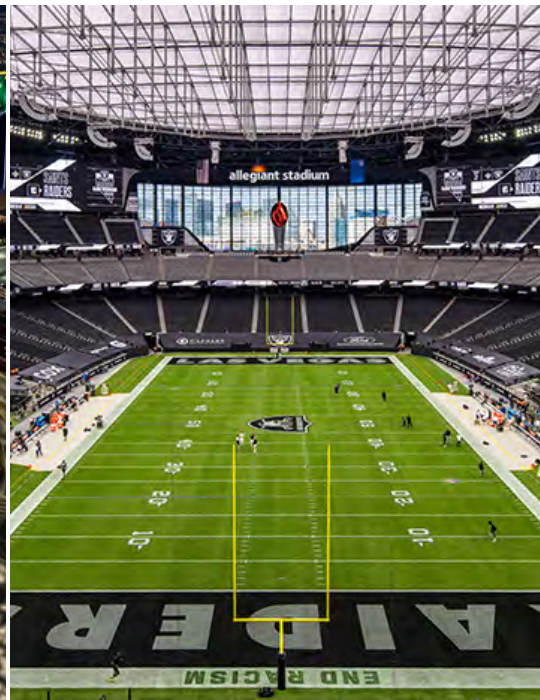




Lighting Up Las Vegas



Photos: Jason O'Rear Photography

≡ Allegiant Stadium

The Entertainment Capital of the World is ready to take it to a whole new level with the brand-new Allegiant Stadium adjacent to the world-famous Las Vegas Strip. The stadium will host premier concerts, sporting events, and is the home of the NFL's Las Vegas Raiders and UNLV Rebels Football.

Encased in a black glass exterior, this sleek and modern stadium gives spectators the feel of being outdoors with all the comforts of a climate-controlled setting. It

has a 7-acre translucent roof and a 200-foot-wide opening allowing for views of the Strip when 4 retractable lanai doors are open.

The amenities found inside are a true reflection of all the glitz and glamour Las Vegas offers with 10 event spaces, 127 suites, and 8,000 club seats all designed in the iconic Raiders' silver and black. A notable feature anchoring the interior design is the Al Davis Memorial Torch that soars 93-foot tall and is a tribute to the late Raiders' owner.

The horseshoe-shaped seating arrangement offers views of the versatile and retractable playing field which converts from real grass for NFL games to artificial turf for other events.

Spectators stay connected in this technologically advanced stadium featuring 5G coverage and over 1,700 Wi-Fi access points throughout the stadium. The stadium also offers interactive selfie stations, 2,000+ television screens, and a virtual reality zone to interact with athletes.



Larry Heinsch

Vice President & Principal

Letter From Leadership

Prefabrication! We've been leaning into it for some time now but it is clear the conditions are ripe for making it a normal part of our industry's everyday business. Our Midwest and Mid-South offices both have operating Prefabrication Shops, fully tooled and staffed and ready to support whatever comes next.

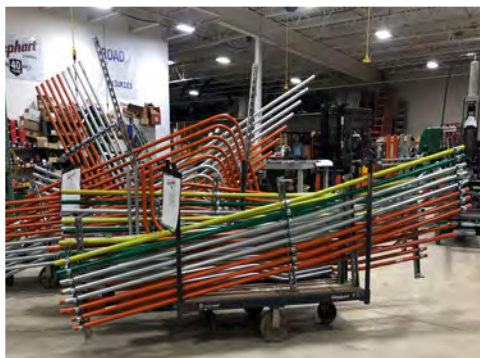
Prefabrication is much more than it has been traditionally viewed as a way to leverage repetition, such as room-in-a-box for hotels or making up boxes for masonry walls and concrete decks. These traditional pieces are still completely valid but further opportunity comes from the more recent change that prefab now sits clearly at the nexus of technology and construction.

