Identifying Parking Lots Around Sacramento Light Rail Stations

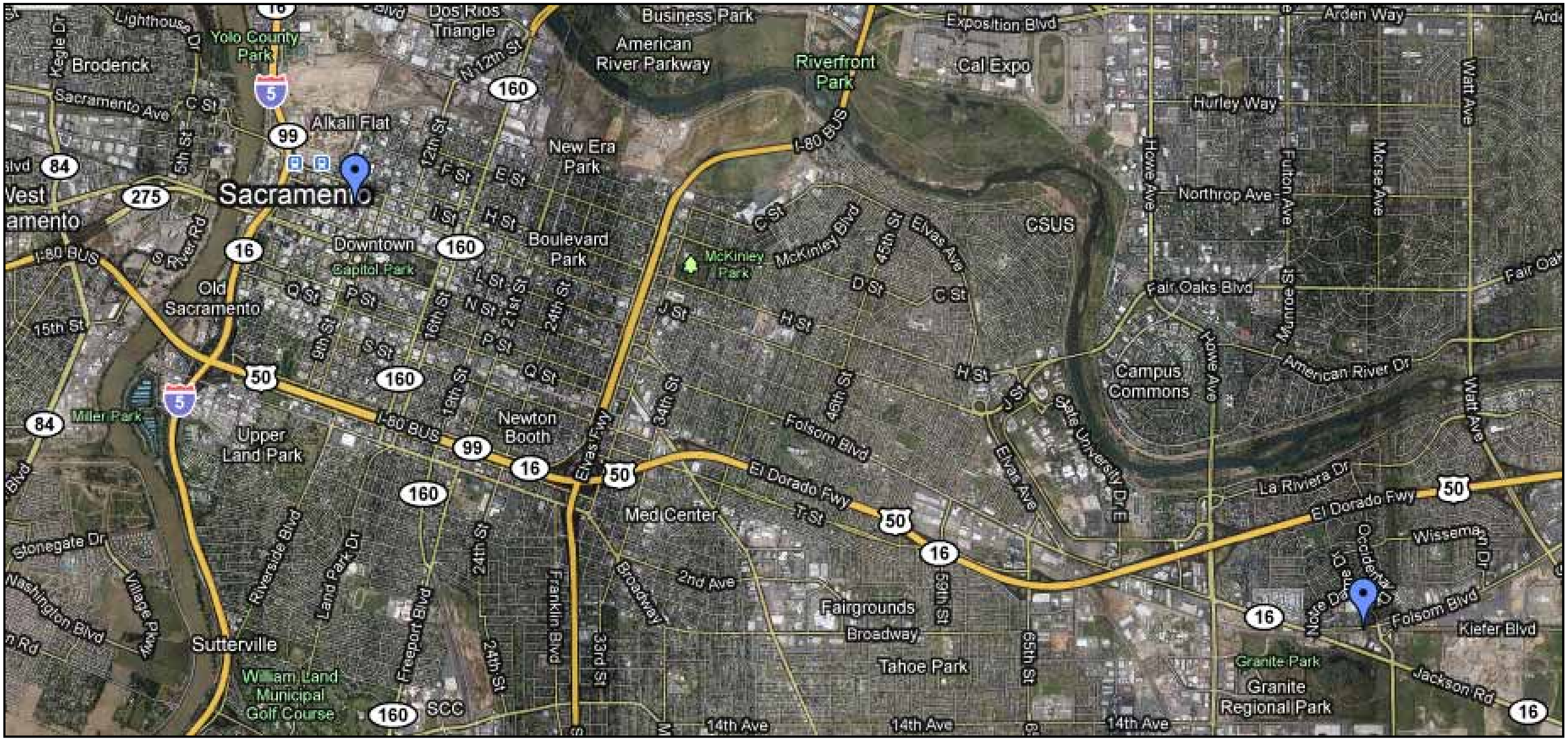
Devan Morris

Geography 342

5/13/10

Why is this interesting?

Comparison



Broderick
Yolo County Park
Lighthouse Dr
Sacramento Ave
Alkali Flat
Dos Rios Triangle
Business Park
American River Parkway
Riverfront Park
Exposition Blvd
Cal Expo
Arden Way
Hurley Way
New Era Park
Sacramento
Downtown
Capitol Park
Boulevard Park
McKinley Park
McKinley Blvd
CSUS
Northrop Ave
Fair Oaks Blvd
Old Sacramento
Campus Commons
American River Dr
Newton Booth
Upper Land Park
Miller Park
Folsom Blvd
El Dorado Fwy
La Riviera Dr
Med Center
Broadway
2nd Ave
Fairgrounds
Tahoe Park
Granite Park
Granite Regional Park
Kiefer Blvd
Jackson Rd
Sutterville
William Land Municipal Golf Course
SCC
14th Ave
Riverside Blvd
Land Park Dr
Freeport Blvd
Franklin Blvd
Stonegate Dr
Washington Blvd
Village Pkwy
Howe Ave
Fulton Ave
Morse Ave
Watt Ave
Elvas Fwy
Elvas Ave
State University Dr E

College Greens

College Greens

College Greens

College Greens

K & 11th

K & 11th

K & 11th

K & 11th

Transit Oriented Development (TOD)

"A compatible mix of residential, retail, and office well-suited for surrounding neighborhood. Development of high quality, compact, construction, that is also viable, & sustainable that is all within an easy walk - 1/4 -1/2 mile - from transit station

There are a variety of land uses that should be considered for TOD. Retail, Residential, Office and Entertainment.

Mixed use allows for pedestrian friendly street designs with safe routes for pedestrians and bicyclists and convenient access to transit."

-Sacramento Regional Transit Website, 2010

Sacramento General Plan

Policy LU.5.5.2: Transit-Oriented Development.

The City shall actively support and facilitate mixed-use retail, employment, and residential development around existing and future transit stations.

-Sacramento 2030 General Plan, Adopted 2009

Sources of Data

City of Sacramento

County of Sacramento

Define Study Area

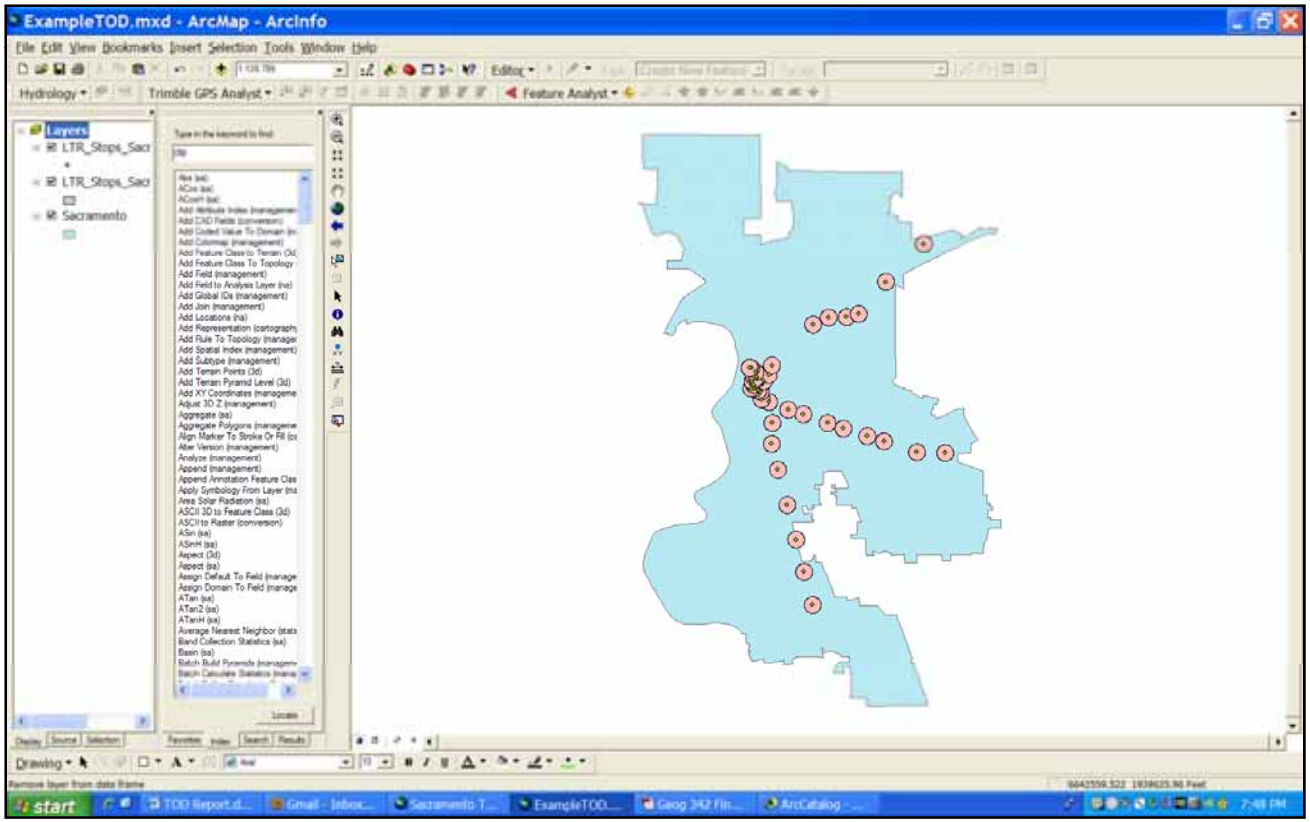
Rule of Thumb-

A quarter mile is the distance a typical individual can walk in 5 minutes.

Common standard used to measure walkablity of an area.

Buffers

Select out light rail stations located in Sacramento and add quarter mile buffers.



Key lesson learned-

The more features you can exclude, the less Feature Analyst can classify incorrectly.

