



LEAN IN DESIGN FORUM
MAY 1-2, 2024

#LCIDesign24

Lean Into Design Thinking How to Deploy a Design Thinking Lean Process with New Friends



P2SL

Bernita Beikmann, HKS + Andrea Sponsel, HKS

May 2, 2024

Let's be F•R•I•E•N•D•S



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Process Improvement Strategies Leader
HKS, Inc

Bernita Beikmann
Chief Delivery Officer
HKS, Inc







- **Let's be F•R•I•E•N•D•S** – Why Ice Breakers are a great place to start
- **“How You Doin?”** - Introducing a new approach
- **“Welcome to the Real World”** - Design thinking in action
- **“Pivot!”** - Tools to use for Change
- **“I wish I could, but I don't want to”** – Dealing with resistance

Let's be F·R·I·E·N·D·S

- **Start with an Ice Breaker – but first explain the science behind it**
 - They're not “fluff”
 - They encourage participation by all
 - Relieve tension
 - Build relationships – common connections
 - Clears the mind
 - **Build trust**
- <https://journals.sagepub.com/doi/10.1177/104515951002100305>



Let's be F·R·I·E·N·D·S

-  The last book you read
-  What energizes me at work
-  An invention that changed your life
-  The last thing you watched (movie or TV)
-  Your favorite restaurant or cuisine
-  My favorite pastime is...



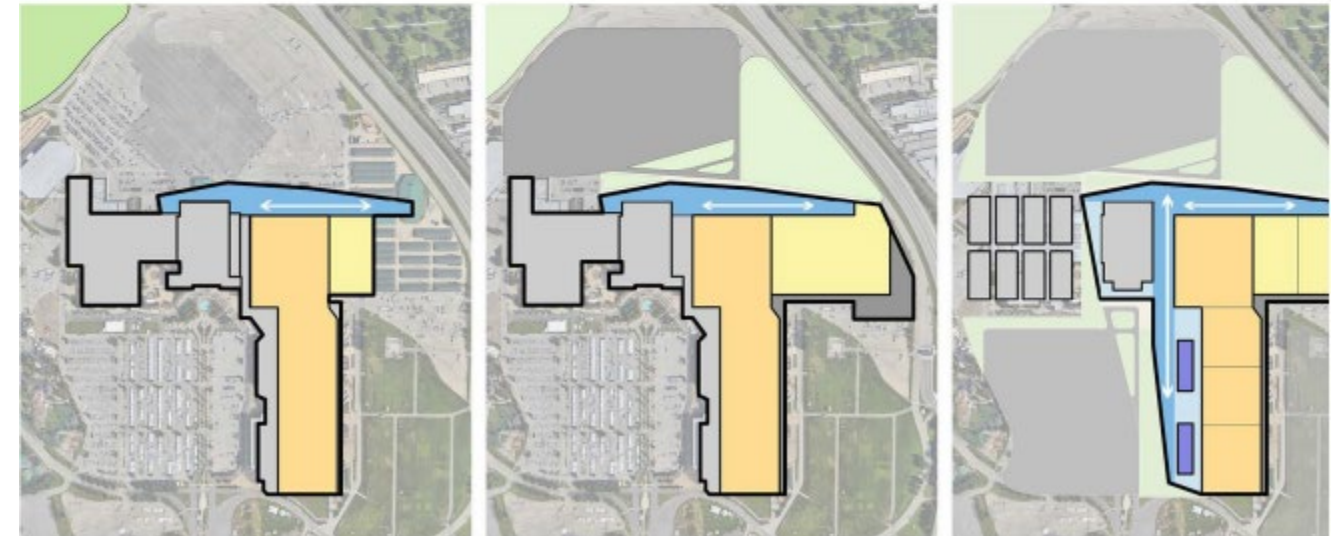


**Introducing a
New Approach**

How you doin'?

Here's a story.....

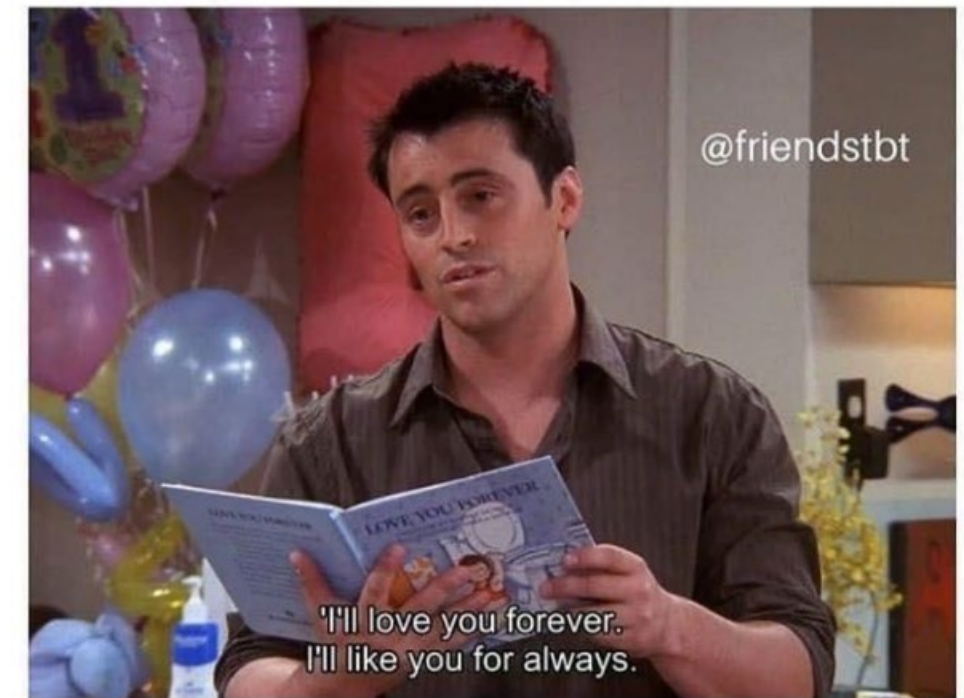
- A project won by a lone wolf, who put together a team of teams to deliver work in the best way....



Here's a story.....

- Design Partners
 - Local Architect
 - MEP
 - Local Structural Engineer
 - Local Civil Engineer + Landscape
 - Animal and Equine Architect
 - Kitchen Consultant

When someone understands
your Friends references.





Building a Team

Enabling Decision Making



Documentation of Operations:
How they want it to work- this becomes the test for design options



Documentation Team Recommendations
Design Decisions- this allows the client to make a decision with all the information summarized



