PROJECT SIDEWALK

Assessing Urban Accessibility using Crowdsourcing and Google Street View

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MAKEABILITY LAB

COMPUTER SCIENCE
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UNIVERSITY OF MARYLAND

30.6 million

U.S. adults have a mobility impairment

Source: US Census, 2010

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CHANEL
CHANEL
CHANEL
CHANEL
CHANEL
ONE WAY
DIESEL


NO CURB RAMPS
CHANEL
ONE WAY
DIESEL


PHYSICAL
OBSTACLES


FedEx
INCOMPLETE SIDEWALKS


SURFACE PROBLEMS


PHYSICAL OBSTACLES
NO CURB RAMP
SURFACE DEGRADATION

Accessible infrastructure has a significant impact on the independence and mobility of citizens

[Thapar *et al.,* 2004 ; Nuernberger, 2008]

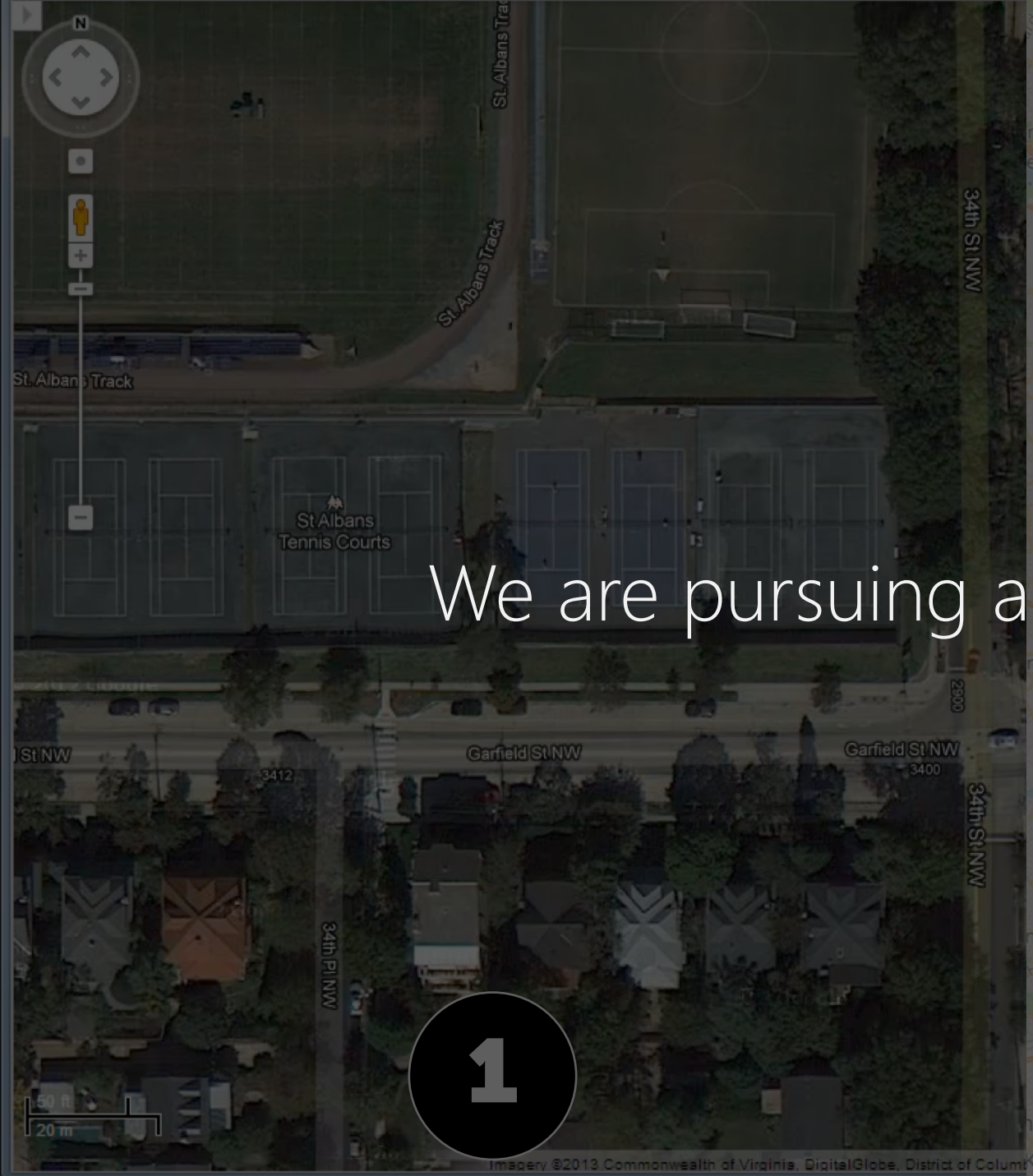
The problem is that there are **few mechanisms** to determine **accessible areas** of a city ***a priori***

