

Location, Location, Location: Mapping with Drupal

(Beginners Session)

DrupalCon LA - 2015

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About Me:

- Online Facilitator - Online Community
E-Democracy.org
(1997 - 2010)
- Mr. Tai's Restaurant
(2010 - 2011)
- Drupal Freelancer
(2012 - 2014)
- Triplo, Founding Partner
(May 2014 - Present)





- Tim Erickson
- Barry Madore
- David Needham

Build • Train • Mentor • Support • Community

I The Drupal Community!



Goals

- Site builders introduction to mapping with Drupal
- An introduction to the variety of mapping modules available
- Recipes for some common mapping applications

Back-story

- As a freelancer I was spending a lot of time working in coffee shops.

Back-story

- As a freelancer I was spending a lot of time working in coffee shops.
- Often had the need to schedule a meeting with someone and needed a good location.

Back-story

- I knew that there were some coffee shops with meeting rooms, but didn't know how to find them.



I was looking for a site like this one...



so, I decided to build it.

I wanted the ability to search for coffee shops by location, or proximity.

designed and built by Tim Erickson.

For more information about working with Tim on your project or website, [click here](#).

Find a location near you. You can search using your City, Province/State or your Postal/Zip code.

Distance

5 Miles from 55104 Search

Title	Address	Distance
Cahoots Coffee Bar	1562 Selby Ave. Saint Paul, MN 55104 United States	0.63Km
Groundswell	1340 Thomas Saint Paul, MN 55104 United States	0.98Km
Ginkgo's Coffeehouse	721 N. Snelling Ave. Saint Paul, MN 55104 United States	1.32Km
Coffee Bené	53 Cleveland Ave S Saint Paul, MN 55105 United States	2.34Km
Espresso Royale	475 Fairview Ave. South Saint Paul, MN 55105 United States	2.94Km

1 2 3 4 5 6 next > last »

1 2 3 4 5 6 next > last »

Navigation

▼ Filters

- Meeting Rooms
- Quiet Locations
- Music
- List of All Locations
- Map of All Locations
- List of All Independent Coffee Shops
- Map of Independent Coffee Shops

► Forums

Recent blog posts

- Social Media Working Group - Tomorrow
- EVENT: WorkLatte Social Media Working Group
- 8 Independent Coffee Shops Worth a Visit
- Why I drink so much coffee in so many coffee shops?
- 5 Best Coffee Shops to Work At (Twin Cities)
- Approaching 50 Coffee Shops
- Coffee Shops with Conference Rooms
- Welcome to our site

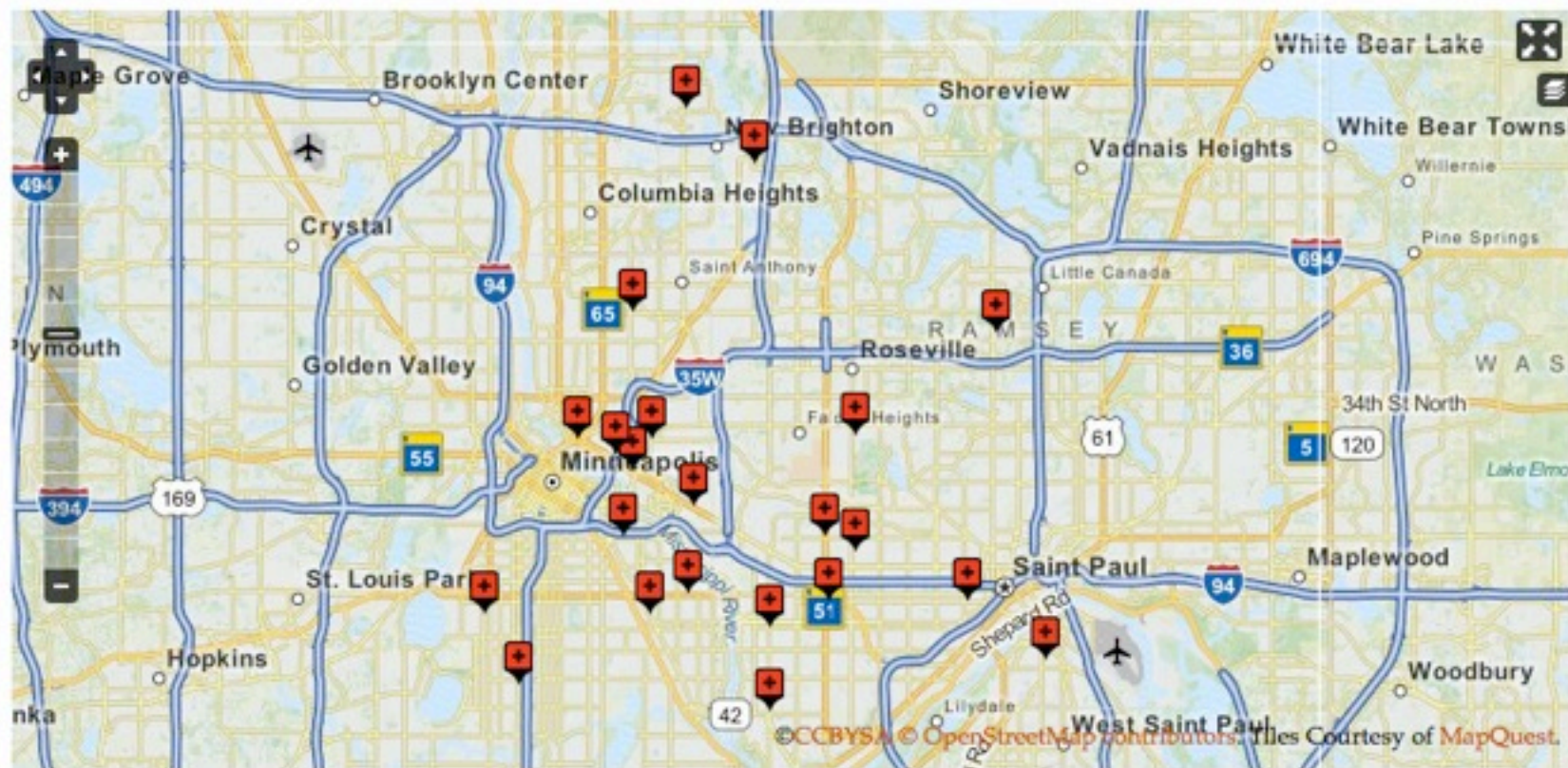
Or to filter by selected criteria and display on a map.

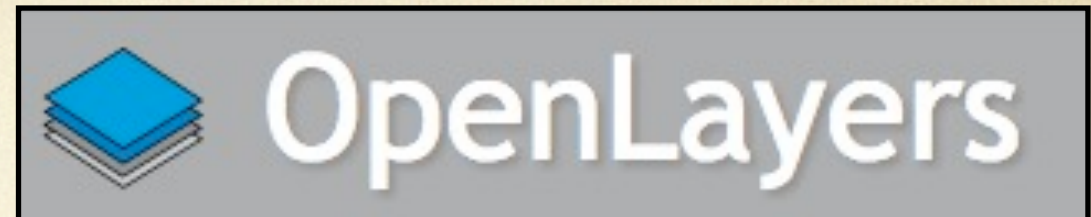
Independent Coffee Shops

This is map of all the coffee shops listed on Worklatte.com that are independent. For the purposes of this map, I've limited my definition of independent to coffee shops that are neither franchises of a larger brand or that belong to a chain with more than 10 stores.

To view a list of all the independent coffee shops listed on WorkLatte.com, [click here](#).

Please use the contact form to let me know if any of my data is wrong or if you'd like to suggest an independent coffee shop for inclusion on our site.





Location Map

Options ???

OpenLayers Locator



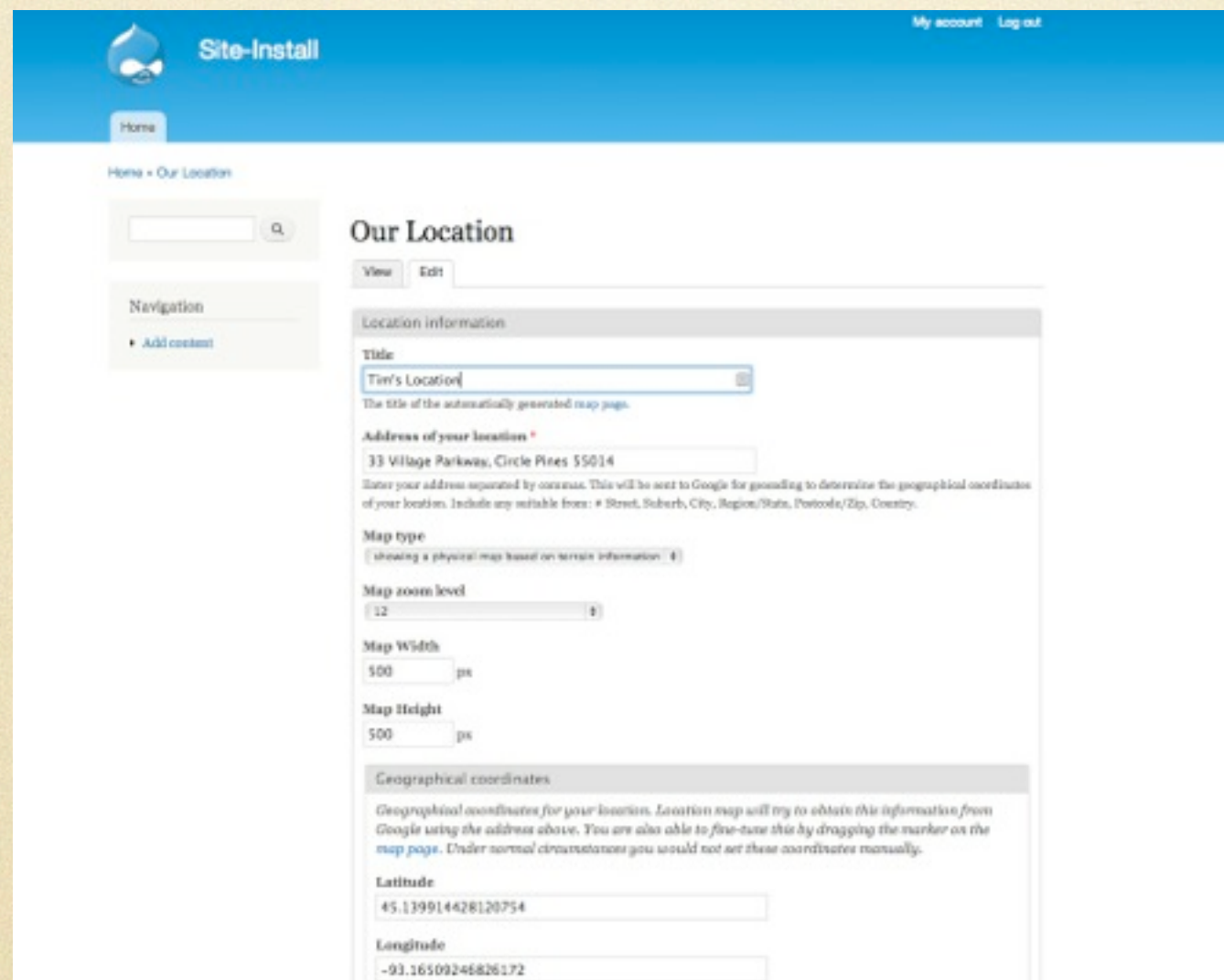
Geofield

Some mapping options:

- Simple modules w/ targeted functionality
 - Location Map Module
- Mapping modules to build flexible features
 - Addressfield
 - GeoField
 - GeoCoder
 - GeoPHP
 - GetLocations
 - IP Geolocation Views & Maps
- Javascript Libraries
 - Leaflet
 - Openlayers

Most basic option: Location Map Module

<https://drupal.org/project/locationmap>



The screenshot shows the 'Our Location' configuration page for the Location Map module in Drupal. The page has a blue header with the Drupal logo and 'Site-Install' text. Below the header, there's a search bar and a navigation menu with 'Home' and 'Our Location' links. The main content area is titled 'Our Location' and has 'View' and 'Edit' buttons. The configuration form includes several sections: 'Location information' with a 'Title' field (containing 'Tim's Location'), 'Address of your location' with a text field (containing '33 Village Parkway, Circle Pines 55014'), 'Map type' with a dropdown (set to 'showing a physical map based on terrain information'), 'Map zoom level' with a dropdown (set to '12'), 'Map Width' with a text field (set to '500 px'), and 'Map Height' with a text field (set to '500 px'). Below these is a 'Geographical coordinates' section with 'Latitude' (45.139914428120754) and 'Longitude' (-93.16509245826172) fields.

