

# Brown County Appraisal District

## 2025 Mass Appraisal Report

### INTRODUCTION

#### Scope of Responsibility

The Brown County Appraisal district has prepared and published this report to provide our citizens and taxpayers with a better understanding of the district’s responsibilities and activities. This report has several parts: a general introduction and then several sections describing the appraisal effort by the appraisal district.

The Brown County Appraisal District (BCAD) is a political subdivision of the State of Texas created effective January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the Appraisal District. A nine-member board of directors, appointed by the taxing units within the boundaries of Brown County, constitutes the district’s governing body. The chief appraiser, appointed by the board of directors, is the chief administrator and chief executive officer of the appraisal district.

The 2025 Mass Appraisal Report is made in compliance with Uniform Standards of Professional Appraisal Practice (USPAP), specifically with USPAP standard rule 6-8 and rule 6-9. The date of this report is July 23, 2025.

The scope of work for the 2025 mass appraisal for Brown County Appraisal District was to appraise property located in Region 3, of the adopted reappraisal plan, titled 2025-2026.

Region 3 consists of Bangs ISD, and May ISD, Brookesmith ISD, and Blanket ISD.

**BROWN COUNTY – MASS CHANGES 2025  
MASS CHANGES – COUNTYWIDE**

**COMMERCIAL SCHEDULES**

COST SCHEDULES CHANGED PER M/S INCREASES DEPENDING ON CLASS

**RESIDENTIAL SCHEDULES**

COST SCHEDULES CHANGED PER M/S INCREASES VARY DEPENDING ON CLASS

**RURAL SCHEDULE**

INCREASED RURAL

0-3 ACRES – 24% INCREASE

3-5 ACRES – 25% INCREASE

5-10 ACRES – 13% INCREASE

10-25 ACRES – 12% INCREASE

25-50 ACRES – 22% INCREASE

50-100 ACRES – 4% INCREASE

100-500 ACRES – 6% INCREASE

**RURAL-HF SCHEDULE**

HIGH FENCE

0-3 ACRES – 23% INCREASE

3-5 ACRES – 24% INCREASE

5-10 ACRES – 12% INCREASE

10-25 ACRES – 11% INCREASE

25-50 ACRES – 17% INCREASE

50-100 ACRES – 1% INCREASE

100-500 ACRES – 13% INCREASE

**RANCHETTE SCHEDULE**

UP TO .8 – NO CHANGE

.8-2.5 ACRES – 19% INCREASE

2.5-5.5 ACRES – 23% INCREASE

5.5-10 ACRES – 15% INCREASE

10-35 ACRES – 4% INCREASE

**BANGS ISD**

NBH 30 – REMOVED 140 ON LAND

NBH 26 – REMOVED 140 ON LAND

NBH 33 – REMOVED 140 ON LAND

NBH 25 – INCREASED TO 130 ON STURCTURES

NBH 210 – REMOVED 150 ON IMPROVEMENTS  
NBH 180 – REMOVED 140 ON LAND & LOWERED TO 105 ON IMPROVEMENTS  
NBH 34 – REMOVED 115 ON STRUCTURES  
(NEW) NBH 25 – 130% ON STRUCTURES

#### **BLANKET ISD**

LAND SCHEDULE  
BLANKET \$0.60 TO \$1.00

#### **BROWNWOOD ISD**

##### **NEIGHBORHOODS:**

NBH 50 – REMOVED 110 ON IMPROVEMENTS  
NBH 04 – INCREASED TO 110 ON STRUCTURES  
NBH 98 – ADDED 125 ON STRUCTURES  
NBH 125 – LOWERED TO 120 ON STRUCTURES  
LAND SCHEDULES  
MBA - \$0.50 TO \$1.20/SF  
WRA - \$0.80 TO \$2.10/SF  
(FF) CU1 & OU5 – CHANGED TO W BWD RES 1  
(FF) PE1 – CHANGED TO WADD  
WADD \$0.26 TO \$0.80/SF  
(FF) LC1, GB1, OU17, & EH1 – CHANGED TO CR1  
(FF) MS1, MS3, MS4, LA1, WJ1 & OU17 – CHANGED TO MNS  
(FF) OU5 – CHANGED TO TES  
(FF) SA1 – CHANGED TO BFSB  
BFSB - \$0.22 TO \$1.00/SF  
HMA \$0.53 TO \$1.00/SF  
SO HAMPTON - \$1.10 TO \$1.60/SF  
WOODLAND AC - \$0.55 TO \$0.75/SF  
PE1, PE3, OU16, TA1, TA2, CB1, CB2 – CHANGED TO TA

#### **EARLY ISD**

##### **NEIGHBORHOODS:**

NBH 24 – ADDED 120 ON STRUCTURES  
NBH 163 – LOWERED TO 125 ON STRUCTURES  
NBH 191 – INCREASED TO 120 ON STRUCTURES  
NBH 192 - INCREASED TO 105 ON STRUCTURES  
NBH 71 - INCREASED TO 115 ON STRUCTURES

NBH 158 - INCREASED TO 115 ON STRUCTURES  
NBH 150 - INCREASED TO 115 ON STRUCTURES  
NBH 164 - INCREASED TO 115 ON STRUCTURES  
NBH 108 - INCREASED TO 115 ON STRUCTURES  
ADDED 2% ON ALL STRUCTURES

**LAND SCHEDULES**

FR1 - \$0.60 TO \$0.80/SF  
LSR – (NEW) \$14,822/ACRE  
LHD – (NEW) \$1.23/SF  
LONGHORN - \$30,000 TO \$37,620/LOT  
RIDGE – (NEW) \$2.00/SF  
CW1 - \$0.65 TO \$0.85/SF  
SU2 - \$0.57 TO \$0.80/SF  
MV1 - \$0.80 TO \$2.30/SF  
DLW – (NEW) \$1.25/SF  
EC1  
0-.8 ACRES – 4% INCREASE  
.8-1.25 ACRES – 4% INCREASE  
1.25-1.9 ACRES – 6% INCREASE  
1.9-2.5 ACRES – 7% INCREASE  
2.5-5.85 ACRES – 8% INCREASE  
5.85-16.5 ACRES – 10% INCREASE

