2020 Mass Appraisal Report

Bandera Central Appraisal District
1206 Main Street – P.O. Box 1119
Bandera, TX 78003
(830) 796-3039
www.bancad.org

Bandera Central Appraisal District
2020 Mass Appraisal Report

INTRODUCTION

Scope of Responsibility

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

The Bandera Central Appraisal District (Bandera CAD) 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 five (5) member board of directors, appointed by the taxing units within the boundaries of Bandera County, and the Tax Assessor/Collector (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.

The appraisal district is responsible for local property tax appraisal and exemption administration for 9 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. Appraisals established by the appraisal district allocate the year's tax burden on the basis of each taxable property's January 1st market value. The appraisal district also determines eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

Except as otherwise provided by the Property Tax Code, the fee simple interest of all taxable property is appraised at its "market value" as of January 1st. 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 Property Tax Code defines special appraisal provisions for the valuation of residential homestead property (Sec. 23.23), productivity (Sec. 23.41), real property inventory (Sec. 23.12), dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), nominal (Sec. 23.18) or restricted use properties (Sec. 23.83) and allocation of interstate property (Sec. 23.03). The owner of business personal property inventory may elect to have the inventory appraised at its market value as of September 1st of the year preceding the tax year to which the appraisal applies by filing an application with the chief appraiser requesting that the inventory be appraised as of September 1st.

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. The district's current policy is to conduct a general reappraisal of all property every year. Appraised values are reviewed annually and are subject to change for purposes of equalization. The full scope of work performed can be viewed in the Bandera Central Appraisal District's 2019-2020, Two Year Reappraisal Plan which was approved by the Bandera Central Appraisal District's Board of Directors.

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

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

The appraisal district staff is responsible for developing the 2020 appraisal roll consisted of 9 full-time employees with the following classifications:

- _1_ - Official/Administrator (executive level administration)
- _2_ - Professional (supervisory and management)
- _5_ - Technicians (appraisers, program appraisers and network support)
- _1_ - Administrative Support (professional, customer service, clerical and other)

Data

The district is responsible for establishing and maintaining approximately 35,232 real and personal property accounts covering 798 square miles within Bandera County. This data includes property characteristics including ownership and exemption information. The data specific to each parcel would include, but not be limited to legal descriptions, addresses, parcel identifiers, photos and building sketches. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review that is prioritized by last field inspection date. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyer and seller, university research centers, and market data centers and vendors.

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

Information Systems

The Chief Appraiser maintains the Bandera CAD data processing facility, software applications, internet website, and geographical information system. The district's computer assisted mass appraisal (CAMA) software is provided by Harris Govern. The Bandera CAD utilizes an assortment of Dell desktops/laptops and Apple iPads. Data is regularly backed up by an in-house server as well as backed up at a secure offsite location. The Bandera CAD also utilizes Eagleview and Google Earth for aerial imagery.

SHARED APPRAISAL DISTRICT BOUNDARIES

The district established procedures whereby ownership and property data information are routinely exchanged. Appraisers from adjacent appraisal districts discuss data collection and valuation issues to minimize the possibility of differences in property characteristics, legal descriptions, and other administrative data.

INDEPENDENT PERFORMANCE TESTS

According to Chapter 5 of the TPTC, "At least once every two years, the Comptroller shall conduct a study in each appraisal district to determine the degree of uniformity of and the median level of appraisals by the appraisal district within each major category of property. The comptroller shall publish a report of the findings of the study, including in the report the median levels of appraisal for each major category of property, the coefficient of dispersion around the median level of appraisal for each major category of property and any other standard statistical measures that the comptroller considers appropriate." There are 4 independent school districts in Bandera County for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisement. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisement. This outside (third party) ratio study provides additional assistance to the appraisal district in determining areas of market activity or changing market conditions.

In addition to this there is an additional study performed at least every two years referred to as the "MAPS" review. Section 5.102 refers to this review as "At least once every two years, the comptroller shall review the governance of each appraisal district, taxpayer assistance provided, and the operating and appraisal standards, procedures, and methodology used by each appraisal district, to determine compliance with generally accepted standards, procedures, and methodology.

