SOC 4650/5650: Lab-14

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Directions

Please complete all steps below. Your map should be uploaded to your GitHub assignment repository by 4:20pm on Tuesday, April 25th, 2017. This lab uses data from `/StLouis`.

Create a Polygon for the SLU Hospital Area

A large swath of land between SLU's North Campus and South Campus has been declared "blighted" as part of the redevelopment process underway with the construction of the new SLU Hospital. Blight designations are for areas with high rates of vacancy, vacant land, and rundown buildings. Create a polygon for a specific area of blight bounded by Gratiot Street on the north, South Spring Avenue on the west, Vista Avenue on the south, and South Grand Boulevard on the east. You may find it useful to pull up this area on Google Maps and use the Google Maps site as a reference throughout this assignment.

1. Create a new layer in the `STLOrthos.gdb` geodatabase that will contain the polygon data for the SLU Hospital area. Set the coordinate system to `NAD 1983 StatePlane Missouri East FIPS 2401 (US Feet)`.

2. Add the layer `STL_MIDTOWN_Parcels` to your map document along with your new SLU Hospital layer.

3. Add the following orthoimagery tiles to your map: `STL_MIDTOWN_T054_079`, `STL_MIDTOWN_T054_079`, `STL_MIDTOWN_T055_079`, and `STL_MIDTOWN_T055_080`.

4. Draw a single polygon feature that covers the area between the four streets noted above. Use the orthoimagery files as reference and snap your verticies to the corners of the parcels that cover this area. Be sure to save your edits.

Identify Land Use Types in the SLU Hospital Area

5. Select all of the parcels that cover your new SLU hospital area layer, and create a new layer from that selection and export these

data as a feature class in STLOrthos.gdb.

6. Temporarily turn off the new SLU hospital layer.

7. Add a new attribute to the new, limited parcel feature class that can contain character/string data.

8. For each parcel, use the orthoimages as a reference and identify whether the parcel is (a) a vacant lot (including surface parking lots north of Rutger Street), (b) a vacant building (all buildings north of Rutger Street), or (c) a current SLU Hospital / Medical School building (all areas south of Rutger Street and the two buildings on South Spring between Rutger and Hickory). Label parcels as "vacant lot", "vacant building", or "Current SLU Hospital" in the attribute table. Be sure to save your edits.

9. Temporarily turn off the new parcel land use layer.

Identify Structures in the SLU Hospital Area

10. Create a new layer in the STLOrthos.gdb geodatabase that will contain point data for individual structures in the SLU Hospital area. Set the coordinate system to NAD 1983 StatePlane Missouri East FIPS 2401 (US Feet).

11. Using the orthoimages as a reference, create new points for each individual structure visible in the SLU Hospital Area that is north of Rutger Street. Place points as close to the middle of each structure as possible. These points should be applied to both the main structure on each parcel and any outbuildings (like garages). Be sure to save your edits.

Put Your New Data Together

With your new data, create a map that can be used to guide the planning process for the new hospital. The map should help answer these questions - what are there vacant lots in this area? Where are there vacant structures that will need to be torn down? And, finally, where are these in relation to the current hospital.

12. Organize your map so that your parcel land use data is symbolized using categorical/qualitative symbology and appears at the *bottom* of your map. All point data for structures north of Rutger

Street should be above the land use data and should be symbol-
ized so that they are easily distinguished from the land use hues.
The street centerlines layer from either your final project or the
/ExampleData directory. Use these centerline data to create labels
for the streets in the SLU hospital area but do not symbolize the
centerlines themselves. Finally, use the SLU Hospital Area polygon
to create a boundary around all of these data.

13. Export the map image as a pdf at 300dpi.