

Hood Central Appraisal District

2021 Mass Appraisal Report

INTRODUCTION

Scope of Responsibility

The Hood Central Appraisal District (HCAD) has prepared and published this report to provide the taxpayers of Hood County and any other intended users with a more complete understanding of the district's responsibilities, activities and final conclusion for the 2021 appraisal year. This mass appraisal report was prepared, written and intended to be in compliance with Standards Rule of the 2019-2020 Uniforms Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Standards Board of The Appraisal Foundation. This report has several parts: a general introduction and then several sections describing information specific to particular appraisal divisions or activities.

HCAD has attempted to conduct the 2021 mass appraisal in accordance with the provisions of the Texas Property Tax Code and in compliance with STANDARD 5 & 6 of USPAP. Taxing jurisdictions that participate within the district are the intended users of the appraisals. The intended use of the appraisals is for ad valorem tax purposes. The aggregated values of each taxing entity become the basis for determining the tax levy for each taxing entity. The taxing entities for which HCAD will be required to appraise for the 2021 tax year are as follows: Hood County (including the Lateral Road and Library funds), portions of Granbury Independent School District, portions of Lipan Independent School District, Tolar Independent School District, Granbury City, Lipan City, Tolar City, Acton Municipal Utility District Defined Area, portions of Godley Independent School District, portions of Glen Rose Independent School District and portions of Bluff Dale Independent School District. At the conclusion of the 80th regular session of the Texas Legislature, the boundaries for all appraisal districts throughout the State became the county line. As a result, when a taxing entity's boundary extends beyond the county line the appraisal district for which the property lies will have the responsibility for appraising this property and providing the aggregate appraisal value to the appropriate tax collector for those counties.

HCAD appraisals are also tested and reviewed by the State Comptroller of Public Accounts, Property Tax Division. At the conclusion of their review, they certify their findings to the Texas Education Agency (TEA). The TEA uses this local information to allocate State funds to the independent school districts as supplemental revenue if the school districts meet certain legal requirements. For the 2020 appraisal cycle, the results of the Comptroller's review indicated the properties in Lipan, Tolar and Granbury School Districts were appraised accurately at acceptable market value levels. These results were reported to the TEA and all applicable school districts in Hood County received full State funding.

The final outcome of the 2021 mass appraisal is an estimate or opinion of the market value of each taxable property within the district's boundaries. Each property is listed and its characteristic defined within a computer database maintained by the district in conjunction with an outside vendor. Additional information regarding the district's computer system and individual properties are discussed later in this report. When required by law, the district may also estimate values of certain properties on a basis other than market value. Situations and circumstances of these occurrences will be described where applicable later in this report.

General Assumptions and Limiting Conditions

The appraised value estimates, opinions and certification provided by the district are subject to certain assumptions and limiting conditions. The assumptions and limiting conditions applicable to this appraisal report include but may not be limited to the following:

The appraisals were prepared exclusively for ad valorem tax purposes.

The property characteristic data, upon which the appraisals are based, is assumed to be correct and complete at the time of appraisal. All of the properties appraised were performed as staff resources and time allowed. Information is obtained through physical inspections and personal interviews of taxpayers. In many instances inspections of interiors may be prohibited or limited.

A sketch of improvements located on the subject property may be included as part of the appraisal records which show approximate dimensions of the improvements. The sketch is included only to assist the appraiser in visualizing the property.

Valuation models are created to assist in the mass appraisal method of appraisal and become the basis for the initial appraisal estimate.

Validation of sales transactions occurred through questionnaires to buyers and sellers, telephone survey and field review. In the absence of such confirmation, residential sales data obtained from various outside sources and vendors was considered reliable. Any data determined unreliable is flagged or removed from the database.

All property appraised by district staff is appraised as fee simple interest unless otherwise stated.

- No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to any property is assumed to be good and marketable, unless otherwise stated and no opinions of title will be rendered.
- All property is appraised as if free and clear of any or all liens or encumbrances, unless otherwise stated. All taxes are assumed to be current.

