

Creating a transit map in Tilemill for a city with transit, but no GTFS [and otherwise bad maps]

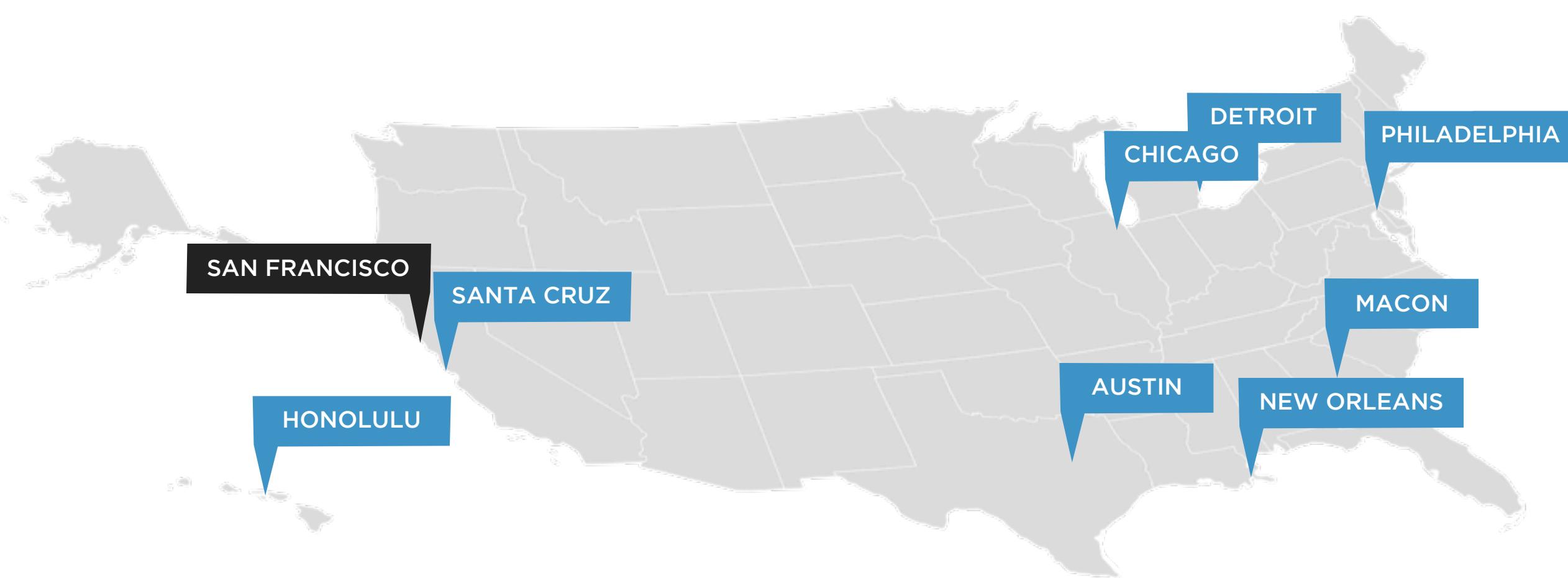
Jessica @jllord Lord

CODE *for*
AMERICA

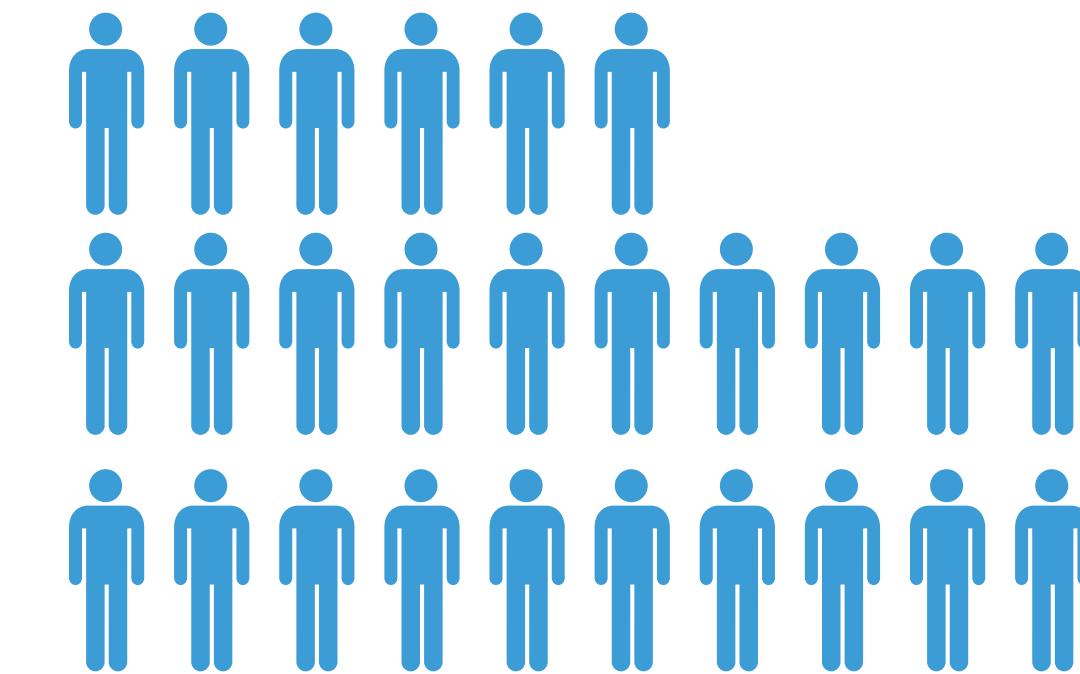
2012

Code for America Fellow

8 cities



26 fellows





Peace Corps *for* Geeks

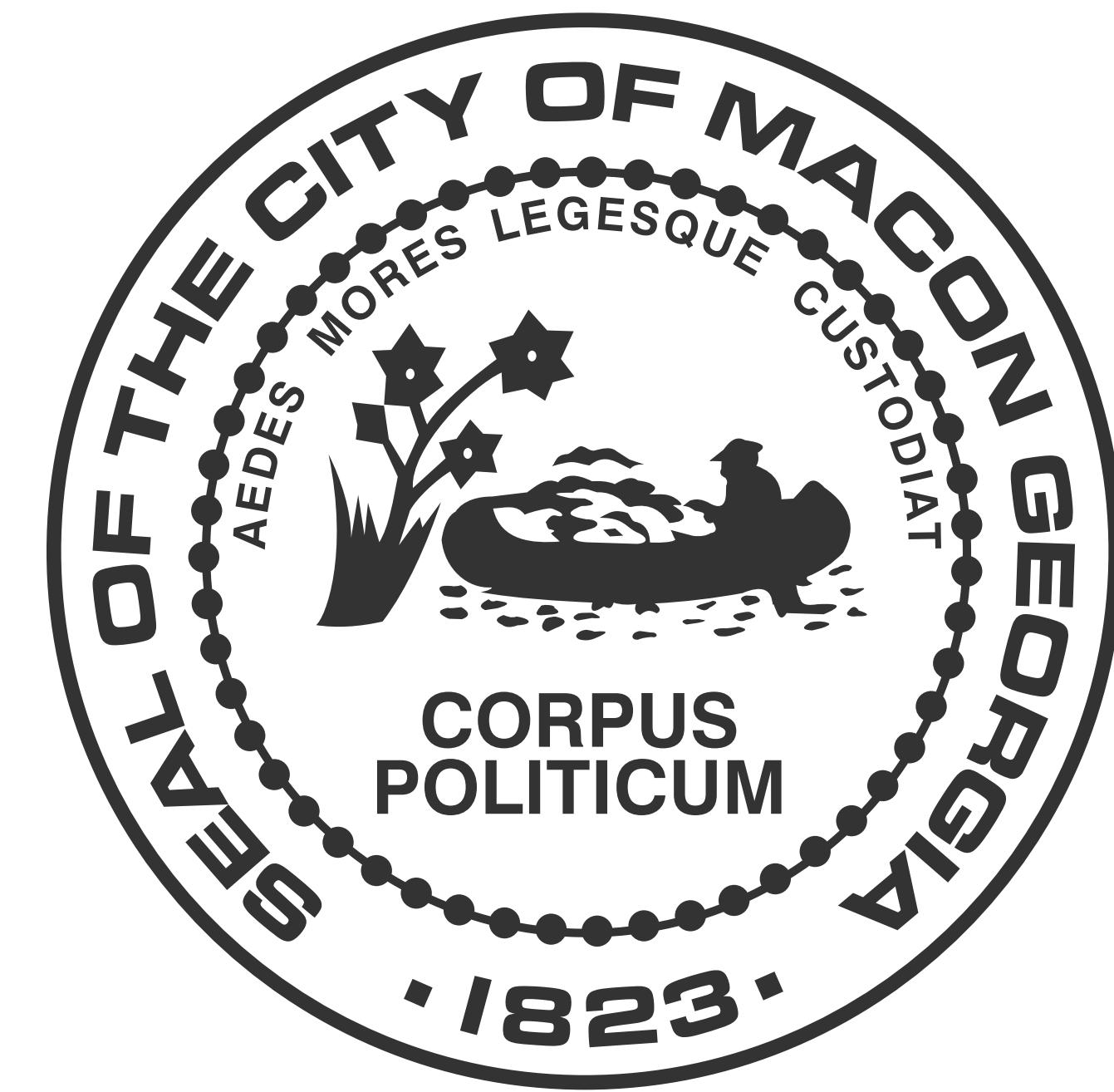
Code for America **sparks civic innovation** by bringing technology and design to cities so that government is more open, efficient and responsive.

