Callahan County Appraisal District

Reappraisal Plan

2021-2022

Adopted on
07/07/2020

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The Callahan County Central Appraisal District has prepared and published this reappraisal plan and appraisal report to provide our Board of Directors, citizens and taxpayers with a better understanding of the district's responsibilities and activities.

The Callahan County Central Appraisal District (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 member Board of Directors, appointed by the taxing units within the boundaries of Callahan County, constitutes the district's governing body. The chief appraiser, appointed by the Board of Directors, is the chief administrator and chief executive officer of the appraisal district.

The appraisal district is responsible for local property tax appraisal and exemption administration for 12 jurisdictions or taxing units in the county. Each taxing unit, such as the county, a city, school district, etc., sets its own tax rate to generate revenue to fund their budget. Property appraisals and estimated values by the appraisal district allocate the year's tax burden on the basis of each taxable property's market value. We also determine eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, charitable or religious organizations and agricultural productivity valuation.

In 2016 the Board of Directors of the Callahan County Appraisal District made the decision to hire Western Valuation and Consulting. Their contract is renewed every three years. In 2018 the Board of Directors made the decision to hire Stephanie McPherson, to become the Chief Appraiser, effective March 1, 2019

In this executive summary, please find the legal requirement of a reappraisal plan passed by the Texas Legislature in the 2005 regular session and our response to these requirements immediately below. Intricate details of how the plan will be implemented are discussed in the body of this document.

TAX CODE REQUIREMENTS

Passage of Senate Bill 1652 79th regular session, amended Section 6.05 of the Texas Property Tax code by adding subsection (i) to read as follows:

> (i) To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the10th day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time, and place of the hearing. Not later than September 15 of each even-numbered year, the board shall complete its hearings, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

PLAN FOR PERIODIC REAPPRAISAL

Senate Bill 1652 amends Section 25.18, subsections (a) and (b) to read as follows:

(a)   Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i)

(b)   The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years.

   (1)   Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps and property sketches;

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

   (3)   Defining market areas in the district;

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

      (A)   The location and market area of property;

      (B)   Physical attributes of property, such as size, age, and condition; legal and economic attributes; and

      (C)   Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;

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

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

   (7)   Reviewing the appraisal results to determine value.

Reappraisal Plan Details

Introduction

Scope of Responsibility

Except as otherwise provided by the Property Tax Code, 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 real property inventory may elect to have the inventory appraised at its market value as of September 1st of the year proceeding 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. Business personal properties, minerals and utility properties are appraised every year.

The appraised value of real estate is calculated using specific information about each property. Using computer-assisted mass appraisal programs, and recognized appraisal methods and techniques, we compare that information with the data for similar properties, and with recent cost and 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.

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 commercial, residential, business personal, mineral, utilities, and industrial. The district's appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Department of Licensing and Regulation. Support functions including records maintenance, information and assistance to property owners, and hearings are coordinated by personnel in support services.

The appraisal district staff consists of 5 full time employees and 1 part time; with the following classifications:

- 1 - Official/Administrator (executive level administration), Chief Appraiser

- 1 - Professional (supervisory and management), Deputy Chief Appraiser

- 2 - Appraisers

- 2 - Support Staff (customer service, clerical and other)

Staff Education and Training

All personnel that are performing appraisal work by contract and interim personnel must be registered with the Texas Department of Licensing and Regulations and they are required to take appraisal courses to achieve the status of Registered Professional Appraiser within five years of employment as an appraiser. After they are awarded their license, they must receive additional training of continuing education units as required by the Texas Department of Licensing and Regulations. Failure to meet these minimum standards results in the termination of the employee.

Additionally, all appraisal personnel receive extensive training in data gathering processes including data entry into electronic field devices and statistical analyses of all types of property to ensure equality and uniformity of appraisal of all types of property. On-the-job training is delivered by department managers for new appraisers and managers meet regularly with staff to introduce new procedures and regularly monitor appraisal activity to ensure that standardized appraisal procedures are being followed by all personnel.

Data

The district is responsible for establishing and maintaining approximately 21940+ real and personal property accounts covering 880 square miles within Callahan County. This data includes property characteristics, ownership, and exemption information. Property characteristic data on new construction is updated through an annual field effort; existing property data is maintained through a field review. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and field inspections. General trends in employment, interest rates, new construction trends, cost, and market data are acquired through various sources, including internally generated questionnaires to buyer and sellers, university research centers, and market data centers and vendors.

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

Information Systems

The district's software vendor Southwest Data Solutions manage and maintain the district's data processing facility, software applications, and Internet website, and assist the district's System Administrator as needed. The Systems Administrator manages and maintains the district's computer mapping department and geographical information system. The user base is networked through the mainframe using Windows NT Server. Southwest Data Solutions provides software services for both appraisal and collections applications.

Appraisal District Boundaries

As of Jan. 1, 2008, we no longer assess properties of school districts that overlap into other counties. Each county that shares overlapping jurisdictions, appraise the property within their county boundary. The counties then share their appraisal data so that the collecting entity may impose the taxes for each jurisdiction that it collects for.

Independent Performance Test

According to Chapter 5 of the TPTC and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Division (PTD) conducts an annual property value study (PVS) of each Texas school district and each appraisal district. As part of this annual study, the code requires the Comptroller to: use sales and recognized auditing and sampling techniques; review each appraisal district's appraisal methods, standards and procedures to determine whether the district used recognized standards and practices (MASP review); test the validity of school district taxable values in each appraisal district and presume the appraisal roll values are correct when values are valid; and, determine the level and uniformity of property tax appraisal in each appraisal district. The methodology used in the property value study includes stratified samples to improve sample representativeness and techniques or procedures of measuring uniformity. This study utilizes statistical analyses of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measures include median level of appraisal, coefficient of dispersion (COD), the percentage of properties within 10% of the median, the percentage of properties within 25% of the median, and price-related differential (PRD) for properties overall and by state category.

There are 3 independent school districts in Callahan CAD for which appraisal rolls are annually developed. The preliminary results of this study are released February 1 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) the following July of each year.

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 comprehensive 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 located within the boundaries of Callahan County and the jurisdictions of this appraisal district. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. The goal is to periodically field inspect residential, commercial, and personal properties in the district every three years.

Appraisal Resources

- **Personnel** – All appraisal activities are conducted by CAD appraisers and by appraisers hired under contract with Western Valuation.

- **Data** - The data used by field appraisers includes the existing property characteristic information contained in CAMA (Computer Assisted Mass Appraisal System) from the district's computer system, as well as, maps, sales data, septic permits, building permits, photos and actual cost and market information. The district cultivates sources and gathers information from both buyers and sellers participating in the real estate market.

Appraisal Frequency and Method Summary

- Residential Property- Residential property is physically examined every three years noting condition of the improvement and looking for changes that might have occurred to the property since the last on-site check. Exterior pictures of the homes are taken during each on site check correlating with each 3-year rotation.

- Commercial Property- Commercial and industrial real estate is observed annually to verify class and condition. Pictures of the improvements are taken during each on site check correlating with each 3-year rotation.