- All property is appraised in terms of cash or cash equivalency. Bank or mortgage financing is deemed cash equivalent unless otherwise stated within the individual property records.
- All property is appraised as though under responsible, prudent, adequately capitalized ownership and/or competent property management.
- All engineering is assumed to be correct. Any plot plans and/or illustrative material contained with the appraisal records are included only to assist in visualizing the property.
- Full compliance with all applicable federal, state and local environmental regulations and laws are assumed unless noncompliance is stated, defined and considered in this mass appraisal report.
- It is assumed that all applicable zoning and use regulations and restrictions have been complied with unless nonconformity has been stated, defined and considered in this mass appraisal report.
- It is assumed that all required licenses, certificates of occupancy, consents or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- It is assumed that the utilization of the land and improvements of the properties described are within the boundaries or property lines, and that there are no encroachments or trespasses unless noted on the appraisal record.

Unless otherwise stated in this report, the appraiser is not aware of the existence of hazardous substances or other environmental conditions. The value estimates are predicated on the assumption that there is no such condition on or in the property or in such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or engineering knowledge required to discover them. The appraisal staff of the district is neither an expert in detecting adverse environmental conditions nor the remediation of such environmental conditions.

<i>Effective Date of Appraisal and Date of the Report</i>
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With the exception of dealer inventories and other certain inventories for which property owners have requested a valuation date of September 1, 2021; all appraisals are made as of January 1, 2021. The date of this report is April 20, 2021.

Definition of Value

Except as otherwise provided by the Texas Property Tax Code (hereafter “Tax Code”), all taxable property is appraised at its “market value” as of January 1. Under the tax code section 1.04(7), “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 Tax Code defines special appraisal provisions for the valuation of several different categories of property. Specially appraised property is taxed on a basis other than market value as defined above. These categories include residential homestead property (Sec. 23.23, Tax Code), agricultural and timber property (Chapter 23, Subchapters C and D, Tax Code), real and personal property inventory (Sec. 23.12, Tax Code), certain types of dealer inventory (Sec. 23.121, 23.124, 23.1241 and 23.127), and nominal (Sec. 23.18) or restricted use properties (Sec. 23.83).

Properties Appraised

HCAD, in conjunction with outside appraisal assistance, using acceptable mass appraisal methods, attempted to appraise all properties known to the district, as of the effective date of this report. As outlined in the 2021-2022 Biennial Reappraisal Plan, the properties slated for reappraisal consisted of all properties, business personal properties, commercial, residential properties and all other areas determined to be problematic areas.

The property rights appraised were fee simple interests, with the exception of leasehold interests in property exempt to the titled property owner. The latter, if any, are appraised under a statutory formula described in Sec. 25.07, Tax Code. The description and identification of each property appraised is contained within the District’s computer database. This information is included as part of the appraisal records submitted to the Hood County Appraisal Review Board as of the date of this report.

Scope of Work Used to Develop the Appraisal

HCAD appraised all taxable property, previously identified, in accordance with its 2021-2022 reappraisal plan which encompassed approximately 71,843 accounts. The district

distributes the work of the individual appraisals among several appraisal personnel and a contracted private appraisal firm. The following sections describe, by area of responsibility, the scope of work performed and those items addressed in USPAP standard 5 & 6.

The Chief Appraiser, who is the chief executive officer of the appraisal district, manages all aspects of the district. The Chief Appraiser has established certain management positions to assist with the day to day operations of certain departments throughout the district. All district employees report to the chief appraiser directly or through their immediate manager. The district is subdivided into four departments and a separate office of Administration/Human Resources. The four departments are Appraisal, responsible for all appraisal activities; Data Processing, responsible for input of individual record data, output of necessary reports and operates the district's computer facilities; Customer Service, provides taxpayer information and assistance, and support of the appraisal review board and Mapping/GIS, responsible for creating and maintaining the districts mapping system and the Deeds Department is responsible for overseeing the ownership records. Administration/Human Resources is responsible for the budget, financial matters, and human resources related issues.

