

# ZONING, PERMITTING, AND APPEALS SERVICE BLUEPRINT

*Blueprinting the ISD process*

August 2023



# THE TEAM

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**MARION  
MADANGUIT**

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Olin College of Engineering  
User Research Fellow



**RYAN  
GAJARAWALA**

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Harvard University  
Product Management Fellow



**TAFT  
WEBER-KILPACK**

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Politecnico di Milano  
User Research Fellow



*Coding it Forward:  
2023 Civic Innovation Corps*

## PROJECT SCOPE

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If a resident, property owner, or contractor is looking to make changes to a building (such as their home or business), they have to apply for a permit. If their permit is denied because of a zoning violation, they have the option to file for an appeal with the Zoning Board of Appeals. From there, community members and other owners of the property can follow the status of the appeal using the [ZBA Appeal Tracker](#).

The Inspectional Services Department (ISD) is interested in working with DoIT to make improvements to the tracker. As a first step in scoping this work, DoIT wants to understand the end-to-end journey of the building permitting and zoning appeal process.



## PROJECT GOALS

- To have a shared understanding of the current state of the building permitting and zoning appeal process.
- To equip the City of Boston with materials for future service blueprinting work.

## NOT IN SCOPE

- **Insights** on areas of friction and inefficiency
- **Identified areas of improvement** including quick and long-term wins
- **Solutions** to address areas of improvement
- **UX redesign** of ZBA tracker
- **Touchpoint auditing** or any deep-dives into touchpoints



## KEY DOCUMENTS

[Initial Project Scope](#)

[Working Miro board](#)

[Final Service Blueprint](#)

[Service Blueprint Template](#)

### QUICK NOTE...

This process book unfortunately does not include an in-depth description of service design or what a service blueprint is. You can read more about blueprints in the resources included in the Miro board or [at this link](#). Please see other documents from this project for better explanations.



# GUIDING QUESTIONS

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What is the **end-to-end permit applicant journey** from deciding that they want to make a change to a building to being issued the permit (including appeals)?

- Who do they interact with?
- What touchpoints do they encounter?
- Where are residents experiencing the most friction?
- What is the timeline of the service provision? Where does it start and end?

Who are the **people that deliver and manage** the processes that enable the resident journey backstage?

- What are the end-to-end business processes and underlying technologies that enable the resident journey backstage?

What **resources and training materials** can we provide to equip teams at the City of Boston to do service blueprinting work in the future?

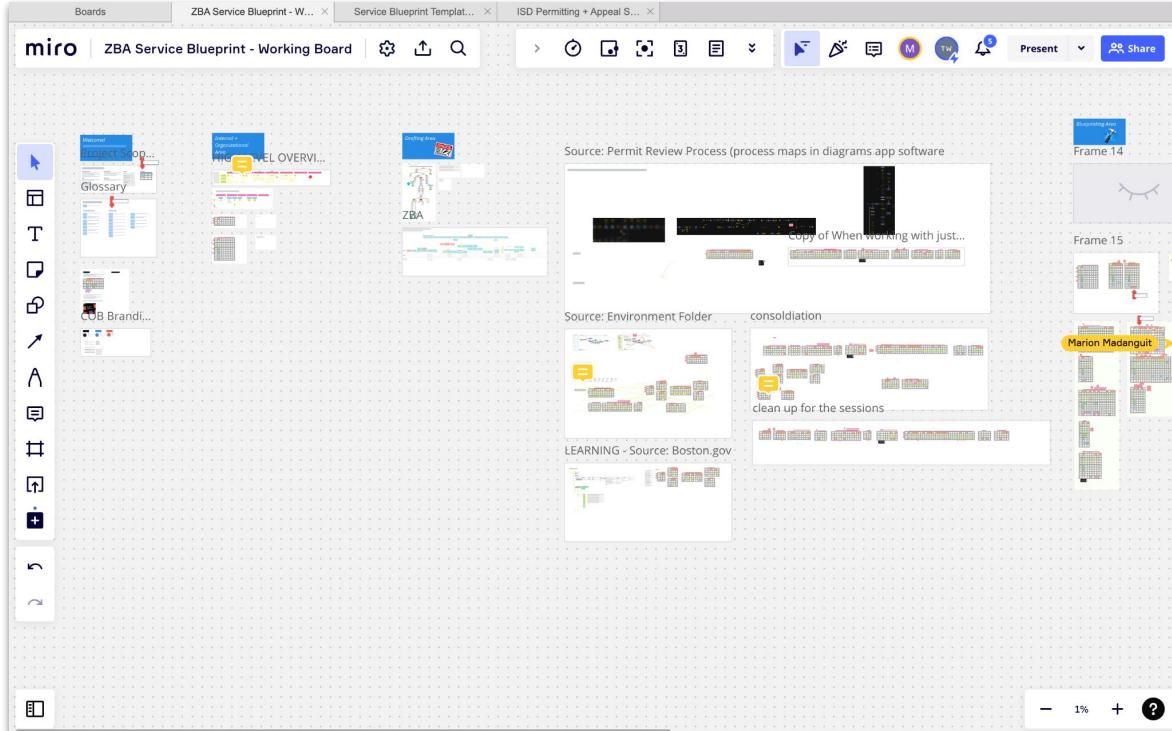
MOVING TO MIRO...

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# HOW WE BUILT THE BLUEPRINT



# SETTING UP THE BOARD FOR THE WIDER TEAM



We set up a primary “Working Board” where we kept all our project plans, documentation, and drafts throughout the project.

