

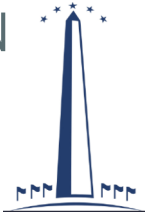
# CLIMATE PLEDGE ARENA

## Project Newsletter

### CONCRETE FACTS

We started our concrete journey with Y-Columns to connect new foundations to the existing historic roof 80' above. Since then we have placed 250 footings, tied in chevrons, placed sixty-foot tall shotcrete walls around the entire perimeter, completed the south buttress - the most complex reinforcement and placement on the entire project, and placed slab-on-metal-deck and slab-on-grade placements following the steel erection.

THE AMOUNT OF CONCRETE  
PLACED ON THE TOTAL  
PROJECT WEIGHS AS MUCH  
AS THE WASHINGTON  
MONUMENT!



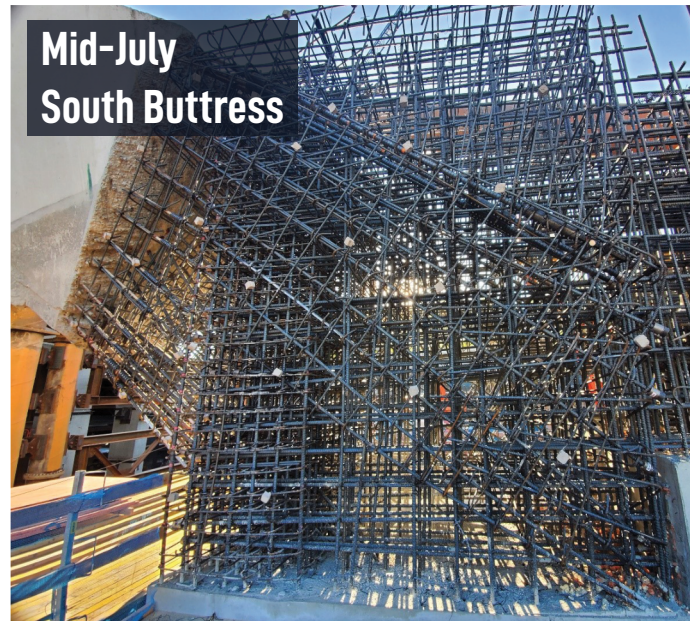
Mid-May  
South Buttress



August  
South Buttress



Mid-July  
South Buttress





## TEAM MEMBER SPOTLIGHT



With aspirations to become a master carpenter and the tenacity to do it, we learned that safety comes first with Dara. Dara is a huge sports fan and was beyond excited that Climate Pledge Arena was her first dispatch. She serves on the site safety crew, checking all-access, sound walls, stair towers, and ladders to make sure that everybody is going to and from the site safely.

Her best advice for others who want to join the trades is to find the right trade for you. After trying out for ironworkers and labor, she realized that she was most drawn to the creativity of carpentry. She aspires to be a jack of all trades, the reliable person they call for everything. Learning techniques from everybody keeps her interested, and inspires her projects outside of work, and is reaching for the goal of becoming a master carpenter and building her own house with the skills she has honed.

Her friends and family brag about her and the project she is on because they have seen her dedication. This historic job brings a smile to her face every day. She has an aura of happiness that surrounds her and encourages others to be the same. She stays safe for them and her two Pitbulls.

## BEING A GOOD NEIGHBOR

The Arena Team has volunteered hours to assemble and serve meals to the homeless community that take refuge at Sacred Heart Shelter. Eleonor Oshitoye takes the lead in maintaining contact with the shelter through the COVID-19 restrictions to get updates on how and when they need volunteers the most. During the COVID Crisis the National Guard has been deployed to help support the shelter, but our team has continued to raise funds for the shelter, provide coffee for the staff, and bags for handing out meals.

Other organizations that our team members are involved in are:

**Hire Heros USA** - a program that helps support military and their families with one-on-one mentorship via virtual calls and emails. to provide guidance, tips and support as needed.

**Pre-Apprenticeship Mentorship** - Eleonor Oshitoye conducts one-on-one calls to listen, provide gentle guidance and support for any apprentice that might want personal mentorship.

**SMWBE/VOSB Mentorship** - Programs such as the UW Ascent program, NW Supplier diversity Counsel, Construction Design & Entrepreneur, and National Association of Minority Contractors utilize Eleonor as a resource for small, minority, women and veteran businesses to schedule one-on-one mentorship sessions. These sessions are to listen, help provide a different perspective, assess approach, messaging and capabilities statements, and to provide tips on resolving issues and provide follow-up next steps.