A3s

Team Introductions

Name
Role on the Project
Years of Industry Experience



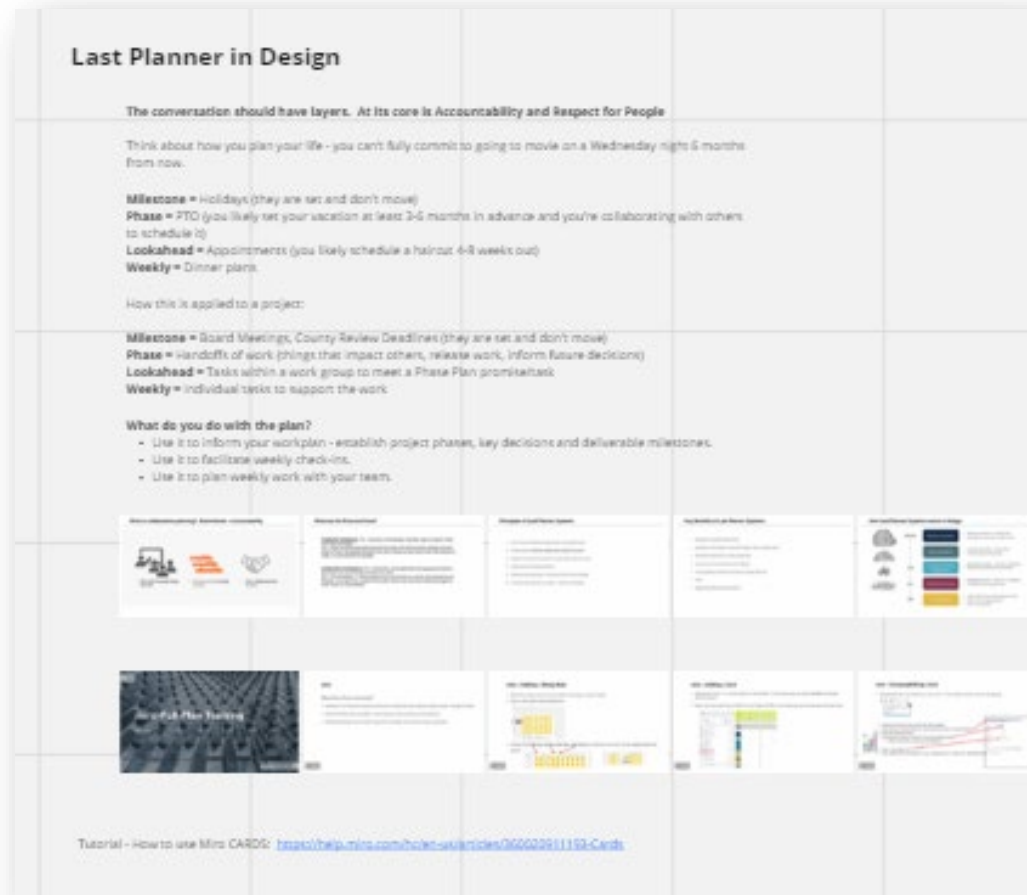
What do we know about KEC?
What do we need to find out?



A get to know you with a **purpose**

Lean training starting with the **why**

Building a Team

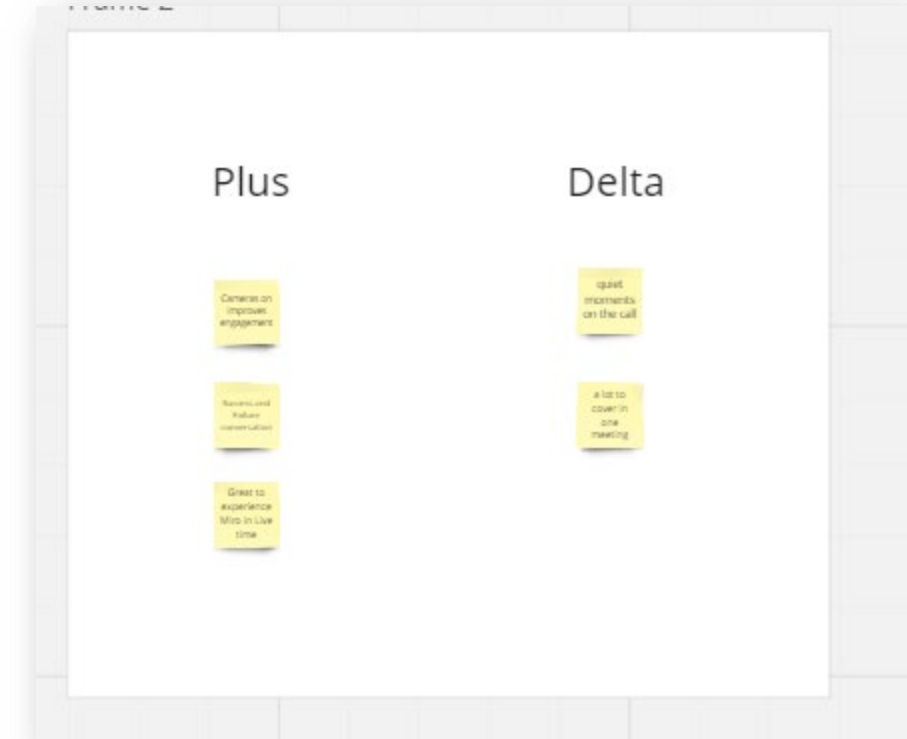


Lean training modeled for the team

jumped into the how

How do we want to behave?

Team Behaviors			
What are the key team behaviors we need on this project?	Define it	What does success look like?	What are signs of failure?
Communication			
Acceptance of all ideas			
Flexibility			
Cooperation			
Dedication			
Fun + Positivity			
Coordination			
Socialization			
Responsiveness			
Time Management			
Amazing Design			
Trust			