# SETTING UP THE BOARD FOR THE WIDER TEAM

Frame 3

Welcome!

Zoning + Permitting + Appeals Service Blueprint

August 2023, Coding it Forward Fellows Project

Project Scope + Timeline

Project Scope + Timeline

Context & Problem

Key Deliverables

Timeline

The Team

Glossary

Glossary + Acronyms

Term

Service Design + Blueprinting

Zoning + Permitting

Applicant

Abutter

Plan

ProjectDoc

PZ

Hansen

As-of-Right

Conditional Use Permit

Deferral

Long Form

Zoning Code Default Letter

Dynamic Portal

ISP

Help or not!

Add and edit a new for yourself if the Miro board.

Help or not!

Fill in a definition or acronym.

Service Blueprint: A visual representation of how a service is delivered, which chronologically maps a user's journey, service provider actions, touchpoints, locations, involved actors, and backstage actions (employee actions, technology, policies, etc) that enable service delivery. A service blueprint combines information that is usually represented in process maps and journey maps.

Phases

User Action

Touchpoints

Line of Interaction

Employee Actions - Front Stage

Line of Visibility

Employee Actions - Back Stage

Line of Internal Interaction

Line of Interaction: The direct interactions between the customer and the organization

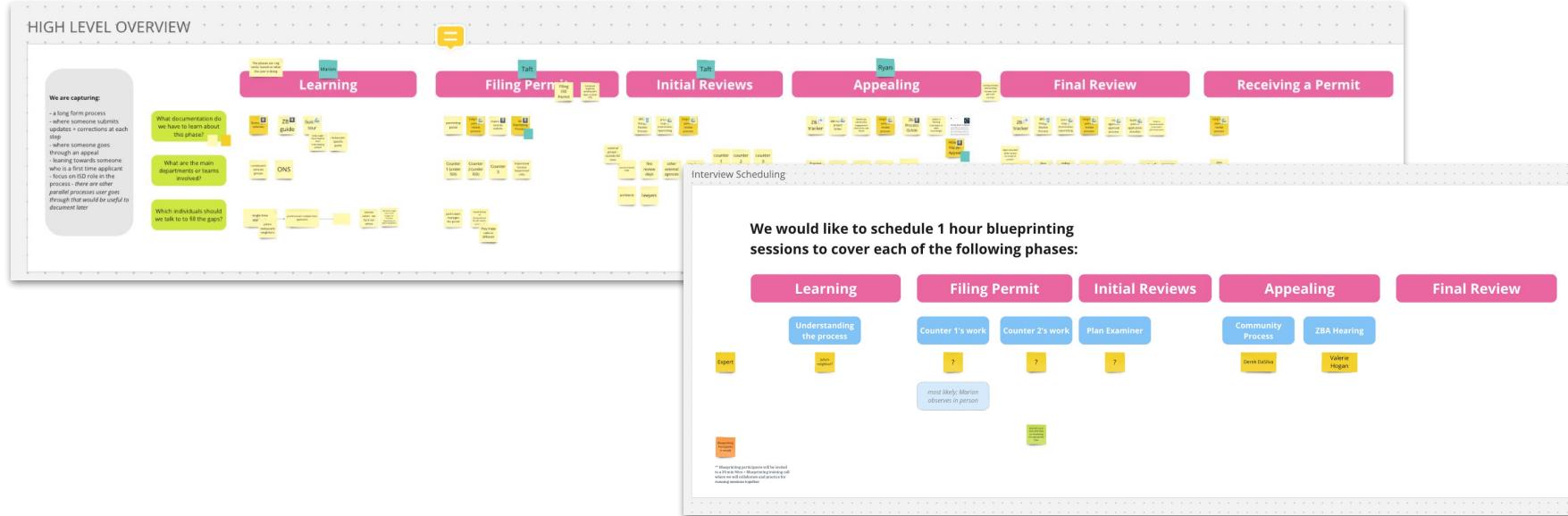
Line of Visibility: The separation between service activities visible to the customer and those that are not visible; a distinction between frontstage and backstage

Line of Internal Interaction: The separation between contact employees and those who do not directly support customer/user interactions

The introductory space included the project scope, glossaries for service design and the project context, and service design/blueprinting explainers.

Arrows pointed team members to where they could add to the project and engage with Miro.

# GETTING THE BIG PICTURE



During weekly calls, we built out a high level view of the permitting process and used the key phases to scope out the beginning and end of what we would document. We used the same framework to capture the available documentation, responsible departments, and later the names of who we would invite to blueprinting sessions.



# CREATING TEMPLATES

When working with just a process map and don't have all blueprint details ready, start with this:

Phases		Learning			Joining (etc...)		
User Action	starts with a verb						
Touchpoints	capture what you can, likely not documented in process maps, etc						
Employee Actions (Front or Back Stage)	starts with a verb						
Notes	Type notes in this box - what information is missing, where did you get the information, any major observations?						

New table

OUR WORKING BLUEPRINT TEMPLATE - copy for each new process you are documenting

Phases	Learning	Joining (etc...)
User Action		
Touchpoints		
Line of Interaction		
Employee Action - Front Stage ISB		
Employee Action - Front Stage Other Dept		
Line of Visibility		
Employee Action - Back Stage ISB		
Employee Action - Back Stage Other Dept		
Managing Department		
Additional Actions		
Technology or Processes		
Notes / Questions / Issues		

We received LOTS of documentation from the participating stakeholders - but not all of the documents contained the information needed for a service blueprint (ex. Many process maps do not include applicant actions and applicant-facing explainers do not mention back-end technology).

