<u>**RESIDENTIAL SALES DATA METHODOLOGY**</u>
CY2006
(Prepared July 2007, Revisions June 2008)

A. Source of Data

The Sales data for calendar year (CY) 2006 are derived from the MdProperty View[1] Sales Databases created for Maryland's 23 counties and Baltimore City

The Maryland Department of Planning (MDP) receives sales files from the State Department of Assessments and Taxation (DAT). The DAT files contain one complete year and are updated monthly (e.g. the December 2006 sales file contains sales with a trade date (TRADATE value YYYYMMDD) for December 10, 2005 - December 09, 2006). MDP assigns x,y mapping coordinates to the sales records based on the latest MdProperty View parcel x,y values at the time of the sales download.

To create CY2006 Residential Sales database with x,y mapping locations the following steps are taken:

<u>Step 1 Statewide Sales Database</u> - It is necessary to combine two separate (12 month) sales files received from DAT to create a CY2006 database. The May 10, 2007 sales file is used to obtain the records for June 2006 thru December 2006 and the December 10, 2006 Sales Database is used to obtain the sales for January 2006 thru May 2006. The separate MdProperty View September (12 month) sales files for Maryland's 23 counties and Baltimore City are combined into a Statewide (12 month) sales file. When combined the May 10, 2007 statewide file has 200,102 sales records and the December 10, 2006 has 216,648 sales records.

<u>Step 2 Trade Date</u> – From Step 1, the subset of records from the May sales file where the sales trade date (TRADATE) is between June 1, 2006 (20060601) and December 31, 2006 (20061231) are extracted (123,193 of the 200,102 records from Step 1). Similarly the December sales file is used to extract the records where the sales trade date (TRADATE is between January 1, 2006 (20060101) and May 31, 2006 (20060531), 96,268 of the 216,648 records. When these two extracts are combined they form the initial CY2006 database of all sales records, 219,461 records. This procedure of combining records from two sales files also assures that no records are missed for the calendar year since there is a lag for some jurisdiction in recording and updating their sales records.

<u>Step 3 Conveyance Type</u> - From Step 2, only Sales Database records where the method of conveyance at the time of sale is an arms-length transfer of a single parcel (CONVEY1 field values of 1 or 2) are included (125,860 of the 219,461 records from Step 2).

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[1] *MdProperty View*, first developed by the Maryland Department of Planning (MDP) in 1996 and now in its twelfth edition, is an electronic, CD-ROM based GIS (Geographic Information System) tool for accessing information on Maryland's 2.2 million land parcels referenced spatially via x,y points to their location on property maps that can be viewed with other map layers such as State Highway Administration roads. For more information go to http://www.mdp.state.md.us/tax_mos.htm

<u>Step 4 Improvement Value</u> – From Step 3, only Sales Database records with an improvement value equal to or greater than $10,000 (CURIMPVL field, current full market improvement value or where CURIMPVL is less than $10,000, SALIMPVL field, where sale improvement value is equal to or greater than $10,000) are included. This ensures that the properties included are those that are most likely to have a dwelling unit and that parcels are excluded where there is only land value with little or no improvement value (116,320 of the 125,860 records from Step 3). A new field, IMPVALUE, is created and is populated with the value in CURIMPVL where that field has a value of $10,000 or more otherwise IMPVALUE is populated with the value in SALIMPVL which has a value of $10,000 or more).

<u>Step 5 Residential Sales</u> - From Step 4, only residential (excludes agricultural residential) sales records are included in the analysis, i.e. sales records with a LU (Land Use) code of "R" (Residential), "TH" (Townhouse) or "U" (residential condominium). (113,161 of the 116,320 records from Step 4)

The Residential Sales records are further grouped into five types based on the Land Use (LU) and the Dwelling Description (DESCDWEL) fields in the Sales Database. The five residential sales Housing Types (HU_Type) are:

Single Family (Hu = SF) (55,599 records)
- Dwelling Description includes single family, split foyer or split lcvel

Townhouse (Hu = TH) (34,742 records)
- Dwelling Description includes townhouse, LU = "R", "U" or "TH"
- Dwelling Description is blank or no data and LU = "TH"

Condominium (Hu = CON) (13,191 records)
- LU = "U" and Dwelling Description is blank
- LU = "U" or "R" and Dwelling Description includes condominium (garden, high-rise, penthouse, studio/efficiency) but Dwelling Description is not condominium townhouse or condominium "single family"