The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with Texas Department of Licensing and Regulation (TDLR). All appraisers responsible for the appraisals in this report were duly registered with the TDLR.

The appraisal district staff consists of 18 employees with the following classifications:

- 1 Official/Administrator (executive level administration)
- 4 Professional (supervisory and management)
- 6 Technicians (appraisers, appraisal analysts)
- 5 Administrative Support (professional, customer service, clerical, network support and others)

While the appraisal district staff conducted a majority of the appraisal activities contained in this appraisal assignment, the district received assistance from a private appraisal firm. The district uses acceptable methods of appraisal in order to determine the final estimate of value. These methods have been developed over time by the appraisal industry and are considered the most reliable methods an appraiser can utilize to arrive at a reliable opinion of value. Those methods are the cost approach to value, the comparable sales approach to value and the income approach to value. Although use of all three approaches to value are common in a fee appraisal assignment, use of all approaches in a mass appraisal assignment on every property is impractical; however, all three approaches are considered in a mass appraisal assignment and the method most suitable for the property type will be chosen and relied upon. The uses of specific approaches to value are explained in further detail later in this report.

This report contains more information regarding the different appraisal divisions. Each division may entail different scopes of work; therefore, this scope of work is further

explained and detailed in each of the following divisions. Specific information regarding the process or property type will be addressed in each of the separate divisions.

Determination of Highest and Best Use for Real Property

The district's market value appraisals are performed pursuant to Article VIII, Sec. 1., Texas Constitution, which states that property must be taxed in proportion to its value as determined by law. Sec. 23.01 of the Tax Code implements that provision as follows:

§ 23.01. Appraisals Generally

- (a) Except as otherwise provided by this chapter, all taxable property is appraised at its market value as of January 1.
- (b) The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the appraisal district determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice. The same or similar appraisal methods and techniques shall be used in appraising the same or similar kinds of property. However, each property shall be appraised based upon the individual characteristics that affect the property's market value.

While there is no specific statute defining highest and best use, as it applies in appraisals conducted under the Property Tax Code, Texas courts have acknowledged that highest and best use is a factor that must be considered in determining market value. (King v. Real 466 S.W.2d 1 TEX.Civ.App., 1971, Exxon Pipeline Co. v. Zwahr 2002 WL 1027003 Tex., 2002.) In an unpublished opinion, the Houston Court of Appeals approved the following definition of highest and best use: "Highest and best use is the reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value". The four criteria the highest and best use test must meet are legal permissibility, physical possibility, financial feasibility, and maximum profitability. Clear Creek Drainage Dist. of Galveston County v. Manison Not Reported in S.W.3d Tex.App.-Houston [14 Dist.], 1997.

The district will consider the highest and best use of a property when circumstances suggest a property could be put to a different use than its current use. In areas that are undergoing change, the district should apply the highest and best use test for each property in that area to determine the highest and best use and appraises it accordingly. When testing for a property's highest and best use an appraiser should consider what a property's value might be under the following circumstances: if vacant, if converted to another use or the value of a property in its current use. In neighborhoods where the use is consistent, homogeneous, and not undergoing a change from one use to another, the district will generally consider the current use and most stable use as the highest and best use of the neighborhood. The appraiser will appraise the area in order to determine the most probable sales price and attempt to appraise the area in an equal and uniform manner.

Appraisal Performance Tests and Performance Measures Attained

The Texas Comptroller of Public Accounts conducts a biennial study to determine the degree of uniformity of and the median level of appraisals by the appraisal district within each major category of property, as required by Section 5.10, Property Tax Code. The preliminary findings, based on the district’s 2020 appraisal roll, were reported to the district on January 31, 2021. The district’s values were in line with the Comptroller’s values.

The Comptroller of Public Accounts certifies a school district’s local tax roll value to the Commissioner of Education if it is within the calculated statistical error margin. A margin of error of 5% is typically used for each school district. The 2020 published findings of the property value study, conducted by the comptroller, reported that all School Districts were appraised at levels that meet or exceed what is required by state law and received their local tax roll value.

