

An aerial photograph of San Francisco, California, featuring a dense urban landscape. The Transamerica Pyramid is the central focal point in the skyline. The foreground shows a grid of residential buildings, while the background is filled with various commercial skyscrapers under a cloudy sky.

# DAHLIA PROJECT

Google Civic Bridge with the Mayor's Office of Housing  
April 2015

For more information on any of the contents of this deck, see the complete [Project Requirements Document](#).

## THE VISION

We believe in a San Francisco where people can find affordable housing with ease and transparency.

Our vision is to streamline the process of searching and applying for affordable housing in San Francisco, making it easier to rent, buy and stay in the City.

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# PART ONE

The Problems  
Goals and Objectives

# THE PROBLEMS

## It's not clear where to begin a search for housing.

Assistance is offered by a number of agencies and organizations, meaning there is no single starting point for finding affordable housing.

## Applications are currently on paper.

Paper applications need to be picked up in person, are difficult to edit, lack eligibility checking mechanisms, and have high administrative costs to process.

## Each program/housing uses a different paper application.

This results in unfamiliar fields and extra work for residents. It also restricts data collections.

## Post-application processes are variable and opaque to applicants.

Applicants don't get consistent status updates, eroding trust in the process, and the variety of processes makes it difficult to set and maintain expectations.

## Housing opportunities are not listed centrally or updated frequently.

People rely on word-of-mouth, community organizations, advertisements, and MOHCD email alerts. Some listings are aggregated into monthly lists, but they quickly become stale.

## It's difficult for the city government to get a full picture of affordable housing.

The lack of clear, comprehensive data makes it hard to identify opportunities for improvement, and restricts informed policy decision-making.

# GOALS AND BENEFICIARIES

## 1 Applicants will search for affordable housing in a single online location.

### PRIMARY BENEFICIARIES

**Housing applicants** searching for places to apply

**Property managers** have a central place to advertise

**Housing counselors** have a central place to search

## 2 Applicants will apply online using a single standard application, making it easier to apply, minimizing errors, and saving user information for future applications.

### PRIMARY BENEFICIARIES

**Housing applicants** searching for places to apply

**Property managers** will manage applications digitally

## GOALS AND BENEFICIARIES

- 3 Applicants will know the status of their applications via timely updates. The process after submitting an application is clear and transparent to applicants.

### PRIMARY BENEFICIARIES

**Housing applicants** are reassured and trust the process

**Property managers** have decreased inquiries

**Housing counselors** have decreased inquiries

- 4 Data about the affordable housing situation is available to those who need it for policy making.

### PRIMARY BENEFICIARIES

**Policy makers** have the information they need



# PART TWO

Background, Research, and Analysis

## RESEARCH

We gathered background info with qualitative research, including first-hand experience, sessions with MOHCD staff, housing counselors, property developers, and applicants.

## INTERVIEWS

7

SF housing  
dept staff

IN-PERSON INTERVIEW

1

SF Business Portal  
program manager

IN-PERSON INTERVIEW

3

HousingConnect\*  
NYC Staff

1 HOUR, GROUP  
PHONE INTERVIEW

4

property  
developers  
+2 participated in the  
design sprint

IN-PERSON INTERVIEW

6

social workers  
+6 participated in the  
design sprint

30 MINUTE  
PHONE INTERVIEW

read notes from  
**20+** stakeholder  
interviews

6

VEC\*\* clients

SURVEYS

5

lottery attendees

5-10 MINUTE, IN-PERSON  
INTERVIEWS

## FIELD RESEARCH

observed a BMR  
rental lottery

(280 BEALE STREET)

observed a VEC\*\*  
housing drop-in  
clinic

called ~10 housing  
properties posing  
as an applicant

visited a housing  
property posing as  
an applicant

\*NYC's equivalent affordable housing website

\*\*Veteran's Equity Center, a nonprofit in SOMA

## BACKGROUND AND ANALYSIS

The current process of applying for affordable housing in San Francisco is not kind. There are numerous stakeholders in the system, all with valuable but siloed information.

We examined the background from the perspectives of our users individually: the residents, the housing counselors, the property managers, and MOHCD.