Mobile Home (Hu = MH) (356 records)
- Dwelling Description is Mobile Home

Unclassified Residential (Hu = UNK or Hu = RENT) (9,066 records)
- Hu = UNK, Dwelling Description is blank or no data and LU = "R" (7,615 records)
- Hu = RENT, Dwelling Description is "rental dwelling" and LU = "R" (1,658 records, almost exclusively in Baltimore City)

To the extent possible, sales records initially given a Hu of UNK for Unclassified Residential are reassigned to the Single Family (SF), Townhouse (TH), or Condominium (CON) categories based on lot size (ACRES) and legal description (LEGAL1).   Of the 113,161 records from Step 5, 7,615 records or 6.7 percent fall into this category, i.e. dwelling description is blank or no data and LU = "R". Unclassified Residential Sales

with a lot size of .125 acres or greater are assigned to Single Family. Unclassified Residential Sales with a lot size of .04 or less are assigned to Condominium and sales with acres over .04 but less than .125 are assigned to Townhouse. Where lot size (ACRES) is not specified, i.e. blank, the LEGAL1 description is used to assign housing unit type, e.g. where the LEGAL1 description included references to "unit" or "bldg", assigned to Condominium, where "th" assigned to Townhouse and where "lot" or "lt" assigned to Single Family. For Baltimore City, LU of UNK is retained as is. As a result of this reassignment of Unclassified Residential housing unit types the revised housing unit type counts for the 113,161 records are:

Single Family (Hu = SF)   (59,512 records)

Townhouse (Hu = TH) (35,469 records)

Condominium (Hu = CON) (13,513 records)

Mobile Home (Hu = MH) (356 records)

Unclassified Residential (Hu = UNK) (2,653 records), (Hu =RENT) (1,658 records) (4,311 records of which 4,304 are in Baltimore City)

Step 6 Duplicate Sales - There are some instances (less than .5 %) where there are "duplicate" Sales Database records, i.e. multiple records with the same parcel account number (ACCTID), Trade Date (TRADATE) and Consideration Value (CONSIDR1). These records are examined to determine if they are "duplicates". Upon review, most of the "duplicate" sales reflect instances of transfers involving financial institutions in combination with individual owner purchases or sales. The "duplicates" are removed from the Sales Database records (554 of 113,161 from Step 5, leaving a balance of 112,607).

Step 7 Improvement Versus Consideration Values - For some Sales Database records the improvement value, IMPVALUE (derived from the CURIMPVL or SALIMPVL fields), is considerably higher than the consideration or amount of money paid for the property at the time of the sale (CONSIDR1). To address this issue the data from Step 6 are queried to identify those records where the improvement value exceeds the consideration value by more than 1½ times. These properties are then deleted from the analysis. Also removed are a few records where the CONSIDR1 is less than $10,000. Thus the residential sales records retained are those where the consideration is two-thirds or more of the improvement value and the consideration is greater than $10,000. (111,707 of the 112,607 records from Step 6)

Step 8 Sales with x,y Location - At the time the sales records are extracted they are assigned x,y mapping locations based on the currently available MdProperty View parcel x,y points. To improve the mapping, the most recent MdProperty View edition year (2006 Edition for all counties except Anne Arundel, 2005 Edition) are used to improve the x,y values. Even with this improvement, recent sales include parcels that have not yet been mapped. For purposes of this analysis, which includes small areas (see Step 9), only sales records that have x,y mapping locations are included:

CY2006 Residential sales records from Step 7 = 111,707

With x,y location = 109,977 = 98.5%

Step 9 – CONSIDR1 Review – Sales records where the consideration (CONSIDR1) is $1 Million or more and the Improvement value (IMPVALUE) is 25% or less of the Consideration value (CONSIDR1) are reviewed to determine if the sale is to an owner that is a "business entity", e.g. LLC.   These are likely to be properties purchased for redevelopment or a use other than residential sale and occupancy. For CY2006, 74 such sales were identified and removed from the sales database. Also, all sales where the CONSIDR1 is $1 million or more and the Improvement Value is 10% or less of the Consideration Value are reviewed to determine if the consideration value is in fact correct. For these sales, the CONSIDR1 from the sales download database is compared to the current posting of the sales data on the DAT website. For CY2006, this resulted in corrections to the CONSIDR1 value for 11 records and the deletion of one additional record no longer shown as arms length.