- Real estate accounts are analyzed against sales of comparable properties in Callahan County as well as economically comparative communities in West Texas .

- Business Personal Property- Business personal property is observed annually with a mass mailing of renditions to businesses, new or existing. Rendition laws provide additional information on which to base values of all BPP accounts**.** The inspection occurs as Business Personal Property appraisers are checking BPP accounts

- Minerals- Working and royalty interests of producing oil and gas wells are appraised annually. These properties are contracted out to Morgan Ad Valorem Services, Inc. for appraisal.

- Utilities, Pipelines, and Complex Properties- Utility companies, pipelines and complex properties are appraised annually. These properties are contracted out to Morgan Ad Valorem Services, Inc. for appraisal.

Preliminary Analysis

Data Collection/Validation

Data collection of real property involves maintaining data characteristics of the property on CAMA (Computer Assisted Mass Appraisal). The information contained in CAMA includes site characteristics, such as land size and topography, and improvement data, such as square foot of living area, year built, quality of construction, and condition. Field appraisers are required to use a property classification system that establishes uniform procedures for the correct listing of real property. All properties are coded according to a classification system.   The approaches to value are structured and calibrated based on this coding system and property description and characteristics. The field appraisers use property classification references during their initial training and as a guide in the field inspection of properties. The type of information contained in the BPP file includes personal property such as business inventory, furniture and fixtures, machinery and equipment, with details such as cost and location. The field appraisers conducting on-site inspections use a personal property classification system during their initial training and as a guide to correctly list all personal property that is taxable.

Sources of Data

The sources of data collection are through property inspection, new construction field effort, data review/relist field effort, data mailer questionnaires, hearings, sales validation field effort, commercial sales verification and field effort, newspapers and publications, and property owner correspondence by mail or via the Internet. A principal source of data comes from building permits received from taxing jurisdictions that require property owners to take out a building permit. Paper permits are received and matched manually with the property's tax account number for data entry.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers inspect entire neighborhoods 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 of market data for properties that have sold. In residential, the sales validation effort involves on-site inspection by field appraisers to verify the accuracy of the property characteristics and confirmation of the sales price.

Property owners are one of the best sources for identifying incorrect data that generates a field check. Frequently, the property owner provides reliable data to allow correction of records

without having to send an appraiser on-site. As the district plans to have information available on the Internet, property owners have the opportunity to review information on their property and forward corrections via e-mail. For the property owner without access to the Internet, letters are sometimes submitted notifying the district of inaccurate data. Properties identified in this manner are added to a work file and inspected at the earliest opportunity. Accuracy and validity in property descriptions and characteristics data is the highest goal and is stressed throughout the appraisal process from year to year.

Data Collection Procedures

Appraisers of real estate and business personal property will conduct field inspections and record information using a field sheet that holds all data dealing with a specific property and allows for the entry of corrections and additions that the appraiser may find in his or her field inspection.

The quality of the data used is extremely important in estimating market values of taxable property. While work performance 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 and the classification system set forth and recognized as "rules" to follow. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation or data review.

Data Maintenance

Data updates and file modification for property descriptions and input accuracy is conducted as the responsibility of the field appraiser and appraisal supervisors. These data checks are preformed periodically to check for errors.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

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

Office Review

Office reviews are completed on properties where update information has been received from the owner of the property and is considered accurate and correct. The personal property department mails property rendition forms in January of each year to assist in the annual review of the property.

PERFORMANCE TEST

Ratio studies are conducted on property located within certain neighborhoods or districts by the chief appraiser.   The sale ratio and comparative analysis of sale property to appraised property forms the basis for determining the level of appraisal and market influences and factors for the neighborhood. This information is the basis for updating property valuation for the entire area of property to be evaluated.   Appraisers, in many cases, may conduct field inspections to ensure the accuracy of the property descriptions at the time of sale for this study.   This inspection is to ensure that the ratios produced are accurate for the property sold and that appraised values utilized in the study are based on accurate property data characteristics observed at the time of sale. Also, property inspections are performed to discover if property characteristics had changed as of the sale date or subsequent to the sale date.   Sale ratios should be based on the value of the property as of the date of sale not after a subsequent or substantial change was made to the property after the negotiation and agreement in price was concluded. Properly performed ratio studies are a good reflection of the level of appraisal for the district.

Residential Valuation Process

Introduction

Scope of Responsibility

The residential appraisers are responsible for estimating equal and uniform market values for residential improved and vacant property. There are approximately 6890 residential improved single and multiple family parcels and 1023 vacant lot properties in Callahan County.

Appraisal Resources

- **Personnel** - The appraisal staff consist of CAD staff and WVC appraisers.

  Ryan Beam: Contract Appraiser
  Colter Asbill: Contract Appraiser
  Richard Petree: Contract Appraiser
  Bill Beam: Contract Appraiser
  Matt Pannell: Contract Appraiser
  Justin Cost: Contract Appraiser
  Stephanie McPherson: Chief Appraiser
  Carla Brown: Deputy Chief Appraiser
  Carrie Whitecotton: Appraiser
  Renee Mendez: Exemptions/Data Clerk/Receptionist
  Mathew Walker: Appraiser
  Jimmy Hatcher: part time receptionist

- **Data -** An individualized set of data characteristics for each residential dwelling and multiple family units in this district are collected in the field and data entered to the computer. The property characteristic data drives the application of computer-assisted

mass appraisal (CAMA) under the Cost, Market, and Income Approaches to property valuation.

Identified Properties for inspection

Pursuant to Section 25.18 of the Texas Property Tax Code, The Callahan County Appraisal District has established the reappraisal plant to provide for the reappraisal of all property within the district at least once every three (3) years. The plan establishes a two-fold approach:

1. **Three- Year Cycle**:   The CAD is divided into three areas. Each year, all real residential and commercial property within one of the areas will be reappraised, regardless of any ratio study/report findings. These areas are identified as follows:

   a. **Area One**:   All properties within the district lines of the Clyde Independent School District.

   b. **Area Two**:   All properties within the district lines of the Eula Independent School District and the Cross Plains Independent School District.

   c. **Area Three**:   All properties within the district lines of the Baird Independent School District, the Cisco Independent School District and the Moran Independent School District.

   **Note: All income producing personal property, mineral property, and utilities within the CAD are appraised on an annual basis, regardless of its location.

2. **Annual Ratio Reports**: In addition to the three-year cycle stated above, ratio studies shall be performed annually to determine areas or categories of properties within the CAD which need to be reappraised within the current year based on sales ratios. Any areas or categories whose ratios are above or below statutory requirements shall be reappraised in the current year regardless of the area in which they are located.

3. **Market Areas**: In addition to the three-year cycle stated above, the appraisal district looks closely at its market areas in the county, specifically the market areas of Clyde ISD and Eula ISD, these areas are more active than any other part of the county and are closely reviewed each year.

This two-fold approach will insure not only that all residential and commercial property within the CAD is reappraised at least once every three-years, but all that all other categories within the CAD are reviewed annually so that the appraisal district stays current with respect to market value in those areas where residential and/or commercial property values appear to be changing rapidly. Due to this factor the board of directors gives the Chief Appraiser the authority to modify schedule changes due to the market conditions.

