

```
> use awesomeplaces
switched to db awesomeplaces
> db.places.insertOne({name: "Califorina Academy of Sciences", location: {type: "Point", coordinates:
[-122.4724356, 37.7672544]}})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9ce80359380a287a267865")
}
> db.places.findOne()
{
  "_id" : ObjectId("5b9ce80359380a287a267865"),
  "name" : "Califorina Academy of Sciences",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4724356,
      37.7672544
    ]
  }
}
> █
```


```
> db.places.find({location: {$near: {$geometry: {type: "Point", coordinates: [-122.471114, 37.771104]}}}})
Error: error: {
  "ok" : 0,
  "errmsg" : "error processing query: ns=awesomeplaces.placesTree: GEONEAR field=location maxdis=1.79769e+308 isNearSphere=0\nSort: {}\nProj: {}\n planner returned error: unable to find index for $geoNear query",
  "code" : 2,
  "codeName" : "BadValue"
}
```

```
> db.places.createIndex({location: "2dsphere"})
{
  "createdCollectionAutomatically" : false,
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "ok" : 1
}
> db.places.find({location: {$near: {$geometry: {type: "Point", coordinates: [-122.471114, 37.771104]}}}})
{ "_id" : ObjectId("5b9ce80359380a287a267865"), "name" : "Califorina Academy of Sciences", "location" : { "type" : "Point", "coordinates" : [ -122.4724356, 37.7672544 ] } }
> db.places.find({location: {$near: {$geometry: {type: "Point", coordinates: [-122.471114, 37.771104]}}}}).pretty()
{
  "_id" : ObjectId("5b9ce80359380a287a267865"),
  "name" : "Califorina Academy of Sciences",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4724356,
      37.7672544
    ]
  }
}
```

```
> db.places.find({location: {$near: {$geometry: {type: "Point", coordinates: [-122.471114, 37.771104]},
$maxDistance: 500, $minDistance: 10}}}).pretty()
{
  "_id" : ObjectId("5b9ce80359380a287a267865"),
  "name" : "Califorina Academy of Sciences",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4724356,
      37.7672544
    ]
  }
}
```


GeoJSON Objects - MongoDB | Nopa - Google Maps

Secure | https://www.google.com/maps/place/Nopa/177747415, -122.4389058, 16.18z/data=!4m5!3m4!1s0x80c88804c82364fd0x58725c5c1643cf09:8m2!3d37.77490114d-122.4379093