# KEY STAKEHOLDERS

## Applicants

Search for housing, gathers and submits applications, seek help from housing counselors

## Property developers & managers

Build and manage affordable housing properties, advertise their new properties, run lotteries and select applicants, may get funding from MOHCD

## Housing Counselors

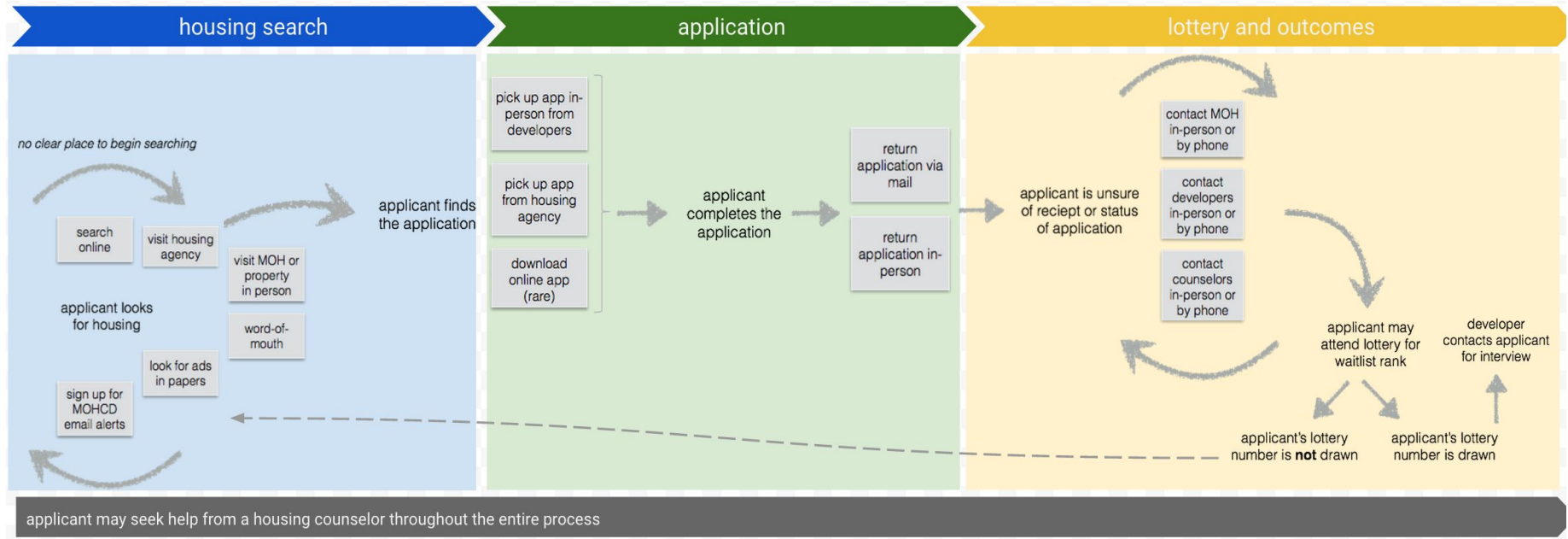
Social workers who assist applicants in navigating the complicated affordable housing search

## Mayor's Office of Housing and Community Development

Funds and oversees affordable housing developments, provides education about housing, monitors affordability of housing, works with nonprofits

# CURRENT APPLICANTS JOURNEY

This process is repeated over and over. The search for housing can take years. Many waitlists are 2-3 years, and some up to 10 years.



# DIVERSITY OF APPLICANTS

**Homeless / At risk of homelessness / Renters / Homeowners**

**Looking for new housing / Need assistance to stay in current housing**

**Monolingual / Low literacy**

**Individuals / Couples / Multi-generational families / Roommates**

**Physically or mentally disabled**

**Seniors\***

**Low income / Moderate income**

**Home or cellular data internet access / Accesses internet at community centers**

**Have a smartphone / Feature phone / No phone**

\*Seniors make up a higher proportion of the population in SF (19%) than they do statewide or nationally.

# APPLICATION PAIN POINTS

Miscalculating income is widely considered to be the most common mistake made on applications.