Organization

Field inspections are carried out by the chief appraiser and contract field appraisers. The appraisers physically inspect areas by the reappraisal cycle, check all existing data, work building permits, takes photographs of improvements, draw plans of new improvements for entry

into the computer, and recheck any property on which a question or problem has arisen. Other duties may be required and will be executed upon direction of the chief appraiser. Data entry of field work notes and sketches is performed by the chief appraiser and field appraisers.

The chief appraiser performs market analysis. Sales data is gathered throughout the year from deed records, sales confirmation letters from property owners, and other sources. The market data is analyzed, sales data confirmed, outliers are identified, existing classification systems is reviewed, market schedules are reviewed and updated as necessary, and final market schedules are applied to the universe of properties.

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2021 Reappraisal Schedule

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The appraisers shall physically inspect all property as described in Area Two (2) Cross Plains and Eula ISD's.

Mid December 2020: Begin planning sales ratio studies for all areas within the CAD.
Gather current sales data from sales confirmation letters, deed records, and other sources.

January to March 2021: Mail homestead applications, special-use valuation applications, personal property renditions, exemptions applications, and other required forms.
Complete field inspections as provided by the reappraisal plan area.
Begin running sales ratio reports. Compare with CAD values and sales information. Identify necessary schedule adjustments.

March to April: Continue running sales ratio reports.
Refine sales analysis and mass appraisal schedules.
Statistically test schedules
Complete data entry of all reappraisal and maintenance changes.
Finalize all field work and data collection activities.
Execute mass appraisal/maintenance activities are required.
Prepare for mailing of Notice of Value.

May to June: Hold informal hearings.
Respond to property owners' inquiries, protests, and questions from notice mailings.
Provide certified estimated values to taxing units.
Hold ARB hearings.

July: Finalize ARB hearrings and process and mail ARB orders.
Enter into computer all changes as ordered by ARB and notify other CAD's if the ordered change falls into an overlapping area.
ARB approval of appraisal records by July 20th.
Certification of appraisal records and values to the taxing units by July 25th.

August: Prepare and Mail postcards with taxing entities and rate information to all parcels.

August to Mid-December: Begin property inspections for the 2022 tax year.

As needed throughout the year: Address any protests by forwarding them to the ARB

2022 Reappraisal Schedule

The same timetable and duties apply in each year. The appraisers shall physically inspect all property as described in Area three (3) Baird, Moran and Cisco ISD's. The chief appraiser and CAD staff shall continue to complete the same duties and reappraisal steps as outlined for 2021.

IDENTIFICATION OF MARKET AREAS

Callahan County consists of approximately 13,900 real property parcels. The school districts represent the different market areas for the county.

Clyde ISD is our largest market area with approximately 6,950 parcels. Of these parcels there are approx. 4,500 rural parcels and 2,450 parcels that lie within the City limits of Clyde. Of the rural parcels there are 23 rural sub-divisions and 53 sub-divisions within the city limits of Clyde. We have found that the city of Clyde's close proximity to the City of Abilene is a big driving factor for market activity within the City of Clyde, along with having the newest school facilities in the county. The downtown area of Clyde has diminished some, as most businesses have focused on the I-20 corridor that runs through the north edge of Clyde and this is where they have the majority of their commerce. The city of Clyde's population is still a good mixture of all age groups, and a large portion of the Clyde ISD population works either for the ISD, retail in Clyde, the prison system, or works in Abilene. The most active sub-division in the rural area is the Country Club Estates, located right across the street from the local golf course, which services Clyde and Baird communities and has excellent access to the golf course from this sub-division. Clyde ISD does overlap into three other adjoining counties of which one has two prisons that are in close proximity to the Callahan County line. Most of the rural area within Clyde ISD is farm land and some ranch land. Land values of parcels within both rural and urban sub-divisions are generally adjusted to the base area when there are irregular shaped lots.

Baird ISD is the second largest market area in the county with approximately, 6,500 parcels. Of these parcels there are approximately 5,300 rural parcels, and 1,200 parcels within the city limits of Baird. 251 parcels within the city limits of Putnam. Of the rural parcels there are 11 rural sub-divisions, 13 sub-divisions within the city of Baird, and 4 sub-divisions within the city of Putnam. The market area in Baird ISD has slowed considerably over the last few years, even though the City of Baird and the City of Putnam are on the thoroughfare of Interstate 20. Most homes within these two towns are older homes and senior adults over the age of 60 make up the biggest portion of the population living in them, with most of them being retired. The most active sub-division within the city of Baird would be the North Village addition, which is on the North side of Interstate 20 and has the newer homes that are located in town. Land values of parcels within both rural and urban sub-divisions are generally adjusted to the base area when there are irregular shaped lots. Most of the rural area within Baird ISD is ranch land with some farm land. Baird ISD boundaries all lie within boundaries of Callahan County.

Cross Plains ISD is the third market area in the county with 4,274 parcels. Of these parcels there are 3,284 rural parcels and 990 parcels within the city limits of Cross Plains. Of the rural parcels that is only 1 rural sub-division, and there are 12 sub-divisions within the city limits of Cross Plains. The city of Cross Plains is dissected by State Hwy 36 running east and west, and State Hwy 206 running north & south. The city of Cross Plains is located in the farthest Southeast corner of the county, but is a central hub between Cisco, Brownwood, Coleman, Comanche and

Abilene. The downtown area of Cross Plains is still active with Hwy 206 being their main street through town. The biggest part of the population consists of senior adults over the age of 60. Most of the homes are older homes, but due to a major fire in 2005, several homes were destroyed and new homes have been built to replace the majority of the ones that were destroyed. The rural area is basically equal for farm land and ranch land. Land values of parcels within both rural and urban sub-divisions are generally adjusted to the base area when there are irregular shaped lots. Cross Plains ISD overlaps into three adjoining counties.

Eula ISD is the fourth market area in the county with approximate 3,700 parcels that are all rural, there are no cities in Eula ISD. There are 19 rural sub-divisions. The majority of commercial land is basically along I-20 and close to the Taylor county line. Eula ISD has more market activity like Clyde ISD, because of its close proximity to Abilene, and also because of its newer school buildings. The heavier population is found in and around the Eula school community and consist of all age groups. Land values of parcels within these sub-divisions are generally adjusted to the base area when there are irregular shaped lots. The land area is mostly farm land with some ranch land. Eula ISD overlaps into Taylor County.

Moran ISD overlaps into Callahan County on the northeast corner of the county which touches Shackelford County. There are approximately 498 rural parcels and no sub-divisions. Most of this area is ranch land with some cultivation. The basic market reflection on land is the same as for Baird ISD rural areas.

Cisco ISD overlaps into Callahan County on the East side of the County which touches Eastland County. There are approximately 115 rural parcels and no sub-divisions. Most of this area is ranchland with some cultivation. The basic market reflection on land is the same as for Baird ISD rural areas.