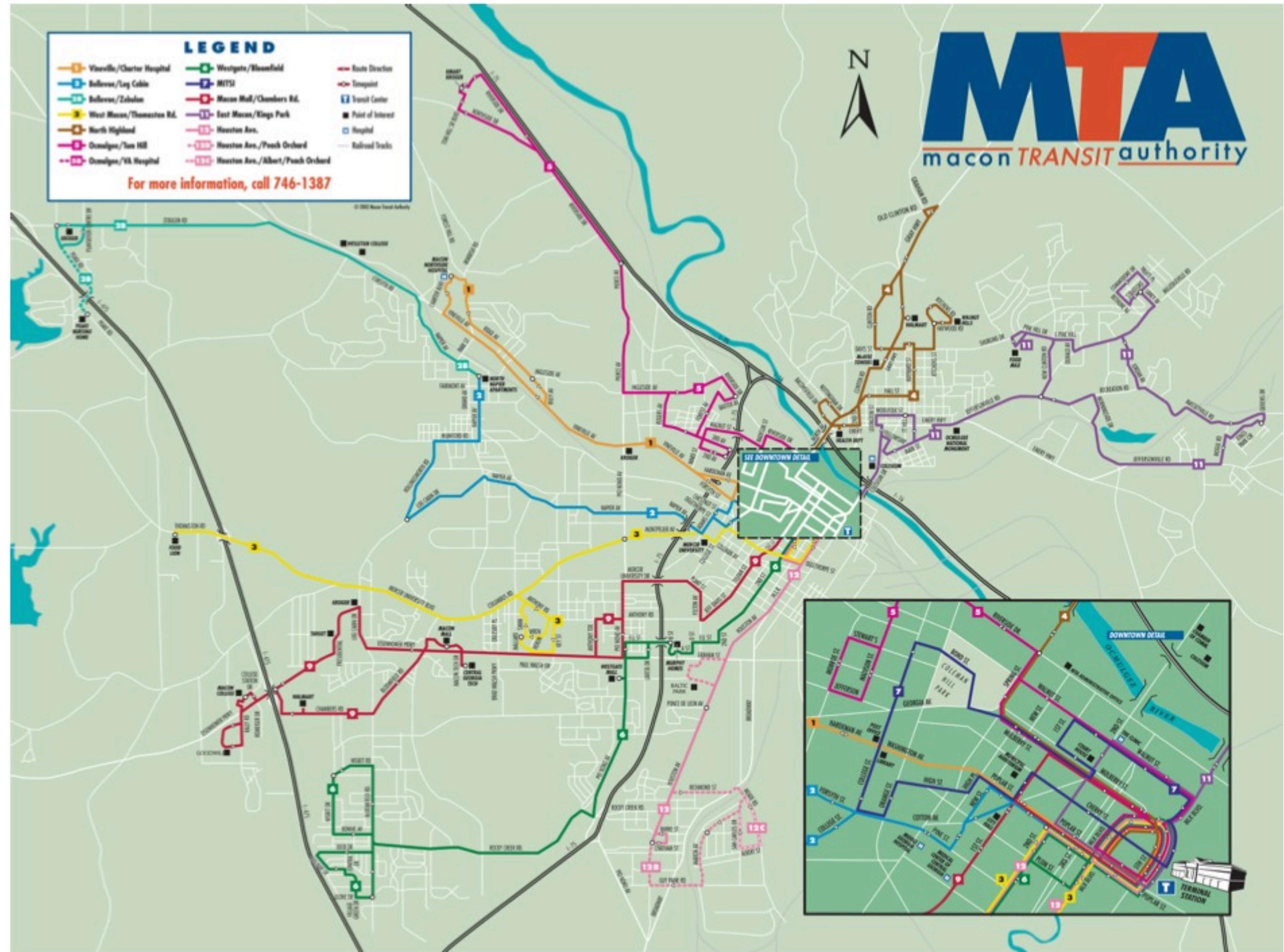
like Denny's, we're

ALWAYS OPEN

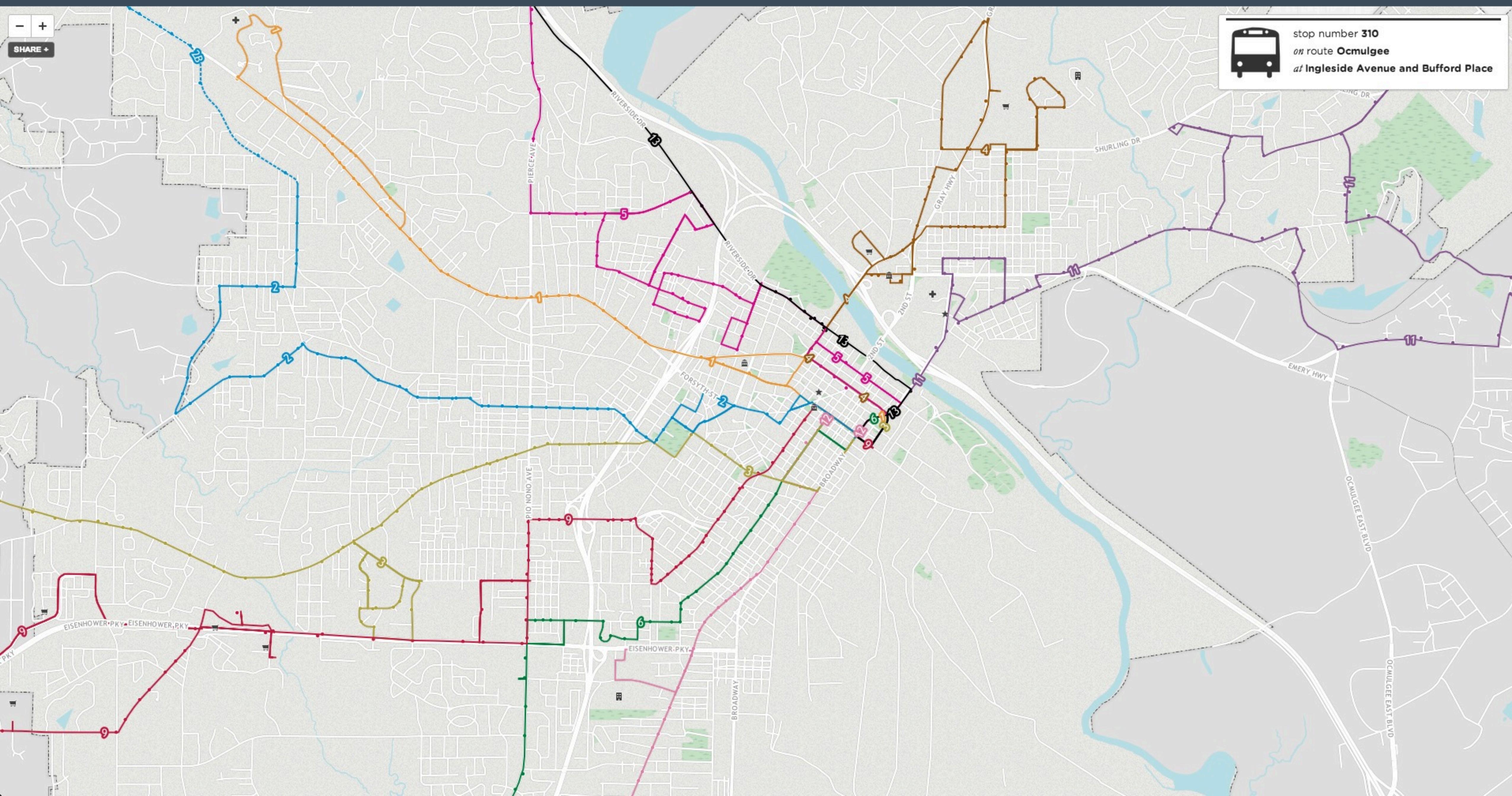
github.com/codeforamerica

(and we're in America and sometimes there are pancakes)









Everything I learned making the map.

MSS

ZOOM

DATA LAYERS

STYLING

TEASER

PRINT

MSS

It's CSS-y

```
style.mss x +
```

```

77  ::shadow3 {
78    line-opacity: 0.12;
79    line-width: 2;
80  }
81  ::polygon {
82    polygon-pattern-file: url(greybg.png);
83  }
84    line-color:#333;
85    line-width: .5;
86    polygon-opacity:1;
87    polygon-fill:#E0E0E0;
88  }
89
90 /* -----STREETS----- */
91
92 #bbbSts[TYPE="primary"][zoom = 13] {
93   ::outline {
94     line-width: 2.5;
95     line-color: #acacac;
96   }
97   line-width: 2;
98   line-color: #fff;
99 }
100 #bbbSts[TYPE="trunk"][zoom = 13],
101 #bbbSts[TYPE="motorway_link"][zoom = 13],
102 #bbbSts[TYPE="motorway"][zoom = 13] {
103   ::outline {
104     line-width: 3;
105     line-color: #acacac;
106   }
107   line-width: 2;
108   line-color: #fff;
109 }
110 #bbbSts[TYPE="primary"][zoom >= 14] {
111   ::outline {
112     line-width: 4.5;
113     line-color: #acacac;
114   }
115   line-width: 4;
116   line-color: #fff;
117 }
118 #bbbSts[TYPE="residential"][zoom >= 14] {
119   ::outline {
120     line-width: 3;
121     line-color: #acacac;
122   }
123   line-width: 2.5;
124   line-color: #fff;
125 }
126 #bbbSts[TYPE="trunk"][zoom >= 14],
127 #bbbSts[TYPE="motorway_link"][zoom >= 14],
128 #bbbSts[TYPE="motorway"][zoom >= 14] {
129   ::outline {
130     line-width: 4.5;
131     line-color: #acacac;
132   }
133   line-width: 4;
134   line-color: #fff;
135 }

```

Carto

Multiple sheets if your styles are lengthy.

Organize similar to CSS

You can use LESS

```

/* ----- BUS COLORS ----- */

@rt1color: #E99A3D;
@rt2color: #048FC8;
@rt3color: #b0a545;
@rt4color: #985C16;
@rt5color: #D40E89;

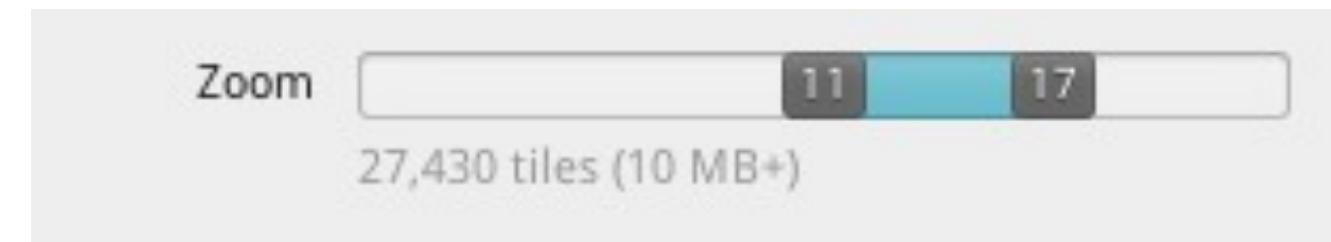
...

```

ZOOM

All the things.

Pick smallest zoom range necessary.

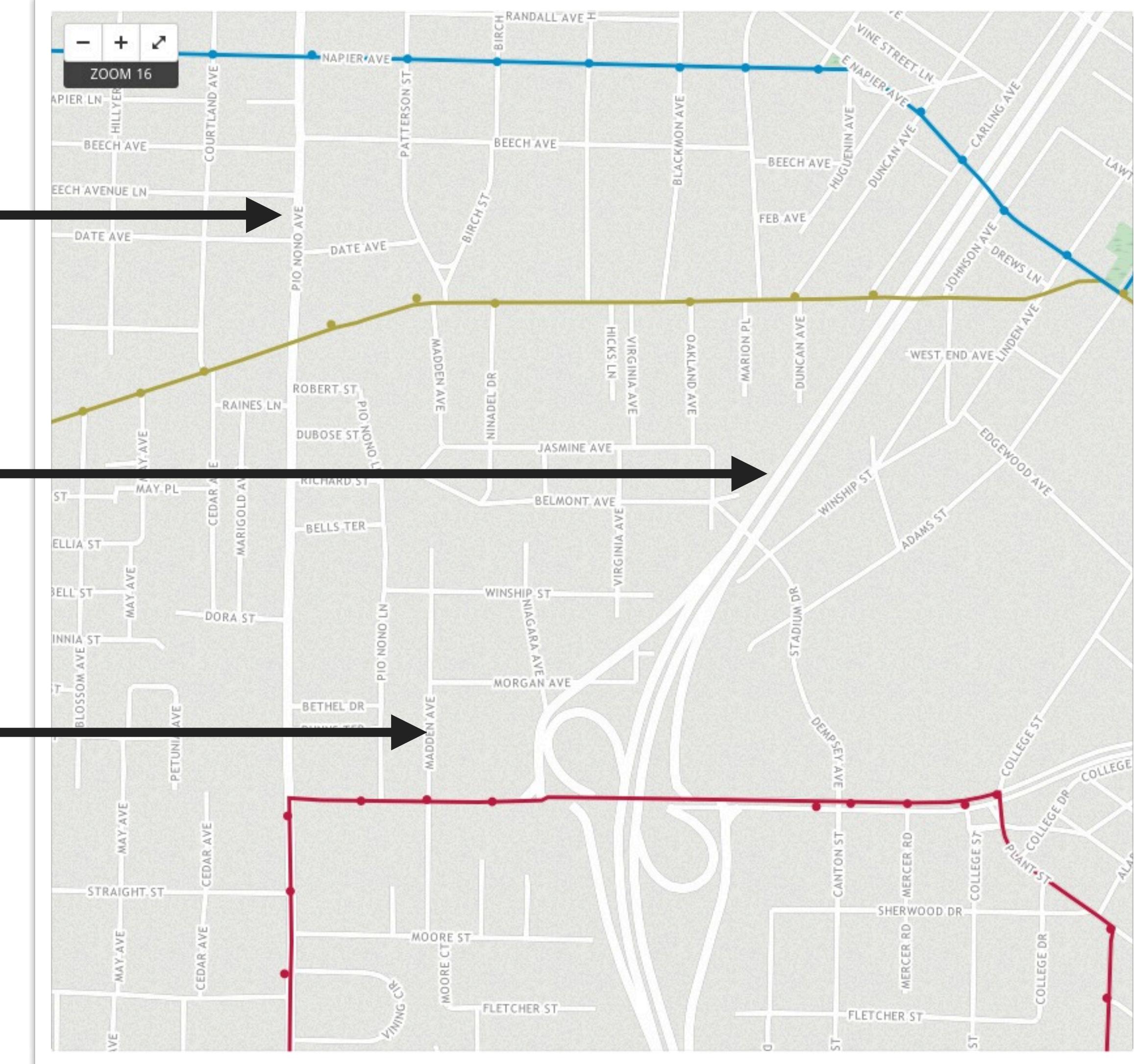


Street types

Primary

Highway

Residential



Use zoom to specify the first level you want data to appear.

```
/* don't show streets until zoom 13 */
#bibbSts[TYPE="primary"][zoom = 13] {
  ::outline {
    line-width: 2.5;
    line-color: #acacac;
  }
  line-width: 2;
  line-color: #fff;
}
```

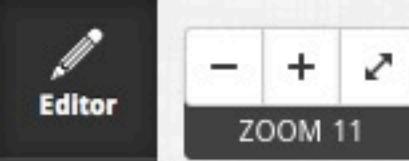
MTA Transit Map

style.mss

```
77  ::shadow3 {
78    line-opacity: 0.12;
79    line-width: 2;
80  }
81  ::polygon {
82    polygon-pattern-file: url(greybg.png);
83  }
84    line-color:#333;
85    line-width: .5;
86    polygon-opacity:1;
87    polygon-fill:#E0E0E0;
88  }
89
90 /* -----STREETS----- */
91
92 #bibbSts[TYPE="primary"][zoom = 13] {
93   ::outline {
94     line-width: 2.5;
95     line-color: #acacac;
96   }
97   line-width: 2;
98   line-color: #fff;
99 }
100 #bibbSts[TYPE="trunk"][zoom = 13],
101 #bibbSts[TYPE="motorway_link"][zoom = 13],
102 #bibbSts[TYPE="motorway"][zoom = 13] {
103   ::outline {
104     line-width: 3;
105     line-color: #acacac;
106   }
107   line-width: 2;
108   line-color: #fff;
109 }
110 #bibbSts[TYPE="primary"][zoom >= 14] {
111   ::outline {
112     line-width: 4.5;
113     line-color: #acacac;
114   }
115   line-width: 4;
116   line-color: #fff;
117 }
118 #bibbSts[TYPE="residential"][zoom >= 14] {
119   ::outline {
120     line-width: 3;
121     line-color: #acacac;
122   }
123   line-width: 2.5;
124   line-color: #fff;
125 }
126 #bibbSts[TYPE="trunk"][zoom >= 14],
127 #bibbSts[TYPE="motorway_link"][zoom >= 14],
128 #bibbSts[TYPE="motorway"][zoom >= 14] {
129   ::outline {
```