What do we want to **see** and what does it **mean**

Constant **assessment/ adjustment**

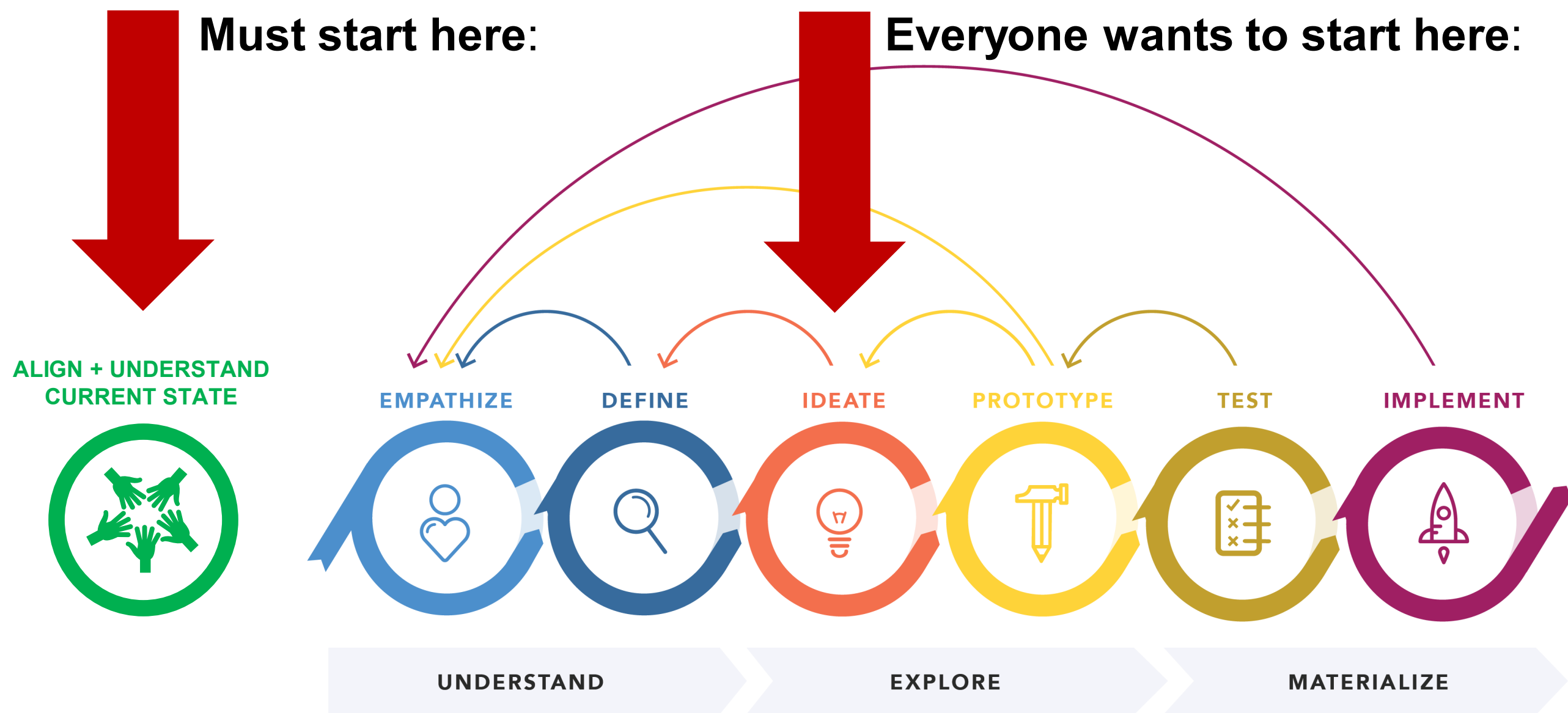
Design Thinking

A still from the television show Friends. Rachel Green, played by Jennifer Aniston, is looking up at her friends with a surprised expression. She is wearing a white t-shirt under a patterned apron. To her left, Chandler Bing, played by Matthew Perry, is leaning forward with a smile, wearing a white t-shirt and a dark vest. Behind Rachel, Monica Geller, played by Courteney Cox, is smiling and has her hand on Rachel's shoulder. She is wearing a white t-shirt. The background shows the interior of Central Perk, with a brick wall and a sign that says "HOMER'S SINGLES".

“Welcome to the real world! It sucks. You’re gonna love it.”

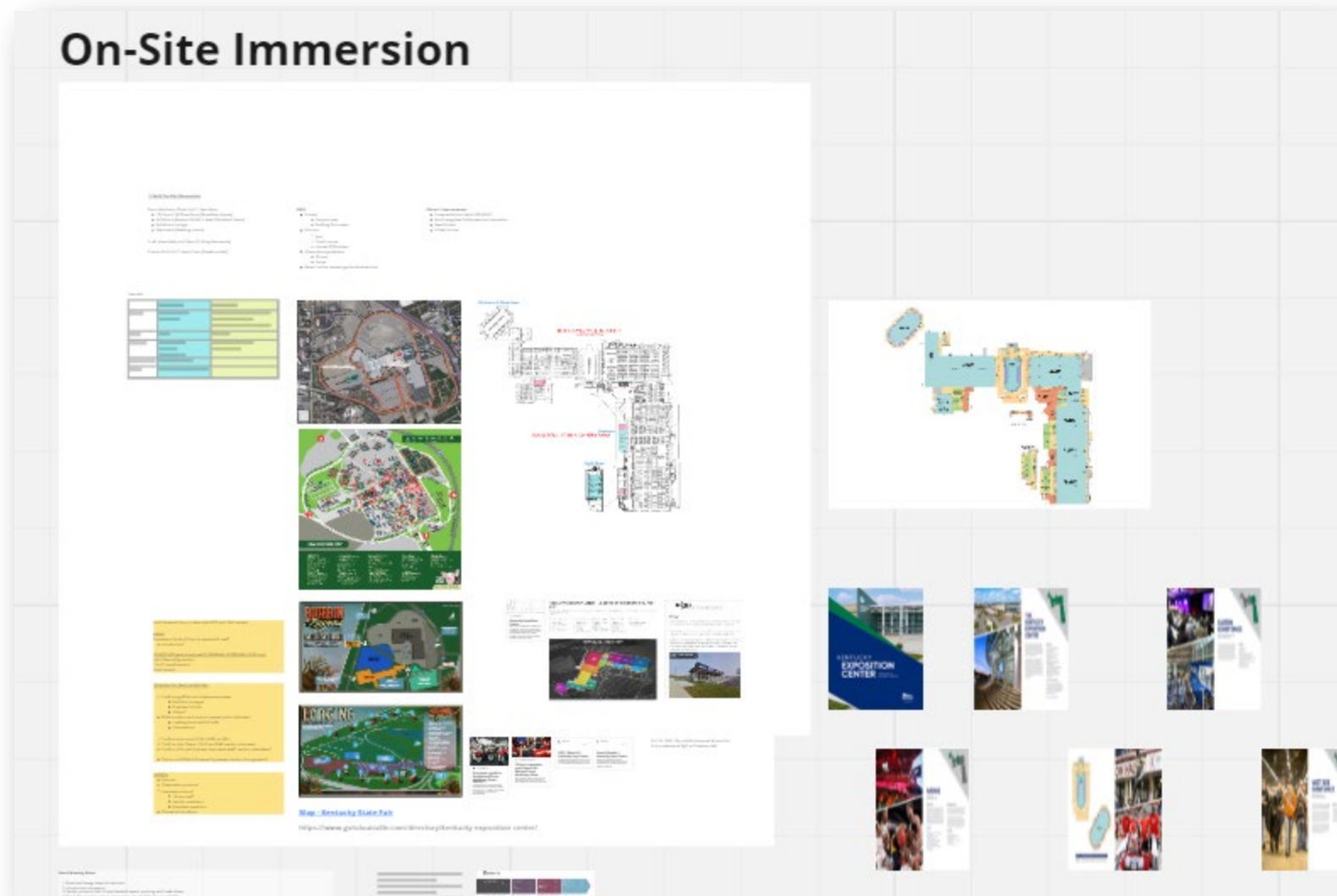


Design Thinking 101



Research the place

- Research your site possibilities
- 4-part study
 - **Investigate**
 - Key stakeholder interviews
 - Day-in-the-life scenarios
 - **Explore**
 - Options for master plan layouts
 - Mobility consultant
 - **Recommend**
 - Implementation matrix
 - **Document**
 - Formalize legacy of decision making and context of priorities