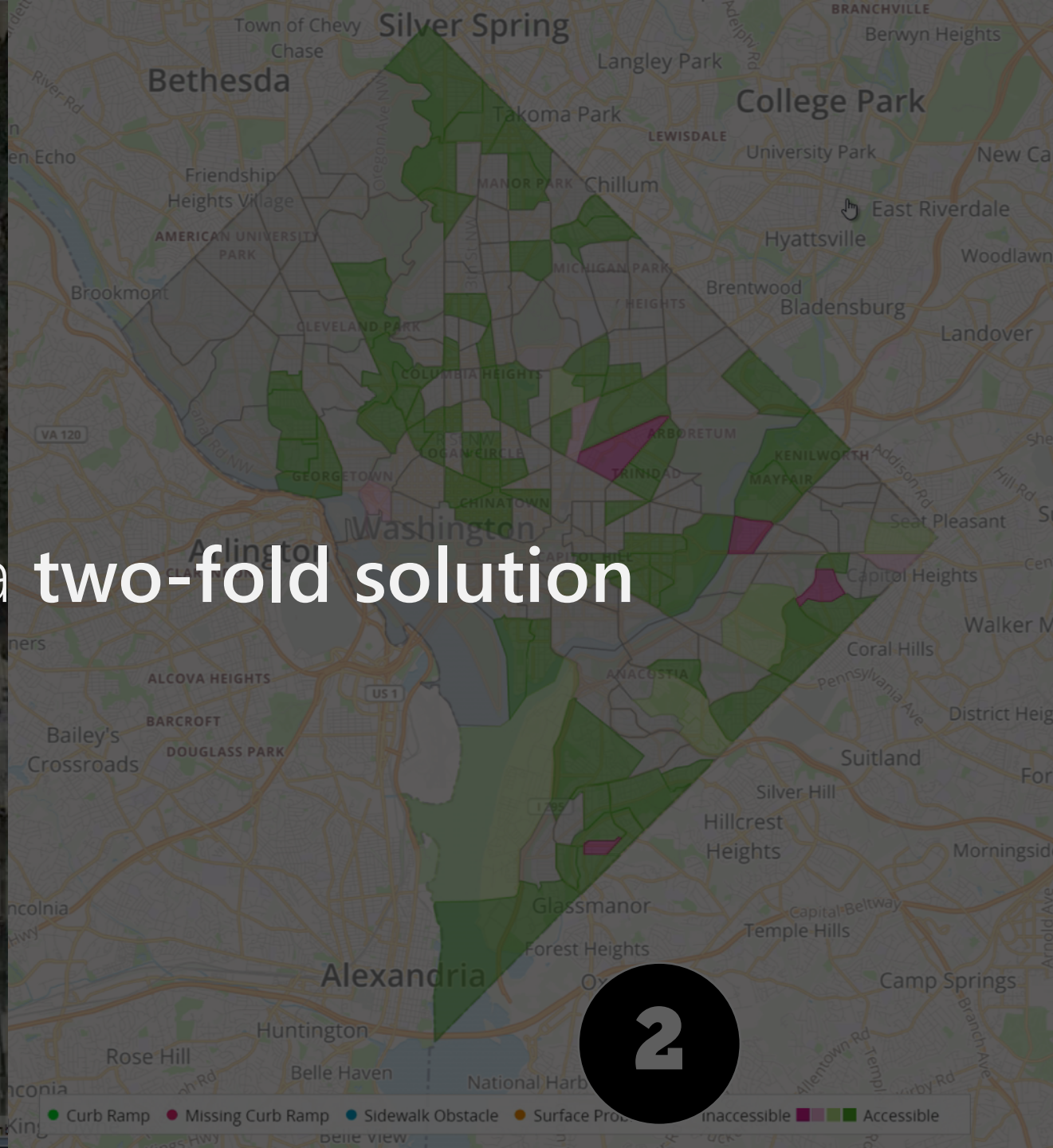
The National Council on Disability noted that there is **no comprehensive information** on "the degree to which sidewalks are accessible" in cities.