We used this “baby blueprint” template with limited swimlanes to capture what we could.

## **DEFINING THE LEVEL OF DETAIL**

As the City of Boston's first service blueprint, defining the level of detail to work at was difficult, as we did not have a prior example to point towards. Due to limited time, we also knew we would not be able to interview applicants and have limited sessions with internal employees. With this in mind, we decided our scope would...

### **NOT INCLUDE**

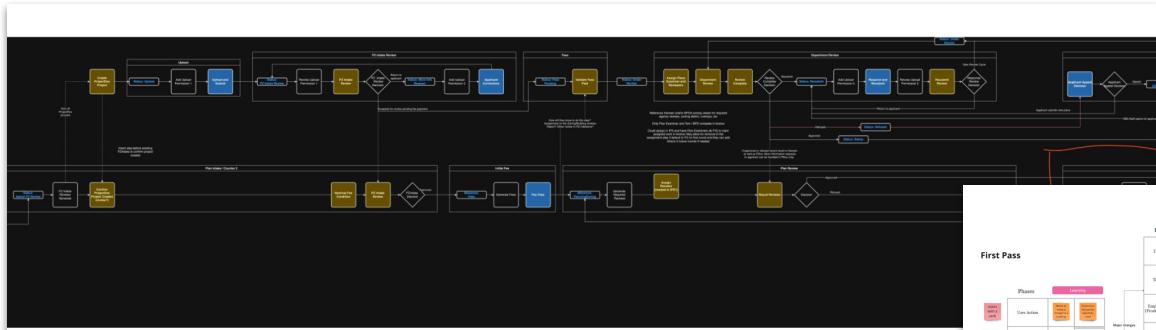
- Steps or details within a touchpoint
- Unusual pathways or special phases

### **START A NEW COLUMN FOR**

- New technology
- New actor
- Action for accomplishing new goal

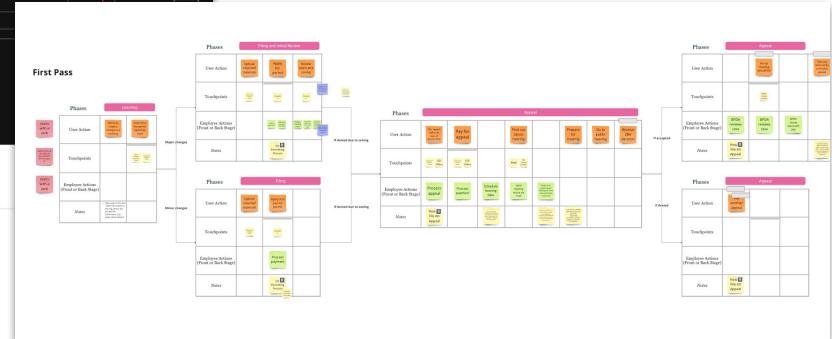


# TRANSLATING



Copy of When working with just a process map and don't have all blueprint details ready, start with this:

Phases	Applying	Reviewing	Assessing	Reviewing	Finalizing Period
User Actions	Initial Case Creation	Initial Review	Case Review	Plan	Implementation
Transcripts	Initial Case Creation	Initial Review	Case Review	Plan	Implementation
Employee Actions (Front or Back Stage)	Initial Case Creation	Initial Review	Case Review	Plan	Implementation
Notes	Initial Case Creation	Initial Review	Case Review	Plan	Implementation