Appraisal Activities

INTRODUCTION

Appraisal Responsibilities

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

Appraisal Resources

- Personnel - The appraisal activities for 2020 consisted of 7 appraisers and support staff.
- Data - The data used by field appraisers includes the existing property characteristic information contained in the district's CAMA system. The data can be printed on property record cards, personal property data sheets or accessed on an iPad or other portable device. Other data used includes maps, sales data, fire and damage reports, building permits, photos and actual cost information.

PRELIMINARY ANALYSIS

Data Collection / Validation

Data collection of real property involves maintaining data characteristics of the property on PACS (Property Appraisal and Collections System), which is a computer mass appraisal system. The information contained in PACS includes site characteristics, such as land size and topography, and improvement data, such as square footage of living area, year built, quality of construction, and condition. Field appraisers use appraisal manuals that establish uniform procedures for the correct listing of real property. All properties are coded according to these manuals and the approaches to value are structured and calibrated based on this coding system. The field appraisers use these manuals during their initial training and as a guide in the field inspection of properties.

Data collection for personal property involves maintaining data information on PACS. The type of information contained in PACS includes personal property, such as business inventory, furniture and fixtures, machinery and equipment, cost and location. The field appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

The appraisal procedures utilized by appraisers are incorporated into the appropriate appraiser manuals and are available in the district office. The district periodically updates the appraisal manuals as procedures are changed or modified. Copies of an appraisal manual can be obtained through and open records request filed with the Bandera CAD.

Sources of Data

Data is collected through the discovery and inspection of new construction, inspection and review of current properties, income and sales surveys, permit applications, protest meetings and hearings, newspapers, websites and publications, and property owner correspondence.

Appraisers drive entire neighborhoods to review the accuracy of the district's data and identify properties for reappraisal. Surveys from buyers and sellers and data from third party sources are collected to verify the accuracy of the property characteristics and confirm the sale price. Recently sold property may also be inspected by an appraiser to verify the accuracy of the property's current characteristics.

Property owners are one of the best sources for identifying incorrect data that generates an inspection. Frequently, the property owner provides sufficient enough data to allow correction of records without having to inspect the property. As the district has increased the amount of information available on the internet, property owner's requests to correct data inconsistencies have also increased. For the property owner without access to the internet, letters are often submitted notifying the district of inaccurate data. Properties identified in this manner are added to a work file and inspected at our earliest opportunity.

Data Collection Procedures

Field data collection requires organization, planning and supervision. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout Bandera County to conduct field inspections. Appraisers conduct field inspections and record information either on a property record card (PRD), a personal property data sheet or into a portable electronic device, such as an iPad, that will be uploaded into PACS.

The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection set forth in the appraisal manual as

"rules" to follow. Experienced appraisers routinely receive continued training in appraisal procedures prior to major field projects such as new construction, sales validation or data review. A quality control process exists through supervisory review of the work being performed by appraisers. Supervisors are charged with the responsibility of ensuring that appraisers follow proper procedures, identify training issues and provide uniform training throughout the appraisal staff.

Data Maintenance

The appraiser is responsible for the data entry of their fieldwork. This responsibility includes not only data entry entered by the appraiser, but also review of any data entered by the clerical staff.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of last inspection, extent of that inspection, and the appraiser responsible are recorded in the CAMA system. If a property owner or jurisdiction dispute the district's records, they may be altered based on the evidence provided. Typically, an inspection is conducted to verify any evidence. Every year inspections are conducted for the designated area in accordance with the Bandera Central Appraisal District Reappraisal Plan.

Office Review

Office reviews are completed on properties where information has been received from the owner of the property. Even though information is provided by the owner in office, an aerial imagery review or field inspection may also be conducted.

PERFORMANCE TEST

The valuation appraisers are responsible for conducting ratio studies and comparative analysis.
Appraisers may conduct field inspections to ensure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

Residential Valuation Process

INTRODUCTION

Scope of Responsibility

The residential appraisers are responsible for developing equal and uniform market values for residential improved and vacant property. There are approximately 8,917 residential improved parcels and 10,673 vacant residential properties in Bandera County.