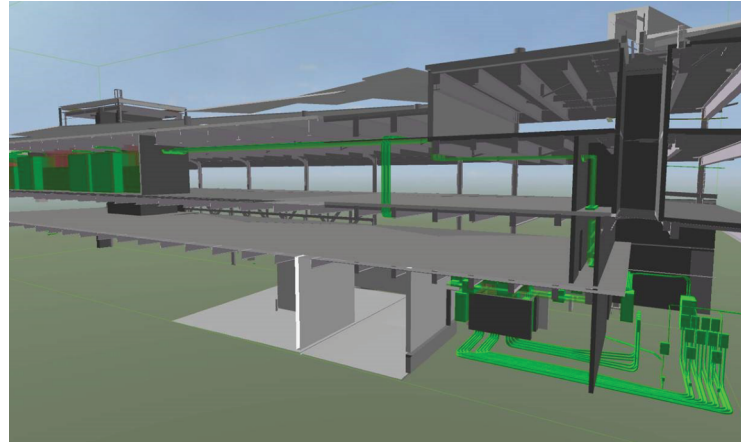
# SUSTAINABILITY INITIATIVES

Upon receiving the green light for the gas to electric sustainability initiative, Mortenson, our trade partners, and the design team circled up to determine the best path forward. At the time, the install of the main electrical feed into the arena and fabrication of electrical equipment had already begun.

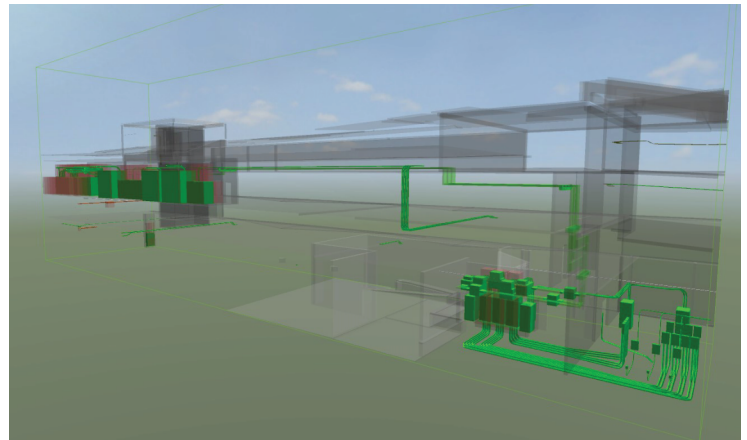
Through working sessions conducted 3 times a week between Mortenson, the design team, and CAA ICON, the team evaluated multiple design iterations. With input from our trade partners, Mortenson presented a proposal to the team to reduce cost and schedule impacts, as well as improve long-term operations of the system. This proposal involved modifying existing electrical equipment and relocating new equipment to within the main electrical room. The team was also able to establish milestone dates with the design team that would allow work in the field to proceed, while still allowing time for the design to be phased into the drawings.

This cross-collaboration between Mortenson, Populous, ME-Engineers, Thornton Tomasetti, CAA ICON, and Cochran resulted in the below benefits from the original proposal to the final design:

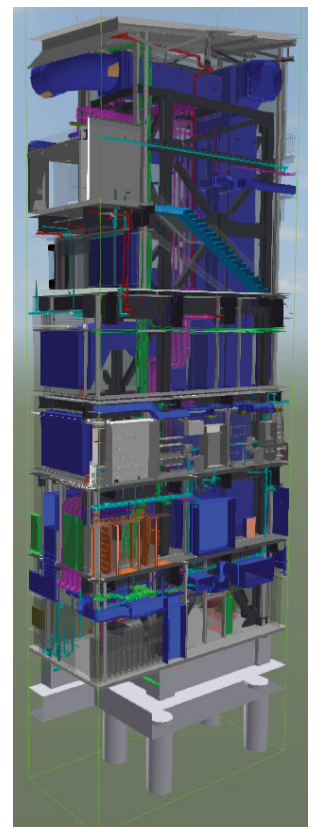
- Final cost savings projected at \$6.6M with the potential for more
- Electrical savings in excess of \$1M
- Reduced the number of parking stalls lost in the garage from 27 to 11
- Pieces of electrical equipment reduced from 25 pieces to 18 pieces
- All electrical and mechanical equipment able to be modified and/or fabricated without delays to the Project
- Zero electrical or structural rework required in the field



A portion of the electrical system



The complexity of the MEPF system in a riser shaft



# FLYIN' & DIGGIN' IN

Flying in a cooling tower section, while the 550 ton crane's hook waits in front of the space needle



We're over half complete on the temporary tunnel sequential excavation method (SEM) tunneling, and expect the hole-through the second week of November. The next phase of the tunnel includes waterproofing and 30" thick shotcrete structural lining.