**What is the purpose of
each level for the user?**



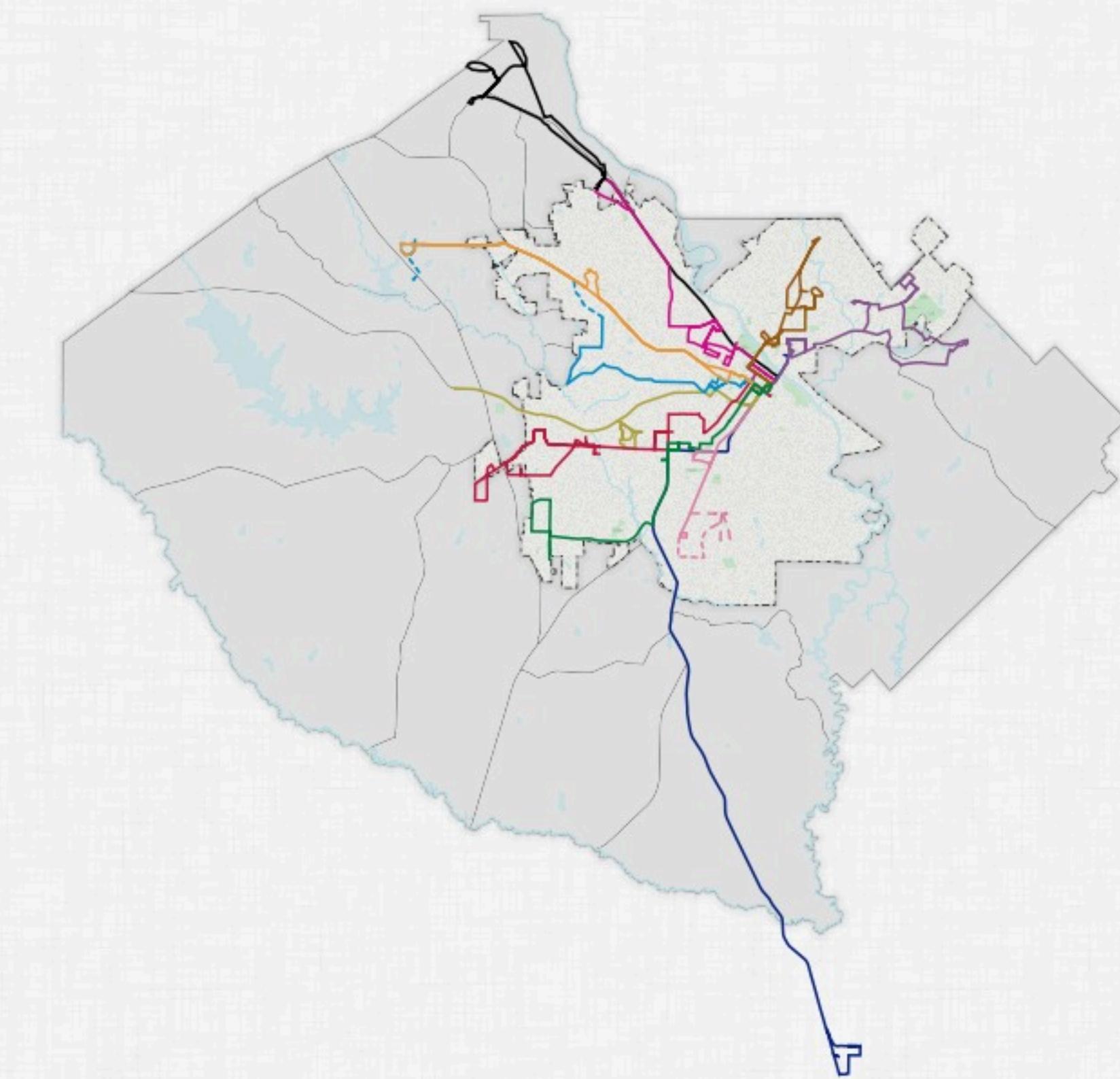
Editor

Projects

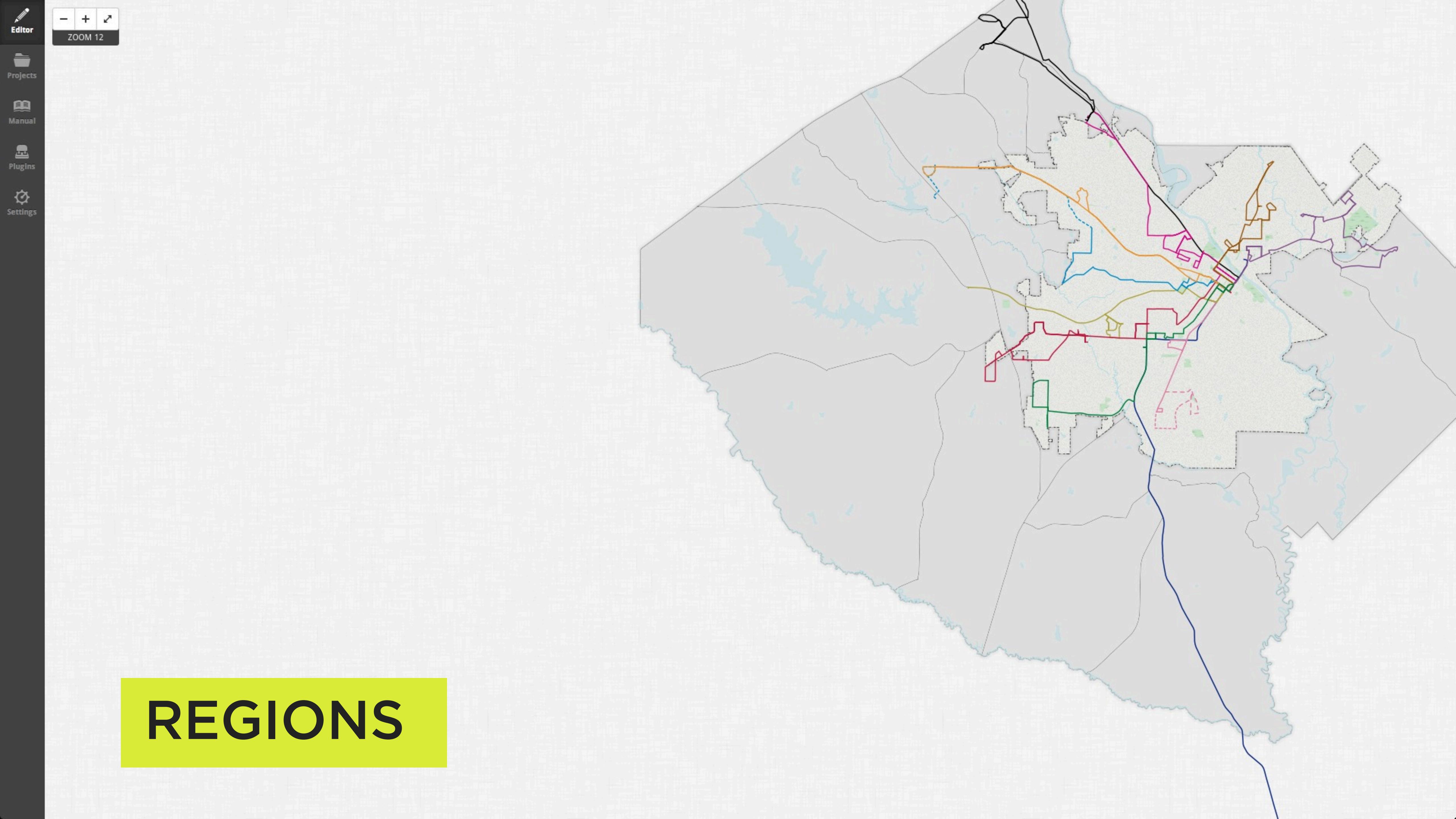
Manual

Plugins

Settings



EXTENT OF SYSTEM



REGIONS

Editor

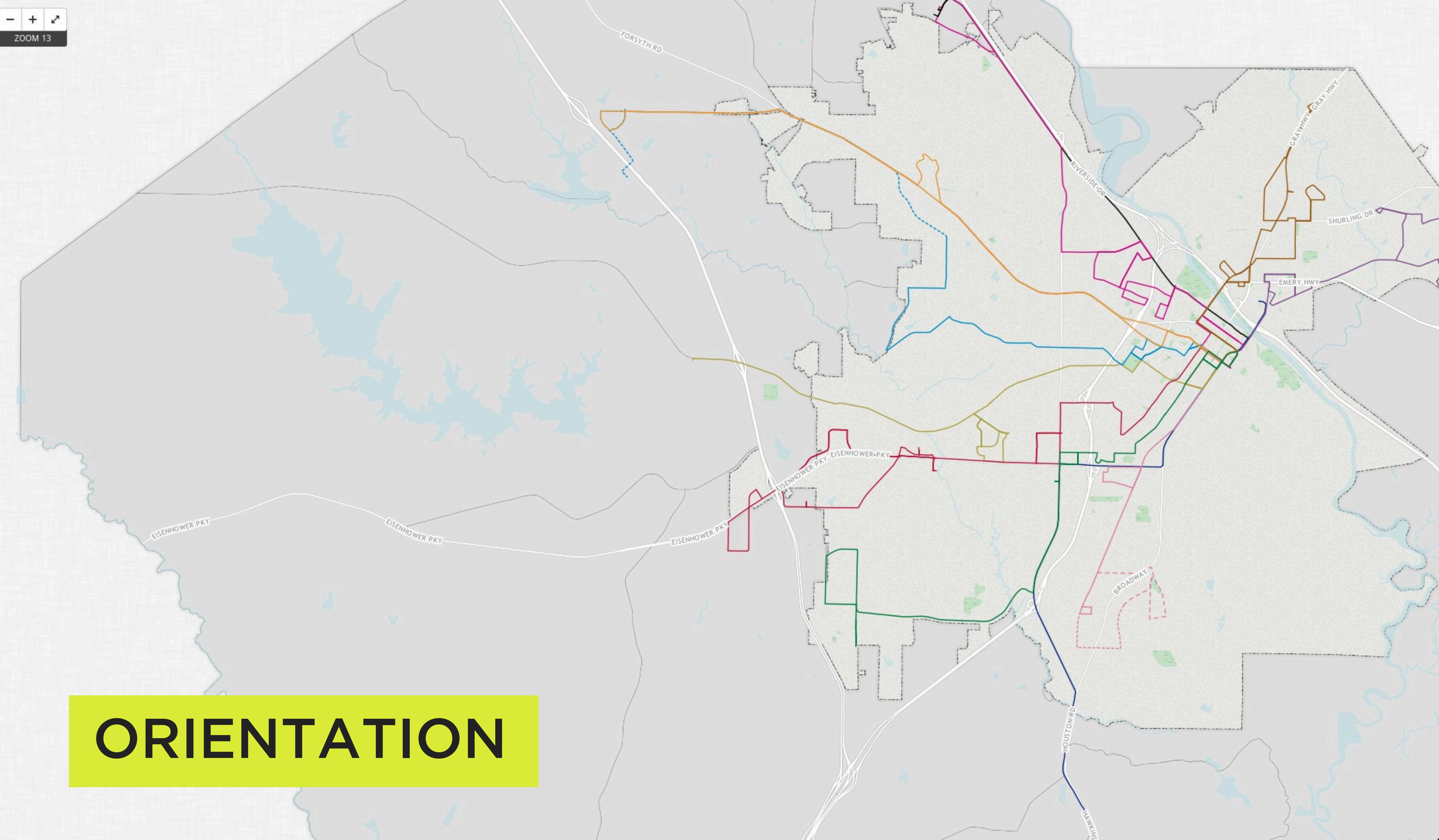
- + ↕
ZOOM 13

Projects

Manual

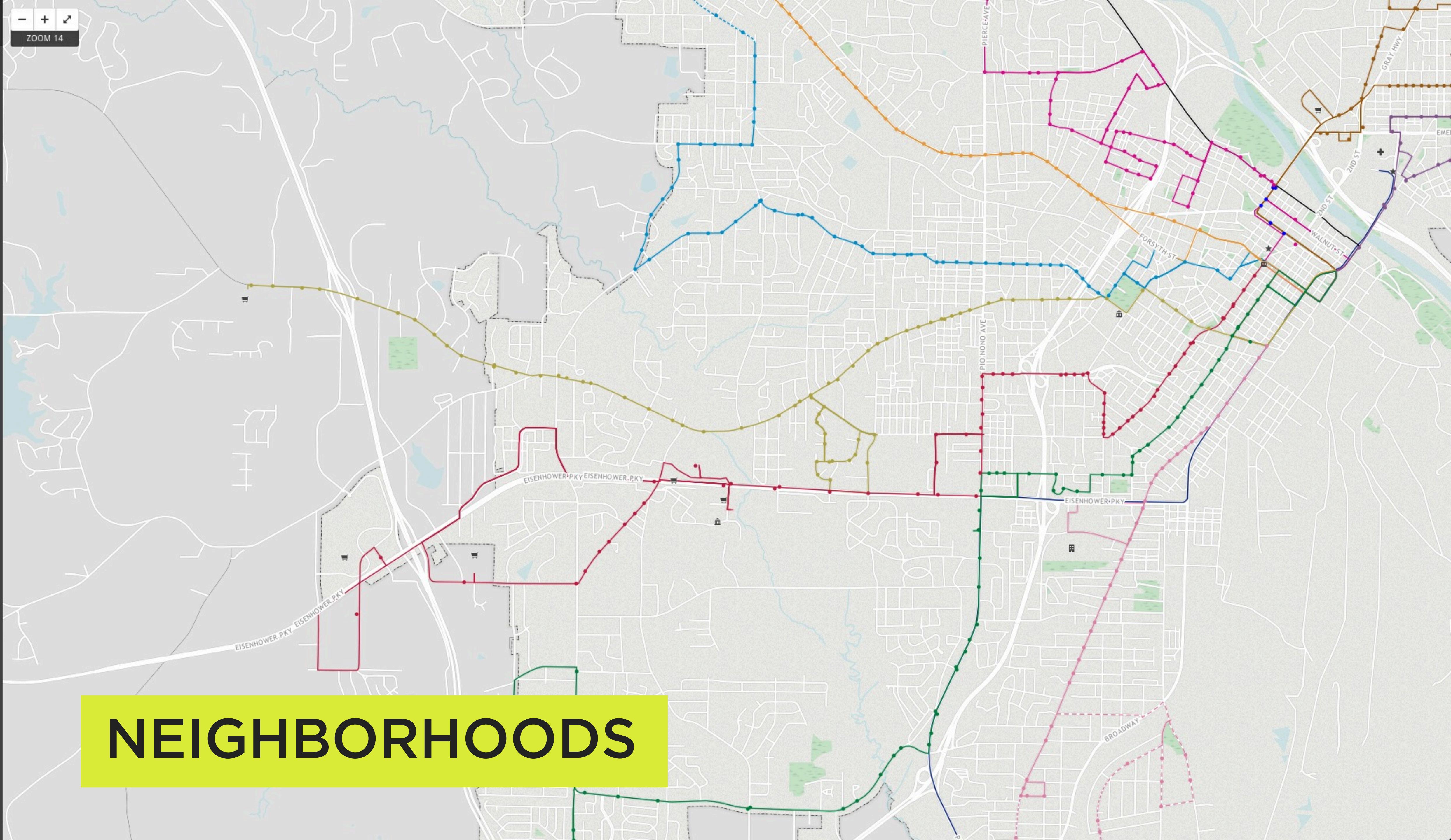
Plugins

Settings

