

**BRAZOS CENTRAL  
APPRAISAL DISTRICT  
2015 - 2016  
REAPPRAISAL PLAN**



# INTRODUCTION

## General Overview of Tax Code Requirement

Passage of Senate Bill 1652 in 2005 amended the Property Tax Code to require each Appraisal District to prepare a biennial reappraisal plan. The following details the Tax Code requirements:

### Tax Code Requirement

Section 6.05, Property Tax Code, is amended by adding Subsection (i) to read as follows:

- (i) To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10th day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its hearing, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

### Plan for Periodic Reappraisal

Subsections (a) and (b), Section 25.18, Property Tax Code, are amended to read as follows:

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05(i)
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:
  - (1) Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches:

The Brazos Central Appraisal District receives listings of all deeds filed in Brazos County Clerk's office as well as deed information from various titles companies throughout the county. Those deeds are read and abstracted by the clerical staff in the mapping section of BCAD's office. Information is recorded in the computer assisted mass appraisal (CAMA) software including grantor, grantee, date of recording, volume, and page in the county clerk's records. Property identification numbers are assigned to each parcel of property.

Business personal property is located by canvassing the county street by street, using data sources such as yellow pages, sales tax permit holder lists, and other business listing publications to ensure that all property owners are located. All businesses are mailed a rendition on about February 15th of each year. Owners are required by state law to list all their business personal property. Failure to render can result in a 10% penalty and a possible 50% penalty if fraud is involved in a false rendition. Lists of commercial vehicles are also purchased annually and these vehicles are tied to the appropriate business account. Renditions are also required of utility companies, railroads, and pipelines.

Oil and gas wells are discovered using Texas Railroad Commission records. Ownership is determined by records known as division orders that are usually available from the purchasers of the oil or gas. Maps have been developed for years that show ownership lines for all real estate. All of the maps are available to the staff of the appraisal district on their computer desktops and maps are available to the general public through the Appraisal District web site. These maps are maintained by Brazos Central Appraisal District staff.

(2) Identifying and updating relevant characteristics of each property in the appraisal records:

Real estate is physically reviewed every year. Appraisers drive to neighborhoods within the boundaries of Brazos County and gather data about each home, commercial business, or vacant land tract. The appraisers drive from property to property noting the condition of the property and observing and recording any changes to the property since the previous year's inspection. Pictures are being taken of each property using digital cameras. Those pictures are stored in the CAMA software and assist the appraiser in making value decisions when he or she returns to the office. Other data stored in the CAMA system includes an exterior sketch of the improvement which allows the computer system to calculate square footage for the various areas of the building, and components within the building such as bathrooms, fireplaces, air conditioning, type of roof, type of exterior, etc. The rural areas of the county are driven with appraisers looking for newly constructed properties and remodels since there is no permit system in the area outside the Cities of Bryan and College Station.

Business personal property is inspected by district staff each year. They look at the quality of inventory, how dense the stocking is, and make general notes about equipment that they see. If their observation is different than the rendition made by the taxpayer, additional information is gathered and a higher value may be assigned than the rendered amount.

(3) Defining market areas in the district:

Annually, appraisers combine similar types of property into "neighborhoods". These neighborhoods have improvements that are of similar construction and type as well as similar years of construction. Market sales and construction characteristics are examined to confirm which areas are similar. In apartments, commercial retail, wholesale, and service retail, the properties are categorized by type and class.

Land is also put into regions or neighborhoods with other parcels having similar characteristics such as size, location, topography and other characteristics that the market recognizes as significant.

(4) Identifying property characteristics that affect property value in each market area, including:

- (a) The location and market area of the property;
- (b) Physical attributes of the property, such as size, age and condition;
- (c) Legal and economic attributes; and
- (d) Easements, covenants, leases, reservations, contracts, declarations, special assessments; ordinances, or legal restrictions;

Each parcel of property has detailed information recorded in the CAMA system. For land, the legal description, dimensions, zoning, size, available utilities, and special characteristics are noted in a form that can be used and compared with other land parcels.

Many improvements show the sketch and dimensions, a picture of the improvement, the class which indicated original construction quality, the year of construction of each part of the improvement, the type of roof, the roof covering, the exterior covering of the improvement and overall condition of the improvement.

(5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics:

The CAMA system begins with the cost approach to value to estimate original cost of each improvement. That cost is based on local modifiers to the Marshall-Swift cost system, a nationally recognized cost estimation system. By utilizing these cost systems, properties are equalized as to their original costs. The market sales are then studied for improvement contributions in each neighborhood and adjustments to cost are applied to each neighborhood in the form of all types of depreciation. Finally, each structure is rated as to its current condition. Ratings range from low to excellent. Sales are also categorized using the same condition rating system so that sales comparisons will be made to properties of like construction and condition.

This same concept is used in commercial, industrial, and apartment property. Significantly larger neighborhoods or areas are indicated for these properties using sales and income data. Oil and gas values are set for each lease in the same manner as analysts appraise a lease for sale or purchase. Economically recoverable reserves are estimated using geological knowledge, decline curves and production records. The value assigned is determined using price of product, discounted value of future production and expenses to produce. Data for the models is developed from leases located in Brazos County.

Utilities, railroads and pipelines are individually appraised using the three approaches to value. The appraisal is a "unit appraisal" that looks at the entire company to be appraised, values it based on original cost less depreciation, net income to the company, and comparable sales if they exist. Then the value for each jurisdiction is set based on the amount of equipment, lines, or customers, within that jurisdiction.

(6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised;

By utilizing sales data for each neighborhood, the appraiser measures accrued depreciation of structures by condition rating. By utilizing the age, quality, condition, construction components, and other variables, the model is developed and applied to all parcels within the neighborhood.

For commercial property and apartments, Economic Index Factors are applied to cost figures to align values with current sales data. Regions of the community are assigned similar values per square foot for similar age, construction quality, and condition. Models are developed and the CAMA system applies all the factors and assigns value to each parcel.

(7) Reviewing the appraisal results to determine value:

After completing the process of assigning values to all parcels within a neighborhood using the computer assisted mass appraisal programs, reports are run to make comparisons of values per square foot within the neighborhood and comparison of those appraised values per square foot with current sales data from the neighborhood. A sales ratio is run for each neighborhood to determine if the values that have been assigned are within required ratios of 95%-105%.

Commercial property and apartments are compared by category or type of business. Adjustments are made in mass by the commercial appraisal staff utilizing the CAMA system. All similar improvements are compared to verify reasonableness of value and equality.

Oil and gas leases are valued individually by Capital Appraisal Group and values for the entire lease are entered into the CAMA system. The CAMA system then distributes the value according to the ownership interests specified in the division order of the lease.

## **Scope of Responsibilities**

Brazos Central Appraisal District has prepared and published this reappraisal plan to provide the Board of Directors, taxing units, citizens and taxpayers with a better understanding of the District's responsibilities

and reappraisal activities. This report has several parts: a general introduction and then, several sections describing the proposed 2015-2016 reappraisal effort by the appraisal departments within Brazos County Appraisal District.

Brazos Central 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 seven member Board of Directors, six of which are appointed by the taxing units within the boundaries of Brazos County, plus the County Assessor/Collector, who serves as a non-voting member, 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.

Brazos Central Appraisal District (BCAD) is responsible for local property tax appraisal and exemption administration for eleven 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, courts, water and sewer systems, and other public services. Property appraisals are values established by the appraisal district and used by the taxing units to distribute the annual tax burden. Appraisals are based on each property's market value. BCAD also administers and determines eligibility for various types of property tax exemptions that are authorized by State and local governments; such as those for homeowners, the elderly, disabled persons, disabled veterans, and charitable or religious organizations.

The Property Tax Code states that all taxable property is appraised at its market value as of January 1<sup>st</sup>, unless special appraisal provisions are otherwise provided. 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:

- exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- both the seller and the 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;
- 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 Texas 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), and nominal (Sec. 23.18) or restricted use properties (Sec. 23.83). and allocation of interstate property (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 proceeding the tax year to which the appraisal applies by filing an application with the chief appraiser.

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. Brazos Central Appraisal District's current policy is to conduct a general reappraisal of real and business personal property value annually, meaning that a property's appraised value is established and reviewed for equality and uniformity each year. The district conducts an onsite field review of real property in a portion of the county annually as part of a reappraisal cycle. Business personal property is verified on an annual basis through various means. Each account has a reappraisal code A, B or C. These codes separate the county in three regions designated as reappraisal zones. Generally speaking category A properties are rural parcels, category B properties are located in the city of Bryan and category C properties are located in the city of College Station. For the 2015 reappraisal year BCAD will review category B properties and in 2016 category C properties will be reappraised.

The appraised value of real and business personal property is calculated using specific information and data about each property. Using various computer-assisted mass appraisal (CAMA) programs, and generally

recognized appraisal methods and techniques, registered and trained appraisers compare the subject property information with the data for similar properties, and with recent market data. The district adheres to 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. Chapter 23 of the Texas Property Tax code contains statutes dealing with appraisal methods and procedures. Section 23.01 of this chapter was amended in 1997 to specify that appraisal districts are required to comply with the mass appraisal standards of USPAP (Standard Six) when the appraised value of a property is established using mass appraisal techniques. In Brazos County 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. Policies and procedures are available at the office of each firm contracting with the District.

