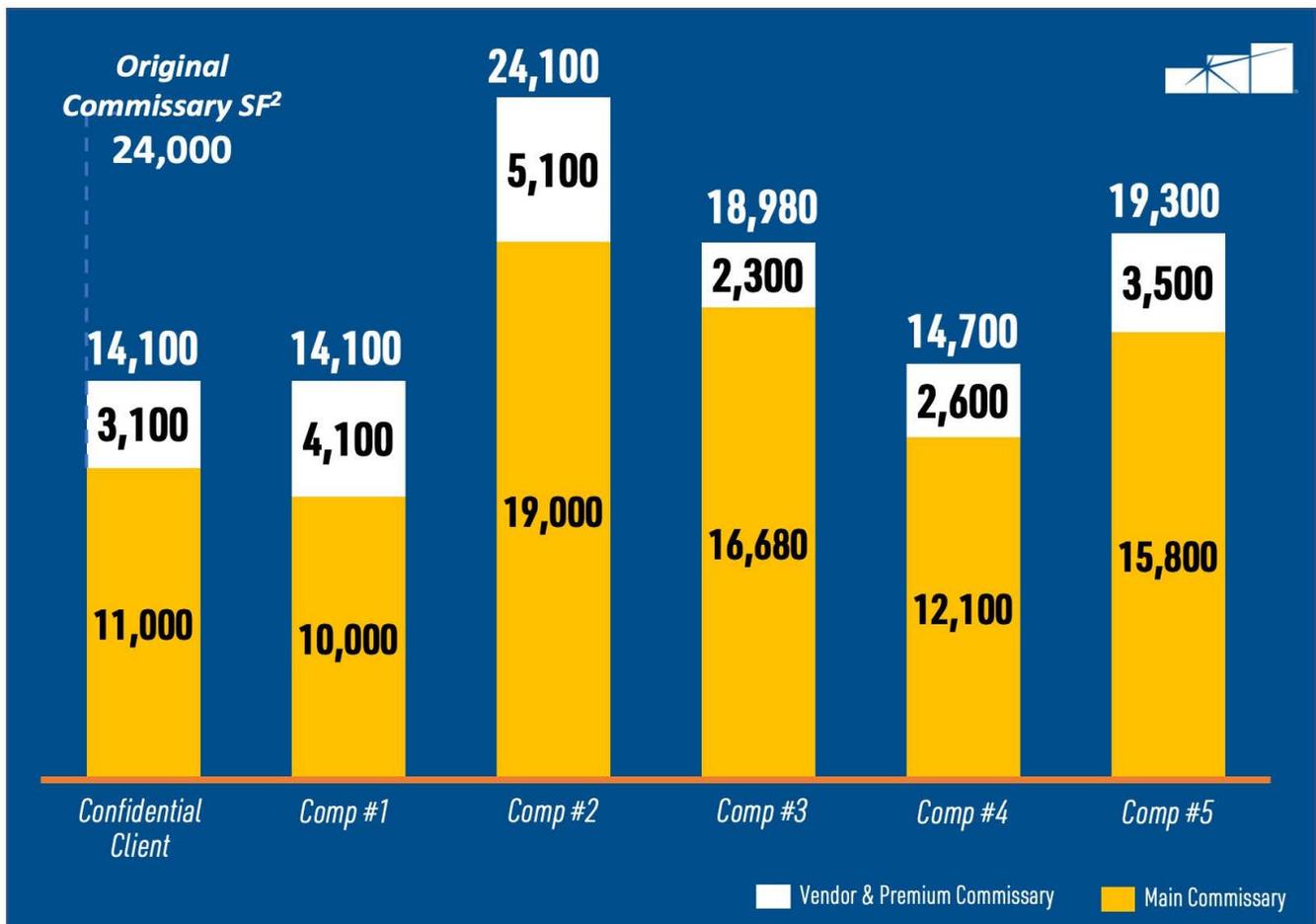
Mortenson has been investing in this analytics-centric approach to sports construction for several years. One recent case study encompasses a suite of pre-construction deliverables performed for a confidential Major League Baseball client. This forward-thinking organization was receptive to approaching their ballpark development from an innovative lens—partnering with Mortenson in the earliest planning phases alongside design firms and specialized consultants.

The customer had strict budget constraints to adhere to, and original concept designs positioned the ballpark significantly over budget. Our team crafted a complete program analysis, breaking down five recently built MLB ballparks to room-

level dimensions. Data was curated across 3,500 functional rooms that, in aggregate, comprised over 5 million SF of ballpark space. As part of this process, insights, opportunities, and cost savings were immediately identified.

