

# GeoCoder Project and TriMet

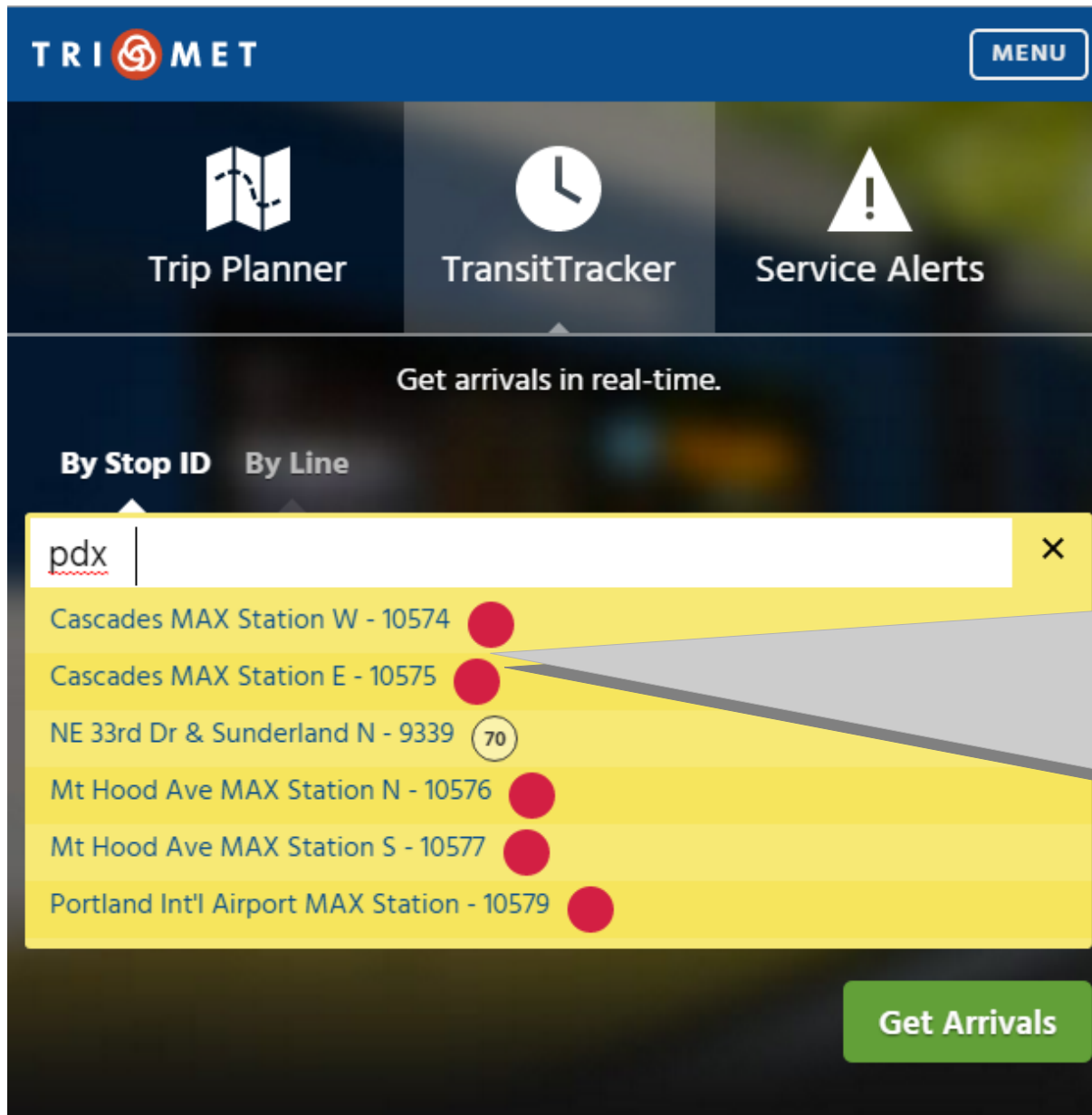
Thoughts on what we're going to need,  
both short-term development  
and long-term support

November 2016

# SOLR: current schema

- <https://github.com/OpenTransitTools/loader/blob/master/ott/loader/solr/conf/schema.xml#L129>
- SOLR has fields for both Stop ID and Route ID
- SOLR has an *inclusive* search parameter, thus limiting to a sub-set of the index (Stops)
- And an *exclude* param hiding certain types (TVMs)
- SOLR returns fields for in/out TriMet boundary
- Type names can be queried against (Parks)
- Type boosting (Stops) and sorting (City)
- TriMet has apps (internal) that use the OSPN X & Y coords have to change those