## **Market Areas of Brazos County**

Brazos County is situated in central Texas in a wedge created by the joining of the Brazos River and the Navasota River. Brazos Central Appraisal District has established a three year reappraisal cycle with all properties coded to areas A, B or C. These codes separate the county into three regions designated as reappraisal zones. Generally speaking:

- category A properties are predominately in the east portion of the city limits of Bryan and the NE portion of Bryan ISD (2014 reappraisal area)
- category B properties are predominately in the west portion of the city limits of Bryan and the NW portion of Bryan ISD (2015 reappraisal area)
- category C properties are predominately in the city of College Station and College Station ISD and rural south of College Station. (2016 reappraisal area)

Our market areas are defined as the City of Bryan, the City of College Station, and the rural areas which are defined as Northeast Brazos County (Bryan ISD), Southeast Brazos County (Bryan ISD), Northwest Brazos County (Bryan ISD), South Brazos County (College Station ISD), and South Brazos County (Navasota ISD).

## **Overview of District Operations**

### **Personnel Resources**

The Office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling all district operations. The district is organized into five primary divisions: Administration, Real Property Appraisal, Business Personal Property, Mapping, and Information and Assistance. A director heads each division. The Administration Division's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, purchasing, fixed assets, facilities maintenance and mail service. The Mapping Division maintains ownership information, property splits/combinations and is responsible for splits/combinations, mapping and GIS functions. The Information and Assistance Division supplies customer support, and processes partial exemptions such as homesteads and over-65 exemptions, performs data entry and processes taxpayer correspondence including property protests. The Real Property Appraisal Division is responsible for valuing all residential coded properties, commercial and land parcels. The Business Personal Property Division is responsible for valuing all business personal property accounts.

The 2015 and 2016 adopted budgets will provide information for employee positions and

classifications.

## **Staff Education and Training**

All appraisal district employees that perform appraisal work 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 (TDLR). This board is responsible for ensuring appraisers are professional, knowledgeable, competent and ethical. This is accomplished through a statewide program of registration, education, experience, testing and certification for all property tax professionals for the purpose of promoting an equitable tax system.

Upon registration, appraisers registered with the TDLR have up to five years to take 170.5 hours of class work and pass two additional exams in order to achieve certification as a Registered Professional Appraiser (RPA). During each subsequent two-year period after certification, appraisers must complete an additional 30 hours of continuing education including 2 hours in professional ethics, 3.5 hours of USPAP refresher and the approved State laws and rules update course. Failure to meet these minimum standards will result in the removal of the employee from an appraiser position.

Additionally, all appraisal personnel receive training in the data gathering and valuation processes. Standardized manuals will be provided to ensure uniform and accurate data collection. Senior personnel provide on-the-job data collection training in the office and the reappraisal field area. Managers meet regularly with staff to introduce new procedures and regularly monitor appraisal activity to ensure that all personnel are following standardized appraisal methods and techniques.

## **Data**

For 2015, Brazos Central Appraisal District is responsible for establishing and maintaining approximately 68,000, real estate accounts, 8,300 business personal property accounts and 50,800 mineral accounts covering approximately 590 square miles within Brazos County.

Each parcel contains data related to property characteristics, ownership and exemption information. Accurate ownership and legal description data is maintained by processing recorded deeds and plats that are provided by the Brazos County Clerk's office. Exemption data, in amounts authorized by State and local governments, is processed in conjunction with various application requirements as stipulated in the State Property Tax Code.

Existing property characteristics data is updated and maintained through physical inspections and other generally accepted methods. The property data related to new construction and other building permit activity is also collected through an annual field review effort. Each city within BCAD's jurisdiction provides permit information either electronically or in paper form. Comparable sales data is also routinely validated as part of the building permit field review and reappraisal activities.

General demographic, economic and financial trends, construction cost, market sales and income data are acquired through various sources. These may include internally generated questionnaires to buyer and seller, public and university research centers, private market data vendors, real estate related publications and telephone contact with buyers, sellers, brokers and fee appraisers, as well as information collected from property owners and agents during the informal appeal and Appraisal Review Board process. The appraisal departments have appraisal staff assigned to research functions and they are responsible for collecting this type of data.

The district has a geographic information system (GIS) that contains cadastral maps and includes various layers of data, including parcel lines, FEMA flood data, zoning, taxing jurisdictions jurisdictional boundaries and aerial photography. Brazos Central Appraisal District is dependant upon local cities to provide updated zoning information. The district's website makes a range of information available for public access, including information on appraisal district operations. The public can also access online information from BCAD's website that includes property characteristic data, current property value as well

as historical values, protests and appeal procedures, and property maps.

## **Independent Performance Test**

According to Chapter 5 of the Texas Property Tax Code and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Division (PTD) conducts a semi annual property value study (PVS) of each Texas school district within each appraisal district. As a part of this semi annual study, the Code also requires the Comptroller to: use sales and recognized auditing and sampling techniques; review each appraisal district's appraisal methods, standards and procedures to determine whether the district used recognized standards and practices; test the validity of school district taxable values in each appraisal district and presume the appraisal roll values are correct when values are valid; and, determine the level and uniformity of property tax appraisal in each appraisal district. The methodology used in the property value study includes stratified samples to improve sample representativeness and techniques or procedures of measuring uniformity. This study utilizes statistical analysis of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measures include median level of appraisal, coefficient of dispersion (COD), and price-related differential (PRD) for properties overall and by state category (i.e., categories A, B, C, D and FI are directly applicable to real property).

House Bill 8, effective Jan. 1, 2010, amended Tax Code Section 5.102 to require the Comptroller of Public Accounts to review county appraisal district (CAD) governance, taxpayer assistance, operating standards and appraisal standards, procedures and methodology at least once every two years. HB 8 also amended Government Code Section 403.302 to change the frequency of the property value study for school districts from every year to every other year.

Starting in January 2010, the Comptroller's Property Tax Assistance Division (PTAD) began performing Methods and Assistance Program (MAP) reviews of approximately half of all CADs. BCAD undergoes a ratio study each odd numbered year and a MAP audit each even numbered year. School districts located in counties that do not receive reviews in a year will be subject to property value studies in that year.

Brazos Central Appraisal District annually develops appraisal rolls for three independent school districts. The preliminary results of this study are released in January of year following the even numbered year of appraisal. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of the year of appraisal.

This outside (third party) ratio study provides additional assistance to Brazos Central Appraisal District in determining areas of market activity or changing market conditions. Results from the upcoming 2014 Property Value Studies will be reviewed and analyzed by appraisal managers. Geographic areas or property categories with unsatisfactory ratio results will be added to the work plan for the following reappraisal cycle.

## **Overview of Appraisal Responsibilities**

BCAD's appraisal responsibilities are divided between two appraisal divisions, Real Property and Business Personal Property. The Real Property division is further divided into Agricultural/Rural, land, Residential, Minerals and Commercial. The Commercial Appraisal Department consists of four property types: Office, Retail, Industrial and Multi-family. The residential department is responsible for all mineral properties, single family properties as well as duplex, triplex, fourplex and condominiums. Business Personal Property is responsible for all income producing business owned property not considered Real Property as well as manufactured homes located in parks.

In both the Real Property and Business Personal Property divisions, appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and information

processes. Accurate valuation of real and business personal property by any method requires a physical description of personal property, land, and building characteristics. An effective data collection effort involves an inspection of all real and business personal property accounts. It is the goal of BCAD appraisal divisions to periodically complete a thorough, on-site field review of all residential and commercial properties. Business personal property data is field-verified every year.

## Appraisal Resources

- **Personnel** - Brazos Central Appraisal District appraisal activities are accomplished with a staff of appraisers and clerical personnel. Staffing resource numbers are reflected in the budget. These employees are assigned to a specific appraisal department.
- **Data** - The staff utilizes existing property characteristic information contained in the PACS operating system.

## Appraisal Frequency and Method Summary

Brazos Central Appraisal District has adopted an annual reappraisal cycle.

- **Residential Appraisal** - Residential new construction is physically examined as part of an annual building permit data collection process. Appraisers determine size, class, year built, effective year of construction and other property characteristics and features that are used in the cost and sales comparison valuation methods. Vacant rural land is valued using comparable sales and land tables. Values in subdivisions are computed by market sales, or if unavailable, as an allocated percentage. Improved residential properties are delineated by neighborhoods as defined later in this document. On an annual basis, residential staff performs statistical analysis to evaluate whether values are equitable and consistent with the market. Based on analysis of the sales activity, market adjustment factors are developed and applied to adjust the appraised values in neighborhoods or specified geographic areas on comparable properties.
- **Commercial Appraisal** - Commercial real estate is verified by attempting to field observe and photograph each property at least once every three years to confirm class, condition and other property data. Properties are also reviewed as part of an annual building permit inspection process. The appraisers determine highest and best use. On an annual basis, commercial market values are established using generally accepted appraisal methods and techniques. Land values are generally determined using comparable sales. For improved properties, appraisers consider the cost, market and income approaches and then reconcile the final value, based on the quality and availability of the most accurate and credible data for each valuation approach.
- **Business Personal Property** - Business personal property is reviewed annually with appraisers physically going into businesses to develop quality and density observations. Businesses are categorized using Standard Industrial Codes. Property renditions required by law are used to depreciate business assets based on their age and category.
- **Minerals** - Working and royalty interests of producing oil and gas wells are appraised annually. The most recent production data available from the Texas Railroad Commission is downloaded into appraisal software that estimates economically recoverable reserves. Those reserves are then valued based upon State mandated pricing using the previous year's average of oil or gas values. A discount is applied over the anticipated life of the well in order to consider the value of money over time to recover those reserves. Each producing lease is valued as a unit and then that value is divided according to the various owners of the lease listed in division orders. Capitol Appraisal Group gathers the data and values all mineral properties and the appraisal district maintains the ownership data.