Appraisal Resources

• Personnel - The residential appraisal staff for 2020 consisted of 6 appraisers. The following appraisers are responsible for determining the residential values:

> Shawn Davis
> Maria Garcia
> Cameron Rambin
> Tony Boyd
> Josh Ryan
> Rachel Cortinas

• Data - A common set of data characteristics for each residential dwelling in Bandera County is collected during inspection and the data is entered into PACS. This data is used by the CAMA system approach to valuation.

VALUATION APPROACH (Model Specification)

Area Analysis

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

Neighborhood and Market Analysis

Neighborhood analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis is conducted on each of the political entities known as Independent School Districts (ISD).

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

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

Highest and Best Use Analysis
The highest and best use of property is the reasonable and probable use that supports the

highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of residential property is normally its current use. This is due in part to the fact that residential development, in many areas, through use of deed restrictions and zoning, precludes other land uses. Residential valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the appraiser reviews the existing residential property use and makes a determination regarding highest and best use. Once the conclusion is made that the highest and best use remains residential, further highest and best use analysis is done to decide the type of residential use on a neighborhood basis. As an example, it may be determined in a transition area that older, non-remodeled homes are economic mis-improvements, and the highest and best use of such property is the construction of new dwellings. In areas of mixed residential and commercial use, the appraiser reviews properties in these areas on a periodic basis to determine if changes in the real estate market require reassessment of the highest and best use of a select population of properties. According to Section 23.10 c2 of the Texas Property Tax Code "The market value of a residence homestead shall be determined solely on the basis of the property's value as a residence homestead, regardless of whether the residential use of the property by the owner is considered to be the highest and best value of the property. A valuation under this jurisdictional exception might have a significant effect of the valuation.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

All residential parcels in the district are valued from identical cost schedules using a comparative unit method. The district's residential cost schedules originate from a national costing service and have been modified to fit Bandera County's local residential building and labor market. The cost schedules are reviewed annually because of recent state legislation requiring that the appraisal district "clearly state the reason for any variation between generally accepted cost data and locally produced cost data if the data vary by more than 10%; and make available to the property owner on request all applicable market data that demonstrate the difference between the replacement cost of the improvements to the property and the depreciated value of the improvements." Copies of these resulting ratio reports are available upon request.

Sales Information

All sales collected are reviewed for accuracy and recorded in PACS to create a sales file. Residential improved and vacant sales are collected from a variety of sources, including district sales surveys sent to buyer and seller, protest hearings, third-party sale sources, builders, and realtors. A system of type, source, validity, and verification codes has been established to define salient facts related to a property's purchase or transfer.

Land Analysis

Land analysis is conducted by the Chief Appraiser. The sales data is analyzed and stored in tables within the CAMA system. Methods such as abstraction and allocation are used to determine contributory values for improved sales. The appraiser analyzes the market data to develop market areas. Data is selected and used to develop unit price land schedules which are assigned to each market area. These land schedules are designed to represent market influence and generally exhibit economy to scale. Computerized land tables store the land information required to consistently value individual parcels within market areas. Adjustments for specific land influences are used when necessary, to adjust parcels outside the market area's norm for such factors as view, shape, size, topography, and any other prevalent characteristics.

Statistical Analysis

Statistical analysis are performed annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on each of the defined neighborhoods to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each class and appropriate neighborhoods. These may be further stratified by class, size of living area, number of stories and other indicators of the market. These summary statistics including, but not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion, provide the appraisers a tool by which to determine both the level and uniformity of appraised value on a stratified neighborhood basis. The level of appraised values is determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood weighted means 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 stratified neighborhoods.

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

Market Adjustment or Trending Factors

Neighborhood, or market adjustment, factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market.

The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market influences not specified in the cost model.

The following equation denotes the hybrid model used:
$$MV = [LMA\ (LV)] + [IMA\ (RCN - D)]$$

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

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

TREATMENT OF RESIDENCE HOMESTEADS

Beginning in 1998, the State of Texas implemented a constitutional classification scheme concerning the appraisal of residential property that receives a residence homestead exemption. Under the new law, beginning in the second year a property receives a homestead exemption, increases in the value of that property are "capped." The value for tax purposes (appraised value) of a qualified residence homestead will be the LESSER of:
- the market value of the appraised value of the property for the most recent tax year that the market value was determined by the appraisal office: or
- the sum of:

a) 10 percent of the appraised value of the property for the preceding tax year;

b) the appraised value of the property for the preceding tax year; and

c) the market value of all new improvements to the property.

