
EDUCATORS
SUMMIT
GROWING FUTURES TOGETHER
BURNS McDONNELL

Melissa Wood

Chief Administrative Officer

Missouri State University

B.S. Communications Management

Started at Burns & Mac in 1993

Favorite Teacher: Mrs. Duke, 6th grade

Connection Starts with Communication

BURNS McDONNELL

Sam Bise

Education & Training Specialist

Truman State University

Started at Burns & Mac in 2013

Personal
Intuitive
Functional
Analytical

Favorite Teacher: Mr. Jenkins, Agriculture Teacher

[SAM]

My name is Sam Bise. My preferred communication style is personal.

Sue Maden

Education & Training Manager

20+ years training & development experience

Personal
Functional
Intuitive
Analytical

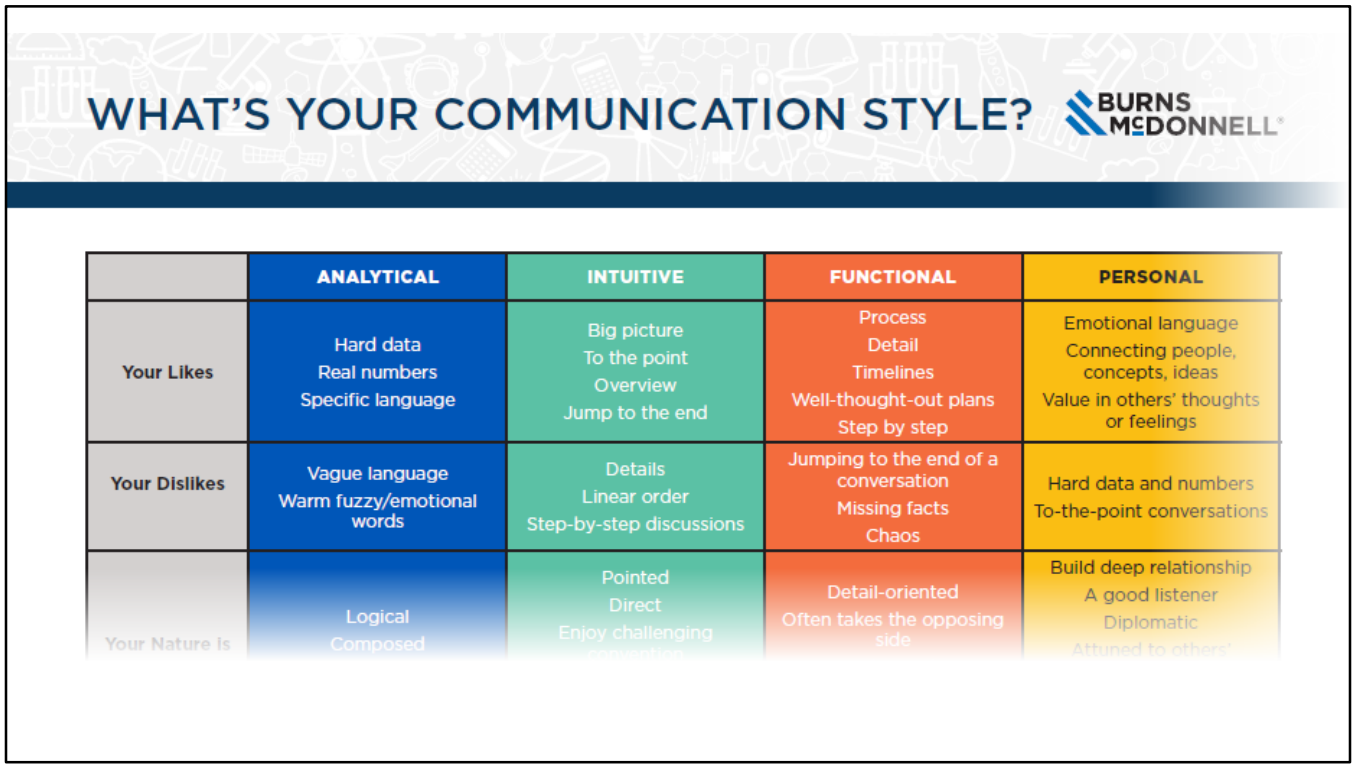
Started at Burns & Mac in 2007

Favorite Teacher: Mrs. Caruso, 3rd Grade

[SUE]

I'm Sue Maden I work with Sam on the Education & Training team. I'll celebrate 10 years with Burns & Mac this fall.

My communication style preferences are primarily personal and functional.



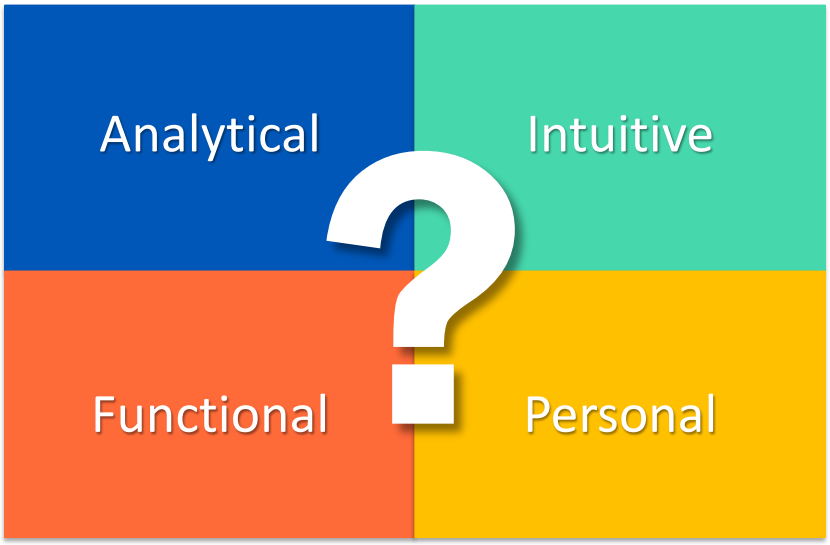
	ANALYTICAL	INTUITIVE	FUNCTIONAL	PERSONAL
Your Likes	Hard data Real numbers Specific language	Big picture To the point Overview Jump to the end	Process Detail Timelines Well-thought-out plans Step by step	Emotional language Connecting people, concepts, ideas Value in others' thoughts or feelings
Your Dislikes	Vague language Warm fuzzy/emotional words	Details Linear order Step-by-step discussions	Jumping to the end of a conversation Missing facts Chaos	Hard data and numbers To-the-point conversations
Your Nature Is	Logical Composed	Pointed Direct Enjoy challenging	Detail-oriented Often takes the opposing side	Build deep relationship A good listener Diplomatic Attuned to others'

[SUE]
It's time to identify *your* primary communication style.

People are coming around the room passing out reference sheets that look like this one.

Turn over the 5 cards from your deck that you selected for yourself.
Using the colors on the back, match them to the four styles. The one in which you have the most cards is your primary style.

Four Communication Styles



Source: http://forbes.tumblr.com

[SUE]

Anyone with all cards from one style?
Anyone have preferences that cross all 4?

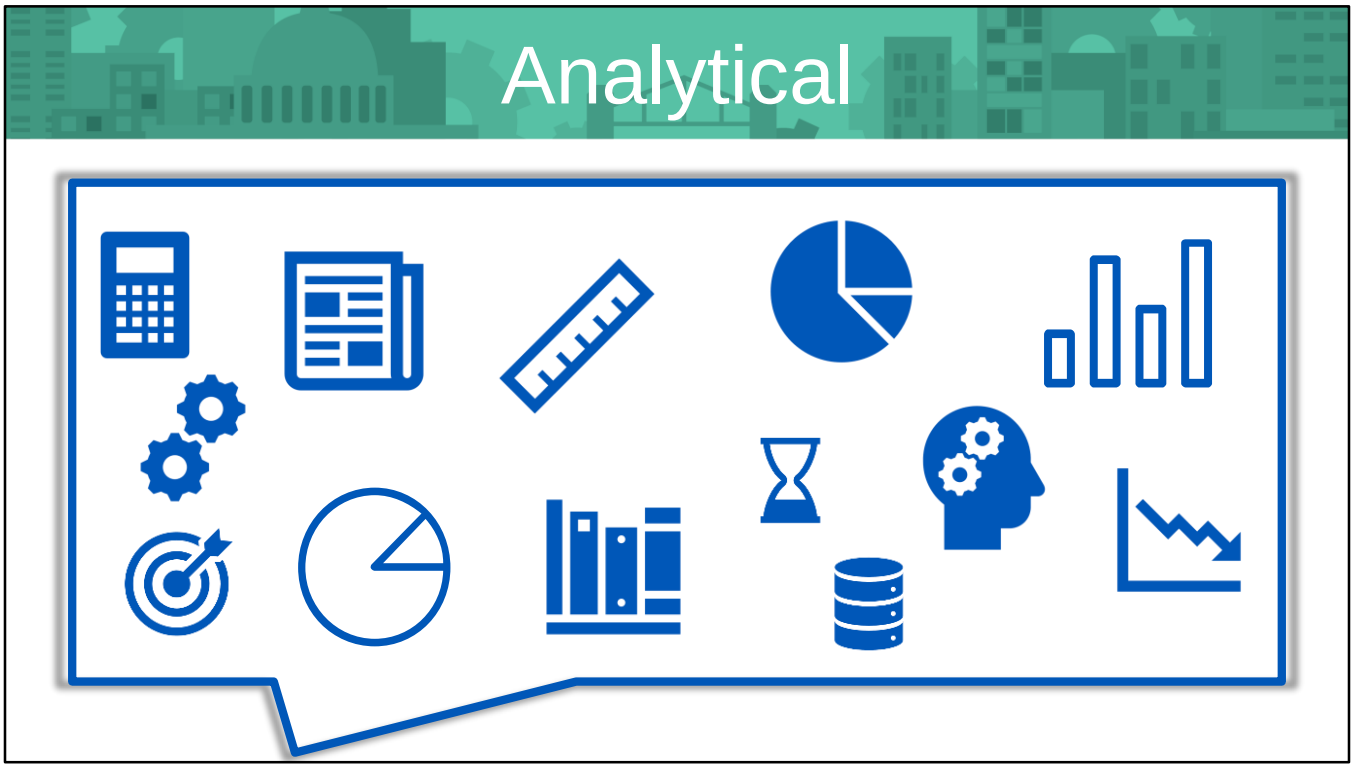
We're going to talk through the four communication styles, and give some examples to help illustrate the words and phrases on the reference sheet.

Sam will help you apply these by giving you two scenarios and asking you to consider them from different perspectives.

Then we'll wrap up by issuing you a communication challenge for your day here at Burns & Mac.

This model with the four styles, analytical, intuitive, functional, and personal were chosen due to their simplicity and universality. That is, it's relative easy to not only identify your own style preference, but to listen to how others communicate and identify theirs as well, whether they are students, parents, or fellow educators.

Analytical



Likes:

- Hard data
- Real numbers
- Specific language (when someone says sales are positive, you want to know what positive means – up 5%, up 7.2%).

Upsides:

- Seen as logical, composed and an informational expertise

These communicators may be abrupt but also very matter of fact, logical, composed and often seen as a subject matter expert. These communicators will avoid vague language and the warm/fuzzy emotional words. When you are told that test scores have increased you want to know what “increase” really means. Is that a 5 percent increase or a 7.2 percent increase? You want the data to back up the statements.

Intuitive

Likes:
- Big picture
- To the point, cut to the chase
- Want to hear things in a broad overview
- Jumping to the end

Upsides:
- Quick and to the point
- Enjoy challenging convention
- Big ideas
- Out-of-the-box thinking

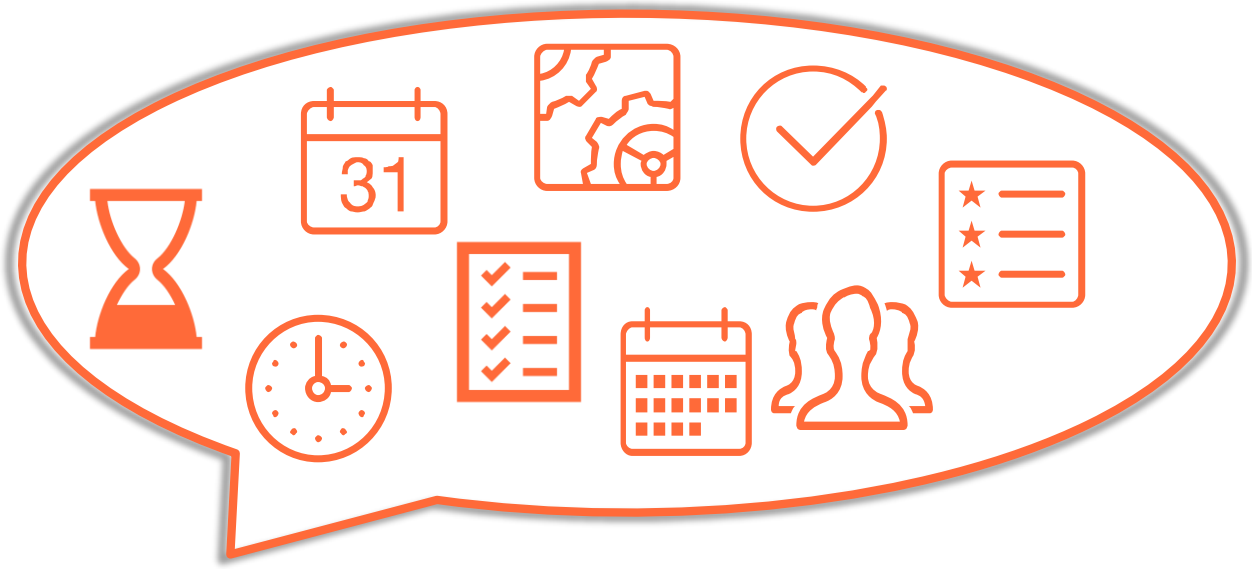
When a new program is implemented at school, these communicators are focusing on the goal of the program rather than starting with the steps to achieve that goal. They want to approach meeting this goal with an out-of-the-box idea.