Search

Nopa
4.5 ★★★★★ · 1,285 reviews · €€€
New American Restaurant

Directions

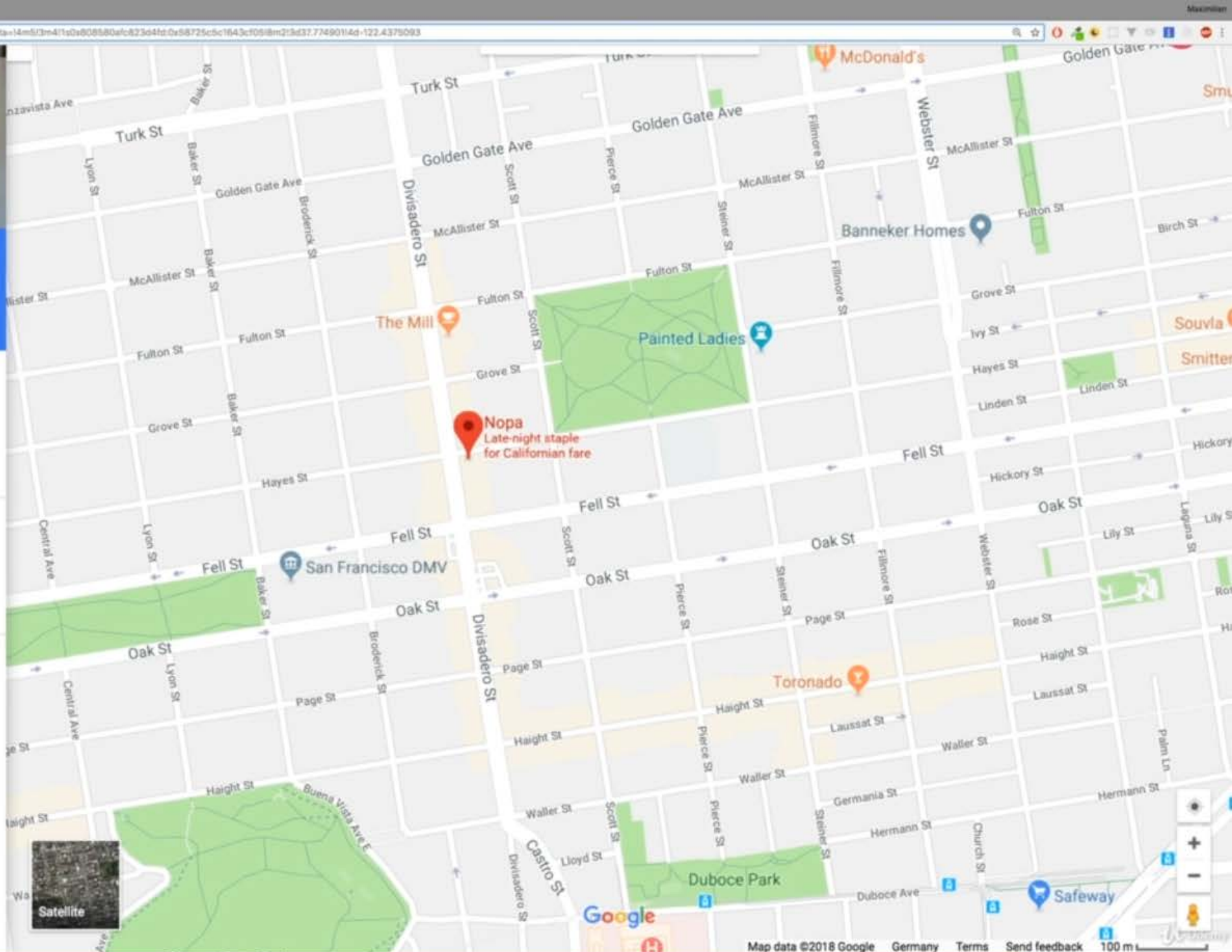
SAVE NEARBY SEND TO YOUR PHONE SHARE

FIND A TABLE

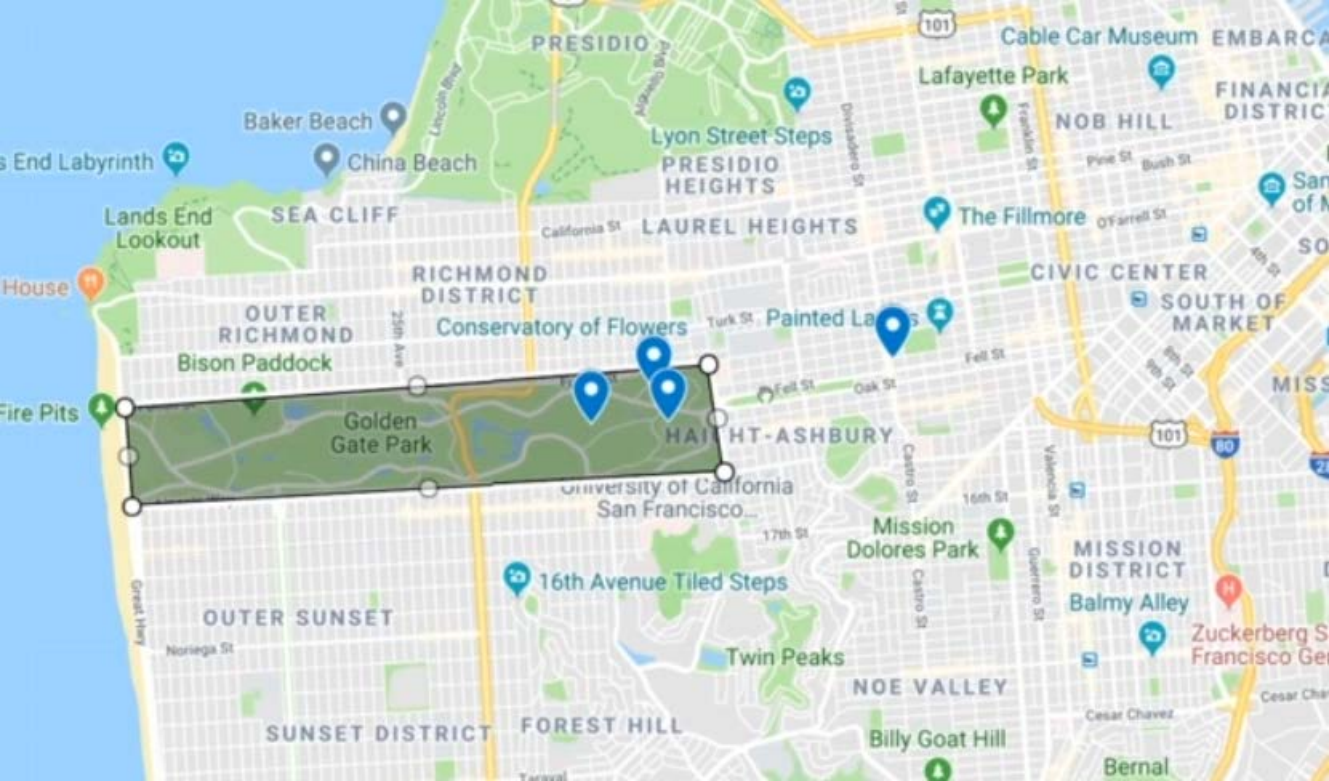
Ingredient-focused Californian eats & creative cocktails in a lively, 2-story setting. >