VALUATION APPROACH

Land Analysis

Residential land valuation analysis is conducted prior to neighborhood sales analysis. The value of the land component to the property is estimated based on available market sales for comparable and competing land under similar usage.   A comparison and analysis of comparable land sales is conducted based on a comparison of land characteristics found to influence the market price of land located in the neighborhood.   A computerized land table file stores the land information required to consistently value individual parcels within neighborhoods given known land characteristics. Specific land influences are considered, where necessary, and depending on neighborhood and individual lot or tract characteristics, to adjust parcels outside the neighborhood norm for such factors as access, view, shape, size, and topography. The appraisers use abstraction and allocation methods to insure that estimated land values best reflect the contributory market value of the land to the overall property value.

Area Analysis

Data on regional economic forces such as demographic patterns, 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 TAAD, TAAO and IAAO classes.

Neighborhood and Market Analysis

Neighborhood analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effects of these forces are also used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis are conducted on various market areas within each of the political entities known as Independent School Districts (ISD). Analysis of comparable market sales forms the basis of estimating market activity and the level of supply and demand affecting market prices for any given market area, neighborhood or district. Market sales indicate the effects of these market forces and are interpreted by the appraiser into an indication of market price ranges and indications of property component change considering a given time period relative to the date of appraisal. Cost and Market Approaches to estimate value are the basic techniques utilized to interpret these sales.

The first step in neighborhood analysis is the identification of a group of properties that share certain common traits. A "neighborhood" for analysis purposes is defined as the largest geographic grouping of properties where the property's physical, economic, governmental and social forces are generally similar and uniform. Geographic stratification accommodates the local supply and demand factors that vary across a jurisdiction. Once a neighborhood with similar characteristics has been identified, the next step is to define its boundaries. This process is known as "delineation". Some factors used in neighborhood delineation include location, sales price range, lot size, age of dwelling, quality of construction and condition of dwellings, 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.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

Typically, residential parcels are valued with a replacement cost, estimated from identical cost schedules based on the CAD's improvement classification system. The district's residential cost schedules are estimated from Marshall and Swift, a nationally recognized cost estimator service. These cost estimates are compared with sales of new improvements and evaluated from year to year and indexed to reflect the local residential building and labor market. Costs may also be indexed for neighborhood factors and influences that affect the total replacement cost of the improvements in a smaller market area based on evidence taken from a sample of market sales. The cost schedules are reviewed regularly as a result of recent state legislation requiring that the appraisal district cost schedules be within a range of plus or minus 10% from nationally recognized cost schedules. A review of the residential cost schedule is performed annually. As

part of this review and evaluation process of the estimated replacement cost, newly constructed sold properties representing various levels of quality of construction in district are considered. The property data characteristics of these properties are verified and photographs are taken of the samples. CAD replacement costs are compared against Marshall & Swift, a nationally recognized cost estimator, and the indicated replacement cost abstracted from these market sales of comparably improved structures. The results of this comparison are analyzed using statistical measures, including stratification by quality and reviewing of estimated building costs plus land to sales prices. As a result of this analysis, a new regional multiplier or economic index factor and indications of neighborhood economic factors are developed for use in the district's cost process. This new economic index is estimated and used to adjust the district's cost schedule to be in compliance with local building costs as reflected by the local market.

Sales Information

A sales file for the storage of sales data is maintained for all properties. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyer and seller, field discovery, protest hearings, Board of Realtor's MLS, various sale vendors, builders, and realtors. A system of type, source, validity and verification codes has been established to define salient facts related to a property's purchase or transfer and to help determine relevant market sale prices. The effect of time as an influence on price was considered by paired comparison and applied in the ratio study to the sales as indicated within each neighborhood area. Neighborhood sales reports are generated as an analysis tool for the appraiser in the development and estimation of market price ranges and property component value estimates. Abstraction and allocation of property components based on sales of similar property is an important analysis tool to interpret market sales under the cost and market approaches to value. These analysis tools help determine and estimate the effects of change, with regard to price, as indicated by sale prices for similar property within the current market.

Monthly time adjustments are estimated based on comparative analysis using paired comparison of sold property. Sales of the same property were considered and analyzed for any indication of price change attributed to a time change or influence. Property characteristics, financing, and conditions of sale were compared for each property sold in the pairing of property to isolate only the time factor as an influence on price.

Market and Cost Reconciliation and Valuation

Neighborhood analysis of market sales to achieve an acceptable sale ratio or level of appraisal is also the reconciliation of the market and cost approaches to valuation. Market factors are developed from appraisal statistics provided from market analyses and ratio studies and are used to ensure that estimated values are consistent with the market and to reconcile cost indicators. The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market influences not particularly specified in a purely cost model.

The following equation denotes the hybrid model used:

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

In accordance with the cost approach, the estimated market value (MV) of the property equals the land value (LV) plus the replacement cost new of property improvements (RCN) less accrued depreciation (AD). As the cost approach separately estimates both land and building contributory values and uses depreciated replacement costs, which reflect only the supply side of the market, it is expected that adjustments to the cost values may be needed to bring the level of appraisal to an acceptable standard as indicated by market sales. Thus, demand side economic factors and influences may be observed and considered. These markets, or location adjustments, may be abstracted and applied uniformly within neighborhoods to account for locational variances between market areas or across a jurisdiction. Whereas, in accordance with the Market Approach, the estimated market value (MV) of the property equals the basic unit of property, under comparison, times the market price range per unit for sales of comparable property. For residential property, the unit of comparison is typically the price per square foot of living area or the price indicated for the improvement contribution. This analysis for the hybrid model is based on both the cost and market approaches as a correlation of indications of property valuation. A significant unknown for these two indications of value is determined to be the rate of change for the improvement contribution to total property value. The measure of change for this property component can best be reflected and based in the annualized accrued depreciation rate. This cost related factor is most appropriately measured by sales of similar property. The market approach, when improvements are abstracted from the sale price, indicates the depreciated value of the improvement component, in effect, measuring changes in accrued depreciation, a cost factor. The level of improvement contribution to the property is measured by abstraction of comparable market sales, which is the property sale price less land value. The primary unknown for the cost approach is to accurately measure accrued depreciation affecting the amount of loss attributed to the improvements as age increases and condition changes. This evaluation of cost results in the depreciated value of the improvement component based on age and condition. The evaluation of this market and cost information is the basis of reconciliation and indication of property valuation under this hybrid model.

When the appraiser reviews a neighborhood, the appraiser reviews and evaluates a ratio study that compares recent sales prices of properties, appropriately adjusted for the effects of time, within a delineated neighborhood, with the value of the properties' based on the estimated depreciated replacement cost of improvements plus land value. The calculated ratio derived from the sum of the sold properties' estimated value divided by the sum of the time adjusted sales prices indicates the neighborhood level of appraisal based on sold properties. This ratio is compared to the acceptable appraisal ratio, 96% to 100%, to determine the level of appraisal for each neighborhood. If the level of appraisal for the neighborhood is outside the acceptable range of ratios, adjustments to the neighborhood are made.