Dislikes:
- Getting bogged down in details
- Hearing things in perfect linear order (which is how a functional communicator would communicate things)

Downside:
- May not always have enough patience that requires getting into the details

- May risk missing an important point
- Difficulty dealing with functional communicators

Functional



[SUE]

Next is the functional communication style. Someone with this style likes process, detail, timelines, well-thought-out plans and knowing the step-by-step.

The upsides to this communication style are that these people are typically detail-oriented; nothing typically gets missed and they are seen as the team implementer.

When you're implementing a new program at your school, the naturally functional communicators are already formulating plans, making checklists, and working on timelines in their heads, then quickly getting them down on paper or in a digital tracking system.

[SUE]

Last, we have the personal communication style. As you may recall, it's what Sam and I both see as our preferred style most often.

Someone with this style finds value in emotional language and connection. We find value in assessing how people think and feel and are often concerned with the health of our relationships.

We tend to be seen as good listeners and possibly diplomats. We strive to smooth over conflicts. While we may value the contribution data makes to a solution, it's not what we're most comfortable with or where we go first.

If you're struggling in terms of a relationship with a student, parent, or fellow educator, consider asking someone with this style for help in your approach.

Communication Challenge #1

A student is performing poorly in a subject. What approach would you take communicating this to:

A. **Student** with **Analytical** communication style

B. **Parent** with **Personal** communication style

Let's try it out…

We're going to show you two scenarios. For each one:

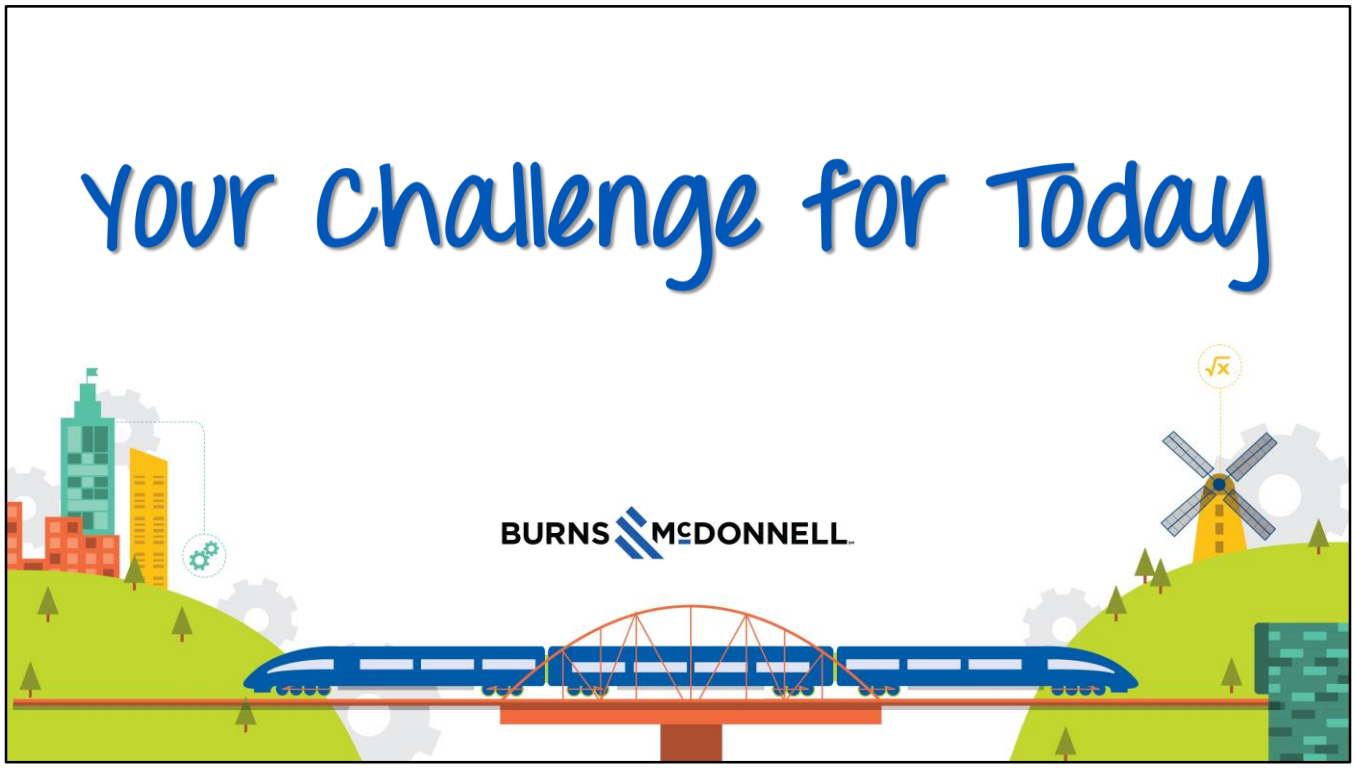
- Read the scenario
- Think about dos & don'ts
- Talk about it at your table

Communication Challenge #2

You want to take part in a program such as Battle of the Brains but need help. How would you persuade:

A. **Fellow educator** with **Intuitive** communication style

B. **Student** with **Functional** communication style



[SUE]
As you interact with others during the Educators Summit today at Burns & Mac, we challenge you to pause from time to time and reflect on communication styles.

If you haven't already done so, take one of the colored dots that corresponds to your preferred style, and put it on your nametag. As you move about your day, sit with different people and use it as an opportunity to apply what we talked about.

As you listen to others, listen to the words they use and search for clues. Are they using words like, "amazing, awesome, etc". and talking about how something feels? They may be a personal communicator. Are they short and to the point? They may be analytical.

Of course, all of these are just clues. You don't necessarily want to make an assumption about someone based on a few short interactions. You might need to ask someone a few questions to better understand their preferences or help them understand yours.

Thank you for your time and we hope you have a great rest of your day!

Agenda

- Panel Sessions (breakout locations)
  - My Unique Path to STEM
  - Bringing the Office to Your Classroom
  - Understanding Engineering Disciplines
- Lunch (Auditorium)
  - Project Connect
  - Final thoughts

[JULEE]

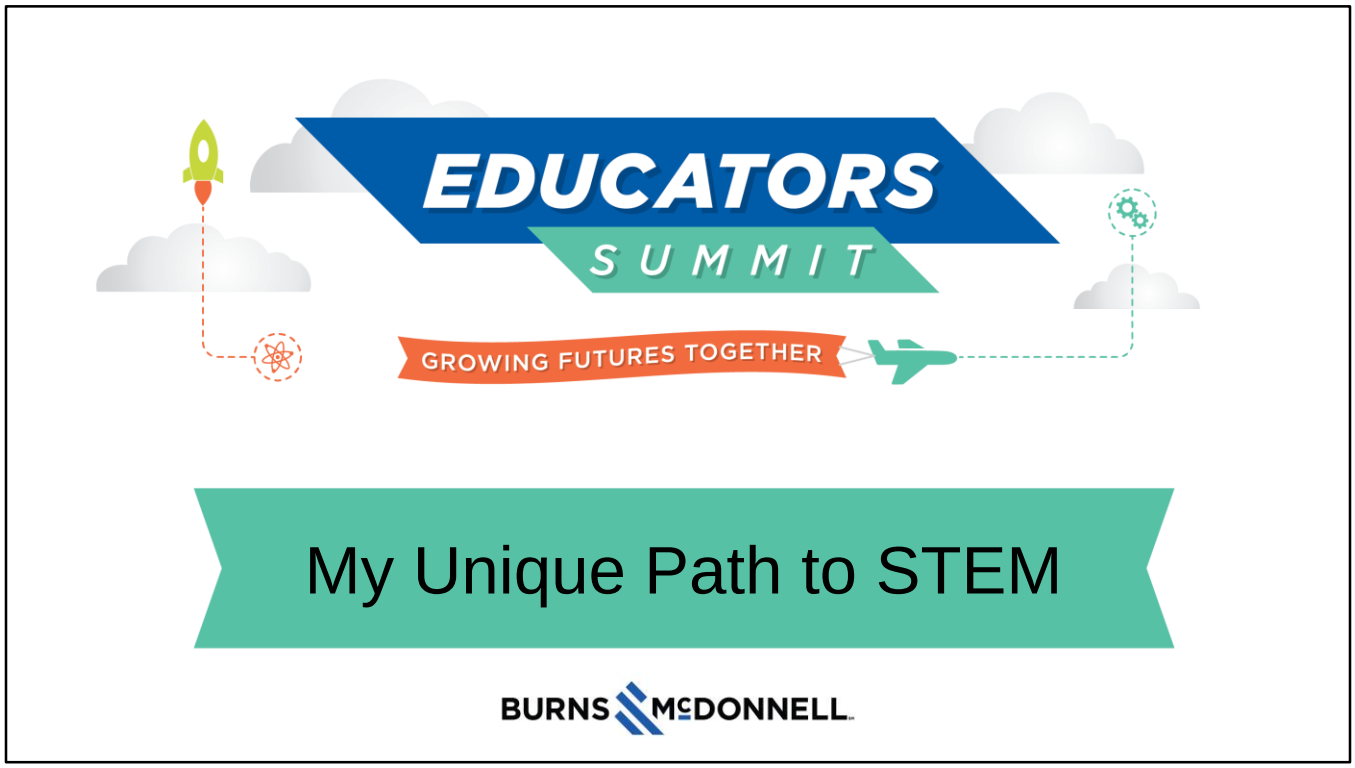
Thank you, Sue and Sam! I'm going to turn up my functional communication skills to walk through the details for the remainder of the day.

Next up are our panel sessions. We will be dividing up the room into smaller groups and our panels will rotate to each room so everyone will get to participate in all three sessions.

Please take a look at the centerpiece on your table, which shows your group: A, B or C.

We will release you from your tables by group, so please stay seated until we call your group name. Please gather your things, as you will take them with you – your candy and cards fit in your mug. Coffee, soda and water are available in your session rooms. Feel free to grab a refreshment at any time. There will be a 5 min. break between each session as well. And of course, this is a casual event, so at any time, feel free to take a restroom break.

Group C (released first): go out back doors of the auditorium, use restrooms outside auditorium, follow the signs and volunteers through the lobby
Group B (released second): restrooms are available near your session room, go out front doors and cross the courtyard, session room is the first room on the left when you reenter the building
Group A: we'll release you shortly to use the restrooms, please return to your seats



Get ready to learn how members of our team engaged in STEM without even realizing it was their passion and talent.

Jennifer Wood

Assistant Electrical Designer, Process & Industrial

Linn State Technical College

A.A.S. Civil and Construction Technology; A.A.S. Design Drafting Technology

Started at Burns & Mac in 2013; Intern 2012

Favorite Teacher: Ms. Pohlman, band

Josh Rawley

Assistant Electrical Engineer, Transmission & Distribution

University of Missouri-Kansas City

B.S. Electrical Engineering

Started at Burns & Mac in 2013

Favorite Teacher: Coach Campbell

Will Williams

Staff Mechanical Engineer, Water

Missouri University of Science & Technology

B.S. Mechanical Engineering

Started at Burns & Mac in 2013

Favorite Teacher: Mr. Hensel, calculus

My Unique Path to STEM

Jennifer

Josh

Will

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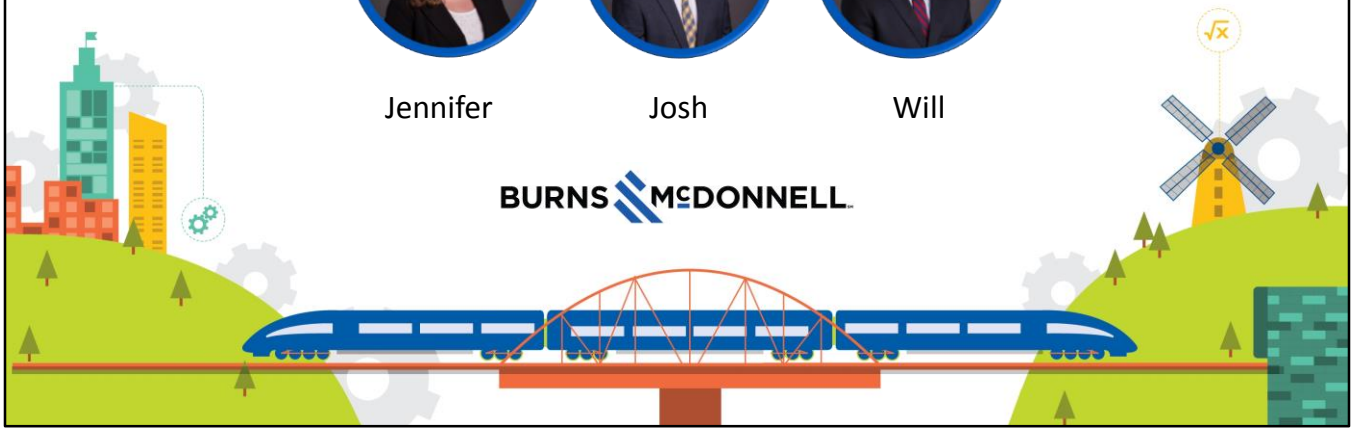

Q&A

Now we'll hear from our K-12 Outreach director and two special guests, who'll provide great STEM-related resources for your classrooms.