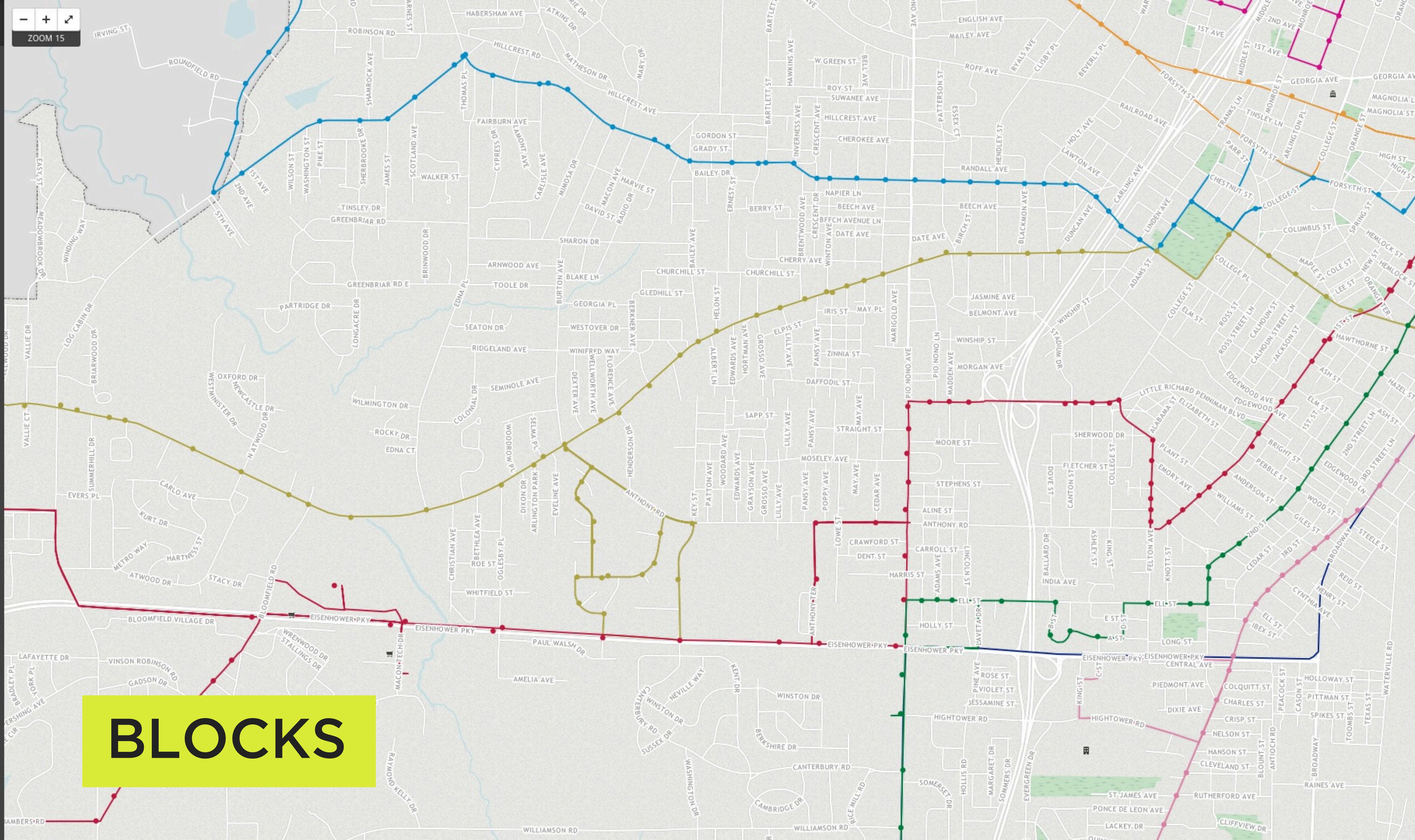


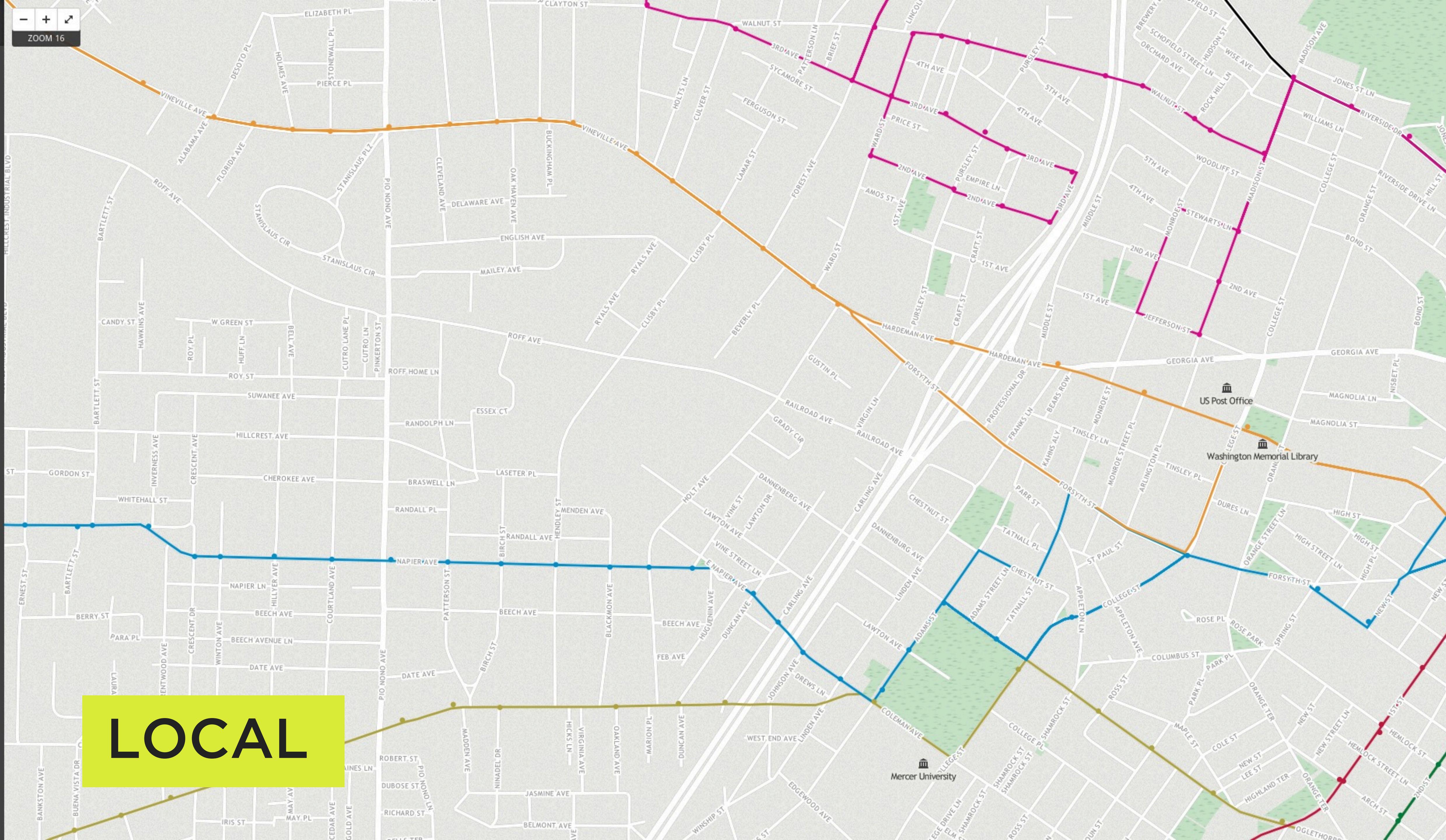
ORIENTATION

- + ↕
ZOOM 14



NEIGHBORHOODS





Editor

- + ↕

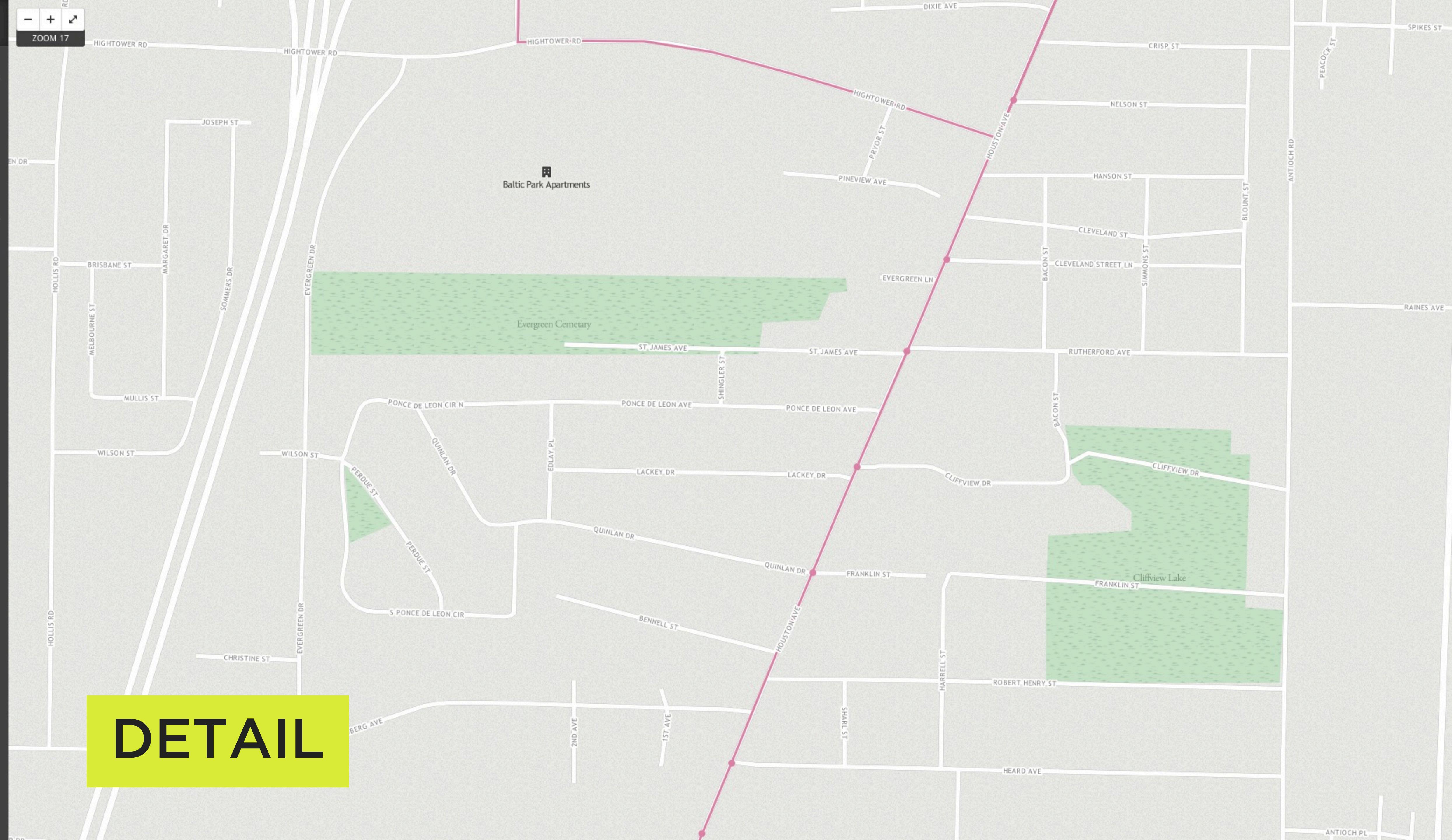
ZOOM 17

Projects

Manual

Plugins

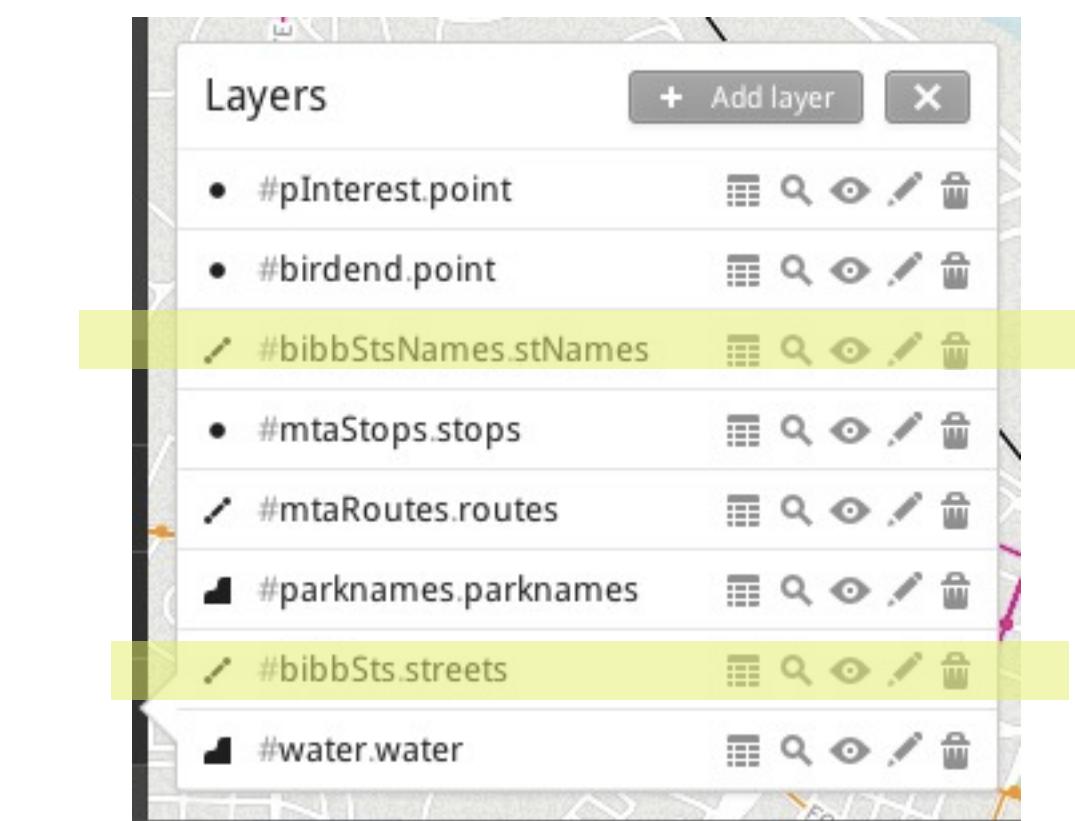
Settings



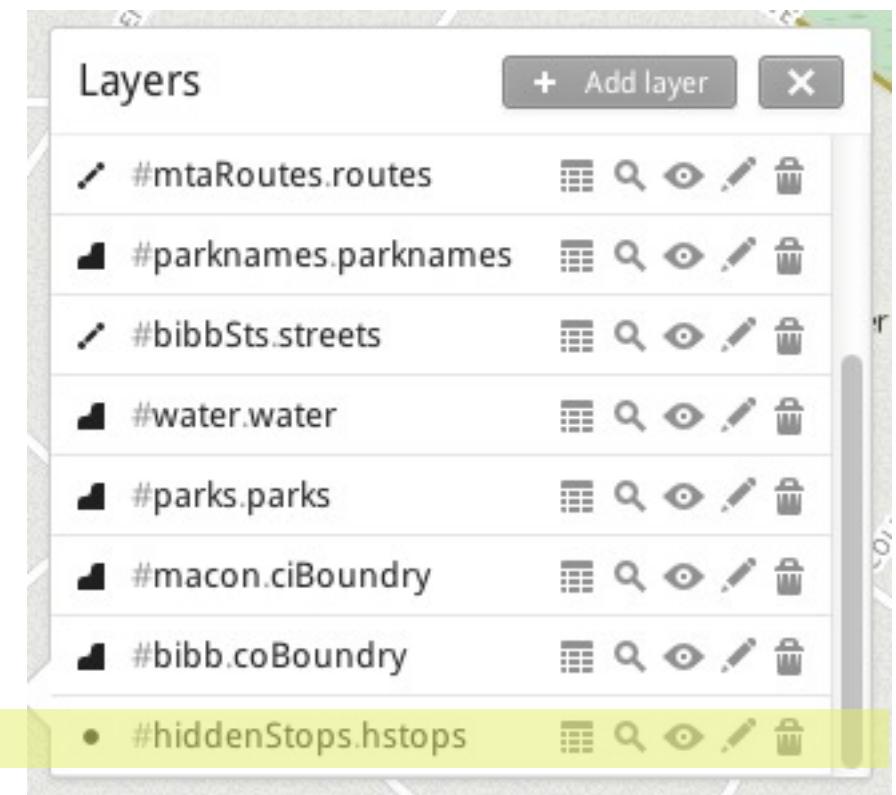
DATA LAYERS

Double up

To have street names on top of routes.