Values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the following year. An analogous provision applies to new homes. While a developer owns them, unoccupied residences are appraised as part of an inventory using the district's land value and the developer's construction costs as of the valuation date. Once these properties sale, they are treated similarly to other categories and the special valuation is removed.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

All appraisers have set regions of re-inspection. Annual re-inspections take place from August to April. Properties picked up during the year in early stages of construction are also coded for inspection at the end of the year to determine the percentage complete for the January 1 valuation date as prescribed by the Property Tax Code. During these inspections, the appraiser frequently reviews subjective data items such as quality of construction, condition, and physical, functional, and economic obsolescence, factors contributing significantly to the market value of the property. After preliminary estimates of value have been determined in targeted areas, the appraiser takes valuation documents to the field to test the computer-assisted values against his own appraisal judgment.

PERFORMANCE TESTS

Sales Ratio Studies

The district's ratio studies were designed and prepared, to the maximum extent possible, under the guidelines set forth in the International Association of Assessing Officers current "Standard on Ratio Studies". The ratio studies are calculated in order to evaluate the relationship between the appraisals and the sales prices as of the assessment date of January 1 and used to estimate the general level of appraisal and the uniformity of appraisal.

Sales Ratios derived from the previous year's certified numbers will be used along with verified sales gathered after the notices were mailed and local market modifiers will be developed to adjust the national costing tables to the Bandera County residential market.

In the spring of the tax year, just before the notices go out, ratio reports were developed on the neighborhood level. The period of sales used were from January 1 of the previous year thru April 1 of the current year. These were analyzed and adjustments were made to assure fair and equitable appraisal of all residential properties in a uniform manner.

All sales used were analyzed to ensure, to the extent possible, that only valid indicators of

market value were included. Examples of sales that were excluded are sales involving atypical financing, sales between relatives or corporate affiliates, estate sales, or sales under duress. Foreclosures are reviewed as to determine the condition of the improvements. Further information from the property owner may indicate that the foreclosure sales price is indicative of the market for a similar property in the same condition. If there is an area which has a significant number of foreclosures and it appears to set the tone for the market for that neighborhood, these prices are considered in the final market values for that neighborhood. This would be the case where foreclosures represent 50 percent or more of the sales and there are a significant number of sales for that neighborhood. Since Texas does not have mandatory sales disclosure, Bandera County Appraisal District does not have access to all property transactions, which limits the sales used to those acquired through a commercial vendor or submitted voluntarily by the property owners.

The median ratio for each residential class along with the ratio for the total residential sales file is an indicator of the level of appraisal for the population of single-family residences. The median is the preferred measure of central tendency because it gives equal weight to each ratio and is less affected by extreme ratios. The Coefficient of Dispersion (COD) is a measure of variability and generally the smaller the measure of variability, the better the uniformity. Trimming the sales for outliers is performed in a manner consistent with the appendix of the "Standard on Ratio Studies".

Management Review Process

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

Commercial Valuation Process

INTRODUCTION

Appraisal Responsibility

Eagle Appraisal & Consulting, Inc. is contracted by the Bandera CAD to develop fair, uniform market values for the commercial real property in Bandera County. Eagle Appraisal & Consulting, Inc. values approximately 582 commercial accounts for Bandera CAD.

Appraisal Resources

- Personnel – Bandera CAD contract with to value commercial real property for which the district does not have the available personnel or resources. The responsibilities are categorized according to major property types of multi- family or apartments, office, retail, warehouse and special use (i.e. hotels, hospitals and, nursing homes).
- Data – The contract appraisal staff inspect their assigned properties to obtain information about buildings and site improvements.

Area Analysis

Data on regional economic forces such as demographic patterns, regional locational factors, employment and income patterns, general trends in real property prices and rents, interest rate trends, availability of vacant land, and construction trends and costs are collected from private vendors and public sources; for example, continuing education in the form of International Association of Assessing Officers (IAAO), Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD) and Texas Department of Licensing and Regulation (TDLR) approved courses.