# trimet.org – Stop & Route info



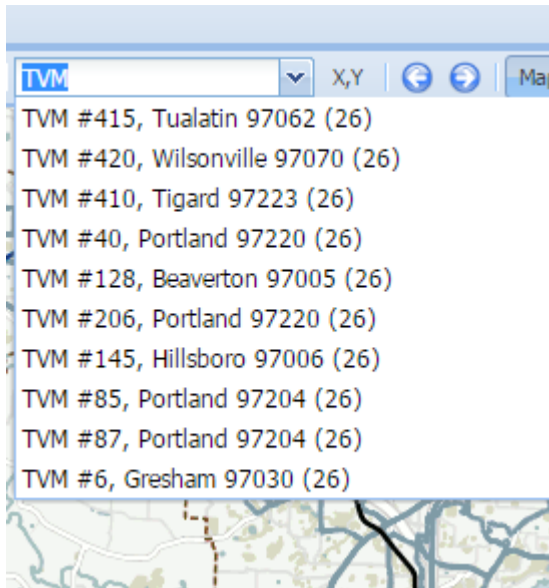
The screenshot shows the trimet.org website interface. At the top is the TRIMET logo and a MENU button. Below are three main tabs: Trip Planner, TransitTracker (which is selected), and Service Alerts. Under the TransitTracker tab, there's a section titled 'Get arrivals in real-time.' with two sub-tabs: 'By Stop ID' (selected) and 'By Line'. A search bar contains the text 'pdx'. Below the search bar is a list of search results, each with a red dot icon to its right. A grey callout box points to the second result, 'Cascades MAX Station E - 10575'. At the bottom right of the search results area is a green button labeled 'Get Arrivals'.

Station Name	Station ID
Cascades MAX Station W	10574
Cascades MAX Station E	10575
NE 33rd Dr & Sunderland N	9339
Mt Hood Ave MAX Station N	10576
Mt Hood Ave MAX Station S	10577
Portland Int'l Airport MAX Station	10579

Things to look at:

- SOLR on TransitTracker tab
- *Stops Only* query
- Route data in SOLR response

# Filter point types for different apps



Select a Uncertain location stop

We found multiple locations for: TVM

Select a location:

TUALITY FOREST GROVE HOSPITAL, Forest Grove

Select

Things to look at:

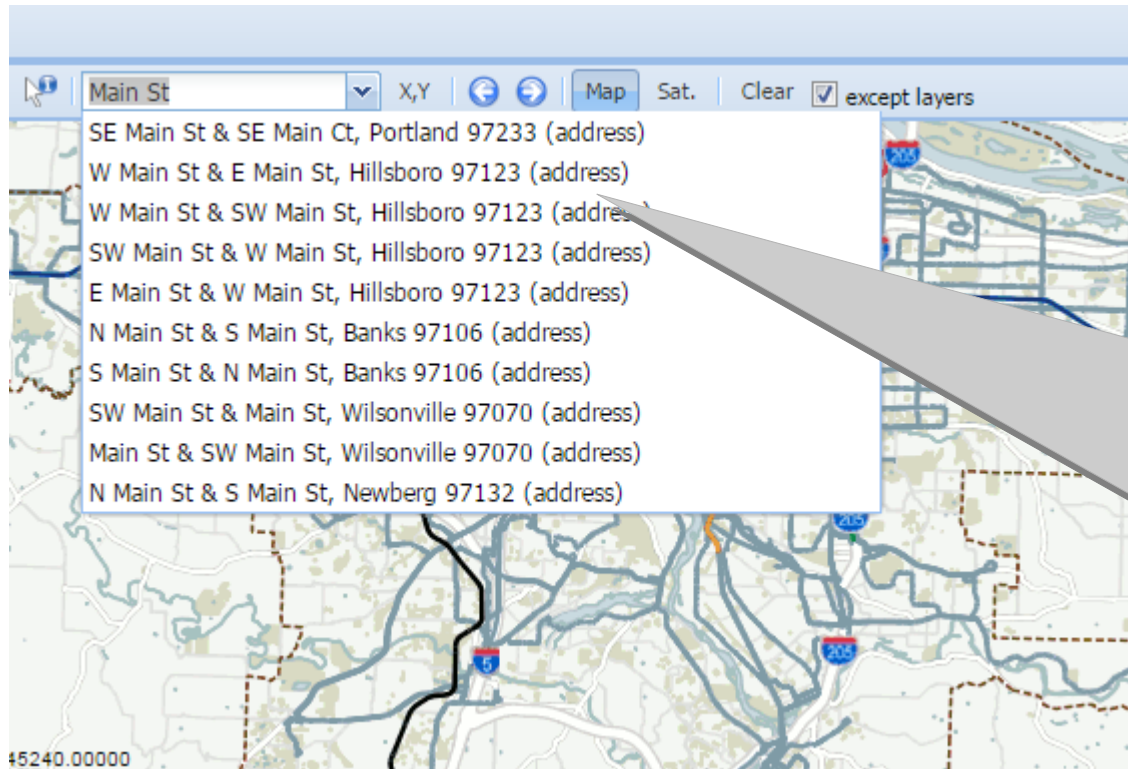
- In the internal map apps, we'll show things like TVMs (ticket vending machines)
- The public doesn't care about searching on TVMs, so we filter them from public apps. Searching for TVM on a public site does not return the TVM list
- SOLR has both an *inclusive* search filter (e.g., Stop type), and an *exclude* filter that we can use to avoid certain types from the search.

