

## **GIS GROUP METHODOLOGY**

### **GOALS:**

1. Identify and map the properties owned by N.C.C. in the city of Newark
2. Spatially depict the impact of tax revaluation on the N.C.C. properties and provide tax abatement/exemption status
3. Delineate the potential areas for future development

### ***The Base Map***

The GIS team commenced with mapping the parcels for the city of Newark from the Newark Property Tax Data. We included other physical and social amenities like major roads, railroads, parks, open spaces, cemeteries, health care facilities, libraries, educational facilities and city wards as background layers to the parcel data. We also included the census tracts and demarcated the properties owned by N.C.C. in this map. The purpose of this base map is to provide with a comprehensive scenario of the existing properties, amenities and their corresponding census tracts. We used these layers from the data obtained from City of Newark, Tiger files, and from the RCOPC data library.

### ***Demographic Data Mapping***

We also mapped demographic parameters including racial compositions, owner occupied housing unit, population below poverty level, age and female-headed households, to identify changes and trends from 1990 to 2000 in the study area.

### ***Mapping Parameters in the Four Target Areas***

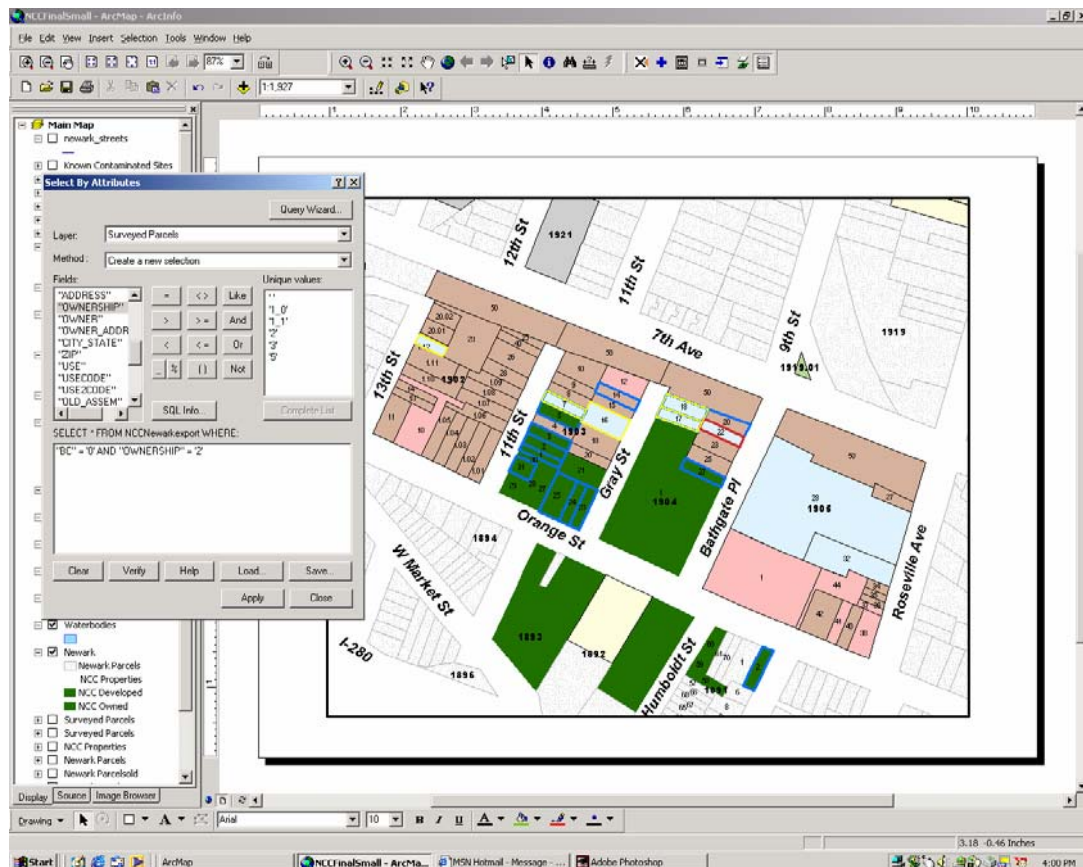
The attribute data compiled by the data management team and the survey team was joined with the spatial data of parcels, which helped prepare various maps for N.C.C land use and ownership pattern, the target area land use, ownership pattern, building

conditions and vacant land, which can be important parameters for delineating the potential future development areas.

### *Query – Indicative of Potential Development Areas*

We worked on another important consideration of ‘Querying’ as a decisive tool for identification of future development areas. For example, if we want to consider two factors of an area being vacant and its ownership, we can run a query from the selection tool defining these parameters and it would spatially demarcate the parcel satisfying the given condition.

For example, in the snapshot below, we are trying to identify a parcel, which is vacant and is publicly owned. So we first went to the ‘Selection’ tool and then to ‘Select by Attributes’ to choose the ‘Surveyed Parcel’ layer and then create a new selection with ‘Building Use’ as vacant (which is ‘0’ in this case) and ‘Building Ownership as ‘2’ (which represents the publicly owned parcels. On running this query, we can see the parcels with the specified characteristics selected as those with a yellow border around them in this image.



We can select any other attribute of concern for a different selection as required and this process makes identification of potential future development areas very easy and obvious.