The scope of market forces affecting commercial products and the capital goods used in the production process tends to extend beyond regional considerations. The effects of information and transportation technology are such that most industrial market forces are measured globally.

Highest and Best Use Analysis

The highest and best use of real property is the most reasonable and probable use of the property on the date of appraisal that is physically and financially feasible, legal, and that derives maximum production from the property.

DATA COLLECTION/VALIDATION

Data Collection Manuals

An extended range of variations may exist within the same class of commercial property, and

there are a multitude of property types within the commercial category. For this reason, effective data collection procedures would be very difficult to organize in a single comprehensive manual. The district has adopted the Marshall & Swift Commercial Cost guide and its occupancy codes to standardize data and its collection for buildings assigned to the commercial appraisal staff.

Sources of Data

The original property data used by Bandera CAD was supplied by the Bandera County Tax Assessor. Since that time, contract appraisal personnel have updated that information based on field review. As new facilities are built, the personnel collect all the real property data necessary to value the property initially and thereafter update the information when the property is again visited.

Data Collection Procedures

The appraisal personnel annually or periodically visit assigned plants. The frequency of the visit is determined by the nature of the business conducted at each facility.

VALUATION

Final Valuation Procedures

The contract appraisers furnish the district with their list of valuations for the commercial properties. These values are entered into the current tax rolls for the assigned appraisal year.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The district's contract appraisers periodically review their assigned accounts annually. The contract appraisal firms must advise the district of any characteristics that would affect the value of the land associated with that assigned facility. The district values all land for the properties over which it has responsibility, including those properties assigned to contract appraisal firms.

Industrial, Mineral and Utilities Valuation Process

INTRODUCTION

Appraisal Responsibility

Hugh Landrum & Associates, Inc., is contracted by the Bandera CAD to develop fair, uniform market values for the industrial, utility, and mineral accounts in Bandera County. Hugh Landrum & Associates values approximately 230 industrial, utility, and mineral accounts for Bandera CAD.

Appraisal Resources

- Personnel - Bandera CAD contracts with Hugh Landrum & Associates, Inc. to value property accounts for which the district does not have the available personnel or resources.
- Data - The contract appraisal staff inspect their assigned properties to obtain information about buildings, site improvements, process and shop equipment, and various items of personal property.

Area Analysis

The scope of market forces affecting industrial products and the capital goods used in the production process tends to extend beyond regional considerations. The effects of information and transportation technology are such that most industrial market forces are measured globally.

Highest and Best Use Analysis

The highest and best use of real property is the most reasonable and probable use of the property on the date of appraisal that is physically and financially feasible, legal, and that derives maximum production from the property.

DATA COLLECTION/VALIDATION

Data Collection Manuals

An extended range of variations may exist within the same class of industrial property, and there are a multitude of property types within the industrial category. For this reason, effective data collection procedures would be very difficult to organize in a single comprehensive manual. The district has adopted the Marshall & Swift Commercial Cost guide and its occupancy codes to standardize data and its collection for buildings assigned to the industrial appraisal staff.

Industrial personal property also consists of many different classes of assets with a wide range of variation within each class. The district has adopted the convention of listing assets and estimating effective age of assets in the field. The field listing is then compared with

information furnished by property owners during the final valuation review.

Sources of Data

The original property data used by Bandera CAD was supplied by the Bandera County Tax Assessor. Since that time, contract appraisal personnel have updated that information based on field review. As new facilities are built, the personnel collect all the real and personal property data necessary to value the property initially and thereafter update the information when the property is again visited.

Data Collection Procedures

The appraisal personnel annually or periodically visit assigned plants. The frequency of the visit is determined by the nature of the business conducted at each facility.

VALUATION

Final Valuation Procedures

The contract appraisers furnish the district with their list of valuations for the industrial property, utilities and minerals. These values are entered into the current tax rolls for the assigned appraisal year.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The district's contract appraisers periodically review their assigned accounts annually. The contract appraisal firms must advise the district of any characteristics that would affect the value of the land associated with that assigned facility. The district values all land for the properties over which it has responsibility, including those properties assigned to contract appraisal firms.