This can result in people applying to housing that they are not even eligible for, wasting the time and effort of both applicants and housing developers.

Some terminology, such as “homeless” or “household”, have very specific legal definitions and can be easily misunderstood.

Housing counselors typically get around this by asking the questions indirectly and conversationally, ie. “Who are the people that would live with you in the unit?”

Questions about demographics, (gender, ethnicity, etc) raised worry, suspicion, and defensiveness.

Demographic info is important for ensuring all populations are able to access housing services. However, people can feel strong-armed into giving this information if they don't understand why it's being asked.

Much of what applicants report on applications will be verified by property managers when the applicant gets to the top of the waitlist.

Property managers often ask for information already given on the applications to verify eligibility, resulting in applicants having to provide this information twice. Entering volatile information in an application is redundant, as long waitlists increase the chances that this information has changed.



# APPLICANTS ARE LEFT IN THE DARK

## There's no way to check your application status.

This results in an excess of calls and requests to housing counselors or property managers.

## People don't know that attendance isn't required at lotteries.

The 280 Beale St. lottery had over 200 attendees. Many took a day off work to attend; some brought their children. A frequently asked question was "Do I have to be here?"

Some attend because they never heard back after previous lotteries that they did not attend.

## People attend lotteries because they don't trust the process and want to see it first hand.

Lotteries are a manual process with a ticket drum so that applicants can verify fairness. Applicants will approach MOHCD post-lottery to verify their ticket was in the batch.

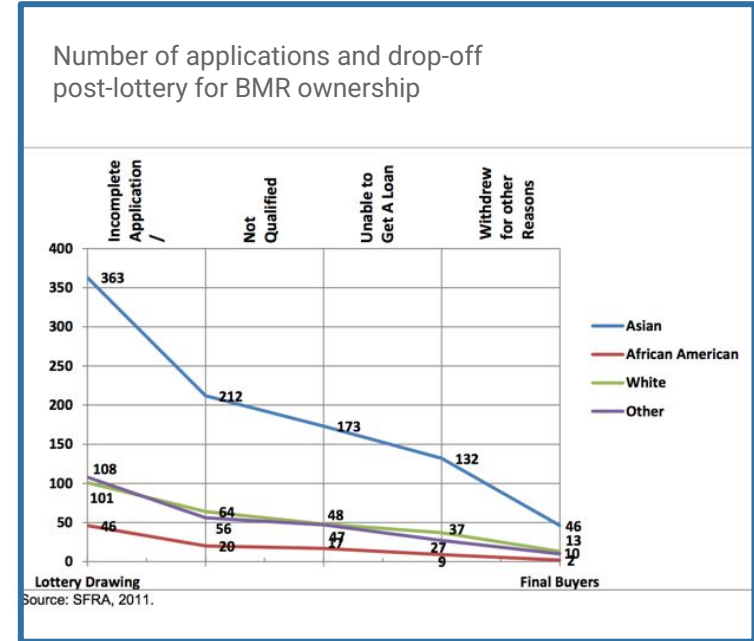
## Applicants have high anxiety when they're uninformed and don't know how to move forward.

Operating in a black box system increases stress and decreases trust. Lack of clarity on next steps prevents applicants from making efficient choices.

# A SELECTION PROCESS WITH MANY WAYS TO DROP OUT

When applicants do get through a lottery, a large percentage are found ineligible or do not get placed into housing for other reasons.

As a result, lotteries draw 10x as many applicants as they need, with the expectation that many will be unsuccessful, creating extra administrative work to process the high number of applications.



# COMPARATIVE RESEARCH: NYC HOUSING CONNECT

## Paper applications were already standardized before online launch (and are still accepted)

NYC Housing Connect brought the single standard application process online. The new online process mimicked the paper application, so as not to give an advantage to either method. Paper apps now comprise 5-10% of all apps submitted.

## Medium-sized staff required to handle administrative burden

8 staff members are available to answer calls (from a central housing hotline) and answer emails about housing, account access, and developer requests for information to run waitlists.