If reappraisal of the neighborhood is indicated, the appraiser analyzes available market sales, appropriately adjusted for the apparent effects of time, by market abstraction of property components. This abstraction of property components allows the appraiser to focus on the rate of change for the improvement contribution to the property by providing a basis for calculating accrued depreciation attributed to the improvement component. This impact on value is usually the most significant factor affecting property value and the most important unknown to

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

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 that law, beginning in the second year a property receives a homestead exemption, any increase in the assessed value of that property are "capped." The value for tax purposes (assessed value) of a qualified residence homestead will be the LESSER of:

- the market value; or

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

Assessed values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the year following sale of the property and the property is appraised at its market value.   An analogous provision applies to new homes. While a developer owns them, unoccupied residences may be partially complete and appraised as part

of an inventory. This valuation is estimated using the district's land value and the percentage of completion for the improvement contribution that   usually is similar to the developer's construction costs as a basis of completion on the valuation date. However, in the year following changes in completion, occupancy, or sale, they are appraised at market value.

INDIVIDUAL VALUE REVIEW PROCEDURES

Office Review

Once field review is completed, the appraiser conducts a routine valuation review of all properties as outlined in the discussion of ratio studies and market analysis. Valuation reports comparing previous values against proposed and final values are generated for all residential improved and vacant properties. The percentage of value difference are noted for each property within a delineated neighborhood allowing the appraiser to identify, research and resolve value anomalies before final appraised values are released. Previous values resulting from a hearing protest are individually reviewed to determine if the value remains appropriate for the current year. Once the appraiser is satisfied with the level and uniformity of value for each neighborhood within his area of responsibility, the estimates of value go to noticing.

PERFORMANCE TESTS

Sales Ratio Studies

The primary analytical tool used by the appraisers to measure and improve performance is the ratio study. The district ensures that the appraised values that it produces meet the standards of accuracy in several ways. Overall sales ratios are generated for each neighborhood to allow the appraiser to review general market trends within their area of responsibility, and provide an indication of market appreciation over a specified period of time. The PC-based ratio studies are designed to emulate the findings of the state comptroller's annual property value study for category 'A' property.

Management Review Process

Once the proposed value estimates are finalized, the chief appraiser reviews the sales ratios by neighborhood. This review includes comparison of level of value between related neighborhoods within 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 and Industrial Property Valuation Process

Introduction

Scope of Responsibility

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

Appraisal Resources

> **Personnel** - The improved real property appraisal responsibilities are categorized according to major property types of multi-family or apartment, office, retail, warehouse and special use (i.e. hotels, hospitals and, nursing homes).

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

PRELIMINARY ANALYSIS

Market Study

Market studies are utilized to test new or existing procedures or valuation modifications in a limited sample of properties located in the district and are also considered and become the basis of updating whenever substantial changes in valuation are made. These studies target certain types of improved property to evaluate current market prices for rents and for sales of commercial and industrial real property. These comparable sale studies and ratio studies reveal whether the valuation system is producing accurate and reliable value estimates or whether procedural and economic modifications are required. The appraiser implements this methodology when developing cost approach, market approach, and income approach models.

Callahan CAD administration and personnel interact with other assessment officials through professional trade organizations including the International Association of Assessing Officers, Texas Association of Appraisal Districts, and the Texas Association of Assessing Officers. The districts staff strives to maintain appraisal skills and professionalism by continuing education in the form of courses that are offered by several professional associations such as International Association of Assessing Officers (IAAO), Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD) and Texas Department of Licensing & Regulations (TDLR), required courses.

VALUATION APPROACH

Land Value

Commercial land is analyzed annually to compare appraised values with recent sales of land in the market area. If appraised values differ from sales prices being paid, adjustments are made to all land in that region. Generally, commercial property is appraised on a price per square foot basis. Factors are placed on individual properties based on corner influence, depth of site, shape of site, easements across site, and other factors that may influence value. The land is valued as though vacant at the highest and best use.

Area Analysis

Area 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.

Neighborhood Analysis

The neighborhood and market areas are comprised of the land area and commercially classed properties located within the boundaries of this appraisal jurisdiction. These areas consist of a wide variety of property types including multiple-family residential, commercial and industrial. Neighborhood and area analysis involve the examination of how physical, economic, governmental and social forces and other influences may affect property values within subgroups of property locations. The effects of these forces are also used to identify, classify, and organize comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. In the mass appraisal of commercial and industrial properties these subsets of a universe of properties are generally referred to as market areas, neighborhoods, or economic areas.

Economic areas are defined by each of the improved property use types (apartment, office, retail, warehouse and special use) based upon an analysis of similar economic or market forces. These include but are not limited to similarities of rental rates, classification of projects (known as building class by area commercial market experts), date of construction, overall market activity or other pertinent influences. Economic area identification and delineation by each major property use type is the benchmark of the commercial valuation system. All income model valuation (income approach to value estimates) is economic area specific. Economic areas are

periodically reviewed to determine if redefinition is required. The geographic boundaries as well as income, occupancy and expense levels and capitalization rates by age within each economic area for all commercial use types and its corresponding income model have been estimated for these properties.

Highest and Best Use Analysis

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

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

Market Analysis

A market analysis relates directly to examining market forces affecting supply and demand. This study involves the relationships between social, economic, environmental, governmental, and site conditions. Current market activity including sales of commercial properties, new construction, new leases, lease rates, absorption rates, vacancies, allowable expenses (inclusive of replacement reserves), expense ratio trends, capitalization rate studies are analyzed to determine market ranges in price, operating costs and investment return expectations.

DATA COLLECTION / VALIDATION

Data Collection Manuals

Data collection and documentation for Commercial/Industrial property is continually updated, providing a uniform system of itemizing the multitude of components comprising improved properties. All properties located in Callahan CAD's inventory are coded according to a specific classification system and the approaches to value are structured and calibrated based on this coding system.

Sources of Data

In terms of commercial sales data, Callahan CAD receives a copy of the deeds recorded in Callahan County. These deeds involving a change in commercial ownership are entered into the sales information system and researched in an attempt to obtain the pertinent sale information. Other sources of sale data include the protest hearings process and local, regional and national real estate and financial publications.

In other instances, sales verification is obtained from local appraisers or others that may have the desired information. Finally, closing statements are often provided during the hearings process. The actual closing statement is the most reliable and preferred method of sales verification.

VALUATION ANALYSIS

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

Cost Schedules

The cost approach to value is applied to improved real property utilizing the comparative unit method. This methodology involves the utilization of national cost data reporting services as well as actual cost information on local comparable properties whenever possible. Cost models are typically developed based on the Marshall Valuation Service which indicates estimated hard or direct costs of various improvement types. Cost models include the derivation of replacement cost new (RCN) of all improvements represented within the district. These include comparative base rates, per unit adjustments and lump sum adjustments for variations in property description, design, and types of improvement construction. This approach and analysis also employs the sales comparison approach in the evaluation of soft or indirect costs of construction. Evaluating market sales of newly developed improved property is an important part of understanding total replacement cost of improvements. What total costs may be involved in the development of the property, as well as any portion of cost attributed to entrepreneurial profit can only be revealed by market analysis of pricing acceptance levels. In addition, market related land valuation for the underlying land value is important in understanding and analyzing improved sales for all development costs and for the abstraction of improvement costs for construction and development. Time and location modifiers are necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for the cost models, locational modifiers and estimates of soft cost factors are necessary to adjust these base costs specifically for various types of improvements located in Callahan County. Thusly, local modifiers are additional cost factors applied to replacement cost estimated by the national cost service. Estimated replacement cost new will reflect all costs of

construction and development for various improvements located in Callahan CAD as of the date of appraisal.