Emily Rhoden

K-12 STEM Education Outreach Coordinator

Kansas State University

B.S. Business Administration

Started at Burns & Mac in 2007

Favorite Teacher: Mr. Tompkins, history

Brett Kisker

PLTW Teacher, Liberty North High School

Northwest Missouri State University

B.S. Physics; M.S.Ed Instructional Technology

Teaching since 2004

Favorite Teacher: Mr. Hickman, pre-algebra

Kirsten Fenwick

4th Grade Teacher, Longview Elementary, Lee's Summit

University of Central Missouri

B.S. Education

Teaching since 1995

Favorite Teacher: Mrs. Pruess, 4th grade

Bringing the Office to Your Classroom

Brett

Kirsten

Emily

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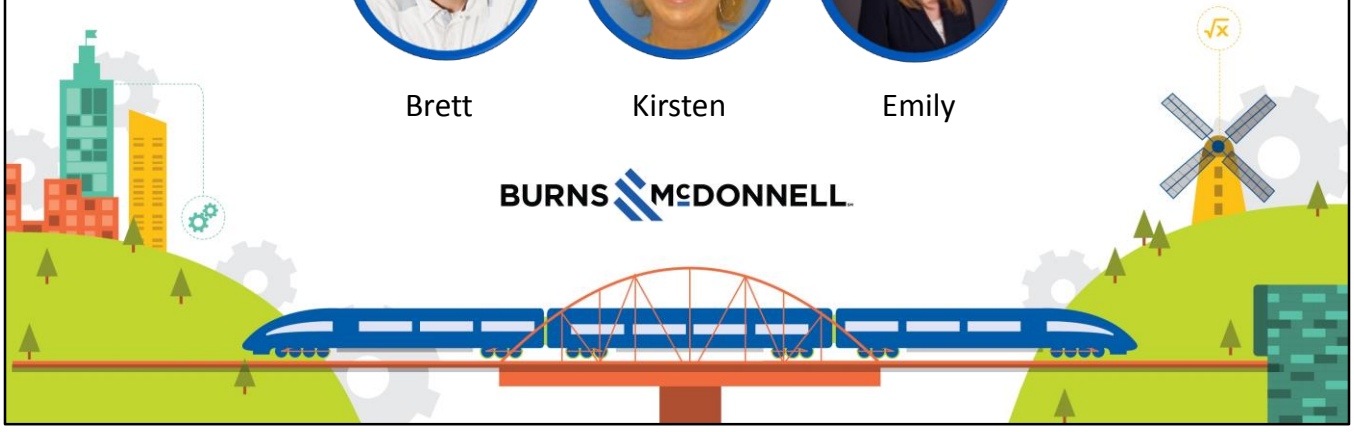
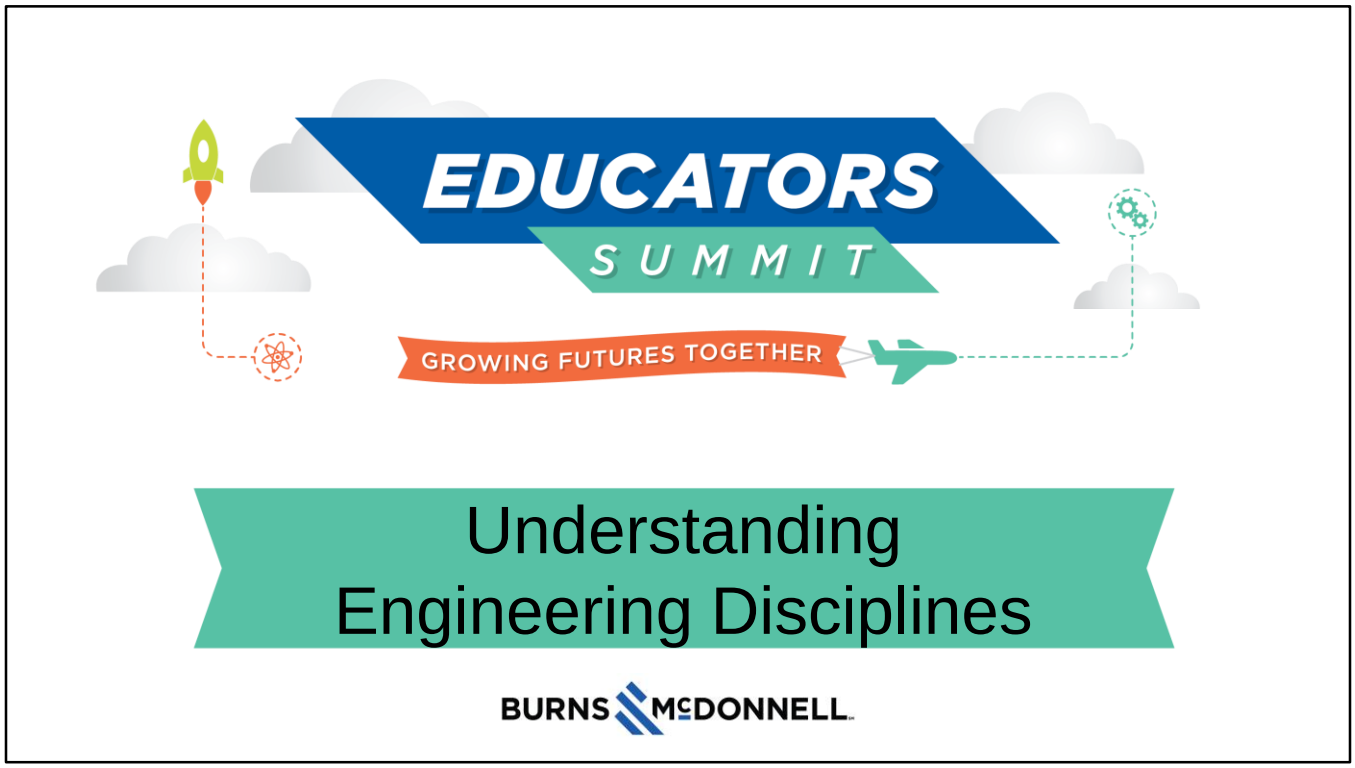


Q&A



Now that you've made some great connections, we're going to help you understand engineering disciplines from electrical, civil-and structural to mechanical and chemical engineering.

Meghan Calabro

Department Manager, Transmission & Distribution

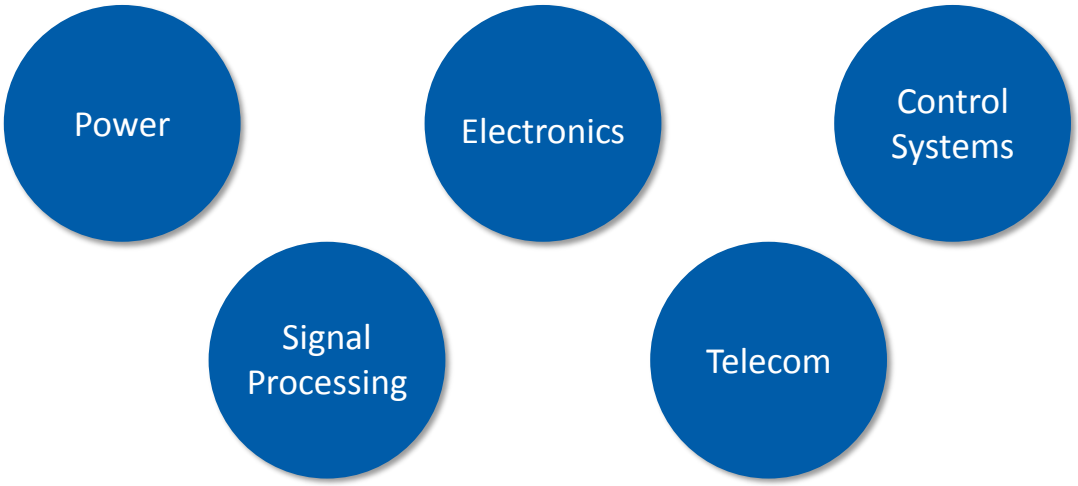
University of Nebraska - Lincoln

B.S. Electrical Engineering; M.B.A.

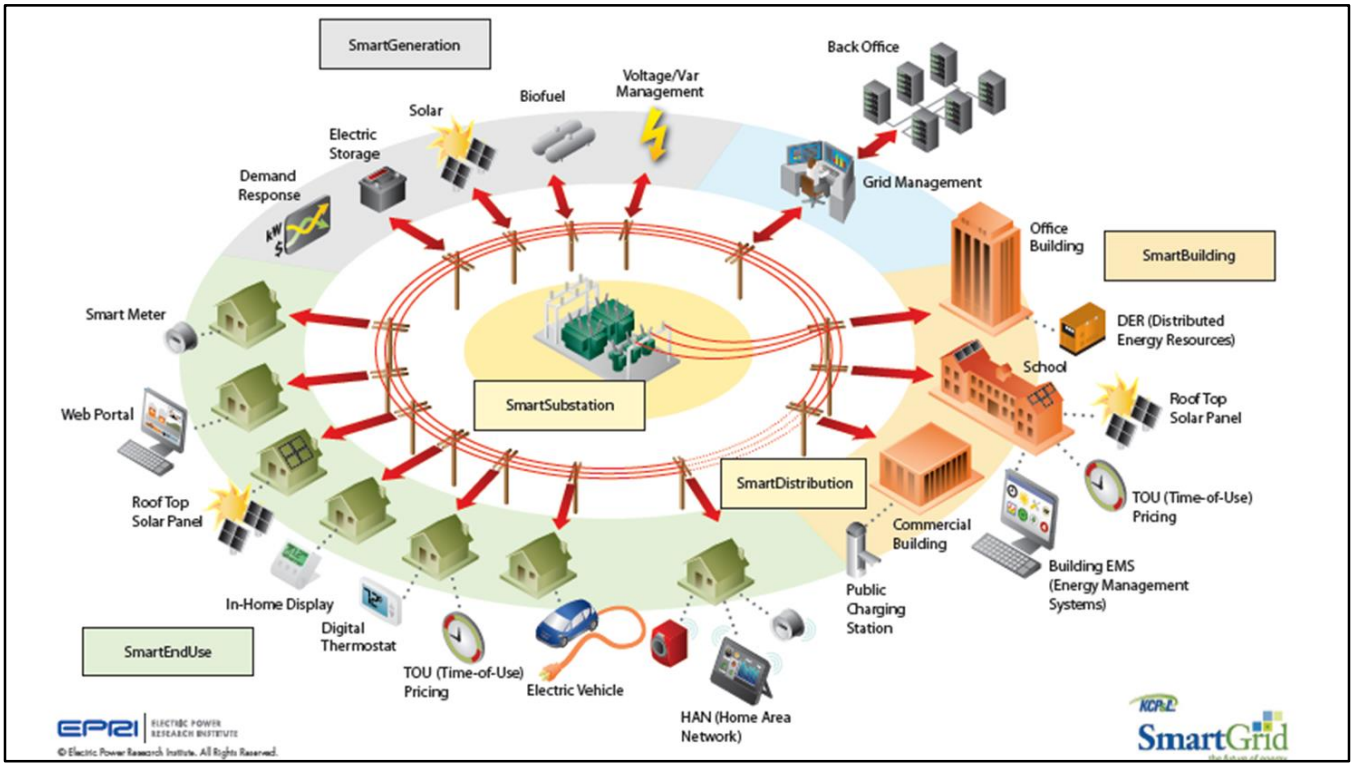
Started at Burns & Mac in 2007

Favorite Teacher: Mr. Jorgenson, algebra

Electrical Engineering



Power engineering engineering deals with the generation, transmission, and distribution of electricity as well as the design of a range of related devices.
Electronic engineering involves the design and testing of electronic circuits that use the properties of components such as resistors, capacitors, inductors, diodes, and transistors to achieve a particular functionality.
Control systems engineering focuses on the modeling of a diverse range of dynamic systems and the design of controllers that will cause these systems to behave in the desired manner. To implement such controllers, electrical engineers may use electronic circuits, digital signal processors, microcontrollers, and programmable logic controls.
Signal processing deals with the analysis and manipulation of signals. Signals can be either analog, in which case the signal varies continuously according to the information, or digital, in which case the signal varies according to a series of discrete values representing the information.
Telecommunications engineering focuses on the transmission of information across a channel such as a coax cable, optical fiber, or free space.



Project: KCP&L SmartGrid Demonstration Project
Client: KCP&L (Kansas City Power & Light)
Location: Kansas City, MO (SmartGrid Innovation Park, near Cleaver Blvd & The Paseo)

Initially hired to provide staff augmentation, engineering and analytics for a comprehensive smart grid demonstration project, our team soon added responsibilities in connection with implementation and testing of a number of project components.