Late-night food · Comfort food · Small plates

- 560 Divisadero St, San Francisco, CA 94117, USA
- QHF6+XX Western Addition, San Francisco, CA, USA
- nopasf.com
- +1 415-864-8643
- Closed. Opens at 10:30
- Menu nopasf.com
- Find a table opentable.com
- Add a label



```
> db.places.insertOne({name: "Conservatory of Flowers", location: {type: "Point", coordinates: [-122.4
615748, 37.7701756]}})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9ceac659380a287a267866")
}
> db.places.insertOne({name: "Golden Gate Tennis Park", location: {type: "Point", coordinates: [-122.4
593702, 37.7705046]}})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9ceb3d59380a287a267867")
}
> db.places.insertOne({name: "Nopa", location: {type: "Point", coordinates: [-122.4389058,37.7747415]}})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9ceb7059380a287a267868")
}
>
```



```
> const p1 = [-122.4547, 37.77473]
> p1
[ -122.4547, 37.77473 ]
> const p2 = [-122.45303, 37.76641]
> const p3 = [-122.51026, 37.76411]
> const p4 = [-122.51088, 37.77131]
> d
```



```
> db.places.find({location: {$geoWithin: {$geometry: {type: "Polygon", coordinates: [[p1, p2, p3, p4, p1]]}}}}).pretty()
{
  "_id" : ObjectId("5b9ceac659380a287a267866"),
  "name" : "Conservatory of Flowers",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4615748,
      37.7701756
    ]
  }
}
{
  "_id" : ObjectId("5b9ceb3d59380a287a267867"),
  "name" : "Golden Gate Tennis Park",
  "location" : {
    "type" : "Point",
    "coordinates" : [
```

```
{
```

```
  "_id" : ObjectId("5b9ceb3d59380a287a267867"),  
  "name" : "Golden Gate Tennis Park",  
  "location" : {  
    "type" : "Point",  
    "coordinates" : [  
      -122.4593702,  
      37.7705046  
    ]  
  }  
}
```

```
}
```

```
{
```

```
  "_id" : ObjectId("5b9ce80359380a287a267865"),  
  "name" : "Califorina Academy of Sciences",  
  "location" : {  
    "type" : "Point",  
    "coordinates" : [  
      -122.4724356,  
      37.7672544  
    ]  
  }  
}
```

```
}
```

```
> db.areas.insertOne({name: "Golden Gate Park", area: {type: "Polygon", coordinates: [[p1, p2, p3, p4,
p1]]}})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("5b9cedcf59380a287a267869")
}
```

```
> db.areas.findOne()  
{  
  "_id" : ObjectId("5b9cedcf59380a287a267869"),  
  "name" : "Golden Gate Park",  
  "area" : {  
    "type" : "Polygon",  
    "coordinates" : [  
      [  
        [  
          -122.4547,  
          37.77473  
        ],  
        [  
          -122.45303,  
          37.76641  
        ],  
        [  
          -122.51026,  
          37.76411  
        ],  
        [  
          -122.51088,  
          37.77131  
        ],  
      ],  
    ],  
  },  
}
```

```
> db.areas.find({area: {$geoIntersects: {$geometry: {type: "Point", coordinates: [-122.49089, 37.76992]}}}}).pretty()
{
  "_id" : ObjectId("5b9cedcf59380a287a267869"),
  "name" : "Golden Gate Park",
  "area" : {
    "type" : "Polygon",
    "coordinates" : [
      [
        [
          -122.4547,
          37.77473
        ],
        [
          -122.45303,
          37.76641
        ],
        [
          -122.51026,
          37.76411
        ],
        [
          -122.51088,
          37.77131
        ]
      ]
    ]
  }
}
```