All our major project work (and many of our mid-size projects) is the subject of Building Information Modeling (BIM) activities where we basically build the project in the virtual space to ensure the work fits in the physical space and coordinates with other trades. During this process we determine such things as conduit lengths and routings, installation and attachment details, means and methods, how to access the work and the list goes on. All of this information we develop through this process can be directly translated to the prefabrication effort using information extracted from the completed model. As an example, we have a software package from Greenlee, the manufacturer of the conduit bending equipment we use, that extracts conduit lengths, location and degree of bend from the model and feeds it directly into the 'smart' bending equipment which bends the conduit with the push of a button - no climbing ladders, no measuring, no marking, etc.

We recently used this on the Raiders' Allegiant Stadium project in Las Vegas and are using it on the RBC Gateway high-rise project in Minneapolis with great success. No bending equipment is on site; it is all bent in the Prefab Shop and sent to the site for installation. With prefabrication we are doing the work in a controlled environment, with improved efficiency while reducing the amount of people, equipment, materials and material packaging on the project site. Also, completing the assemblies ahead of time in the shop leads to shorter installation durations on site.

We have talented people leading these Prefab Shops and have seen some very innovative ideas come through that have been well received by both our Field personnel and clients. Our Mid-South Prefab Shop recently completed major efforts for the Harrah's Cherokee project in North Carolina and will be gearing up soon in support of the Nashville Major League Soccer Stadium project. In addition to the RBC Gateway high-rise project, our Midwest shop is currently working on the Fairview Hospital, Pillsbury Hall, and Highland Bridge projects.

Prefabrication is finally coming into its own in a big way in our industry. If you have questions about how it can work for you, please ask; there is a place for prefab on every project no matter the size or complexity. I know there are skeptics - many of whom are concerned about sacrificing the craftsmanship aspect of the trade - but there's no need to be skeptical. Rather, it's upon all of us to challenge ourselves to use our skills and the available technology to figure out a new way to approach the work, own it and make it what we want it to be, all to the advantage of the project.



Overhead Homerun Conduit Racks with Installation Drawings



Transformer Prepped and Loaded on Setting System



Lighting Fixtures Prepped and Loaded on Delivery Cart

Allegiant Stadium cont.

Scope of Work: As the electrical and low voltage contractor, our contributions with our partner included:

- Installation of more than 20,000 LED light fixtures, sports lighting, theatrical lighting, and lighting controls.
- Three, 1200 Amps at 13.8 KV each electrical services equating to almost 18 billion watts.
- All electrical systems installations including high voltage service and distribution, food service equipment, and HVAC equipment.
- MDF & IDF Closet Buildouts
- Backbone Fiber/Data Cabling
- Broadcast Cabling (SMPTE, Fiber, Data and Audio Cabling)

Prefabrication: Gephart made extensive use of prefabrication on this stadium project including, for example, the in-wall rough in of the suites. We also made extensive use of “smart” bending equipment using Greenlee software that pulled into the equipment all the data needed from the model to attain each bend.

Construction During COVID: The COVID-19 pandemic hit with a peak crew of over 550 electricians and 4 months remaining in the project schedule. Immediately, safety protocols were put in place implementing hand sanitizer, face coverings, and social distancing.

As more guidelines and information were released, additional measures were developed to comply with *and exceed* the requirements of the CDC to ensure worker safety on the project site and limit the spread of the virus. These included:

- Cleaning crews to disinfect work areas, tools, and equipment.
- Splitting up the crew into different shifts to minimize congestion in key areas.
- Plexiglass partitions that could be moved around to put a layer of security between crew members when reviewing plans.
- Using an industrial, portable ultra-violet sanitation cart on-site to clean work areas at night.

Despite the challenges, the project was able to be completed on time and the project finished with an TRIR (Total Recordable Incident Rate) of 0.97 which is admirable given the size of the project, large crew numbers, and circumstances.

Facts and Figures

GG: Mortenson | McCarthy JV

Architect: HNTB Corporation

Engineer: SSR, Inc.