- **Utilities and Pipelines** - Utility companies and pipelines are appraised annually using a unit value developed using all three approaches to value. For example, a utility company's total value in the State is estimated using cost, market, and income approaches to value and then the entire value is allocated using the components of that utility company that have situs in the various tax units of Brazos County. An example would be miles of transmission lines or miles of distribution lines.

## **BCAD Appraisal Calendar**

In compliance with the guidelines of the Tax Calendar as published by the Property Tax Assistance Division, an annual reappraisal timeline for the Brazos Central Appraisal District is as follows:

July – December: site inspections on properties within the current reappraisal cycle, work outstanding permits from previous year, remove ARB distributed values, update sales files and run ratio reports (all year process)

December – February: build new personal property accounts, mail renditions, mail annual application letters, mail annual income/expense surveys, analyze previous year's data received for income/expense models and capitalization rates, analyze data and update cost schedules, drive county for properties less than 100% complete as of January 1, work any new construction permits, field checks, sales checks, office checks (all year process)

March – April: process exemption applications, process renditions, continue working permitted properties, run final sales ratios, perform neighborhood profiles for market adjustments, and finalize real property values for notices

April – May: process agriculture use applications, process exemption applications, process renditions, receive mineral/industrial values, mail real property notices

May – July 25: mail personal property, manufactured housing and mineral/industrial notices; begin property owner informal hearings, formal ARB hearings, appraisal records approved by ARB, and appraisal roll certified to the jurisdictions

## **Sources of Data**

The sources of data collection are through property inspection, data review, data mailer questionnaires, protest hearings, commercial sales verification and field review, newspapers and publications, and property owner correspondence by mail or via the Internet. A principal source of data comes from building permits received from taxing jurisdictions. Paper permits are received and matched to the property's tax account number for data entry. The Multiple Listing Service of the Brazos County Board of Realtors is a reliable source of data, for both property description and market sales data. Area and regional real estate brokers and managers are also sources of market and property information. Data surveys of property owners requesting market information and property description information is also valuable data. Improvement cost information is gathered from local building contractors and Marshall and Swift Valuation Service. Various income and rental surveys are performed by interviewing property managers and operators to determine operating income and expenses for investment and income producing real property.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers drive the

neighborhoods in the designated reappraisal area to review the accuracy of our data and identify properties that have to be adjusted. The sales validation effort in real property pertains to the collection of market data for 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 and confirmation of the sales price. For commercial properties, the commercial appraisal staff is responsible for gathering sales data.

Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides reliable data to allow correction of records without having to send an appraiser on-site. As the district has increased the amount of information available on the Internet, property owners have the opportunity to review information on their property and forward corrections via e-mail. Sales letters are another good source of data. As the CAD receives deed changes a letter is sent to both the buyer and seller requesting the sale price. Texas is a nondisclosure state so disclosing the sale price is voluntary. Properties identified in this manner are added to a work file and inspected at the earliest opportunity. Accuracy and validity in property descriptions and characteristics data is the highest goal and is stressed throughout the appraisal process from year to year.

### **Data Collection Process**

Field appraisers use a field card containing property data for the account they are inspecting in order to verify existing property characteristics or record new property data. The worksheets are batch-produced based on the geographic area that is established for reappraisal. Existing appraisal data is pre-printed on a residential field sheet that is used by the appraiser to record new or modified data during an on-site inspection. Field collected data is returned and entered into the BCAD system by staff appraisers.

Other resources for all departments may include sales and income data, fire damage reports, private water and electrical service applications, building permits, certificates of occupancy, building plans, site plans, recorded deeds, flood permits, plats, photos, published articles and actual cost information. Appraisal department managers are responsible for accurate data entry of their department's data.

### **Data Maintenance**

The appraiser begins an area update by downloading field cards of the area that he/she plans to work. The field appraiser is responsible for the data entry of his/her work into the computer as the area is surveyed. This responsibility includes not only data entry, but also quality assurance. The majority of the data collected in the field is entered by the appraiser when the reviewed work is completed.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The date of last inspection and the appraiser responsible are listed on the CAMA record and property card. If a property owner or jurisdiction disputes the district's records concerning this data during a hearing, via a telephone call or other correspondence received, the record may be corrected based on the evidence provided or an on-site inspection may be conducted. Typically, a field inspection is requested to verify this information for the current year's valuation or for the next year's valuation.

## **Office Review**

Office reviews are completed on properties where updated information has been received from the owner of the property and is considered accurate and correct. Data mailers, sent in mass, or at the request of the property owner, frequently verify some property characteristics or the current condition of the property. When the property data is verified in this manner, and considered accurate and correct, field inspections may not be required. The personal property department mails property rendition forms in February of each year to assist in the annual review of the property.

## **Performance Test**

The department director is responsible for conducting ratio studies and comparative analysis. This information is the basis for updating property valuation for the entire area of property. Field appraisers, in many cases, may conduct field inspections to insure the accuracy of the property descriptions at the time of sale for this study. Property inspections and aerial photography are performed to discover if property characteristics have changed as of the sale date or subsequent to the sale date. Sale ratios should be based on the value of the property as of the date of sale.

## **Special Projects**

Beginning in the 2013 tax year, BCAD began a special project focused on an in-depth review of land values throughout Brazos County. TEXMASS LLC consulting was hired to perform an independent review of land values and schedules located in the Bryan Independent School District for 2013, the College Station Independent School District for 2014 and rural land in 2015. This project will end in 2014 rather than 2015 and the rural analysis will be conducted by district staff rather than the contract appraiser.

# **Residential Valuation Process**

## **APPRAISAL RESPONSIBILITY**

The Residential Appraisal staff is responsible for developing equal and uniform market values for improved and vacant residential property. There are approximately 50,000 residential improved parcels and 6,000 vacant residential properties in Brazos County.

Generally, the residential staff values residential single family, all multifamily housing other than apartments, and improvements on rural acreage. Mobile homes are valued and maintained by the mobile home appraiser.

## **APPRAISAL RESOURCES**

- **Personnel** - The Residential Appraisal staff consists of six field appraisers.
- **Data** - Property characteristics for each residential property in Brazos County is collected in the field and entered to the computer. This property-specific data drives the BCAD computer-assisted mass appraisal system. Appraisers review various real estate related publications to determine patterns and trends in the market data.

# VALUATION APPROACH

## Land Analysis

Residential land analysis is conducted by the land appraisers. The appraisers develop a base lot value for each residential parcel. Specific land influences are used, where necessary, to adjust parcels outside the neighborhood norm for such factors as view, shape, size, and topography, among others. The land appraisers use sales data when available or abstraction and allocation methods to insure that the land values developed best reflect the contributory market value of the land to the overall property value.

## Area Analysis

Data on regional economic forces such as demographic patterns, 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 gathered from real estate publications and other outside sources including seminars and conferences.

## 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. Analysis of comparable market sales data forms the basis of estimating market activity and the level of supply and demand affecting market prices for any given market area. Market sales reflect the effects of these market forces and are interpreted by appraisers into an indication of market value ranges for a given neighborhood. Sales also provide an indication of property component changes considering a given time period relative to the date of appraisal. Although all three approaches to value are considered, residential sales can best be interpreted and applied using two generally accepted appraisal techniques known as the cost and market or comparable sales approach. For low density, multiple family properties, the income approach to value may also be utilized, in the absence of recent sales data.

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 with similar characteristics 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, and square footage of living area. 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. 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 may reflect diminishing demand or desirability. 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 at the district. Most residential analysis work, in association with the residential valuation process, is neighborhood specific. Neighborhoods are visually inspected to verify delineations based on observable aspects of

homogeneity. Neighborhood delineation is periodically reviewed to determine if further neighborhood specification 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 and coded to a neighborhood group based on observable aspects of homogeneity between the areas. Neighborhood grouping is highly beneficial in cost-derived areas of limited or no sales and in direct sales comparison analysis. Defining comparable neighborhood groups serves to increase the available market data by linking comparable properties outside a given neighborhood. Sales ratio analysis, discussed below, is performed at the neighborhood level, and in soft sale areas on a comparable neighborhood group basis.

## **Highest and Best Use Analysis**

The highest and best use of property is the most reasonable and probable use that supports the highest present value as of the date of the appraisal. In areas of mixed residential and commercial use, HJR 36 passed during the 2009 legislative session and the enabling constitutional amendment, limit the appraisal of a residence homestead to its value as a residence homestead rather than at its highest and best use as a commercial property. The highest and best use must be physically possible, legally permissible, financially feasible, and productive to its maximum. The highest and best use of residential property is generally 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. 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.