Accrued depreciation is the sum of all forms of loss affecting the contributory value of the improvements.   It is the measured loss against replacement cost new taken from all forms of physical deterioration, functional and economic obsolescence. Accrued depreciation is estimated and developed based on losses typical for each property type at that specific age. Depreciation estimates have been implemented for what is typical of each major class of commercial property by economic life categories. Estimates of accrued depreciation have been calculated for improvements with a range of variable years expected life based on observed condition considering actual age. These estimates are continually tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements are noted in CAMA. Effective age estimates are based on the utility of the improvements relative to where the improvement lies on the scale of its total economic life and its competitive position in the marketplace. Effective age estimates are considered and reflected based on five levels or rankings of observed condition, given actual age.

Additional forms of depreciation such as external and/or functional obsolescence can be applied if observed. A depreciation calculation override can be used if the condition or effective age of a property varies from the norm by appropriately noting the physical condition and functional utility ratings on the property data characteristics. These adjustments are typically applied to a specific condition adequacy or deficiency, property type or location and can be developed via ratio studies or other market analyses.

The result of estimating accrued depreciation and deducting that from the estimated replacement cost new of improvements indicates the estimated contributory value of the improvements. Adding the estimated land value, as if vacant, to the contributory value of the improvements indicates a property value by the cost approach.   Given relevant cost estimates and market related measures of accrued depreciation, the indicated value of the property by the cost approach becomes a very reliable valuation technique.

Income Models

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

A vacancy and collection loss allowance are the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market survey trends. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. This feature may also provide for a reasonable lease-up period for multi-tenant properties, where applicable. The

market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an indication of estimated annual effective gross rent to the property.

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

Allowable expenses and expense ratio estimates are based on a study of the local market, with the assumption of prudent management. An allowance for non-recoverable expenses such as leasing costs and tenant improvements may be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Relevant expense ratios are developed for different types of commercial property based on use and market experience. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for all operating expenses, such as ad valorem taxes, insurance, and common area and property maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible for all expenses incurred during the first year of the lease. As a result, expense ratios are implemented and estimated based on observed market experience in operating various types of commercial property.

Another form of allowable expense is the replacement of short-lived items (such as roof or floor coverings, air conditioning or major mechanical equipment or appliances) requiring expenditures of lump sum costs. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves. For some types of property, typical management does not reflect expensing reserves and is dependent on local and industry practices.

Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves when applicable) from the annual effective gross income yields an estimate of annual net operating income to the property.

Return rates and income multipliers are used to convert operating income expectations into an estimate of market value for the property under the income approach. These include income multipliers, overall capitalization rates, and discount rates. Each of these multipliers or return rates are considered and used in specific applications. Rates and multipliers may vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market for individual income property types and uses. These procedures are supported and documented based on analysis of market sales for these property types.

Capitalization analysis is used in the income approach models to form an indication of value. This methodology involves the direct capitalization of net operating income as an indication of

market value for a specific property. Capitalization rates applicable for direct capitalization method and yield rates for estimating terminal cap rates for discounted cash flow analysis are derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of property return expectations a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived and estimated from the built-up method (band-of-investment). This method relates to satisfying estimated market return requirements of both the debt and equity positions in a real estate investment. This information is obtained from available sales of property, local lending sources, and from real estate and financial publications.

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

Sales Comparison (Market) Approach

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

Final Valuation Schedules

Based on the market data analysis and review discussed previously in the cost, income and sales approaches, the cost and income models are calibrated and finalized. The calibration results are keyed to the schedules and models in the CAMA system for utilization on all commercial properties in the district. Market factors reflected within the cost and income approaches are evaluated and confirmed based on market sales of commercial and industrial properties.   The appraisers review the cost, income, and sales comparison approaches to value for each of the

types of properties with available sales information.   The final valuation of a property is estimated based on reconciling these indications of value considering the weight of the market information available for evaluation and analysis in these approaches to value.

Statistical and Capitalization Analysis

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

Appraisal statistics of central tendency and dispersion generated from sales ratios are calculated for each property type with available sales data. These summary statistics including, but not limited to, the weighted mean, provide the appraisers an analytical tool by which to determine both the level and uniformity of appraised value of a particular property type. The level of appraised values can be determined by the weighted mean for individual properties within a specific type, and a comparison of weighted means can reflect the general level of appraised value.

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

Potential gross rent estimates, occupancy levels, secondary income, allowable expenses (inclusive of non-recoverable and replacement reserves), net operating income and capitalization rate and multipliers are continuously reviewed. Income model estimates and   conclusions are compared to actual information obtained on individual commercial and industrial income properties during the protest hearings process, as well as with information from published sources and area property managers and owners.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of last inspection, extent of that inspection, and the Callahan County CAD appraiser responsible are listed in the CAMA system. If a property owner disputes the District's records concerning this data in a protest hearing, CAMA may be altered based on the credibility of the evidence provided. Normally, a new field check is then requested to verify this information for the current year's valuation or for the next year's valuation. In addition, if a building permit is filed for a particular property indicating a change in characteristics, that property is added to a

work file for review

Commercial appraisers are somewhat limited in the time available to field review all commercial properties of a specific use type. However, a major effort is made by appraisers to field review as many properties as possible or economic areas experiencing large numbers of remodels, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the appraisers frequently field review subjective data items such as building class, quality of construction (known as cost modifiers), condition, and physical, functional and economic obsolescence factors contributing significantly to the market value of the property. With preliminary estimates of value in these targeted areas, the appraisers test computer assisted values against their own appraisal judgment. While in the field, the appraisers physically inspect sold and unsold properties for comparability and consistency of values.

Office Review

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

Once the appraiser is satisfied with the level and uniformity of value for each commercial property within their area of responsibility, the estimates of value go to noticing. Each parcel is subjected to the value parameters appropriate for its use type.

PERFORMANCE TESTS

The primary tool used to measure mass appraisal performance is the ratio study. A ratio study compares appraised values to market prices. In a ratio study, market values (value in exchange) are typically represented with the range of sale prices, i.e. a sales ratio study. Independent, expert appraisals may also be used to represent market values in a ratio study, i.e. an appraisal ratio study. If there are not enough examples of market price to provide necessary representativeness, independent appraisals can be used as indicators for market value. This can be particularly useful for commercial or industrial real property for which sales are limited. In

addition, appraisal ratio studies can be used for properties statutorily not appraised at market value, but reflect the use-value requirement. An example of this are multi-family housing projects subject to subsidized rent provisions or other governmental guarantees as provided by legislative statutes (affordable housing) or agricultural lands to be appraised on the basis of productivity or use value.