Untitled map

All changes saved in Drive

 Add layer  Share  Preview

✓ Untitled layer

 Individual styles

 Point 6


 Point 7

 Point 8

 Point 9

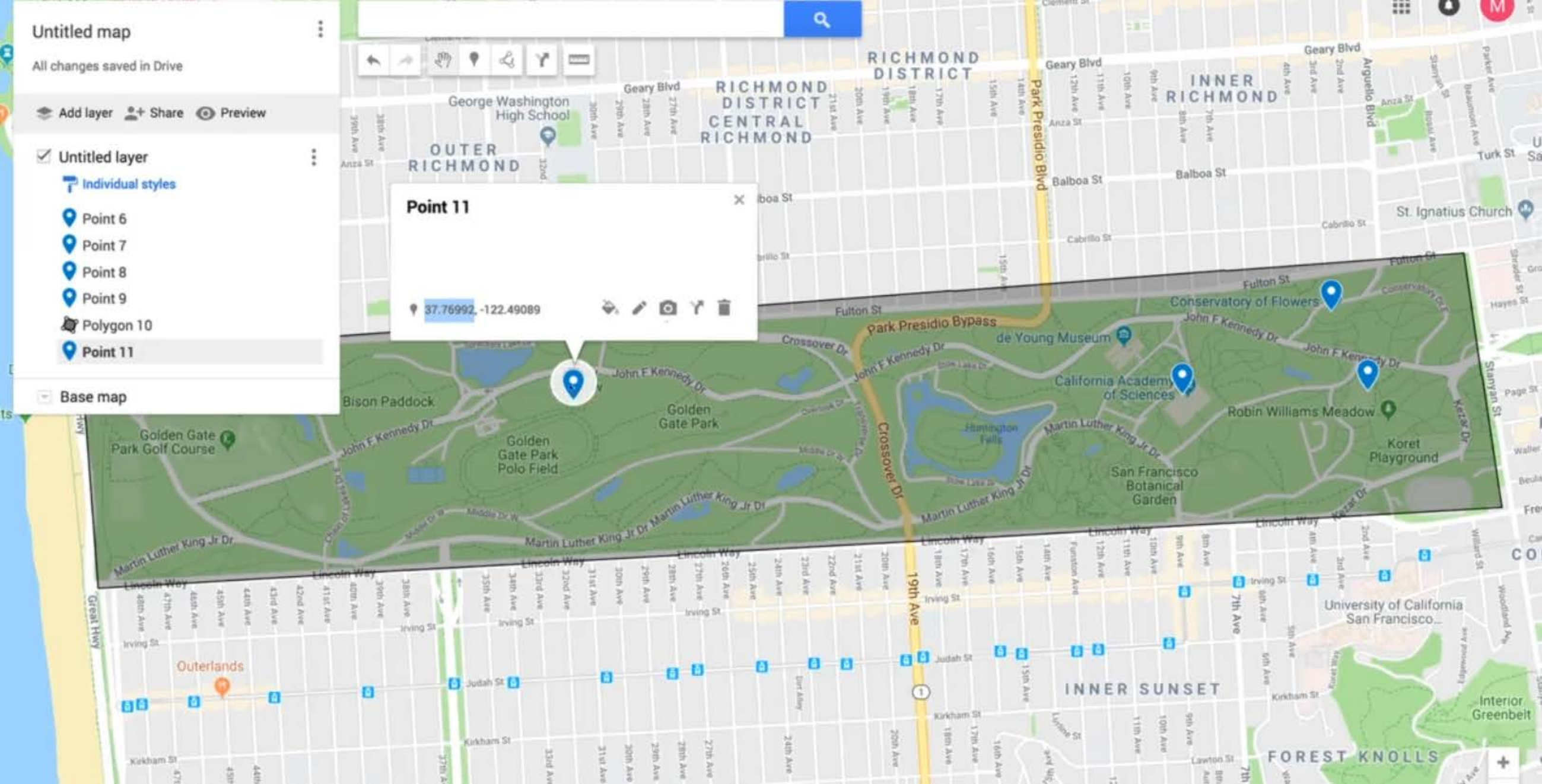
 Polygon 10

 Point 11

 Base map

Point 11

 37.76992, -122.49089



Untitled map

All changes saved in Drive