## **VALUATION AND STATISTICAL ANALYSIS**

### **Cost Schedules**

Geographically adjusted Marshall and Swift cost schedules are utilized and reviewed each year in order to consistently reflect market costs or any changing economic trends. Marshall and Swift is a nationally recognized publication, adjusted with local modifiers.

Tables are also produced in order to uniformly apply value for added amenities as determined by the marketplace. Examples may include pools, bathhouses, outbuildings, boathouses, tennis courts, and other market driven value items.

Possible adjustments for factors that may inhibit value are also in table form and are applied uniformly to any properties affected. Examples may include cracked slab, termite damage, repairs needed, etc. The District considers all three approaches to value and recognizes the cost approach as an acceptable approach. Generally for residential property the district considers the market approach a more viable and accurate indicator due to it's being more sensitive to economic, social and physical characteristics of a given property.

### **Income Models**

The income approach to value may be useful to those real properties that are typically viewed as "income producing" when sufficient income data is available and where comparable sales are not present. In the current residential market, the income approach is not generally used.

## **Sales Information**

A sales file for the storage of sales data for vacant and improved properties at the time of sale is maintained for residential real property. Residential improved and vacant sales are collected from a variety of sources, including: multiple listing services, district survey letters sent to buyers and sellers, field discovery, protest hearings, sales vendors, builders, realtors and brokers.

## **Statistical Analysis**

The residential appraisal director conducts statistical analysis to evaluate whether values are equal and uniform within the market. Ratio studies are conducted on all residential neighborhoods in the county. These summary statistics include the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion. The level of appraised value is determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood weighted means reflect 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 neighborhoods.

The appraisers review neighborhoods annually. 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. Based on the sales ratio statistics the appraiser makes a determination as to whether the level of value in a neighborhood needs to be changed or whether the level of appraised value is acceptable. The residential appraisers perform statistical analysis annually to evaluate whether estimated values are equitable and consistent with the market.

## **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 is the market or sales comparison approach. Statistical analysis of present appraised value as compared with recent sales determines the appropriate market adjustment for a neighborhood.

## **Market and Cost Reconciliation and Valuation**

Neighborhood analysis of market sales to achieve an acceptable sale ratio or level of appraisal is also the reconciliation of the market and cost approaches to valuation. Market factors are developed from appraisal statistics provided from market analyses and ratio studies and are used to ensure that estimated values are consistent with the market and to reconcile cost indicators. 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 particularly specified in a pure cost model.

The following equation denotes the model used:

$$MV = LV + (RCN - AD)$$

In accordance with the cost approach, the estimated market value (MV) of the property equals the land value (LV) plus the replacement cost new of property improvements (RCN) less accrued depreciation (AD). As the cost approach separately estimates both land and building contributory values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values may be needed to bring the level of appraisal to an acceptable standard as indicated by market sales. These market or location adjustments are applied uniformly within neighborhoods to account for locational variances between market areas or across a jurisdiction. In accordance with the Market Approach, the estimated market value of the property equals the basic unit of property, under comparison, times the market price range per unit for sales of comparable property. For residential property, the unit of comparison is typically the price per square foot of living area or the price indicated for the improvement contribution. This analysis for the model is based on both the cost and market approaches as a correlation

of indications of property valuation. A significant unknown for these two indications of value is determined to be the rate of change for the improvement contribution to total property value. The measure of change for this property component can best be reflected and based in the annualized accrued depreciation rate. This cost related factor is most appropriately measured by sales of similar property. The market approach, when improvements are abstracted from the sale price, indicates the depreciated value of the improvement component, and in effect, measures changes in accrued depreciation. The level of improvement contribution to the property is measured by abstraction of comparable market sales, which is the property sale price less land value. The primary unknown for the cost approach is to accurately measure accrued depreciation affecting the amount of loss attributed to the improvements as age increases and condition changes. This evaluation of cost results in the depreciated value of the improvement component based on age and condition. The evaluation of this market and cost information is the basis of reconciliation and indication of property valuation under this model.

When the appraiser reviews a neighborhood, the appraiser reviews and evaluates a ratio study that compares recent sales prices of properties, appropriately adjusted for the effects of time, within a delineated neighborhood, with the value of the properties based on the estimated depreciated replacement cost of improvements plus land value. The calculated ratio derived from the sum of the sold properties' estimated value divided by the sum of the time adjusted sales prices indicates the neighborhood level of appraisal based on sold properties. This ratio is compared to the acceptable appraisal ratio, 95% to 105%, to determine the level of appraisal for each neighborhood. If the level of appraisal for the neighborhood is outside the acceptable range of ratios, adjustments to the neighborhood are made to the extent possible.

If reappraisal of the neighborhood is indicated, the appraiser analyzes available market sales, appropriately adjusted for the apparent effects of time, by market abstraction of property components. This abstraction of property components allows the appraiser to focus on the rate of change for the improvement contribution to the property by providing a basis for calculating accrued depreciation attributed to the improvement component. This impact on value is usually the most significant factor affecting property value and the most important unknown to determine by market analysis. Abstraction of the improvement component from the adjusted sale price for a property indicates the effect of overall market suggested influences and factors on the price of improvements that were a part of this property, recently sold. Comparing this indicated price or value allocation for the improvement with the estimated replacement cost new of the improvement indicates any loss in value due to accrued forms of physical, functional, or economic obsolescence. This is a market driven measure of accrued depreciation and results in a true and relevant measure of improvement marketability, particularly when based on multiple sales that indicate the trending of this rate of change over certain classes of improvements within certain neighborhoods. Based on this market analysis, the appraiser estimates the annual rate of depreciation for given improvement descriptions considering age and observed condition. Once estimated, the appraiser recalculates the improvement value of all property within the sale sample to consider and review the effects on the neighborhood sale ratio. After an acceptable level of appraisal is achieved within the sale sample, the entire neighborhood of property is recalculated utilizing the indicated depreciation rates taken from market sales. This depreciation factor is the basis for trending all improvement values and, when combined with any other site improvements and land value, brings the estimated property value through the cost approach closer to actual market prices as evidenced by recent sale prices available within a given neighborhood. Therefore, based on analysis of recent sales located within a given neighborhood, estimated property values will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The estimated property values calculated for each updated neighborhood are based on market indicated factors applied uniformly to all properties within a neighborhood. Finally, with all the market-trend factors applied, a final ratio study 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 verifies appraised values against overall trends as exhibited by the local market, and finally, for the school district as a whole.

## **Appraisal of Residential Homesteads**

Article VIII, Sec.1(i) of the Texas constitution allows the legislature to limit the annual percentage increase in the appraised value of residence homestead to 10% under certain conditions. This limitation is commonly referred to as a Homestead "Capped Value". Sec.23.23 of the Tax Code implements the cap on increases in value. The limited value begins in the second year the property owner qualifies for a residential homestead

exemption. The appraised value of a qualified residence homestead will be the **LESSER** of:

- the market value; or
- the preceding year's appraised value: **PLUS** 10 percent; **PLUS** the value of any improvements added that were not include on the prior year's roll.

The limited appraised value must be recomputed annually. The appraised value of homestead increases 10% annually or until the appraised value is equal to the market value. If a limited homestead property sells, the cap automatically expires as of January 1st of the year following the sale of the property and the property is appraised at its market value. The market value of a limited homestead is maintained, as well as the limited appraised value.

## **Residential Inventory**

Sec. 23.12 of the Texas Property Tax Code provides the definition of market value for inventory. Inventory includes residential real property that has never been occupied as a residence and is held for sale in the ordinary course of business, if the property has never been occupied, is not leased or rented, and produces no revenue.

Residential inventory is appraised at market value. The market value of residential inventory is the price at which it would sell as a unit to a purchaser who would continue the business. The residential land appraiser applies the same generally accepted appraisal techniques to determine the market value of residential real property inventory.

## **Agricultural Appraisal**

The Texas Constitution permits certain kinds of agricultural land to be appraised for tax purposes at its productivity value, rather than at market value. This special appraisal value is based solely on the land's capacity to produce agricultural products. Property qualifying for agricultural appraisal will have a substantial reduction in taxes, based on the difference in special agricultural appraisal and the market value of the property. Property taxes are deferred until a change of use occurs. At the time use changes, taxes are recaptured for up to five previous years, based on the difference in what was paid based on agricultural appraisal, and what would have been paid based on the market value of the property. Procedures for implementing this appraisal are based on the guidelines published in the Manual for the Appraisal of Agricultural Land, printed April 1990. A copy may be obtained from the State Comptroller of Public Accounts.

## **Agricultural Appraisal procedures**

The State Property Tax Code requires an application before land is considered for agricultural valuation. The deadline for filing a timely application is before May 1. Late agricultural valuation applications may be filed up to the time the appraisal roll is certified, however a penalty is imposed for late filing. After an application is filed, the property is inspected to determine its qualification.

Three criteria must be met when determining qualification:

1. Use - Land must be currently devoted principally to agricultural use.
2. Degree of Intensity - The agricultural use must be to the degree of intensity generally accepted in the area.
3. History of Use - The land must have been devoted principally to agricultural use for five (5) of the preceding seven (7) years. Land located within an incorporated city or town must have been devoted principally to agricultural use continuously for the preceding five (5) years.