**MAY ISD**

**NEIGHBORHOOD:**

NBH 18 & 80 – INCREASED TO 125 ON STRUCTURES  
NBH 61 – LOWERED TO 135 ON STRUCTURES  
NBH 19 – ADDED 105 ON STRUCTURES

**LAKE LAND SCHEDULES**

FBINT - \$1.80 TO \$0.75/SF  
RHE2 – FIXED RANGE FROM SF TO ACRES  
0-1 ACRE – NO CHANGE  
1-2.5 ACRES – 16% INCREASE  
2.5-4.5 ACRES – 59% INCREASE  
4.5-8 ACRES – 78% INCREASE  
(FF) DMPT2 – CHANGED TO DPMP  
(FF) LBMP – CHANGED TO DPMP  
LBOP – CHANGED TO JVW  
THTI - \$0.50 TO \$0.90/SF  
THW - \$2.31 TO \$3.00/SF  
OPRVWF - \$2.16 TO \$2.73/SF

OPRV - \$1.02 TO \$2.73/SF  
 OPWF - \$4.53 TO \$5.82  
 OPINT - \$0.19 TO \$0.30/SF  
 LBWBLFA – CHANGED TO BAUGH  
 LBGLA/LBWBEVLFA – CHANGED TO BAUGHWF  
 LBGLA – CHANGED TO DAMWF

Reappraisal Calendar

<u>Year</u>	<u>Region</u>
2024	2
2025	3
2026	1

The appraisal district is responsible for local property tax appraisal and exemption administration for fifteen jurisdictions or taxing units in the county. Each taxing unit, such as the county, a city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, water and sewer systems, and other public services. Appraisals established by the appraisal district allocate the year’s tax burden based on each taxable property’s January 1<sup>st</sup> market value. We also determine eligibility for various types of property tax exemptions, the elderly, disabled veterans, and charitable and religious organizations.

Except as otherwise provided by the Property Tax Code, all taxable property is appraised at its “market value” as of January 1<sup>st</sup>. Under the tax code, “market value” means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

1. Exposed for sale in the open market with a reasonable time for the seller to find a purchaser.
2. Both the seller and buyer know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use, and;
3. Both the seller and buyer seek to maximize their gains, and neither is in a position to take advantage of the exigencies of the other.

The Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), productivity (Sec. 23.41), real property inventory (Sec. 23.12),

dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), nominal Sec. 23.03). The owner of real property inventory may elect to have the inventory appraised at its market value as of September 1<sup>st</sup> of the year preceding the tax year to which the appraisal applies by filing an application with the chief appraiser requesting that the inventory be appraised as of September 1<sup>st</sup>.

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal district board to adopt a written plan each even-numbered year for the periodic reappraisal of all property within the boundaries of the district. The written plan must provide for the update of appraised values for all real property and personal property in the district at least once every three years. The district's current policy is to conduct a general reappraisal every three years. However, appraised values are reviewed annually and are subject to change for purposes of equalization.

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted appraisal programs, recognized appraisal methods and techniques, we compare that information with the data for similar properties, and with recent market data. The district follows the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures and subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP) to the extent they are applicable. In cases where the appraisal district contracts for professional valuation services, the contract that is entered into by each appraisal firm requires adherence to similar professional standards.

## **Personnel Resources**

The Office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of the district operations. The Administration Department's function is to plan, organize, direct, and control the business support functions related to human resources, budget, finance, records, management, purchasing, fixed assets, facilities and postal services. The Appraisal Department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, and industrial. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Department of Licensing and Regulation. Support functions including records maintenance, information and assistance to property owners, and hearings support are coordinated by the Support Services Department.

The appraisal district staff consists of 11 employees with the following classifications:

1 – Official/Administrator (Executive level administration)

4 – Profession (Supervisory and Management)

4 – Technicians (Appraisers, program appraisers, and network support)

2 – Administrative Support (professional, customer service, clerical and other)

**STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE**

<b>NAME</b>	<b>TITLE</b>	<b>TDLR#</b>	<b>TYPE OF ASSISTANCE</b>
Brett McKibben, RPA, RTA, CTA	Chief Appraiser	61282	Overall District Oversight
Beverly Casselberry, RPA, RTA, CTA, CCA	Deputy Chief Appraiser	72267	Oversight of Appraisal
Pat Mooney, RPA	Deputy Chief Appraiser/GIS Manager	73805	Manage GIS, Information Systems Support/Commercial
Natalie Castillo, RTA	Director of Collections	74589	Direct Collection Efforts
Brent Jackson, RPA	Appraiser	71337	Residential Property
Niki Martin, RTA, RTC	Office Manager & Records Technician	72936	Office Manager & Record Deed Information
Sarah Walker, RPA	Appraiser	75245	Residential & Commercial
Tohmi Bible, RPA	Appraiser	75789	Residential & Commercial/Personal Property
Stephanie Lewis	Appraisal Technician	76305	Residential & Commercial data entry
Larissa Jones	Appraiser III	70973	Residential Property & Commercial

## **DATA**

The district is responsible for establishing and maintaining approximately 44,791 real and personal property accounts covering 957 square miles within Brown County. This data includes property characteristics, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review that is prioritized by the last field inspection date. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyers and sellers, university research centers, and market data centers and vendors.

The district has a geographic information system (GIS) that maintains cadastral maps and various layers of data, including zip code, facet, and aerial photography. The district's website makes a broad range of information available for public access, including detailed information on the appraisal process, property characteristics data, residential sales, certified values, protests and appeal procedures, property maps, and a tax calendar. Downloadable files of related tax information and district forms, including exemption applications and business personal property renditions are also available.

### **Information Systems – Sample**

The Information Systems Department maintains the district's data processing facility, software applications, Internet website, and geographical information system. The mainframe hardware/system software is Desktop and Dell Power Edge server.

## **INDEPENDENT PERFORMANCE TEST**

The Texas Comptroller of Public Accounts conducts an annual study to determine the degree of uniformity of and the median level of appraisals by the appraisal district within each major category of property, as required by section 5.10, Property Tax Code.

The comptroller certifies a school district's local tax roll value to the Commissioner of Education if it is within the calculated statistical error margin. A margin of error of 5% plus or minus is used for each school district.

There are ten independent school districts in Brown CAD for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisal. The results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of

appraisal. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions. The results of the 2020 Property Value Study are available online at [comptroller.texas.gov](http://comptroller.texas.gov).