National Council on Disability, 2007
The impact of the Americans with Disabilities Act: Assessing the progress toward achieving the goals of the ADA

OUR VISION

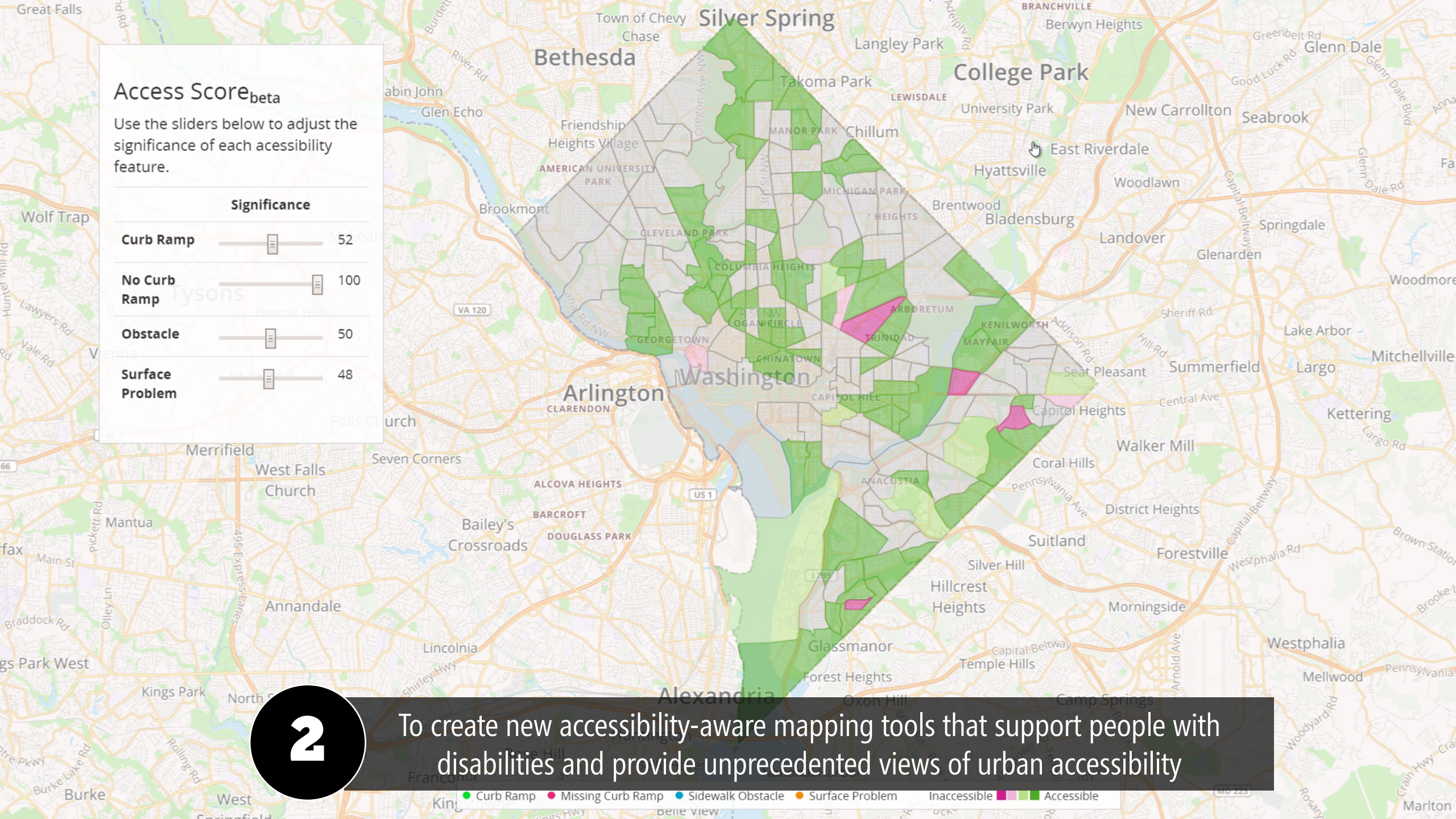
Design systems that transform the way accessibility information is **collected** and **used**.