When the land's use qualifications have been reviewed, one of three actions will be taken:

- Application is Denied - Property owner is notified by certified mail and given 30 days to appeal the decision to the Appraisal Review Board.

- Application is Approved- Property owner is notified of the decision and the productivity land appraised value. Once approved, the property remains valued as a special agricultural use until a change of use occurs, or the ownership changes. If the property's use remains unchanged and only ownership has changed, the new owner is required to timely apply for special agricultural valuation.
- Disapprove the Application and Request More Information- The application is disapproved and the applicant is allowed thirty (30) days to provide additional information, otherwise the application is denied. When requested information is provided, it is added to data already collected to arrive at a final decision.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The appraiser identifies individual properties in need of field review through examples such as: sales ratio analysis, ARB hearings, building permits, property owner's requests, aerial photography and other sources. Sold properties are reviewed on a regular basis to check for accuracy of data characteristics before they are used in reappraisal analysis.

As the district's parcel count has increased through new home construction, and existing home remodeling, the appraisers are required to perform associated field activity. Increased sales activity can result in a more substantial field effort on the part of the appraisers to review and resolve sales that fall outside acceptable ranges. Additionally, the appraisers frequently field review 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.

### **Office Review**

Once field review is completed, the appraisal staff conducts a routine valuation review of all properties as outlined in the discussion of ratio studies and market analysis. Previous values resulting from protest hearings, informal negotiation, or litigation are individually reviewed to determine if the value remains appropriate for the current year. Legislation passes during the 2009 legislative session requires the CAD to hold any value for 1 year if the value was set by the appraisal review board, an arbitrator or in district court unless the increase by the chief appraiser is reasonably supported by substantial evidence

Once an appraisal manager is satisfied with the level and uniformity of value for each area, the estimates of value are prepared for a notice of proposed value.

## **PERFORMANCE TESTS**

### **Sales Ratio Study Review**

The primary analytical tool used by the appraisal manager to measure and improve performance is the ratio study. The district ensures that the appraised values produced meet the standards of accuracy in several ways. Overall sales ratios are generated for each ISD to allow the appraiser to review general market trends within their area of responsibility, and provide an indication of market appreciation/depreciation over a specified period of time. The neighborhood descriptive statistic is reviewed for each neighborhood being updated for the current tax year.

## **Management Review Process**

Once the proposed value estimates are finalized, the appraisal manager reviews the sales ratios by neighborhood. This review includes comparison of level of value between related neighborhoods within and across jurisdiction lines. The primary objective of this review is to ensure that the proposed values have met preset appraisal guidelines appropriate for the tax year.

# **Commercial Property Valuation Process**

## **APPRAISAL RESPONSIBILITY**

The Commercial (real property) Appraisal Department is responsible for the valuation of all commercial real property, including land and improvements, located within the boundaries of Brazos Central Appraisal District's jurisdiction. This currently includes approximately 4,200 commercial accounts. Commercial real property types generally include multi-family, office, retail, warehouse/manufacturing and various other categories of business related facilities. In general terms, the commercial appraisal staff is responsible for establishing market value on any real property for which the highest and best use is determined to be non-residential.

Commercial appraisal assignments are delineated from residential assignments on the basis of state use code guidelines established by the State Comptroller. Generally the commercial staff values all commercially improved properties including apartments, retail, warehouse and office properties. During the field review reappraisal phase of each appraisal year the commercial appraisal staff makes on-site physical inspections and photographs real estate accounts in their portfolio.

## **APPRAISAL RESOURCES**

- **Personnel** – The Commercial appraisal division consists of two field appraisers and one director.
- **Data** - A standardized set of data characteristics for each commercial property in Brazos County is collected and data entered by the commercial appraisal staff into PACS. This property-specific data drives the three valuation models. Additional required data includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers etc.). Other data used by the appraisers includes sale listings, fee appraisals, actual income and expense data (typically obtained through the appeals 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 and published market surveys are also reviewed to provide additional support for market trends.

## **Research**

The Commercial appraisal team is responsible for collecting, processing, and maintaining sales and

income information that is used in the valuation process. After the information is processed and verified, the sales information is entered into the sales file under deed/sales information. The sales information is easily accessible for the appraisers to use for sales ratio review, edit/valuation process, informal discussions, and Appraisal Review Board hearings.

## **Preliminary Analysis and Data Collection**

Prior to beginning of the valuation activities for an appraisal year, the appraisal team completes a thorough review of the results of the preceding year. Goals and objectives are determined and the commercial director will establish a plan of action. Budget, calendar issues and resource availability are all considered. Appraisal activities must be coordinated between BCAD departments to avoid conflicts and ensure availability of personnel. Appraisal resources, including staff and system needs are evaluated. Appraisal Review Board activity and value changes during the appeals process are analyzed. Most importantly, a preliminary internal ratio study is produced to identify any property category or geographic area that may require more research or analysis.

## **Area Analysis**

Data on regional economic forces such as demographic patterns, regional location factors, employment and income patterns, general trends in real property prices and rents, interest rates, discount rates, and financing trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources. Key employees and managers analyze the data and meet to discuss how these factors and trends could impact the local real estate market.

## **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. It is that use that will generate the highest net return to the property over a period of time. For vacant tracts of land within a jurisdiction, the highest and best use is considered speculative but market-oriented, and is based on the surrounding land uses in a competing land market area. The appraiser must consider the most probable use that is permitted under local administrative regulations and ordinances. While its current zoning regulation may restrict a property's use, the appraiser may also consider the probability that the zoning could be changed, based on activity in the area and a city's propensity for approving zoning change requests.

For improved properties, highest and best use is evaluated as currently improved and as if the site were still vacant. In many instances, the property's current use is the same as its highest and best use. However, the appraiser may determine that 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. 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. Proper highest and best use analysis insures that the most accurate estimate of market value can be derived.

"Value in use" represents the value of a property to a specific user for a specific purpose. An example of value in use is agricultural or productivity value. The Texas Property Tax Code has specific provisions for appraisal of certain types of property that require a value based on a specific use. In areas of mixed residential and commercial use, HJR 36 passed during the 2009 legislative session and the enabling constitutional amendment, limit the appraisal of a residence homestead to its value as a residence homestead rather than at its highest and best use as a commercial property.

## **Market Analysis**

A mass-appraisal market analysis relates directly to economic market forces affecting supply and demand that affect a group of similar or "like" properties. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Appraisers consider such general market data as submarket supply and demand, zoning and code restrictions, municipal services, school district characteristics, crime rate patterns, job growth patterns, income levels, population trends, transportation issues, interest rate levels, investment patterns and a myriad of other factors that influence the local real estate market. Specific market data is gathered and analyzed including sales of commercial properties, new construction and other building permit activity, new leases, lease rates, absorption rates, vacancies, typical property expenses (inclusive of replacement reserves, if recognized by the market), expense ratio trends, and capitalization rate indicators. This data is used to determine market ranges in price, operating costs and investment return expectations.

## **Commercial Building Permits**

Each city within BCAD's jurisdiction has a system of issuing building permits to property owners in order to ensure that building code standards are followed for all new construction or major remodeling projects. Permits may also be issued for repair or replacement of plumbing, electrical, HVAC, roofing, foundations, canopies, interior or exterior finish, parking lots, and ancillary structures. On a monthly basis, copies of those permits are forwarded to BCAD or downloaded by a BCAD employee from websites. Permits are matched to a corresponding commercial account and pertinent permit data is entered into PACS. Commercial appraiser's field inspect and measure the permitted properties as part of a reappraisal work plan assignment. Changes to property characteristics, as a result of the completed permit work, are recorded to the property in PACS. Value added to the roll from new construction is tabulated and reported to each taxing unit for the use in their effective tax rate calculation.

## **Comparable Sales Data**

Commercial sales data is collected, verified and processed by the commercial appraisal staff. A standardized workflow procedure is followed to track and accurately process the documents. The sale data items are preliminarily reviewed and verified to determine reliability of the content and the source. Sale details are compiled to create a "snapshot" of the sold parcels as of the time of sale. A commercial appraiser may conduct a field inspection to verify the accuracy of the existing property characteristics data. Property, location and financial data is documented and entered in the PACS sale entry record.

## **Income and Expense Data**

Income and expense data consists of property rent rolls and income statements and is generally provided by property owners during the appeals process. The data is maintained in the appropriate account file for retrieval. The data can be retrieved by appraisers and processed into the PACS income and expense tables. Pertinent income data includes contract and market rental rates, asking rental rates, physical and economic vacancies, tenant reimbursements, operating expenses, capitalization rates, discount rates, lease up projections, and finish out costs.