In 2009, the Texas Legislature enacted a new law that amended Tax Code Section 5.102. It requires the comptroller to review appraisal districts every two years. Called the Methods and Assistance Program (MAP), the reviews study the governance, taxpayer assistance, operating procedures and appraisal standards, procedures, and methodology of each appraisal district. The Property Tax Assistance Division (PTAD) of the Texas Comptroller of Public Accounts performed the review for Brown County Appraisal District in 2024.

This review is designed to determine whether appraisal districts are meeting minimum requirements for performing statutory and appraisal duties. This review is conducted in accordance with Tax Code Section 5.102 (a), effective Jan. 1, 2010, and related Comptroller rule 9.3.01. The results from the 2023 MAPS Review for Brown CAD will not be finalized until January 2024.

## **APPRAISAL ACTIVITIES**

### **Appraisal Responsibilities**

The field appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and other purposes. Accurate valuation of real and personal property by any method requires a physical description of personal property, land and building characteristics. This appraisal activity is responsible for administering, planning, and coordinating all activities involving data collection and maintenance of all commercial, residential, and personal property types which are located within the boundaries of Brown County. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. The goal is to periodically field inspect residential, commercial, and personal properties in Brown County every three years. Meeting this goal is dependent on budgetary constraints.

### **Appraisal Resources**

1. Personnel – The appraisal activities consist of six appraisers and three clerical personnel
2. Data – The data used by field appraisers includes the existing property characteristic information contained in CAMA (Computer Mass Appraisal System) from the district's computer system. The data is downloaded to iPads or printed on an appraisal card, or personal property data sheets. Other data used includes maps, sales data, building permits, photos, and actual cost information.

## **PRELIMINARY ANALYSIS**

### **Data Collection/Validation**

Data collection of real property involves maintaining characteristics of the property on (CAMA). The information contained in CAMA includes site characteristics, such as land size and improvement data, square foot of living area, year built, class and condition. Field appraisers use appraiser field manuals that establish uniform procedures for the correct listing of real property. All properties are coded according to these manuals and the approaches to value are structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties. Data Collection for business personal property involves maintaining information on PERS (Personal Property System). The type of information contained in PERS includes personal property such as business inventory, furniture and fixtures, machinery and equipment, cost, and location. The appraiser conducting on-site inspections uses a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

### **Sources of Data**

The sources of data collection are through new construction field discovery, next inspection dates, sales, newspaper and publications, and property owner correspondence via the Internet. A principal source of data comes from building permits, septic permits, electrical permits received from taxing jurisdictions that require property owners to take out permits. Where available, permits are received electronically and loaded to our Building Permit System (BPS). Otherwise, paper permits are received and matched manually with the property's tax account number for data entry.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers drive entire neighborhoods to review the accuracy of data and identify properties that must be relisted. The sales validation effort in real property pertains to the collection of data of properties that have sold. In residential, the sales validation effort involves on-site inspection by field appraisers to verify the accuracy of the property characteristics data.

Property owners are one of the best sources for identifying incorrect data that generates a filed check. As the district has increased the amount of information available on the Internet, property owner's request to correct data inconsistencies has also increased. Letters are often submitted notifying the district of inaccurate data, Properties identified in this manner are added to the work file and inspected at our earliest opportunity.

### **Data Collection Procedures**

Field data collection requires organization, planning and supervision of the field effort. Data collection procedures have been established for residential, commercial, and personal

property. The appraisers are assigned throughout Brown County to conduct field inspections. Appraisers conduct field inspections and record information either to the iPad or on a property record card (PRD), or a personal property data sheet.

The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection set forth in the listing manual as “rules” to follow. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation, or data review. A quality assurance process exists through supervisory review of the work being performed by the field appraisers. Quality assurance is charged with the responsibility of ensuring that appraisers follow listing procedures, identify training issues, and provide uniform training throughout the field appraisal staff.

### **Data Maintenance**

The field appraiser is responsible for the data entry of his/her fieldwork directly in the computer file. This responsibility includes not only data entry, but also quality assurance.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The date of the last inspection, extent of that inspection, and the CAD appraiser responsible are listed on the CAMA record. If a property owner or jurisdiction disputes the district’s records concerning this data during a hearing, via a telephone call or correspondence received, CAMA may be altered based on the evidence provided. Typically, a field inspection is requested to verify this evidence for the current year’s valuation or for the next year’s valuation. Every year a field review of certain areas or neighborhoods in the district is done during the data review/next inspection field effort.

### **Office Review**

Office reviews are completed on properties where information has been received from the owner of the property. Data mailers, sent in mass, or at the request of the property owner, frequently verify the property characteristics or current condition of the property. When the property data is verified in this manner, field inspections are not required.

## **Performance Test**

The valuation appraisers are responsible for conducting ratio studies and comparative analysis. (Refer to the individual valuation process summary reports)

Field appraisers, in many cases, may conduct field inspections to ensure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

# **RESIDENTIAL VALUATION PROCESS**

## **INTRODUCTION**

### **Scope of Responsibility**

The residential valuation appraisers are responsible for developing equal uniform market values for residential improved and vacant property. There are approximately 18,533 residential improved parcels and 6,700 vacant residential parcels in Brown County.

### **Appraisal Resources**

- Personnel – The Residential Valuation appraisal staff consists of six appraisers.
- Data – A common set of data characteristics for each residential dwelling in Brown County is collected in the field and data entered to the computer. The property characteristic data drives the computer-assisted mass appraisal (CAMA) approach to valuation.

## **VALUATION APPROACH (Model Specification)**

### **Area Analysis**

Data on regional economic forces such as demographic patterns, regional locational factors, employment, and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources and provide the field appraiser a current economic outlook on the real estate market. Information is gleaned from the real estate publications sources such as continuing education in the form of IAAO and TAAO/TAAD classes.

### **Neighborhood and Market Analysis**

Neighborhood analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are also

used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis are conducted on each of the political entities known Independent School Districts (ISD).