In accordance with Section 5.102, Property Tax Code the comptroller’s Property Tax Division conducted a 2018-2019 Methods and Procedure review of the district’s appraisal standards, procedures, and methodology to determine compliance with generally accepted appraisal standards and practices. The results of the review, reported to the chief appraiser on January 17, 2020, reported that the district’s methods, standards, and procedures are consistent with generally accepted appraisal methods. The report is attached for review.

The HCAD reviews all sales annually for ratio analysis at the beginning of the appraisal cycle and one at the end of the appraisal year for noticing. The final ratios are as follows:

Granbury ISD	Tolar ISD	Lipan ISD
Single Family 98%	Single Family 100%	Single Family 98%
Commercial 95%	Rural 100%	Rural 99%
Rural 96%		

Overall, the Hood Central Appraisal District 2021 Ratio Report was 98.8% in all categories of property tested. We did not test minerals or utilities for the year 2021.

**ADMINISTRATIVE STAFF PROVIDING SIGNIFICANT
MASS APPRAISAL ASSISTANCE**

NAME	TITLE	TDLR NO.	TYPE OF ASSISTANCE
Paula Clements	Director of Appraisal	71856	Oversight of Appraisal Department
Pritchard & Abbott	Contract Appraiser		Direct Appraisal of Industrial, Mineral, Utility, and Certain Complex Commercial Properties

Report by Appraisal Division

As noted above, the district allocates the work of the mass appraisal assignment among several staff members within the appraisal department and to an outside firm. The appraisal department management oversees the overall assignment in an effort to insure properties are appraised according to the guidelines of the tax code.

Such items to be delegated to the appraisal staff may include, but are not limited to, the following: district appraisal litigation and arbitration cases, special inventory valuation, agricultural valuation, commercial and personal property valuation, residential valuation, light industrial property valuation, market trend analysis, sales analysis and model development and recalibration. The Appraisal Department develops, calibrates, and applies the various mass appraisal models for their respective property types. Mass appraisal models, tables and schedules are reviewed and adjusted when needed according to the district biennial reappraisal plan. The contract appraisal firm Pritchard & Abbott appraises complex commercial properties, mineral and industrial properties and all utility properties assigned to them for the district, some of which are appraised through mass appraisal models, others of which are directly appraised.

Field Operations

INTRODUCTION

<i>Scope of Work</i>

The field operations activities involve the collecting and maintaining of property characteristics data for all industrial, commercial, residential, mineral, utility, and taxable personal property, which are located within the boundaries of HCAD. These activities include physical inspections, or other means of identification, including but not limited to, aerial and land based photographs of real and personal property accounts, as well as data entry of all information collected into the existing computer assisted mass appraisal (CAMA) system.

Periodic review and inspection of property is recommended at least every four to six years, according to the International Association of Assessing Officers (IAAO). HCAD is making an effort to re-inspect residential and commercial property on a six year cycle and personal property on a 2 year cycle. The use of new aerial photography technology allows us to view, measure, and collect data of certain property types without making a physical inspection on the ground.

Procedure for Collecting and Validating Data

Data collection requires organization, planning and supervision of the field staff. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout HCAD to conduct field inspections and record collected information on an electronic field device, property record card or a property record data sheet.

The quality of data collected is important in establishing accurate estimates of value of taxable property within the district. While certain standards are established for the collection of data among 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 by senior appraisal staff. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation or data review. A quality assurance process exists to review the work being performed by all the field appraisers. The quality assurance process is used to ensure that data is input correctly and appraisers assist in identifying training issues for future field appraisal staff.

Data collection of real property involves maintaining existing data characteristics of the property in our CAMA system as well as collecting new data. The information contained in the CAMA system includes site characteristics, such as land size and topography, improvement data, such as square foot of living area, year built and effective age, 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 existing information in the CAMA system as well as collecting new data. The type of information contained in the CAMA system includes details regarding the value and age of business inventory, furniture and fixtures, machinery and equipment, cost and location and mobile home details. The field appraisers conducting on-site inspections have access to a business personal property manual during their initial training and as a guide to correctly list all business personal property that is taxable.