## **Sources of Commercial Data**

Property specific data is gathered as part of an on-site field inspection. The majority of cost related data is compiled by subscribing to Marshall and Swift Valuation Services. Closing statements, actual cost

documents, rent rolls and income statements provided by owners during the appeals and ARB process are considered the most reliable sources of property data. Another reliable source of verified sales and income data is the local fee appraiser community. Networking with others in the appraisal profession benefits the overall quality and credible application of the data. The BCAD Property mapping Division should receive a copy of the deeds recorded in Brazos County that convey commercially classed properties located within the BCAD jurisdiction. When a deed involving a change in commercial property ownership is entered into the BCAD system, a set of commercial sale survey letters are produced. One letter is mailed to the buyer and one to the seller, in an attempt to obtain the pertinent sale information. Brazos Central Appraisal District also subscribes to Loop Net, a vendor of commercial sale and property data. Other sales sources are contacted such as the brokers involved in the sale, property managers, commercial real estate vendors, the Texas State Comptrollers Property Tax Division and other knowledgeable parties. The commercial appraisal staff attempts to confirm and verify data from secondary sources. Unlike the majority of states, Texas laws do not require mandatory disclosure of sale prices. BCAD Commercial sales data is provided by voluntary disclosure or purchased from third party vendors.

## **Valuation Approach**

The commercial appraisal system, developed and maintained in PACS, consists of mass appraisal applications of the sales comparison, cost, and income approaches to value. Each approach to value represents a specific model or formula that defines property characteristics and their relationships in an effort to arrive at an indication of market value for a given property.

## **Cost Approach**

The very basic valuation model is

$$\text{Market Value} = \text{Land Value Plus Improvement Value.}$$

This model represents the formula for the cost approach to value. The formula for a cost driven valuation model begins with an estimate of replacement cost new (RCN) for all improvements (buildings, fencing, paving etc.) on a parcel of land. Three forms of depreciation are considered and subtracted from the RCN to result in an estimate of value for the improved portion of the real estate. The sales comparison approach is typically the most reliable method to value the underlying land. An overall value is then computed by adding the depreciated value of the improvements to the value of the land.

## **Improvement Valuation**

Cost model specification involves categorizing or grouping commercial improvements by construction type or use. For each building class, key characteristics are used to describe a typical or benchmark property. The characteristics include construction quality, interior, flooring, roof type, roof materials, heating/cooling, exterior, foundation, story height, electrical, and number of stories.

Other key data necessary for cost valuation includes gross building area, year built and effective year of construction, percent and quality of finish-out, percent of completion, and property condition. A base cost rate is associated with each commercial building class. An improvement value or replacement cost is then computed by multiplying the base rate times the structures gross building area. An improvement can have more than one building class.

The total improvement value for an account represents the sum of the depreciated improvement value of all taxable improvements plus any value for the additional site improvements associated with the account.

## Depreciation

Accrued depreciation is the sum of all forms of loss affecting the contributory value of the improvements. It is the measured loss against replacement cost new taken from all forms of physical deterioration, functional and economic obsolescence. Accrued depreciation is estimated and developed based on losses typical for each property type at that specific age. Physical depreciation is expressed as a percentage that is computed and subtracted from estimated replacement cost value. This percentage rate is extracted from Marshall and Swift depreciation tables and is dependent on the class, condition, effective age and economic life of each improvement. Individual determinations are made for functional and economic depreciation rates based on property specific conditions. The sum of the three rates is utilized in the PACS application to compute a depreciated improvement value.

## Land Valuation

On an annual basis, commercial land values are analyzed to compare appraised values with recent sale prices in each designated land market area. The definition of a land market area is a geographic or economic locality comprised of commercial properties with both complimentary and competing land uses. The land valuation team collects land characteristic data to determine land values.

During the land reappraisal, the appraisers review sales to develop or adjust base land rates on per acre or per square footage basis. A land base rate represents the unit value for a "benchmark" land parcel whose property characteristics are described by a particular size, use, shape, zoning, topography, location, and other characteristics. Properties within a competing area that differ from the benchmark will be valued using the base rate and then adjusted for those characteristics that differ from the benchmark property. Percentage based adjustment factors and adjustment reason codes are applied on individual properties based on corner influence, depth and shape of site, easements across site, visibility, and other factors that may influence value.

The land value for each account is computed by multiplying the land size by the adjusted land rate. The depreciated improvement value is added to the land value to compute a total cost approach value at the account level.

## Sales Comparison 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 for estimating land value and also in comparing sales of similarly improved properties to parcels on the appraisal roll. Sales of similarly improved properties can also 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 appraised values.

The formula for the sales comparison approach is

$$\text{Market Value} = \text{Sale Price of Comparable Properties adjusted for differences} \\ \text{between the comparables and the subject.}$$

In this model, market value is a total amount without a separation for improvement and land values. Commercial sales modeling begins by processing and storing physical and financial data for each commercial sales transaction. This information is necessary to determine comparability and adjustments factors. The sales comparison approach requires an adequate amount of sales data to be accurate. Some commercial property categories cannot be valued with this technique because of a limited amount of verifiable sales data.

Commercial mass appraisal using sales is specified or defined based on several standardized property characteristics or comparison fields. Sales within a neighborhood are used to more accurately define market value for that specific type of property. For commercial properties valued using the Market or Sales method a sales ratio report is conducted by neighborhood and property type in PACS. The sales ratio report allows the commercial appraiser to determine the market adjustment necessary by calculating the mean for sales during a given time frame.

Before the market adjustments are defined in PACS, the appraisers study and analyze the sales in each market segment. This market analysis aids in revealing patterns in value that vary due to location, size, age, etc. The appraiser then determines what market areas have enough credible sales data to make market adjustments based on sales.

## **Income Approach**

The income approach to value is applied 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 basic formula for the income approach is

$$\text{Market Value} = \text{Net Operating Income Divided By Overall Cap Rate.}$$

This is also known as "Direct Capitalization", which is a generally accepted appraisal technique used to convert one year's stabilized income into an indication of market value. The PACS income approach module provides the mechanism to capture and specify a property's income characteristics for three levels or variable situations known as "Pro Forma", "Direct Cap" (actual) and "Schedule" (market). The income formula is the same for each income variable but the data used to populate each situation may differ. A thorough analysis of actual market data is performed by the commercial appraisal team. This actual market data is then used to populate the schedules. The "Direct Cap" allows the appraiser to use actual income characteristics that are property specific to create an income model individual to the property

Some of the key model fields in the income approach formula include gross potential income, economic vacancy, secondary income, total operating expenses, net operating income and capitalization rate.

The income approach formula is generally expressed the following way. A brief definition of each component of the formula is listed below.

**Potential Gross Rent**  
**Minus**  
**Vacancy & Collection Loss**  
**Equals**  
**Effective Gross Rent**  
**Plus**  
**Secondary Income**  
**Equals**  
**Effective Gross Income**  
**Minus**  
**Operating Expenses**  
**Equals Net Operating Income**  
**Then Net Operating Income/Overall Cap Rate = Value**

Potential Gross Rent (PGR) - Total economic or market rent at 100% occupancy; usually expressed as an annual amount on a per square foot or per unit basis.

Vacancy and Collection (V&C) - Loss in rental income because of economic vacancy, bad debt or economic rental concessions; often expressed as a percent of PGR; based on market cycles and

trends.

Effective Gross Rent (EGR) - Rental income after subtracting vacancy & rental loss from potential gross rent.

Secondary or Other Income - Income, other than rent, that is received from concessions; laundry rooms, parking, storage area rental, electronic communication roof space rental, and other sources related to ordinary operation of a property. Can be expressed as a percentage of PGR or EGR or dollar amount per unit of measure.

Effective Gross Income - Amount of actual income received from rent and secondary sources.

Operating Expenses - Expenses necessary to maintain a cash flow from the real property (not from the business). Typical expenses include management, utilities, property insurance, property taxes, repairs and maintenance, etc. This dollar amount can also be expressed as a percentage or ratio that represents total expenses divided by effective gross income.

Net Operating Income (NOI) - Income remaining after subtracting operating expenses from Effective Gross Income. This amount is income before debt service, property depreciation, personal income taxes, amortization, or interest payments.

Overall Capitalization Rate (OAR) - Rate used to convert income into value. An overall rate represents the requirements of discount (return), recapture and effective tax rates for the whole property. This is expressed as cap rate plus tax rate. If the tax rate is "loaded" into the cap rate, then the amount of real estate taxes is removed as an expense item.

Actual income data is property specific, but income characteristics derived from these "actuals" are generally representative of typical, market-based characteristics for similar income-producing properties. Standardized or "default income models" can be developed by grouping these actual income comparables based on specific comparison or search criteria under "Pro Forma" in the Income model. The groupings provide a results set of income parameters that can be reviewed and analyzed. The income parameters that can be reviewed include potential gross rent per square foot, economic vacancy percent, other income per square foot, and expenses per square foot.

There are numerous income NBHD and Class group comparables. The appraiser uses specified criteria as a means of stratifying or grouping properties in the Income model by class, age, size, location and other key attributes that influence income characteristics. The BCAD commercial staff strives to develop a schedule Income model for every improved category that has an adequate amount of income data. The schedule models are then utilized in the mass appraisal of properties with the same NBHD/econ area and Class.

## **Valuation Process**

Valuation involves the process of estimating and periodically adjusting the mass appraisal formulas, tables, and schedules to reflect current local market conditions. Three valuation models are utilized in the mass appraisal process; cost, income and sales comparison models. These are represented as separate options for commercial valuation in PACS. PACS software is developed to create valuation models specified according to appropriate Uniform Standards of Professional Appraisal Practices and International Association of Assessing Officers mass appraisal standards and techniques. On an annual basis, adjustments or calibrations are made to reflect local market trends, new construction procedures, materials and/or costs, new improved market area delineations, current sale and market income factors and market capitalization rates, which can vary from year to year. The basic structure of the overall mass appraisal model can be valid over an extended period of time, with recalibration or trending factors utilized for updating the data to the current market conditions.