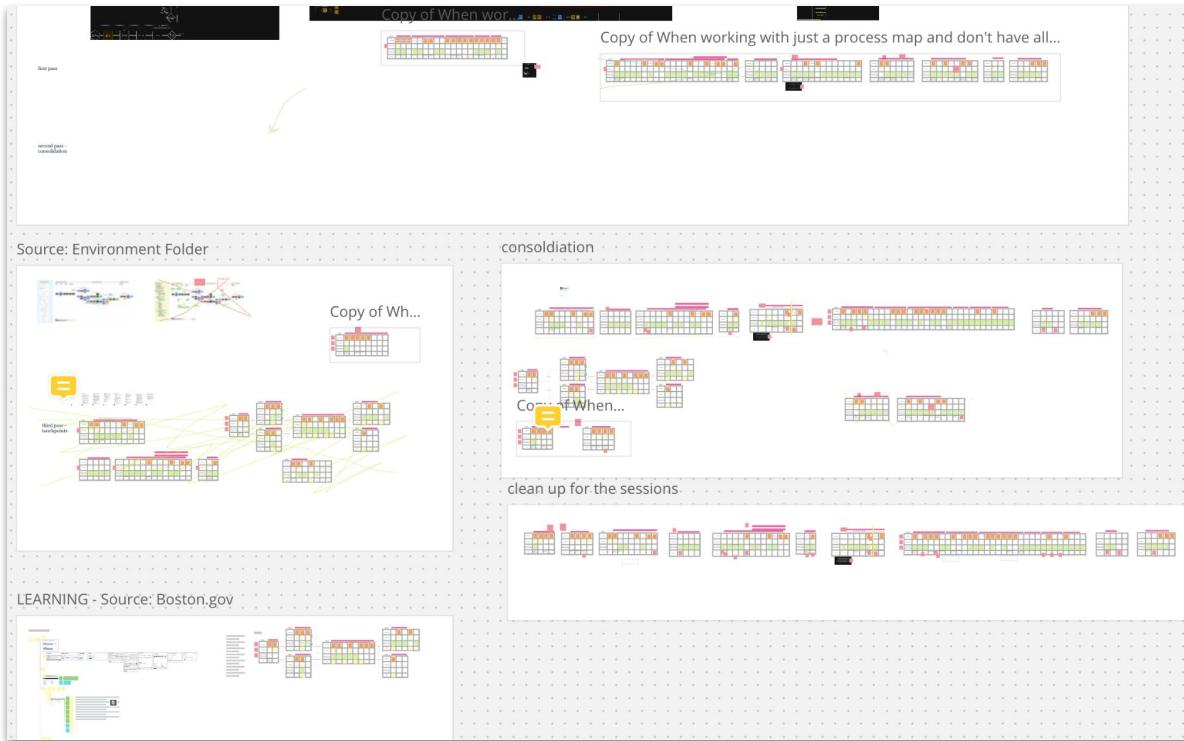


Example Plan Review Results

Process maps and explainer documents were translated into baby blueprints through several iterations. The fellows worked independently to comb through the docs before collaboratively piecing together the different phases and identifying inconsistencies.

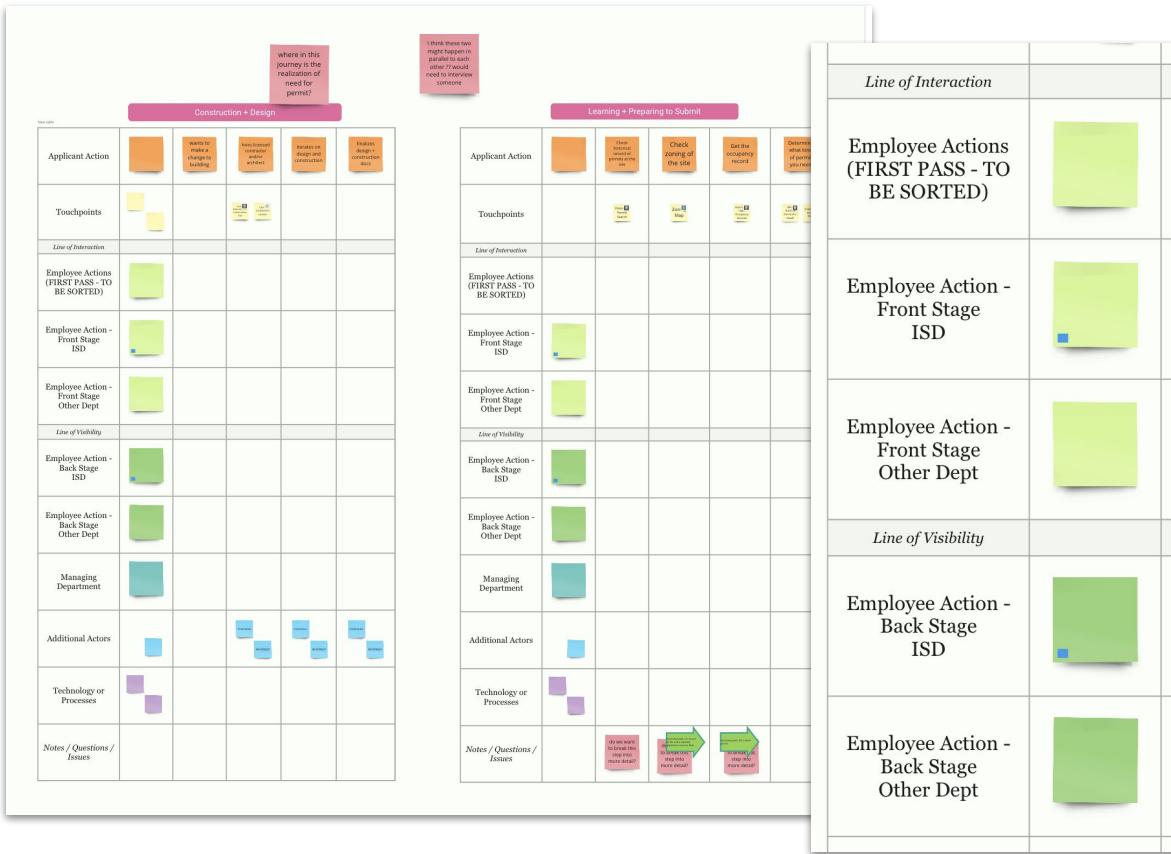
# ITERATING

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It took several passes through the documentation and baby blueprints before the process was consolidated enough to take to blueprinting sessions. Here, you can see the sheer quantity of of drafts and drafts and phases that had to be managed through the process.