## MEET YOUR ICC TEAM



**Travis Peterson**  
Integrated Construction Manager



**Garrett Johnson**  
Integrated Construction Coordinator II



**Jeff Jones**  
Integrated Construction Coordinator II



**Bradley Pawelczyk**  
Integrated Construction Coordinator II



**Santino Medina**  
Integrated Construction Manager

The role of the integrated construction coordinators (ICC) on the Climate Pledge Arena is to utilize their advanced Virtual Design and Construction (VDC) tools and processes to help problem-solve, anticipate upcoming issues, and be proactive in constructability and innovation for the project and team.

The ICC team uses a cloud-based model viewer to wrangle all the sub-contractors 3d building information models (BIM), into one consolidated model. This model helps with the coordination of all building trades by making sure there are no virtual clashes so that when installation begins there are no real clashes.

The same consolidated BIM helps resolve issues in sequence when we integrate the 3d model with the project schedule to achieve a 4D model. The 4d model shows the digital construction status over time as based on the project schedule.

Both these models are used extensively by the project team, when a new team member arrives or a person does not know how to use these processes and tools, it is the ICC team's responsibility to educate them. The ICC team employs both virtual (VR) and augmented reality (AR) on this project, with the help of the Hololens 2 (AR) and the Oculus Quest's (VR), which has 6 degrees of freedom. We can immerse people inside the BIM to help them understand the space, such as how the ice suites are laid out. We also bring the BIM to the site and overlay it onto existing systems, such as ducts to verify if they are in the correct location.

We also review various data sets to extrapolate transparency by formatting it into visual dashboards. The ICC team also innovates to help move traditional processes into the future by developing apps, creating processes, or simply creating virtual mock-ups.

# SAFETY SESSION

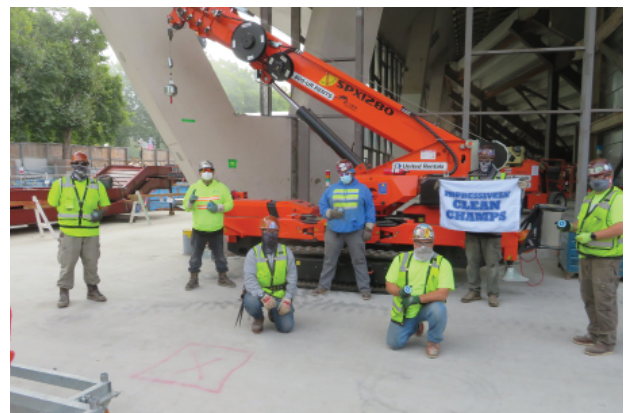
According to the U.S Bureau of Labor Statistics Monday is the most Dangerous Day of the week. In 2013 Around 167,000 workplace injuries took place on Monday more than any other day of the week. BE EXTRA CAREFUL ON MONDAYS!

The Kask helmets were originally brought out to the jobsite at the beginning of COVID- 19 to help with glasses fogging up due to wearing the newly implemented face coverings. We have learned these helmets do so much more for our team members. These helmets are light weight and vented to help with comfort and cooling. We are also able to attach different safety accessories such as ear muffs , face shields, and chin straps. All things we use and can be hard to adapt to a typical hard hat in comparison to the Kask helmets.

The Puck Stops Here is a program to recognize individuals and crews for helping keep our job impressively clean, safe and productive.



Cask helmet with visor



**CHECK OUT THE SEATTLE  
KRAKEN YOUTUBE CHANNEL FOR  
CONSTRUCTION & TEAM UPDATES!  
YOUTUBE.COM/SEATTLEKRAKEN**



## CONTACT

Greg Huber  
Construction Executive  
763.287.5909  
greg.huber@mortenson.com