We are pursuing a **two-fold solution**

1 To develop scalable methods that mine massive repositories of online map imagery to identify accessibility problems semi-automatically



2 To create new accessibility-aware mapping tools that support people with disabilities and provide unprecedented views of urban accessibility

PROJECT SIDEWALK

HTTP://PROJECTSIDEWALK.IO

1

2

How you can help

Virtually explore city streets to find and label accessibility issues in three easy steps—right from the comfort of your home.

Project Sidewalk beta 2

View Results FAQ Retake tutorial Jon Froehlich

Find and label the following

Explore | Curb Ramp | Missing Curb Ramp | Obstacle in Path | Surface Problem | Other

Zoom In | Zoom Out | Undo | Redo

Current Neighborhood
Fort Stanton, D.C.

Sound

Jump

Feedback

Audit 1000ft of Fort Stanton

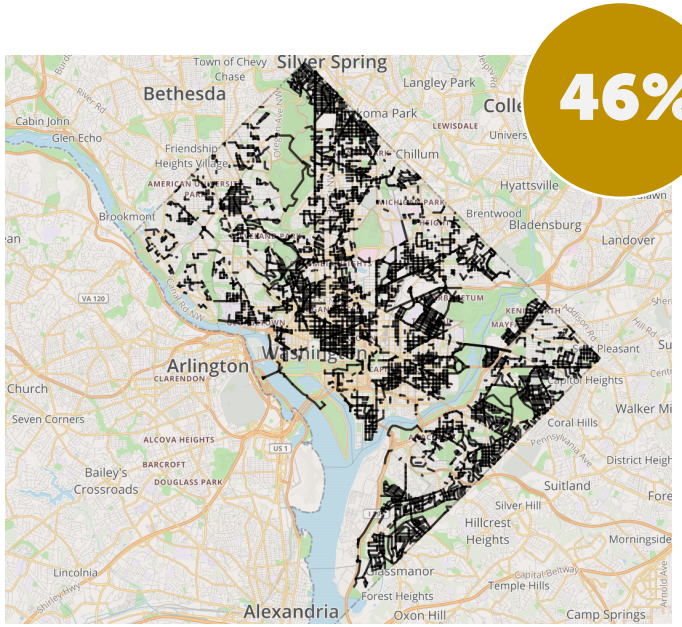
Your mission is to audit 1000ft of Fort Stanton and find all the accessibility features that affect mobility impaired travelers!

