Geocoding with ESRI ArcMap

ESRI’s ArcMap comes loaded with tools that allow the user to geocode addresses easily. Initially, the geocoding process requires two types of information, 1) reference data for creating an address locator and 2) address data for matching. The reference data refers to a geographic information system (GIS) feature class containing the address attributes you want to search. For example, when searching for house number addresses, the reference data must contain the house number ranges, street names, or address attributes of the specific parcels. For this purpose, we use the locators maintained by the SAM program area because they provide the most accurate dataset or addresses covering NYS.

Geocoding functionality is found in ArcMap’s “Geocoding Toolbar.” To ensure that this toolbar is activated either:

- Go to you Customize option in your top ArcMap toolbar and select Toolbars -> Geocoding to turn on the geocoding toolbar

- Or right click anywhere in the gray space along the top toolbar to bring up the selectable toolbars window
The Geocoding Toolbar looks like this:

![Geocoding Toolbar Image]

The Toolbar should now be added to your ArcMap session.

The Address Points maintained by the SAM team are the most accurate data available for NYS and should be picked anytime a result is returned from one of the SAM address point locators. If the geocoding service is used in the ESRI batch tool, the locator will return a Match from the first locator it comes to in the cascading order. If there are multiple locators with the same score or within the same locator the first result is returned and it is coded as a Tie.

The locators will output a field named 'User_fld' which should be used in conjunction with the Loc_Name field. When the Loc_Name field contains one of the Address Point locators (1A, 1B or 1C) this field will contain either a 1,2,3,4 or a 5. When the Loc_Name field contains anything other than the Address Point locators, the 'User_fld' will either be NULL or "0". The numeric values correspond with the type of Address Point that was located:

1. Rooftop
2. Primary Structure Entrance
3. Driveway
4. Parcel Centroid
5. Miscellaneous

A pdf with detailed instructions on adding and using a locator in an ArcMap session can be found Here!