Business Personal Property Valuation Process

INTRODUCTION

Appraisal Responsibility

There are four different personal property types appraised by the district's personal property appraiser: Commercial and Industrial Personal Property accounts; Leased Assets; Vehicles; and Multi-Location Assets. There are approximately 1,241 business personal property accounts in Bandera County.

Appraisal Resources

- <u>Personnel</u> - The business personal property staff for 2020 consisted of 1 appraiser and support staff.
- <u>Data</u> - A common set of data characteristics for each personal property account in Bandera County is collected in the field and data entered to the district's computer. The property characteristic data drives the computer-assisted personal property appraisal (CAPPA) system.

VALUATION APPROACH (Model Specification)

SIC Code Analysis

Eight-digit numeric codes, called Standard Industrial Classification (SIC) codes that were developed by the federal government. These classifications are used by Bandera CAD as a way to classify personal property by business type.

SIC code and Class 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 and Class code specific. SIC codes are delineated based on observable aspects of homogeneity. SIC code and Class Code delineation is periodically reviewed to determine if additional delineation is warranted.

Highest and Best Use Analysis

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

DATA COLLECTION/VALIDATION

Data Collection Procedures

Personal property data collection procedures are published and distributed to all appraisers involved in the appraisal and valuation of personal property. The appraisal procedures are

reviewed and revised to meet the changing requirements of field data collection. The most recent revision of the personal property data collection procedures was in 2018 and these were incorporated in the Personal Property Appraisal Manual.

Sources of Data

Business Personal Property - The district's property characteristic data was originally received from Bandera County Tax Assessor, and various school district records in 1980, and where absent, collected through a massive field data collection effort coordinated by the district over a period of time. When revaluation activities permit, district appraisers collect new data via an annual field drive-out. This project results in the discovery of new businesses not revealed through other sources. Various discovery publications such as state sales tax listings and local occupancy permits are also used to discover personal property. 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, Just Texas, provides Bandera CAD with a listing of commercially registered vehicles within Bandera County. The vendor develops this listing from the Texas Department of Transportation (DOT) Title and Registration Division records. They use NADA values as a guide along with other resourced values. 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 owner renditions of property. Other sources of data include field inspections.

Special Inventory - Special Inventory (which includes motor vehicles, boats, manufactured houses and heavy equipment at the retail level of trade) is discovered and valued in conjunction with monthly tax statements and annual declaration forms filed by the owner. Copies of the monthly statements and annual declarations are maintained by Bandera CAD. Alternative discovery methods may sometimes be used as with standard BPP accounts described earlier in this report.

The discovery and valuation of certain utility and pipeline accounts is contracted out to third party appraisal firms. Uniform Standards of Professional Appraisal Practices or USPAP certification and reappraisal plan information on these properties are maintained at the contractor's individual offices. A list of our third-party vendors is available upon request.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

Cost schedules are developed by SIC code by district personal property valuation appraisers. The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are reviewed as

necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, being adjusted for quality and density.

Statistical Analysis

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

Depreciation Schedule and Trending Factors:

Business Personal Property - Bandera CAD's primary approach to the valuation of business personal property is the cost approach. Because we are not valuating the Going Business Concern the Income Approach is not considered relevant. Due to the lack of sales of a business continuing its operations from owner to owner and the difficulty in separating the sales price of the going concern, real property and personal property parts of the sale, the Sales Market Approach receives little weight. The replacement cost new (RCN) is either developed from property owner reported historical cost or from BANDERA CAD developed valuation models. The trending factors used by Bandera CAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by Bandera CAD are also based on published valuation guides.

The Business Personal Property Model is:

Historical Cost x % Good Factor = Market Value Estimate

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

Computer Assisted Personal Property Appraisal (CAPPA)

The CAPPA valuation process has two main objectives: 1) Analyze and adjust existing SIC models. 2) Develop new models for business classifications not previously integrated into CAPPA. The delineated sample is reviewed for accuracy of SIC code, square footage, field data, and original cost information. Models are created and refined using actual original cost data to derive a typical replacement cost new (RCN) per square foot for a specific category of assets. The RCN per square foot is depreciated by the estimated age using the depreciation table adopted for the tax year.

The data sampling process is conducted in the following order:
      1) Prioritizing Standard Industrial Classification (SIC) codes for model analysis.
      2) Compiling the data and developing the reports.
      3) Field checking the selected samples.