One “cool” visible component was the installation and operation of a battery storage project. We worked on installation of a lithium- ion battery that provided 1 MW/1 MWh of storage capacity adjacent to a large urban substation for KCP&L. The battery system, interconnected at the head of a single circuit, demonstrated the battery’s ability to:

-shift energy

-reduce net peak load of the circuit

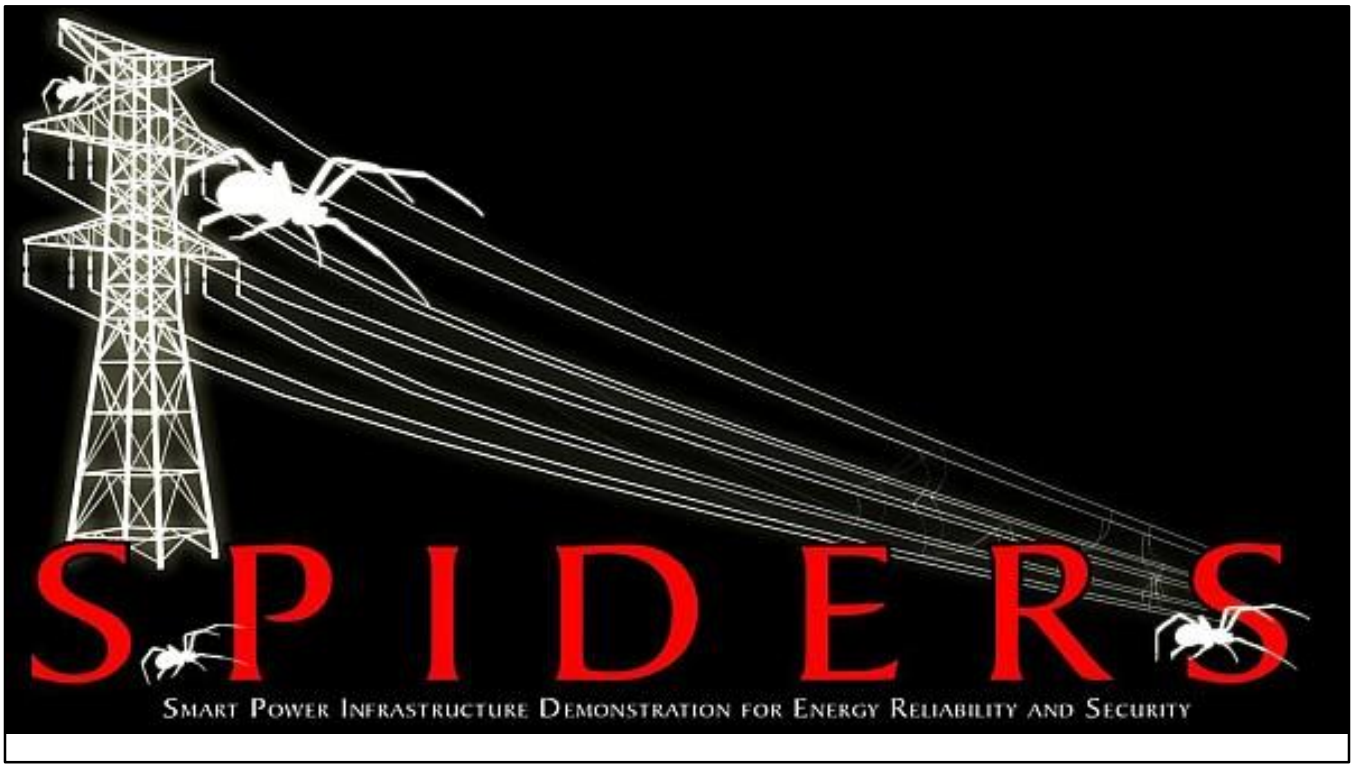
-provide voltage and VAR compensation

-serve as an island circuit for a short period

Project: Christina Lake Area Development
Client: AltaLink
Location: Wood Buffalo Region, Conklin, Alberta

The AltaLink Pike Project engineer-procure-construct (EPC) scope was to provide a 22-kilometer (km) double-circuit 240-kilovolt (kV) transmission line and a greenfield 240/138-kV substation in a remote location in the Alberta oil sands area. The location was approximately 350-km northeast of Edmonton. Our team the project for more than two years, starting from a proposal estimating and permitting phase through engineering, procurement, extreme winter construction (-50°C) and, finally, energization.

The design and supply of a new tubular steel double circuit horizontal H-frame was used to lower the total installed cost of the project. Despite all the challenges, the team was still able to deliver this project on schedule and under budget. This marked the first time in 12 years that an AltaLink project of this type and magnitude had been energized on schedule.



Project: SPIDERS Joint Capability Technology Demonstration
Client: Construction Engineering Research Laboratory
Location: Joint Base Pearl Harbor-Hickam and Fort Carson and Camp H.M. Smith

The Smart Power Infrastructure Demonstration for Energy Reliability and Security (SPIDERS) initiative is a three-phase program to increase energy security of critical military missions by delivering microgrids that protect critical assets from power loss due to cybersecurity breaches or other adverse events within the commercial utility infrastructure. It includes smart energy components focused on reducing energy use, using renewable energy solutions and supporting net zero energy goals. The thought behind these projects was to talk a crawl, walk, run approach to implementing microgrids at various bases.

The microgrid system integrates smart energy storage technologies and existing renewable energy sources at Camp Smith to minimize the need for fossil fuel consumption and optimize the overall efficiency of power generation at the camp when the local utility is not present. The system can also support the local utility under normal operating conditions to provide demand response or similar services that benefit the utility and the community by increasing stability on the local grid.

One unique component of this project was the installation of five first-of-a-kind Bidirectional Electric Vehicle Chargers at Fort Carson, Colorado. So this was a true Vehicle to Grid (V2G) installation.

The bidirectional charging units are capable of providing up to 300 kilowatts (kW) of power to plug-in electric vehicles and also can discharge a like amount of stored energy from the vehicle batteries to the grid or microgrid

Steve Cline

Project Manager, Aviation & Federal

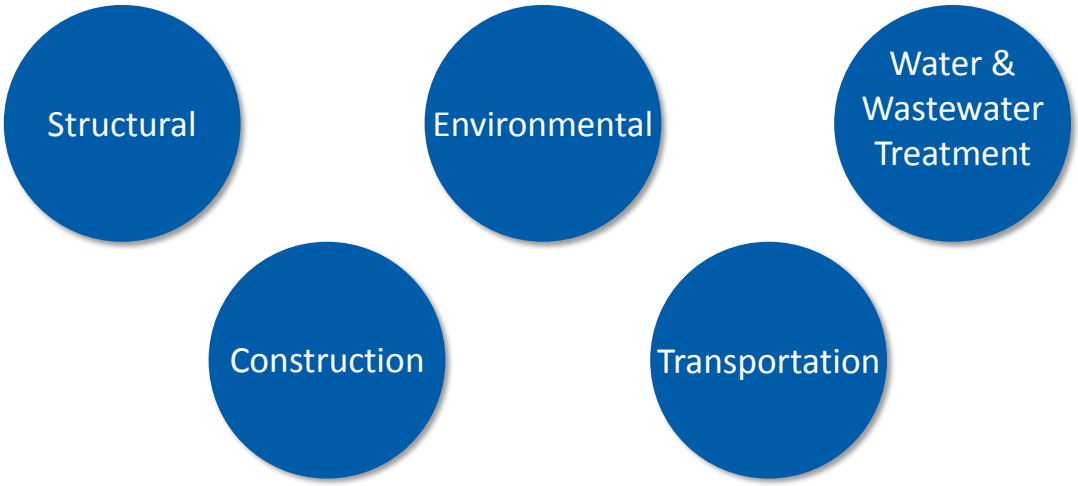
Purdue University;
University of Illinois

B.S. Civil Engineering;
M.S. Structural Engineering

Started at Burns & Mac in 2003

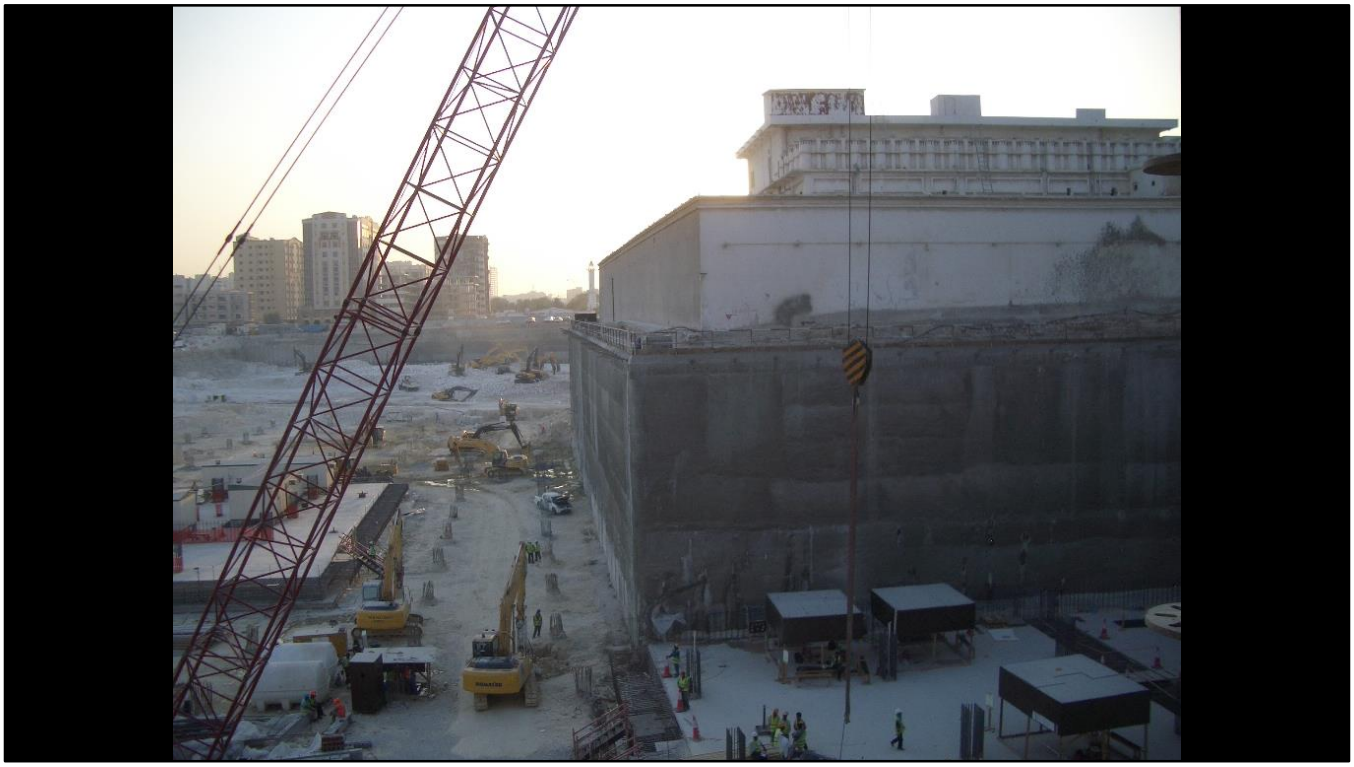
Favorite Teacher:
Mr. Lindsay, physics

Civil Engineering



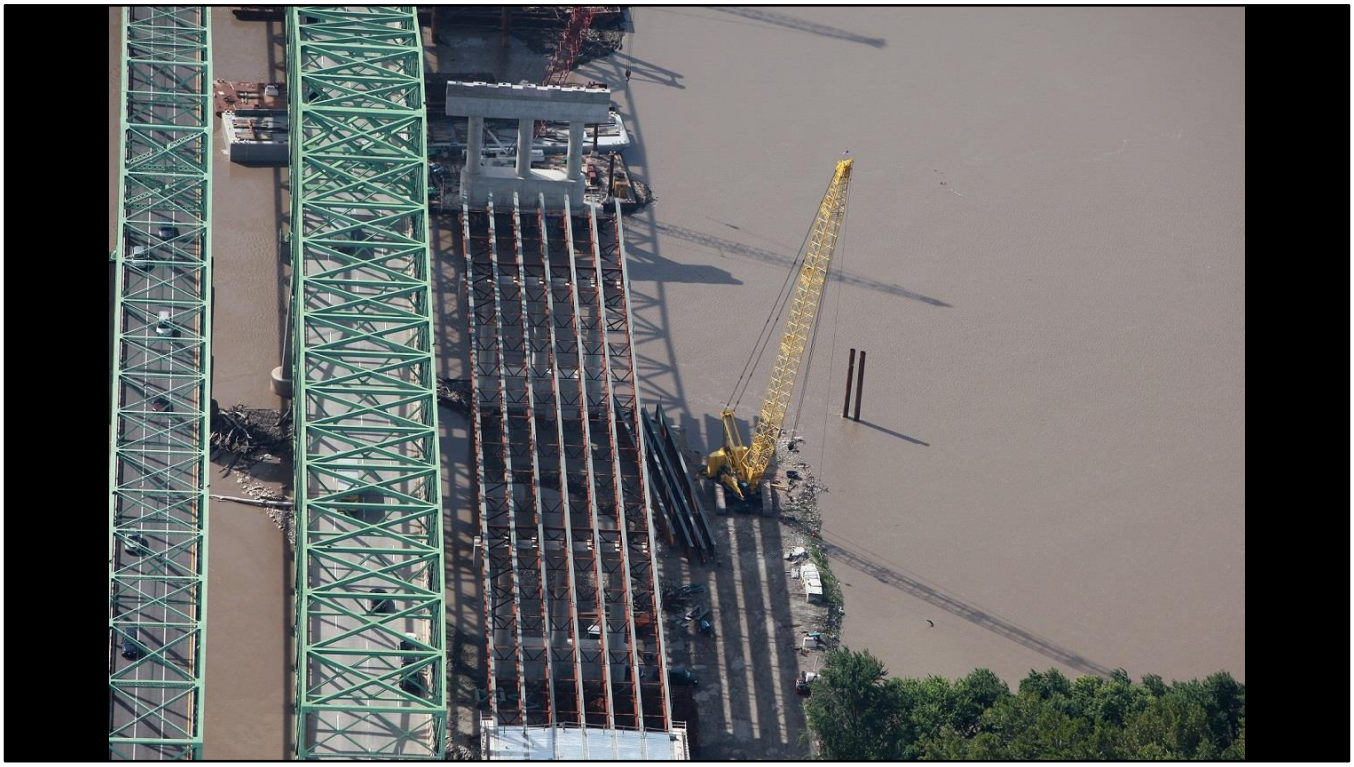
Project: Lifestyle Quarter in the Downtown Doha Redevelopment (Heart of Doha)
Client: Msheirab Properties
Location: Doha, Qatar

The Downtown Doha Redevelopment is revolutionizing the historic heart of the Qatari capital city of Doha. This phased urban redevelopment will provide more than 8 million square feet of mixed-use space, including retail, housing, offices, schools, hotels, governmental buildings and religious buildings on a 76-acre site. The entire development sits atop a three-story basement — containing utility and service areas as well as 5,000 parking spaces — to create a walkable community by minimizing vehicular traffic. Our team is serving as the executive architect and engineer for the largest phase of the project, encompassing more than 40 buildings.