## NYCHA partnered with community organizations to provide internet services and help using the site.

The organizations have also experienced an increased burden from helping applicants create email accounts or manage their Housing Connect account.

## NYC is already working on a version 2 of Housing Connect

V1 only supports affordable rentals. Planned V2 of Housing Connect will be mobile-friendly, include an income calculator, and more. Down Payment assistance and other housing programs are still not in scope.

# SMARTPHONE USAGE

Many low-income individuals don't have access to computers or home internet, but they do have smartphones, and they use them for important tasks.

Low-income smartphone owners are much more likely to submit a job application on their phone.

Percentage who have used their phone to submit a job application\*

18% Total smartphone owners



32% Smartphone owners with income under \$30,000



64% of NYC Housing Connect website traffic is from mobile or tablet



# PART THREE

Use Cases and Scope  
Description of Features  
Expected Side Effects

# USE CASES AND SCOPE

	IN SCOPE	ENVISIONED, BUT NOT IN SCOPE	NOT ENVISIONED, NOT IN SCOPE
<b>APPLICANT</b>	<p>Eligibility tool to filter by eligibility</p> <p>Filterable listings of programs and housing units</p> <p>Listings for non-MOHCD programs</p> <p>Online application form</p> <p>An account that allows applicants to view existing applications</p> <p>A communications system that sends updates and alerts</p>	<p>Complementary updates to MOHCD website</p>	<p>Online application form for non-MOHCD programs and properties</p>
<b>PROPERTY DEVELOPER</b>	<p>Property management tools to update and add listings</p> <p>Property management tools to manage incoming applications, lotteries, waitlists</p>		<p>Property management software</p>
<b>HOUSING COUNSELOR</b>			
<b>MOHCD STAFF</b>	<p><i>to be determined</i></p>	<p>Tools for housing counselors using the website on behalf of their clients</p>	<p>Case management software or processes</p>

## DESCRIPTION OF FEATURES

Here we describe the functionality and presentation of a system that residents of San Francisco can use to find affordable housing, as well as some features for other stakeholders.

For each feature, we explain what we have learned and discovered, and the biggest open questions that should be answered moving forward.

# APPLICATIONS

## WHAT DO WE KNOW

The input form should be broken down into topical sections, then further broken down into digestible chunks.

The application should use conversational language to help people understand complex questions or tricky terminology.

Many applicants are concerned about completing an application on their own, without the help of a housing counselor.

## QUESTIONS TO SOLVE

Should we ask only what's needed for an application? Is it OK to ask further demographic questions to get an accurate representation of the person?

How do we connect people with the support they want during the process (their housing counselor, MOHCD staff, etc)?



# ACCOUNT CREATION

## WHAT DO WE KNOW

Users are hesitant to create an account because they don't want to deal with it or can't remember a password.

However, people see the benefits to creating an account, such as being able to save their information for later applications, or log back in to check on their status.

It may be more palatable to ask more questions about demographics or personal info in the context of creating a profile than creating an application.

## QUESTIONS TO SOLVE

Should users be required to create an account to submit an application?

How should accounts be modeled? Two options are:

- have users create a profile that they use to submit applications
- when filling out an application, create an account to save your info for the next application

# HOUSING LISTINGS (early learnings)

## WHAT DO WE KNOW

Users should be able to browse (look through listings on their own) or search (use search filters such as accepts pets, neighborhood).

Listings need to provide some indication of if a user is eligible for a given unit.

Listings need to provide information that applicants would expect to know of a future home.

## QUESTIONS TO SOLVE

We don't want people to apply for listings they are ineligible for, but we also don't want to inadvertently hide things they might be eligible for. How does eligibility tie in when displaying a list of units?

What kinds of preferences do applicants want to sort/filter by? Will there be enough listings that filtering is needed?

# PROGRAM LISTINGS (early learnings)

## WHAT DO WE KNOW

It's tricky to display programs and housing together in one list.

Regardless of how programs are displayed on DAHLIA, the current MOHCD website needs a navigable, searchable resource guide for finding programs.

## QUESTIONS TO SOLVE

Should DAHLIA display programs alongside housing listings? Or should DAHLIA just link to the MOHCD website's [program resource guide](#)?