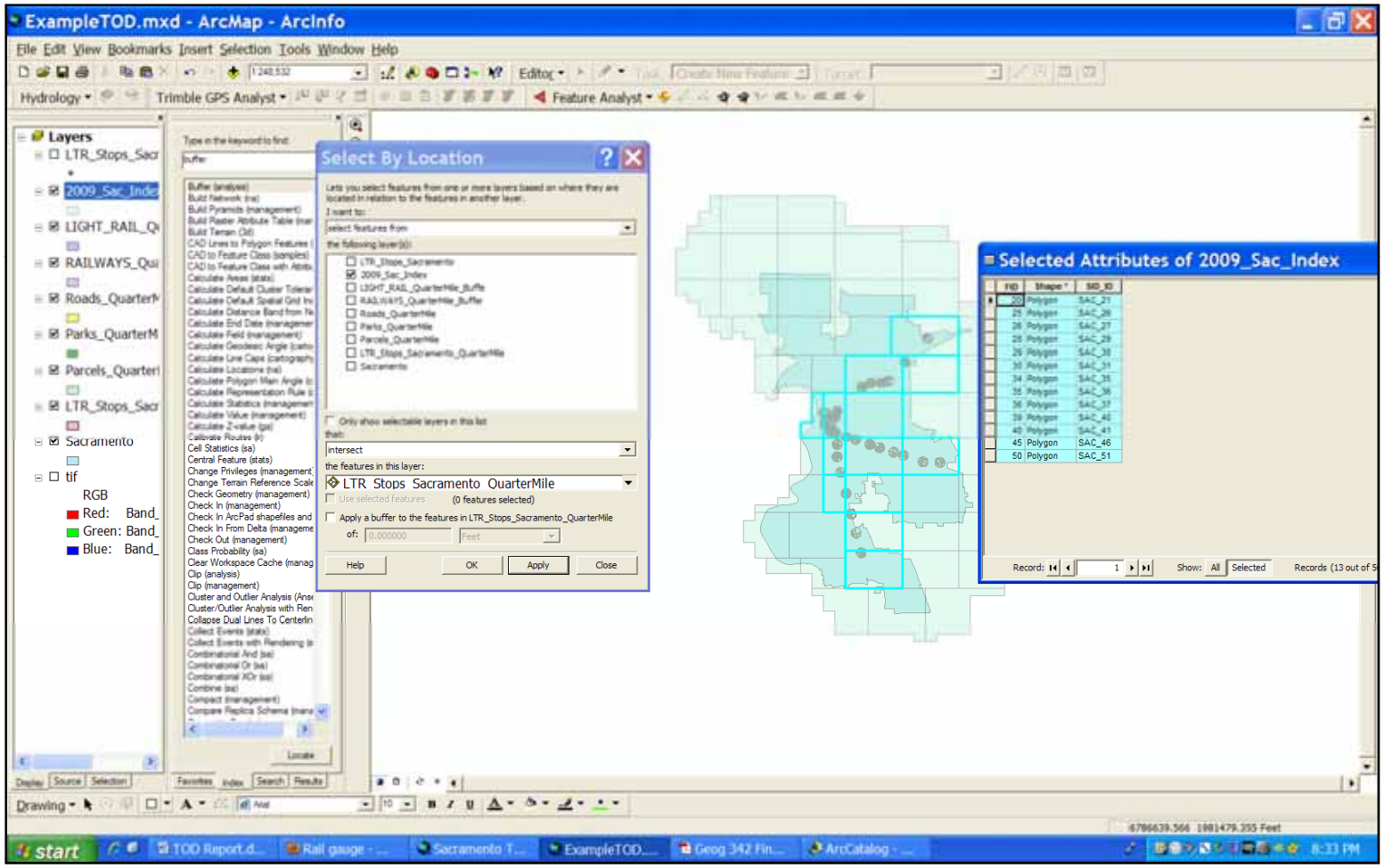
Parks

Rail Lines

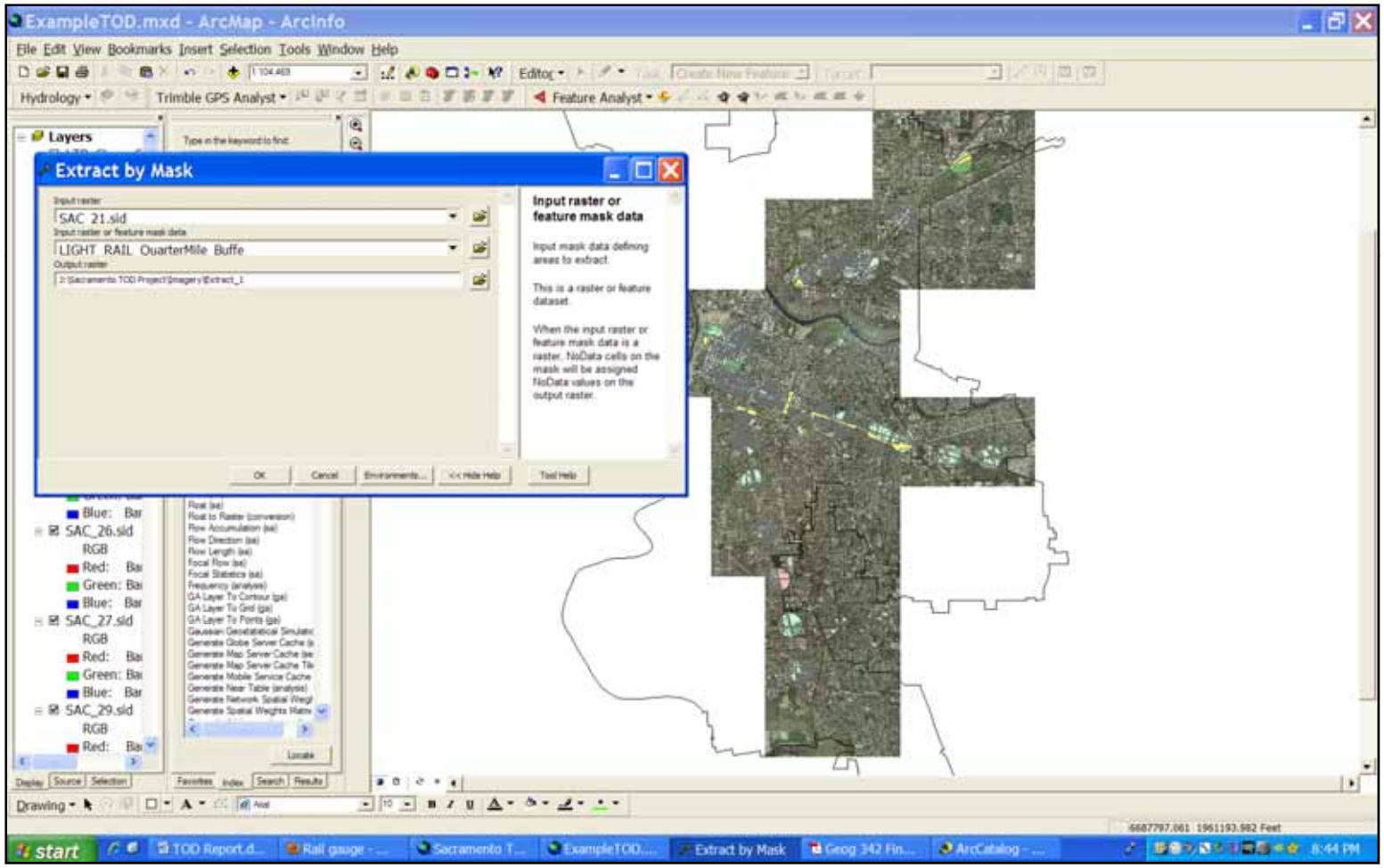
Residential Parcels

Roads

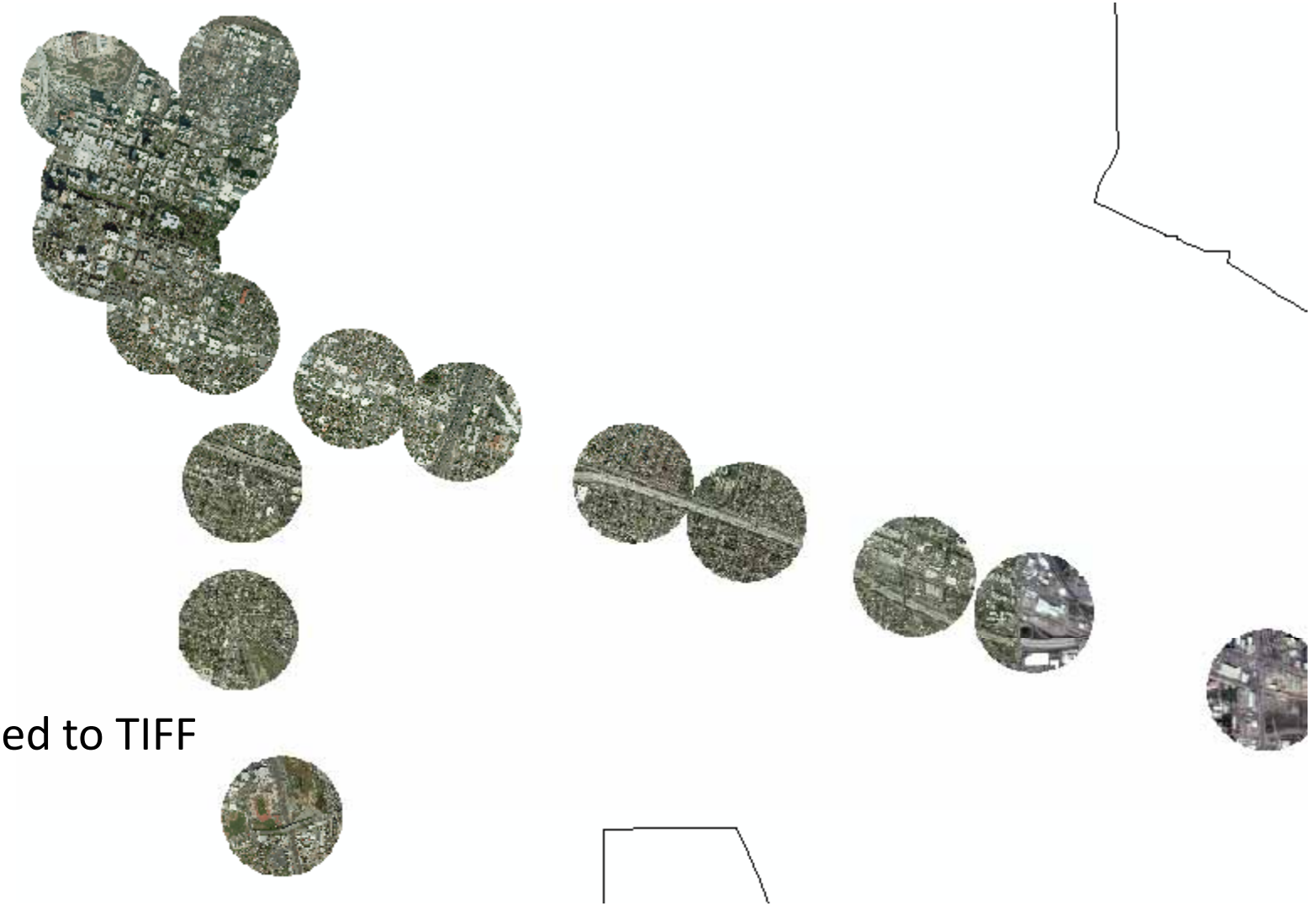
Study Area and Imagery



Study Area and Imagery



Study Area and Imagery



Converted to TIFF

Resample

Through trail and error discovered that Feature Analyst was running incredible slow.