## **Cost & Depreciation Schedules**

The cost approach to value is applied to all improved real property utilizing the comparative unit or square foot method to determine replacement cost new. Replacement cost new should include all direct and indirect costs, including materials, labor, supervision, architect and legal fees, overhead and a reasonable profit. Development of a comparative cost unit for each building class involves the utilization of national cost data reporting services as well as consideration of actual cost information on comparable properties. A base cost rate has been developed for each building class and represents the replacement cost per unit for a benchmark property for each class. Date and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, location modifiers are necessary to adjust these base costs specifically for Brazos County. The national cost services provide these modifiers.

Additional cost modifiers for each building class have been developed to adjust individual properties for construction components that differ from the base property. Modifiers have been developed for wall height, story height, foundation type, heat/AC type, percentage of finished-out area, and lack of typical property amenities. BCAD's method of establishing a base cost per unit and adjusting with modifiers is called a Formula-driven cost model and provides an easy mechanism to adjust periodically.

Recent economic news has indicated that the cost of construction materials have risen substantially over the last few years. Some of this increase is a result of hurricane related conditions and increasing prices for oil and natural gas. A thorough review of BCAD's commercial base cost rates is conducted each year. Marshall and Swift Valuation service provides cost-trend factors for indexing existing costs as well as formula driven cost calculations. This data is reconciled with actual cost data provided by local property developers to determine which cost rates require adjustments.

Accrued depreciation is estimated and developed based on losses typical for each property type at that specific age. Physical depreciation is the loss in value due to wear and tear and exposure to natural forces. Standardized physical depreciation tables have been developed based on physical condition and the building life expectancy. These schedules are reviewed periodically to ensure they are reflective of current market conditions. The actual and effective age of all improvements are noted in PACS. 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. In addition to age, physical depreciation is also based on five condition ratings: salvage, low, average, good and excellent, that relate to the level of property maintenance.

A depreciation calculation override can be used if the condition or effective age of a property varies from the standard. These adjustments are typically applied to a specific property in the form of physical adjustment, economic adjustment or functional adjustment.

## **Final Valuation Summary and Reconciliation**

Based on the market data analysis and the methodology described in the cost, income and sales approaches values are determined by the appraiser for each commercial property. The cost approach mass appraisal model is applied to every improved property. The final valuation is applied using the sales comparison and income approaches, depending on the property type and availability of data.

## **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 calculated for each property type with available sales data. These summary statistics including, but not limited to, the weighted mean provide the appraisers an analytical tool by which they determine both the level and uniformity of appraised values 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 values.

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. Appraisers, based on the sales ratio statistics and designated parameters for valuation update, make 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 ratio 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. Income model estimates and conclusions are compared to actual information obtained on individual commercial properties during the appeal and protest hearings process, as well as with information received from published sources and area property managers and owners.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Field Review**

The date of last inspection, comments of that inspection, and the BCAD appraiser responsible are listed in the PACS system. If a property owner disputes the District's records concerning this data in a protest hearing, PACS data may be altered based on the credibility of the evidence provided. Sometimes a new field inspection is then required to verify this information for the current or for the next year's valuation. In addition, if a building permit is issued for a particular property indicating a change in characteristics, that property is added to a work file for review and field inspection.

An effort is made by appraisers to field review 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 on as many properties as time and resources allow. Additionally, the appraisers' field reviews subjective data items such as building class, quality of construction, 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. While in the field, the appraisers make an effort to inspect sold and unsold properties for comparability and consistency of values.

### **Office Review**

Office reviews are completed, as authorized by the International Association of Assessing Officers standards, on properties subject to field inspections and are performed in compliance with the guidelines required by the existing classification system. Office reviews are typically limited by the available market data presented for final value analysis. The appraisers may utilize aerial photography as a means to verify building characteristics and location without an on-site field inspection. These reviews summarize the pertinent data of each property as well as comparing the previous value to the proposed value conclusions of the various approaches to value. These evaluations and reviews show proposed value changes; income model attributes or overrides, economic factor (cost overrides) and special factors affecting the property valuation

such as new construction status, and a three years sales history. The three-year sales history is required by the Uniform Standards of Property Appraisal Practices (USPAP) 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 from protest hearings can be 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 and manager are satisfied with the level and uniformity of value for each commercial property within the appraiser's area of responsibility, the estimates of value are prepared to send a notice of proposed appraised value. Each parcel is subjected to the value parameters appropriate for its use type.

## **PERFORMANCE TESTS**

### **Sales Ratio Studies**

The primary tool to measure appraisal performance is a ratio study. A ratio study compares appraised values to market values. Sales ratio studies are an integral part of estimating equitable and accurate market values, and ultimately property assessments for the taxing jurisdictions. 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 estimate appraised values during valuation or reappraisal cycles.

Brazos Central Appraisal District has adopted the policies of the International Association of Assessing Officers 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 (6) evaluation and application of the results.

On an annual basis, appraisal managers analyze the results of the previous years Property Value Study that is conducted by the Property Tax Division of the State Comptroller's Office. Commercial Research also produces internal ratio reports at various times during the annual appraisal cycle.

### **Comparative Appraisal Analysis**

The commercial appraiser performs an average unit value comparison in addition to a traditional Ratio study. These studies are performed on commercially classified properties by property use type (such as apartment, office, retail and warehouse or special use). The objective to this evaluation is to determine appraisal performance of sold and unsold properties. Appraisers compute the average unit prices of sold properties and the average unit appraised values of the same parcels to develop a comparison of average value changes of sold and unsold properties. These studies are conducted on substrata such as building class and on properties located within various economic areas. In this way, overall appraisal performance is evaluated geographically, by specific property type to discern whether sold parcels have been selectively appraised. When sold parcels and unsold parcels are appraised equally, the average unit values are similar. These sales and equity studies are performed prior to final appraisal and generation of notices of proposed appraised values.

# **Business Personal Property Valuation Process**

## **APPRAISAL RESPONSIBILITY**

Brazos Central Appraisal District appraises four different types of property: Business Personal Property accounts; leased assets; vehicles and aircraft; and multi-location assets.

- **Personnel** - The personal property staff consists of 2 appraisers and 1 director.
- **Data** - A common set of data characteristics for each personal property account in Brazos County is collected in the field. The personal property appraisers collect the field data and maintain electronic property files making updates and changes gathered from field inspections, assumed name certificates, newspapers, property renditions, sales tax permit listing and interviews with property owners.

## **VALUATION APPROACH**

### **SIC Code Analysis**

Brazos Central Appraisal District classifies business personal property using a four digit code called a Standard Industrial Classification Code (SIC) developed by the federal government to describe property by business type.

SIC code identification and delineation is the cornerstone of the personal property valuation system at the district. All of the personal property analysis work done in association with the personal property valuation process is SIC code specific. SIC codes are delineated based on observable aspects of homogeneity and business use.

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

The highest and best use of property is the reasonable and probable use that supports the greatest income and 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**

### **Data Collection Procedures**

Personal property data collection procedures are developed by Brazos CAD staff and are reviewed and revised to meet the changing requirements of field data collection on a yearly basis.

### **Sources of Data**

The district's business personal property characteristic data is collected through yearly field data collection efforts. From year to year, reevaluation activities permit district appraisers to collect new data through an annual field inspection. This project results in the discovery of new businesses, changes in ownership, relocation of businesses, and closures of 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 Brazos Central Appraisal District with a listing of vehicles within the County. The vendor develops this listing from the Texas Department of Transportation (TxDOT) Title and Registration Division records. Other sources of data include property owner renditions and field inspections.
- **Leased and Multi-Location Assets** - The primary source of leased and multi-location assets is property rendition forms. Other sources of data include field inspections.

## VALUATION AND STATISTICAL ANALYSIS

### *Statistical Analysis*

Property values are reviewed by SIC code classification to ensure an equitable level of uniformity.

### **Depreciation Schedule**

The percent good depreciation factors used by Brazos CAD are based on published valuation guides by Marshall & Swift.

#### **MARKET VALUE ESTIMATE = PERCENT GOOD FACTOR x HISTORICAL COST**

This mass appraisal schedule is used to ensure that estimated values are uniform and consistent within the market and reflect current economic pressures of supply and demand.

**Vehicles** - Value estimates for vehicles are provided by an outside vendor and are based on NADA published book values, and there are also considerations available for high mileage. 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 depreciation schedule mentioned above. If the asset to be valued in this category is a vehicle, then NADA published book values are used.

**Special Inventory** - The Texas Property Tax Code provides a specific methodology for valuing this category of property. Valuation is based upon the annual declaration filed by the property owner indicating the previous year's Texas sales (used as the numerator) and divided by a factor of 12 (the denominator). This establishes a monthly basis consistent with the owner's tax payment requirements. In the absence of an annual declaration, similar businesses that have filed declarations are identified and compared, with appropriate adjustments, to the subject property to establish an estimated market value.