The first step in neighborhood analysis is the identification of a group of properties that share certain common traits. A “neighborhood” for analysis purposes is defined as the largest geographic grouping of properties where the property’s physical, economic, governmental, and social forces are generally similar and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood has been identified, the next step is to define its boundaries. This process is known as “delineation”. Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area, and story height. Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood’s individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in a stage of growth, stability, or decline. The growth period is a time of development and construction. As new neighborhoods in a community are developed, they compete with existing neighborhoods. An added supply of new homes tends to induce population shift from older homes to newer homes. In the period of stability, or equilibrium, the forces of supply and demand are about equal. Generally, in the stage of equilibrium, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The period of decline reflects diminishing demand or desirability. During decline, general property use may change from residential to a mix of residential and commercial uses. Declining neighborhoods may also experience renewal, reorganization, rebuilding. Or restoration, which promotes increased demand and economic desirability.

Neighborhood identification and delineation is the cornerstone of the residential valuation system in the district. All the residential analysis work done in association with the residential valuation process is neighborhood specific. Neighborhoods are field inspected and delineated based on observable aspects of homogeneity. Neighborhood delineation is periodically reviewed to determine if further neighborhood delineation is warranted. Whereas neighborhoods involve similar properties in the same location, a neighborhood group is simply defined as similar neighborhoods in similar locations. Each residential neighborhood is assigned to a neighborhood group based on observable aspects of homogeneity between neighborhoods. Neighborhood grouping is highly beneficial in cost-derived areas of limited or no sales or use in direct sales comparison analysis. Neighborhood groups, or clustered neighborhoods increase the available market data by linking comparable properties outside a given neighborhood. Sales ratio analysis, discussed below, is performed on a neighborhood basis, and in soft sale areas on a neighborhood group basis.

## **Highest and Best Use Analysis**

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of residential property is normally its current use. This is due in part to the fact that residential development, in many areas, through use of deed restrictions and zoning, precludes other land uses. Residential valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the appraiser reviews the existing residential property use and decides the highest and best use. Once the conclusion is made that the highest and best use remains residential, further highest, and best use analysis is done to decide the type of residential use on a neighborhood basis. As an example, it may be determined in a transition area that older, non-remodeled homes are economic mis improvements, and the highest and best use of such property is the construction of new dwellings. In areas of mixed residential and commercial use, the appraiser reviews properties in these areas on a periodic basis to determine if changes in the real estate market require reassessment of the highest and best use of a select population of properties.

## **VALUATION AND STATISTICAL ANALYSIS (Model Calibration)**

### **Cost Schedules**

All residential parcels in the district are valued from identical cost schedules using a comparative unit method. The district's residential cost schedules, originally adopted from a private mass appraisal firm, have been customized to fit Brown County's local residential building and labor market.

BCAD dwelling costs were compared again to Marshall & Swift, a nationally recognized cost estimator. This process included correlation of quality of construction factors from BCAD and Marshall & Swift. The results of this comparison were analyzed using statistical measures, including stratification by quality, and reviewing estimated building cost plus land to sales prices. As a result of this analysis, a new regional multiplier was developed to be used in the district's cost process.

### **Sales Information**

A sales file for the storage of "snapshot" sales data at the time of sale is maintained. Residential vacant land sales, along with commercial improved and vacant land sales are maintained in a separate sales information system. Residential improved and vacant sales are collected from a variety of sources including.

district questionnaires sent to the buyer and seller, field discovery, protest hearings, Board of Realtor's MLS, various sale vendors, builders, and realtors. A system of type, source, validity, and verification code was established to define salient facts related to a property's purchase or transfer. School district or neighborhood sales reports are generated as an analysis tool for the appraiser in the development of value estimates.

## **Statistical Analysis**

The residential valuation appraisers perform statistical analysis annually to evaluate whether values are equitable and consistent with that market. Ratio studies are conducted on each of the approximately 136 residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy-level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each stratified neighborhood within an ISD and summarized by year. These summary statistics including, but not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion provide the appraisers a tool by which to determine both the level and uniformity of appraised value on a stratified neighborhood basis. The level of appraised values is determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood weighted means reflects the general level of appraised value between comparable neighborhoods. Review of the standard deviation, coefficient of variation, and coefficient of dispersion discerns appraisal uniformity within and between stratified neighborhoods.

Every neighborhood is reviewed annually by the appraiser through the sales ratio analysis process. The first phase involves neighborhood ratio studies that compare the recent sales prices of neighborhood properties to the appraised values of these sold properties. This set of ratio studies affords the appraiser an excellent means of judging the present level of appraised value and uniformity of the sales. The appraiser, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level in a neighborhood needs to be updated in an upcoming reappraisal, or whether the level of market value in a neighborhood is at an acceptable level.

## **Market Adjustment or Trending Factors**

Neighborhood, or market adjustment, factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market. The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market

influences not specified in the cost model. The following equation denotes the hybrid model uses:

$$MV= MA [LV=(RCN-D)]$$

Whereas the market value equals the market adjustment factor times the land value plus the replacement cost new less depreciation. As the cost approach separately estimates both land and building values and uses depreciated replacement, which reflect only the supply side of the market, it is expected that adjustments to the cost values are needed to bring the level of appraisal to an acceptable standard. Market, or location adjustments are applied uniformly within neighborhoods to account for locational variances between market areas or across a jurisdiction.

If a neighborhood is to be updated, the appraiser uses a cost ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time within a delineated neighborhood with the properties' actual cost value. The calculated ratio derived from the sum of the sold properties' cost value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted cost value for the sold properties. This cost-to-sale ratio is compared to the appraisal-to-sales ratio to determine the market adjustment factor for each neighborhood. This market adjustment factor is needed to trend the values obtained through these cost approaches closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each updated neighborhood is applied uniformly to all properties within a neighborhood. Once the market-trend factors are applied, a second set of ratio studies is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district.

## **TREATMENT OF RESIDENCE HOMESTEADS**

Beginning in 1998, the State of Texas implemented a constitutional classification scheme convening that appraisal of residential property that receives a residence homestead exemption. Under the new law, beginning in the second year a property receives a homestead exemption, increases in the value of that property are "capped". The value for tax purposes (appraised value) of a qualified residence homestead will the LESSER of:

- The market value; or
- The preceding year's appraised value.  
PLUS, 10 percent for each year since the property was re-appraised.  
PLUS, the value of any improvements added since the last re-appraisal.

The value of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1<sup>st</sup> of the following year. In that following year, that home is reappraised at its market value to bring its appraisal into uniformity with other properties. An analogous provision applies to new homes. While a developer owns them, unoccupied residences are appraised as part of an inventory using the district's land value and the developer's construction cost as of the valuation date. However, in the year following the sale, they are reappraised at market value.