The appraisal procedure manuals that are utilized by the field appraisers are located and maintained in the Appraisal Department and are made available to others throughout HCAD that may require the use of the manual. The Appraisal Department periodically updates the appraisal procedural manuals as necessary.

Sources of Data

The sources behind our data collection and verification are building permits, on site data review, data mailers, ARB hearings, sales validation, commercial sales publications, newspapers and publications, aerial photography and property owner correspondence.

An annual drive-out is conducted to identify the status of all real property within the district’s boundaries in accordance with the biennial reappraisal plan. In addition, we use current aerial photography technology to assist in reviewing property not visible from the street or front of a property. New improvements along with property characteristics are collected for entry into the CAMA system. Existing improvements are visually inspected and any changes are noted for entry into the CAMA system. Data accuracy is also enhanced by the availability of the district’s property records on the Internet. Property owners from time to time contact our office to report data inaccuracies identified on the web site. This may initiate a field inspection or correction of the data based inaccuracy.

Data reviews of entire neighborhoods are conducted when ratio studies indicate wide dispersions between values and sale prices. Appraisers perform drive-bys of properties to review the accuracy of our data and identify properties that have to be relisted. The sales validation effort in real property pertains to the collection and review of data within the CAMA system of sold properties.

Data Maintenance

The Appraisal and Data Processing Departments are responsible for coordinating all activities involving account building, property characteristics, data entry, and quality assurance of the different property types after data collection. The account building activity is to create records in CAMA that were inspected by appraisers in the field. The property characteristics activity is to collect or update data about each individual property. The data entry activity is the input of all data into the CAMA. This includes the input of property characteristics, building sketches, land details, proper codes, notes and other required data. The quality assurance activities include recalculation of the records and reevaluation of data to verify desired expectations.

**FIELD STAFF PROVIDING SIGNIFICANT
 MASS APPRAISAL ASSISTANCE**

NAME	TITLE	TDLR NO.	TYPE OF ASSISTANCE
Paula Clements	Director of Appraisal	71856	Manages Appraisal Department
Kelley Montgomery	Senior Appraiser	71356	Appraisal/Data Collection
David Eatherly	Senior Appraiser	73344	Appraisal/Data Collection
Steve McCoy	Senior Appraiser	74811	Appraisal/Data Collection
James Hogan	Appraiser	75968	Appraisal/Data Collection
Julie Rhoden	Appraiser	76334	Appraisal/Data Collection
Donna Rubenkoenig	Appraiser	76586	Appraisal/Data Collection

Residential Valuation

INTRODUCTION

Scope of Work

The Residential Valuation is the process of developing equal and uniform market values for improved and vacant residential property for ad valorem purposes. There are approximately 25,200 residential improved parcels and 22,900 vacant residential properties in HCAD. The appraisals of residential properties for the 2021 tax year were completed in accordance with the 2021-2022 biennial reappraisal plans.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and most 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 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 undergoes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the analyst 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 may be done to determine 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 miss-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 analyst 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.

Model Specification

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 trends, availability of vacant land, and construction trends and costs may be collected from private vendors and public sources. Information is gleaned from real estate publications and sources such as the Granbury Visitors Guide, the Granbury-Hood County Economic Development Corporation, The Real Estate Center of Texas A&M, general circulation

newspaper, and other local real estate professionals. Continuing education in the form of TDLR classes, real estate seminars offered by the Texas Association of Appraisal Districts, the Texas Association of Assessing Officers and The Real Estate Center of Texas A&M provide the appraisal department with both training and information regarding HCAD's real estate market.

Neighborhood and Market Analysis

Neighborhood analysis involves the examination of how environmental or 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 grouping of properties where the properties' physical, economic, governmental and social forces are generally similar and uniform. Many of the neighborhoods in HCAD are determined by subdivision boundary lines. Some factors used in neighborhood analysis include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, square footage of living area. 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 may promote increased demand and economic desirability.