Callahan CAD has adopted the policies of the IAAO STANDARD ON RATIO STUDIES, circa July 1999 regarding its ratio study standards and practices. Ratio studies generally have six basic steps: (1) determination of the purpose and objectives, (2) data collection and preparation, (3) comparing appraisal and market data, (4) stratification, (5) statistical analysis, and (6) evaluation and application of the results.

Sales Ratio Studies

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

Overall sales ratios are generated by use type semi-annually (or more often in specific areas) to allow appraisers to review general market trends in their area of responsibility and for the Property Study from the Property Tax Division of the Comptroller's Office. In many cases, field checks may be conducted to ensure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics. These ratio studies aid the appraisers by providing an indication of market activity by economic area or changing market conditions (appreciation or depreciation).

Comparative Appraisal Analysis

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

INTRODUCTION

Scope of Responsibility

There are four different personal property types appraised by the district's personal property section: Business Personal Property accounts; leased assets; vehicles and aircraft; and multi-location assets.

- **Data** - A common set of data characteristics for each personal property account in Callahan CAD is collected in the field. The property characteristic data drives the computer-assisted personal property appraisal (CAPPA) system. The personal property appraisers collect the field data and maintain electronic property files making updates and changes gathered from field inspections, newspapers, property renditions, and interviews with property owners.

APPRAISAL RESOURCES

- **Personnel** – The personal property staff consist of two appraisers and 3 support staff

    Mathew Walker, Personal Property Appraiser and Data Gatherer

    Carla Brown, Personal Property Appraiser and Data Gatherer

    Stephanie McPherson, Personal Property Appraiser and Data Gatherer

Data – A common set of data characteristics for each personal property account in Callahan CAD is collected from the various government regulatory agency records, field inspections and property owner renditions. This data is entered into the district's computer. Property owner renditions are requested to document and list property owned and located in our jurisdictions. The property characteristic data drives the computer-assisted appraisal of the property.

VALUATION APPROACH

Highest and Best Use Analysis

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

DATA COLLECTION/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.

Sources of Data

The district's property characteristic data was collected through a massive effort coordinated by the district over the recent past and from property owner renditions. From year to year, reevaluation activities permit district appraisers to collect new data via an annual field inspection. This project results in the discovery of new businesses, changes in ownership, relocation of businesses, and closures of businesses not revealed through other sources. Tax assessors, city and local newspapers, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

Vehicles

The Texas Department of Motor Vehicles (TxDMV) Title and Registration Division records are utilized to determine ownership and jurisdiction. 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.

VALUATION AND STATISTICAL ANALYSIS (model calibration)

Depreciation Schedule and Trending Factors:

Business Personal Property

Callahan CAD's 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 CAD developed valuation models. The trending factors used by the CAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by Callahan CAD are also based on published valuation guides. The index factors and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

$$PVF = INDEX\ FACTOR\ x\ PERCENT\ GOOD\ FACTOR$$

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

$$MARKET\ VALUE\ ESTIMATE = PVF\ x\ HISTORICAL\ COST$$

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

Vehicles

Value estimates for vehicles are provided by an outside vendor and are based on Red Book published book values, and there are also considerations available for high mileage. Vehicles that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

<u>Leased and Multi-Location Assets</u>

Leased and multi-location assets are valued using the PVF schedules mentioned above. If the asset to be valued in this category is a vehicle, then NADA published book values are used. Assets that are valued by an appraiser are valued by using PVF schedules or published guides.

INDIVIDUAL VALUE REVIEW PROCEDURES

PERFORMANCE TESTS

Ratio Studies

Each year 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 Callahan CAD's personal property values and ratios are indicated.

INTRODUCTION

Appraisal Responsibility for the above properties is contracted out to Morgan Ad Valorem Services Inc. The Callahan County Appraisal District is responsible for maintaining ownership interest on the mineral property and keep division of interest updated on the computers.

Appraisal Resources

- **Contracted Services: Morgan Ad Valorem Services Inc.**

    James Morgan, Appraiser
    Mike Brenner, Appraiser

- **Personnel** - The mineral, utility, Industrial & Complex property staff consists of the chief appraiser and support staff.

The 2021-2022 Appraisal Report provided by Morgan Ad Valorem Services Inc. addresses all of the complex property services they provide to Callahan County Appraisal District.

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. Some interior inspections of property appraised were performed at the request of the property owner and required by the district for clarification purposes and to correct property descriptions.

3. Validation of sales transactions was attempted through questionnaires to buyer and seller, telephone survey and field review. In the absence of such confirmation, residential sales data obtained from vendors was considered reliable.

Certification Statement:

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

_____

Stephanie McPherson
Chief Appraiser

**STAFF PROVIDING SIGNIFICANT
MASS APPRAISAL ASSISTANCE**

Stephanie McPherson   CAD Chief Appraiser

Carla Brown   CAD Deputy Appraiser

Mathew Walker   CAD Class III Appraiser

Carrie Whitecotton   CAD Class I Appraiser

Renee Mendez   CAD Clerical

Justin Cost   WVC Contract Appraiser

Brad Beam   WVC Contract Appraiser

Richard Petree   WVC Contract Appraiser

Bill Beam   WVC Contract Appraiser

STANDARD 6: MASS APPRAISAL, DEVELOPMENT AND REPORTING

In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.

> Comment: STANDARD 6 applies to all mass appraisals of real or personal property regardless of the purpose or use of such appraisals. STANDARD 6 is directed toward the substantive aspects of developing and communicating credible analyses, opinions, and conclusions in the mass appraisal of properties. Mass appraisals can be prepared with or without computer assistance. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for other purposes.
>
> A mass appraisal includes:
>
> 1) Identifying, properties to be appraised;
> 2) Defining market area of consistent behavior that applies to properties;
> 3) Identifying characteristics (supply and demand) that affect the creation of value in that market area;
> 4) Developing a model structure that reflects the relationship among the characteristics affecting value in the market area
> 5) Calibrating the model structure to determine the contribution of the individual characteristics affecting value;
> 6) Applying the conclusions reflected in the model to the characteristics of the property(ies) being appraised; and
> 7) Reviewing the mass appraisal results.
>
> The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD 6 because ad valorem tax administration is subject to various state, county, and municipal laws.

Standards Rule 6-1

In developing a mass appraisal, an appraiser must:

(a)   be aware of, understand, and correctly employ those recognized methods and techniques   necessary to produce a credible mass appraisal;

> Comment: Mass appraisal provides for a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results.
>
> This requirement recognizes that the principle of change continues to affect the manner in which appraisers perform mass appraisals. Changes and developments in the real property and personal property fields have a substantial impact on the appraisal profession.
>
> To keep abreast of these changes and developments, the appraisal profession is constantly reviewing and revising appraisal methods and techniques and devising new methods and techniques to meet new circumstances. For this reason, it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers.
>
> Each appraiser must continuously improve his or her skills to remain proficient in mass appraisal.