 Add layer  Share  Preview

Untitled layer

 Individual styles

 Point 6

 Point 7

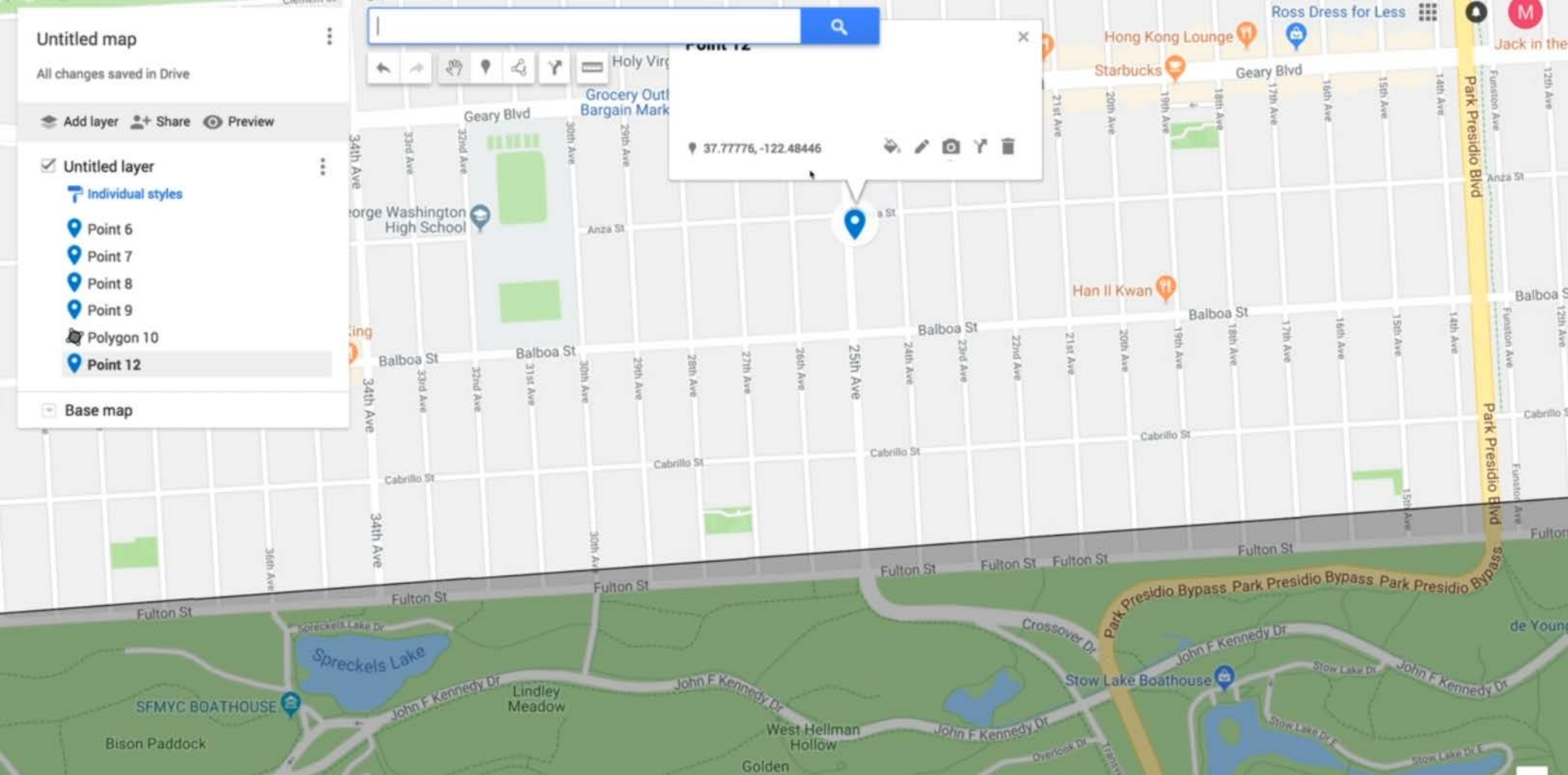
 Point 8

 Point 9

 Polygon 10

 Point 12


 Base map



```
>  
> db.areas.find({area: {$geoIntersects: {$geometry: {type: "Point", coordinates: [-122.48446, 37.77776  
]}}}}).pretty()  
> █
```