<i>Model Calibration</i>

Cost Schedules

All residential parcels in the district are initially valued from cost schedules based on a comparative unit method. The district's residential cost schedules have been customized and adjusted to fit HCAD's local residential building and labor market. HCAD uses a single cost schedule for the district, and when necessary adjusts the schedule by market area using location modifiers as determined by the appraisal staff.

For the tax year 2021, all properties were reappraised. Sales of different market areas were analyzed and property characteristics were verified. Adjustments were made to the land values based on market data. Location adjustments were made to individual market areas. All market areas were tested statistically for market value and uniformity.

Sales Information

A sales database is maintained within the CAMA system for the storage of sales information at the time of sale. The sales generally include improved residential and commercial properties and vacant residential and commercial lot properties. Rural/Agricultural vacant land sales, along with some commercial improved and vacant land sales are maintained in a separate sales information system. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyers and sellers, field discovery, protest hearings, State Comptroller Property Tax Division, Granbury Association of Realtors' MLS, builders, realtors, and licensed appraisers. School district or neighborhood sales reports are generated as an analysis tool for the Appraisal Department in the development and verification of value estimates as initially determined by the cost approach. Any discrepancies between approaches are reviewed and the most appropriate approach to value is used and applied. Attention is given to protect sales data in which the data is deemed confidential. In addition, training and instructions have been provided to staff regarding the sales data and information which is excluded from requests under the Public Information Act.

Land Analysis

Residential land analysis is conducted by the Appraisal Department. The Appraisal Department collects sales data from the above mentioned sources and groups the data into different land categories such as acreage and subdivided lots. Land values for residential/agricultural properties are generated from the sales collected by using the market approach to value when applicable. Rural land is stratified into tables by acreage. Acreage land sales are stratified in the same manner as the rural land table. Land value tables are generated from the sales data and prices are broken down into a per acre price. Adjustments due to location, shape, view, topography, and others are made as market adjustments to the calculated land value on a case by case basis. HCAD made adjustments to rural land schedules for 2019 based upon sales analysis.

Statistical Analysis

The Appraisal Department performs statistical analysis annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on those residential subdivisions, containing enough market data, to judge the two primary aspects of mass appraisal accuracy/level and uniformity of value. The statistical tools available for use by the district include, but are not limited to, mean, weighted mean, median, mode, standard deviation, and coefficient of dispersion. These tools provide the analysts a way in which to determine both the level and uniformity of appraised values within subdivisions. The level of appraised values can be determined by the weighted mean for individual properties within

a neighborhood, and a comparison of neighborhood-weighted means can reflect the general level of appraised value between comparable neighborhoods.

The Appraisal Department, through the sales ratio analysis process, annually reviews subdivisions containing adequate market data. The first phase involves subdivision ratio studies that compare the recent sales prices of properties to the appraised values of these sold properties. This set of ratio studies affords the analyst an excellent means of judging the present level of appraised value and uniformity of the sales. The analyst, based on the sales ratio statistics, makes a preliminary decision as to whether the value level in a subdivision needs to be updated in an upcoming reappraisal cycle, or whether the level of market value in a subdivision is at an acceptable level.

Final Models: Market Adjustment and Time Consideration

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:

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

Whereas, the market value equals the land value plus the market adjustment factor times the 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 subdivisions to account for location variances between market areas or across a jurisdiction.

If a subdivision is to be updated, the Appraisal Department uses a cost ratio study that compares recent sales prices of properties within a subdivision with the properties' actual unadjusted 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 subdivision level of value based on the unadjusted cost value for the sold properties. This cost-to-sale ratio is used to determine the market adjustment factor for each subdivision. 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 subdivision, thus producing more representative and supportable values. The market adjustment factor calculated for each subdivision is applied uniformly to all properties within their respective subdivisions. Once the market-trend factors are applied, a second set of ratio studies is generated that compares recent sale prices with the proposed appraised values for

these sold properties. From this set of ratio studies, the analyst judges the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district as a whole.