Site-Install

My account Log out

Home

Home » Our Location

Search

Navigation

• Add content

Our Location

View Edit

Location information

Title

Tim's Location

The title of the automatically generated map page.

Address of your location *

33 Village Parkway, Circle Pines 55014

Enter your address separated by commas. This will be sent to Google for geocoding to determine the geographical coordinates of your location. Include any suitable from: # Street, Suburb, City, Region/State, Postcode/Zip, Country.

Map type

showing a physical map based on terrain information

Map zoom level

12

Map Width

500 px

Map Height

500 px

Geographical coordinates

Geographical coordinates for your location. Location map will try to obtain this information from Google using the address above. You are also able to fine-tune this by dragging the marker on the map page. Under normal circumstances you would not set these coordinates manually.

Latitude

45.139914428120754

Longitude

-93.16509245826172

Enter your information

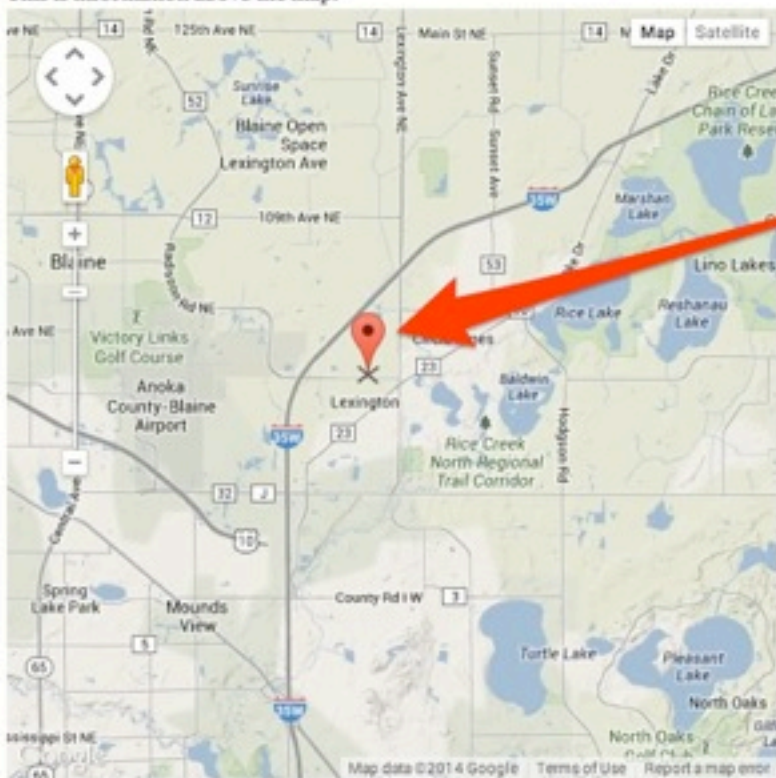
Home

Navigation

[Add content](#)

Our Location

This is information above the map.



Drag and Drop

Click and drag marker to fine tune position of your location. Set zoom level below.

Latitude

Longitude

Zoom level

Put the marker in the right spot on the map.



User login

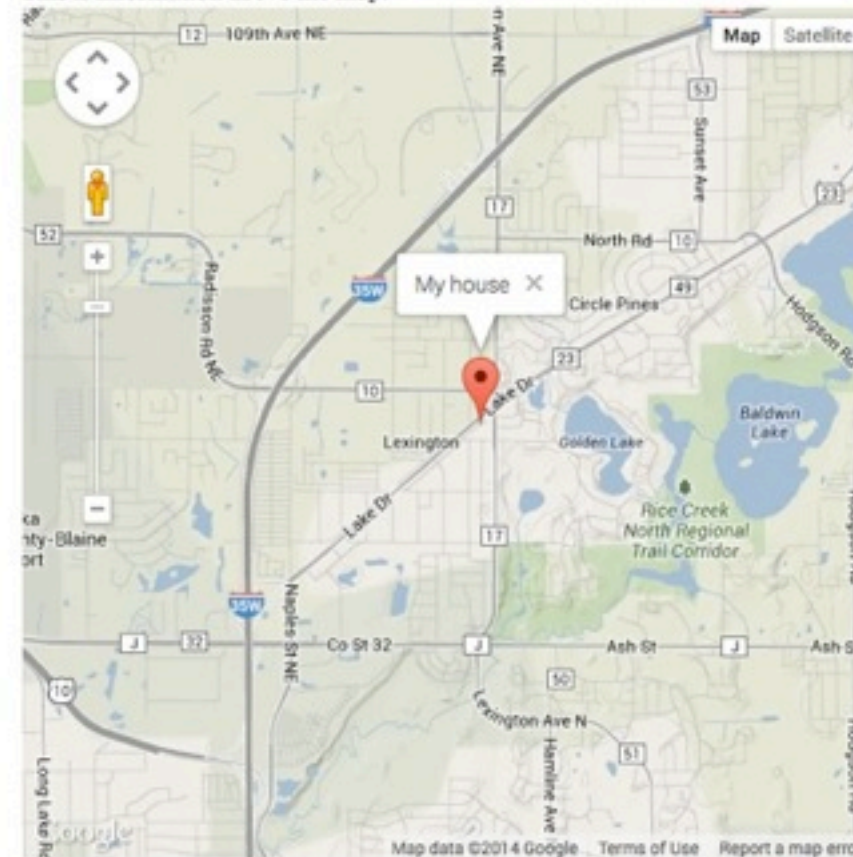
Username *

Password *

- [Create new account](#)
- [Request new password](#)

Our Location

This is information above the map.



User goes to page and sees your location on map. Pop-up window shows more info.

Multiple items on a map
(old way?):

Location Module

<https://drupal.org/project/location>

GMap Module

<https://drupal.org/project/gmap>

Location Module Provides Default “Location” Field

Location

EDITMANAGE FIELDSMANAGE DISPLAYCOMMENT FIELDSCOMMENT DISPLAY

Home » Administration » Structure » Content types » Location

Show row weights

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS
✚ Title	title	Node module element		
✚ Location	locations	Location module form elements		
✚ Body	body	Long text and summary	Text area with a summary	editdelete
✚ Add new field				
<input type="text"/>		- Select a field type -	- Select a widget -	
Label		Type of data to store.	Form element to edit the data.	
✚ Add existing field				
<input type="text"/>	- Select an existing field -		- Select a widget -	
Label	Field to share		Form element to edit the data.	

Save

Use Gmap in Views to Display Information

The image shows the Drupal Views configuration interface. On the left, the 'Displays' tab is active, showing a configuration for a view named 'Page'. The 'Page details' section shows the display name as 'Page'. The 'TITLE' section shows the title as 'Map'. The 'FORMAT' section shows the format as 'GMap' and the settings as 'Settings'. The 'FIELDS' section lists several location fields: 'Location: Lid (Lid)', 'Location: Street (Street)', 'Location: Coordinates (Coordinates)', 'Location: Postal Code (Postal Code)', and 'Location: Additional (Additional)'. The 'FILTER CRITERIA' section shows a filter for 'Content: Type (= Location)'. On the right, a modal titled 'Page: How should this view be styled' is open. It shows a dropdown menu for 'For' set to 'All displays'. Below this, a list of styles is shown: 'Extended GMap', 'GMap' (selected), 'Grid', 'HTML list', 'Jump menu', 'Table', and 'Unformatted list'. A red arrow points from the 'GMap' option in the modal to the 'GMap' format in the 'FORMAT' section of the 'Displays' tab. Another red arrow points from the 'Settings' link in the 'FORMAT' section to the 'GMap' option in the modal. The modal also includes a note: 'If the style you choose has settings, be sure to click the settings button that will appear next to it in the View summary. You may also adjust the [settings](#) for the currently selected style.' At the bottom of the modal are buttons for 'Apply (all displays)' and 'Cancel'.

Displays

Page [+ Add](#)

Page details

Display name: [Page](#)

TITLE

Title: [Map](#)

FORMAT

Format: [GMap](#) | [Settings](#)

Show: [Fields](#) | [Settings](#)

FIELDS

[Add](#)

[Location: Lid \(Lid\)](#)

[Location: Street \(Street\)](#)

[Location: Coordinates \(Coordinates\)](#)

[Location: Postal Code \(Postal Code\)](#)

[Location: Additional \(Additional\)](#)

FILTER CRITERIA [Add](#)

[Content: Type \(= Location\)](#)

Page: How should this view be styled

For [All displays](#)

☐ Extended GMap

☒ **GMap**

☐ Grid

☐ HTML list

☐ Jump menu

☐ Table

☐ Unformatted list

If the style you choose has settings, be sure to click the settings button that will appear next to it in the View summary.

You may also adjust the [settings](#) for the currently selected style.