Create a buffer for teaser, duplicate layers and stack them appropriately.



Cleaning & Editing

Google Refine

QGIS

Google Earth

FileBakery.com



STYLING

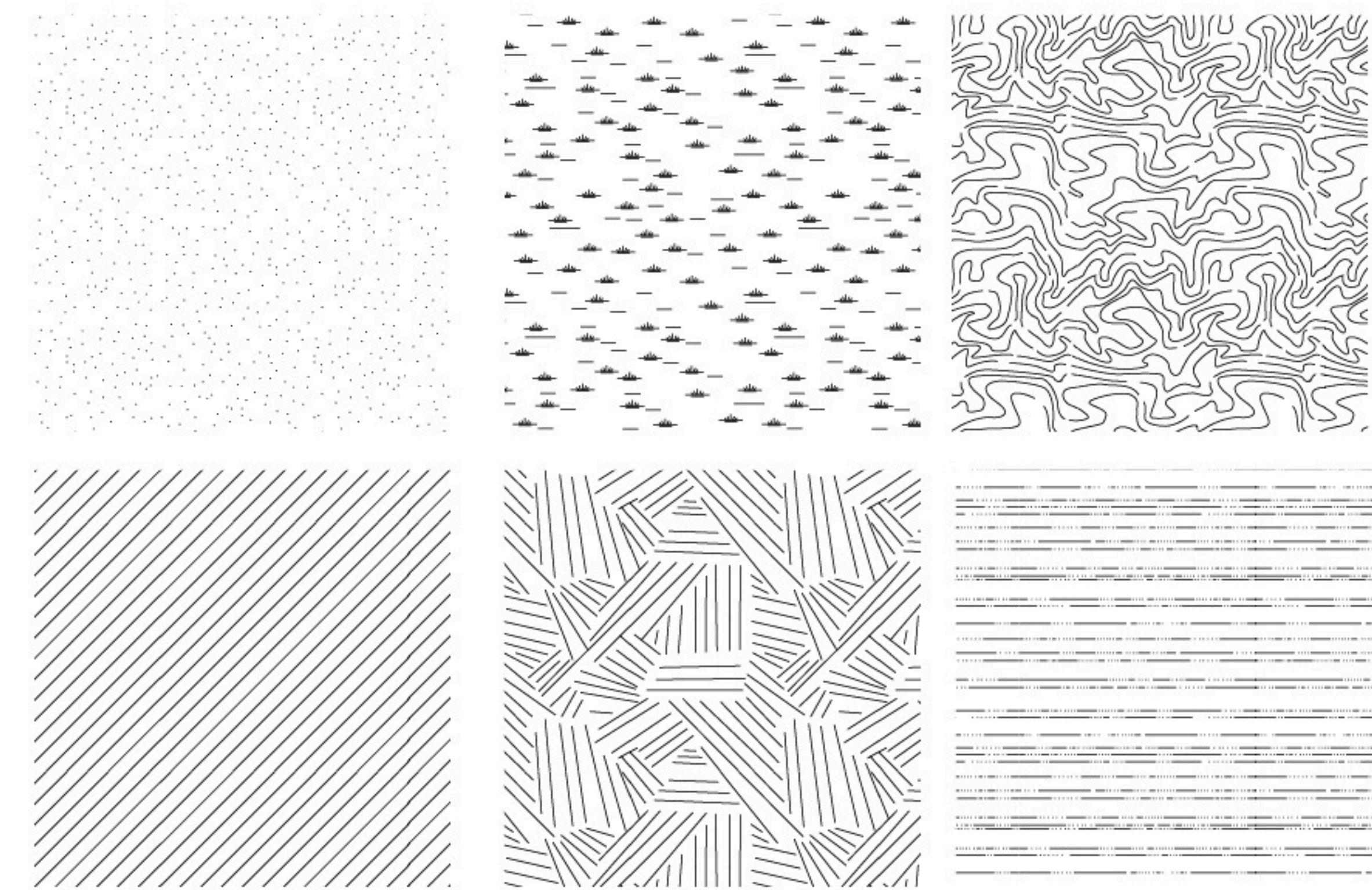
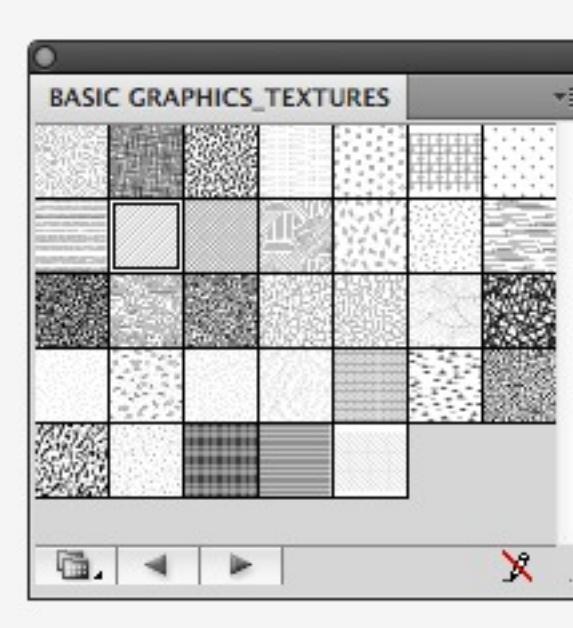
Textures and Patterns

Patterns: www.subtlepatterns.com

or make your own

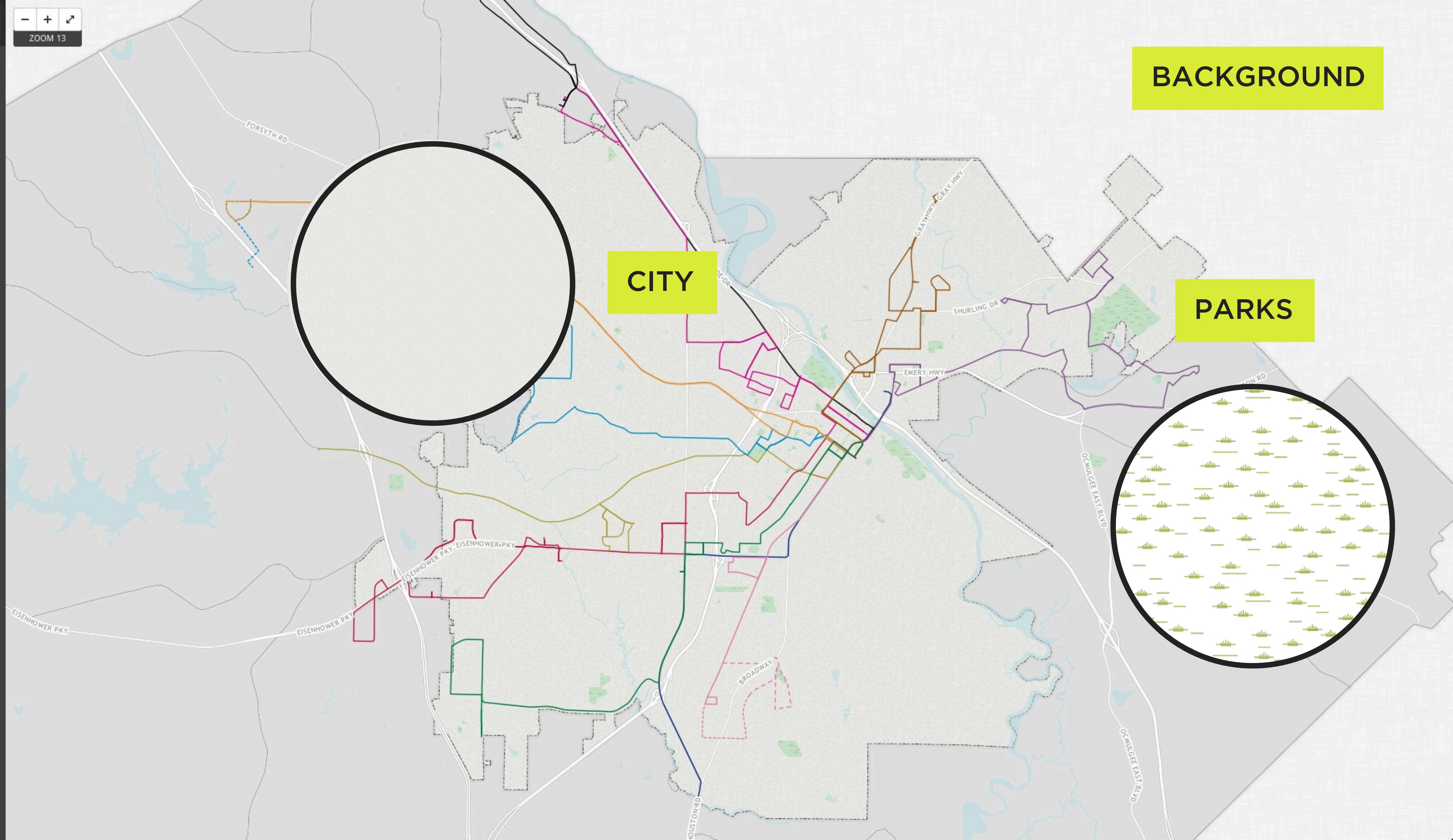
In Illustrator:

open swatch library >
patterns > basic
graphics > textures



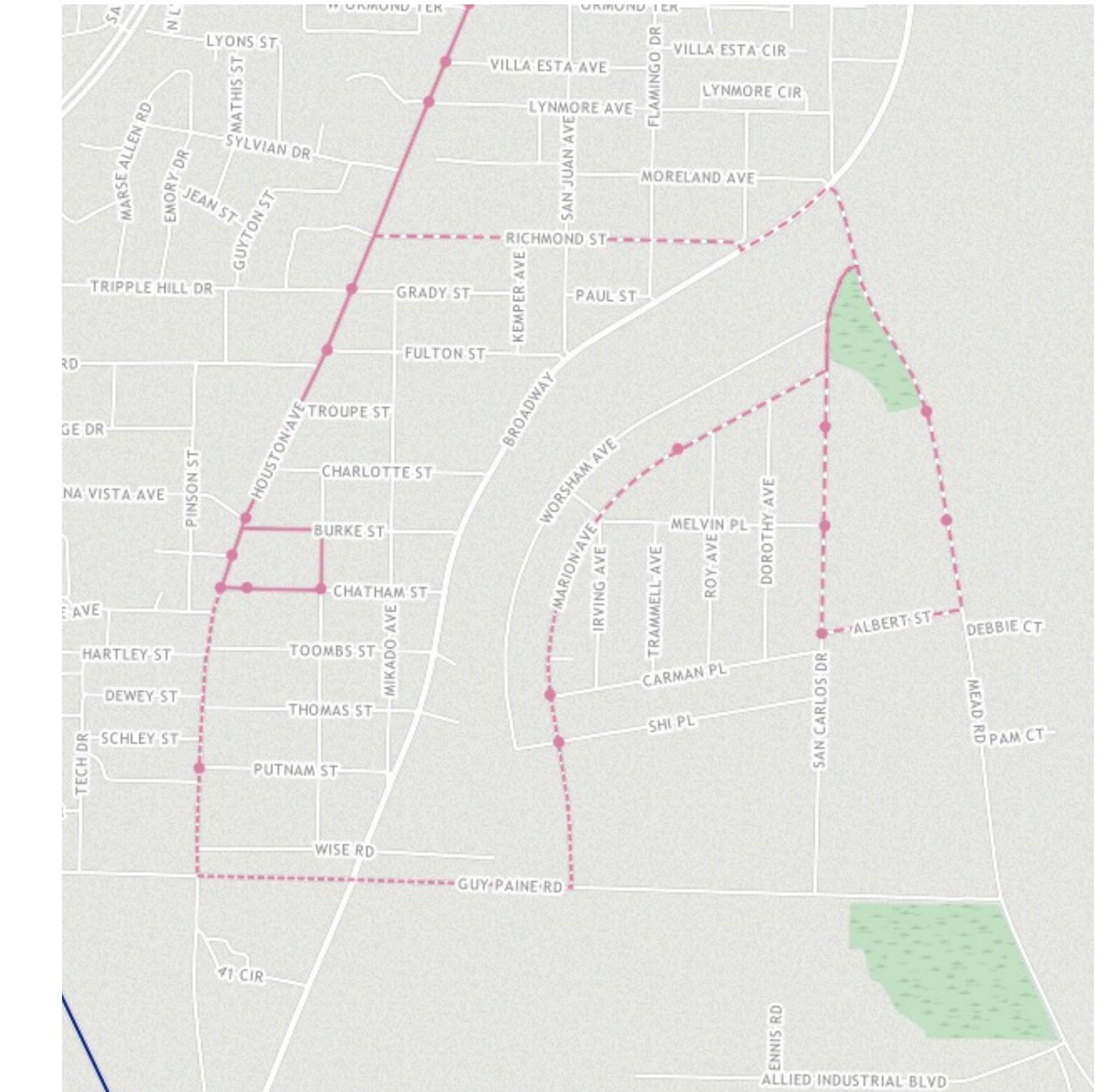
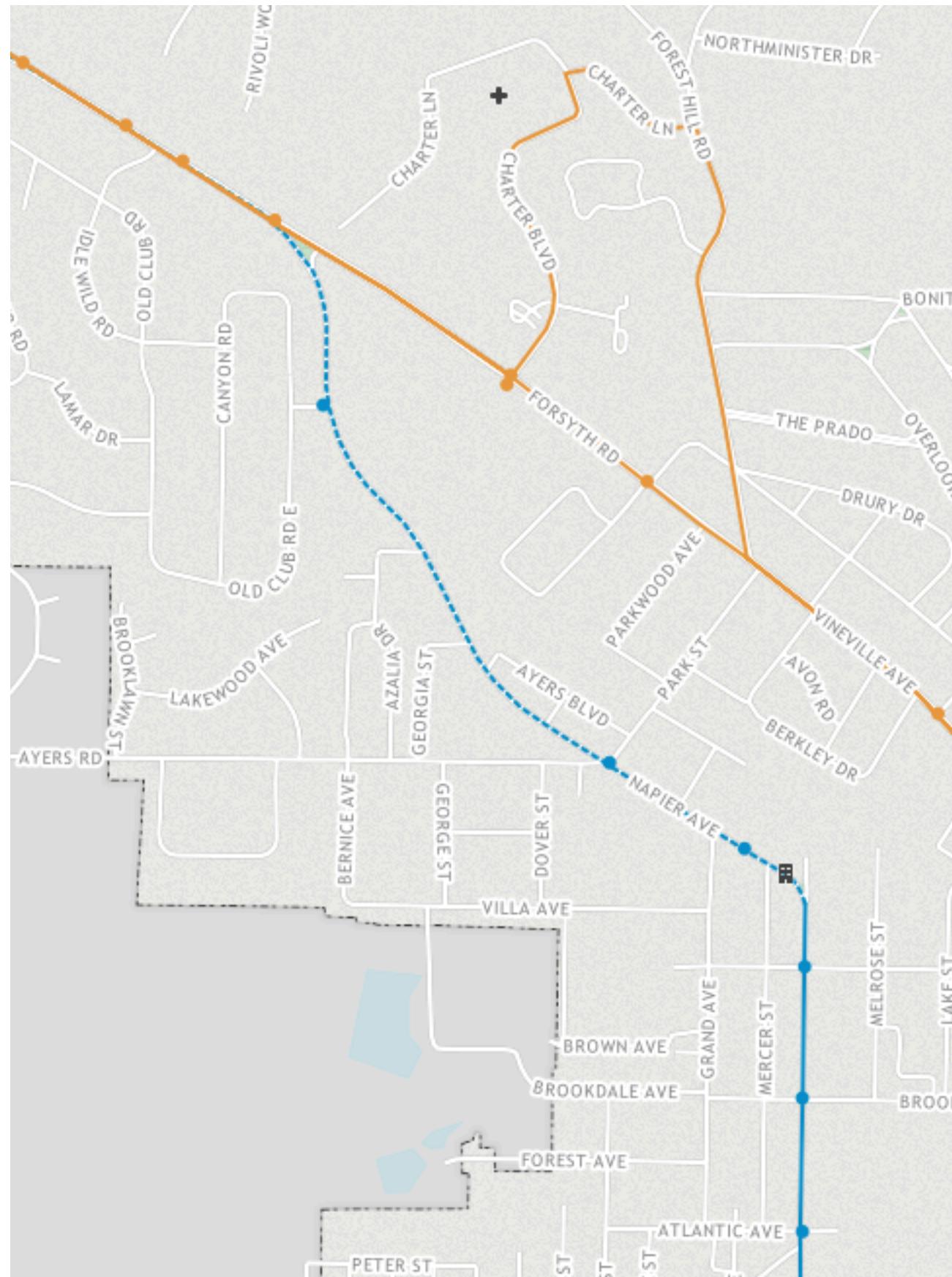
- + ↗
Editor
ZOOM 13