Data was structured, cleaned, standardized, and analyzed. Functional concept spaces were cross-checked against our historical dataset. Inefficiencies in ballpark orientation were flagged, and program optimization options were presented to the client. For example, the original design program allocated 24,000 SF to commissary spaces throughout the facility for a venue that planned to accommodate 15,000 fewer seats than the Major League average:

### Facility Programmatic Analysis | Food Commissary Component Example



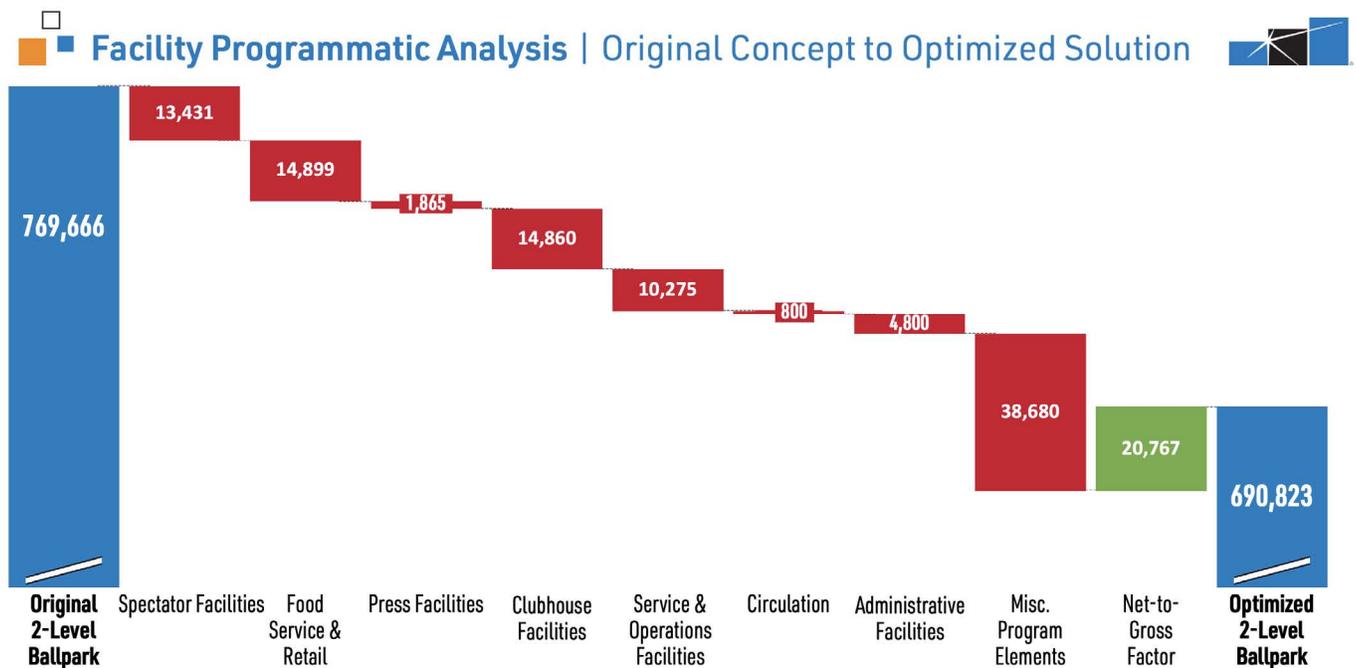
Original plans called for a smaller, intimate ballpark – but many supporting areas were comparable to larger venue counterparts. Mortenson's sports facility data allowed for right-sizing and optimization.

Our data justified downsizing commissary programmatic elements to levels that would more appropriately service the food storage needs of a smaller stadium. This exercise, applied across all elements of the stadium concept, resulted in 80,000 SF of programmatic adjustments. Furthermore, with the data-backed approach, we were able to maintain the overall functionality and revenue generating spaces of the ballpark plan. Our efforts resulted in a more efficient venue that maintained the core elements important to project stakeholders, while reducing anticipated construction cost estimates by nearly \$80M (representing about 13% in cost savings).

Providing deep-level data helps ease any uncertainties customers face in making major

design adjustments. Instead of relying solely on designer drawings, our client was able to visualize their commissary design elements compared to those of modern ballparks.

Mortenson is your partner and guide, every step of the way. Gone are the days in which one entity assumes sole ownership over pre-construction planning and facility design. Aligning the designer, builder, and owner in the early stages of the sports construction planning journey drastically enhances the customer's business and venue objectives. Layering on unique data sets that go beyond construction metrics adds a new and impactful perspective—one that can drive the bottom line, and the business plan.



Analyzing comparable spaces across MLB ballparks allowed Mortenson to more efficiently allocate tens-of-thousands of SF and deliver a similar, high-functioning building program.

## Interested in learning more about how data analysis can help your next sports facility construction project?



Get in touch with our sports facility experts to discuss your project!

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