This leaves a balance of 109,977 less 75 or 109,902 sales records.

Step 10 Small Geographic Area Assignments – Every sales record is assigned a jurisdiction identifier (23 counties and Baltimore City) and, where applicable, a municipality identifier based on fields that are in the Sales Database record. The town code description (DESCTOWN) identifies the municipality. (Updated based on MdPV2006 for all jurisdictions except Anne Arundel, MdPV2005 in July 2007).

In addition, the Sales records are also tagged with small geographic area identifiers for purposes of tabular analysis and map display.

Each sales record from Step 9 is assigned identifiers for the 2006 USPS Zip Codes, 2000 Census Tract and 2000 Block Group (block groups are subsets of census tracts) in which it is located.   MdProperty View contains boundary files (polygons map layers) for the three geographic areas. Using a spatial join the identifier for the Zip Code, Census Tract and Block Group are assigned to each sales record based on its x,y location and its intersection and with the respective polygon boundary file.

The geographic area identifier fields included on the calendar year sales record files are: COUNTY (positions 1-2 are the State Code, 24, and postions 3-5 are the jurisdiction FIPS code), DESCTOWN (Town Code Name preceded by a four character County abbreviation), ZIPCODE1 (5 digit USPS Zip code), ZIPCODE2 (5 digit USPS Zip code preceded by 5 digit County Code), ZIPNAME (Zip Code Description), CT2000 & BG2000 (2000 census tract and block group, the first 5 positions are the County code, positions 6-11 are the census tract and position 12 is the block group).

Each sales record is also tagged with its PFA (Smart Growth Priority Funding Area) identifier based on the Priority Funding Area as of July 20, 2007. A sales record is either inside the PFA (inPFA), in a PFA Comment Area (inPFAc) or outside the PFA (outPFA).

Step 10 Year Built - The year built (YEARBLT field) is determined based on the values for year built field found in the year built field in the Sales database records provided to

MDP by DAT. These values are supplemented with the year built field values from MdProperty View. Specifically, the YEARBLT field is given the value in MdPV2006 where the YEARBLT field is not specified and is now populated in MdPV2006. The values in this field are reviewed and edited for any YEARBLT values that are out of range. Using this procedure a YEARBLT value is assigned to 104,463 of the 109,902 residential sales records from Step 9, leaving 5,439 records with a year built not specified.

Step 11 Residential Sales Database for CY2006 – Using the latest MdPV 2006 property database records where there is both a Land Use (LU) and dwelling description (DESCDWEL) the value for the HU from Step 5 is revised (July 2007). The final Statewide breakdown of the CY2006 Residential Sales Database by housing unit type is:

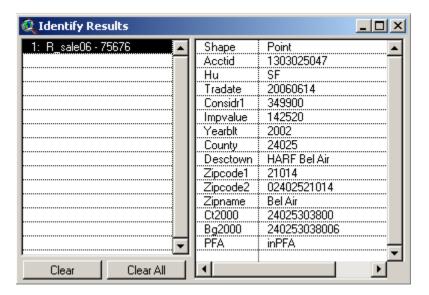> Single Family (Hu = SF)   (58,268 records)
>
> Townhouse (Hu = TH) (35,235 records)
>
> Condominium (Hu = CON) (11,966 records)
>
> Mobile Home (Hu = MH) (340 records)
>
> Unclassified Residential (Hu = UNK) (2,453 records), (Hu =RENT) (1,640 records) (4,093 records of which 4,087 are in Baltimore City)

Selected fields from Step 11 for the 109,902 records are written out to the final sales database as a shapefile, R_sale06.shp, with the following field content:

Field	Value
Shape	Point
Acctid	1303025047
Hu	SF
Tradate	20060614
Considr1	349900
Impvalue	142520
Yearblt	2002
County	24025
Desctown	HARF Bel Air
Zipcode1	21014
Zipcode2	02402521014
Zipname	Bel Air
Ct2000	24025303800
Bg2000	240253038006
PFA	inPFA

This database is available for use with *MdProperty View* and FINDER. The database can also be used to generate aggregate statistical reports on residential sales for CY2006 for the State, 23 counties and Baltimore City, municipalities, zip codes, census tracts and block groups as well as areas in and out of Priority Funding Areas.