[Apply \(all displays\)](#) [Cancel](#)

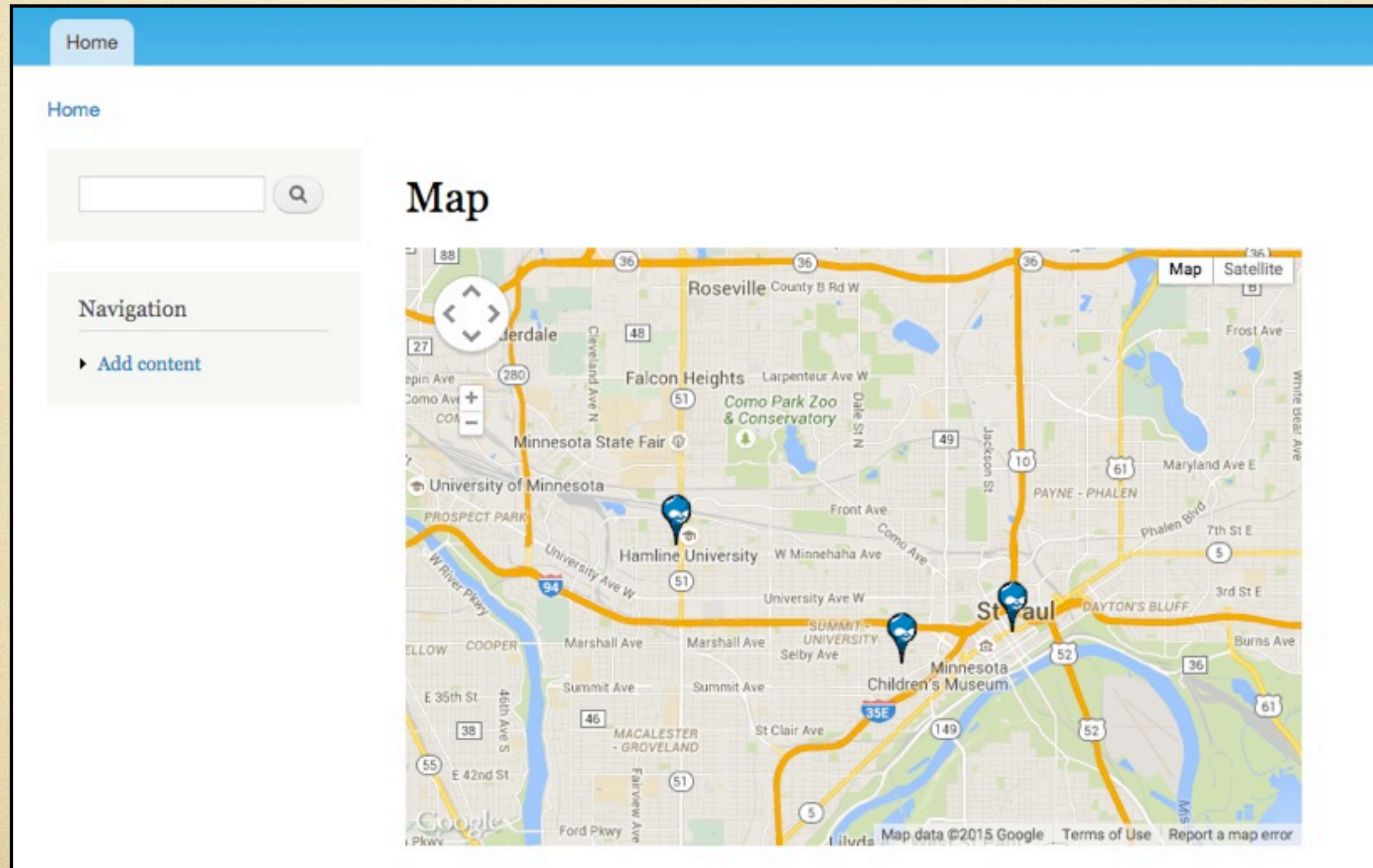
FOOTER [Add](#)

PAGER

Use pager: [Full](#) | [Paged, 10 items](#)

More link: [No](#)

View Using Location and GMap



Multiple items on a map
(with proximity search):

Addressfield Module

<https://drupal.org/project/addressfield>

Geofield Module

<https://drupal.org/project/geofield>

Geocoder Module

<https://drupal.org/project/geocoder>

GeoPHP Module

<https://drupal.org/project/geophp>

Address Field module

- Store address data in the database.
- Has special formats to meet the special requirements of different countries.

ADDRESS

Country

Germany

Address 1 *

Address 2

Postal code *

City *

ADDRESS

Country

Antarctica

Address 1 *

Address 2

City *

ADDRESS

Country

United States

Address 1 *

Address 2

City *

State *

- Select -

ZIP code *

Geocoder module

- Takes address information and using third party services converts data into latitude and longitude.

Geofield module

- Once the address or location has been converted into latitude and longitude, the information is stored in a geofield.
- NOTE: Some of the other mapping modules come with their own built-in version of geofield.

geoPHP module

- This module does not provide any direct functionality to end-users or site-administrators.
- GeoPHP is a open-source native PHP library for doing geometry operations. It works with all Simple-Feature geometries (Point, LineString, Polygon, GeometryCollection etc.) and can be used to get centroids, bounding-boxes, area, and a wide variety of other useful information.
- Many other mapping modules require the geoPHP modules.

A Recipe For Mapping Coffee Shops

Set-up “Coffee Shop” content type:

Coffee Shops

Site-Install

EDITMANAGE FIELDSMANAGE DISPLAYCOMMENT FIELDSCOMMENT DISPLAY

[Home](#) » [Administration](#) » [Structure](#) » [Content types](#) » [Coffee Shops](#)

[Show row weights](#)

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS	
+ Title	title	Node module element			
+ Body	body	Long text and summary	Text area with a summary	edit	delete
+ Address	field_coffeeshop_address	Postal address	Dynamic address form	edit	delete
+ Geofield	field_coffeeshop_geofield	Geofield	Geocode from another field	edit	delete
+ Add new field					
<input type="text"/>		<div>- Select a field type -</div>	<div>- Select a widget -</div>		
Label		Type of data to store.	Form element to edit the data.		
+ Add existing field					
<input type="text"/>	<div>- Select an existing field -</div>		<div>- Select a widget -</div>		
Label	Field to share		Form element to edit the data.		

Save

Sunday, May 17, 15

Home » Administration » Structure » Content types » Coffee Shops » Manage fields

COFFEE SHOPS SETTINGS

These settings apply only to the *Geofield* field when used in the *Coffee Shops* type.

Label *

Geofield

☐ Required field

Help text

Instructions to present to the user below this field on the editing form.

Allowed HTML tags: `<a>` `` `<big>` `<code>` `` `` `<i>` `<ins>` `<pre>` `<q>` `<small>` `` `` `<sub>` `<sup>` `<tt>` `` `` `` `<p>` `
` ``

Geocode from field *

Address

Select which field you would like to geocode from.

Geocoder *

Google Geocoder

Select which type of geocoding handler you would like to use

GOOGLE GEOCODER SETTINGS

This handler has terms of service. Click the following link to learn more. <http://code.google.com/apis/maps/documentation/geocoding/#Limits>

Geometry Type

Point (default)

☐ Geocode all alternative results

Often an ambiguous address (such as "Springfield USA") can result in multiple hits. By default we only return the first (best guess) result. Check this to return all results as a Multi-Geometry (MultiPoint or MultiPolygon).

Reject Results

Edit Coffee Shops Anodyne Coffeehouse

[My account](#) [Log out](#)

[VIEW](#)

[EDIT](#)

[Home](#) » [Anodyne Coffeehouse](#)

Title *

Anodyne Coffeehouse

Body (Edit summary)

Text format Filtered HTML

[More information about text formats](#)

- Web page addresses and e-mail addresses turn into links automatically.
- Allowed HTML tags: `<a>` `` `` `<cite>` `<blockquote>` `<code>` `` `` `` `<dl>` `<dt>` `<dd>`
- Lines and paragraphs break automatically.

ADDRESS

Full name

Anodyne Coffeehouse

Country

United States

Address 1

4301 Nicolet Ave S

Address 2

City

State

Minnesota

ZIP Code

55409

Menu settings

Not in menu

☐ Provide a menu link

Revision information

Max. revision

Go to Manage Display to set up the display of the map.

Coffee Shops Site-Install

EDIT MANAGE FIELDS **MANAGE DISPLAY** COMMENT FIELDS COMMENT DISPLAY

Home » Administration » Structure » Content types » Coffee Shops

Default Teaser

Content items can be displayed using different view modes: Teaser, Full content, Print, RSS, etc. *Teaser* is a short format that is typically used in lists of multiple content items. *Full content* is typically used when the content is displayed on its own page.

Here, you can define which fields are shown and hidden when *Coffee Shops* content is displayed in each view mode, and define how the fields are displayed in each view mode.

Show row weights

FIELD	LABEL	FORMAT
Body	<Hidden>	Default
Address	Above	Default
Geofield	Above	Geofield Map

Hidden
No field is hidden.

CUSTOM DISPLAY SETTINGS

Save

Use widget configuration

- Width: 100%
- Height: 500px
- Zoom: 14
- Zoom Control Type: default
- Map Control Type: standard
- Show Pan Control: Yes
- Default Map Type: map

[Home](#)



Navigation

► [Add content](#)

Anodyne Coffeehouse

[View](#) [Edit](#)

Submitted by [admin](#) on Wed, 03/26/2014 - 01:12

Address:

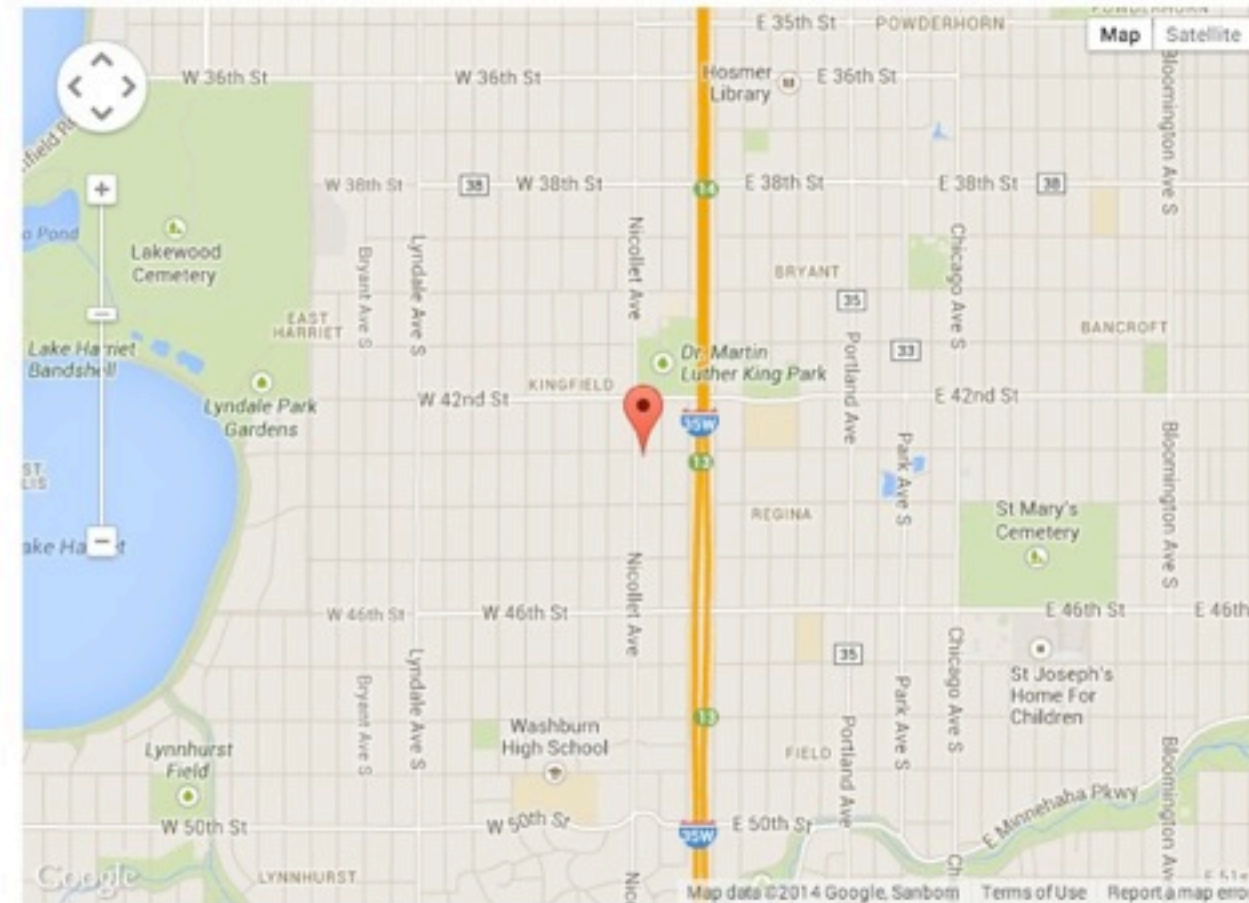
Anodyne Coffeehouse

4301 Nicollet Ave S

MN 55409

United States

Geofield:



Add new comment

Your name [admin](#)

Subject

Comment *

Modify the display(s) of your view below or add new displays.