Applicants may give personal info during the application or profile set-up. Based on that info, DAHLIA might pinpoint some programs they're eligible for. When is the right time to display these programs?

# POST-APPLICATION COMMUNICATION (early learnings)

## WHAT DO WE KNOW

Applicants should be able to check their status anytime by logging in to their account.

Applicants should also get updates pushed via email, text, or mail:

- new listings available that they are eligible for
- existing application has changed status
- upcoming lottery
- lottery results

## QUESTIONS TO SOLVE

How will they want to receive updates?

Some applicants have had a change in circumstances by the time they get to the top of the waitlist. Should we check-in to see if the applicant is still looking for housing or periodically prompt them to update their account or profile information?

What if the user updates their information in a way that makes them ineligible for an existing application?

# ONLINE HELP AND SUPPORT (early learnings)

## WHAT DO WE KNOW

Three types of support are needed: contextual assistance during important flows, easy-to-reach human support, and access to an online support and contact page.

Online support should address common issues and errors, and must be organized and searchable.

A technical system will require technical support (eg. handling lost password requests).

## QUESTIONS TO SOLVE

What are the most difficult, most common issues applicants face?

Who do applicants want to talk to, and at what points?

# DEVELOPER TOOLS (early learnings)

## WHAT DO WE KNOW

Developers will input and manage the information that applicants will see.

This may include:

- property listing details
- application process updates (ie. lottery times and numbers, lottery results)
- download/access applications
- marking status updates on applications in the system (ie. to notify an applicant at the top of the waitlist)

Poor developer tools may have a ripple

## QUESTIONS TO SOLVE

How do we motivate developers to keep their listings accurate and up-to-date?

What information do we want developers to provide as they use the system? (ie. applicant status, reason applicant dropped out)

What does the application review process look like from the developer's perspective?

# HOUSING COUNSELOR TOOLS (early learnings)

## WHAT DO WE KNOW

Counselors sometimes work very closely with their clients to help them fill out applications.

Counselors should be able to access the housing website on behalf of their client (with the client's permission) to do things like:

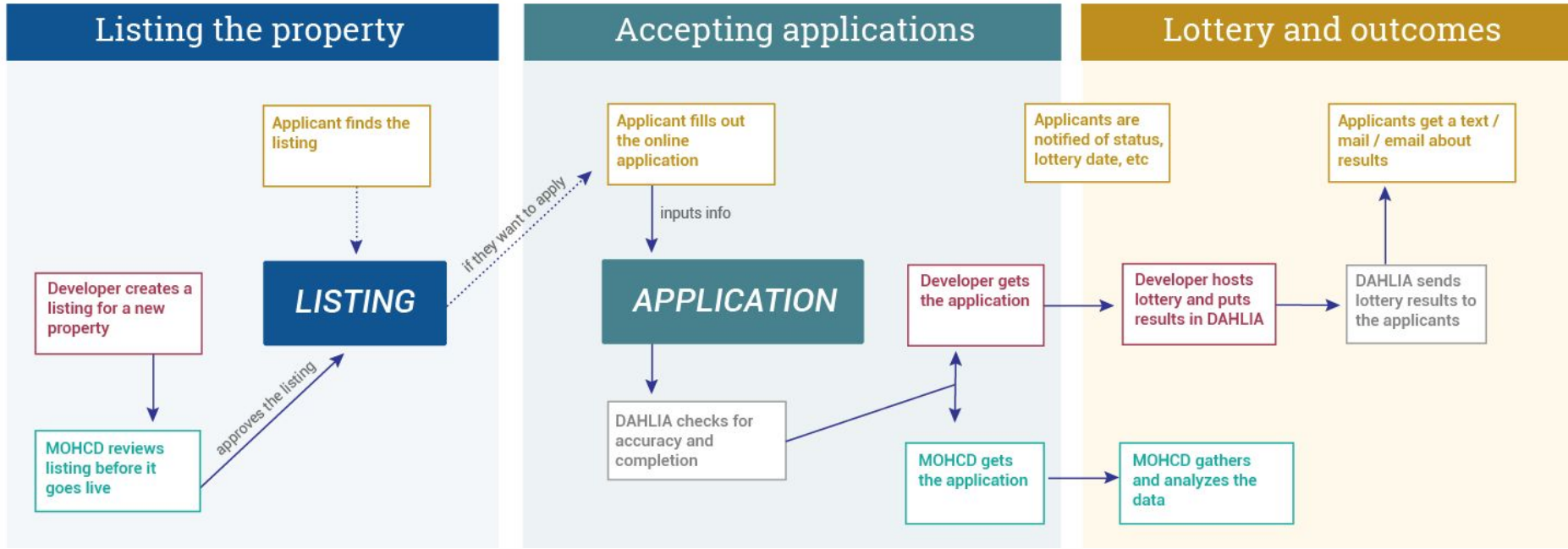
- submit an application
- check on status of application
- act on behalf of client (for instance, confirm that client is still looking for housing)