Resampleing image to lower resolution made the classification process faster.

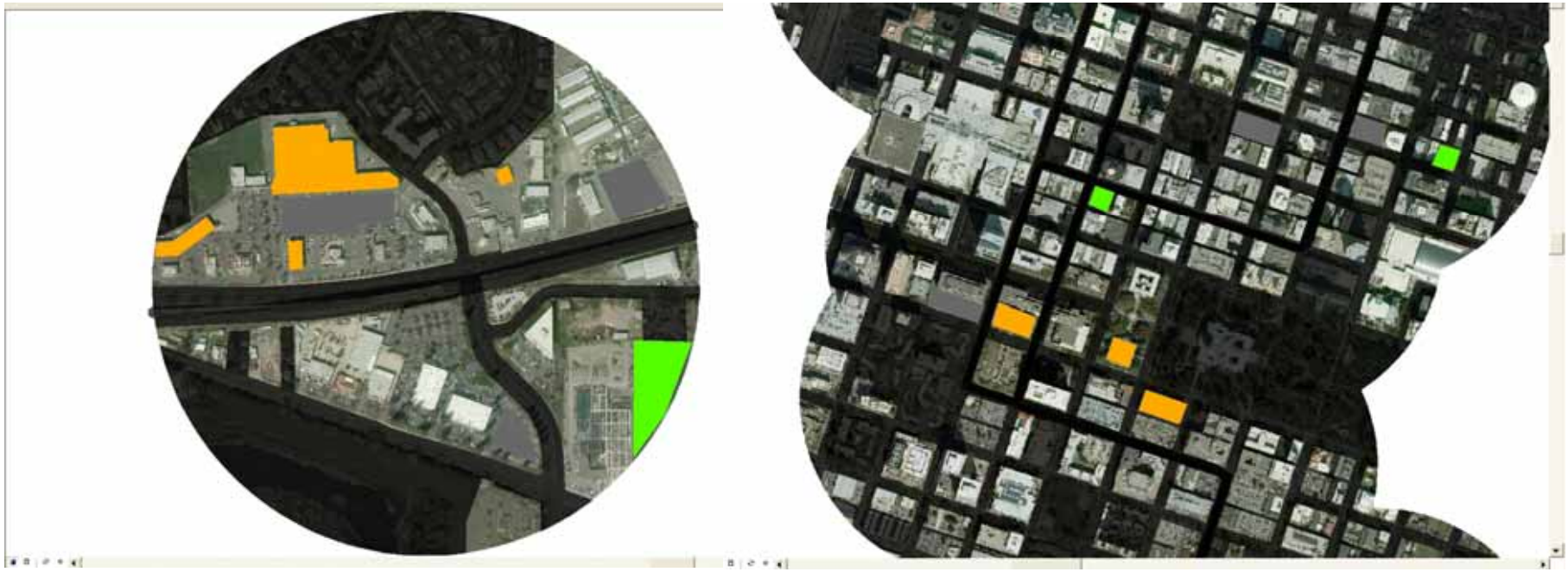
Test run using 6 inch resolution original image.
Time to process: 34 minutes.

Test run using resampled image to 1 foot resolution image. Time to process: 11 minutes.

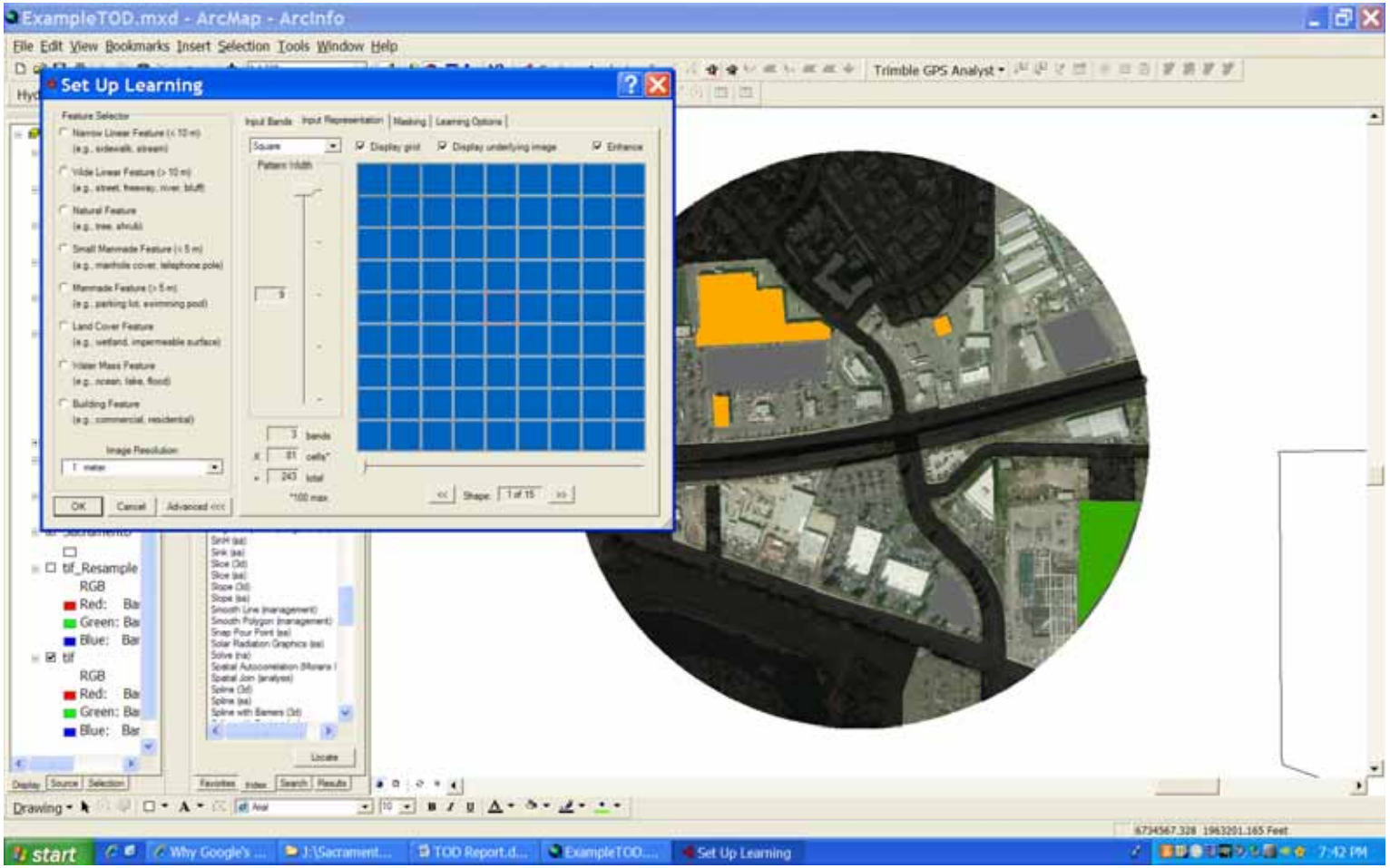
Test run using resampled image to 3 feet resolution image. Time to process: 2 minutes.