Displays

Page

[+ Add](#)

[edit view name/description](#) ▼

▼ Page details

Display name: Page

[view Page](#) ▼

TITLE

Title: [Coffee shop map](#)

FORMAT

Format: [Geofield Map](#) | [Settings](#)

FIELDS

[Add](#) ▼

Content: [Title](#)

Content: [Geofield](#)

FILTER CRITERIA

Content: [Published \(Yes\)](#)

Content: [Type \(= Coffee Shops\)](#)

Content: [Geofield](#)

[\(field_coffeeshop_geofield\) - proximity \(exposed\)](#)

SORT CRITERIA

[Add](#)

PAGE SETTINGS

Path: [/coffee-shop-map](#)

Menu: [No menu](#)

[View published content](#)

HEADER

[Add](#)

FOOTER

[Add](#)

PAGER

Use pager: [Full](#) | [Paged, 10 items](#)

More info: [No](#)

[▶ Advanced](#)

[Home](#)[Home](#)[Navigation](#)[Add content](#)

Coffee shop map

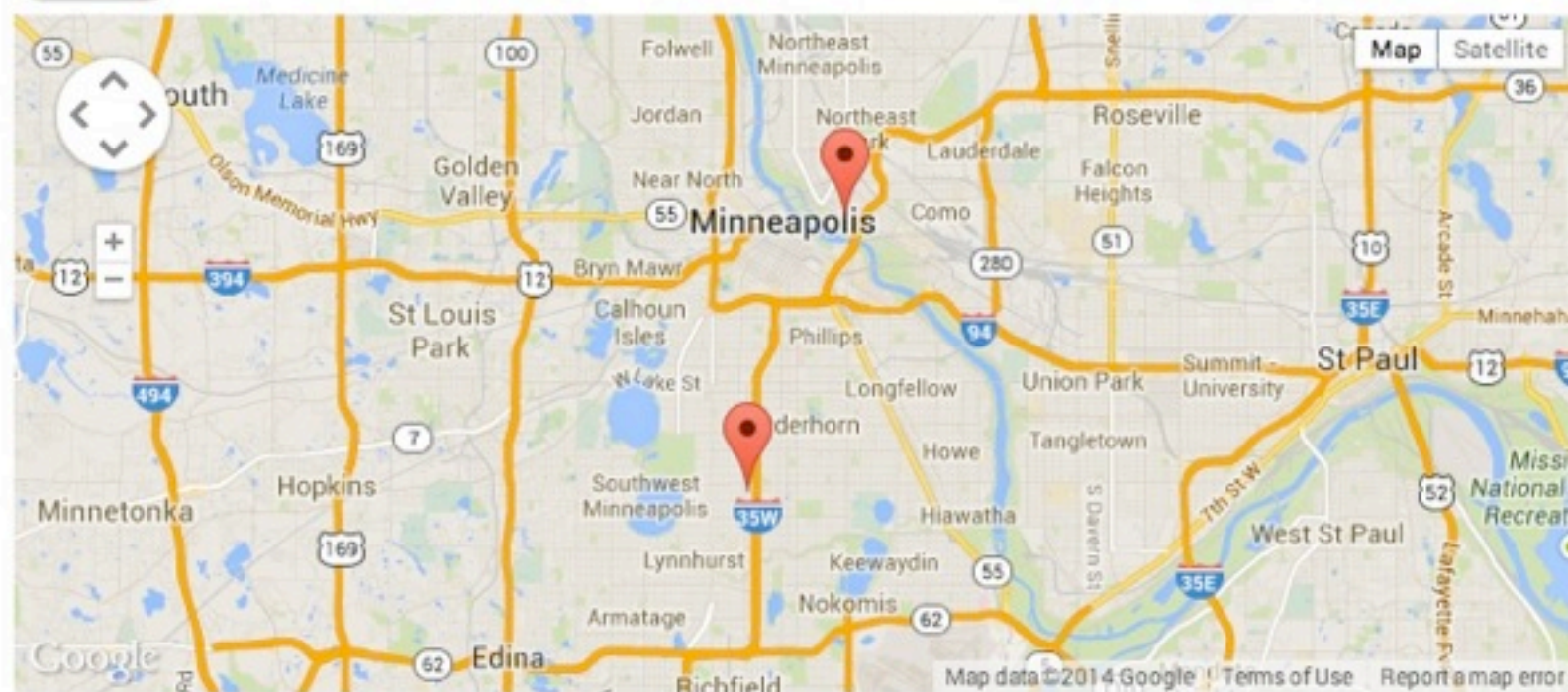
Proximity

Miles

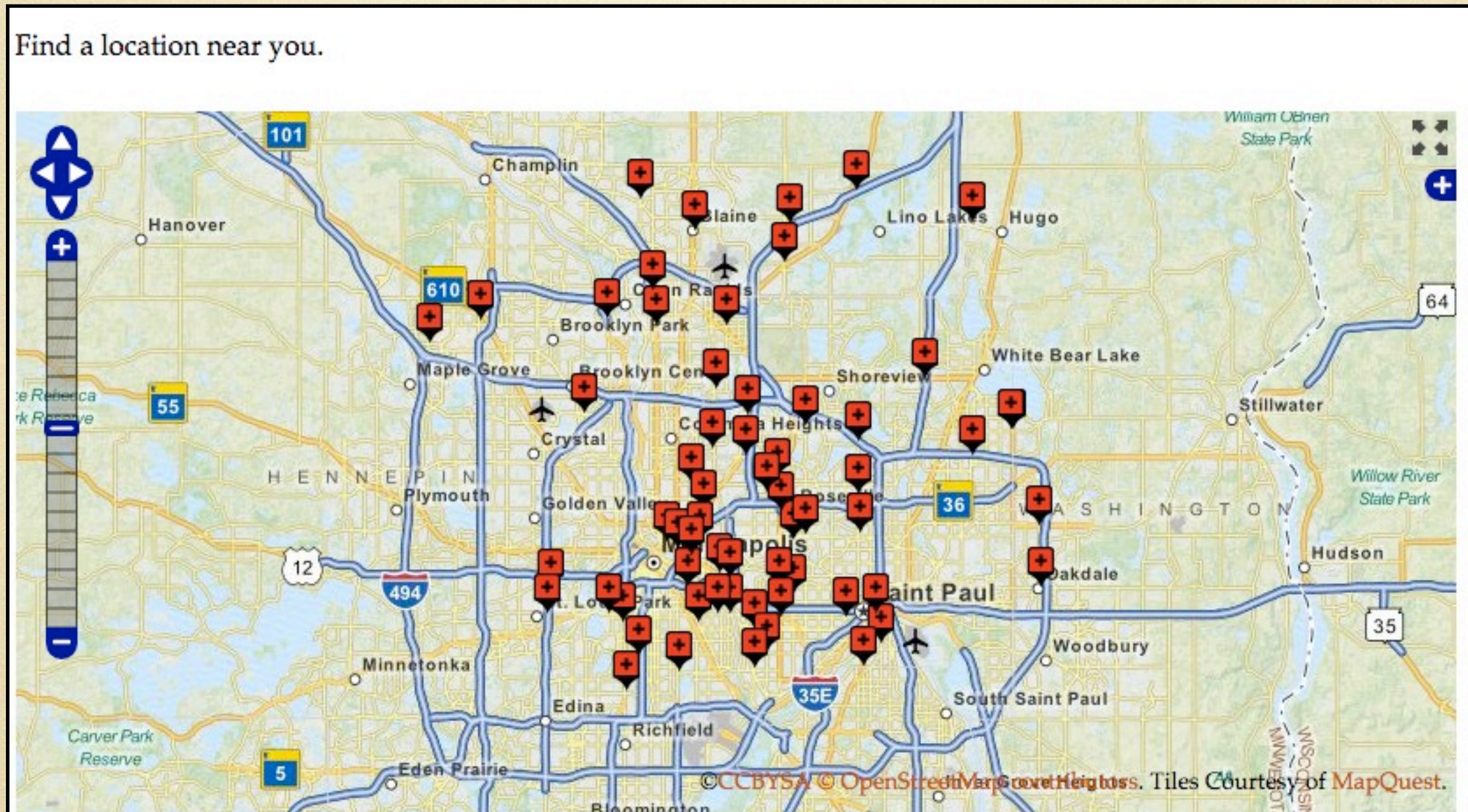


from

Apply



Over approximately 3 months, I worked and drank coffee in all of these locations.



Javascript Libraries:

Leaflet Module

<https://drupal.org/project/leaflet>

OpenLayers Module

<https://drupal.org/project/openlayers>

General Mapping Tools - Additional Features:

GetLocations

<https://drupal.org/project/getlocations>

IP Geolocation

Views & Maps Module

https://drupal.org/project/ip_geoloc

IP Geolocation Map and Views Module

- Provides access to additional mapping tools and widgets
- Takes the basic mapping tools and provides an easy way to tap into OpenLayers or Leaflet Javascript libraries.

Leaflet More Maps

Download & Extend

[Download & Extend Home](#) [Drupal Core](#) [Distributions](#) [Modules](#) [Themes](#)

[Add Issues for Leaflet More Maps to dashboard +](#)

Leaflet More Maps

[View](#) [Version control](#) [Revisions](#) [Automated Testing](#)

Posted by [RdeBoer](#) on August 23, 2012 at 8:46pm

Want to freshen up your site with something a bit different? [Leaflet More Maps](#) adds over 20 attractive map styles to your site via [Leaflet](#), the lightweight mobile-friendly library for interactive maps and markers. At the flick of a drop-down and without you having to download any map provider code, you can insert beautiful maps from a variety of providers such as [MapBox](#) (top), [Stamen](#) (2nd image), [Thunderforest](#) (3rd), [Esri](#) (4th), [Bing](#) (bottom) as well as [OpenWeatherMap](#) and [Yandex.Maps](#).

Or enjoy [Google Maps](#) without the Google Maps API ! This includes making the most of your high-res (Retina) displays. Read how the [Lightness of Leaflet displays the brilliance of Google Maps in high-res](#).

Try this [map demo](#), which is available through the included [Leaflet Demo submodule](#) for an instant showcase of all maps available on your system through Leaflet More Maps.

Usage

All available maps automatically show up in a drop-down list when:

- you format as a map a Geofield on a node or user ([Leaflet](#) module)
- you format as a map the output of a View ([Leaflet](#) and [IP Geolocation Views and Maps](#) modules)

Installation

Download and enable like any other Drupal module.

External libraries: none.

Configuration: none, unless you wish to assemble your own layers, which you easily can at `.../admin/config/system/leaflet_more_maps`.

Permissions: none.