## QUESTIONS TO SOLVE

Consider a plain, single-page version of the online application that is geared toward housing counselors who are familiar with the application and can fill it out quickly.

Do housing counselors need special tools/views to log in and get access to client accounts? Or can it be as simple as the client sharing their login credentials with their trusted housing counselor?

# PROCESS OVERVIEW (not final)





# EXPECTED SIDE EFFECTS

The need for help and support may increase, for both tech-support and general questions.

- Expand human support staffing and have a phone hotline
- Make information about application statuses, dates, how to apply, etc. easily available

Property managers and community organizations may receive more inquiries.

- Provide community organizations with materials and resources about DAHLIA
- Encourage them to increase their phone support or create better voicemail systems

Applicants who are used to getting paperwork may feel that physical takeaways are “missing”.

- Create informational cards and pamphlets
- Provide a printable help sheet with instructions and information about the online application
- Consider accepting a paper application\*

The number of applications per property may increase.

- Use metrics to determine who these new people are (are they new users or the same users applying more, eligible/ineligible, which demographics are being served).

\*NYC Housing Connect receives 5-10% of their applications via paper.

# PART FOUR

Metrics and Instrumentation

## GENERATED METRICS

A plethora of data will be automatically gathered and may be useful to city departments or housing developers.

For a list of generated metrics, see the PRD.

## SUCCESS METRICS

Measuring the success metrics on the following pages can help determine if DAHLIA is a success.

For more information on how to actually measure this data, see the PRD.

# SUCCESS METRICS

## GOAL

Applicants are happy with the new system: it's useful and usable

## METRIC

High user satisfaction scores

## GOAL

More people have more access to applications

## METRIC

Increase in people applying for the first time

## GOAL

Applications should be filled out correctly and completely

## METRIC

Decrease in the % of incorrect or incomplete submitted applications

## GOAL

Fewer ineligible applications (and lower operating costs)

## METRIC

Decrease in the % of ineligible submitted applications

# SUCCESS METRICS

## GOAL

More efficient application processes

## METRIC

Data entry staffing, hours spent processing applications

## GOAL

A single source of truth for available listings

## METRIC

MOHCD no longer distributes monthly PDFs of listings, 100% of MOHCD funded units are listed on DAHLIA

## GOAL

Applicants should know the status of their applications

## METRIC

Decrease in phone calls / walk-in requests to property managers and housing counselors for updates