Monthly time adjustments were developed using the sales ratio trend analysis method. For each school district, sales-to appraisal ratios based on unadjusted cost values were stratified on a quarterly basis. Statistics produced from the quarterly market data include measures of central tendency (mean and median) that represent the level of appraised values, and measures of uniformity (coefficient of dispersion and coefficient of variation) that represent the consistency of appraised values within and between strata. The resulting quarterly medians were graphically plotted for examination and analysis. A linear regression routine was performed on each of the school district samples, along with specific market areas. Linear regression statistics, such as the coefficient of determination (R<sup>2</sup>) and the P-value, identify the reliability and significance, respectively, of the regression outcome, namely, the independent variable of the time. A quarterly time adjustment of each market area sampled was produced. Analysis was then performed on each school district sample to determine the appropriate quarterly time adjustment to be employed, or if a time adjustment was even warranted. Once the market area's quarterly time adjustment was determined, a monthly time adjustment was calculated.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The appraiser identifies individual properties in critical need of field review through sales ratio analysis. Sold properties with a high variance in sales ratios are field reviewed on a monthly basis to check for accuracy of data characteristics.

As the district's parcel count has increased through new home construction, and the homes constructed in the boom years of the late 70's and early 80's experience remodeling, the appraisers are required to perform the field activity associated with transitioning and high demand neighborhoods. Increased sales activity has also resulted in a more substantial field effort on the part of the appraisers to review and resolve sales outliers. Additionally, the appraiser frequently field reviews subjective data items such as quality of construction, condition, and physical, functional, and economic obsolescence, factors contributing significantly to the market value of the property. After preliminary estimates of value have been determined in targeted areas, the appraiser takes valuation documents to the field to test

the computer -assisted values against his own appraisal judgment. During this review, the appraiser can physically inspect both sold properties and unsold properties for comparability and consistency of values.

## **Office Review**

Given the ample resources and time required to conduct a routing field review of all properties, homogeneous properties consisting of tract housing with a lower variance in sales ratios and other properties having a recent filed inspection date are value reviewed in the office.

Valuation reports comparing pervious values against proposed and final values are generated for all residential improved and vacant properties. The dollar amount and percentage of value difference are noted for each property within a delineated neighborhood allowing the appraiser to identify, research and resolve value anomalies before final appraised values are released. Previous values resulting from a hearing protest are individually reviewed to determine if the value remains appropriate for the current year.

One the appraiser is satisfied with the level and uniformity of value for each neighborhood within his area of responsibility, the estimates of value go to noticing.

## **PERFORMANCE TEST**

### **Sales Ratio Studies**

The primary analytical tool used by the appraisers to measure and improve performance is the ratio study. The district ensures that the appraised values that it produces meet the standards of accuracy in several ways. Overall sales ratios are generated for each ISD by quarter to allow the appraiser to review general market trends within their area of responsibility and provide an indication of market appreciation over a specified period. The neighborhood descriptive statistics, along with frequent distributions and scatter diagrams are reviewed for each neighborhood being updated for the current tax year. In addition to the mainframe sales ratios by school district and neighborhood, quarterly sales ratios are generated from a PC-based statistical application of Microsoft EXCEL. Reported in the sales ratio statistics for each school district is a level of appraisal value and uniformity profile by land use, sales trends by quarter and 12-month time frame, and appraisal value ranges. The PC-based ratio studies are designed to emulate the findings of the state comptroller's annual property value study for category A property.

## **Management Review Process**

Once the proposed value estimates are finalized, the appraiser reviews the sales ratios by neighborhood and presents pertinent valuation data, such as, history of hearing protest, sale-to-parcel ratio, and level of appraisal to the Chief Appraiser for final review and approval. This review includes comparison of level of value between related neighborhoods within and across jurisdiction lines. The primary objective of the review is to ensure that the proposed values have met preset appraisal guidelines appropriate for the tax year in question.

## **Commercial Valuation Process**

### **INTRODUCTION**

#### **Appraisal Responsibility**

This mass appraisal assignment includes all the commercially classed real property which falls within the responsibility of the commercial valuation appraiser of the Brown County Appraisal District and located within the boundaries of this taxing jurisdiction. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the effect of easements, restrictions, encumbrances, leases, contracts, or special assessments are considered on an individual basis, as is the appraisal of any non-exempt taxable fractional interest in real property (i.e., certain multifamily housing projects). Fractional interest or partial holding of real property are appraised in fee simple for the whole property and divided programmatically based on their prorated interest.

#### **Appraisal Resources**

The improved real property appraisal responsibilities are categorized according to major property types of multifamily or apartment, office retail. Warehouse and special use (i.e., hotels, hospitals, and nursing homes). Four appraisers are assigned to improved commercial property types. The remaining two appraisers are assigned to the land valuation responsibilities. These land valuation duties are generally divided geographically.

Data- The data used by the commercial appraiser includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.) Other data used by the appraiser includes actual income and expense data (typically obtained through the hearings process), actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), and actual construction cost data. In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends.

## **PRELIMINARY ANALYSIS**

### **Pilot Study**

Pilot studies are utilized to test new or existing procedures or valuation modifications in a limited area (a sample of properties) of the district and are also considered whenever substantial changes are made. These studies, which are inclusive of ratio studies, reveal whether a new system is producing accurate and reliable values or whether procedural modifications are required. The appraiser implements this methodology when developing both cost approach and income approach models.

Survey of Similar Jurisdictions: Brown CAD coordinates its discovery and valuation activities with adjoining Appraisal Districts. Numerous field trips, interviews and data exchanges with adjacent appraisal districts have been conducted to ensure compliance with state statutes. In addition, Brown CAD administration and personnel interact with other assessment officials through professional trade organizations including the International Association of Assessing Officers, Texas Association of Appraisal Districts and the Texas Association on Assessing Officers.

## **VALUATION APPROACH (Model Specification)**

### **Area Analysis**

Data of regional economic forces such as demographic patterns, regional locational factors, employment and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and cost are collected from private vendors and public sources along with continuing educations in the form of IAAO, Texas Association of Assessing Officers (TAAO), and Texas Association of Appraisal Districts (TAAD).