Monthly time adjustments are developed directly from the marketplace using market data from within the district. Interviews with real estate professionals as well as statistical information from multiple listing services aid in determining the time adjustments for the district. These time adjustments are tested using properties with multiple sales dates. If a time adjustment is warranted based on market data, all sales within the population of sale are adjusted equally and uniformly.

How Estimates Are Reviewed

Office Review

Given the time required to conduct a routine field review of all properties, homogeneous properties are value reviewed in the office. A sales ratio report is generated for all subdivisions and the Appraisal Department reviews the individual ratios as well as the overall weighted mean ratio for the subdivision prior to the appraisal being released for appraisal notices. If certain properties fall outside of an acceptable ratio range these properties are flagged. An appraiser will review these problem properties to determine if the properties' characteristics are recorded correctly. If it is determined that adjustments are necessary, the property is reappraised based on the corrected characteristics. Although the value estimates are determined in a computerized mass appraisal environment, flagging properties affords the Appraisal Department an individual look at value anomalies before the value is released for noticing.

Appraisal Performance Tests Used and Performance Measures Attained

The primary analytical tool used by the Appraisal Department to measure and improve performance is the ratio study. This ensures that the appraised values that are produced meet the standards of accuracy in several ways. Overall sales ratios are generated for each ISD to allow the appraisers to review general market trends within their area of responsibility, and provide an indication of market appreciation over a specified period of time. Several sets of subdivision sales ratios and geo's are produced prior to the setting of final values and after finalization of appraised values.

The purpose of the district's ISD ratio study is to evaluate the relationship between appraisals and sale prices as of the January 1 assessment date. The district's ratio studies were designed after and prepared, to the extent possible, under the guidance, training and advice of the Texas Association of Appraisal Districts (TAAD) and the Texas State Comptroller Property Tax Division.

Sales were believed to be accurate and contain the conditions that meet the definition of market value. At the time sales were collected they were evaluated to reflect their reliability. Sales that were identified as unreliable or invalid transactions due to atypical financing, sales between relatives or corporate affiliates, forced sales, estate sales, or sales of convenience were excluded from the study and not introduced into our CAMA system. Also excluded from the study were partially incomplete new construction and accounts in the problem resolution process. The exception to the exclusion rule involved Shared CAD accounts being held while awaiting the overlapping CADs' values.

**APPRAISAL STAFF PROVIDING SIGNIFICANT
 MASS APPRAISAL ASSISTANCE**

NAME	TITLE	TDLR NO.	TYPE OF ASSISTANCE
Paula Clements	Director of Appraisal	71856	Manages Appraisal Department
Kelley Montgomery	Senior Appraiser	71356	Appraisal/Data Collection
David Eatherly	Senior Appraiser	73344	Appraisal/Data Collection
Steve McCoy	Senior Appraiser	74811	Appraisal/Data Collection
James Hogan	Appraiser	75968	Appraisal/Data Collection
Julie Rhoden	Appraiser	76334	Appraisal/Data Collection
Donna Rubenkoenig	Appraiser	76586	Appraisal/Data Collection

Business Personal Property Valuation

INTRODUCTION

Scope of Work

The personal property appraisers are responsible for developing fair and uniform market values for business personal property located within the district. There are four different personal property types appraised by the personal property appraisers: Business Personal Property accounts; Leased Assets; Vehicles; and Multi-Location Assets. There are approximately 2275 business personal property accounts located in HCAD. The district reappraises all personal property annually.

Procedure for Collecting and Validating Data

All appraisers are assigned to the discovery and collection of business personal property data while in the field. Property characteristics data collected by the appraiser is input into the CAMA system to aid in the appraisal of business personal property.

Sources of Data

Business Personal Property

In addition to data collected and verified by the field appraisers, various discovery techniques such as the local phone book, local newspapers, chamber of commerce news letters, county clerk "DBA" records and the public often provide the district information regarding new personal property and other relevant facts related to property valuation.