# PREPARING FOR BLUEPRINTING SESSIONS

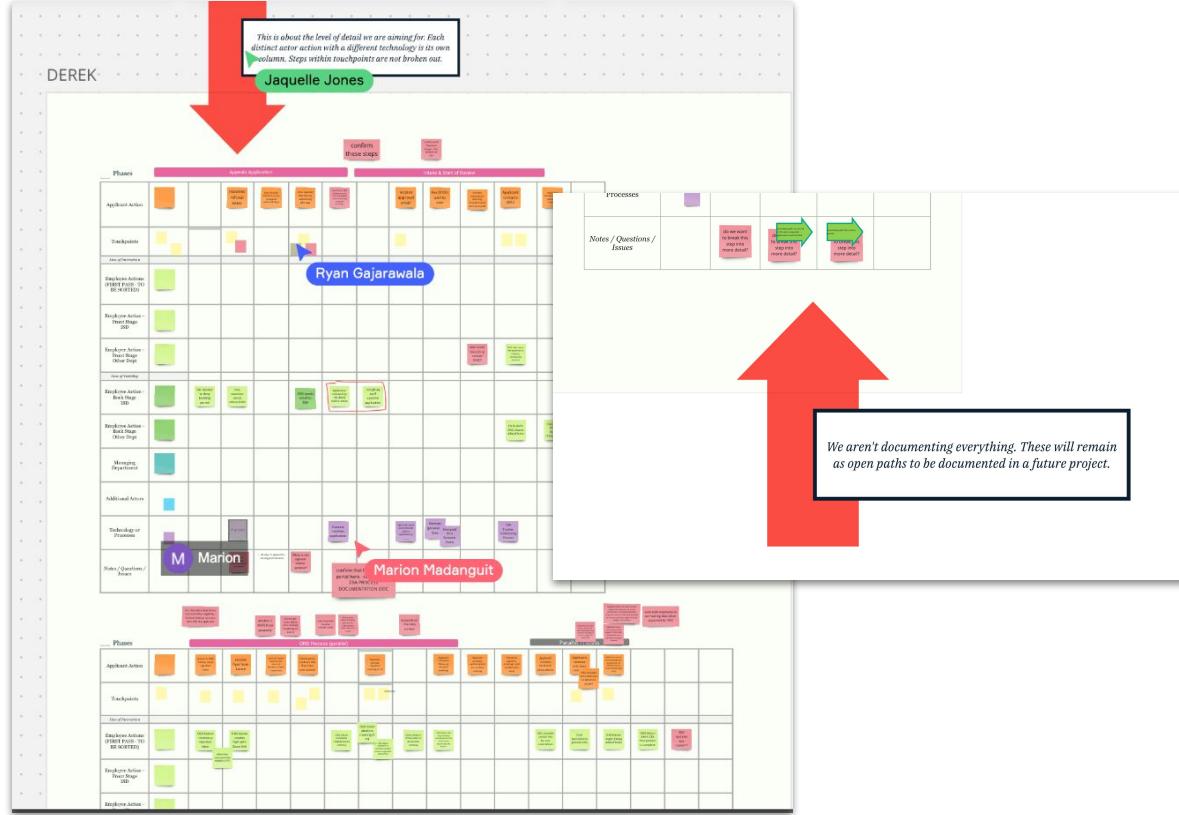


After cleaning up the overall process, each baby blueprint was copied into the full blueprint template. The “employee action” swimlane from the baby blueprint was relabeled as “to be sorted” so actions could be properly placed as front or backstage.

Initially, we included a separate swimlane for ISD so they could clearly see their actions in the front and backstage.



# CONDUCTING BLUEPRINTING SESSIONS

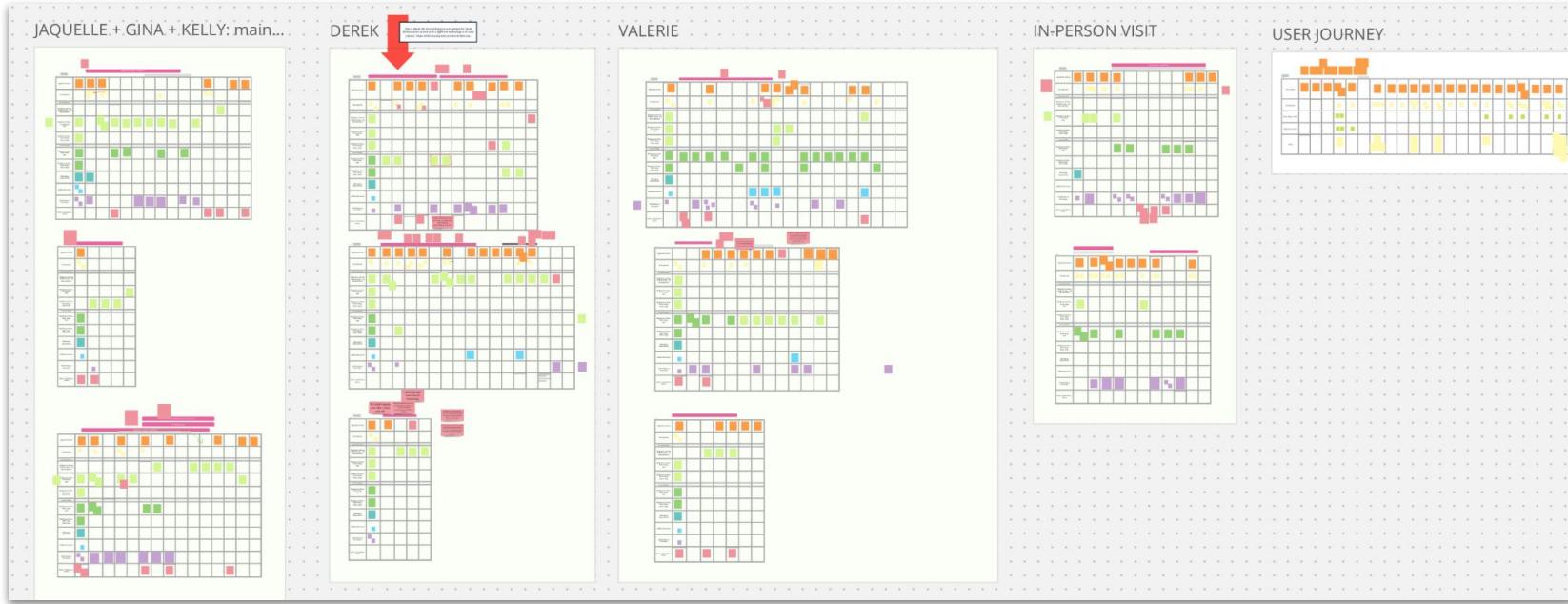


Participating stakeholders were invited to 1 hour long blueprinting sessions, grouped based on who had expertise in what phases. Callouts on the board helped onboard people to the level of detail we wanted to work at (no secondary pathways + when to start a new column).