Feature Analyst

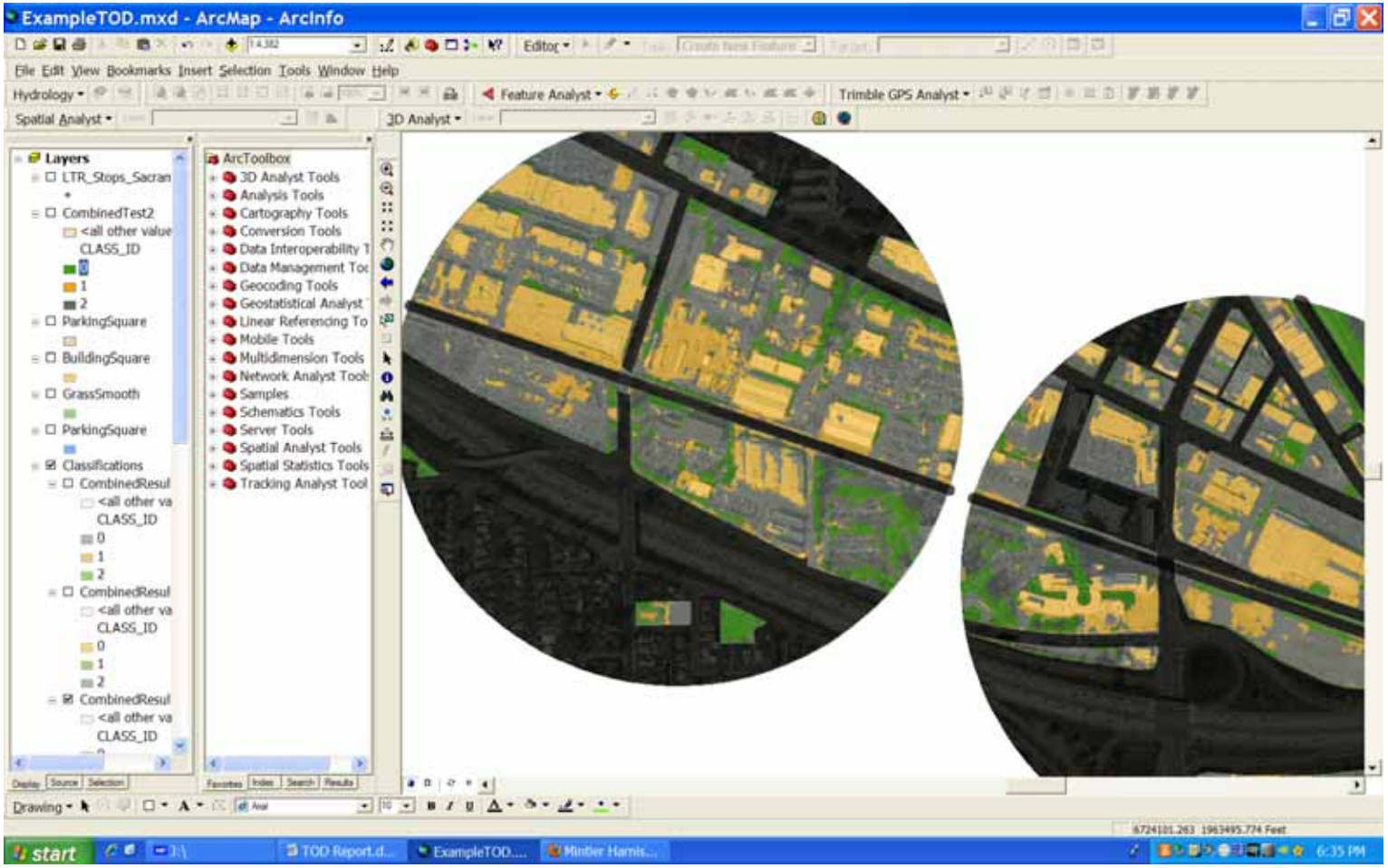
Picking Test Sites



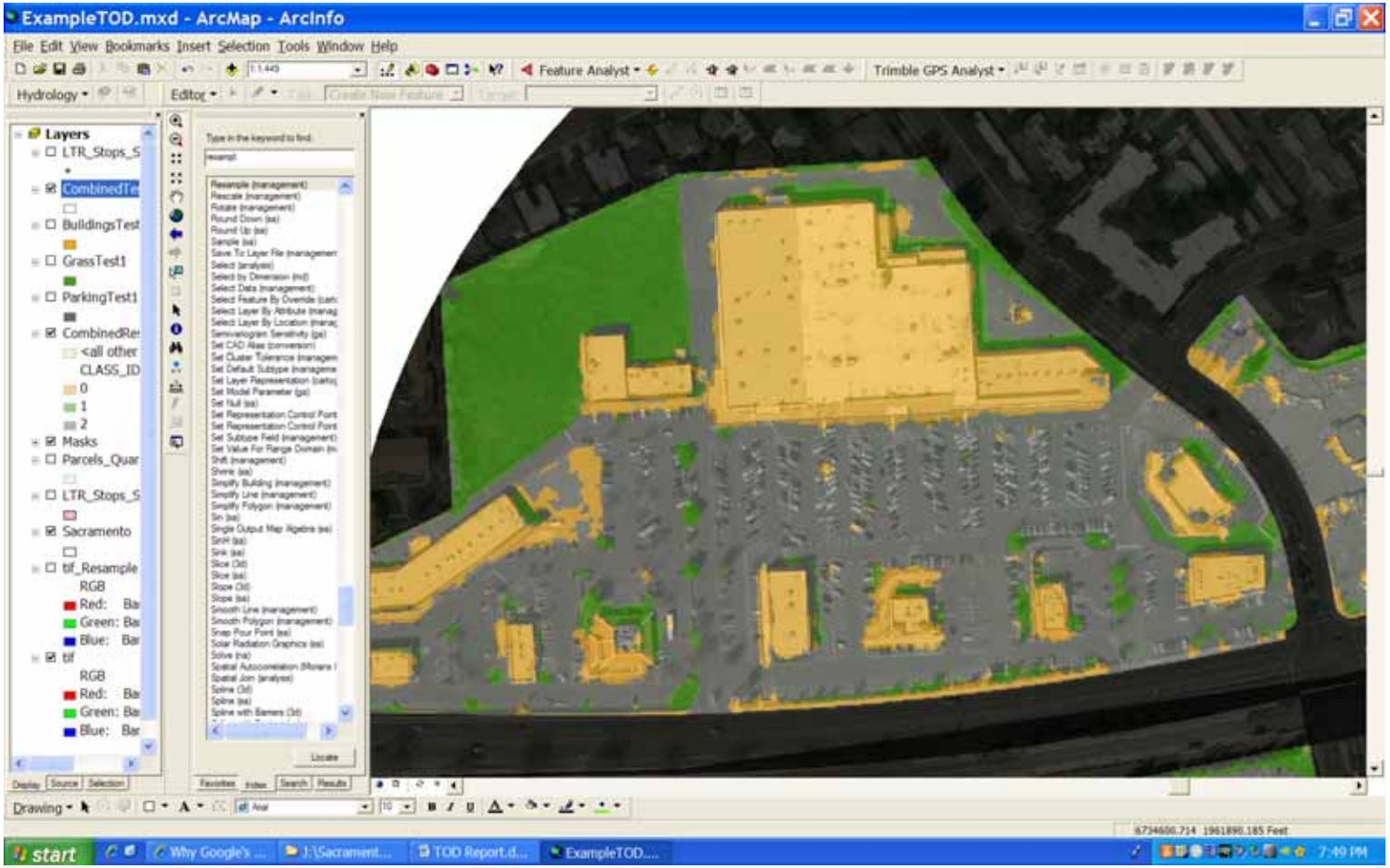
Setting up Learning



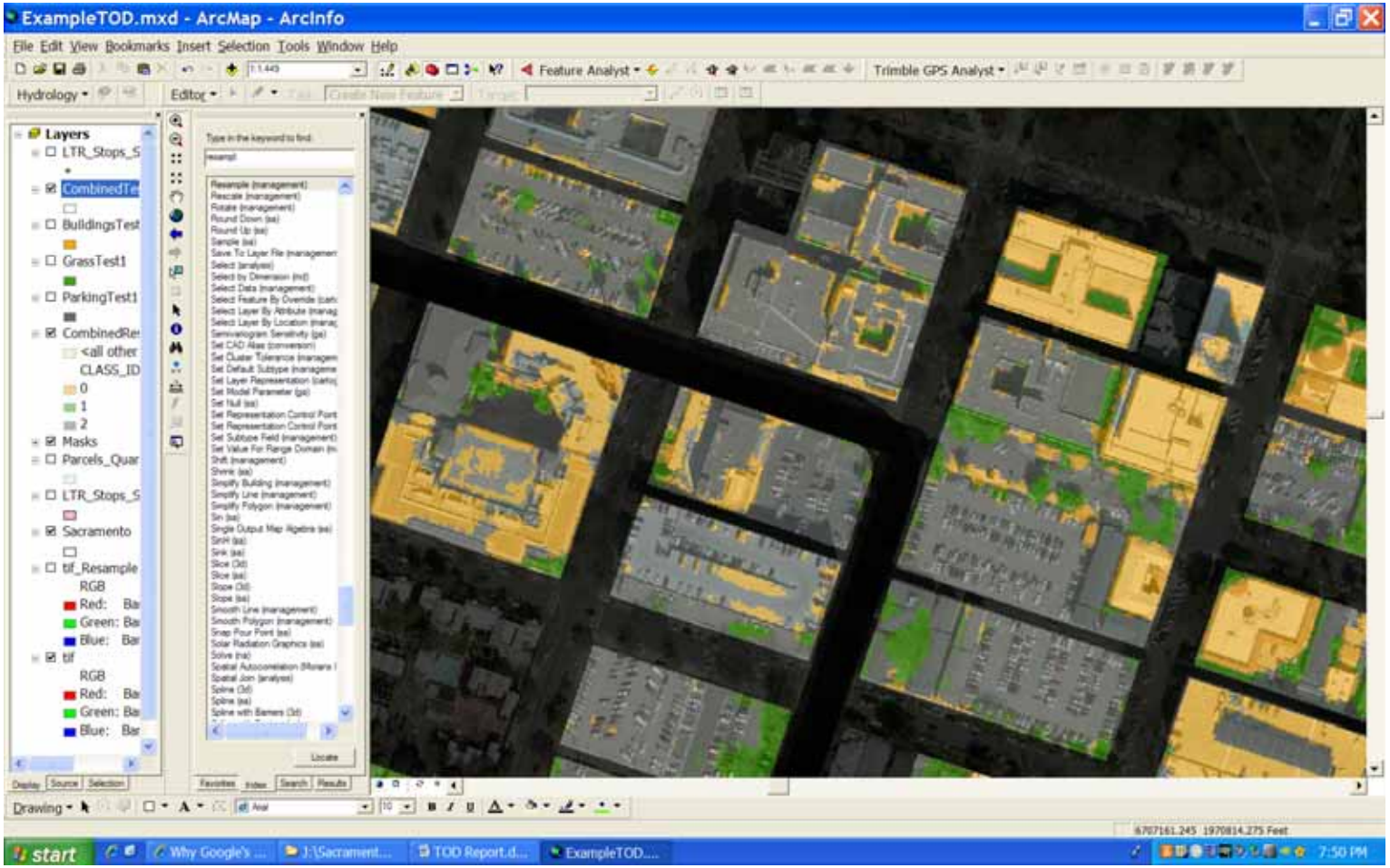
First Result Wall to Wall



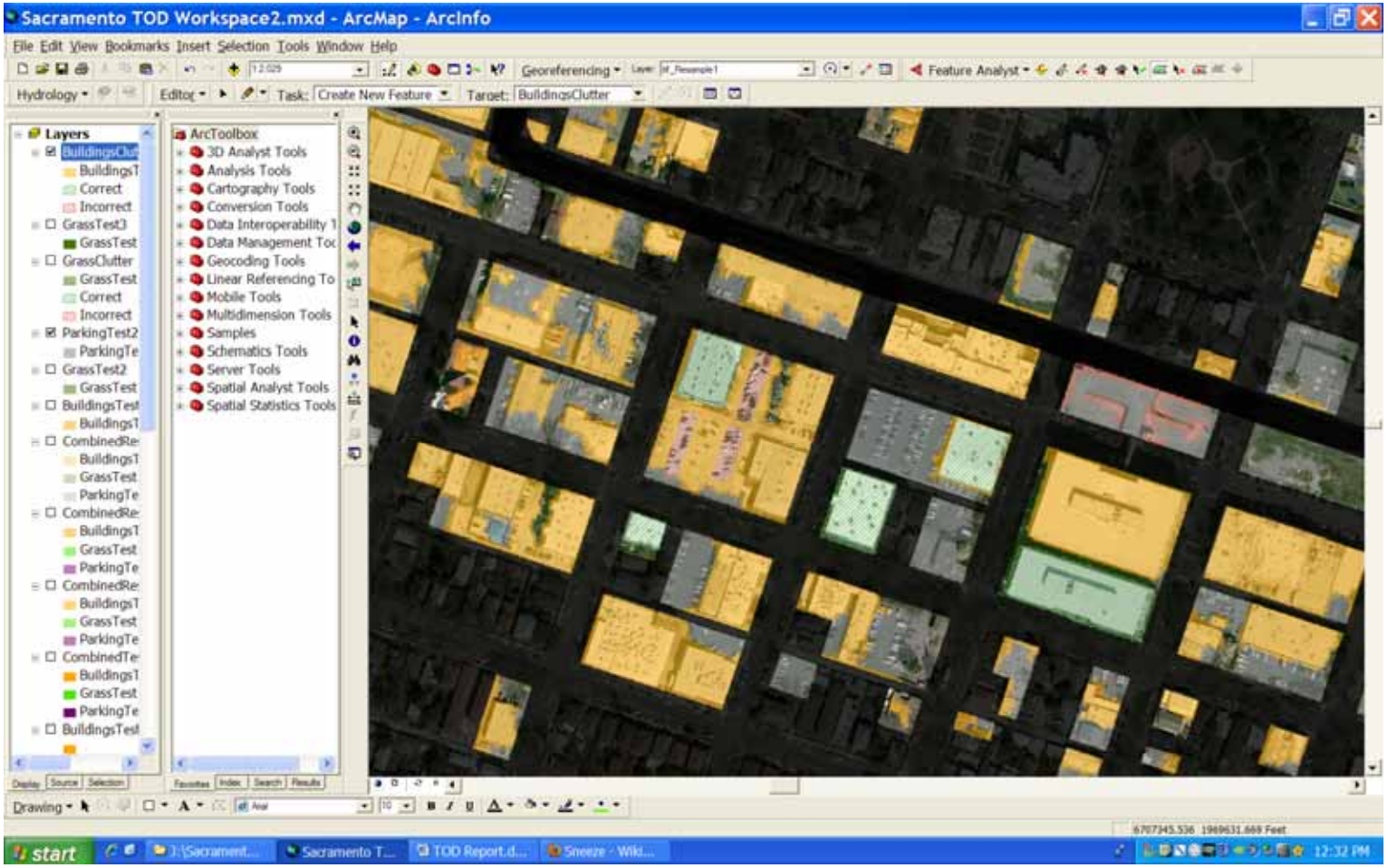
First Result Suburbs



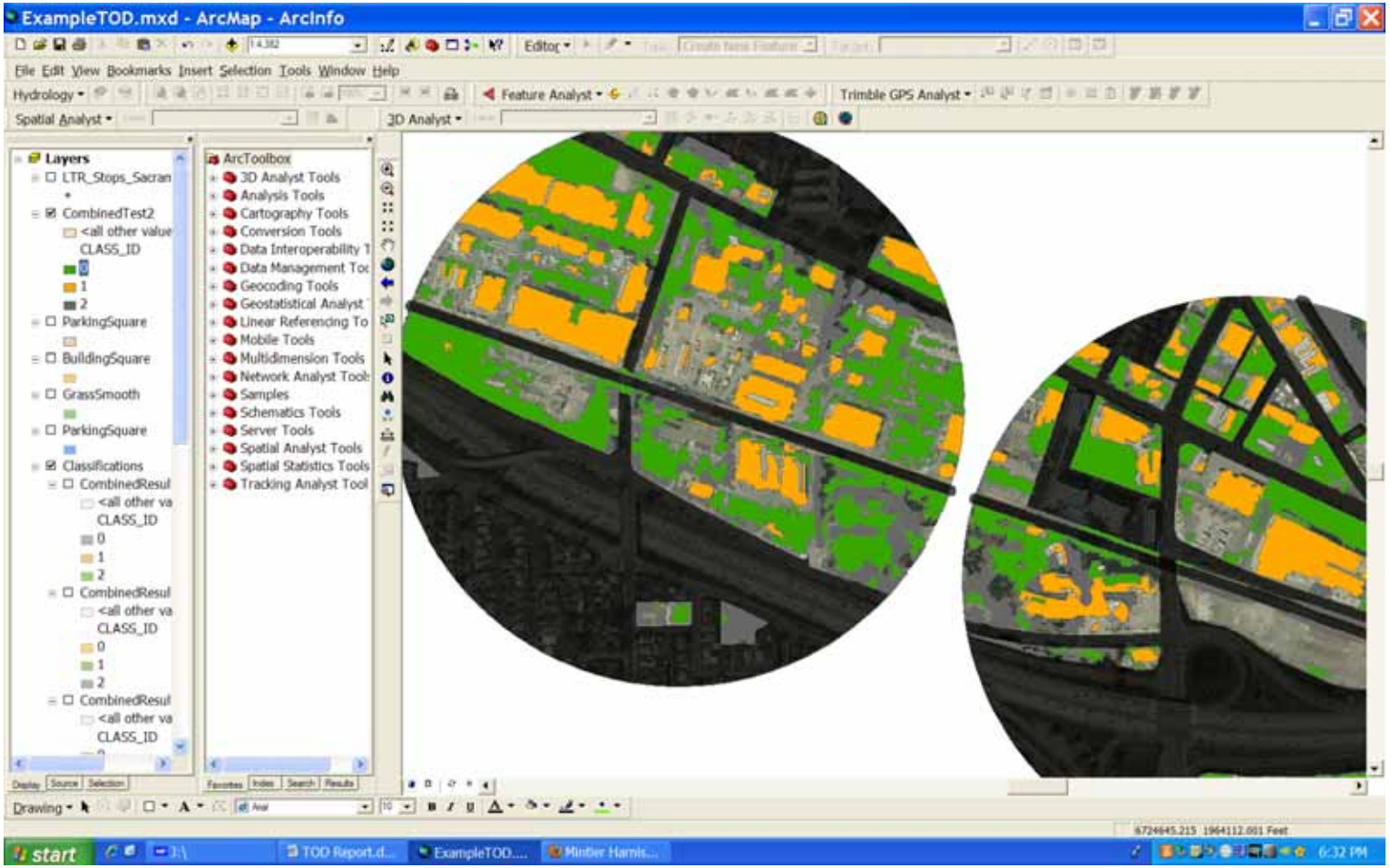
First Result Urban Areas