Go to the Gemba

- Lean problem solving strategies work for Design Thinking too

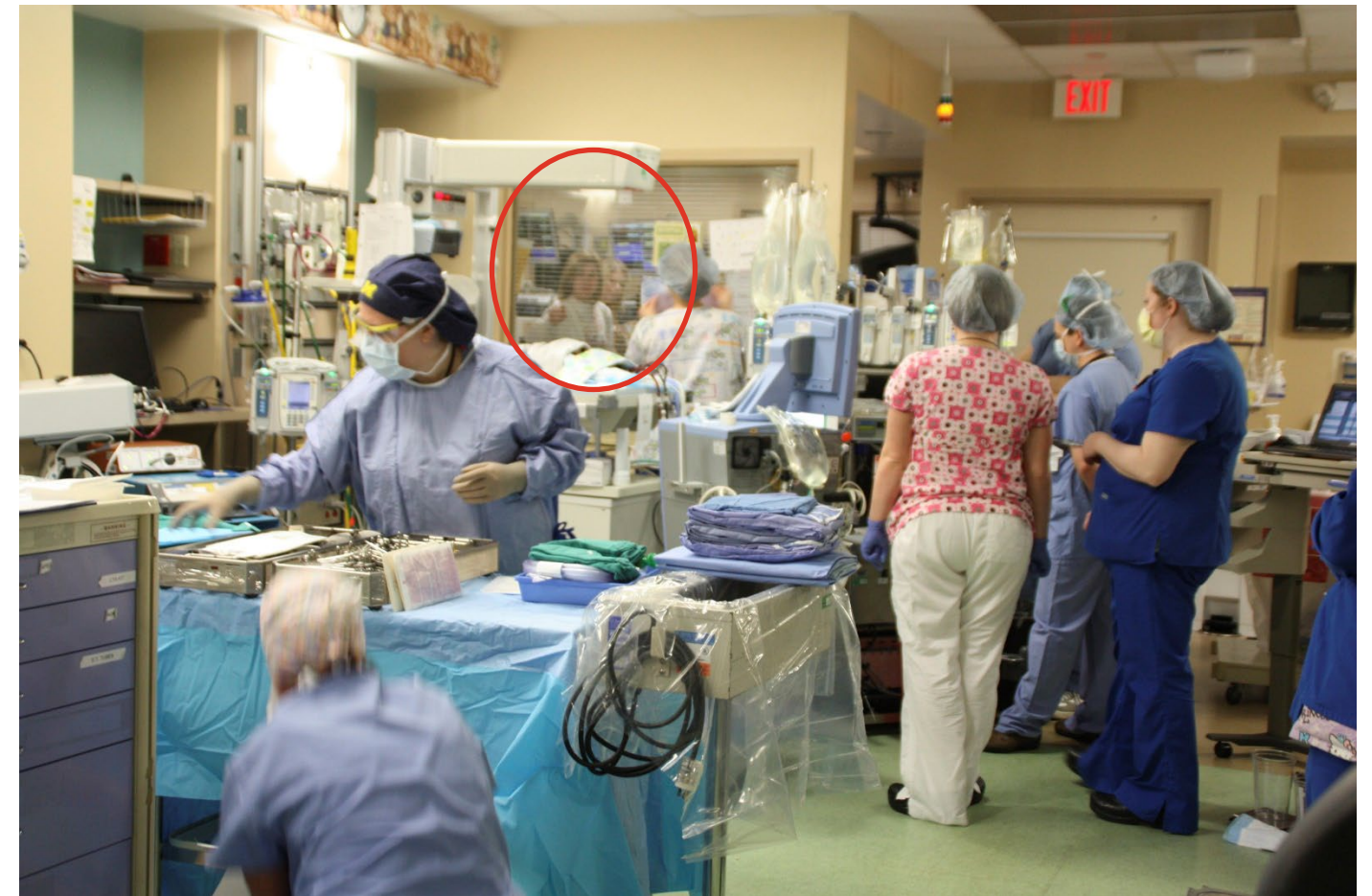
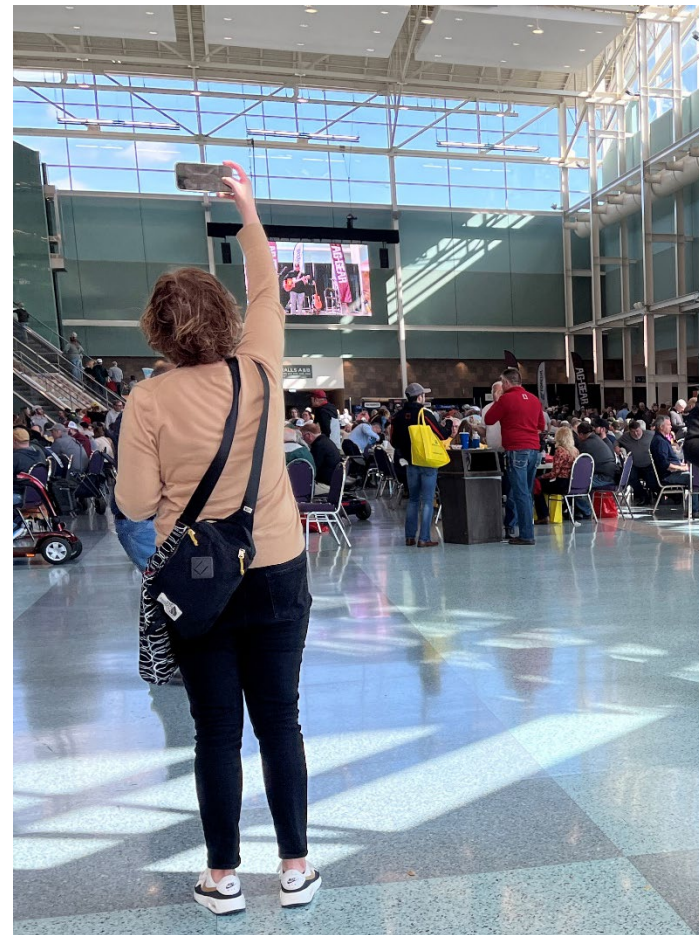
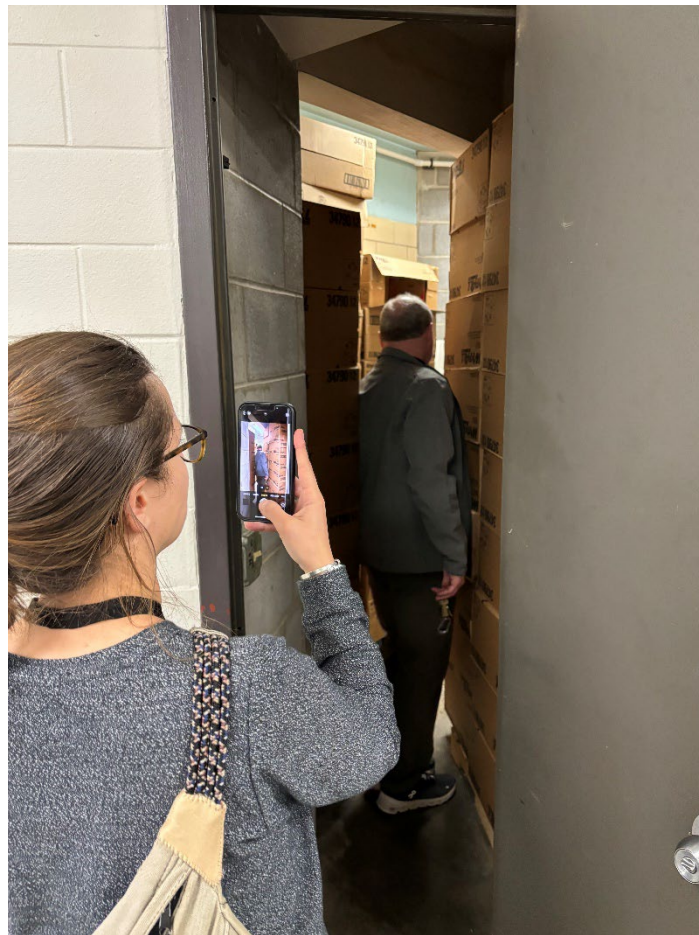


Talk to the Real Customers



Observe the Real Customers

- How are they working in the best and worst situations?



Engage with the Real Customers

- No person is too small or too hairy 😊



What places inspire us?

- Create a way to bridge communication with common understanding of places
- Ask Why?

Experience Exemplars

Ideal State



Follow-Up Needed

- Retail trends
- Expo best-in-class examples

Industry Adjacent

TRYON
INTERNATIONAL EQUESTRIAN CENTER & RESORT

Regional Resort: training and competition venue, historic steeplechase, local riding and hunt club affiliation, resort (e.g., cabins/RV, dining, fitness, seasonal events)

'Celebrate the magic of the horse, from carousel to competition and beyond'

IRISH NATIONAL STUD & GARDENS

Humble Heritage: manicured grounds, equine services and educational courses, immersive exhibit, gardens, dining, kids zone, private venue rental, summer theater series, nationally owned

'Deliver the consumer-focused commercial success required to promote and protect the racehorse, the natural environment and our unique heritage'

Outside Industry

Disney

Masterfully Magical: invisible back-of-house; 'cast' of team members; differentiated parks/lands; intentional age variations; family-friendly; tradition and new; repeat and visit-them-all 'guests'

'Happiest Place on Earth'

IKEA

Approachably Aspirational: immense amount of choice, curated arrangements, look/touch/try out, day-long destination (e.g., products, child care, F&B); product selection & installation services

'Creating a better daily life for many people.'

CIRQUE DU SOLEIL

Wildly Whimsical: cast is part of your crew; there is no intermission; change-overs/ transitions are a visible part of the transformation

'Invoke the imagination, provoke the senses and evoke the emotions of people around the world.'