Using Miro together, we worked through each phase chronologically, determining the actions and correct order. The fellow leading the session would occasionally do a second pass to ensure technologies and actors were properly captured and all questions were answered.



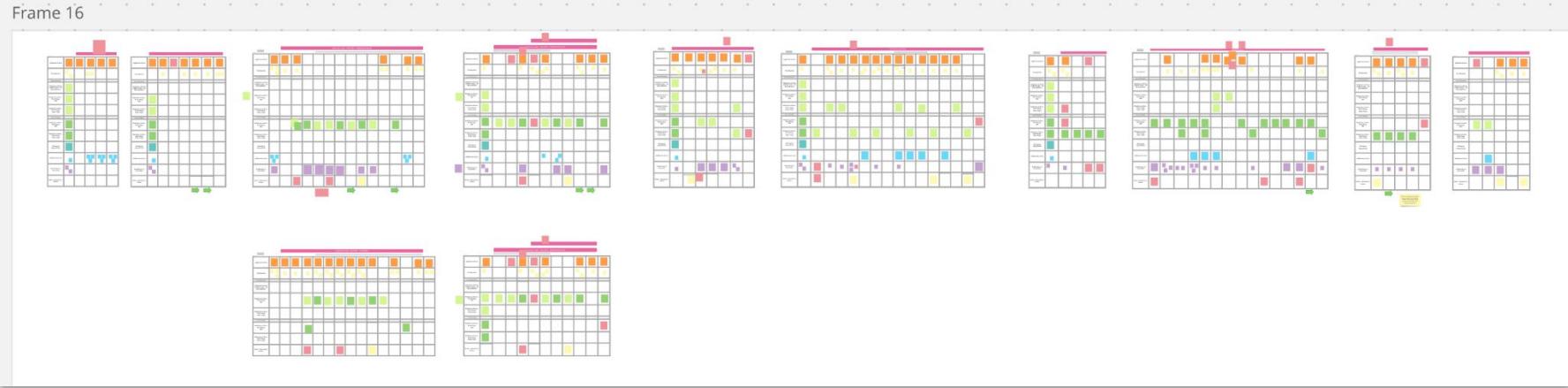
# CONDUCTING BLUEPRINTING SESSIONS



In total, 3 blueprinting sessions with 5 different stakeholders were conducted. We did additional passes through the blueprint during weekly meetings. One fellow observed the ISD office in person to add to the blueprint. We also interviewed one Boston resident who has applied for a permit about their application experience.

# CONSOLIDATING THE DRAFTS ONE LAST TIME...

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The drafts from the blueprinting sessions were put in order and cleaned up for content and clarity. This phase was where we began to make layout decisions for how to best communicate complexities about the process, such as digital vs. in person experiences and phases that happen in parallel to each other.

# CREATING THE CITY OF BOSTON TEMPLATE

The image shows a composite view of a service blueprint template and its corresponding Miro board.

**Service Blueprint Template:** On the left, there is a detailed service blueprint template with columns for **PHASES** (User Action, Touchpoints), **LEARNING**, and **APPLYING**. Rows include **LINE OF INTERACTION** (Employee Action, Front Stage), **LINE OF VISIBILITY** (Employee Action, Back Stage), **Additional Actors**, **Technology or Processes**, and **Notes / Questions / Issues**. A red bracket highlights the **Employee Action** row under **LINE OF INTERACTION**. A red arrow points from this row to the Miro board.

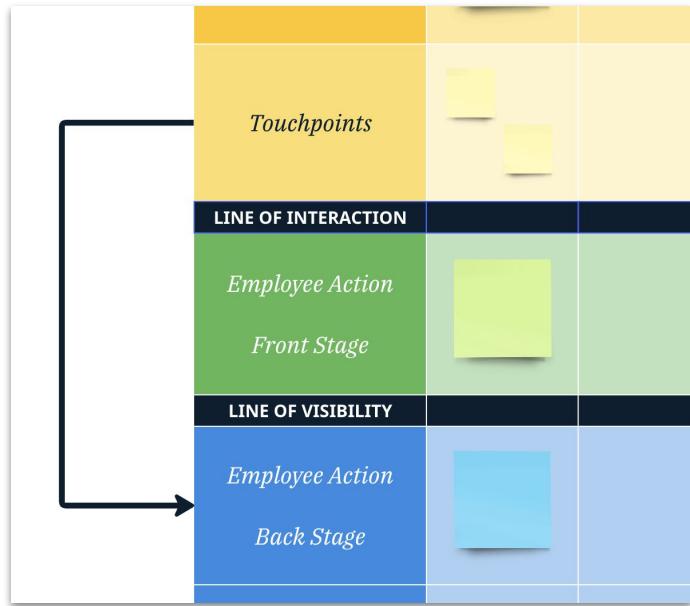
**Miro Board:** On the right, the Miro board titled "Service Blueprint Template (City of Boston)" displays the same blueprint structure. It includes a sidebar with tools like a text editor, a checklist, and a plus sign for adding new cards. A red box highlights the "Employee Action" row in the main canvas area. Below the board, there is a note about how to use the Miro interface for editing the blueprint.