Project: Overflow Control Project (OCP)
Client: City of Kansas City, MO

Most of Kansas City's wastewater infrastructure is made up of separate sewer systems. KC Water Services maintains 260 square miles of separate sewer systems, and 58 square miles of combined sewer systems. The combined sewer systems can be found in the oldest parts of Kansas City. Some of our combined sewer systems, dating back to 1863, are still in use today.
The city has a 25-year time frame to meet regulatory requirements to substantially reduce overflows in its sewer system. A $4.5 billion initiative, this project represents largest capital program ever in the region. To make sure the approach was right from the start, we provided the master planning for the OCP development, implementation and management services. Our team developed a planned list of improvements targeted at capture or treatment of 88 percent of combined sewer flows and elimination of sanitary sewer overflows during a five-year rainfall event. The OCP improves water quality and rehabilitates the aging infrastructure systems throughout the city's combined and separate sanitary sewer systems. Working as an extension of the city staff, our team is engaged at all levels of the program to assist with leadership, administration, execution, tracking and quality control. Ongoing project management measures keep the work on track, and regular communication informs key stakeholders.



Project: I-64 Daniel Boone Bridge
Client: MoDOT (Missouri Department of Transportation)
Location: St. Louis, MO

Description: As the engineer of record for the Daniel Boone Bridge, We helped the Missouri Department of Transportation (MoDOT) provide a major new Missouri River crossing maximizes mobility, connects nearby bike paths and minimizes maintenance costs over the next century. This $111 million design-build project includes design and construction of a new 2,615-foot bridge, repairs to the existing eastbound structure, and demolition of the existing westbound structure.

Project: Sunrise Powerlink
Client: SDG&E (San Diego Gas & Electric)
Location: San Diego, California

This 120-mile transmission line for SDG&E delivers 1,000 megawatts (MW) of clean, reliable energy — enough to power 650,000 homes and businesses. The energy flows from solar, wind and geothermal power plants in the Imperial Valley. The project consisted of a 22-mile overhead double-circuit 230-kV transmission line with lattice steel and pole structures; a six-mile section of 230-kV double-circuit underground transmission line; and a 92-mile overhead single-circuit 500-kV transmission line comprised of lattice steel structures. We provided engineering, bid phase support, project controls, project management, contract administration, construction management, quality assurance/quality control, GIS mapping, environmental studies/reports, and field monitoring.

Ben Frerichs

Business Development Manager, Energy

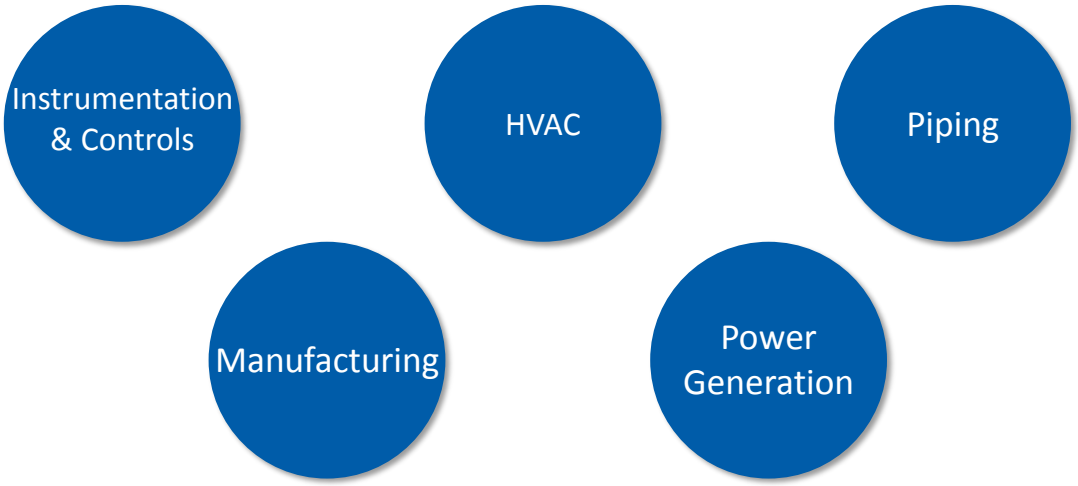
University of Nebraska - Lincoln

B.S. Mechanical Engineering

Started at Burns & Mac in 2008

Favorite Teacher: Mrs. Tyler, 1st grade

Mechanical Engineering



Project: GRU Energy Center South
Client: Gainesville Regional Utilities
Location: University of Florida Shands Cancer Center in Gainesville, FL

Our team provided architectural, engineering, procurement and construction services to Gainesville Regional Utilities (GRU) for a new energy center that provides electrical power (normal, essential and emergency), chilled water, steam and medical gases for the University of Florida Shands Cancer Center in Gainesville, Fla.
The primary goal and objective for Shands Cancer Center was to select an energy partner to finance, design, build, own, operate and maintain an energy center for the new campus. The energy center provides efficient and reliable on-site electrical power generation, chilled water, steam and medical gases to meet 100 percent of the cancer hospital's needs in the event of an outage caused by natural disaster or other unplanned events. The energy center meets and in many cases exceeds regulatory requirements for reliability, redundancy and life safe codes.

4.3-MW Combined Heat & Power System
The workhorse of this $45 million facility is a 4.3-megawatt (MW), natural gas-fired, recuperated combustion turbine with guaranteed NO_x emissions of 5 parts per million without after-treatment. This ultra-high-efficiency generator can run 24/7 and normally operates in parallel with one of two utility feeds, which come from separate substations in GRU's network. The energy center can generate all of the hospital's and its own power needs on site. The plant produces 4,200 tons of cooling and 30,000 pounds per hour of

steam.

http://www.burnsmcd.com/projects/gru-energy-center-south

Project: Delta Terminal Reconstruction
Client: Delta Airlines
Location: LaGuardia Airport, NY

HVAC Upgrades
Our team provided architectural and engineering design for several renovations at the Delta main terminal at LaGuardia. These projects included a detailed energy use study, which preceded a complete HVAC controls replacement project and a central plant heating and cooling upgrades project which saved the terminal approximately $425,000 annually. In order to determine if the electrical distribution equipment was adequately sized to handle the future concessions and HVAC loads, a load study and metering effort was performed for the Delta terminal.

Central Plant Renovation
This project involved the installation of two 500-ton electric centrifugal chillers to replace two direct gas-fired absorption units. Electrical design support included new feeders for boilers, cooling towers and pumps. Controls were also installed on the project.

HVAC Controls Replacement
This project provided a complete retrofit of the HVAC controls for the air handling system and central heating and cooling plant in the facility. This included the installation of an energy management system and a direct digital control system which included an access computer with graphical interface that allowed the monitoring and controlling of all points in the control system from an off-site location. This project also involved the testing and

replacement of the majority of the fire alarm and life safety components in the facility.

http://www.burnsmcd.com/projects/delta-air-lines-terminal-improvements

Project: Data Center Upgrade
Client: Blue Cross Blue Shield of Kansas City
Location: Kansas City, MO

We are the engineer of record on this design-build project, which is being constructed and commissioned by Burns & McDonnell. It involves upgrading the existing electrical and mechanical systems within an active live data center. The mechanical upgrade project includes replace existing four chillers with high efficient magnetic bearing type centrifugal type chillers. Each new chiller is sized at 210 tons, will operate under variable primary pumping operation, to handle the full cooling load, with only one chiller in operation to maintain N+1 system operation.
Other aspect of this project includes fire alarm system upgrade along with implementing a very early smoke detecting apparatus (VESDA) for monitoring/alarming of the data center.

http://www.burnsmcd.com/projects/data-center-upgrade

Kristen Svec

Assistant Chemical Engineer, Oil, Gas and Chemical

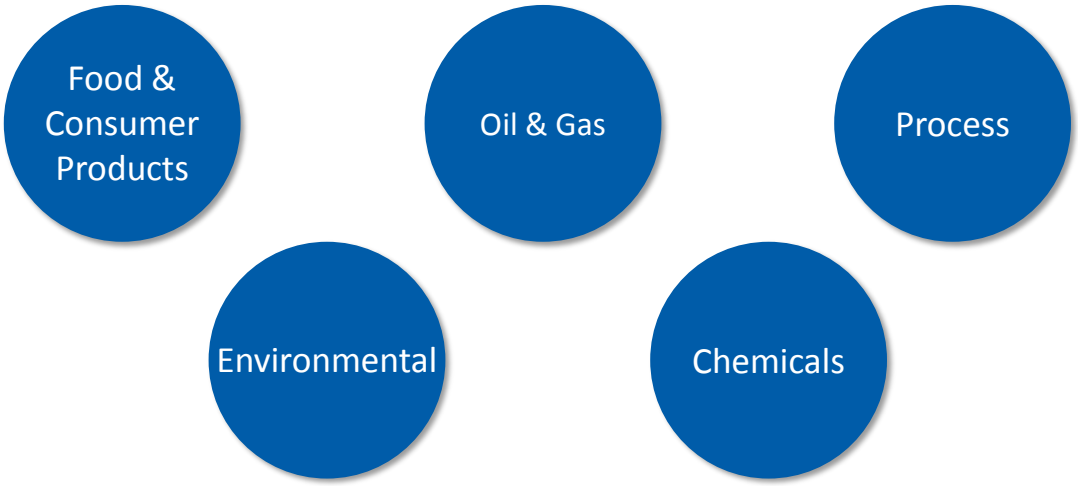
Kansas State University

B.S. Chemical Engineering

Started at Burns & Mac in 2015

Favorite Teacher:

Chemical Engineering



Project: Ice Cream Novelty Production Line
Client: Confidential
Location: Midwest

Our team designed the front-end planning documents followed by design-build execution of a new extruded novelty ice cream line. This project included chocolate and mix delivery, ammonia refrigeration design, and process and packaging equipment layout.
Project features included: repurposed glycol-cooled water-ice silos into ammonia-cooled dairy silos, provided refrigeration design to integrate new freezing equipment into existing -50°F ammonia refrigeration system, developed layout for an outdoor hardening tunnel and expanded chocolate room flow panel and water-jacketed chocolate lines to accommodate new chocolate delivery lines.

http://www.burnsmcd.com/projects/ice-cream-novelty-production-line

Project: Benzene Reduction
Client: Valero Energy
Location: McKee, Texas; St. Charles, Louisiana; Memphis, Tennessee

Valero worked closely with our team to meet the Environmental Protection Agency Mobile Source Air Toxics (MSAT2) regulations for its McKee refinery. In order to achieve this, a new reformate splitter unit was designed and constructed and integrated into the refinery. This project was executed for three geographically dispersed refineries within the Valero system. Major project components included the reformate splitter and modularized associated equipment, interconnection of piping to the refinery, storage tank design and construction and rail loading facilities.

http://www.burnsmcd.com/projects/benzene-reduction

Project: NGL Fractionation Train
Client: ONEOK
Location: Mount Belvieu, TX

ONEOK increased its presence in the Mont Belvieu natural gas liquids (NGL) fractionation market with the installation of a grassroots 75,000 barrels per day (BPD) fractionation unit, designed and constructed by our team. Design began in the conceptual phase (FEP-2) and progressed through detailed scope (FEP-3) to produce a definitive cost estimate (±10%). We also executed detailed design, procurement and construction for the project.