Chick-fil-A

Easily Efficient: streamlined order & pick-up process; long-tenured associates; loyalty program; high-quality and consistent service & offerings

'Be America's best quick-service restaurant at winning and keeping customers.'

SCIENCE MUSEUM

Immersive Exploration: informal and exploratory learning, public research participants, extensive artifact inventory, school visits/ field trips, venue hire for private events

'Bring science and technology closer to the public in an interactive and accessible way.'

Additional

BILTMORE

Timeless, well-maintained

KY High School Basketball Hall of Fame

KFC Bourbon Kentucky Derby

Farmer's market

Gaylord Opry Convention Center - Brand Experience

PLACE	RELEVANT ASPECTS	
IKEA	Large indoor space, subconsciously curates path but ability to chose your own adventure, exploring vs. maze, F&B, childcare	
Mall of America	Large indoor space, retail + entertainment + amusement park, changes seasonally	
Disney	Hidden BOH, curated FOH, 'cast members' are everyone,	
Cirque du Soleil	Small scale, efficient and seamless real time set changes, hidden BOH,	
Warner Bros. World Abu Dhabi		
SeaWorld Abu Dhabi	THEA award Large indoor, animal shows, extensive staff; fixed and show experiences, event activities, family friendly, tourism driver, fit within larger regional development plans	SeaWorld
Sofi/Cosm	Indoor/outdoor, walkable,	
Irish National Stud & Garden	THEA award	
Stadium Hotel		
The Jockey Club/ Epsom Downs Racecourse	Racecourse used 8 days/yr and the remainder space (The Queen's Stand) is activated year round	
Glamping Study?		
Diriyah Gate Arena	Efficient use of technology for	
Zavidovo	Hospitality & Catering College; on-site training and pipeline to talents/workforce; *Story prepared from this; includes on-site housing for hospitality school	
Houston Livestock & Rodeo	Largest in the world; \$200M/month; show in football stadium + expo building for livestock; diverse crowds and events	
Cultural centers	Mixed use destination, performance aspect, scale events, marathon/race beginnings or ends, go to when you have nothing else to do, always events going on	
eSports Arenas		

Lean Documentation

- Why A3s?
- A design problem is a problem to solve using same logic as **A3 thinking** and it follows **design thinking** logic
- Captures the why

Background - Empathize

Current State - Define

Goals/Targets Analysis - Ideate

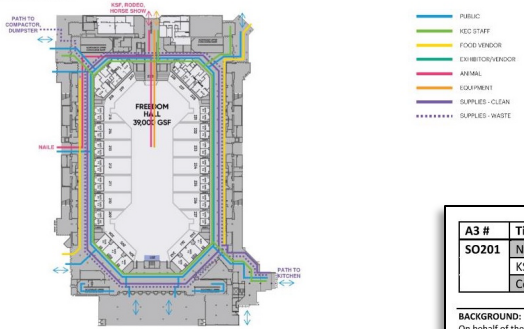
Countermeasures - Prototype- Test

Plan/Follow-up - Implement

A3 #	Title	Champion	Collaborators	Sign Off
FH200	Freedom Hall KSFB Property Improvements – Phase I Commonwealth of Kentucky for KSFB	Andrea Sponsel Date Opened: 02.15.2024 Issued: 00.00.00	GH2	Status: Documented

BACKGROUND:
On behalf of the Kentucky State Fair Board, The Commonwealth of Kentucky is seeking to develop, build, and renovate the Kentucky Exposition Center and supporting areas in a multiple phase approach. The current state assessment documents track experience and operational exemplars and challenges that will inform programming and future design development.

CURRENT STATE:



Utilization:

- % Per Year
- Uses
 - Basketball, Volleyball (hosted NCAA regional finals)
 - National Farm Machinery Show Championship Tractor Pull
 - State Fair, World Championship Horse Show
 - NAILE, Rodeo
 - MAC Trailer Winter Nationals
 - Monster Jam
 - Music Concerts
 - Gymnastics

Space Details:

- Year of Construction/Most Recent Major Renovation: 1984
- Arena Capacity: 6,500 People
- Square Feet: 39,000 GSF
- ADA accessibility is compliant although several undesignated ADA ramps are not compliant
 - Are any suites ADA accessible?
- 30 suites (accessible by stair from Level 1 concourse)
- 8 event room (includes 2 VIP rooms and 1 boardroom)

PARTICIPANTS:

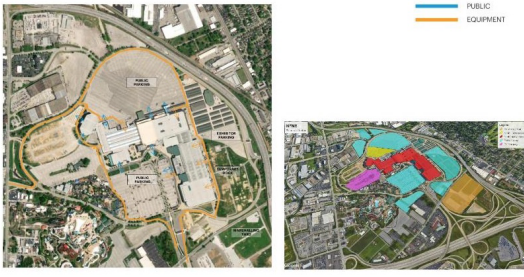
KEC
David Erwin
Tom Wright

HKS
Christine Marquis
Tony Montalto
Angela Ramer
Andrea Sponsel

A3 #	Title	Champion	Collaborators	Sign Off
SO201	National Farm Machinery Show (NFMS) KSFB Property Improvements – Phase I Commonwealth of Kentucky for KSFB	Andrea Sponsel Date Opened: 02.15.2024 Issued: 00.00.00		Status: Documented

BACKGROUND:
On behalf of the Kentucky State Fair Board, The Commonwealth of Kentucky is seeking to develop, build, and renovate the Kentucky Exposition Center and supporting areas in a multiple phase approach. The current state assessment documents track experience and operational exemplars and challenges that will inform programming and future design development.

CURRENT STATE:



Site Utilization:

- Full site activation for exhibitors, vendors, and food and beverage (minus Broadbent Arena, Newmarket Hall)
- Freedom Hall – select food and beverage and vendors open throughout the day – full activation for Tractor Pull
- West Wing – vendors + exhibitors
- North Wing – vendors + exhibitors
 - (Lobby) Primary Food Court
- South Wing – vendors + exhibitors
 - Show Admin Desk – Fern Expo, IT, AV, Electric, Freight
 - (Mezzanine) Craft Market
 - (L1 Seminar Rooms) Exhibitor Lounge, Seminars, Media Lounge
- Parking
 - Lot D - Exhibitors

Onsite catering is not affordable for some exhibitors – have to coordinate other options for their teams

Retailers don't always have strong WiFi signals for credit card point of sale – had to go outside with person's credit card

Site Utilization:

- Full site activation for exhibitors, vendors, and food and beverage (minus Broadbent Arena, Newmarket Hall)
- Freedom Hall – select food and beverage and vendors open throughout the day – full activation for Tractor Pull
- West Wing – vendors + exhibitors
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 - (Mezzanine) Craft Market
 - (L1 Seminar Rooms) Exhibitor Lounge, Seminars, Media Lounge
- Parking
 - Lot D - Exhibitors

Participants:

KEC
Bobby Bell
Lexie Ratterman (Media Lounge)
xx (Media Lounge)
David Erwin
Tom Wright

HKS
Christine Marquis
Tony Montalto
Angela Ramer
Andrea Sponsel

CURRENT STATE FUNCTIONAL NEEDS/USES:

- Exhibitor Lounge(s): hospitality area (Levy's caters coffee, water, snacks), soft seating (rented for show), tables and chairs to work or take a break from show floor
- Seminar Rooms: Can be fully open or sectioned off, access to AV for presentations, podium, table for panelists, seating, list of events posted on board/easel outside room
- Media Room: staffed by KEC Communications Team all day for inhouse shows
 - Work Center for media – need internet (some guests still use ethernet), secure storage (monitor media equipment), scanning and printing offered, tables and chairs,
 - Interview space – reservable
 - Hospitality Area – Levy's caters breakfast and lunch, soft seating (rented for show)
- Media on the show floor – farm show tapings, podcasts in booths, radio shows