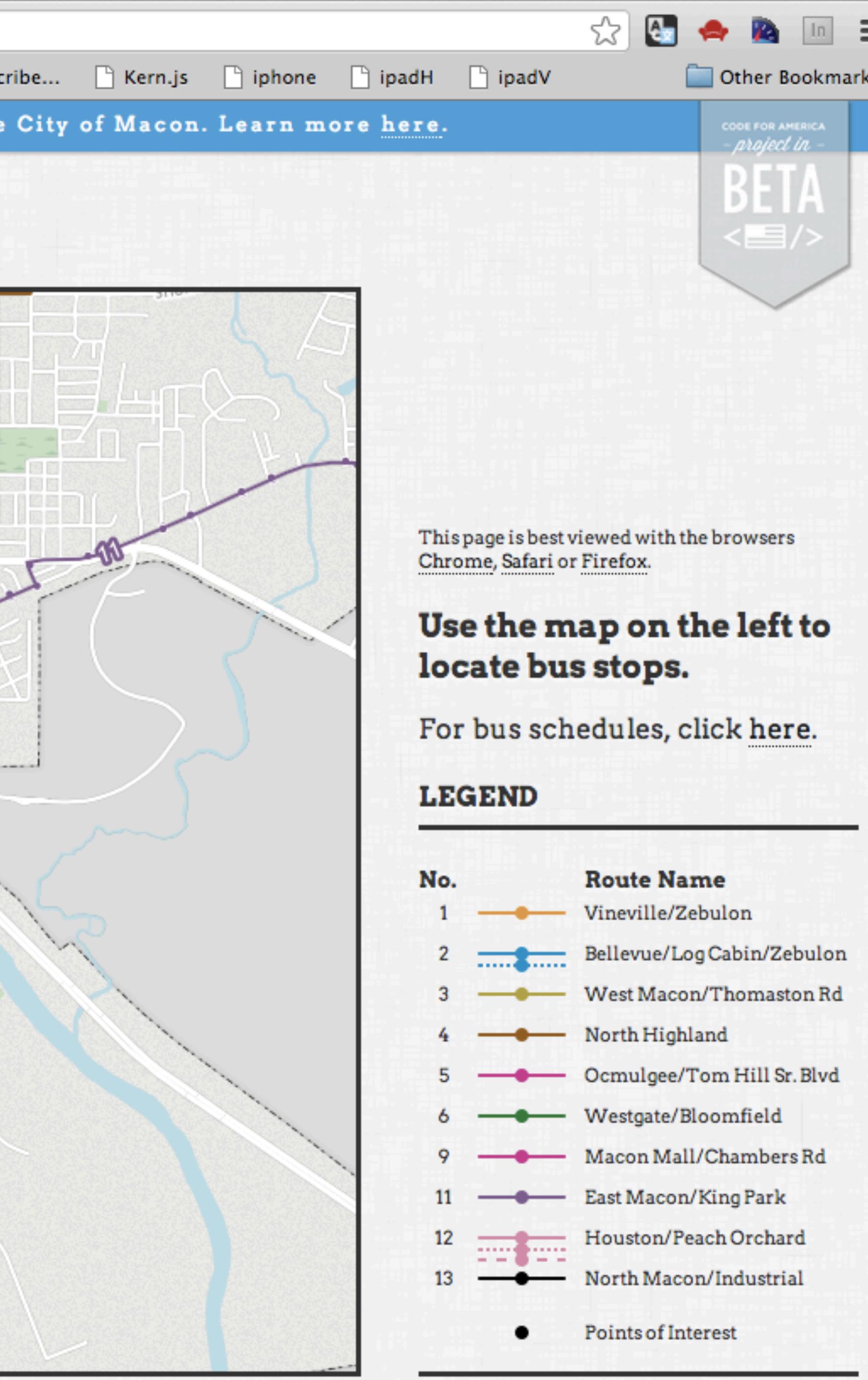
Projects
Manual
Plugins
Settings



Line Styles For different branches of routes

```
#mtaRoutes[Route_No="12B"]{  
    line-color: @rt12color;  
    line-dasharray: 3,3;  
    ::labels {  
        text-halo-fill: @rt12color;  
    }  
}  
  
#mtaRoutes[Route_No="12C"]{  
    line-color: @rt12color;  
    line-dasharray: 5,5;  
    ::labels {  
        text-halo-fill: @rt12color;  
    }  
}
```





CSS Legend

Using TileMill's legend or embed map on a page and add legend separately.

[github.com/codeforamerica/
Transit-Map-in-TileMill/
tree/gh-pages](https://github.com/codeforamerica/Transit-Map-in-TileMill/tree/gh-pages)

warning! be safe, make your own CSS classes.

Shadow

```
::shadow1, ::shadow2, ::shadow3 {  
  line-color: #333;  
  line-join: round;  
}  
  
::shadow1 {  
  line-opacity: 0.03;  
  line-width: 9;  
}  
  
::shadow2 {  
  line-opacity: 0.06;  
  line-width: 4;  
}  
  
::shadow3 {  
  line-opacity: 0.12;  
  line-width: 2;  
}
```

the rest of your element's style...

Create 3 lines

wide and subtle

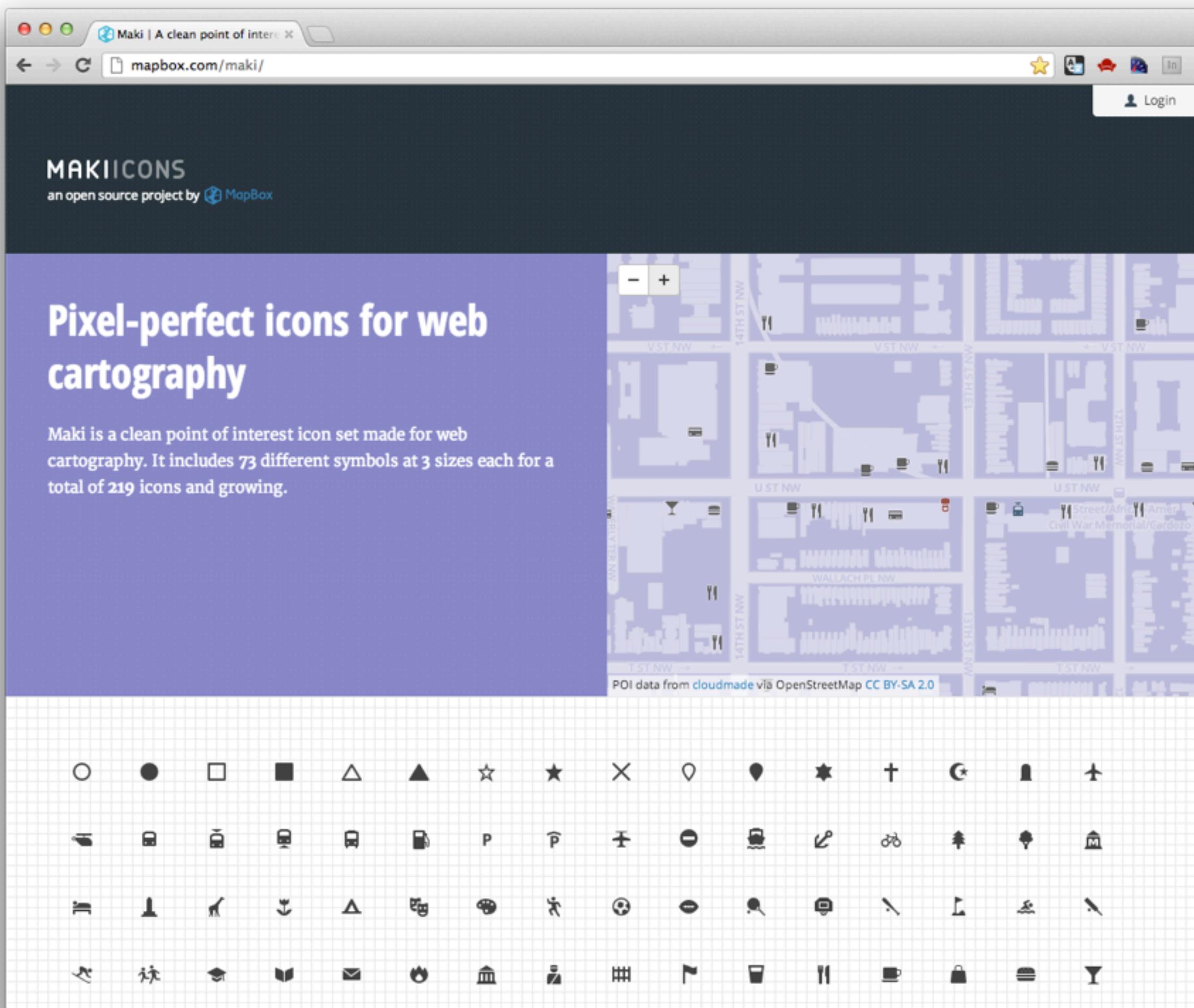
happy middle

narrow and dark



Icons and symbols

Maki icons



Make a points of interest map in Google Maps then export it as KML. If needed, Google Refine to edit it and export it as csv.

```
#pInterest[zoom > 15] {
    ::labels {
        text-name: "[name]";
        text-face-name: "Trebuchet MS Regular";
        text-placement: point;
        text-halo-radius: 3px;
        text-placement-type: simple;
        text-dy: 11;
        text-vertical-alignment: bottom;
        text-allow-overlap: true;
        text-halo-fill: #ecece6;
        text-fill: #333;
        text-size: 12;
    }
}

#pInterest[type="civic"][zoom >= 14]
    {point-file: url(maki/town-hall-12.png);}
#pInterest[type="civic"][zoom >= 16]
    {point-file: url(maki/town-hall-18.png);}
```