Untitled map

All changes saved in Drive

 Add layer  Share  Preview

☒ Untitled layer

 Individual styles

 Point 6

 Point 7

 Point 8

 Point 9

 Polygon 10

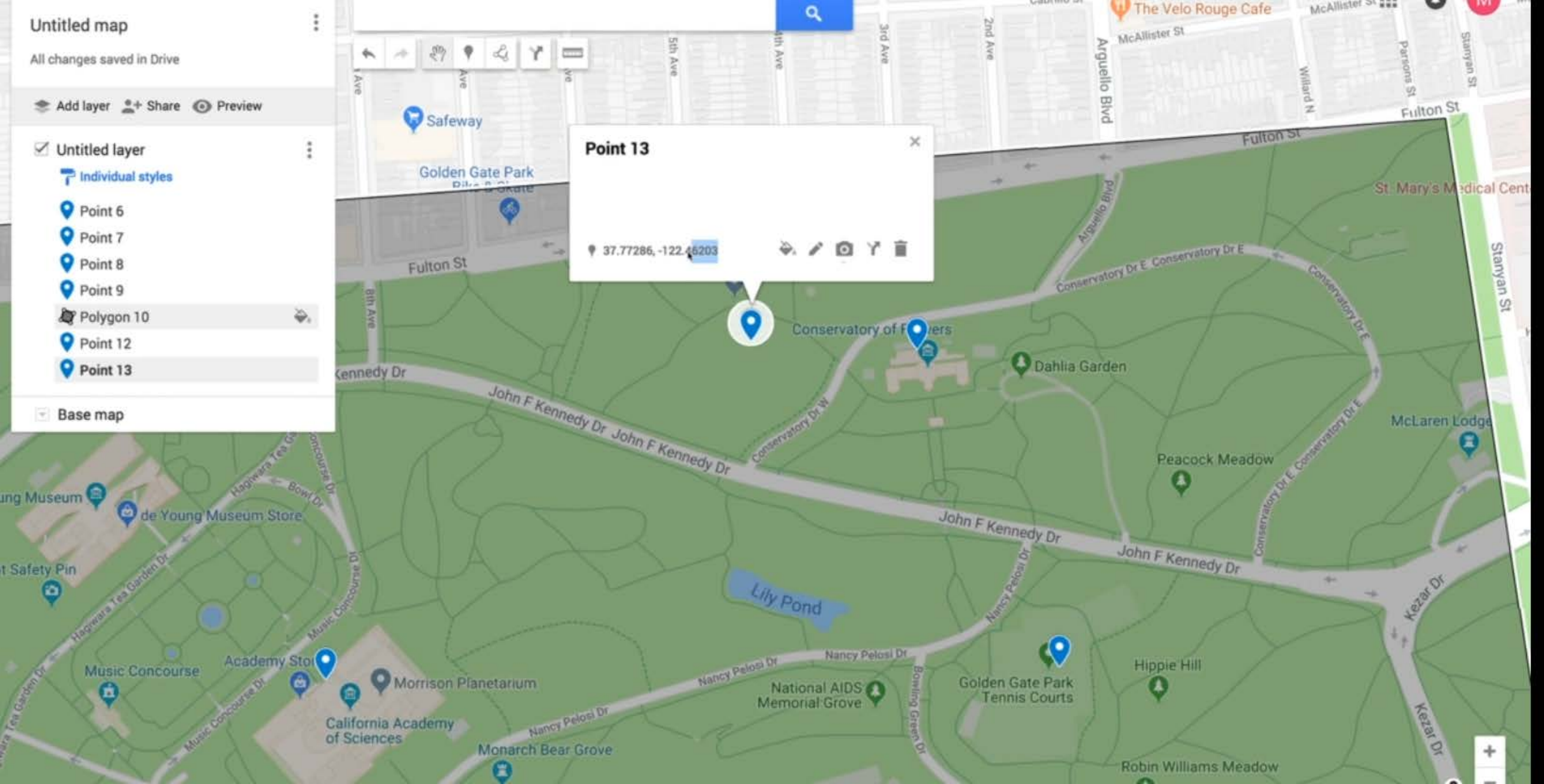
 Point 12

 Point 13

☐ Base map

Point 13

 37.77286, -122.46203



```
> db.places.find({location: {$geoWithin: {$centerSphere: [[-122.46203, 37.77286], 1 / 6378.1]}}}).pretty()
{
  "_id" : ObjectId("5b9ceac659380a287a267866"),
  "name" : "Conservatory of Flowers",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4615748,
      37.7701756
    ]
  }
}

{
  "_id" : ObjectId("5b9ceb3d59380a287a267867"),
  "name" : "Golden Gate Tennis Park",
  "location" : {
    "type" : "Point",
    "coordinates" : [
      -122.4593702,
      37.7705046
    ]
  }
}

> █
```