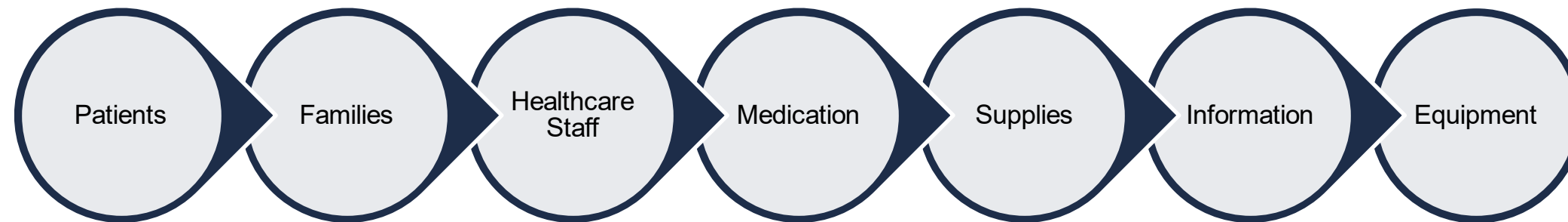
FUTURE STATE OPPORTUNITIES:

- For seminar rooms – permanent mounted digital room signage
- For media room – spaces for podcasts and interviews with proper lighting and acoustics, tables with power (work center)

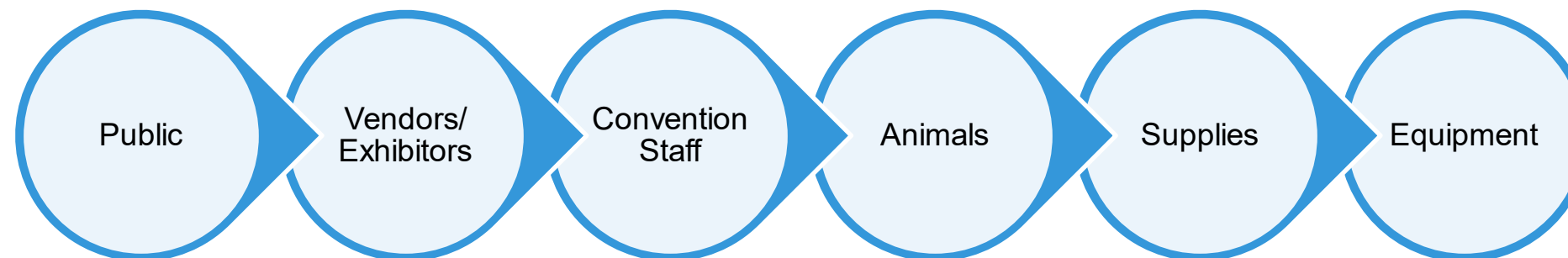
Change the
Tools

PIVOT!!!!

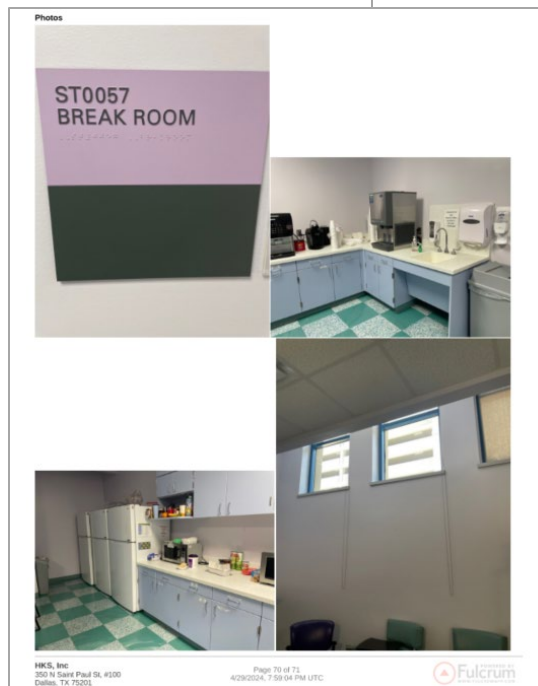
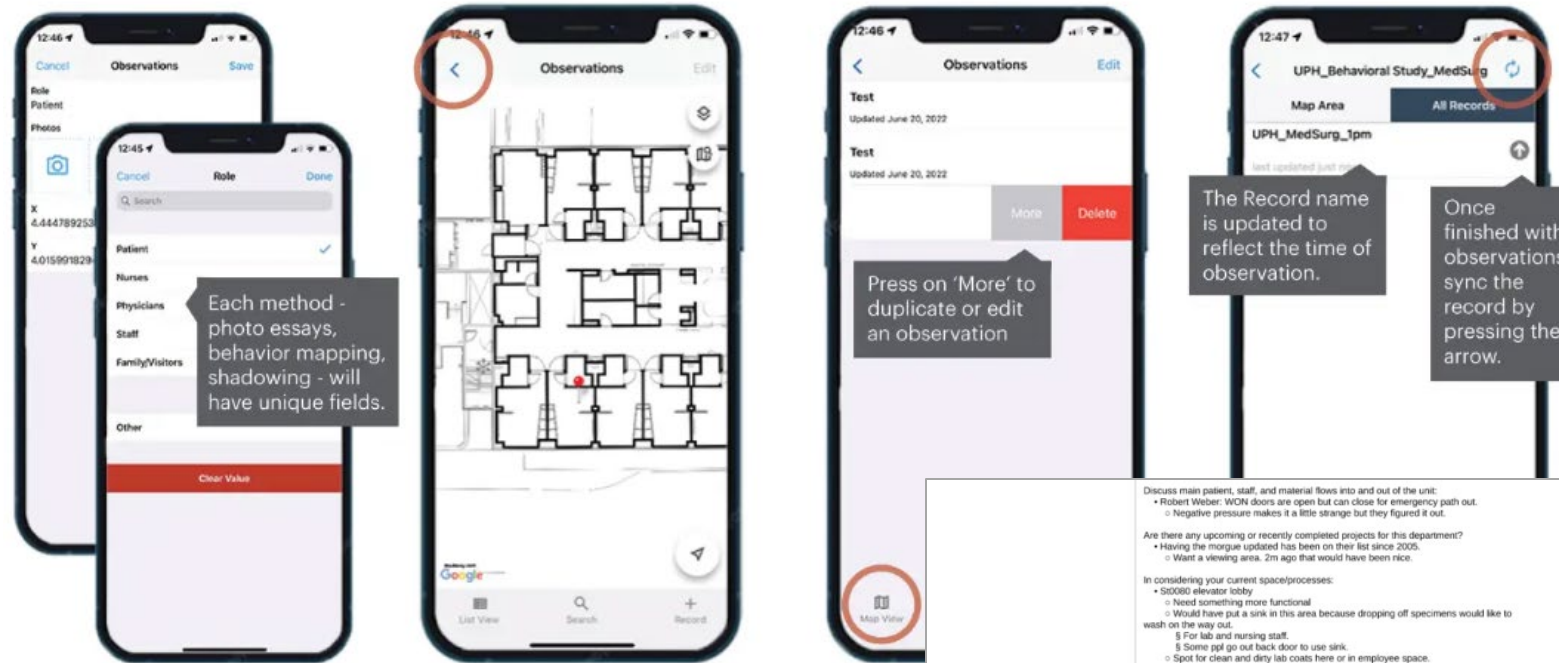
Seven Flows of Healthcare



The Flows of an Exposition Center



Gembas that leverage Technology



Discuss main patient, staff, and material flows into and out of the unit:

- Robert Weber: WON doors are open but can close for emergency path out.
- Negative pressure makes it a little strange but they figured it out.