## GOAL

Applicants understand and trust the process

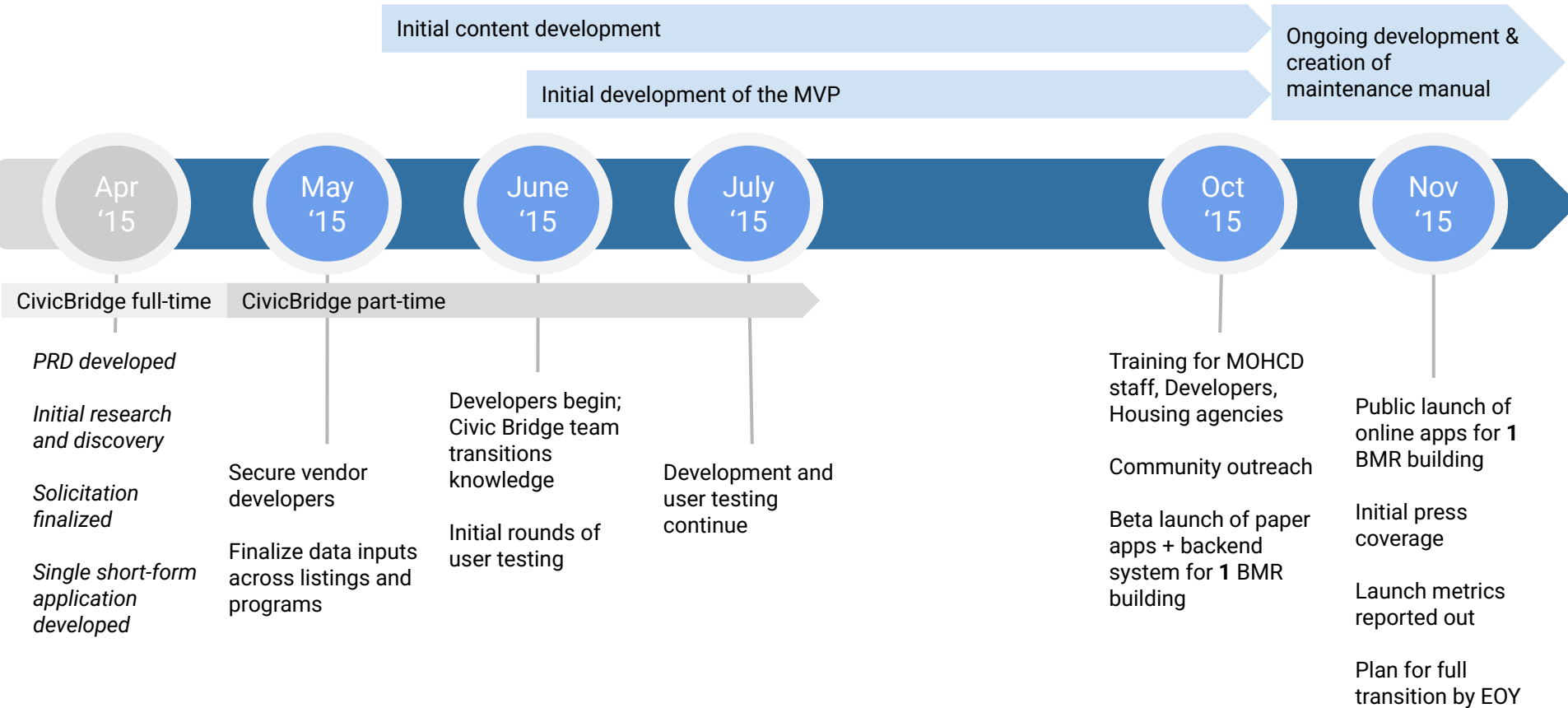
## METRIC

Reduced phone calls for process questions, decrease in # of people attending lottery

# PART FIVE

Roadmap and Launch Timing  
Public Launch Plan

# ROADMAP AND LAUNCH TIMING



# PUBLIC ROLL OUT

Consider a public launch with a single BMR property

- work with a single developer and system, a single lottery
- collect feedback from residents, developers, and MOHCD on improvements

Share the new process where the applicants will already be:

- drop-in housing clinics
- homeless drop-in clinics
- first-time homebuyer workshops
- lotteries

Set up community workshops where people can create an account, file an application, and get training

- leverage computer labs, free wifi areas for low-income residents (e.g., community spaces in current affordable buildings and community centers) to focus on residents not easily reached by web, email, or other marketing campaigns



An aerial photograph of San Francisco, California, featuring a dense urban landscape. The Transamerica Pyramid stands prominently in the center of the skyline. The foreground is filled with a grid of residential buildings, while the background shows more skyscrapers and distant hills under a cloudy sky. A semi-transparent blue rectangle is overlaid on the center of the image, containing the word "APPENDIX" in white capital letters.

# APPENDIX

## RESOURCES

[Writing Style Guide](#)

[Affordable Housing PRD](#)