Maintainers for Leaflet More Maps

[RdeBoer](#) - 54 commits
last: 1 month ago, first: 2 years ago

[View all committers](#)
[View commits](#)

Issues for Leaflet More Maps

To avoid duplicates, please search before submitting a new issue.

[Search](#)

[Advanced search](#)

All issues

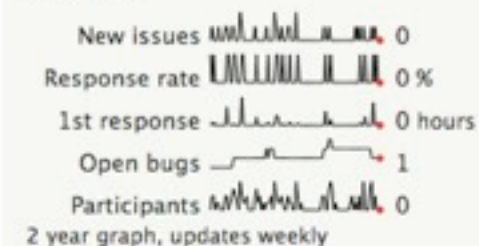
3 open, 34 total

Bug report

1 open, 6 total

[Subscribe via e-mail](#)

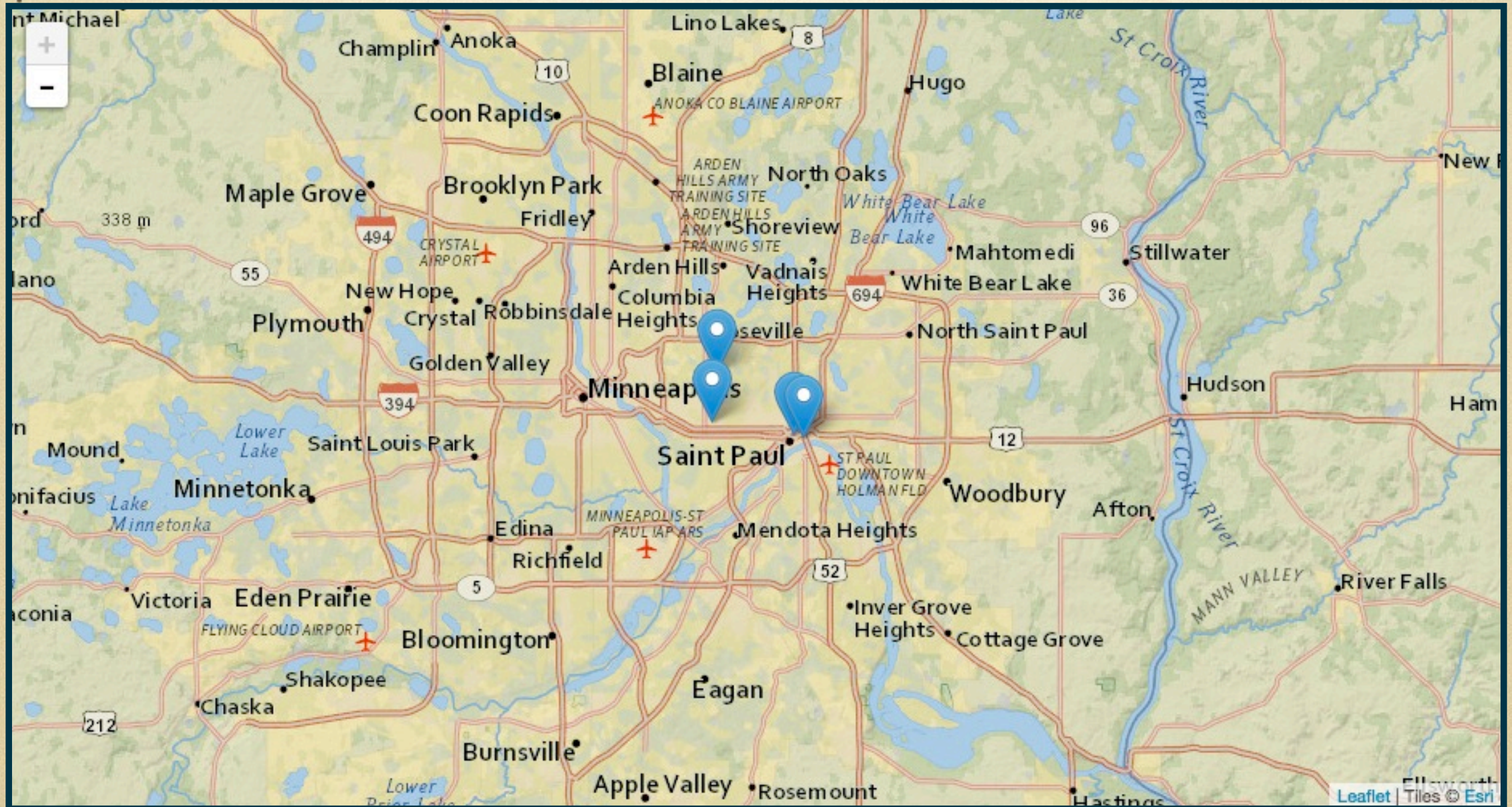
Statistics



Resources

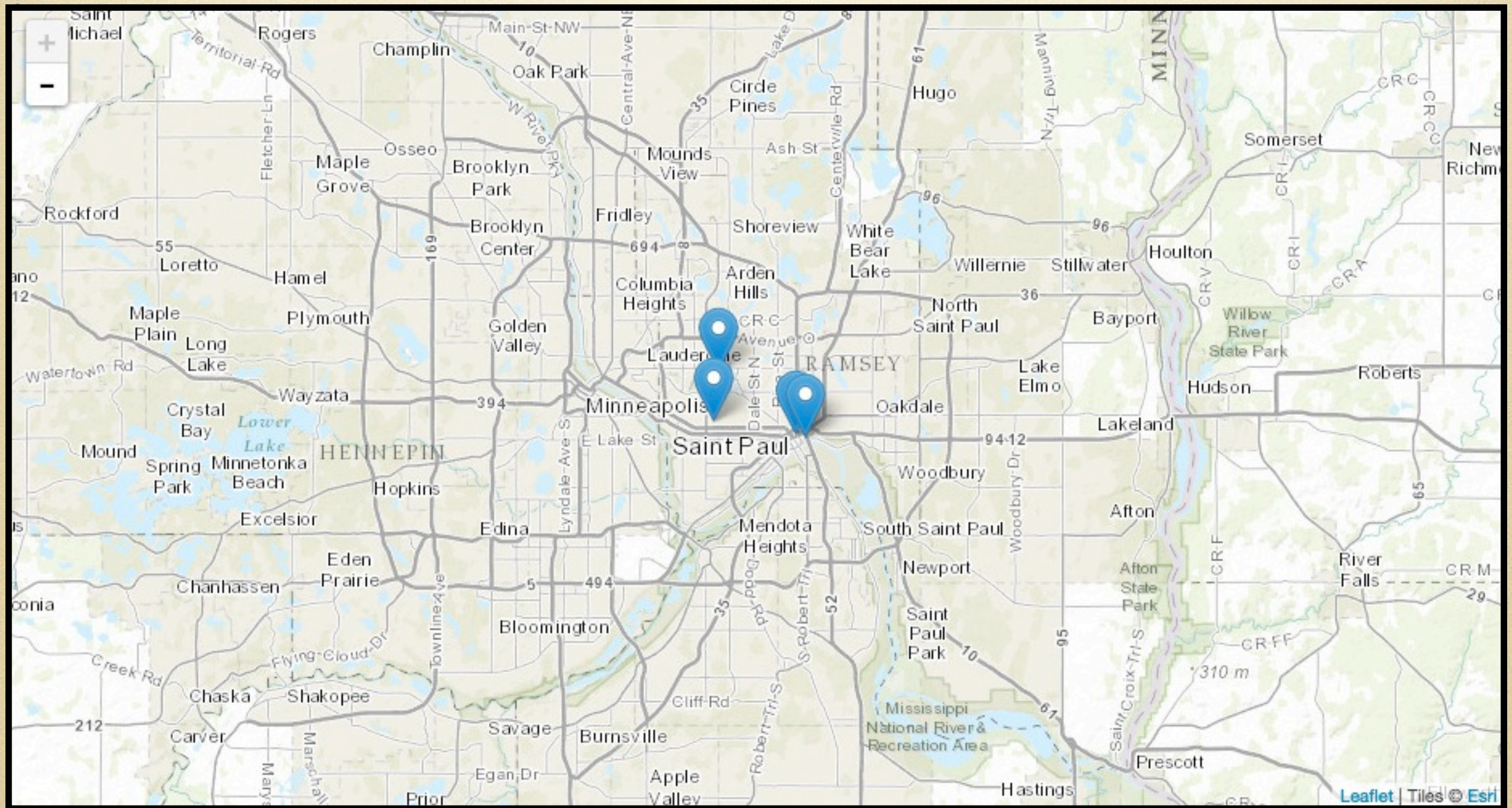
[Read documentation](#)