**Commercial Aircraft** – Section 21.05 of the Texas Property Tax Code provides for specific methodology for valuing commercial aircraft:

If a commercial aircraft that is taxable by a taxing unit is used both in this state and outside this state, the appraisal office shall allocate to this state the portion of the fair market value of the aircraft that fairly reflects its use in this state. The appraisal office shall not allocate to this state the portion of the total market value of the aircraft that fairly reflects its use beyond the boundaries of this state. The allocable portion of the total fair market value of a commercial aircraft that is taxable in this state is presumed to be the fair market value of the aircraft multiplied by a fraction, the numerator of which is the product of 1.5 and the number of revenue departures by the aircraft from Texas during the year preceding the tax year, and the denominator of which is the greater of (1) 8,760, or (2) the numerator.

## **INDIVIDUAL VALUE REVIEW PROCEDURES**

### **Office Review**

Prior to mailing Business Personal Property notices the staff reviews all accounts by SIC code to ensure accurate and equitable values have been established. Any properties that fall outside the acceptable value range for that property type are further reviewed to determine if valid reason exists for the discrepancy. If no valid reason is found the appraiser will value the property in line with similar property types and the notice is mailed

## **PERFORMANCE TESTS**

### **Ratio Studies**

Every other year the Property Tax Assistance Division of the state comptroller's office conducts a property value study (PVS). The PVS is a ratio study used to gauge appraisal district performance. Results from the PVS play a part in school funding. Rather than a sales ratio study, the personal property PVS is a ratio study using state cost and depreciation schedules to develop comparative personal property values. These values are then compared to Brazos CAD's personal property values and ratios are indicated.

Beginning in 2010, in alternating years the Property Tax Assistance Division of the state comptroller's office began conducting a MAPS Review to ensure CAD governance, taxpayer assistance, operating standards and appraisal standards, procedures and methodology are in place.

## **Mineral Valuation Process (Capitol Appraisal Group)**

Minerals-in-place (oil and gas reserves) are real property. Appraisal of minerals, oil and gas reserves, is based on estimating the present value of the economically recoverable reserves of oil and gas. Mineral rights are property rights and may be separable property interests from the land surface property rights. Oil and gas reserves lying under the surface and waiting to be produced are a tangible asset and are appraised as such for ad valorem taxation purposes. The valuation of minerals-in-place is based on estimating the discounted net present value of the oil and gas production over the economic life of the individual lease. Basically, this method of valuation is an income approach using discounted cash flow analysis methodology. Oil and gas properties are also marketed based on proven reserves, and the considered units of comparison in this market are barrels of oil or cubic feet of natural gas. The market approach is based on sales of property where the determining valuation factor is the quantity of proven reserves.

Mineral interests are commonly divided into property ownership interests known as working interests and royalty interests. The valuation of the individual ownership interests begins with the valuation of the mineral lease as a whole. This value is then apportioned to the individual owners according to legal arrangements outlined in the division of interest order for each lease. It is the goal and purpose of the CAD to identify and maintain accurate and current records on every producing mineral property interest within the district, and estimate the market value of each property interest listed on the tax roll.

## Appraisal Resources

- **Personnel** - The mineral property staff consists of one appraiser and one support staff member. Minerals are valued in Brazos County by Capitol Appraisal Group. Values are delivered and entered into the PACS appraisal system electronically and reviewed by the staff appraiser for accuracy. All ownership data is maintained and entered by the staff exemptions specialist.
- **Data** - Capitol Appraisal Group collects a common set of data characteristics for each mineral property account in Brazos County from the Texas Railroad Commission records. Railroad Commission records are searched to discover new leases as of January 1 of the current tax year, and legal descriptions are researched to determine the location of the new leases within the Brazos CAD jurisdictional boundaries. Records are also reviewed for changes in production for existing wells and for abandoned wells with salvage value for equipment, tanks, and tubular goods. Production history for each mineral lease is gathered from the Texas Railroad Commission. Actual current and historical product prices for each individual lease are gathered from the Texas Comptroller's Office. Division of interest orders on each lease are requested annually from lease operators and product gatherers and checked against the appraisal roll for accuracy of owner name, address, and ownership interest percentage.

The appraisal of minerals-in-place utilizes the discounted cash flow method, which arrives at the net present value of the economically recoverable reserves. Current interest rates, market rates of return, and levels of discounting the investment are factors to consider when evaluating the returns necessary to attract investment capital for this type of property. Capitalization rates are estimated based on data from the general market for oil and gas properties.

## VALUATION AND STATISTICAL ANALYSIS

### Pricing, Operating Expenses and Reserve Analysis

Crude oil and natural gas prices are important determinants in the valuation of mineral properties. Current prices and estimated price trends help determine income to the lease and are significant factors in establishing the economic life of the lease. Crude oil and natural gas prices used in the first year of analysis for each individual lease are based on the previous year's average price for that individual lease as per Texas Property Tax Code (Sec. 23.175). Product prices from all active leases in the area are analyzed to arrive at the estimated average price that is used in the absence of specific pricing data on an individual lease.

Lease operating expenses are estimated based on rendered information and actual operating cost and expense from surveys of lease operators in Brazos County. Current operating income and expenses for the lease are considered and estimated in a discounted cash flow model to allow the appraiser to evaluate and estimate the net present value of producing oil and gas from the lease. Capitalization rates and discounting return rates are estimated for each lease based upon the particular risks inherent with production of oil and gas from that property. These risks may vary considerably from one lease to another depending on several factors influencing the production, expenses or pricing from that particular lease. The discounted cash flow model method allows Capitol Appraisal to evaluate current market value of the lease based on the estimated recoverable reserves. This methodology is approved and recommended by the Property Tax Division of the Comptroller's Office and is a recognized method of appraisal by industry standards.

## Exemptions

The Brazos Central Appraisal District sends all new residential properties an exemption form with the 25.19 notice. If an existing property that was receiving a homestead, over 65 or a DVHS changes ownership the exemptions are reset by PACS to come off at the end of the year. If the mailing address changes during the year a prop code CAC (check address change) is added to the account. The exemptions specialist reviews these accounts throughout the year and changes the prop code to either EXL-ADDRESS or EXL-MISC. EXL-ADDRESS code is for accounts with mismatched addresses and generates a letter asking for an updated exemption form and a written explanation of why the mailing address is different from the situs address. EXL-ADDRESS generates a new homestead application sent to accounts that were flagged by staff as appearing to have changed to a non qualifying use. These update requests are processed in December of each year. Marriage status changes and properties that move into a trust are sent update request letters as the status changes.

### STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

Mark Price RPA	Administration
Dana Horton RPA	Administration
Scott Warren RPA	Commercial Appraisal
Don Barnett RPA	Personal Property Appraisal
Mary Stephens RPA	Land/Minerals
Peggy Hardy	Exemptions/Minerals
Gail Palasota	Appraisal Review Board Support

## LIMITING CONDITIONS

1. The appraisals were prepared exclusively for ad valorem tax purposes.
2. The property characteristic data 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. Some interior inspections of property appraised were performed at the request of the property owner and required by the district for clarification purposes and to correct property descriptions.
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 sales data obtained from vendors was considered reliable.
4. I have attached a list of staff providing significant mass appraisal assistance to the person signing this certification.

### **Certification Statement:**

"I, Mark W. Price, Chief Appraiser for the Brazos Central Appraisal District, solemnly swear that I will make or caused to be made a diligent inquiry to ascertain all property in the district subject to appraisal by me, and that I will include in the records all property that I am aware of at an appraised value which, to the best of my knowledge and belief, is determined as required by law."



Mark W. Price  
Chief Appraiser

**Brazos Central Appraisal District**  
1673 Briarcrest Dr., Suite A-101  
Bryan, Texas 77802  
Telephone: (409) 774-4100  
Facsimile: (409) 774-4196



**Mark W. Price**  
Chief Appraiser

**A RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE BRAZOS CENTRAL APPRAISAL DISTRICT  
TO ADOPT THE 2015-2016 REAPPRAISAL PLAN**

**Whereas, Section 6.05(i) of the Texas Property Tax Code requires the board of directors of an appraisal district to develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18.**

**Whereas, Section 6.05(i) requires the board of directors to hold a public hearing to consider the reappraisal plan and to notify the presiding officer of the governing body of each taxing unit participating in the district of the date, time and location of the hearing.**

**Whereas, Section 6.05(i) requires to board of directors to complete its hearings, make any amendments to the reappraisal plan and by resolution, approve the plan.**

**Whereas, the Chief Appraiser and the Board of Directors have prepared the 2015 - 2016 biennial reappraisal plan, have duly notified all concerned parties and have concluded the required public hearing.**

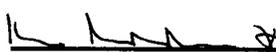
**Therefore, be it resolved by the Board of Directors of the Brazos Central Appraisal District that the Board of Directors of the Brazos Central Appraisal District hereby adopts the 2015 – 2016 biennial reappraisal plan.**

**This resolution is effective immediately upon adoption.**

**Approved and adopted by the Board of Directors of the Brazos Central Appraisal District, Bryan, Texas on this 24<sup>th</sup> day of July 2014.**

**ATTEST:**

  
\_\_\_\_\_  
**Mr. Bill Lero, Chairman**

  
\_\_\_\_\_  
**Mr. Ken Medders Jr., Secretary**