1,750,000 SF

18 Billion Watts

65,000 Seats

31 Month Construction Schedule

20,000+ Light Fixtures

518,550 Feet Broadcast Cabling

I am exceptionally proud of our team who were able to quickly adapt as new guidelines were released to complete the project safely and efficiently without sacrificing quality.

- John Insley, Safety Manager, Gephart Electric

What's Next in the Sports Facilities Market?

As work wrapped up in Las Vegas, Gephart was subsequently awarded the 30,000-seat Nashville SC Major League Soccer Stadium project with the Mortenson/Messer JV team. This 532,000 SF project will be the largest soccer-specific stadium in North America and will be located in the historic Nashville Fairgrounds entertainment complex. The stadium will feature multiple lounges, private clubs and suites, retail, and more.

Work is currently underway with design coordination and planning activities nearing completion. Our BIM/VDC modeling and coordination efforts are in full swing with approximately 50% of the building completely modeled and coordinated and ready for construction. Prefabrication planning efforts based on model content have started with a focus on conduit bending, distribution equipment, hangers, rough-in assemblies, and light fixtures. Given the robust construction environment in Nashville, and corresponding tight labor market, maximizing prefabrication is critical to the success of the project.

Subgrade structure and subgrade electrical activities - including deep underground electrical distribution and utility installations - are nearing completion. Structural steel erection recently began and we will soon be transitioning to vertical installations on the structure.



Tenure Milestones

We take pride in being family owned and our family values extend to the importance of our employees. One of the best reflections of our culture is the tenure of our employees. We have many employees that have spent their entire career with us from entry-level positions through retirement. Below are some tenure milestones we recognized in 2020. Congratulations to all!

5 Years

Chris Brinkhaus

Joann deLeon

Todd Erickson

Randy Fox

Melissa Grecula

Gregg Hamer

Charlie Heinsch

Richard Hefferan

Chris Hintze

John Keane

Sandy McLean

Eric Melby

Jigger Mercado

Terrence Mohs

Jason Nord

Carl Peterson

Todd Pettit

David Porter

Terry Raether

Doug Ranallo

Mark Ranallo

Dean Randall

Derek Shewczyk

Patrick Schwinghammer

Brook Vanderleest

10 Years

Eric Rekucki

15 Years

Brandon Eggert

Aaron Jurek

20 Years

Bill King

25 Years

Ben Cotroneo

Rob Krekelberg

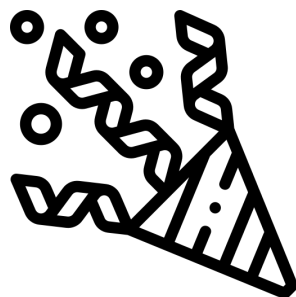
Jeff Swenson

Greg Zimmer

35 Years

Steve Halverson

Wayne Larson



Safety Spotlight

At Gephart, safety is our number one priority which is why we are so proud to be awarded the Subcontractor Safety Award from Ryan Companies US, Inc. for our work at the 10 West End project. Led by an outstanding field leadership team, our crew understands communication is key and participates in daily pre-task planning huddles to promote a safe start, weekly toolbox talks, and quarterly safety lunches. The goal is to reduce risks, minimize disruptions, and increase efficiency.

Thank you to the entire 10 West End team for contributing to our safety culture and to Ryan Companies for recognizing our efforts!



CONGRATULATIONS TO GEPHART'S 2020 Q3 AND Q4 STAR AWARDS RECIPIENTS!

Phil Zignego - *Project Manager*
Above & Beyond (Q3 2020)

Diana Brumfield - *Accounts Payable/Payroll*
Everyday Hero (Q3 2020)

Brittany Huskey - *Office Manager*
Above & Beyond (Q4 2020)

Justin Folk - *Safety Representative*
Everyday Hero (Q4 2020)