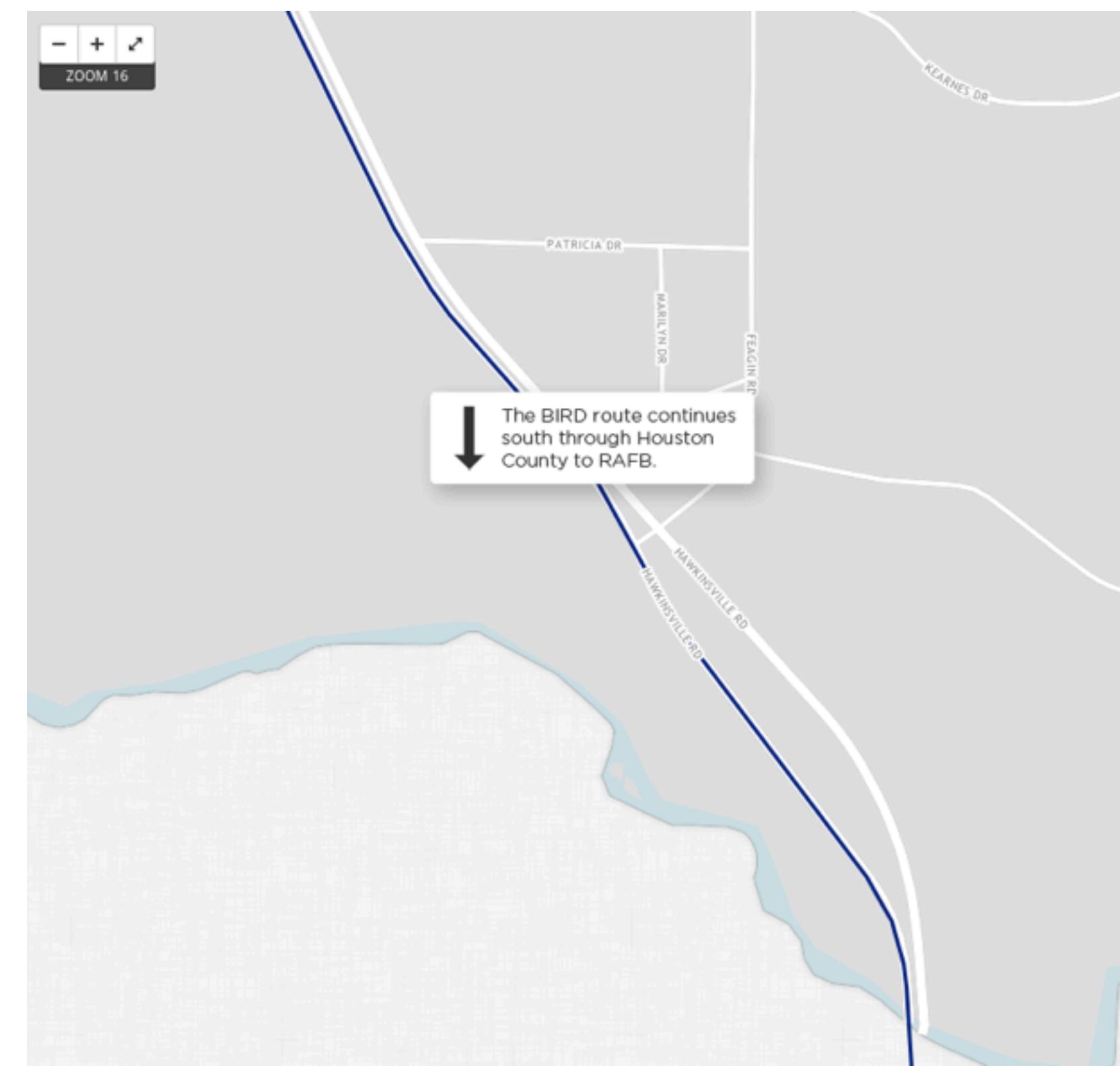
make some!

single point csv

Features (birdend)				
route name	lat	long	description	
BIRD min	min	32.6721823730387	min	-83.6246681213379 The BIRD route continues south through Houston County to RAFB.
BIRD max	max	32.6721823730387	max	-83.6246681213379 The BIRD route continues south through Houston County to RAFB.
BIRD		32.6721823730387		-83.6246681213379 The BIRD route continues south through Houston County to RAFB.

with image as point-file

or no image, use
description as label



TEASER

Do it up!

using data from a layer in TileMill



Templates

Legend Teaser Full Location

Content to be shown on hover or first tap (mobile).

```
ml>
ad>
nk href='http://fonts.googleapis.com/css?family=Quicksand' rel='stylesheet' type='text/css'
nk href='http://fonts.googleapis.com/css?family=IM+Fell+French+Canon:400italic'
='stylesheet' type='text/css'
ead>
yle>

.wax-tooltip {max-width: 600px !important;}
p {font-family: 'Quicksand', Gotham Rounded, Arial; font-size: 13px;}
i {font-family: 'IM Fell French Canon', Garamond, Baskerville, Times New Roman; font-style: italic; font-size: 16px; font-weight: 400;}

#teaserbox {border-top: 3px solid #333; }
#icon {float: left; margin: 2px 10px 0px 0px; }
#info {float: left; margin: 7px 10px 0px 0px; }

</style>
<body>
<div id="teaserbox">
<div id="icon"></div>
<div id="info">
<p>
    stop number <b>{{{{OBJECTID}}}</b><br/>
    <i>on</i> route <b>{{{{Route}}}</b><br/>
    <i>at</i> <b>{{{{Location}}}</b>
</p>

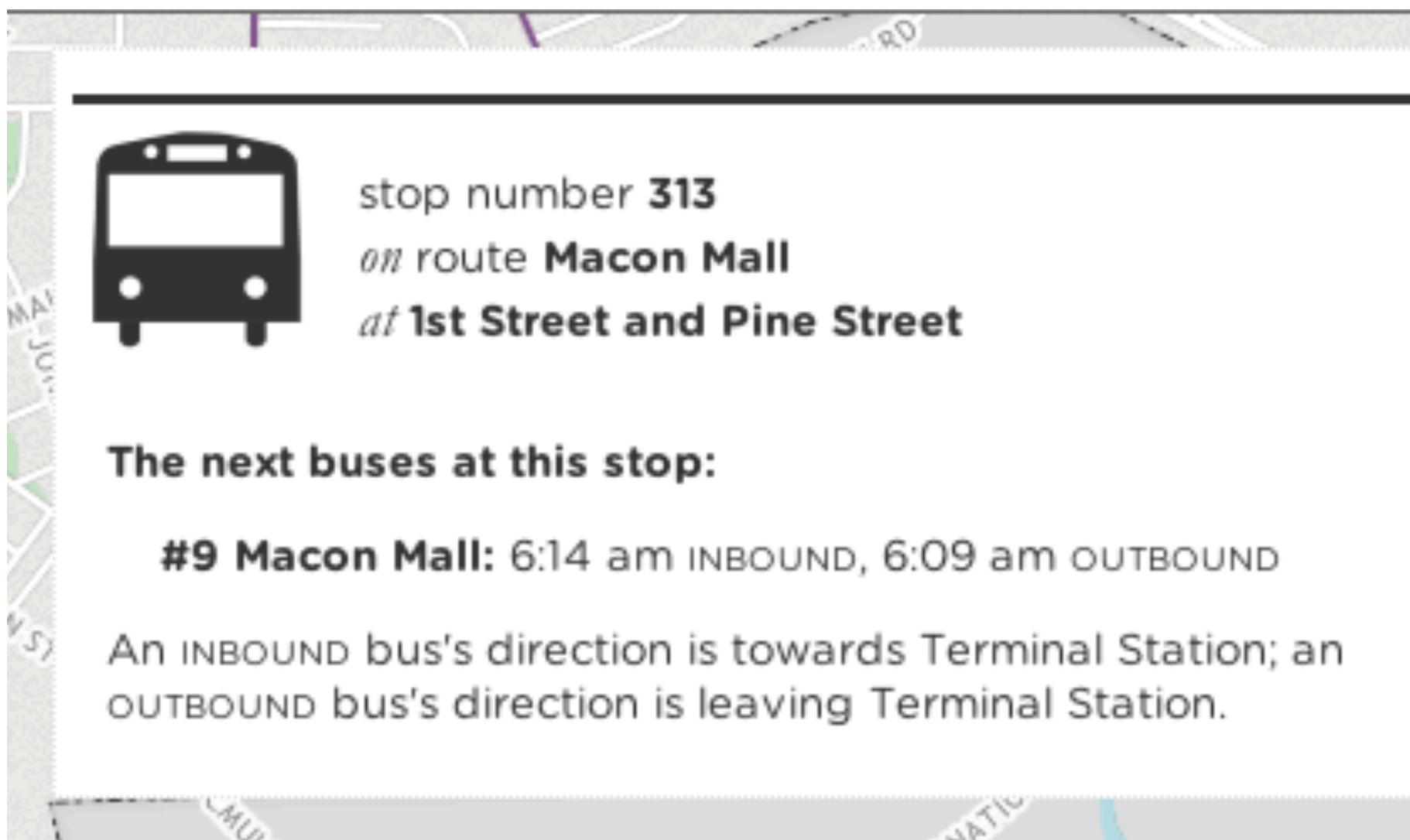
```

hiddenStops Layer to use for interaction data

```
 {{{OBJECTID}}} {{{Id}}} {{{Location}}} {{{Type}}} {{{Sidewalk}}} {{{Bike_Route}}} {{{Route}}} {{{Schedule}}} {{{RouteBIRD}}}
{{{Route1}}} {{{Route2}}} {{{Route3}}} {{{Route4}}} {{{Route5}}} {{{Route6}}} {{{Route9}}} {{{Route11}}} {{{Route13}}} {{{Route12}}}
```

These Mustache tags will be replaced by data. You can also use the full Mustache template language to customize your tooltips.

With data outside of TileMill

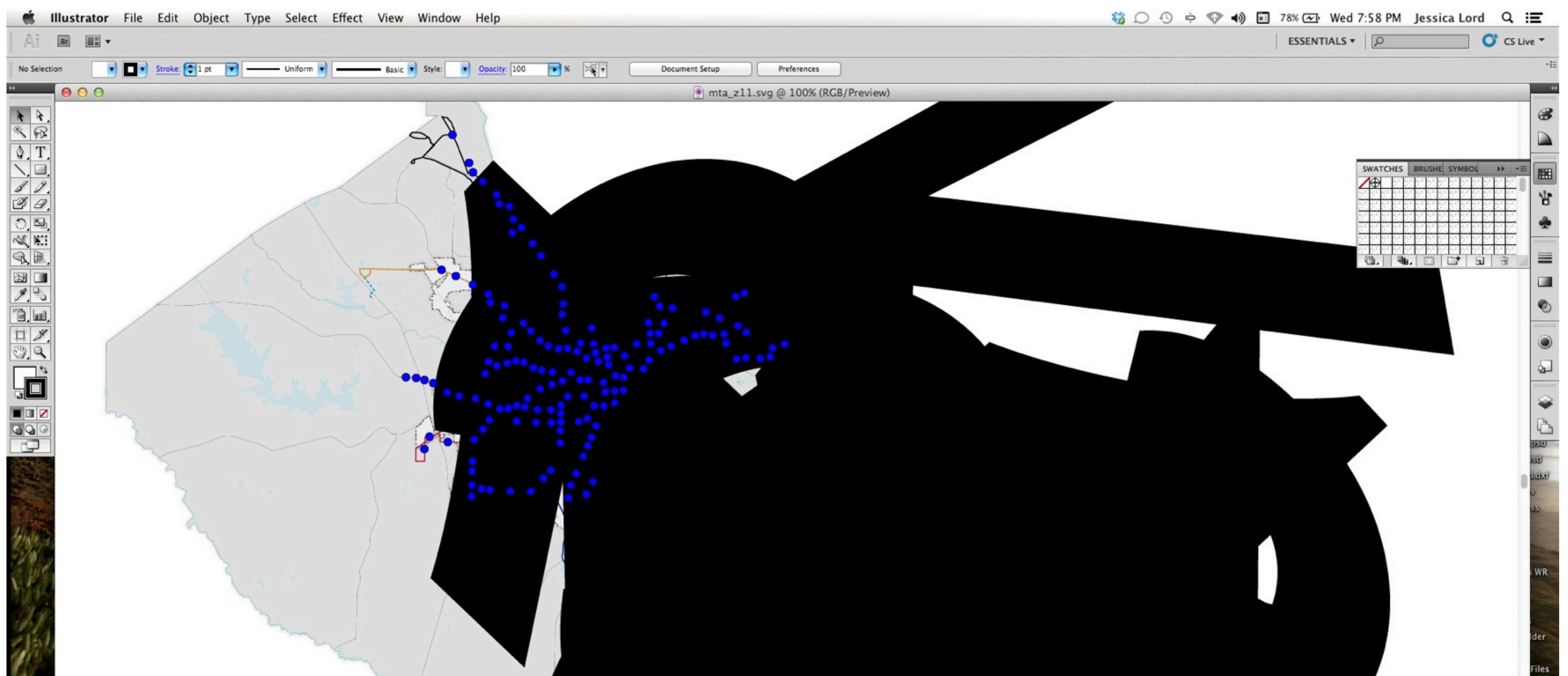


PRINT

Oh, dang.

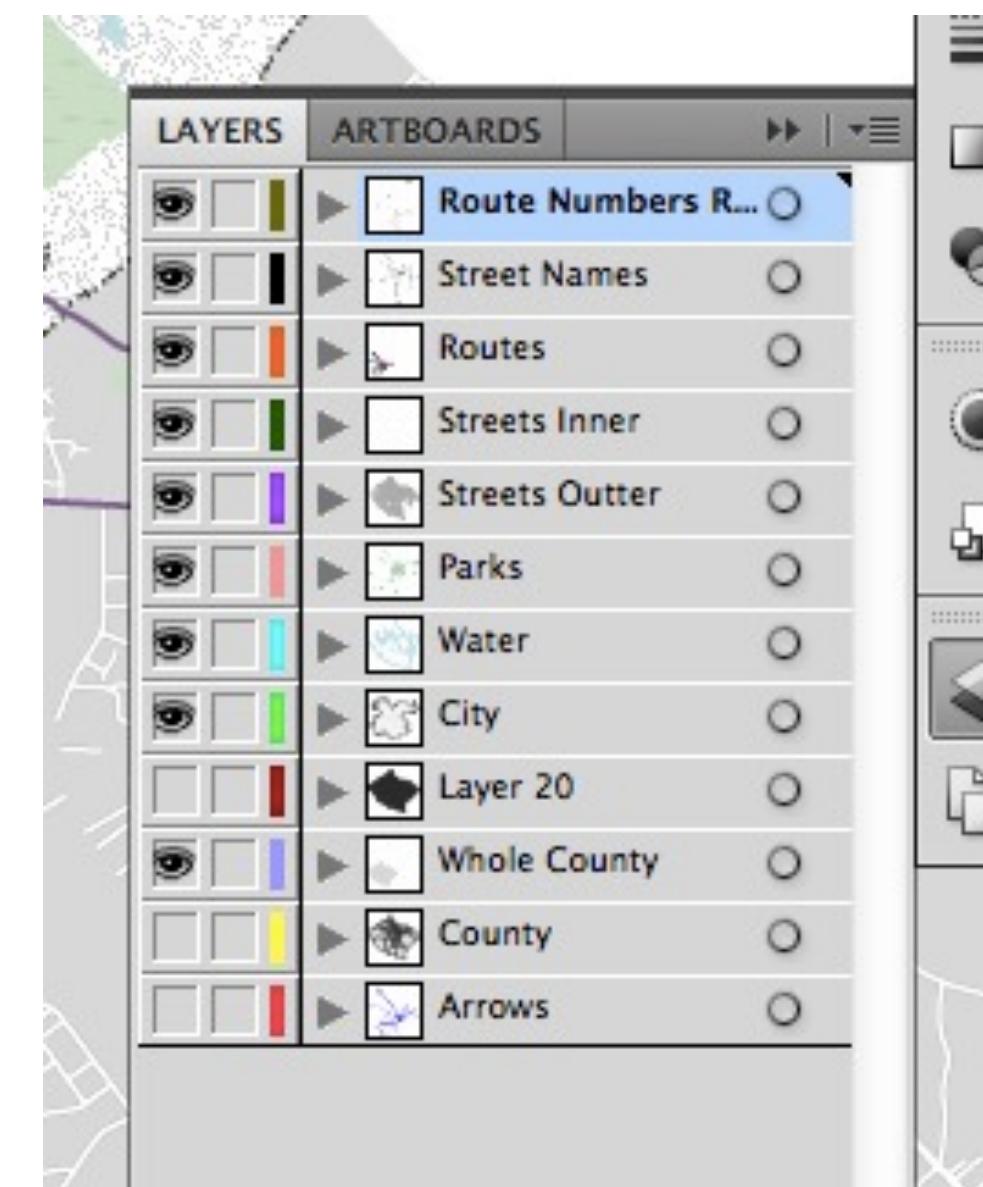
**Save a copy of your MSS, then
take out everything you don't
need and remove all zoom
conditions, remove text if you can.**

Export it as a PDF. Trust me, SVG won't work.