The models are built and adjusted using internally developed software. The models are then tested against the previous year's data. The typical RCN per square foot (or applicable unit) is determined by a statistical analysis of the available data.

CAPPA model values are used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed. Model values are also used to establish tolerance parameters for testing the valuation of property for which prior years' data exists or for which current year rendered information is available. The calculated current year value or the prior year's value is compared to the indicated model value by the

valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted from year to year depending on the analysis of the results of the prior year.

Vehicles - Value estimates for vehicles are provided by an outside vendor and are based on NADA published book values as well as other sources. 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 valuation model mentioned above. If the asset to be valued in this category is a vehicle, then NADA published book values are used. Assets that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

INDIVIDUAL VALUE REVIEW PROCEDURES

Office Review

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

Vehicles - A vehicle master file is received on tape from an outside vendor and vehicles in the district's system from the prior year are programmatically matched to current DOT records. The vehicles remaining after the matching process are sorted by owner name and the owners are then prioritized by the number of vehicles owned. These vehicles are then matched to

existing accounts and new accounts are created as needed. Vehicles that are not valued by the vendor are valued by an appraiser using depreciation schedules or published guides.

Leased and Multi-Location Assets - Leasing and multi-location accounts that have a high volume of vehicles or other assets are loaded programmatically if reported by the property owner electronically. Electronic renditions, usually on diskette, often require reformatting before they can be loaded to the account. Accounts that render by hard copy are either data entered by Bandera CAD or sent to an outside data entry vendor.

After matching and data entry, reports are generated and reviewed by an appraiser. Once proofed, the report is then mailed to the property owner for review. Corrections are made and the account is noticed after supervisor approval.

The commercial and business aircraft accounts are simultaneously valued/reviewed with rendered data and third-party market value data. Bandera CAD's perpetual account tracking system ensures special inventory dealers without a current declaration on file are contacted to advise them of their legal filing requirements and to provide Bandera CAD with the most current valuation/review data available.

PERFORMANCE TESTS

Ratio Studies

At least once every two years, the Property Tax 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 Bandera CAD's personal property values and ratios are formed.

Internal Testing

Bandera CAD can test new or revised cost and depreciation schedules by running the valuation program in a test mode prior to the valuation cycle. This can give appraisers a chance to make additional refinements to the schedules if necessary.

LIMITING CONDITIONS

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

1. The appraisals were prepared exclusively for ad valorem tax purposes.

2. The property characteristic 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.

3. Validation of sales transactions were attempted through questionnaires to buyer and seller, telephone survey and/or 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, Shawn Davis, Chief Appraiser for the Bandera Central Appraisal District, certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.

- The reported analyses, opinion, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.

- I have no (unless previously disclosed to Bandera CAD) present or prospective interest in the property that is the subject of this report, and I have no (unless previously disclosed to Bandera CAD) personal interest with respect to the parties involved.

- I have performed no (unless previously disclosed to Bandera CAD) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.

- My engagement in this assignment was not contingent upon developing or reporting predetermined results.

- My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

- My analyses, opinions and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.

- I have made a personal inspection of a portion of the properties that are the subject of this report.

- The attached list contains the Bandera Central Appraisal District Appraisers and Contract Appraisers who provided significant mass appraisal assistance in appraising the property that is the subject of this report.

Shawn Davis
Bandera CAD Chief Appraiser RPA, CCA

Bandera Central Appraisal District

2020 Staff or Contracted Firms Providing Significant
Real, Business Personal Property, Appraisal Assistance and Support

Chief Appraiser	Shawn Davis, RPA, CCA
Senior Appraiser	Maria Garcia, RPA
Appraiser	Cameron Rambin, (Class I, RPA)
Appraiser	Tony Boyd, (Class I, RPA)
Appraiser	Rachel Cortinas, (Class I, RPA)
Appraiser	Josh Ryan, (Class I, RPA)
Customer Service Manager/ Exemption Specialist	Debbie Clark, (Class I, RPA)
Commercial Appraisal Firm	Eagle Appraisal and Consulting
Industrial/Mineral/Utility Appraisal Firm	Hugh Landrum and Associates, Inc.