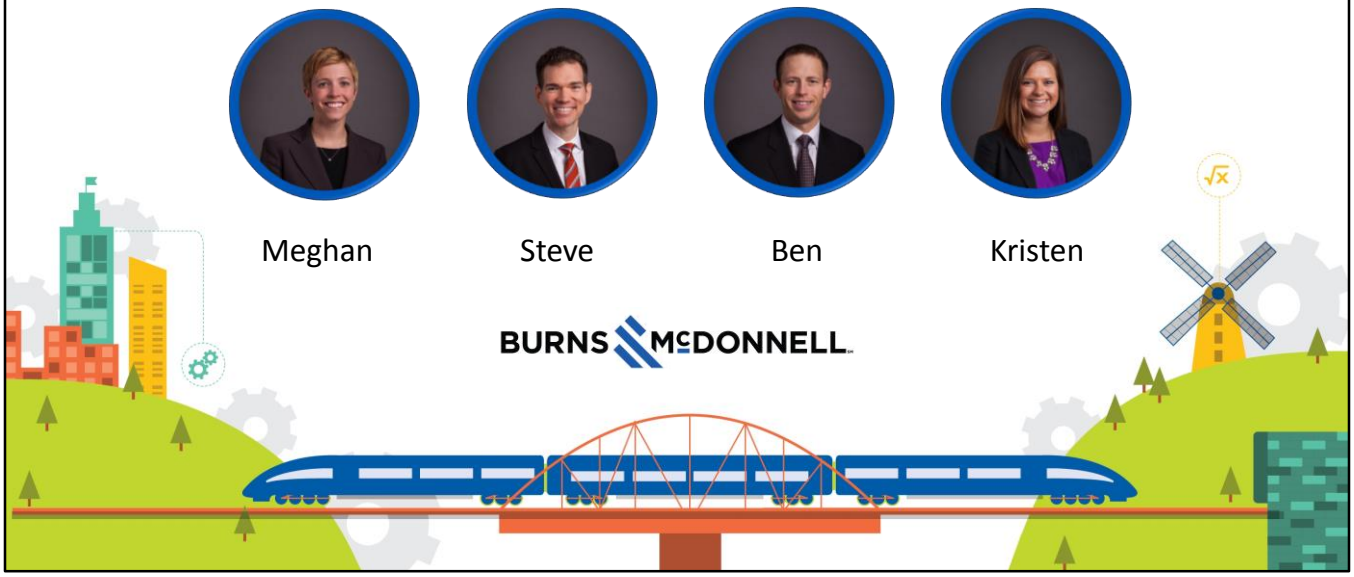
http://www.burnsmcd.com/projects/ngl-fractionation-train

Project: Deep Cutpoint
Client: ConocoPhillips
Location: Ponca City, OK

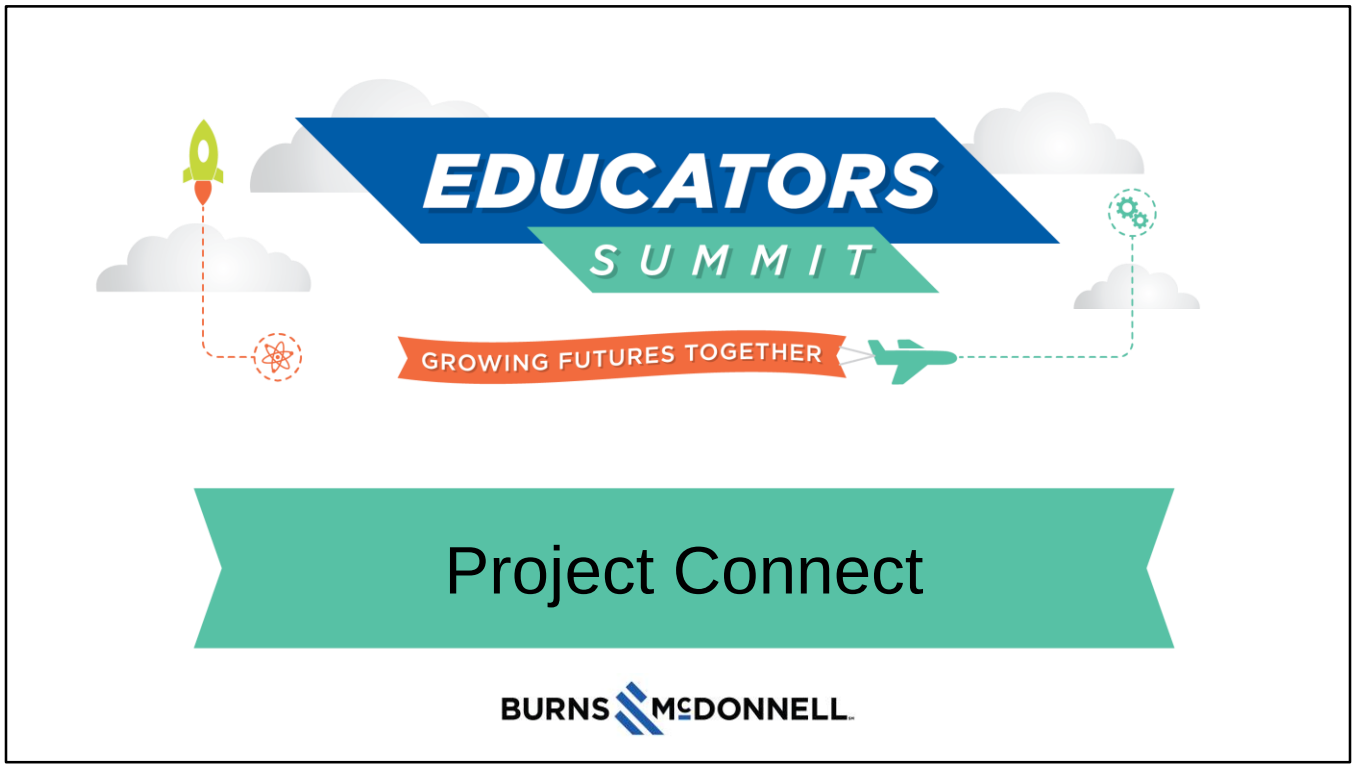
ConocoPhillips desired to improve its capabilities of processing heavy crude oils in its Ponca City Refinery and contracted our team to develop FEP-1, FEP-2 and FEP-3 studies to determine the best way to achieve these results. The FEP efforts also provided ConocoPhillips with estimates for project capital costs.
The final scope of the project consisted of a new vacuum tower, new vacuum furnace, new vacuum system, and new pumps and exchangers along with upgraded piping, instrumentation, foundations and structural steel. The project also expanded the crude unit substation and upgraded the control system to accommodate the new equipment.
One of this project's major accomplishments was Burns & McDonnell's plan for installing the new 22-foot diameter vacuum tower in the same location as the existing 15-foot vacuum tower during a normal turnaround window. Burns & McDonnell civil/structural and process engineers developed a solution that allowed the new vacuum tower to be placed on the old foundation without major modifications to the foundation. The new vacuum tower and furnace were constructed on site.

http://www.burnsmcd.com/projects/deep-cutpoint

Understanding Engineering Disciplines



Q&A



One of the coolest things we offer our clients is the ability to provide a wide range of services across multiple industries to our clients. During this presentation, we're going to show you how our multidisciplined teams merged their diverse skills on one project – Simple Machines At Play – the first outdoor exhibit built by our team at Science City.