Find st

TVM

Conti

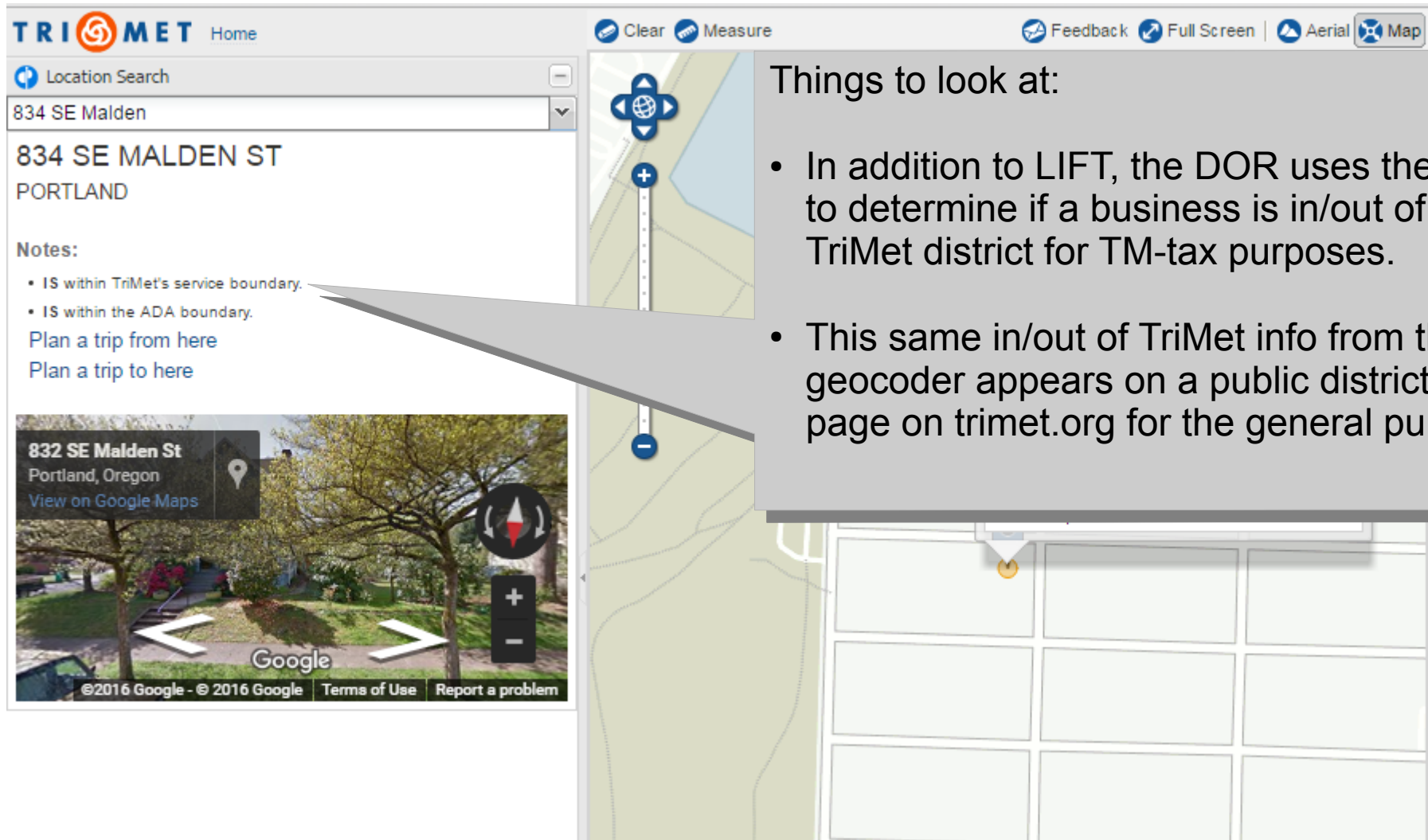
# SOLR – city sorting



Things to look at:

- SOLR has a higher weight on Portland addresses compared to all other cities. Hillsboro, Gresham and Beaverton are higher than other cities, etc...

# Mobilitymap's in/out Boundary Info



**TRI MET** Home

Clear Measure Feedback Full Screen Aerial Map

Location Search

834 SE Malden

**834 SE MALDEN ST**  
PORTLAND

Notes:

- IS within TriMet's service boundary.
- IS within the ADA boundary.

[Plan a trip from here](#)  
[Plan a trip to here](#)

**832 SE Malden St**  
Portland, Oregon  
[View on Google Maps](#)

Google  
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Things to look at:

- In addition to LIFT, the DOR uses the map to determine if a business is in/out of the TriMet district for TM-tax purposes.
- This same in/out of TriMet info from the geocoder appears on a public district / tax page on trimet.org for the general public.

# Search on Type Names

The screenshot shows the TRI MET Trip Planner web application. The left sidebar contains a menu with 'Trip Planner', 'TriMet Routes', 'Location Search', and 'Parks'. The 'Parks' option is selected, and a dropdown list shows various park names, including 'Deerfield PK3 Open Space Clackamas Co. (Parks)', 'Trillium Pk Open Space Clackamas Co. (Parks)', 'Park Place Park Clackamas Co. (Parks)', 'Park Marion Co. (Parks)', 'Parkdale Park Marion Co. (Parks)', 'City Park Marion Co. (Parks)', 'City Park Marion Co. (Parks)', 'Kari Park Marion Co. (Parks)', 'P. Boone Park Marion Co. (Parks)', and 'Parklane Park Multnomah Co. (Parks)'. A callout box points to the first two items. The main area displays a map of Beaverton, Oregon, with a blue line indicating a route. The bottom of the sidebar shows pagination: 'Page 1 of 1324'.

TRI MET Trip Planner

Trip Planner  
TriMet Routes  
Location Search  
Parks

Deerfield PK3 Open Space Clackamas Co. (Parks)  
Trillium Pk Open Space Clackamas Co. (Parks)  
Park Place Park Clackamas Co. (Parks)  
Park Marion Co. (Parks)  
Parkdale Park Marion Co. (Parks)  
City Park Marion Co. (Parks)  
City Park Marion Co. (Parks)  
Kari Park Marion Co. (Parks)  
P. Boone Park Marion Co. (Parks)  
Parklane Park Multnomah Co. (Parks)

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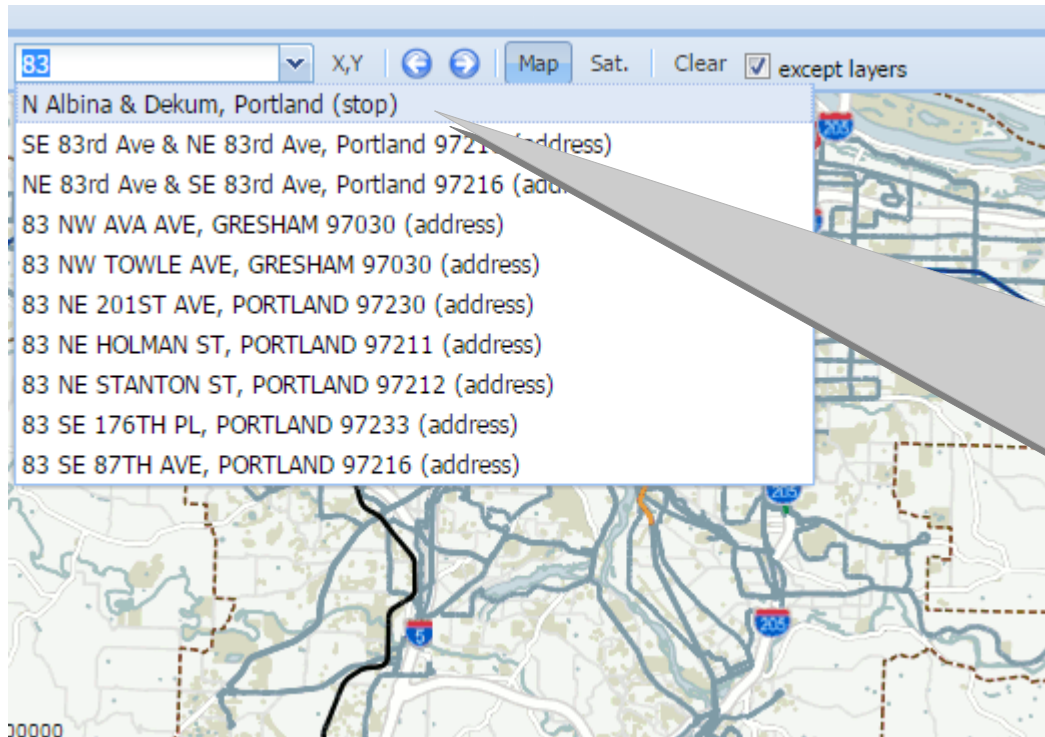
Beaverton