**Note:** A small note at the bottom of the template states: "It's nice that the table can look checkbox. When you are ready to move your blueprint to a final draft, you can separate each row of the table into its own card. Select each row and click the 'split' button in the top right corner of the card. This will split the row into its own card and it will look like your print is now aligned with a tablet screen. You can then move each card to its own column and then align them vertically, adding columns on one table card if needed to keep the alignment consistent."

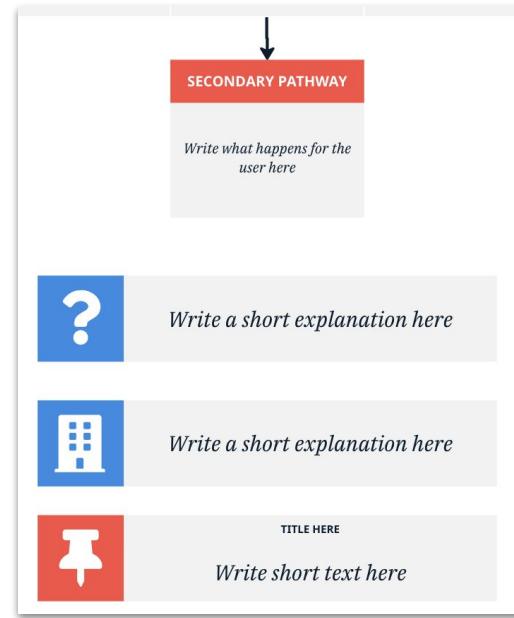
A service blueprint template was created based on the existing City of Boston brand guidelines.

This template lives in Miro to be copied for future projects, along with short notes about how best to use the features of the template.

# CREATING THE CITY OF BOSTON TEMPLATE

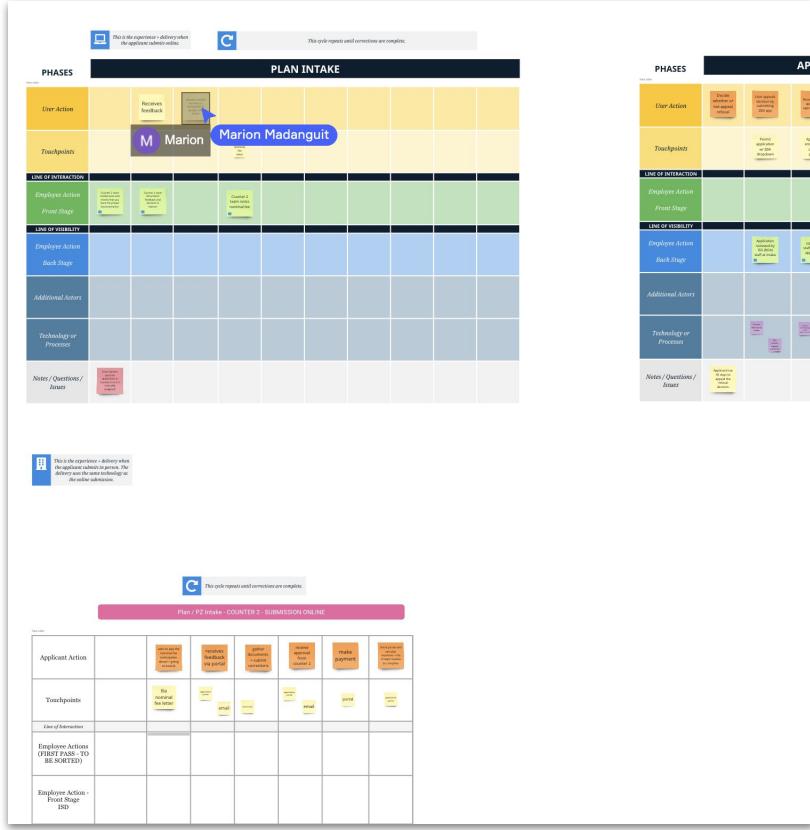


Colors were matched to the Boston brand guidelines. Text and post-its were matched to the closest fit available in Miro.



Callout components were created to note secondary flows, questions, repeating steps, and insights. Arrow and line weights were determined.

# CREATING FINAL DELIVERABLE



Piece by piece, the service blueprint draft was copied into the City of Boston branded blueprint template.

This work happened during “Open Studio” times where ISD stakeholders were invited to call into the work session via Slack Huddle. One person called in and it was a super helpful chance to clear up final questions.