Victoria Beaulieu

Staff Interior Designer/Space Planner, Global Facilities

Kansas State University

M.A. Interior Architecture and Product Design

Started at Burns & Mac in 2012; Interned 2010-2011

Favorite Teacher: Mr. Bodiford, biology

Nicholas Pederson

Assistant Project Manager, Construction/Design-Build

Kansas State University

B.S. Construction Science & Management

Started at Burns & Mac in 2011; Interned 2010

Favorite Teacher: Mr. Pottroff, home improvement

Andy Gabbert

Senior Landscape Architect, Global Facilities

Kansas State University

B.S. Landscape Architecture

Started at Burns & Mac in 2011

Favorite Teacher: Mrs. Resseguie, choir

Dusty Burton

Senior Civil Engineer, Global Facilities

Kansas State University

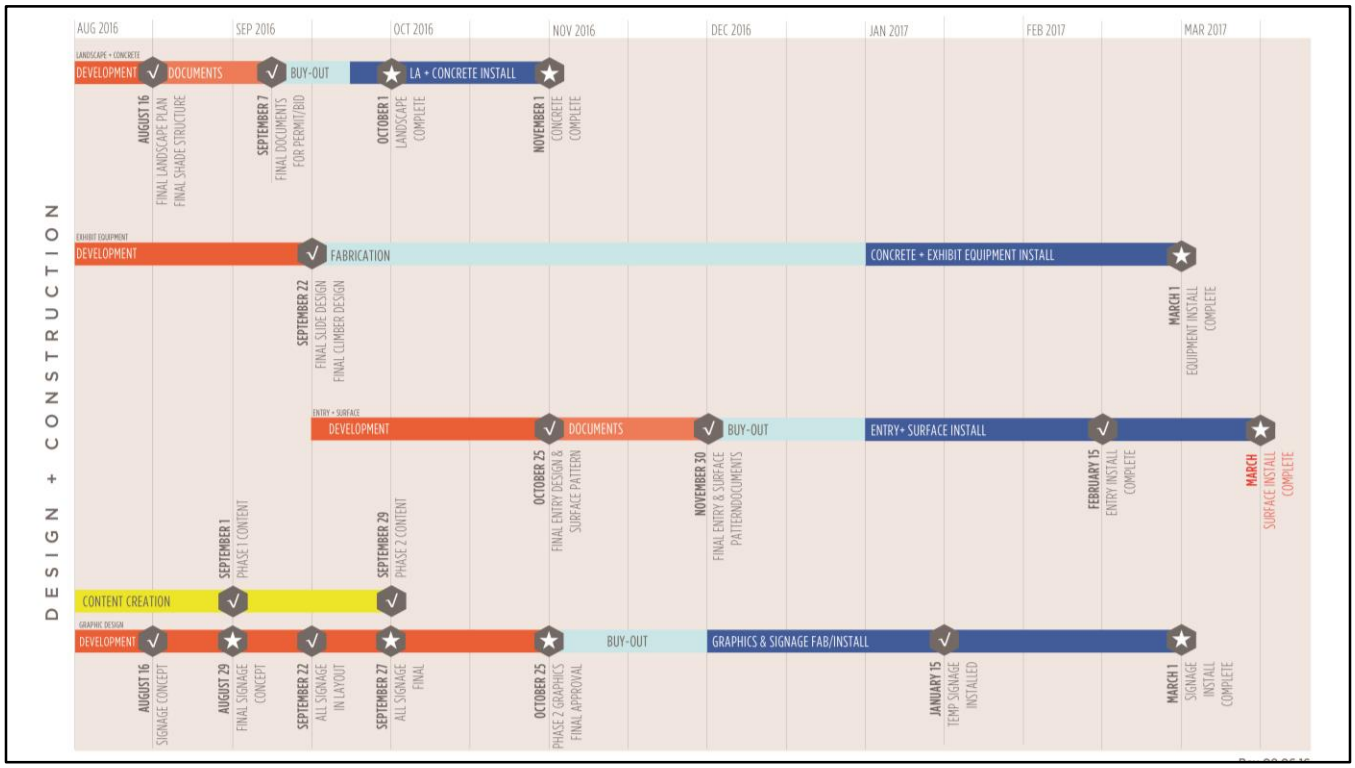
B.S. Civil Engineering

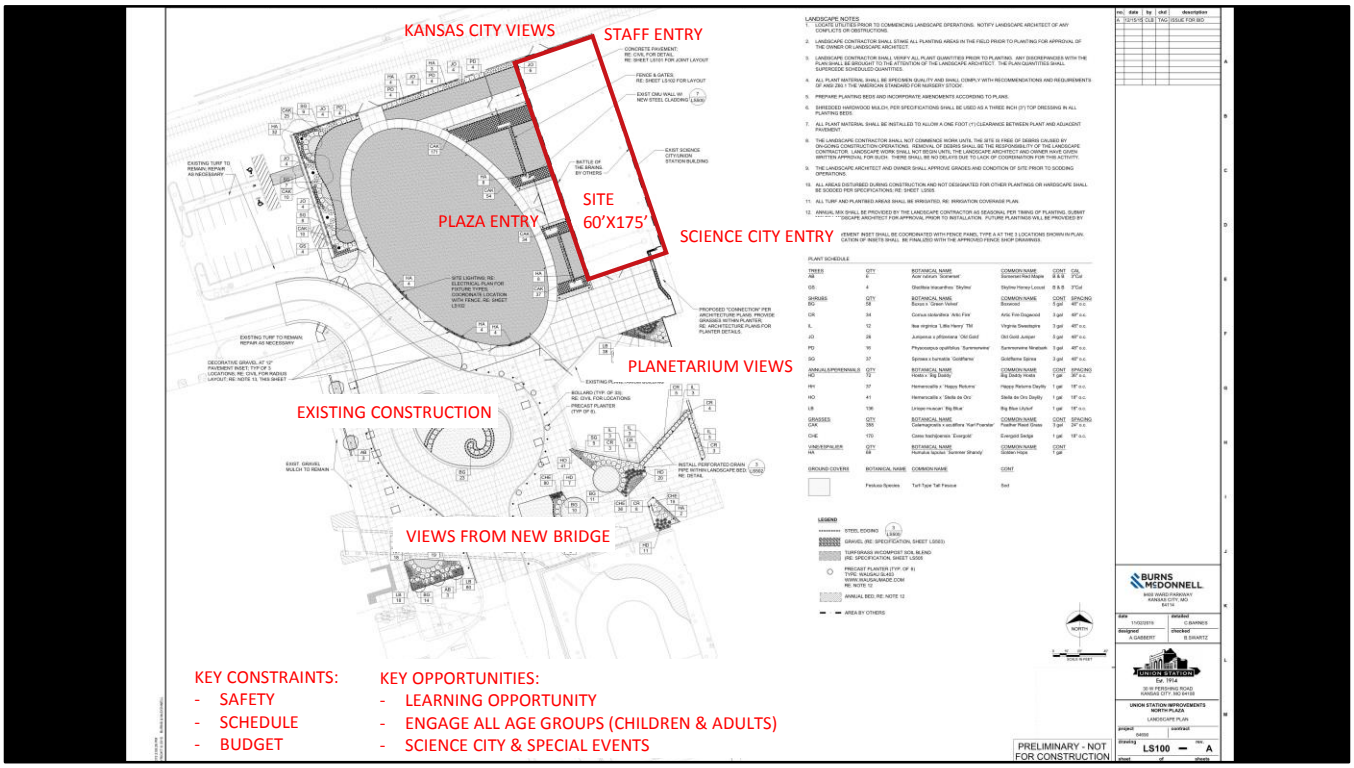
Started at Burns & Mac in 2015

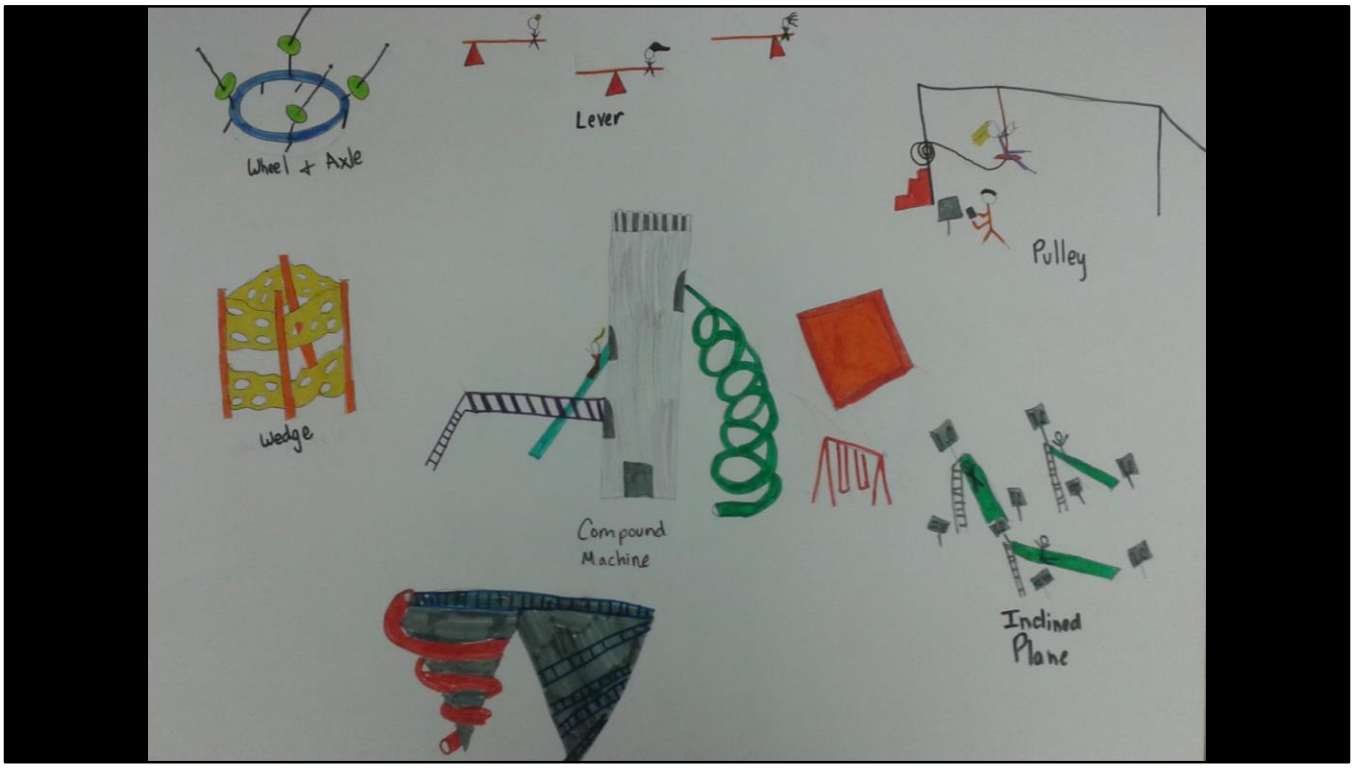
Favorite Teacher: Mrs. Archuleta, 4th grade

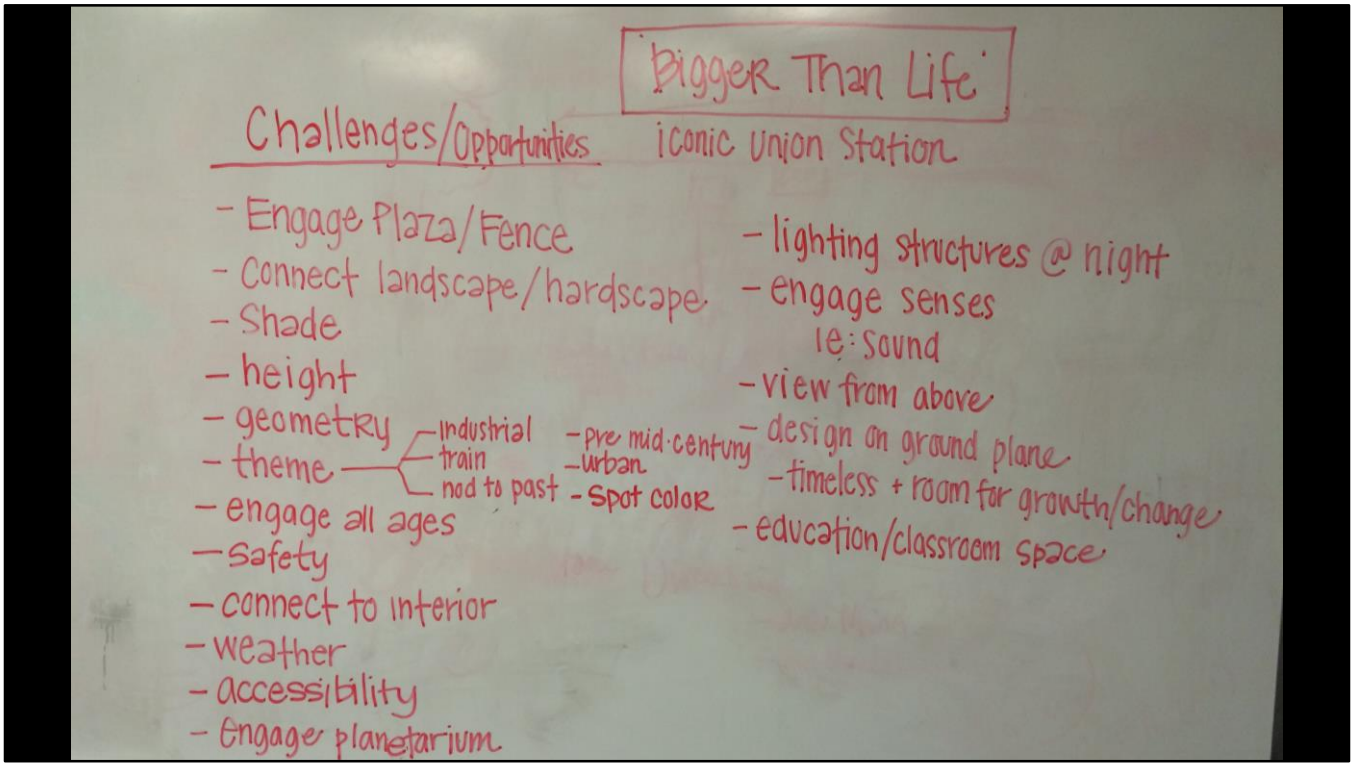
Project Process

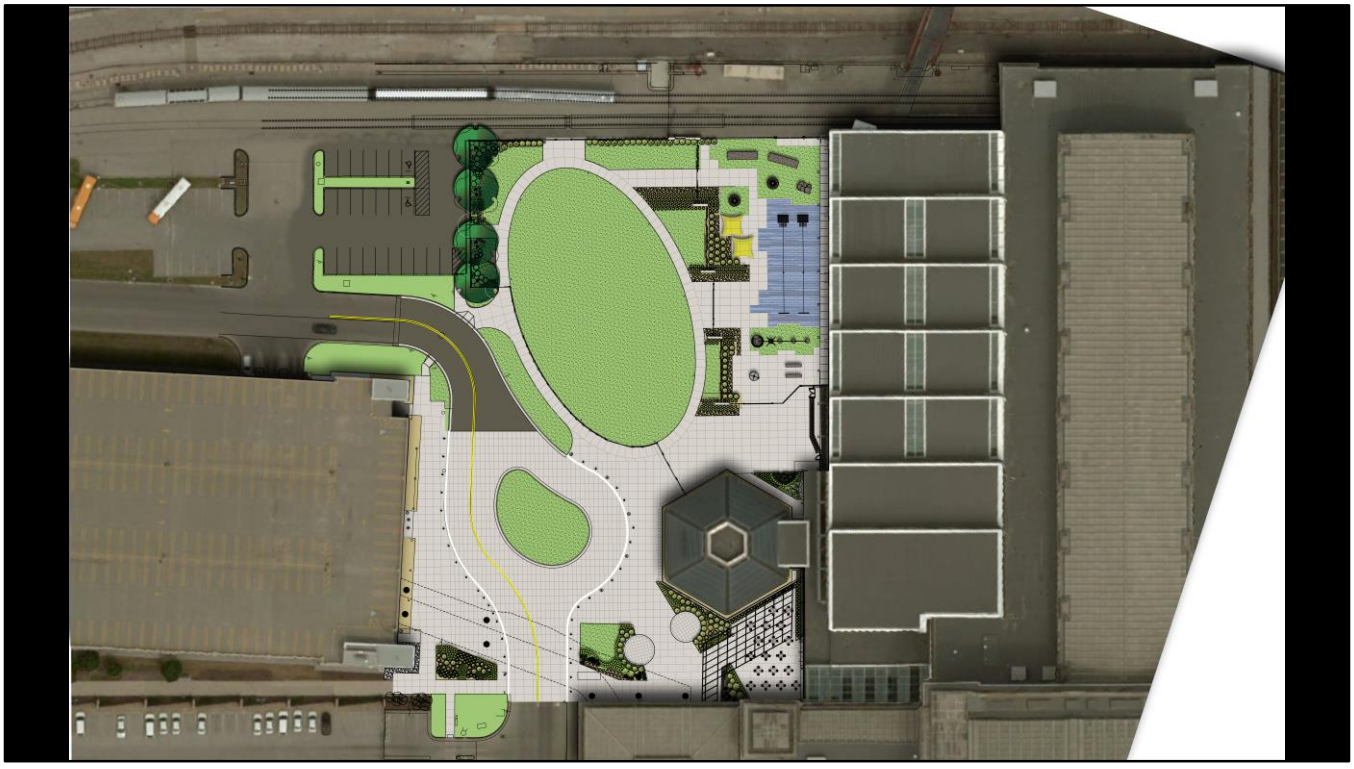
- Programming
- Information gathering
- Schematic design
- Design development
- Construction documentation
- Bidding
- Construction