OK

PROJECT SIDEWALK CONTRIBUTIONS

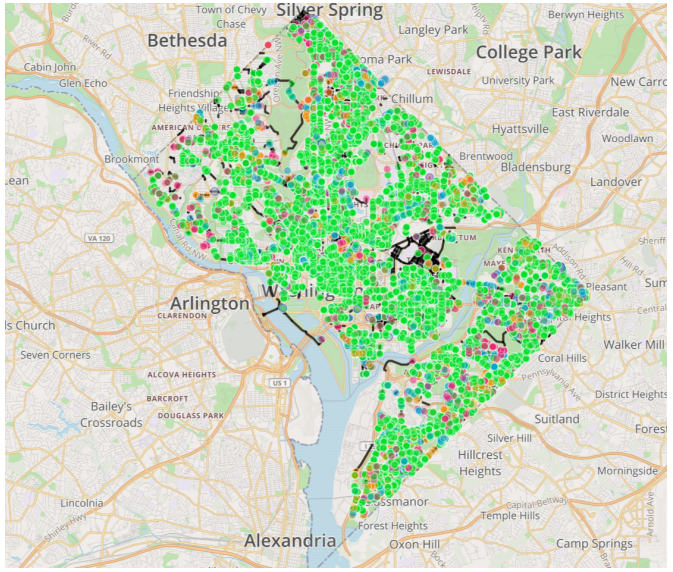
554

USERS



486

MILES

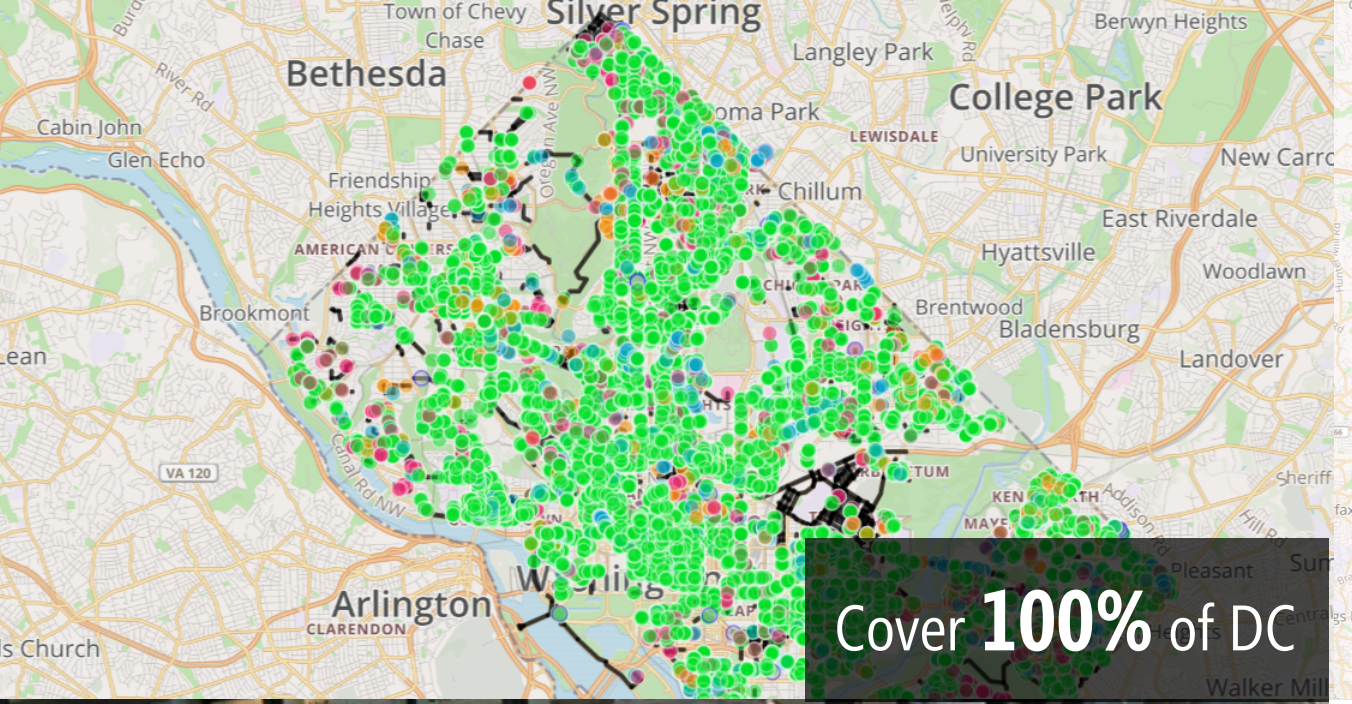


68,647

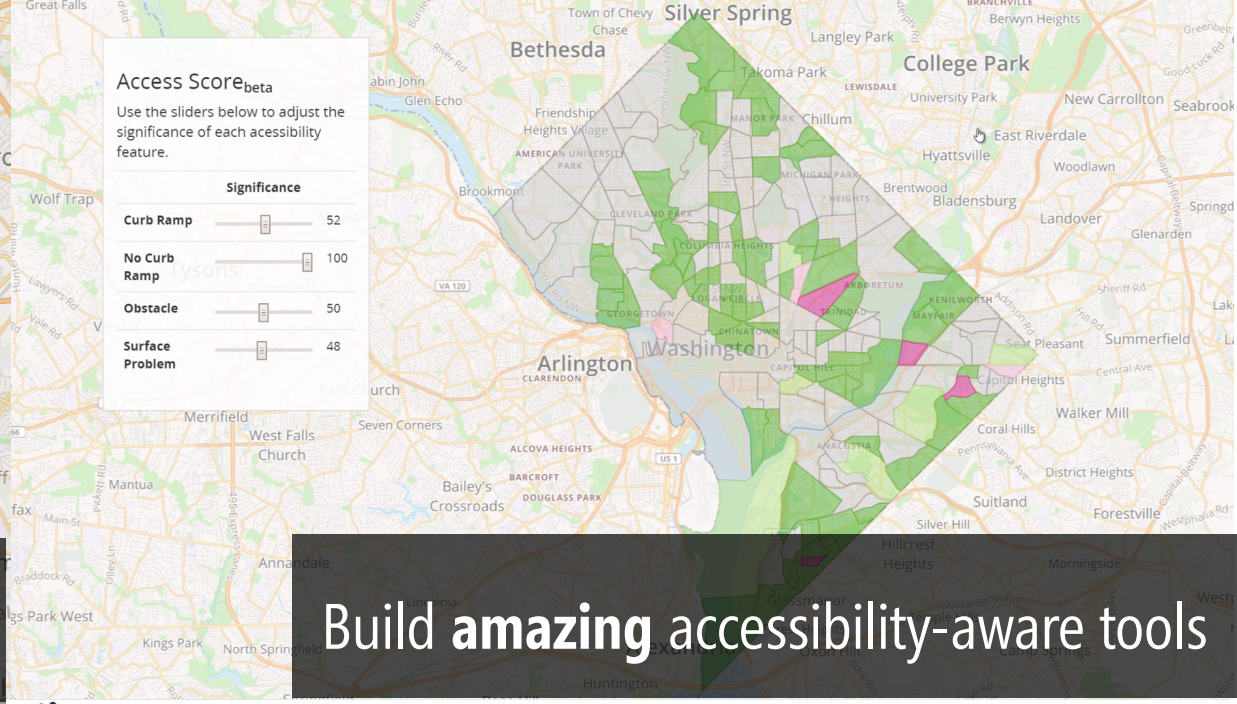
LABELS

WHAT WE WANT TO ACCOMPLISH

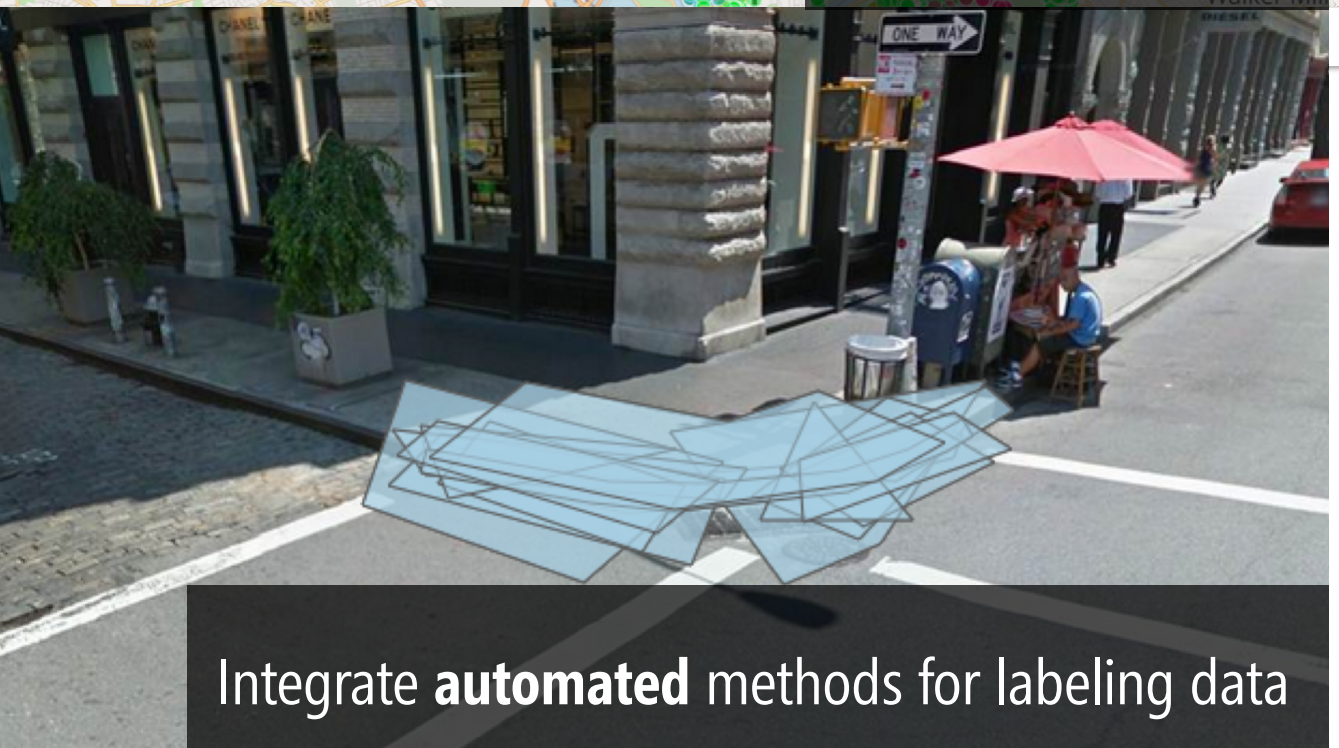