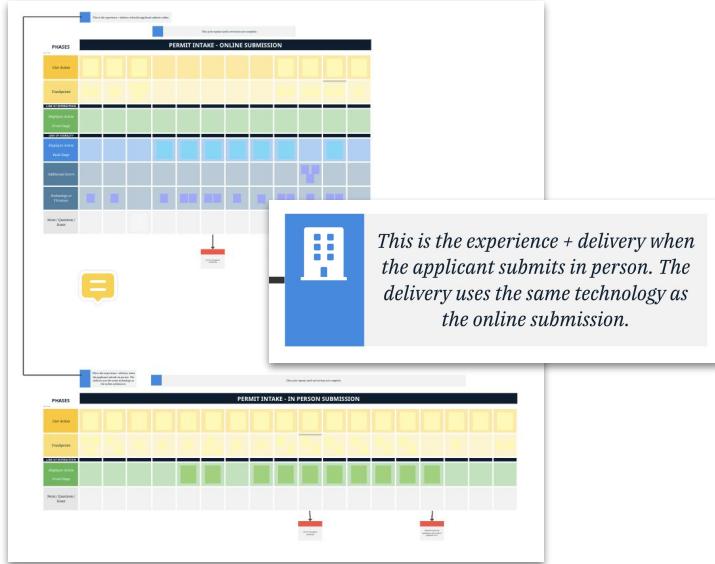
# THE FINAL BLUEPRINT

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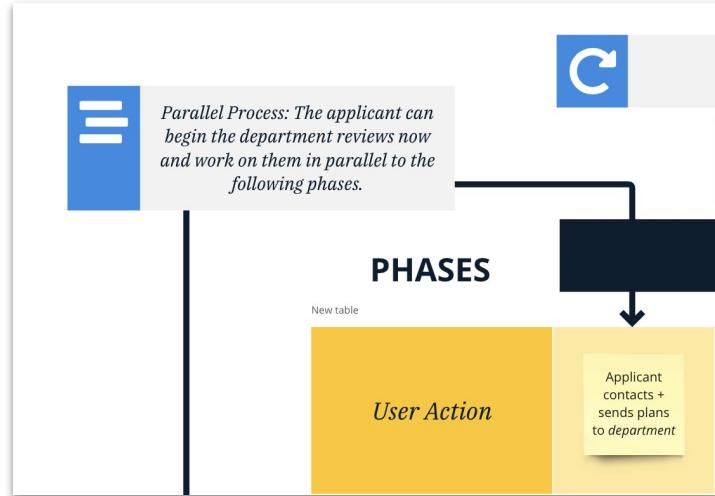


The final service blueprint was delivered with City of Boston branding in [this Miro file](#). The board includes a brief explainer on the project and next steps.

# DESIGN CONSIDERATIONS FOR FINAL BLUEPRINT



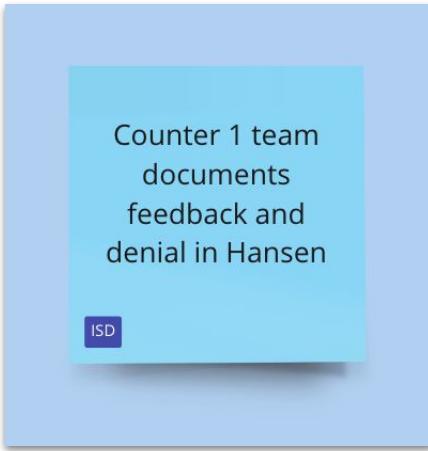
The in-person experience for application submission was separated into a blueprint below the digital experience. The applicant actions are slightly different in the new channel, but rest upon the same technologies.



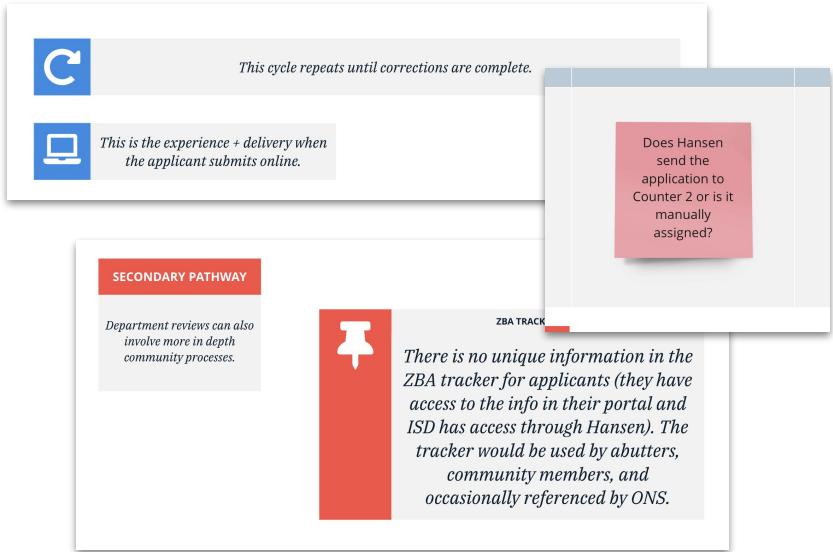
The department review phase is a parallel phase - but it was indicated with an arrow and placed at the end of the blueprint, as the final action in this phase triggers the final phase of receiving the permit.

# DESIGN CONSIDERATIONS FOR FINAL BLUEPRINT

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Employee actions (both front and backstage) by ISD employees were noted with the “ISD” tag on the relevant post-its. This function means ISD actions can be easily searched for or noted in a visual scan.



Repeating phases and other callouts were noted on the board. A handful of red sticky notes with our unanswered questions remain.

## **HOW TO APPLY THIS BLUEPRINT**

This blueprint captures the current state of the permitting and appeals process – and should therefore serve as a tool moving forward. The blueprint was delivered in an editable format on a collaborative software so that it might be edited collaboratively in the future! You might consider using the blueprint to...

### **SOME IDEAS:**

- Scope future projects for supporting technology or touchpoints
- Identify pain points and inconsistencies
- Define research approaches to understand applicant journey
- Onboard new team members
- Launch future service design project



## NEXT STEPS

As this was a short and narrowly-scoped project, there are a number of remaining research pathways that would make the current-state service blueprint more robust. We would recommend taking this blueprint further by:

- Conducting in-depth qualitative, narrative-based interviews with current and former permit applicants
- Conducting more interviews with front-stage employees who interact with applicants
- Making the blueprint more in depth by diving into actions within software or touchpoints (or conducting a touchpoint audit)
- Continuing to blueprint secondary pathways and other permit application types