ERSI National Geographic

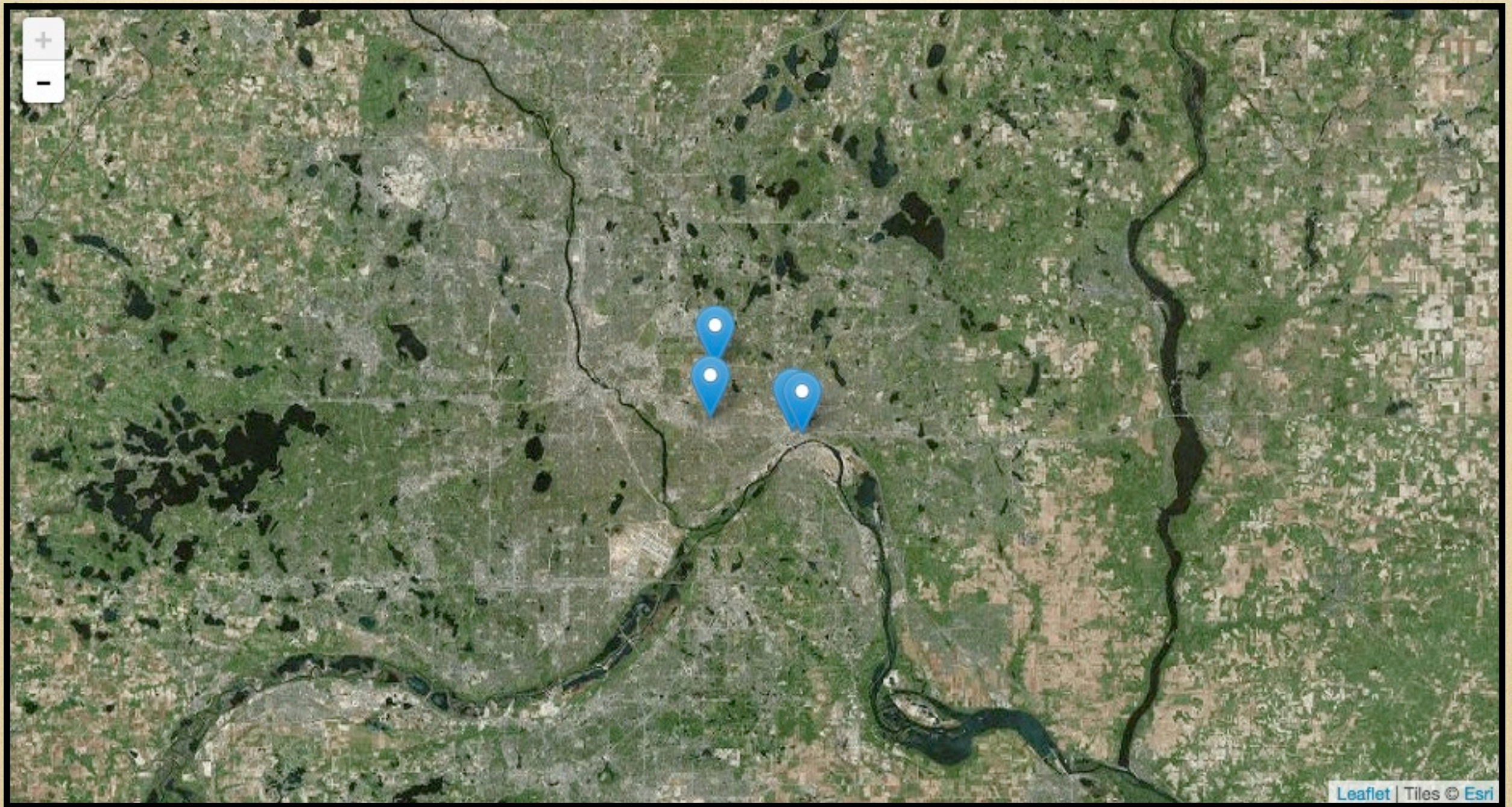


Leaflet | Tiles © Esri

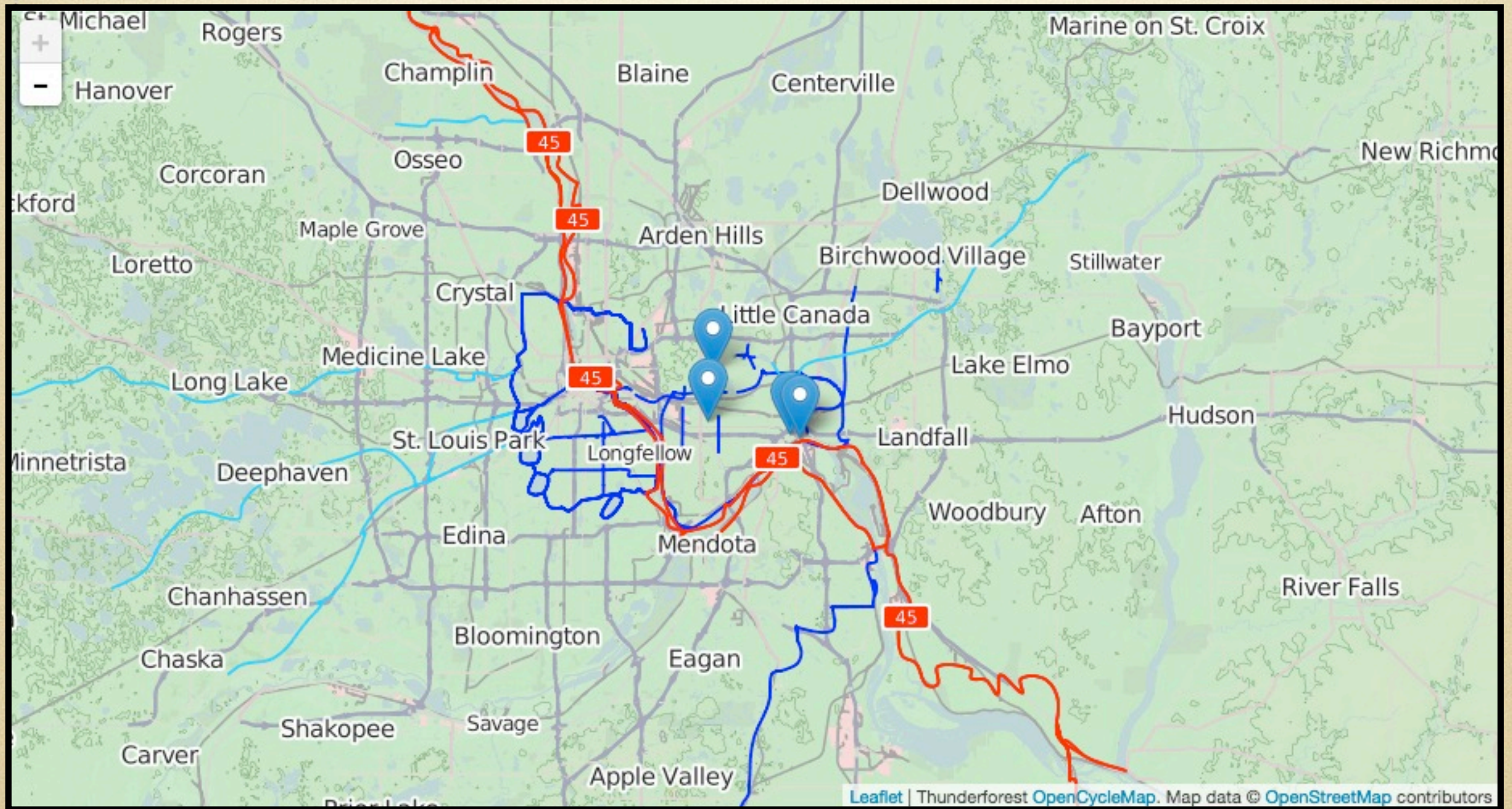
ESRI World Topo Map



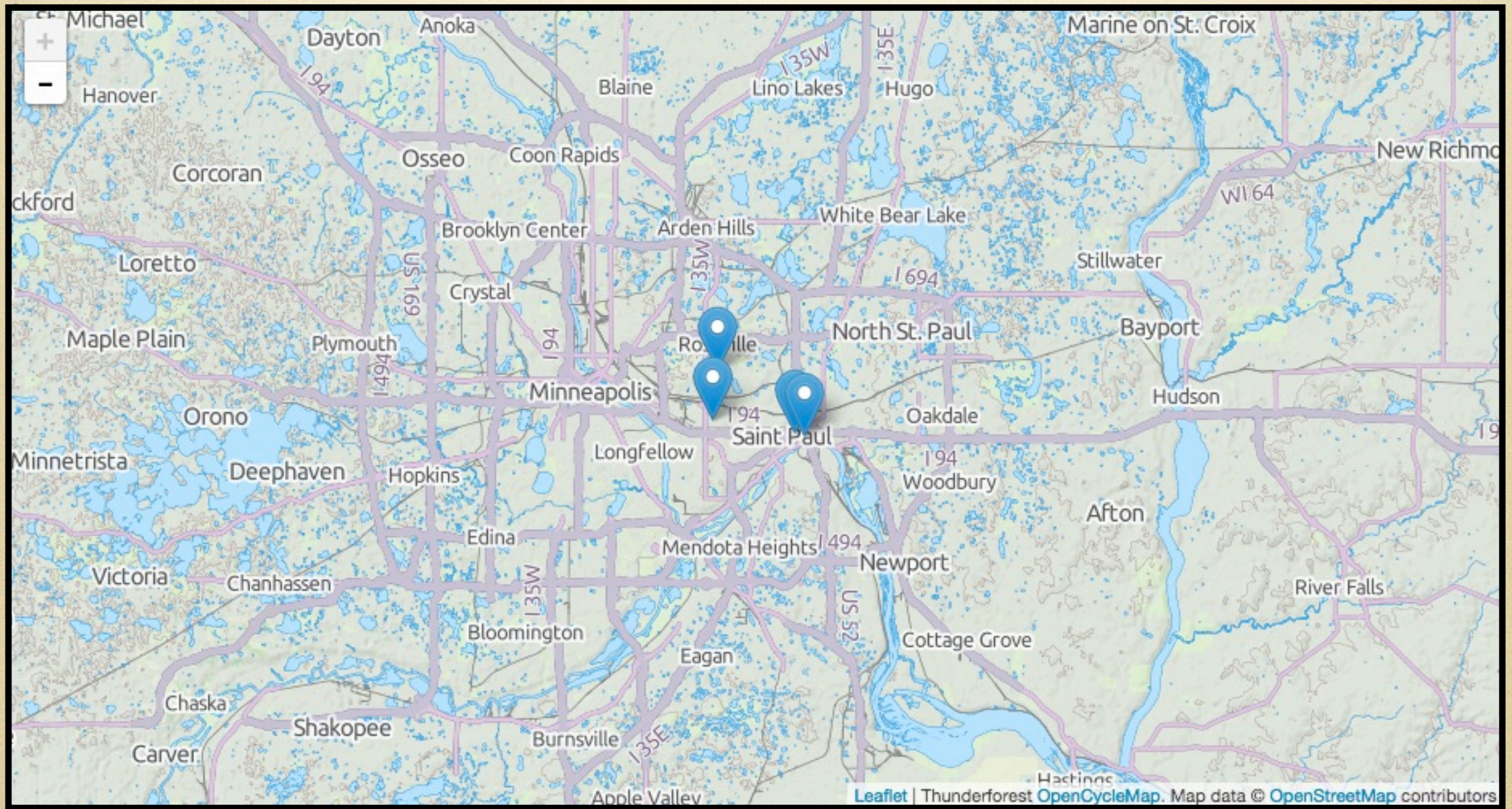
ERSI World Imagery



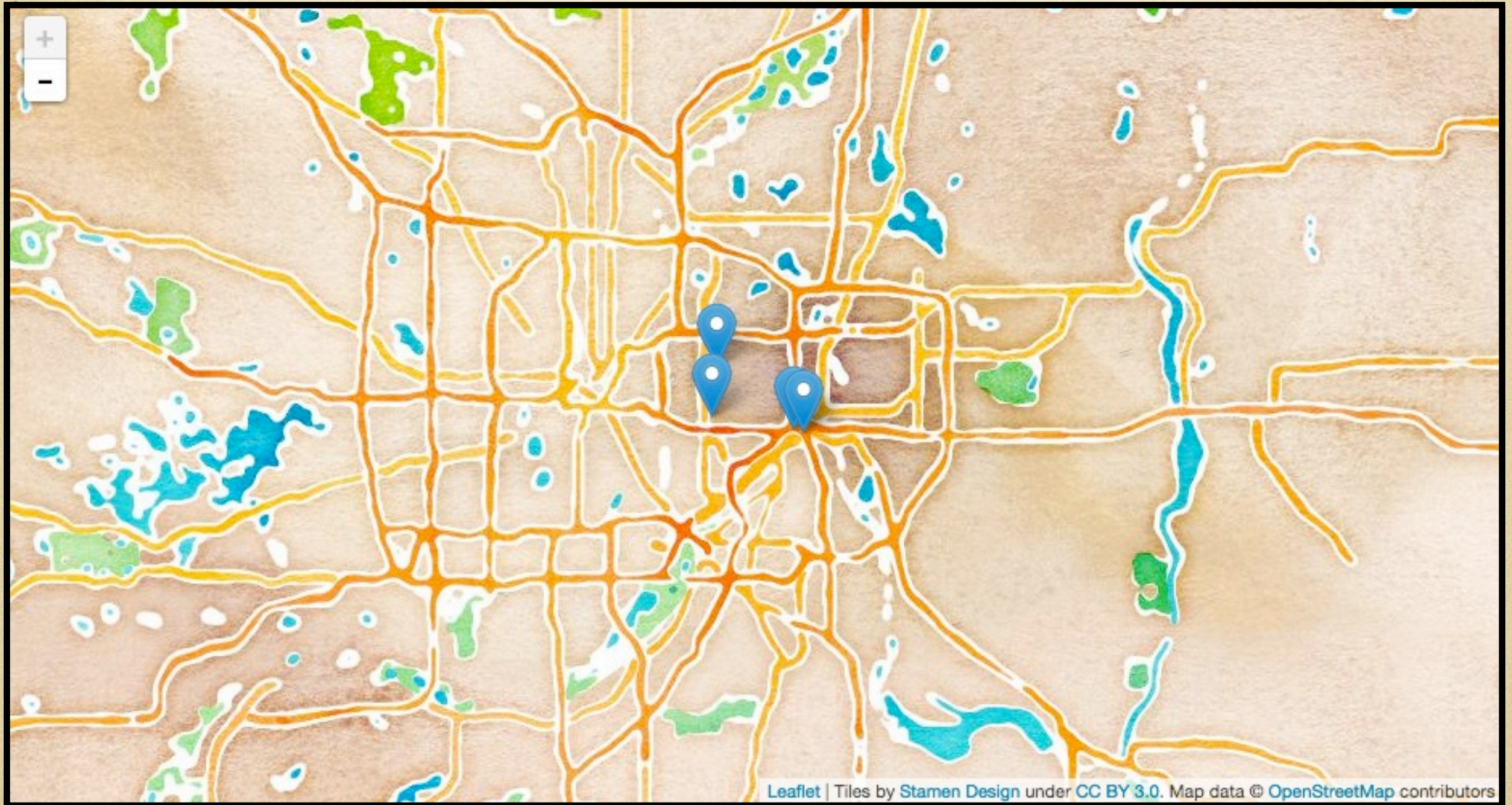
Thunderforest OpenCycleMap



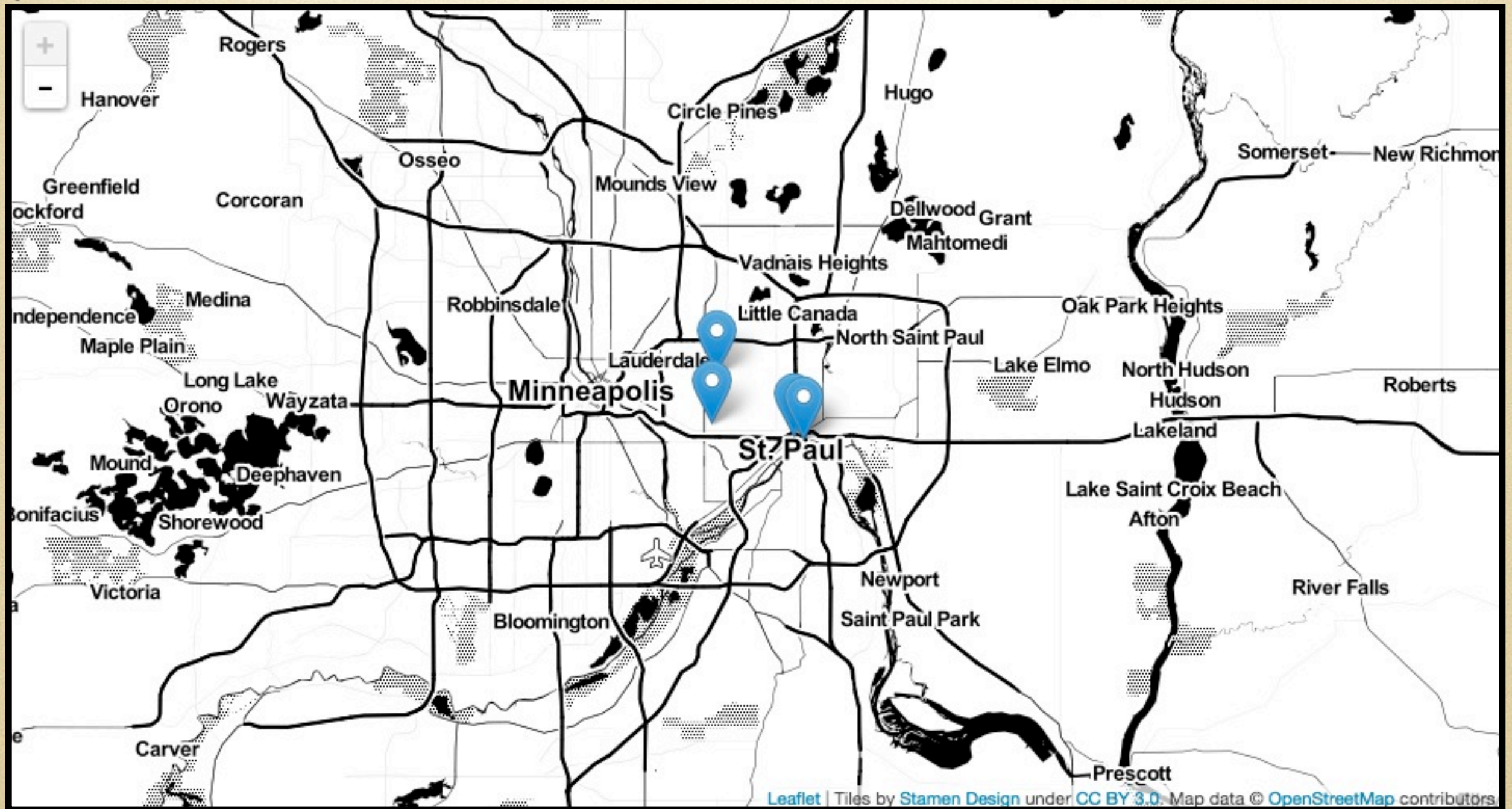
Thunderforest Landscape



Stamen Watercolor



Stamen Toner




Openlayers

Openlayers - Polygons

[Show row weights](#)

LABEL	MACHINE NAME	FIELD TYPE	WIDGET	OPERATIONS
+ Title	title	Node module element		
+ URL path settings	path	Path module form elements		
+ Body	body	Long text and summary	Text area with a summary	edit delete
+ Geofield	field_geofield	Geofield	Openlayers Map	edit delete
+ Add new field				
<input type="text"/>		- Select a field type -	- Select a widget -	
Label		Type of data to store.	Form element to edit the data.	
+ Add existing field				
<input type="text"/>	- Select an existing field -		- Select a widget -	
Label	Field to share		Form element to edit the data.	


Openlayers - Polygons

Restaurants 

EDITMANAGE FIELDSMANAGE DISPLAYCOMMENT FIELDSCOMMENT DISPLAY

Home » Administration » Structure » Content types » Restaurants



DefaultTeaser

 There are security updates available for one or more of your modules or themes. To ensure the security of your server, you should update immediately! See the [available updates](#) page for more information and to install your missing updates.

Content items can be displayed using different view modes: Teaser, Full content, Print, RSS, etc. *Teaser* is a short format that is typically used in lists of multiple content items. *Full content* is typically used when the content is displayed on its own page.

Here, you can define which fields are shown and hidden when *Restaurants* content is displayed in each view mode, and define how the fields are displayed in each view mode.

[Show row weights](#)

FIELD	LABEL	FORMAT
 Body	<Hidden>	Default
 Geofield	Above	Geofield Map

Width: 100%
Height: 300px
Zoom: 8
Zoom Control Type: default
Map Control Type: standard
Show Pan Control: Yes
Default Map Type: map

Hidden
No field is hidden.

[Layout for restaurants in default](#)

[Custom display settings](#)