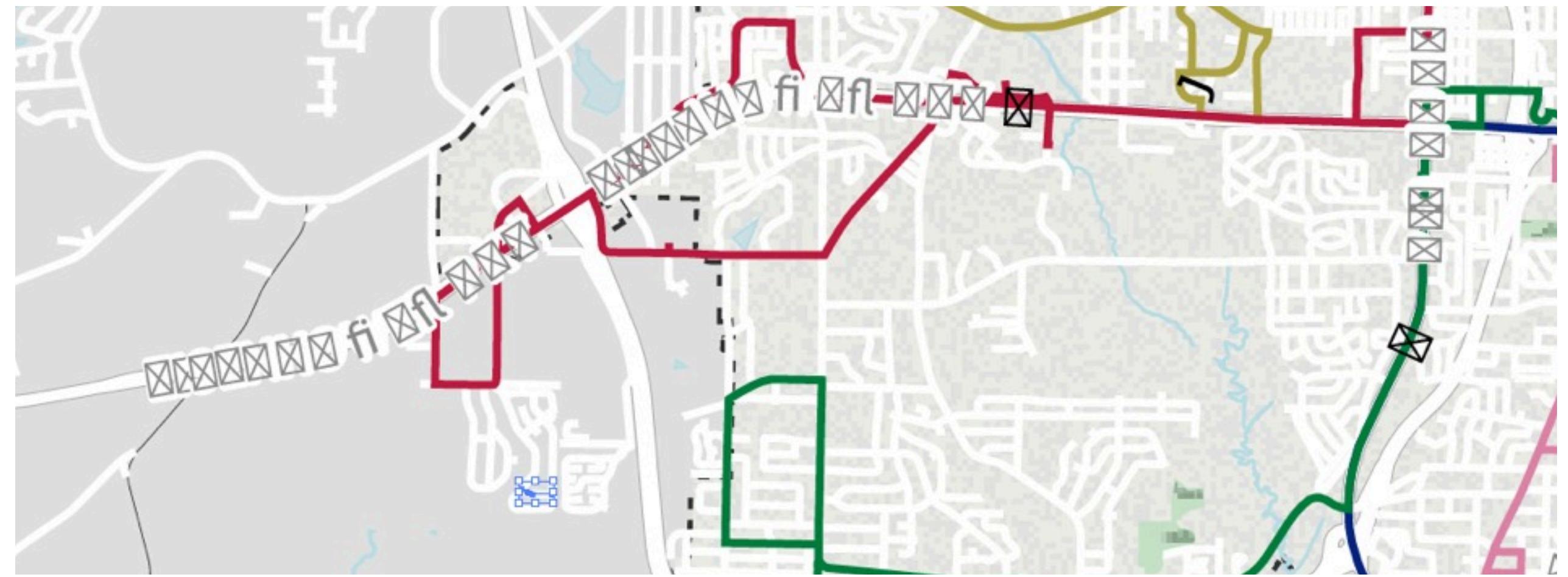
Clean it up.

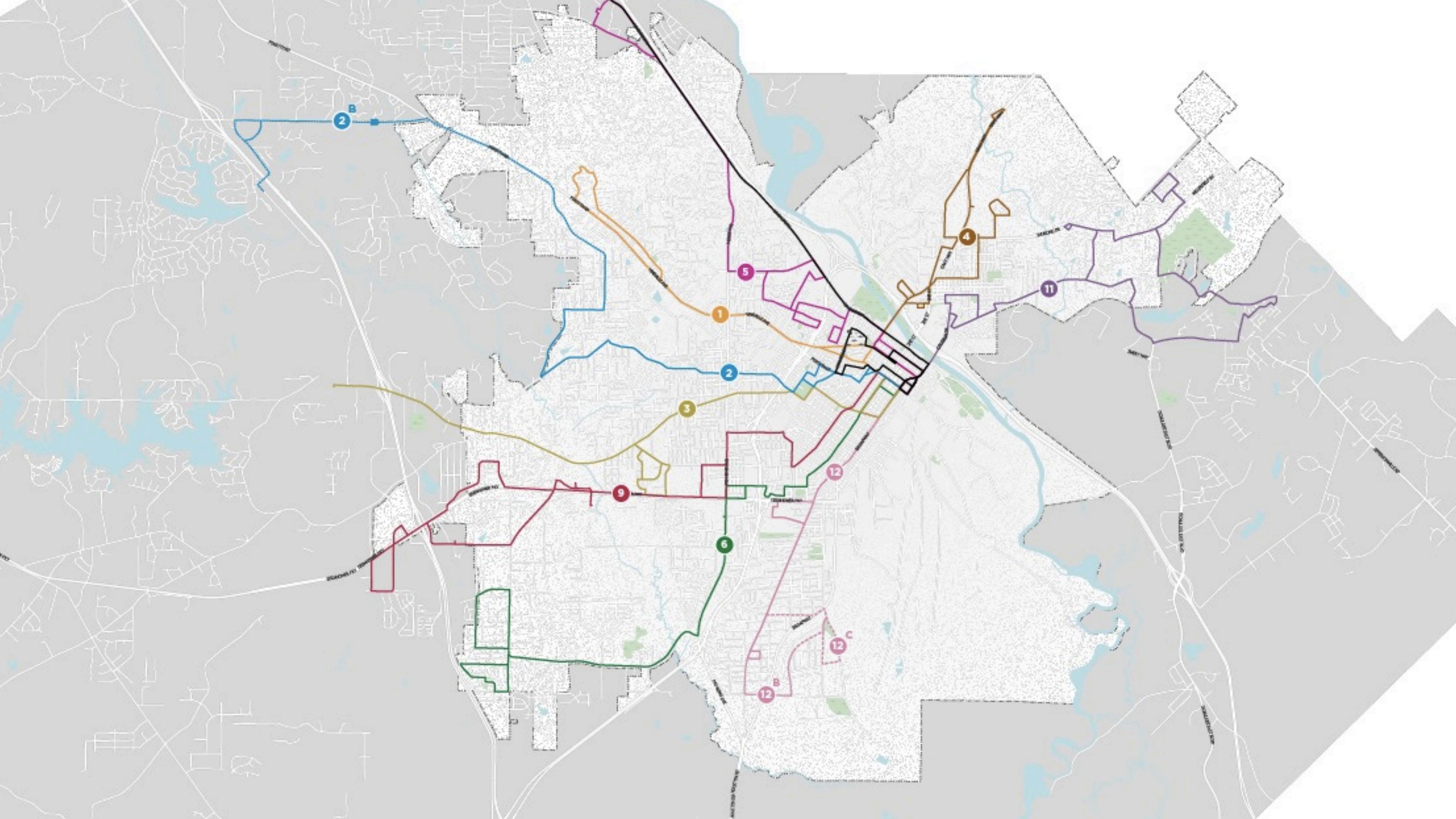
create layers, fill with content
select same > fill or stroke..



Text

If you must, get rid
of gibberish, turn
stroke to fill.





The Most Elegant Transit Maps Ever – Commute – The Atlantic Cities

The Atlantic CITIES
PLACE MATTERS

JOB & ECONOMY COMMUTE HOUSING ARTS & LIFESTYLE DESIGN TECHNOLOGY POLITICS NEIGHBORHOODS FOCUS: RENEWAL

PHOTOS

The Most Elegant Transit Maps Ever

ERIC JAFFE OCT 01, 2012 1 COMMENT



NEW YORK CITY

Blocked Plug-in

explore cities

Search site GO

Browse by city

Browse features

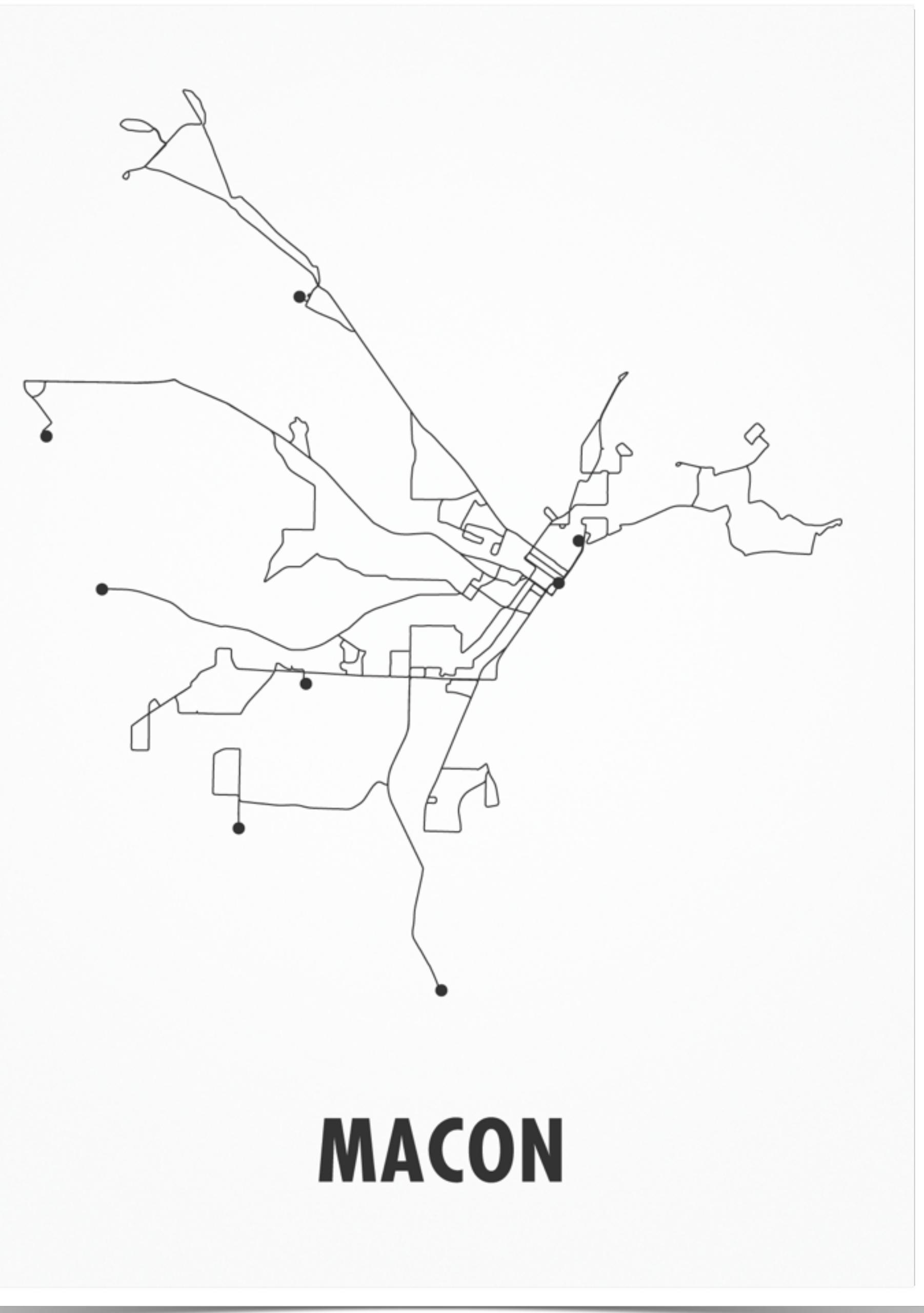
Forward Thinking on:
Predictive Maintenance

"We used to fix
things when they
broke. Now we
can fix things before
they break." - Chris Conrad

Lineposters

Like 216 Tweet 107 G+ 13 Share 3 + Share Print Email

There's a good deal of artistry that goes into designing public transit maps. Landmarks and city centers are enlarged, curves are straightened — all in the service of helping riders make



MTA Macon Bus System Map

www.mta-mac.com/map.html

Tumblr CfA CAL Read Later Google Bookmark Attribute! + Pocket [bl.ocks.org] Latitude and Longitu Subscribe... Kern.js iPhone iPadH » Other Bookmarks

MTA
Macon-Bibb County Transit Authority
We Keep Macon Moving!

Home Alerts How to Ride Paratransit Forms About MTA Contact Us Resources

System Map

Use this map to locate bus stops. Pass your mouse over a stop to see the next bus time. Click here for [bus schedules](#).
Note: The bus stops map may not display correctly on older browsers. If you are using an older system, [use this map](#).

The map displays the city of Macon, Georgia, with major roads like Emery Hwy, Ocmulgee East Blvd, and Broad St. Bus routes are shown as colored lines: Route 1 (orange) runs along the west side of the city; Route 2 (dotted blue) follows a more central path; Route 3 (yellow-green) runs along the east side; and Route 4 (dark red) follows a southern route. Numerous bus stops are marked with small circles along these routes. A note at the bottom right indicates "Roads © 2012 OpenStreetMap contributors".

LEGEND

No.	Route Name
1	Vineville/Zebulon
2	Bellevue/Log Cabin/Zebulon
3	West Macon/Thomaston Rd
4	North Highland



**github.com/
codeforamerica/
Transit-Map-in-Tilemill**

@jllord