In the immediate future



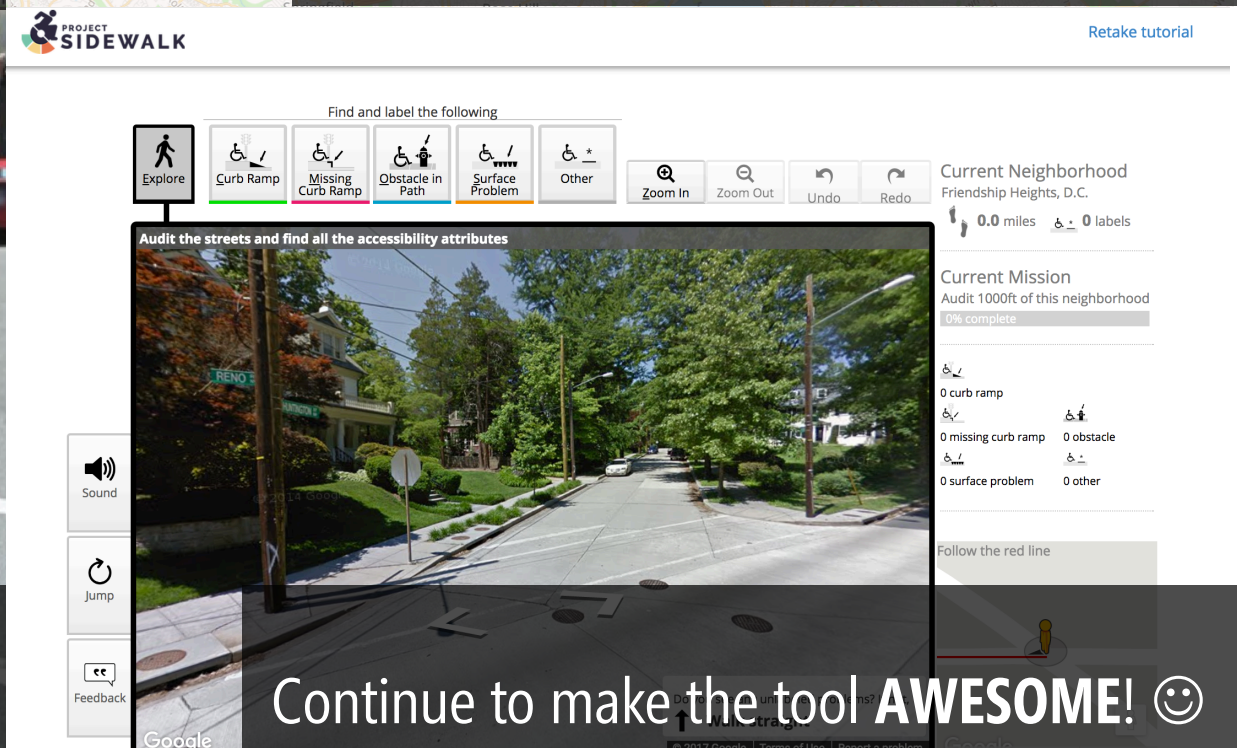
Cover **100%** of DC



Build **amazing** accessibility-aware tools



Integrate **automated** methods for labeling data



Continue to make the tool **AWESOME**! ☺

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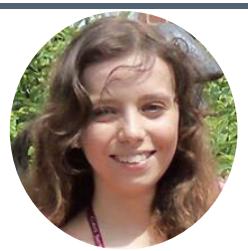
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...AND GROWING

Let's Contribute!

http://projectsidewalk.io

PROJECT
SIDEWALK

Thank you!

Feel free to contact us or contribute!

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