Are there any upcoming or recently completed projects for this department?

- Having the morgue updated has been on their list since 2005.
- Want a viewing area. 2m ago that would have been nice.

In considering your current space/processes:

- S0000 elevator lobby
 - Need something more functional
 - Would have put a sink in this area because dropping off specimens would like to wash on the way out.
 - For lab and nursing staff.
 - Some ppl go out back door to use sink.
 - Spot for clean and dirty lab coats here or in employee space.
 - How do we manage clean and dirty comes up a lot.
 - Strong wind flow blows papers away.
 - Specimen drop-off window not sliding well. Just got replaced. No handle!
- 0020
 - Specimen route through window or tube station.
 - The neighboring team covers this side too and not enough communication.
 - ED core lab
 - Collecting blood out and about, core lab staff have to walk over to cover space. Difficult to cover.
 - Need higher volume PTS, 4 ducts for landing.
 - Showers are in weird places. Get tested weekly and it's hard to contain the spray.
 - Benches on wheels with power above works extremely well and core lab has been reconfigured numerous times.
 - Cube space is not private at all for difficult conversation. Tucked in corner is not the best for providing support.
 - They are too remote, not private enough, and freezing.
 - They have a nook for their supplies that they like
 - Difficult to get to it to resupply.
- Core lab
 - Need more drains for future instrumentation.
 - Drain every 10-15' modular.
 - Extremely loud because of equipment.
 - Need quiet huddle space and have to use a speaker to project sound.
 - No walls, but something mobile for barrier on wheels to move and divide noise.
 - Not completely sealed, just a clear walk barrier.
 - Need a specialty testing area.
 - Have to limit how much more new instrument we can bring in.
 - Eyewash - would like divided sink one half clean and one half dirty. No one wants to use eyewash on dirty sink where we pour urine.
 - No wall space to hang lab coats, etc.
 - Hoping we move forward with MOXIE capability for automation in Lab, in the next few years.
 - Walkways created for drop off locations on exterior so robot can pick it up.
- Blood bank
 - Window and tube system
 - Need lip on outside to set it down during read off process.
 - Dual tube station would be nice
 - Cooler storage locations for Surgery, extra space to store
 - Need 1 more Helmer refrigerator, more based on acuity level.
 - Radiator needs to be replaced because moving to x-ray product.
 - Not our desire to change but government will likely make us change this.
 - Setup works well. Bench setup has stayed the same, works well.
 - 24/7 alarms in blood bank. Which makes it loud there, needs volume adjustment.
 - Hooked to tissue processor which runs all night long here
- Would be ideal if Research had their own space outside of this lab.
 - 2 people but they don't have enough space to function.
 - To have functionality to share a sample and need to pass it off via tube station.
 - Could be in Dodson. Just need ability to send samples back and forth.

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• When Design is the problem we are solving!

A3 #	Title	Champion	Collaborators	Customer	Sign Off
EXT103	Exterior Wood Look Panels	Andrew Cortez	CH Leadership + PDC + Vaughn Construction		
		Date Opened: 02-22-2020		Category	Status
		Date Issued: 03-31-2020			

BACKGROUND:
Wood Look panels on the tower and garage fins will add a new material to the campus which will reflect to the natural environment of the site.

CURRENT STATE:
The goal of this study analyzes the Phenolic Wood Look Panel and compares it to the Wood Look ACM Panel to help the design team and Children's understand which material will deliver the best value for the project.

ROOT CAUSE ANALYSIS:

Tower Wood Look Panels - Phenolic



Manufacturer's:
Prodema, Trespa, Parklex

Aesthetics:
Natural Wood Grain Look

Finish Warranty:
10 Year

Durability:
Potential of Delamination

Tower Wood Look Panels - ACM



Manufacturer's:
Alpolic, Reynobond, Longboard

Aesthetics:
Wood Pattern printed on ACM

Finish Warranty:
20 Year

Garage Fins - Phenolic Wood Panels



Manufacturer's:
Prodema, Trespa, Parklex

Aesthetics:
Natural Wood Grain Look

Finish Warranty:
10 Year

Durability:
Potential of Delamination

Garage Fins - Wood Look ACM



Manufacturer's:
Alpolic, Reynobond, Longboard

Aesthetics:
Wood Pattern printed on ACM

Finish Warranty:
20 Year

IDEAL STATE:

During the SD Budget Review meeting, HKS, Vaughn, and Children's PD&C decided to move forward with the wood look ACM for both the hospital tower and garage fins.

IMPLEMENTATION PLAN:

HKS to work with Byrne and Vaughn to develop a system designed around the wood look ACM to meet the budget targets established during the SD Budget Review.

FOLLOW-UP:

HKS to confirm the wood look ACM decision with leadership during DD02 by reviewing physical materials.

PARTICIPANTS:

HKS
John Seely
Andrew Cortez
John Bienko
Caroline Arbour
Candace Goodman

CH
Children's Leadership
Mark Leemaster
Mark Robertson

VAUGHN
Brad Wendler
Micah Hovda
Kyle Featherston

BYRNE
Neil Byrne

A3 #	Title	Champion	Collaborators	Customer	Sign Off
ED102	CMCP - ED Life Safety Suite Study	Candace Goodman	CH Leadership & HKS Staff		
		Date Opened: 12-04-2020		Category	Status
		Date Issued: 12-21-2020			

BACKGROUND: Children's Health is going to transform their Plano campus into a state-of-the-art, flagship hospital. Children's Health and HKS have just completed the Schematic Design phase.

CURRENT STATE: The life safety design of the Emergency Department is currently planning to utilize standard exit access corridors throughout the unit with egress stairs located on each end of the unit. This A3 studies the impact of utilizing care suites with minimal exit access corridors.

ROOT CAUSE ANALYSIS:

The hospital is concerned the current life safety strategy will limit the flexibility of the department and storage space. The current life safety plan is indicated below with relevant pros and cons outlined.

Emergency Department & Imaging

- Smoke compartments less than or equal to 22,500 sq ft required
- Total travel distance to stair not to exceed 200'-0"
- Building equipped with automatic smoke detection system and automatic sprinkler system

Care Suites

- Limited to 10,000 square feet
- Must have 2 exits from care suite (One exit can be through an adjacent care suite, the other must be to an egress corridor or exit stair)

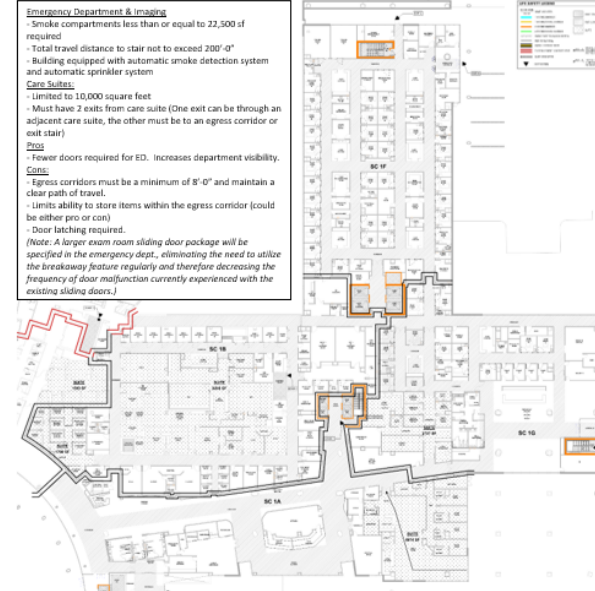
Pros

- Fewer doors required for ED. Increases department visibility.