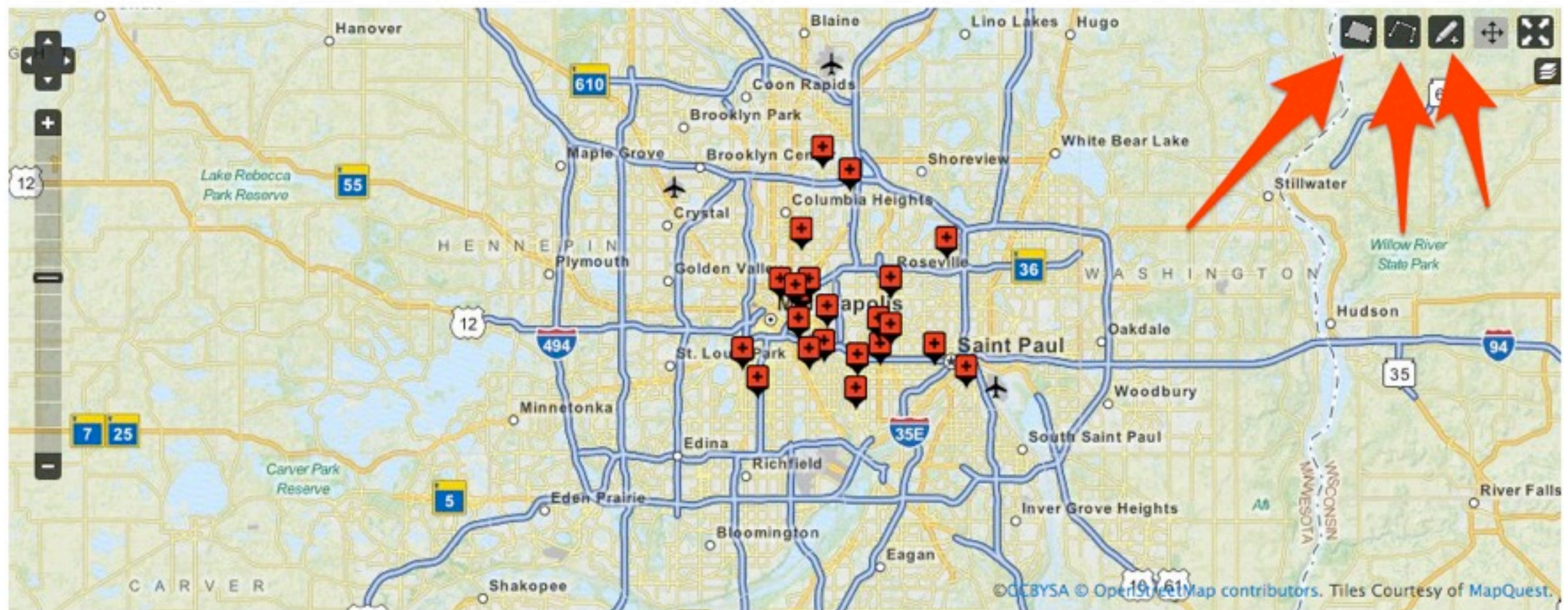
Select a layout
- None -

Save

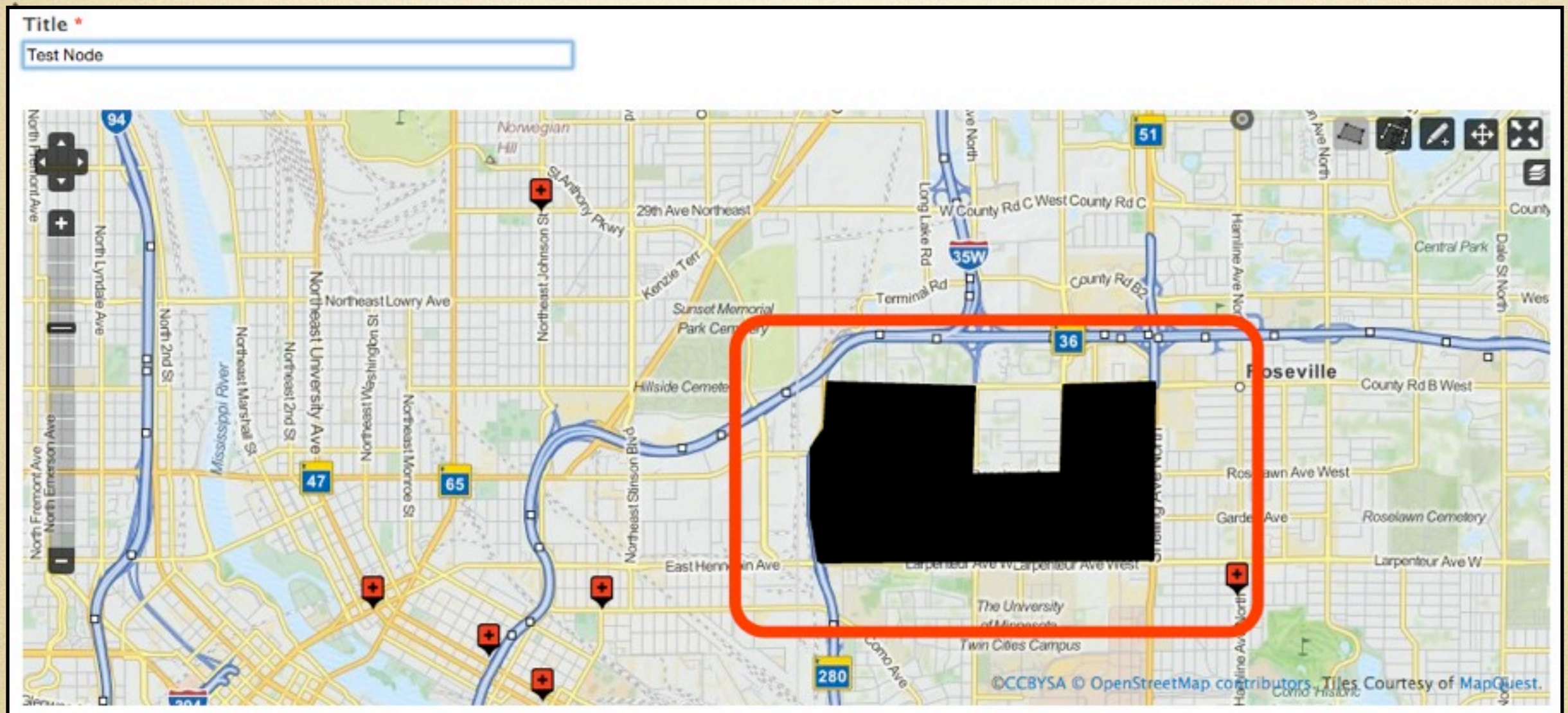
Openlayers - Polygons

Create Restaurants

Title *



Openlayers - Polygons



Openlayers - Polygons

Test Node

✓ Restaurants *Test Node* has been created.

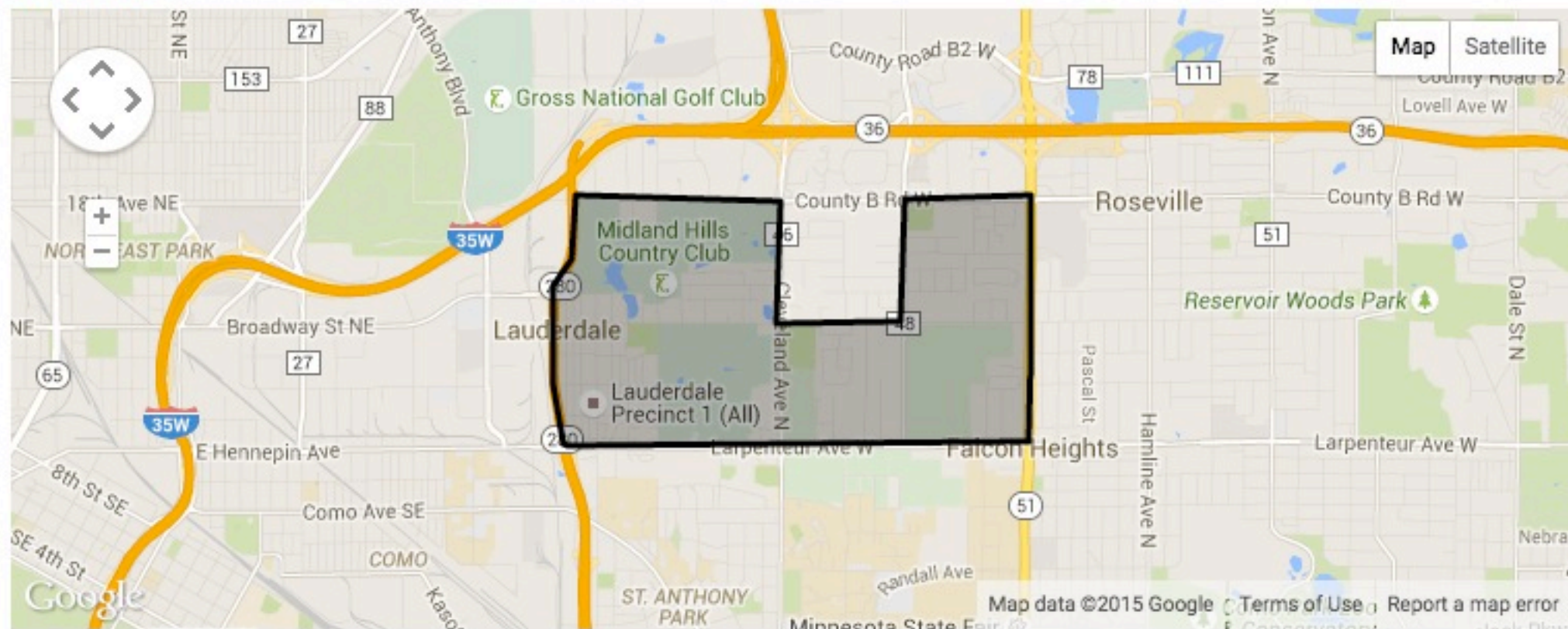
View

Edit



Manage display

Submitted by **admin** on Thu, 05/14/2015 - 13:04

Geofield:



Polygons - Use Case

 E-Democracy.org Forums ▾ About ▾ Projects ▾ Blog Get Involved Donate Help  Timothy ▾

Twin Cities Neighbors

[Saint Paul](#)

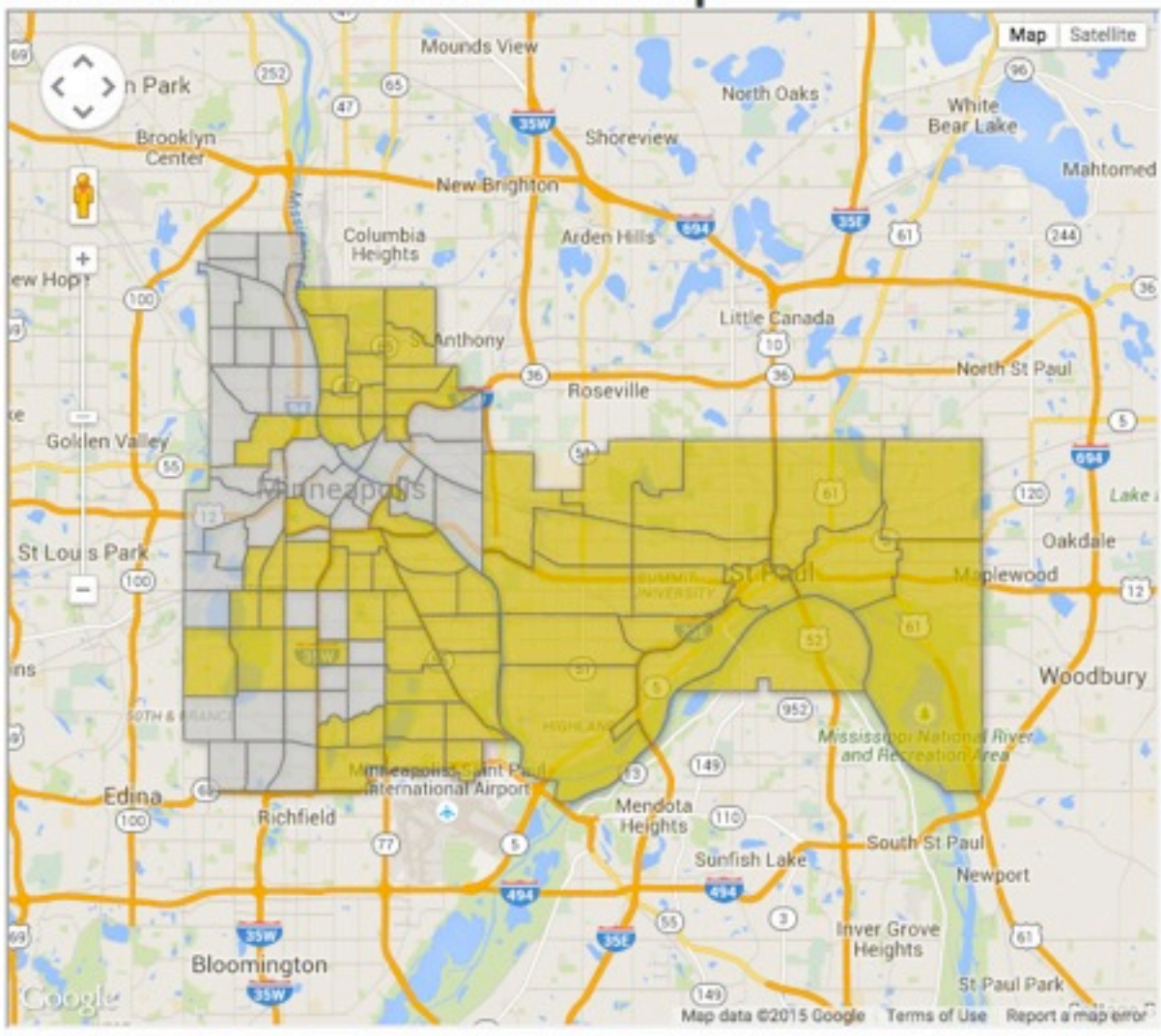
[Minneapolis](#)

[Map](#)

[More Info, Video](#)

View Change Privacy History

Find Your Forum on the Map



Map data ©2015 Google Terms of Use Report a map error

A Few Resources:

- Drupal Groups - Location and Mapping
<https://groups.drupal.org/location-and-mapping>
- Comparison of Mapping Modules
<https://www.drupal.org/node/1704948>
- Terms and Trends: DIY and Open Source Online Maps
<http://thinkshout.com/blog/2012/01/sean/terms-and-trends-diy-and-open-source-online-maps/>
- Geospatial Modules Assessment (Aug. 2013)
<https://groups.drupal.org/node/89769>



June 25th-28th, 2015

TWIN CITIES DRUPAL CAMP

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Save the date!

Twin Cities Drupal Camp
University of St. Thomas
sprints, and celebrations

@tcdrupal On Twitter

Tweets

 **Brad Lowry**
@QIQferdy
@TCDrupal Whoo-Hoo! Save the Dates: June 25th-28th for Drupal Camp 2015

 **Dan Ficker**
@deliriousguy
@Jerdavis @StPaulTim @TCDrupal This is @xjmdrupal Session ideas post I was ref. yesct.net/proposals

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about future DrupalCamp events.



June 25th - 28th

Open Layers Examples:

- <http://memories.lehigh.edu>
- <http://marcellex.lehigh.edu>