### **Neighborhood Analysis**

The neighborhood is comprised of the land area and commercially classed properties located within the boundaries of this taxing jurisdiction. This area consists of a wide variety of property types including residential, commercial, and industrial. Neighborhood analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and organize comparable properties into smaller, manageable subsets of the universe of properties

known as neighborhoods. In the mass appraisal of commercial properties these subsets of a universe of properties are generally referred to as market areas or economic areas.

Economic areas are defined by each of the improved property use types (apartment, office, retail, warehouse, and special use) based upon an analysis of similar economic or market forces. These include but are not limited to similarities of rental rates, classification of projects (known as building class by area commercial market experts), date of construction, overall market activity or other pertinent influences. Economic areas are periodically reviewed to determine if delineation is required.

### **Highest and Best Use Analysis**

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, the highest and best use is evaluated as improved and is if the site were still vacant. This assists in determining if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use, excess land, or a different optimum use if the site were vacant. For vacant tracts of land within this jurisdiction, the highest and best use is considered speculative based on the surrounding land used. Improved properties reflect a wide variety of highest and best uses which include, but are not limited to office, retail, apartment, warehouse, light industrial, special purpose, or interim uses. In many instances, the property's current use is the same as its highest and best use. This analysis ensures that an accurate estimate of market value (sometimes referred to as value in exchange) is derived.

On the other hand, value in use represents the value of a property to a specific user for a specific purpose. This is significantly deferent than market value, which approximates market price under the following assumptions: (i) no coercion of undue influence over the buyer or seller in attempt to force the purchase or sale, (ii) well-informed buyers and sellers acting in their own best interest, (iii) a reasonable time for the transaction to take place, and (iv) payment in cash or its equivalent.

### **Market Analysis**

A market analysis relates directly to market forces affective supply and demand. This study involves the relationship between social, economic, environmental, governmental, and site conditions. Current market activity including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), expense ratio trends, and capitalization rate studies are analyzed.

## **DATA COLLECTION/ VALIDATION**

### **Sources of Data**

In terms of commercial sales data, Brown CAD receives a copy of the deed recorded in Brown County that conveys commercially classed properties. The deeds involving a change in commercial ownership are entered into the sales information system and researched to obtain the pertinent sale information. Other sources of sale data include the hearings process and local, regional, and national real estate and financial publications.

For the properties involved in a transfer of commercial ownership, a sale file is produced which begins the research and verification process. The initial step in sales verification involves a computer-generated questionnaire, which is mailed to both parties in the transaction (Grantor and Grantee). If a questionnaire is not returned within thirty days a second questionnaire is mailed. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sale databased system. If no information is provided, verification is then attempted via phone calls to both parties. If the sales information is still not obtained for local appraised or others that may have the desired information. Finally, closing statements are often provided during the hearing process. The actual closing statement is the most reliable and preferred method of sales verification.

### **VALUATION ANALYSIS (Model Calibration)**

Model calibration involves the process of periodically adjusting the mass appraisal formulas, tables, and schedules to reflect current local market conditions. Once the models have undergone the specification process, adjustments can be made to reflect new construction procedures, materials, and/or cost, which can vary from year to year. The basic structure of a mass appraisal model can be valid over an extended period of time, with trending factors utilized for updating the data to the current market conditions. However, at some point, if the adjustment process becomes too involved, the model calibration technique can mandate new model specifications or a revised model structure.

### **Cost Schedules**

The cost approach to value is applied to all improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost date reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall & Swift Valuation Service. Cost models include the derivation of replacement cost new (RCN) of all improvements. These include comparative base rates, per unit adjustments and lump sum adjustments. This approach also employs the

sales comparison approach in the valuation of the underlying land value. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in cost over a period. Because a national cost service is used as a basis for the cost models, locational modifiers are necessary to adjust these base costs specifically for Brown County. These modifiers are provided by the national cost services.

Depreciation schedules are developed based on what is typical for each property type at that specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with 15, 20, 30, 40, 50, and 60 year expected life. These schedules are then tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace. Effective age estimates are based on three levels of renovation and are described in the Commercial / Industrial Listers Manual.

Market adjustment factors such as external and/or functional obsolescence can be applied if warranted. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional utility ratings on the property data characteristics. These adjustments are typically applied to a specific property type or location and can be developed via ratio studies or other market analyses. Accuracy in the development of the cost schedules, condition ratings and depreciation schedules will usually minimize the necessity of this type of adjustment factor.

## **Income Models**

The income approach to value applies to those real properties which are typically viewed by market participants as “income producing”, and for which the income methodology is considered a leading value indicator. The first step in the income approach pertains to the estimation of market rent on a per unit basis. This is derived primarily from actual rent data furnished by property owners and from local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance are the next items to consider the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by periodic fluctuations in occupancy, both above and below estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent.

Next a secondary income or service income is calculated as a percentage of stabilized effective gross rent. Secondary income represents parking income, escalations, reimbursements, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information. The

secondary income estimate is then added to effective gross rent to arrive at an effective gross income.

Allowable expenses and expense ratio estimated are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements is included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios are developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance, and common area maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, if the total operating expense in year one (1) equates to \$8.00 per square foot, any increase in expense over \$8.00 per square foot throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios are implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment of appliances) requiring expenditures of large lump sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves.

Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields and estimate of net operating income.

Rates and multipliers are used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, the application of the various rates and multipliers must be based on a thorough analysis of the market. These procedures are documented in the Income Valuation Manual. The last time this manual was updated was in 2001.

Capitalization analysis is used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analysis, can be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived from the built-up method (band-of-investment). This method relates to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications.

Rent loss concessions are made on specific properties with vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss is calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space as appropriate) and leasing expenses are added to the rent loss estimate. The total adjusted loss from these real property operations is discounted using an acceptable risk rate. The discounted value (inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions) becomes the rent loss concession and is deducted from the value indication of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated.

### **Sales comparison (Market) Approach**

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. As previously discussed in the Data Collection / Validation section of this report, pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year to obtain relevant information which can be used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the Cost Approach, rates and multipliers used in the Income Approach, and as a direct comparison in the Sales Comparison Approach. Improved sales are also used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of the appraisal values.

### **Final Valuation Schedules**

Based on the market data analysis and review discussed previously in the cost, income models are calibrated and finalized. The calibration results are keyed to the schedules and models on the mainframe CAMA system for utilization on all commercial properties in the district.