Cons

- Egress corridors must be a minimum of 8'-0" and maintain a clear path of travel.
- Limits ability to store items within the egress corridor (could be either pro or con)
- Door latching required.

(Note: A larger exam room sliding door package will be specified in the emergency dept., eliminating the need to utilize the breakaway feature regularly and therefore decreasing the frequency of door malfunction currently experienced with the existing sliding doors.)



IDEAL STATE:

HKS has identified the following life safety plan option utilizing care suites. Relevant pros and cons outlined below.

Emergency Department & Imaging

- Smoke compartments less than or equal to 22,500 sq ft required
- Total travel distance to stair not to exceed 200'-0"
- Building equipped with automatic smoke detection system and automatic sprinkler system

Care Suites

- Limited to 10,000 square feet
- Must have 2 exits from care suite (One exit can be through an adjacent care suite, the other must be to an egress corridor or exit stair)

Pros

- Fewer restrictions regarding storage of items in the corridor (could be either pro or con)
- Smoke partitions limited to walls separating adjacent suites or corridors only.
- Door latching within care suites is not required alleviating any concerns regarding failure of sliding door functionality.

(Note: A larger exam room sliding door package will be specified in the emergency dept., eliminating the need to utilize the breakaway feature regularly and therefore decreasing the frequency of door malfunction currently experienced with the existing sliding doors.)

Cons

- Additional stair required to meet requirement for 2 exits results in the loss of two ED Exam Rooms
- Additional doors required to separate the ED into care suites encloses one of the open Care Stations (near the new stair) limiting visibility and connectedness to the Exam Rooms



IMPLEMENTATION PLAN:

Children's Health to discuss the options and provide direction to HKS during Design Development.

FOLLOW-UP:

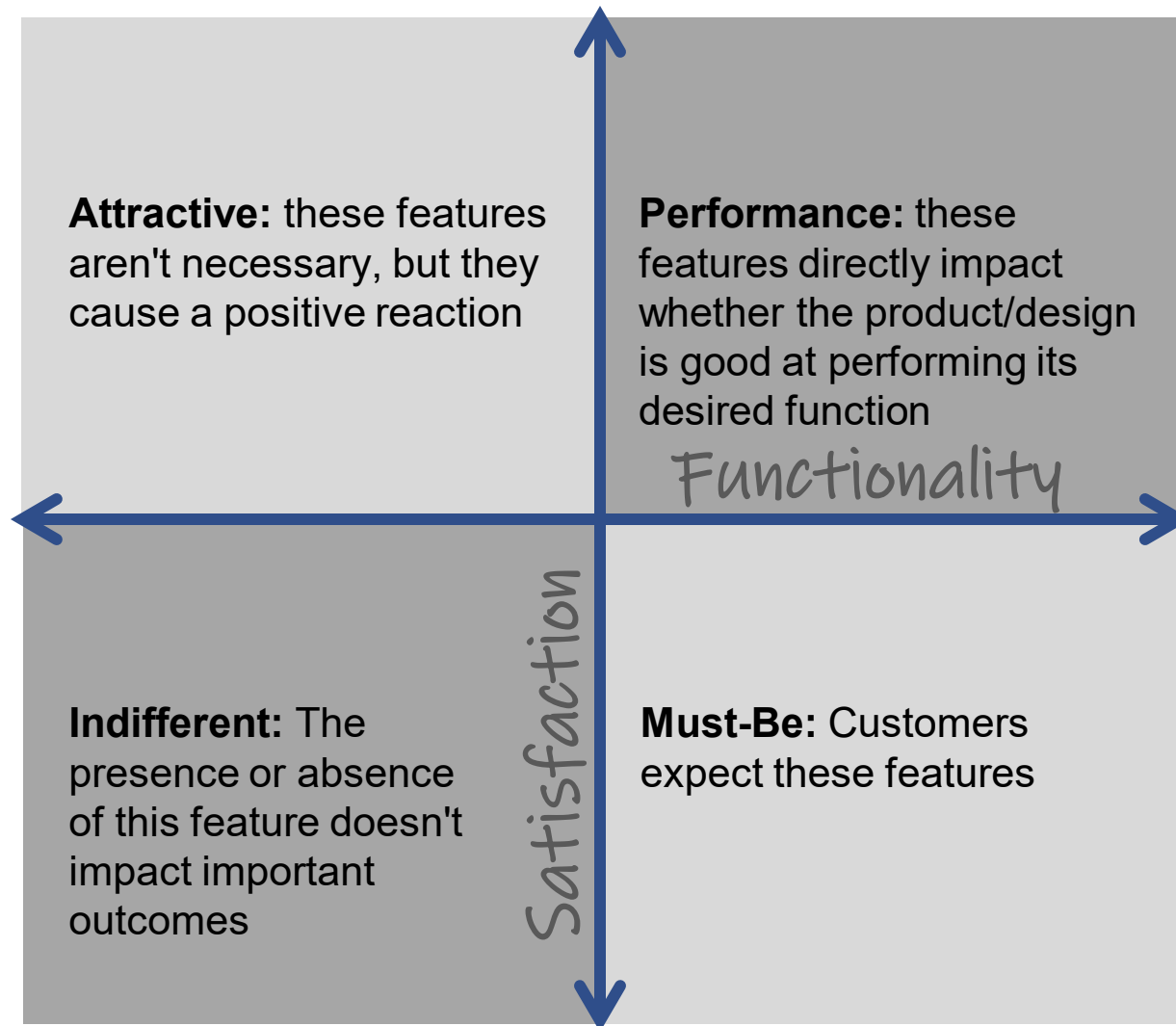
Children's Health to discuss the options and provide direction to HKS during Design Development.

PARTICIPANTS:

HKS
Tina Duncan
Candace Goodman
Rachel Knox
Lindsay Stevenson
Molly Cannady

CH
Mark Leemaster
Mark Robertson

Kano Model



Impact Matrix



Blue Sky
(Aspirational)

- F&B ordering system (app)
- Year-round agriculture education
- Curated heritage/history exhibit
- Return to botanical site style
- Attract more tech-oriented clients

Performance
(Direct impact on function)

- Clear signage & wayfinding
- Community partnerships
- Signature item(s)
- Clean/dirty flows separated

Indifferent
(Doesn't impact outcomes)

- Kentucky proud products
- Kentucky brands
- Freedom Hall remains centerpiece

Price of Admission
(Must haves)



- Touchless faucets
- Family restrooms
- Strong & reliable wifi
- Water bottle filler

Satisficers

A scene from the TV show Friends. Rachel Green, with her signature blonde ponytail and wearing a blue denim shirt, is standing and talking to Chandler Bing. Chandler is partially visible on the left, wearing a red shirt. They are in the Central Perk coffee shop, with shelves of coffee supplies and a large window in the background. The text "Dealing with Resistance" is overlaid in the top left, and a large quote is at the bottom.

Dealing with Resistance

“I wish I could, but I don’t want to.”

What Resistors say...

- This is taking too much time and we need to get started

What it means... what can happen

- It's unfamiliar
- The team is haunted by jumping in too soon
- Underestimating learning curve- even with years of experience

"You can't just run away from your responsibilities."

Me:



Understand Reactions to Change





Bernita Beikmann
bbeikmann@hksinc.com

Andrea Sponsel
asponsel@hksinc.com



LEAN IN DESIGN FORUM
MAY 1-2, 2024

#LCIDesign24

Lean Into Design Thinking

In the spirit of continuous improvement, we would like to remind you to complete this session's survey! We look forward to receiving your feedback.



P2SL