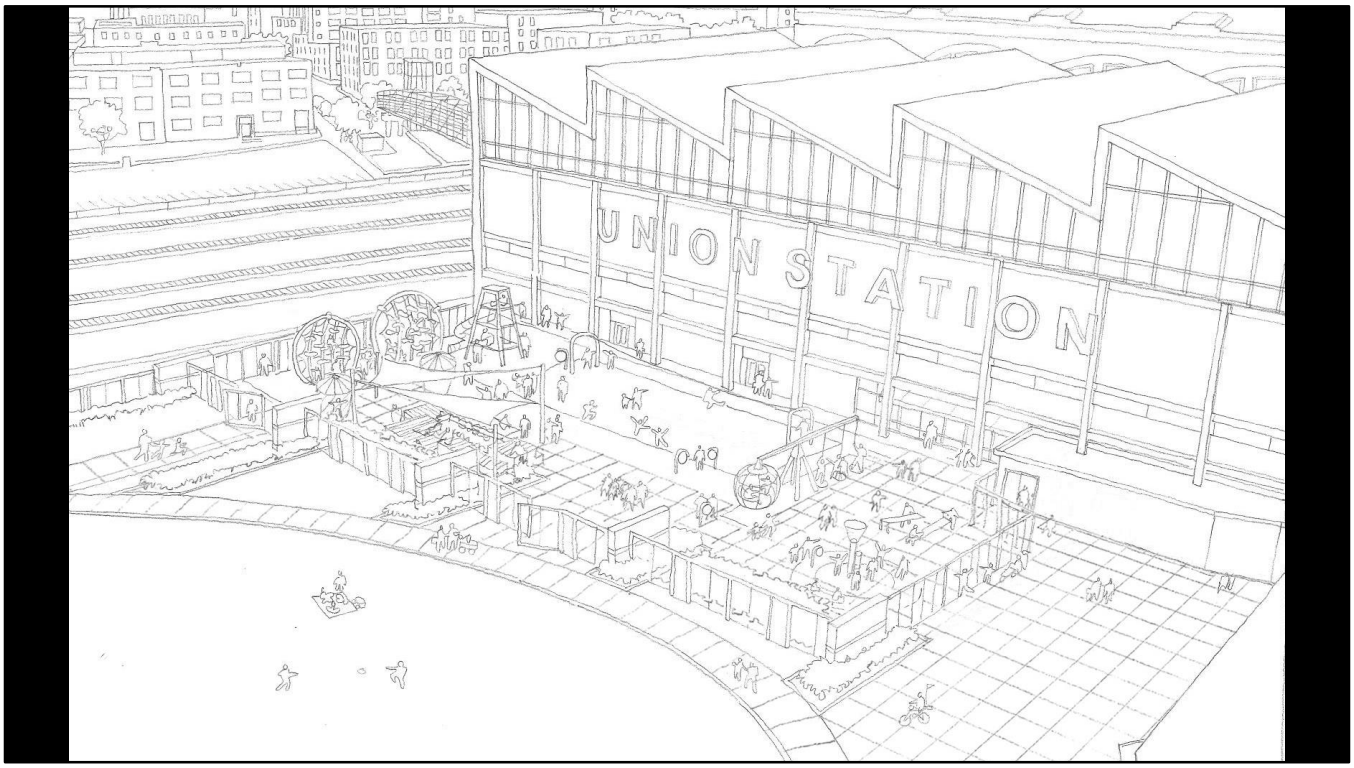

DESIGN + CONSTRUCTION
AUG 2016
SEP 2016
OCT 2016
NOV 2016
DEC 2016
JAN 2017
FEB 2017
MAR 2017
LANDSCAPE + CONCRETE
DEVELOPMENT
DOCUMENTS
BUY-OUT
LA + CONCRETE INSTALL
AUGUST 16
FINAL LANDSCAPE PLAN
FINAL SHADE STRUCTURE
SEPTEMBER 7
FINAL DOCUMENTS FOR PERMIT/BID
OCTOBER 1
LANDSCAPE COMPLETE
NOVEMBER 1
CONCRETE COMPLETE
EXHIBIT EQUIPMENT
DEVELOPMENT
FABRICATION
CONCRETE + EXHIBIT EQUIPMENT INSTALL
SEPTEMBER 22
FINAL SLIDE DESIGN
FINAL CLIMBER DESIGN
MARCH 1
EQUIPMENT INSTALL COMPLETE
ENTRY + SURFACE
DEVELOPMENT
DOCUMENTS
BUY-OUT
ENTRY+ SURFACE INSTALL
OCTOBER 25
FINAL ENTRY DESIGN & SURFACE PATTERN
NOVEMBER 30
FINAL ENTRY & SURFACE PATTERNDOCUMENTS
FEBRUARY 15
ENTRY INSTALL COMPLETE
MARCH
SURFACE INSTALL COMPLETE
SEPTEMBER 1
PHASE 1 CONTENT
SEPTEMBER 29
PHASE 2 CONTENT
CONTENT CREATION
GRAPHIC DESIGN
DEVELOPMENT
BUY-OUT
GRAPHICS & SIGNAGE FAB/INSTALL
AUGUST 16
SIGNAGE CONCEPT
AUGUST 29
FINAL SIGNAGE CONCEPT
SEPTEMBER 22
ALL SIGNAGE IN LAYOUT
SEPTEMBER 27
ALL SIGNAGE FINAL
OCTOBER 25
PHASE 2 GRAPHICS FINAL APPROVAL
JANUARY 15
TEMP SIGNAGE INSTALLED
MARCH 1
SIGNAGE INSTALL COMPLETE


KANSAS CITY VIEWS
STAFF ENTRY
SITE
60'X175'
PLAZA ENTRY
SCIENCE CITY ENTRY
PLANETARIUM VIEWS
EXISTING CONSTRUCTION
VIEWS FROM NEW BRIDGE
KEY CONSTRAINTS:
- SAFETY
- SCHEDULE
- BUDGET
KEY OPPORTUNITIES:
- LEARNING OPPORTUNITY
- ENGAGE ALL AGE GROUPS (CHILDREN & ADULTS)
- SCIENCE CITY & SPECIAL EVENTS
PRELIMINARY - NOT FOR CONSTRUCTION
LS100

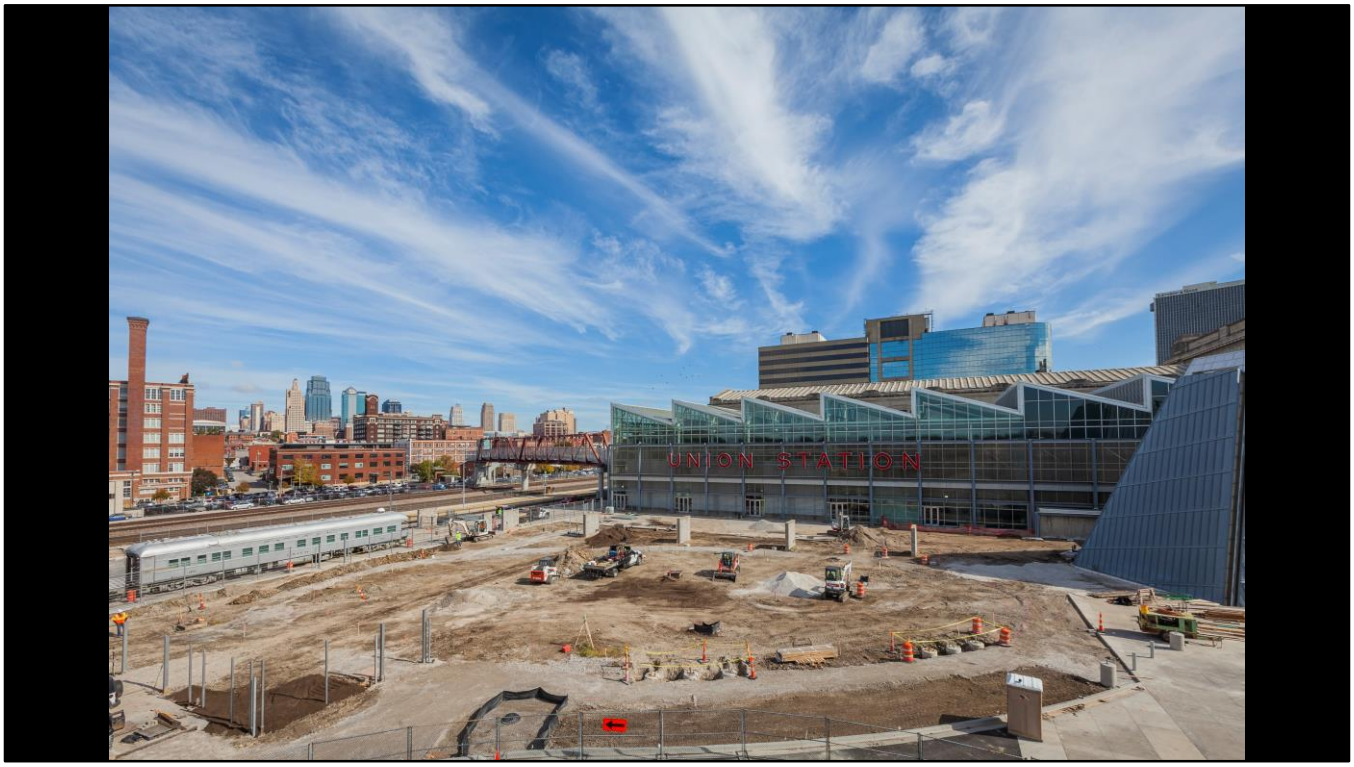

Wheel + Axle
Lever
Pulley
Wedge
Compound Machine
Inclined Plane


Bigger Than Life
Challenges/Opportunities
iconic Union Station
- Engage Plaza/Fence
- Connect landscape/hardscape
- Shade
- height
- geometry
- theme
- Industrial
- train
- nod to past
- pre mid-century
- urban
- Spot color
- engage all ages
- safety
- connect to interior
- weather
- accessibility
- Engage planetarium
- lighting structures @ night
- engage senses
ie: sound
- view from above
- design on ground plane
- timeless + room for growth/change
- education/classroom space

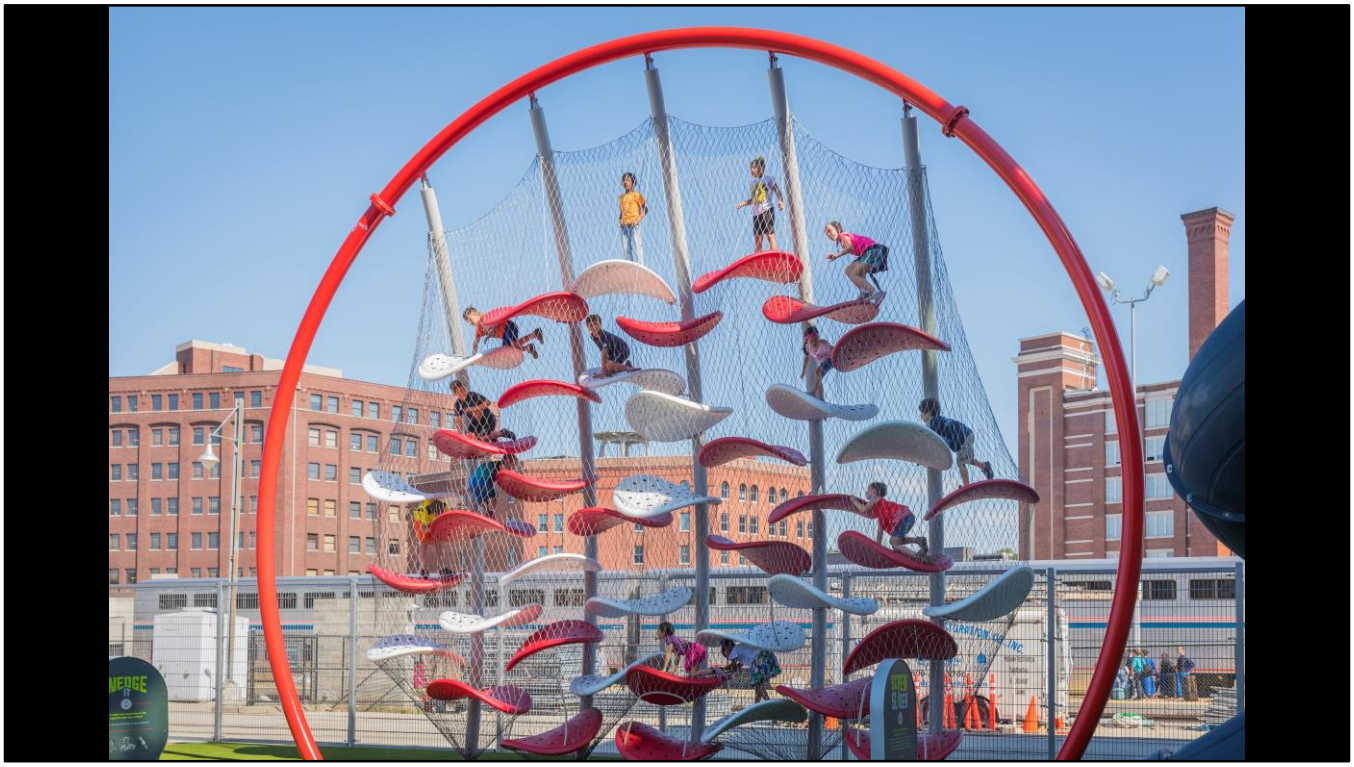



UNION STATION


UNION STATION


UNION STATION


TAKEUCHI
TB290



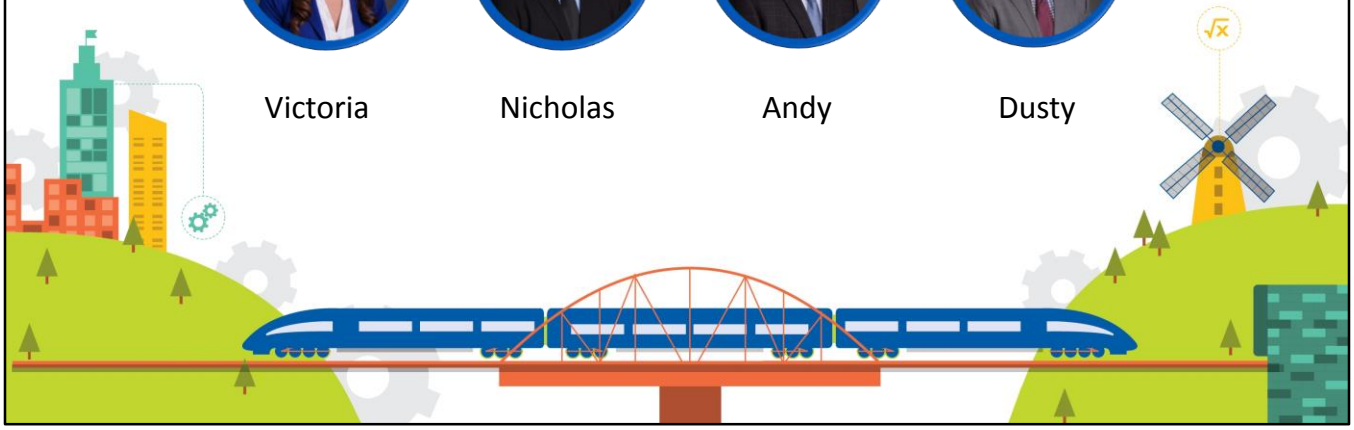
Project Connect


Victoria


Nicholas


Andy


Dusty



Q&A

Final Thoughts

BURNS McDONNELL

Julee Koncak

Director, Burns & McDonnell Foundation

University of Kansas

B.S. Journalism

Started at Burns & Mac in 2004

Favorite Teacher: Mr. Ryan, middle school science