### **Statistical and Capitalization Analysis**

Statistical analysis of final values is an essential component of quality control. This methodology represents a comparison of the final value against the standard and provides a concise measurement of the appraisal performance. Statistical comparisons of many different standards are used including sales of similar properties, the previous year's appraised value, audit trails, value change analysis and sales ratio analysis.

Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each property type. These summary statistics including, but not limited to, the weighted mean, standard deviation, and coefficient of variation, provide the appraisers an analytical tool

by which to determine both the level and uniformity of appraised value of a particular property type. The level of appraised values can be determined by the weighted mean for individual properties within a specific type, and a comparison of weighted means can reflect the general level of appraised value. Review of the standard deviation and the coefficient of variation can discern appraisal uniformity within a specific property type.

The appraisers review every commercial property type annually through the sales ratio analysis process. The first phase involves ratio studies that compare the recent sales prices of properties to the appraised values of the sold properties. This set of ratio studies affords the appraiser an excellent means of judging the present level of appraised value and uniformity of the appraised values. The appraiser, based on the sales ratio statistics and designated parameters for valuation update, makes a preliminary decision as to whether the value level of a particular property type needs to be updated in an upcoming reappraisal, or whether the level of market value is at an acceptable level.

Potential gross rent estimates, occupancy levels, secondary income, allowable expenses (inclusive of non-recoverable and replacement reserves), net operating income and capitalization rate and multipliers are continuously reviewed utilizing frequency distribution methods or other statistical procedures or measures. Income model conclusions are compared to actual information obtained on individual commercial properties during the hearings process as well as information from published sources and area vendors.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The date of the last inspection, extent of that inspection, and the Brown CAD appraiser responsible are listed in the CAMA system. If a property owner disputed the District's records concerning this data in a protest hearing, CAMA may be altered based on the credibility of the evidence provided. Typically, a new field check is then requested to verify this evidence for the current year's valuation or for the next year's valuation. In addition, if a building permit is filed for a particular property indication of a change in characteristics, that property is added to a work file. Finally, even though every property cannot be inspected each year, each appraiser typically designates certain segments of their area of responsibility to conduct field checks.

Commercial appraisers are somewhat limited in the time available to the field review all commercial properties of a specific use type. However, a major effort is made by appraisers to field review as many properties as possible or economic areas experiencing large numbers of remodels, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the appraisers frequently field review subjective data items such as building class, quality of construction (known as cost modifiers), condition, and physical, functional, and economic obsolescence

factors contributing significantly to the market value of the property. In some cases, field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the appraiser test computer assisted values against their own appraisal judgment. While in the field, the appraisers physically inspect sold and unsold properties for comparability and consistency of values.

### **Office Review**

Office reviews are typically limited by the data presented in final value reports. These reports summarize the pertinent data of each property as well as comparing the previous values (two-year value history) to the proposed value conclusions of the various approaches to value. These reports show proposed percentage value changes, income model attributes or overrides, economic factors (cost overrides) and special factors affecting the property valuation such as new construction status, prior year litigation and a three year sales history (USPAP property history requirement for non-residential property). The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USPAP or more stringent statutory and district policies. This review is performed after preliminary ratio statistics have been applied. If the ratio statistics are generally acceptable overall the review process is focused primarily on locating skewed results on an individual basis. Previous values resulting from protest hearing are individually reviewed to determine if the value remains appropriate for the current year based on market conditions. Each appraiser's review is limited to properties in their area of responsibility by property type (improved) or geographic area (commercial vacant land).

Once the appraiser is satisfied with the level and uniformity of the value for each commercial property within their area of responsibility, the estimates of value go to notice. Each parcel is subjected to the value of parameters appropriate for its use type. If one of the parcel's component values, land value, improvement value or total value exceeds the permissible change in value range it "fails the value edits". In this case, the parcel does not shift in noticing, but it is placed on a rework list. Therefore, although the values estimated are determined in a computerized mass appraisal environment, value edits and rework lists enable an individual parcel review of value anomalies before the estimate of value is released for noticing.

### **PERFORMANCE TESTS**

The primary tool used to measure mass appraisal performance is the ratio study. A ratio study compares appraised value to market values. In a ratio study, market values (value in exchange) are typically represented by sales prices (i.e., a sales ratio study). If there are not enough sales to provide a necessary representation, independent appraisals can be used as indicators for market value. This can be particularly useful for commercial, warehouse or industrial real property for which sales are limited. In addition, appraisal ratio studies can be used for

properties statutorily not appraised at market value but reflecting the use-value requirement. An example of this are multi-family housing projects subject to subsidized rent provisions or other governmental guarantees as provided by legislative statutes (affordable housing) or agricultural lands to be appraised based on productivity or use value.

Brown CAD has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, circa July 1999 regarding its ratio study standards and practices. Ratio studies generally have six basic steps: (1) determination of the purpose and objectives, (2) data collection and preparation, (3) comparing appraisal and market data, (4) stratification, (5) statistical analysis, and evaluation and application of the results.

## **Sales Ratio Studies**

Sales ratio studies are an integral part of establishing equitable and accurate market value estimates, and ultimately assessments for this taxing jurisdiction. The primary uses of sale ratio studies include the determination of a need for general reappraisal; prioritizing selected groups of property types for reappraisal; identification of potential problems with appraisal procedures; assist in market analyses; and to calibrate models used to derive appraised values during valuation or reappraisal cycles. However, these studies cannot be used to judge the accuracy of an individual property appraised value. The Brown County Appraisal Review Board may make individual value adjustments based on unequal (ratio) protest evidence submitted on a case-by-case basis during the hearing process.

Overall sales ratios are generated by use type semi-annually (or more often on specific areas) to allow appraisers to review general market trends in their area of responsibility.

## **Industrial Valuation Process**

### **INTRODUCTION**

#### **Appraisal Responsibility**

The industrial appraisers and/or contract appraisers of the Brown County Appraisal District are responsible for developing fair, uniform market values for improved industrial properties and industrial vacant land. The industrial appraiser is also responsible for the valuation of all tangible general industrial personal property in Brown County. There are approximately 52 parcels of industrial real property in Brown County. The industrial appraiser appraises approximately 163 parcels of tangible person property. Brown CAD contracts with the Thomas Y. Pickett appraisal firm to value industrial properties.