Vehicles and Leased and Multi-Location Assets

HCAD also uses national and regional publications to research vehicle value benchmarks. Other sources of data include property owner renditions, the internet and field inspections.

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

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be

physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of personal property is normally its current use.

Model Specification

SIC Code Analysis

Four digit numeric codes, called Standard Industrial Classification (SIC) codes, were developed by the federal government to identify business entities having common attributes. These classifications are used by HCAD as a way to delineate personal property by business type.

Model Calibration

Cost Schedules

Cost data from property owner renditions and hearings are utilized to develop the cost schedules. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, but some schedules are in a price per unit format, such as per room for hotels.

Final Models: Depreciation Schedule and Trending Factors

Business Personal Property

The primary approach to the valuation of business personal property is the cost approach. The replacement cost new (RCN) is either developed from property owner reported historical cost or from developed valuation models. The percent good depreciation factors are also based on local published valuation guides.

The percent good depreciation factors (PGDF) are used to develop a market value estimate by year of acquisition, as follows:

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

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

Vehicles and Leased and Multi-Location Assets

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

Leased and multi-location assets are valued using the methods mentioned above. If the asset to be valued in this category is a vehicle, then published book values or similar values provided by a vehicle data vendor are adjusted according to current economic criteria. Assets that are not valued by the vendor are valued by an appraiser using published guides. Many Leased and multi-location companies render business personal property to HCAD. HCAD works closely with these companies to appraise their personal property at 100% of market value.

<i>How Estimates are Reviewed</i>
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Business Personal Property

Business personal property appraisers review all personal property accounts during the appraisal phase. Properties with similar characteristics are compared with one another to insure uniform appraised values. In addition, we compare the values of certain national chain properties (like fast food restaurants and discount retailers) with the values of the same type of properties in surrounding appraisal districts.

**PERSONAL PROPERTY STAFF PROVIDING SIGNIFICANT
 MASS APPRAISAL ASSISTANCE**

NAME	TITLE	TDLR NO.	TYPE OF ASSISTANCE
Paula Clements	Director of Appraisal	71856	Manager Appraisal Department
Kelley Montgomery	Senior Appraiser	71356	Appraisal/Data Collection
David Eatherly	Senior Appraiser	73344	Appraisal/Data Collection
Steve McCoy	Senior Appraiser	74811	Appraisal/Data Collection

Industrial Valuation

INTRODUCTION

Scope of Work

The HCAD contracts with Pritchard & Abbott, Inc. to develop fair and uniform market values for improved industrial properties, real and personal utility properties, mineral accounts and complex real and personal commercial properties assigned to them by the District. Pritchard & Abbott, Inc. appraises approximately 19,686 accounts for the HCAD. Pritchard & Abbott, Inc. are required to follow the guidelines set forth in USPAP.

Certification Statement:

I certify that, to the best of my knowledge:

The statements of fact contained in this report are true and correct. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and is my personal, impartial, and unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the properties that are the subject of this report, and I have no personal interest with respect to the parties involved. I have no bias with respect to any of the properties that are the subject of this report or to the parties involved with this assignment. My engagement in the assignment was not contingent upon developing or reporting predetermined results. My compensation for completing this assignment is not contingent upon the report of a predetermined value or direction in value that favor 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, or my staff, have made personal exterior inspections of the properties that are the subject of this report as set forth and defined in the Tax Code.

Eddie Roe, RPA, CCA
Chief Appraiser

As of the date of this report, I Eddie Roe have not completed the Standard and Ethics education requirement of Appraisal Institute for Associate Members.

Other individuals providing assistance in the mass appraisal of property in HCAD are as follows;

Paula Clements, RPA
Director of Appraisal

Kelley Montgomery, RPA
Senior Appraiser

Hood Central Appraisal District
2021 Mass Appraisal Report

David Eatherly, RPA
Senior Appraiser

Steve McCoy, RPA
Senior Appraiser

James Hogan
Appraiser

Julie Rhoden
Appraiser

Donna Rubenkoenig
Appraiser

Pritchard & Abbott, Inc.
Contract Appraisers