Things to look at:

- There are 18 different types (classifications) of content in SOLR
- There is an English type name that can be used as a query keyword, thus bringing up all of those types
- It was a requirement at one point to have a query of all 'Parks' show as a geosearch result.



# SOLR – stop weighting

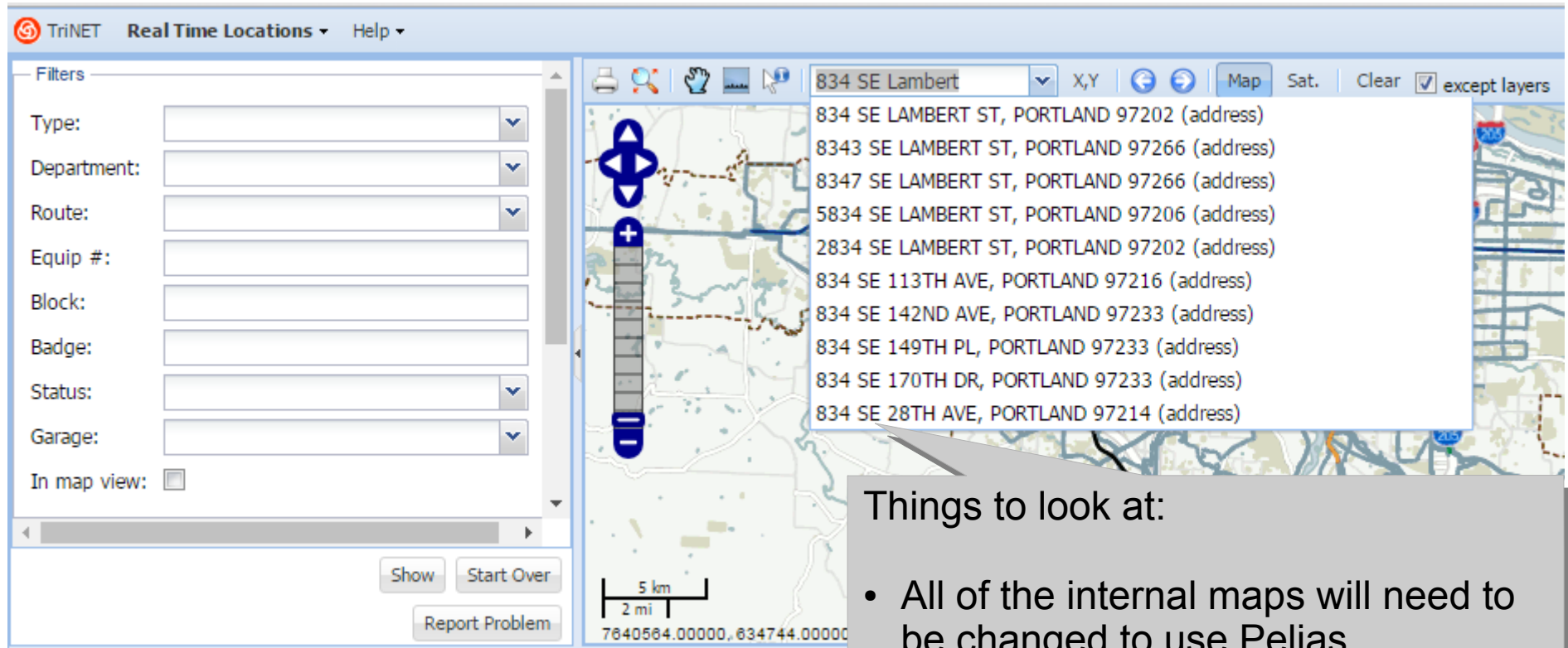


Things to look at:

- SOLR is configured to prefer records with Stops IDs, and thus list those higher than other (address) records



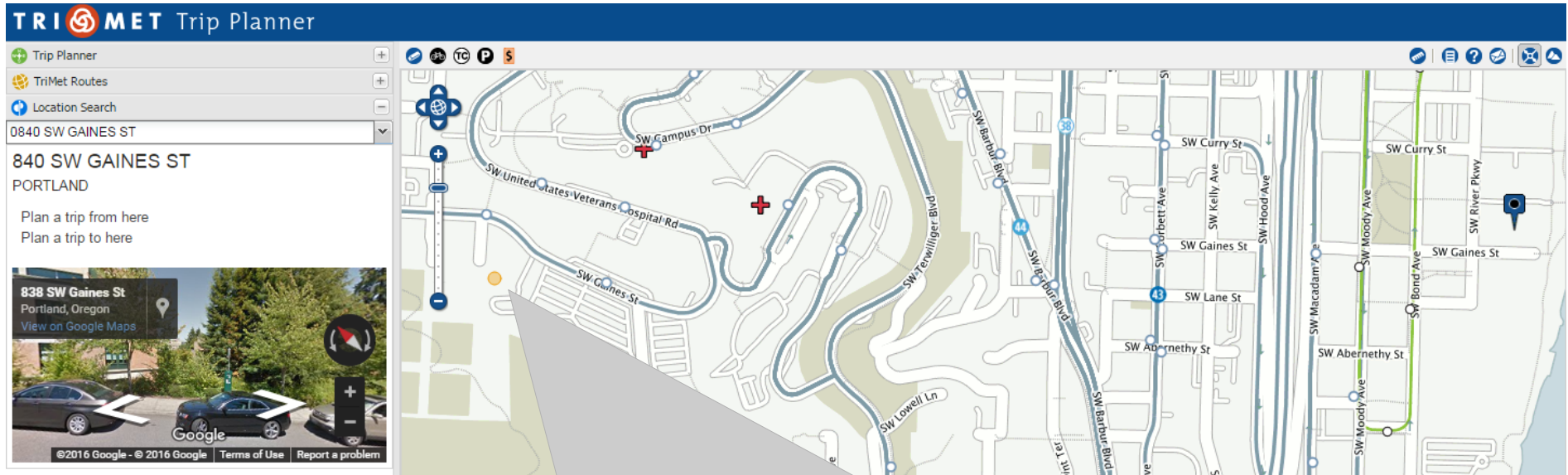
# Internal maps use OSPN X & Y



## Things to look at:

- All of the internal maps will need to be changed to use Pelias
- These apps will need to re-project Pelias' Lat & Lons into OSPN X & Y coordinates (or maybe the maps get updated away from using OSPN).

# 840 and 0840 SW Gaines



## Things to look at:

- Portland has a weird numbering scheme of leading zeros addresses. The blue marker at map-right is 0840 SE Gaines St.
- About 1 mile west of 0840 SW Gaines St is a building with an address of 841 SW Gaines St.
- Creating address ranges might get somewhat tricky here; searches for *0840 SW...* and *840 SW...* could get interesting.

# Pelias: help needed

- consultants to show Frank Purcell and Grant Humphries how to run the ETL tools
- consultants (on-site and electronic availability) from MapZen to work with John Zimmerman (JZ) to install Pelias and all related ETL tools in his server environment
- consultants to set up a support mechanism between Myleen Richardson & Madeline Steele, and respond to their ongoing questions & feedback when they encounter end-user issues with the geocoder
- Address Patching Scheme (e.g., maf\_fixes.csv)

# Pelias: Potential Challenges

- The ATIS geocoder took 10 years to stabilize
- Myleen & Madeline (M&M) are going to take the brunt of this project long term (see ATIS above)
- Project Success (measured as zero customer complaints) will require a feedback -> fix -> deploy loop involving M&M, MapZen and (to a lesser extent) JZ
- I believe Pelias will have issues with things like ZERO-leading address points ... they'll be other issues (there always are)
- *All* new systems require effort beyond SW dev