# **Business Personal Property Valuation Process**

## **INTRODUCTION**

### **Appraisal Responsibility**

These are four different personal property types appraised by the district's personal property section: Business Personal Property Accounts; Leased Assets; Vehicles; and Multi-Location Assets. There are approximately 1,731 business personal property accounts in Brown County.

#### Appraisal Resources

- Personnel – The personal property staff consists of 1 appraiser.
- Data – A common set of data characteristics for each personal property account in Brown County is collected in the field and data entered to the district's computer. The property characteristic data drives the computer-assisted person property appraisal (CAPPA) system. The field data is collected by the person property appraiser.

## **VALUATION APPROACH (Model Specification)**

### **Sic Code Analysis**

Four-digit numeric codes, called Standard Industrial Classification (SIC) codes, were developed by the federal government. These classifications are used by Brown CAD to classify personal property by business type.

SIC code identification and delineation is the cornerstone of the personal property valuation system at the district. All the personal property analysis work done in association with the personal property valuation process is SIC code specific. There are in excess of 370 CAD personal property SIC codes. SIC codes are delineated based on observable aspects of homogeneity. SIC code delineation is periodically reviewed to determine if further SIC code delineation is warranted.

### **Highest and Best Use Analysis**

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of personal property is normally its current use.

## **DATA COLLECTION/VALIDATION**

### **Sources of Data**

#### **Business Personal Property**

The district's property characteristic data was originally received from the Brown County, and various school district records in 1980, and where absent, collected through a massive field data collection effort coordinated by the district over a period. When revaluation activities permit, district appraisers collect new data via an annual field drive-out. This project results in the discovery of new businesses not revealed through other sources. Tax assessors, city, and local newspapers, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

#### **Vehicles**

An outside vendor provides Brown CAD with a listing of vehicles within Brown County. The vendor develops this listing from the Texas Department of Transportation (DOT) Title and Registration Division records. Other sources of data include property owner renditions and field inspections.

#### **Leased and Multi-Location Assets**

The primary sources of leased and multi-location assets if property owner renditions of property. Other sources of data include field inspections.

## **VALUATION AND STATISTICAL ANALYSIS (model calibration)**

### **Cost Schedules**

Cost schedules are developed by SIC code by district personal property valuation appraisers. The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are typically in a price per unit format, such as per room for hotels.

## **Statistical Analysis**

Summary statistics including, but not limited to, the median, weighted mean, and standard deviation provide the appraisers with an analytical tool by which to determine both the level and uniformity of appraised value by SIC code. Review of the standard deviation can discern appraisal uniformity within SIC codes.

## **Depreciation Schedule and Trending Factors:**

### **Business Personal Property**

Brown CAD's primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from the property owner reported historical cost or from Brown CAD developed valuation models. The trending factors used by Brown CAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by the Brown CAD are also based on published valuation guides. The index factors and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

$$\text{PVF} = \text{INDEX FACTOR} \times \text{PERCENT GOOD FACTOR}$$

The PVF is used as an "express" calculation in the cost approach. The PVF is applied to reported historical cost as follows:

$$\text{MARKET VALUE ESTIMATE} = \text{PVF} \times \text{HISTORICAL COST}$$

This mass appraisal PVF schedule is used to ensure that estimated values are uniform and consistent within the market.

### **Computer Assisted Personal Appraisal (CAPPA)**

The CAPPA valuation process has two main objectives: 1) Prioritizing and adjusting existing SIC models. 2) Develop new models for business classification not previously integrated into CAPPA. The delineated sample is reviewed for accuracy of SIC code, square footage, field data, and original cost information. Models are created and refined using actual original cost data to

derive a typical replacement cost new (RCN) per square foot is depreciated by the estimated age using the depreciation table adopted for the next year.

The data sampling process is conducted in the following order 1) Prioritizing Standard Industrial Classification (SIC) codes for model analysis. 2) Compiling the data and developing reports. 3) Field checking the selected samples. The models are built and adjusted using internally developed software. The models are then tested against the previous year's data. The typical RCN per square foot (or applicable unit) is determined by a statistical analysis of the available data.

CAPPA model values are used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed. Model values are also used to establish tolerance parameters for testing the valuation of property for which prior data years' data exists for which current year rendered information is available. The calculated current year value or the prior year's value compared to the indicated model value by the valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes the range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted from year to year depending on the analysis of the results of the prior year.

## **Vehicles**

Value estimates for vehicles are provided by an outside vendor and are based on NADA published book values. Vehicles that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

## **Leased and Multi-Location Assets**

Leased and multi-location assets are valued using the PVF schedules mentioned above. If the asset to be valued in the category is a vehicle, then NADA published book values are used. Assets that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

## INDIVIDUAL VALUE REVIEW PROCEDURES

### Office Review

#### Business Personal Property

A district valuation computer program exists in a mainframe environment that identifies accounts in need of review based on a variety of conditions. Property owner renditions, accounts with field or other data changes, accounts with prior hearings, new accounts, and SIC cost table changes are all considered. The accounts are processed by the valuation program and pass or fail preset tolerance parameters by comparing appraised values to prior year and model values. Accounts that fail the tolerance parameters are reviewed by the appraisers.

#### Vehicles

A vehicle master file is received on CD from an outside vendor. These vehicles are then matched to existing accounts and new accounts are created as needed by the appraiser. Vehicles that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

### LIMITING CONDITIONS

The appraised value estimates provided by the district are subject to the following conditions.

1. The appraisals were prepared exclusively for ad valorem tax purposes.
2. The property characteristic had upon which the appraisals are based is assumed to be correct. Exterior inspections of the property appraised were performed as staff resources and time allowed.
3. Validation of sales transactions was attempted through questionnaires to buyer, and seller, telephone survey and field review. In the absence of such confirmation, residential sled data obtained from vendors was considered reliable.
4. I have attached a list of staff providing significant mass appraisal assistance to the person signing the certification.

## **Certification Statement**

“ I, Brett McKibben, Chief Appraiser for the Brown County Appraisal District, solemnly swear that I have made or caused to be made a diligent inquiry to ascertain all property in the district subject to appraisal by me, and that I have included in the records all property that I am aware of at an appraised value which, to the best of my knowledge and belief, was determined as required by law.”

Brett McKibben, RPA, RTA, CTA  
Chief Appraiser