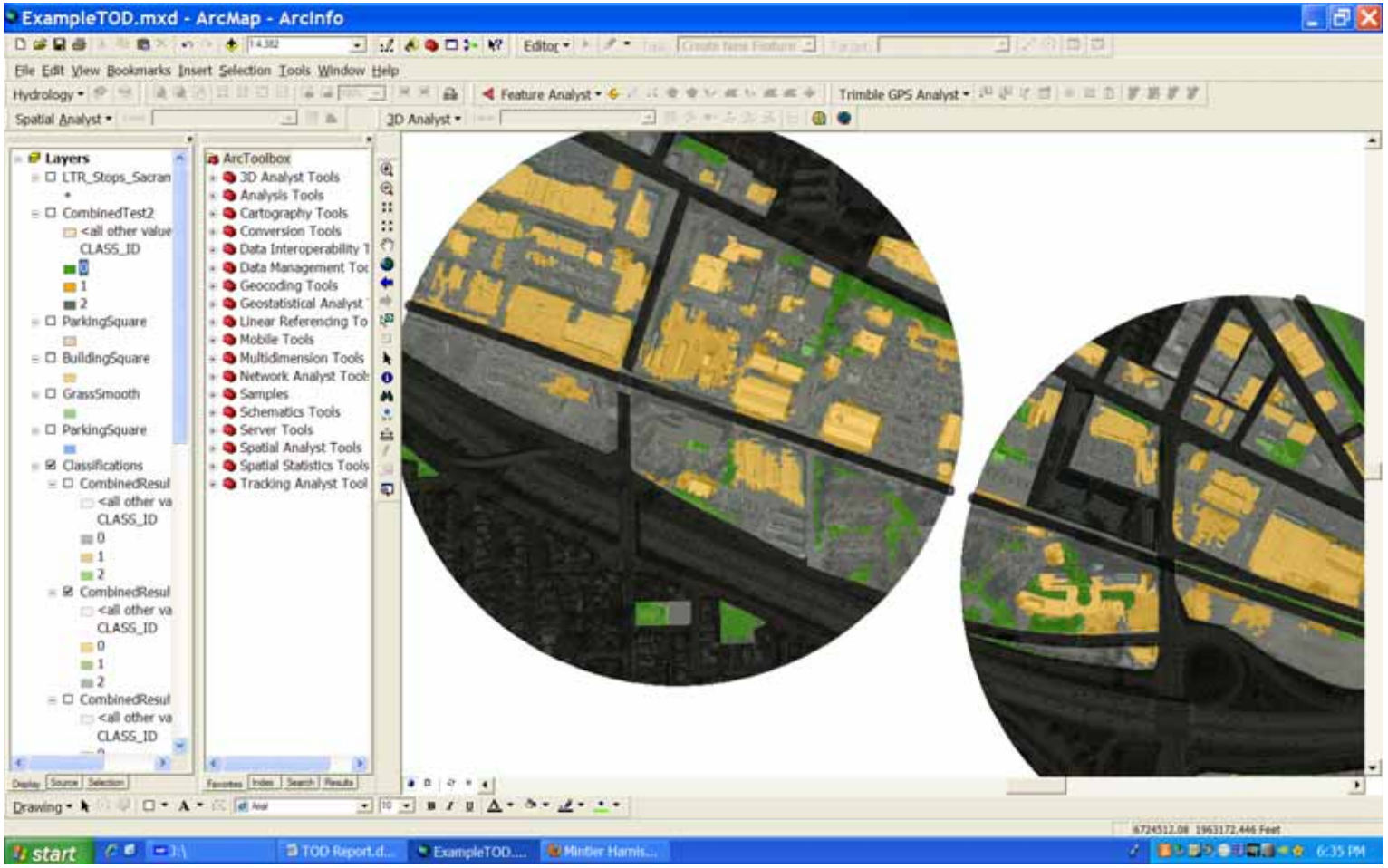
First Round Clutter Removal



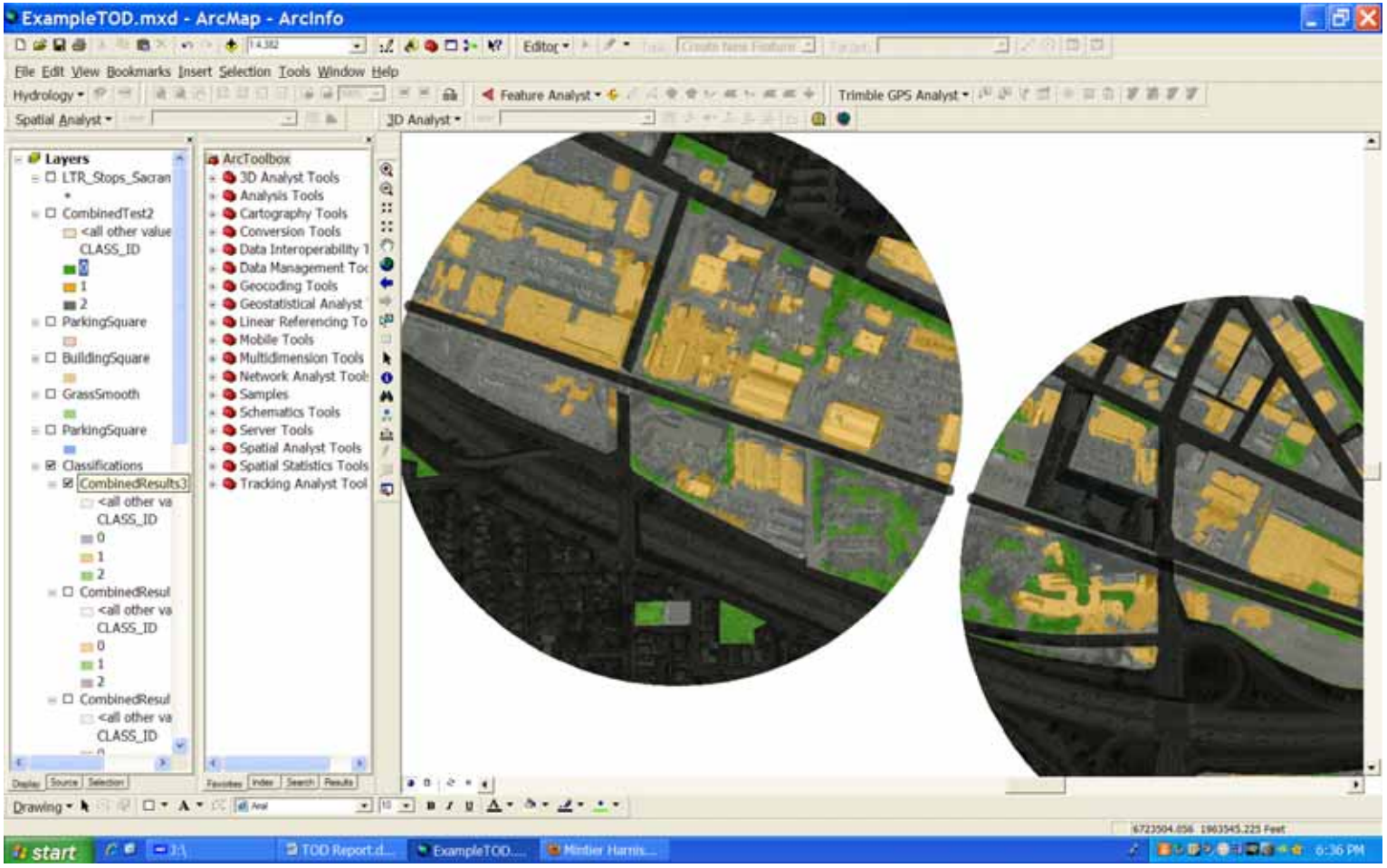
After Clutter Removal



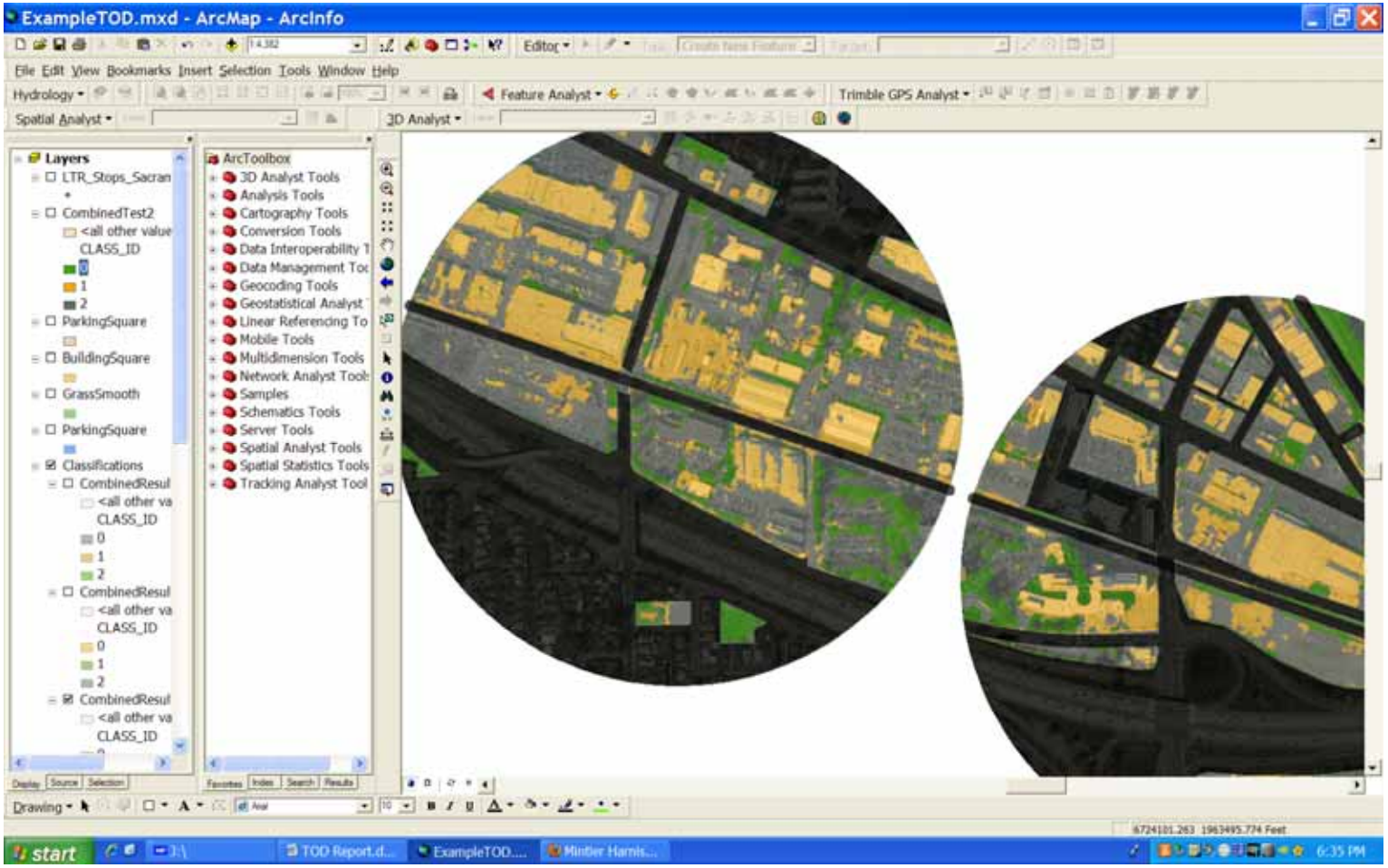
Second Result Wall to Wall



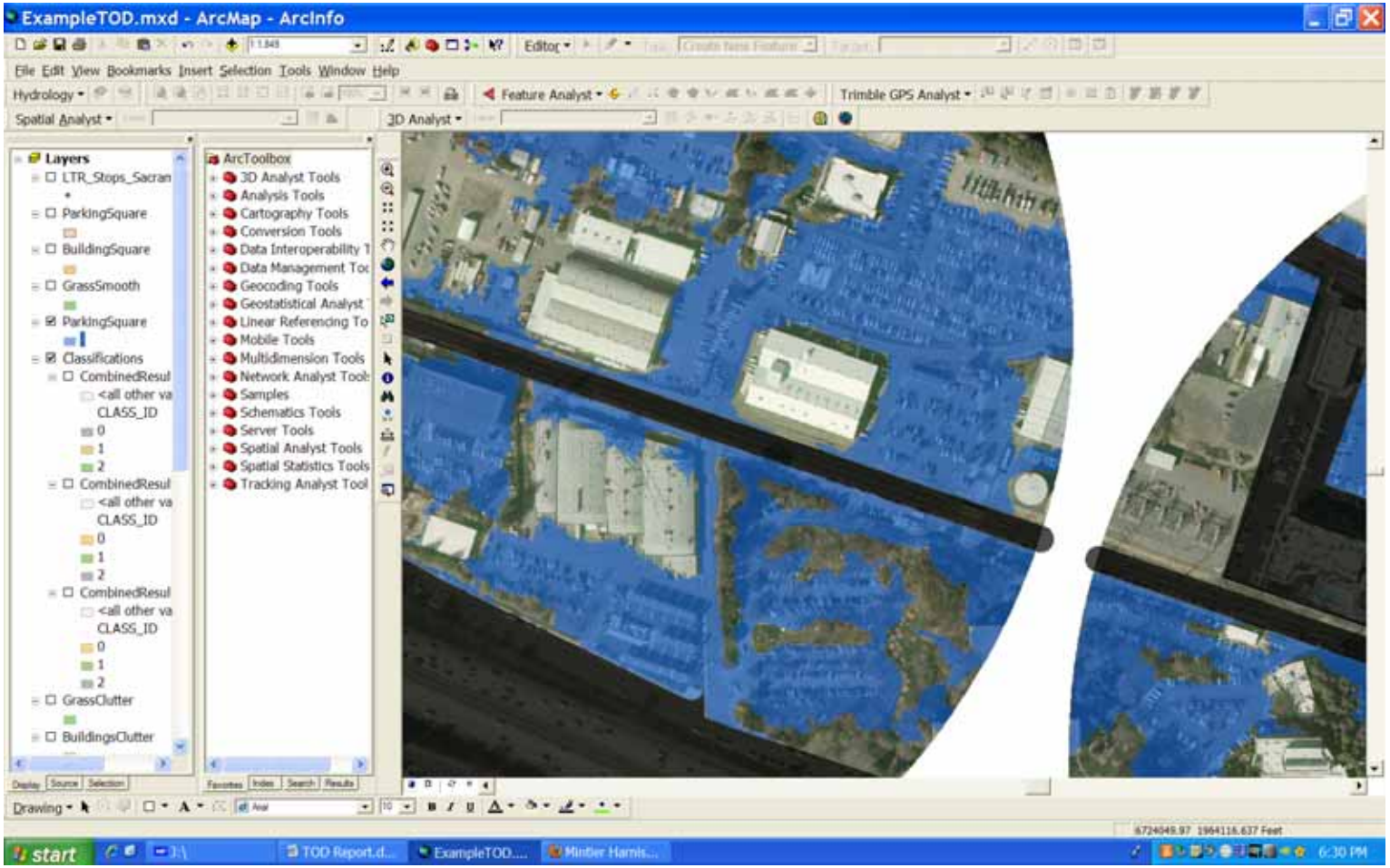
Third Result Wall to Wall



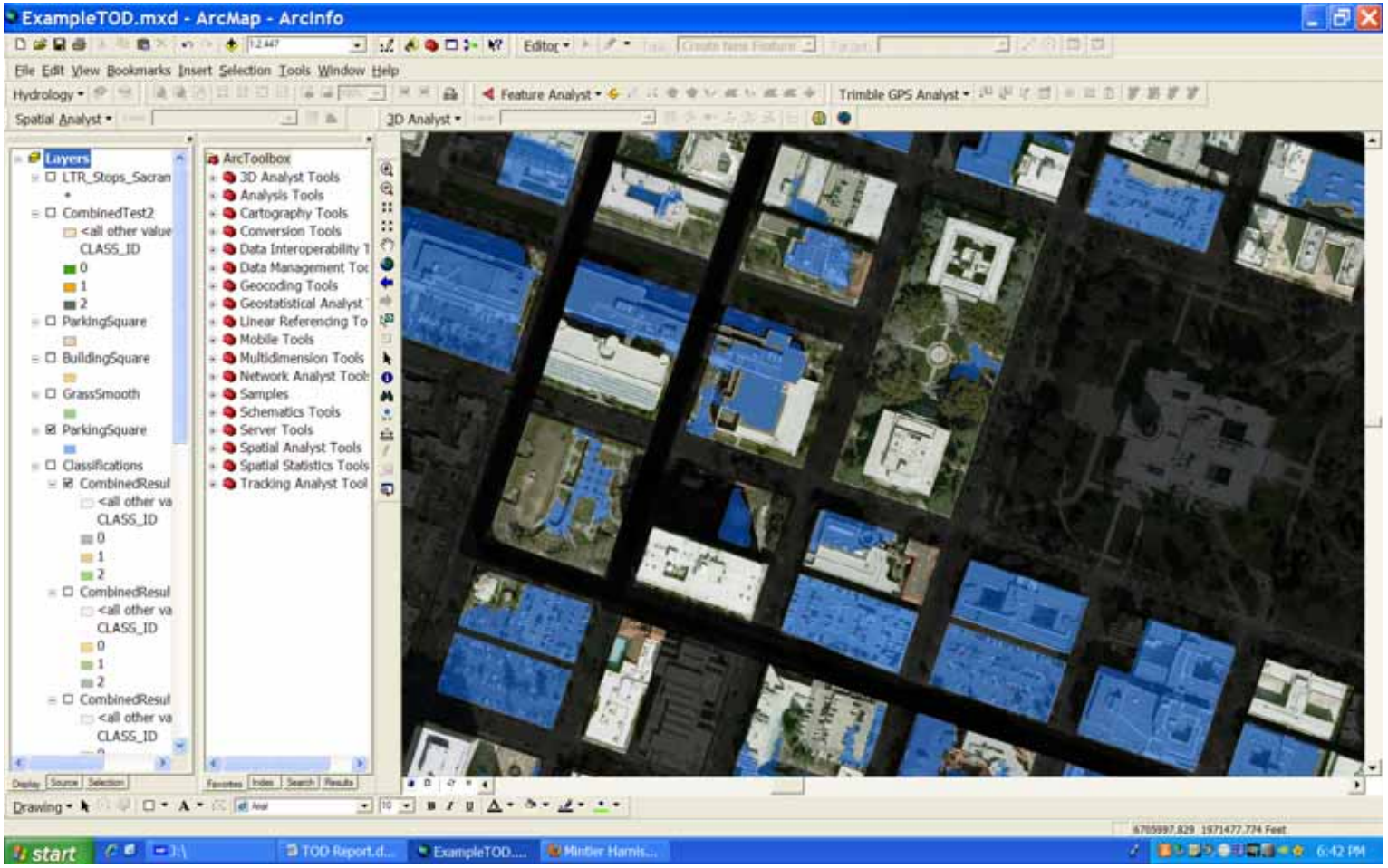
First Result Wall to Wall



