## APPENDIX A: GIS METHODOLOGY

For parcel level housing and land use information

To conduct a detailed analysis at the neighborhood level, information on housing and land use is critical. Since this level of information is not readily available, MCRPC staff created it as part of the Bloomington comprehensive plan project. The majority of the land use and housing analysis presented in the existing conditions report was conducted using this data set. Here is a step by step detail on how it was created in GIS

- 1. Selected the parcels within the city limits of Bloomington. This generated 25,835 parcels.
- 2. Several attributes needed specifically for housing and land use analysis were created using the local databases listed in Table 1
  - A. <u>Units</u>: Number of units per parcel is necessary to compute the total number of units within the City limits. Where applicable data was joined by Parcel PIN, if no PIN was available, data was geocoded by address.

Senior and Homestead exemptions indicated that there was only one unit existed on a given parcel.

- Along with the fact that rental property existed on that parcel, the rental data provided the number of units for rental properties.
- The garbage data was used to further verify the units and populate the filed when information was missing.
- The new building permits helped primarily to populate the potential units

- on newer lots.
- Lastly, Census block level information is used to double check the total number of units per block. At this step, a discrepancy between Census information and local information was discovered. Staff then carefully applied a variety of checks, such as visual verification and phone calls, to understand these discrepancies. The majority of these discrepancies were resolved. However, according to Census 2010, Bloomington has 34,339 housing units. The local data generated 35,315 units in that same time frame. Some of this discrepancy can be attributed to the errors in various local databases. However, there was information in certain Census Blocks, that based on local knowledge is inaccurate. This discrepancy will be further investigated during this comprehensive planning process.
- B. <u>Type</u>: The type of dwelling (single family, duplex, multi family, mobile home or group living) was also determined using the data bases listed in Table 1.
- 4. Ownership: This field has values "owner" or "renter".
- Data from City of Bloomington
   Township Assessor (Bloomington
   Parcel Assessments) and the data sets
   from City of Bloomington PACE
   department (Rental Properties from
   Landlord Rental Permits and New

   Building Permits (2007-2013) was used
   to populate this field, while others

were used to verify.

C. <u>Land Use</u>: The process to determine land use begun by using the City of Bloomington Township Assessor (Bloomington Parcel Assessments) use code. This provided data mostly to determine residential, vacant residential or commercial, and commercial properties. Properties with no use code required further visual verifications.

D. <u>Zoning</u>: The zoning was determined by using City of Bloomington's Zoning Shapefile.

## TABLE 1 DATABASES USED IN THE PROCESS

- City of Bloomington Township Assessor (Bloomington Parcel Assessments),
- McLean County Supervisor of Assessments (Homestead and Senior Exemptions).
- City of Bloomington PACE department,
  - Rental Properties from Landlord Rental Permits and New Building Permits (2007-2013),
- City of Bloomington Public Works (Address data from Garbage Removal),
- US Census Bureau housing units by Census Block Group.