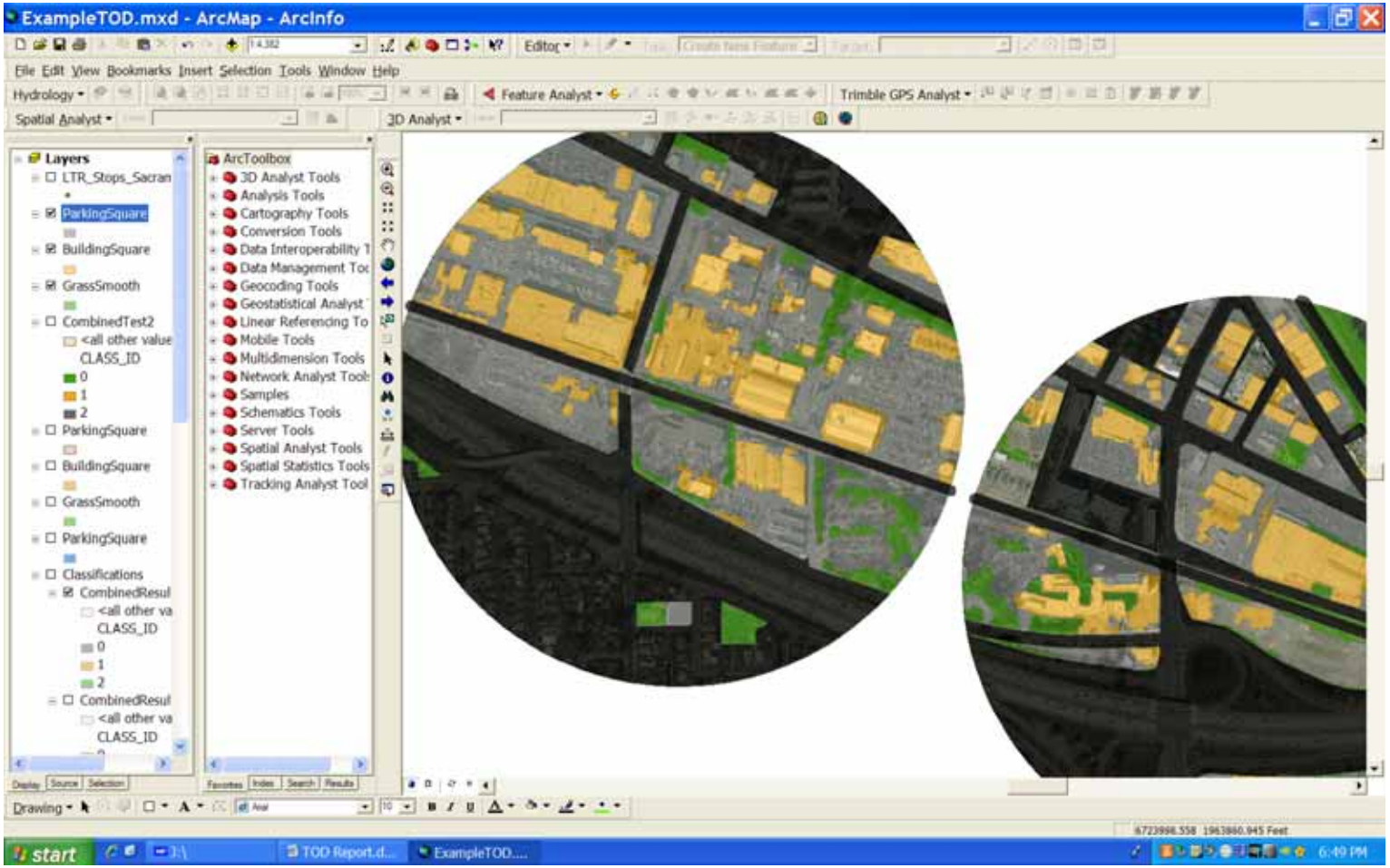
Third Result Suburban



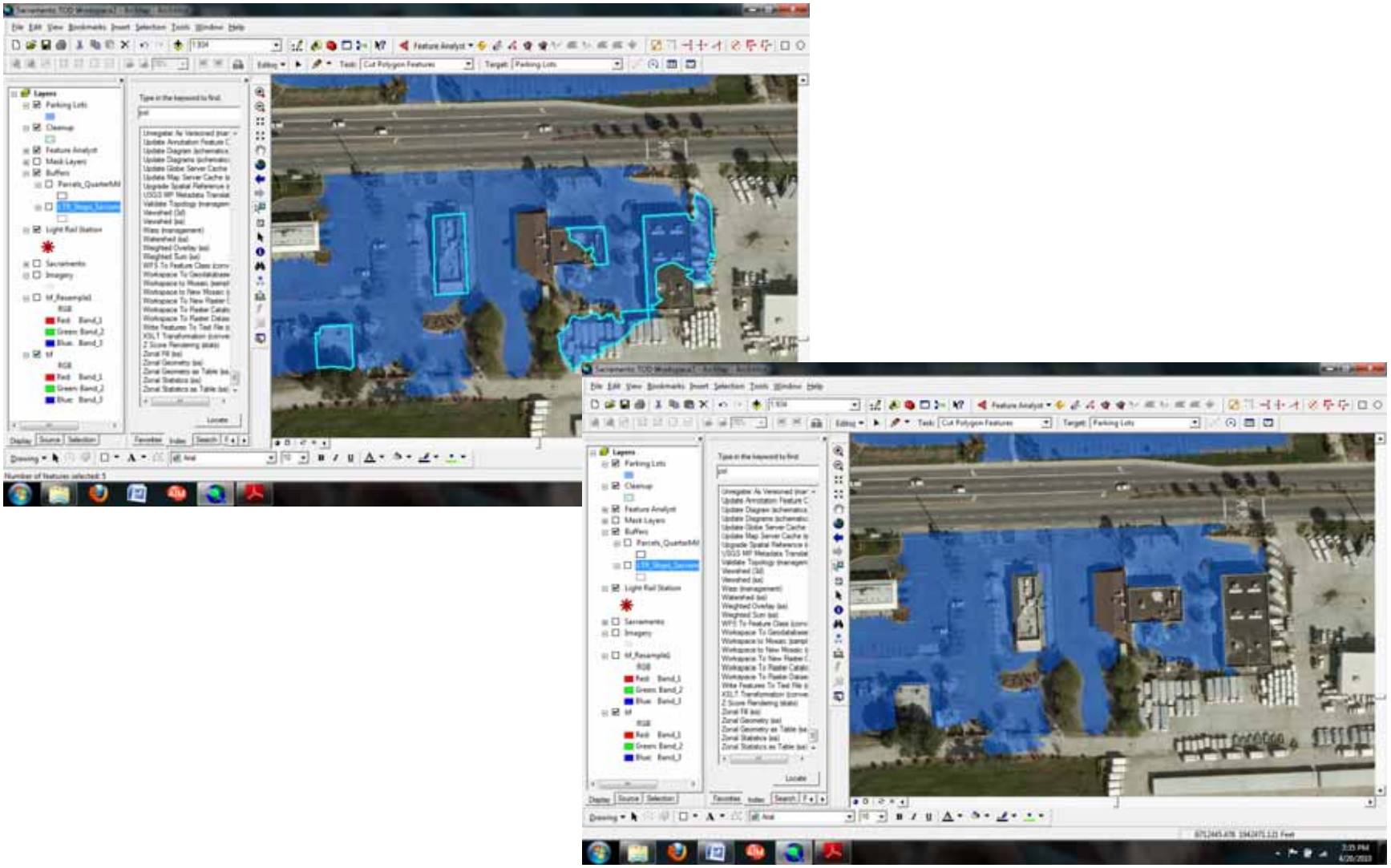
Third Result Urban



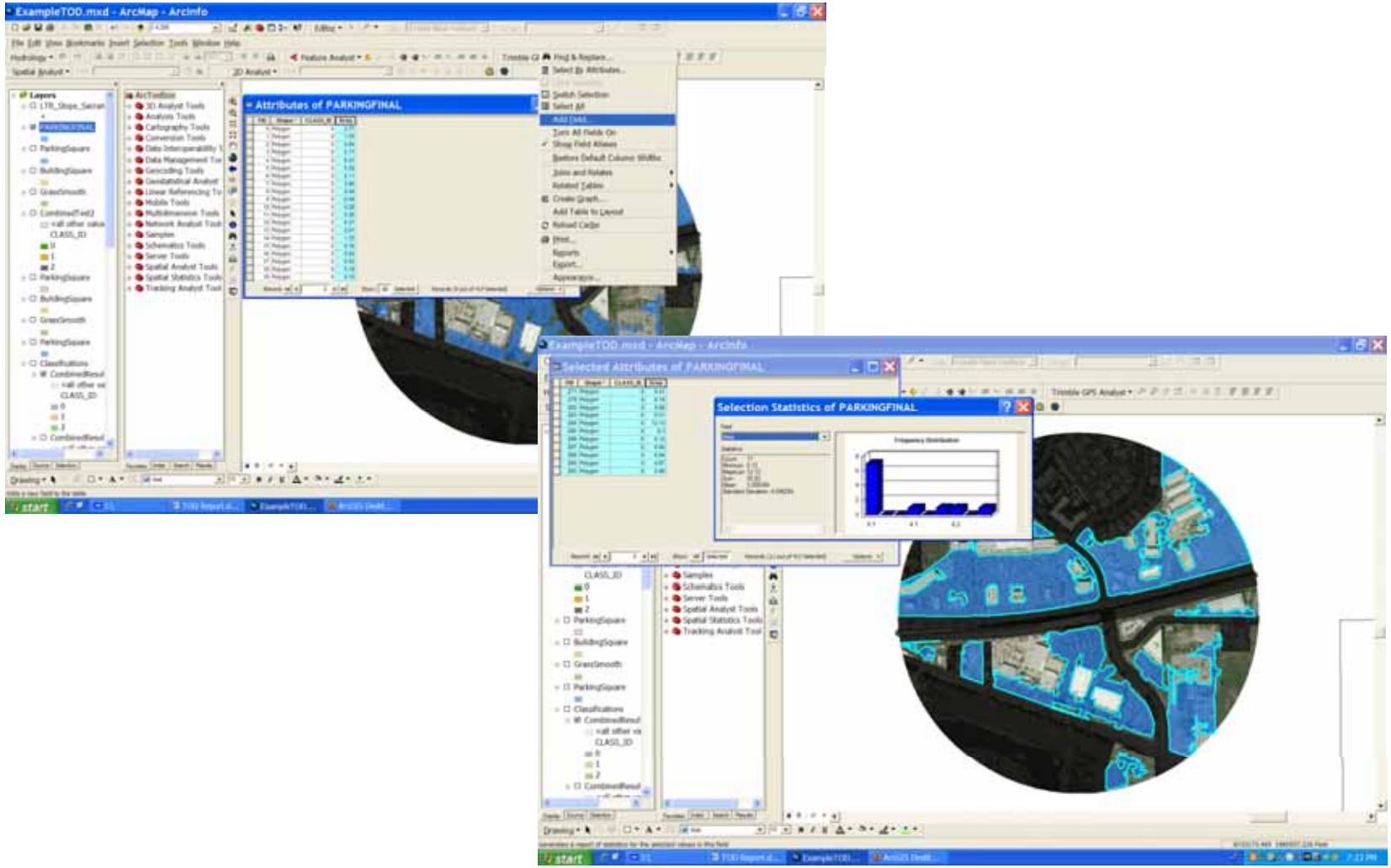
Squaring and Smoothing



Post Feature Analyst Editing

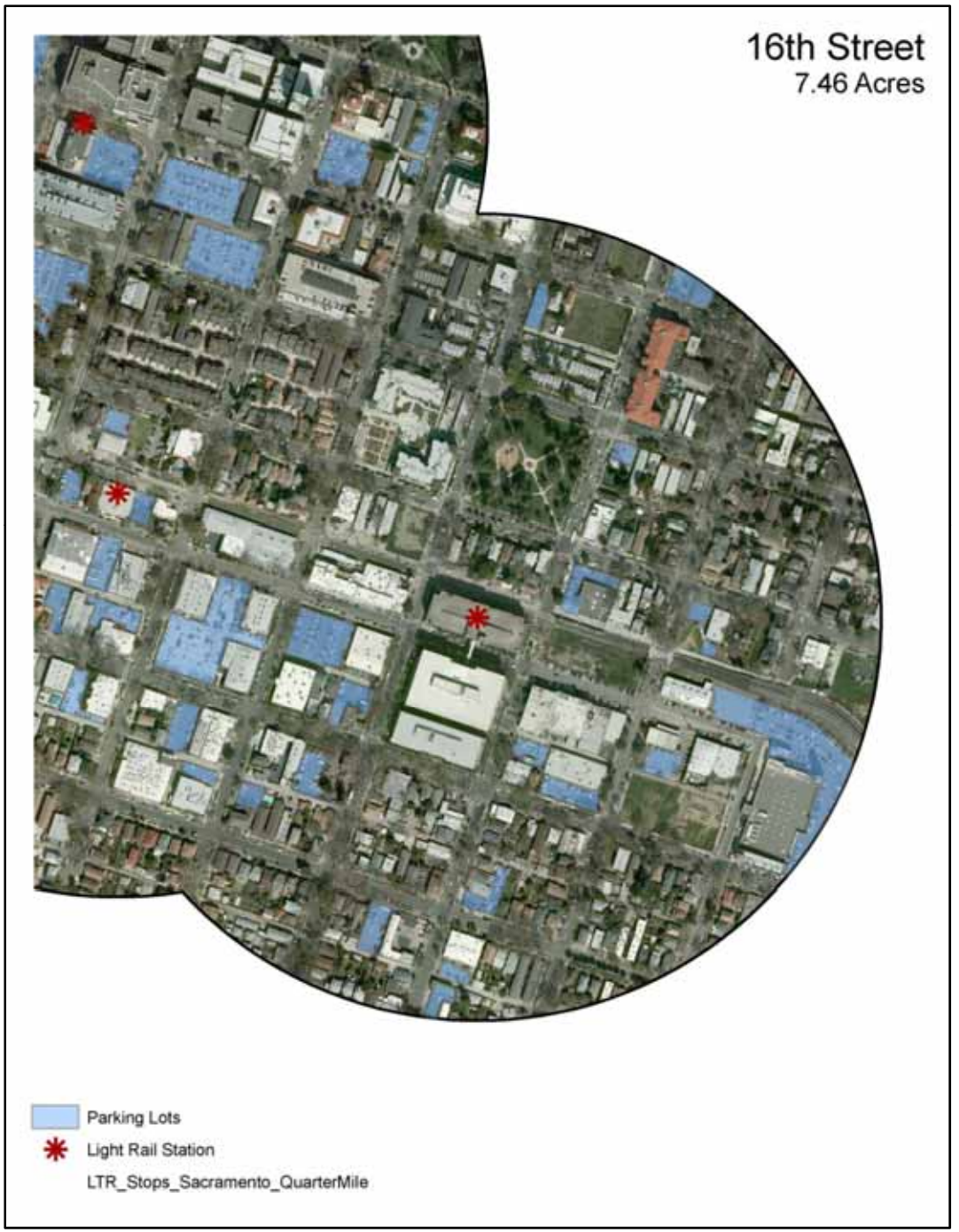


Finding Parking Lot Acerage




12th and I Street
10.39 Acres
Parking Lots
Light Rail Station
LTR_Stops_Sacramento_QuarterMile


13th Street
9.49 Acres
Parking Lots
Light Rail Station
LTR_Stops_Sacramento_QuarterMile


16th Street
7.46 Acres
Parking Lots
Light Rail Station
LTR_Stops_Sacramento_QuarterMile

59th Street

42.03 Acres

Parking Lots

Light Rail Station

LTR_Stops_Sacramento_QuarterMile

College Greens

29.06 Acres

Parking Lots

Light Rail Station

LTR_Stops_Sacramento_QuarterMile

Florin

22.65 Acres

Parking Lots

Light Rail Station

In Retrospect

- Broken project down into Downtown, Inner Suburbs and Outer Suburbs with test sites tailored for each location.
- Masked out Industrial areas
- Used high quality imagery if time was not a constraint.