(a)   not commit a substantial error of omission or commission that significantly affects a mass

appraisal; and

> Comment: An appraiser must use sufficient care to avoid errors that would significantly affect his or her opinions and conclusions. Diligence is required to identify and analyze the factors, conditions, data, and other information that would have a significant effect on the credibility of the assignment results.

(c) Not render a mass appraisal in a careless or negligent manner.

> Comment: Perfection is impossible to attain, and competence does not require perfection.
> However, an appraiser must not render appraisal services in a careless or negligent manner.
> This Standards Rule requires an appraiser to use due diligence and due care.

Standards Rule 6-2

In developing a mass appraisal, an appraiser must:

(a) Identify the client and other intended users;

(b) Identify the intended use of the appraisal;

> Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

(c) Identify the type and definition of value, and, if the value opinion to be developed is market value, ascertain whether the value is to be the most probable price:

    (i) In terms of cash; or

    (ii) In terms of financial arrangements equivalent to cash; or

    (iii) In such other terms as may be precisely defined; and

    (iv) If the opinion of value is based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market data;

        Comment: For certain types of appraisal assignments in which a legal definition of market value has been established and takes precedence the JURISDICTIONAL EXCEPTION RULE may apply.

(d) identify the effective date of the appraisal;

STANDARD 6 _____

(e) Identify the characteristics of the properties that are relevant to the type and definition of value and intended use including:

    (i) the group with which a property is identified according to similar market influence;

    (ii) the appropriate market area and time frame relative to the property being valued; and

    (iii) their location and physical, legal, and economic characteristics;

    Comment: The properties must be identified in general terms, and each individual property in the universe   must be identified with the information on its identity stored or referenced in its property record.

    When appraising proposed improvements, an appraiser must examine and have available for future examination, plans, specifications, or other documentation sufficient to identify the extent and character of the proposed improvements.

    Ordinarily, proposed improvements are not appraised for ad valorem tax. Appraisers, however, are sometimes asked to provide opinions of value of proposed improvements so that developers can estimate future property tax burdens. Sometimes units in condominiums and planned unit developments are sold with an interest in un-built community property, the pro rata value of which, if any, must be considered in the analysis of sales data.

(f) Identify the characteristics of the market that are relevant to the purpose and intended use of the mass appraisal including:

    (i) location of the market area;

    (ii) physical, legal, and economic attributes;

        time frame of market activity; and

    (iv) property interests reflected in the market;

(g) In appraising real property or personal property:

    (i)   identify the appropriate market area and time frame relative to the property being valued;

    (ii) when the subject is real property, identify and consider any personal property, trade fixtures, or intangibles that arc not real property but are included in the appraisal;

    (iii) when the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;

     (iv) when the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;

     (v) identify known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or other items of similar nature; and

     (vi) identify and analyze whether an appraised fractional interest, physical segment or partial holding contributes pro rata to the value of the whole;

     Comment: The above requirements do not obligate the appraiser to value the whole when the subject of the appraisal is a fractional interest, physical segment, or a partial holding. However, if the value of the whole is not identified, the appraisal must clearly reflect that the value of the property being appraised cannot be used to develop the value opinion of the whole by mathematical extension.

STANDARD 6_____

(h) Analyze the relevant economic conditions at the time of the valuation, including market acceptability of the property and supply, demand, scarcity, or rarity;

(i) Identify any extraordinary assumptions and any hypothetical conditions necessary in the assignment; and

Comment: An extraordinary assumption may be used in an assignment only if:

• it is required to properly develop credible opinions and conclusions;
• the appraiser has a reasonable basis for the extraordinary assumption;
• use of the extraordinary assumption results in a credible analysis; and
• the appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

A hypothetical condition may be used in an assignment only if:

• use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
• use of the hypothetical condition results in a credible analysis; and
• the appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

(j) Determine the scope of work necessary to produce credible assignment results in accordance with the SCOPE OF WORK RULE.

Standards Rule 6-3

When necessary for credible assignment results, an appraiser must:

(a) in appraising real property, identify and analyze the effect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use of the real estate; and

Comment: This requirement sets forth a list of factors that affect use and value. In considering neighborhood trends, an appraiser must avoid stereotyped or biased assumptions relating to race, age, color, gender, or national origin or an assumption that race, ethnic, or religious homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must avoid making an unsupported assumption or premise about neighborhood decline, effective age, and remaining life. In considering highest and best use, an appraiser must develop the concept to the extent required for a proper solution to the appraisal problem.

(b) in appraising personal property: identify and analyze the effects on use and value of industry trends, value-in-use, and trade level of personal property. Where applicable, analyze the current use and alternative uses to encompass what is profitable, legal, and physically possible, as relevant to the type and definition of value and intended use of the appraisal. Personal property has several measurable marketplaces; therefore, the appraiser must define and analyze the appropriate market consistent with the type and definition of value.

Comment: The appraiser must recognize that there are distinct levels of trade and each may generate its own data. For example, a property may have a different value at a wholesale level of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser must analyze the subject property within the correct market context.

STANDARD 6_____

Standards Rule 6-4

In developing a mass appraisal, an appraiser must:

(a) Identify the appropriate procedures and market information required to perform the appraisal, including all physical, functional, and external market factors as they may affect the appraisal;

Comment: Such efforts customarily include the development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration.

(b) Employ recognized techniques for specifying property valuation models; and

Comment: The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.

(c) Employ recognized techniques for calibrating mass appraisal models.

Comment: Calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model. The table entries in a cost manual are examples of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models must be calibrated using recognized techniques including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation.

Standards Rule 6-5

In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:

(a) collect, verify, and analyze such data as are necessary and appropriate to develop:

(i)   the cost new of the improvements;

(ii) accrued depreciation;

(iii) value of the land by sales of comparable properties;

(iv) value of the property by sales of comparable properties;

(v) value by capitalization of income or potential earnings—i.e., rentals, expenses, interest rates, capitalization rates, and vacancy data;

Comment: This Standards Rule requires appraisers engaged in mass appraisal to take reasonable steps to ensure that the quantity and quality of the factual data that are collected are sufficient to produce credible appraisals. For example, in real property, where applicable and feasible, systems for routinely collecting and maintaining ownership, geographic, sales, income and expense, cost, and property characteristics data must be established. Geographic data must be contained in as complete a set of cadastral maps as possible, compiled according to current standards of detail and accuracy. Sales data must be collected, confirmed, screened, adjusted, and filed according to current standards of practice. The sales file must contain, for each sale, property characteristics data that are contemporaneous with the date of sale. Property characteristics data must be appropriate and relevant to the mass appraisal models being used. The property characteristics data file must contain data contemporaneous

STANDARD 6_____

with the date of appraisal including historical data on sales. where appropriate and available. The data collection program must incorporate a quality control program, including checks and audits of the data to ensure current and consistent records.

(b) base estimates of capitalization rates and projections of future rental rates and/or potential earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate evidence;

Comment: This requirement calls for an appraiser, in developing income and expense statements and cash flow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction.

(c) identify and, as applicable, analyze terms and conditions of any available leases; and

(d) identify the need for and extent of any physical inspection.

Standards Rule 6-6

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When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:

(a) value improved parcels by recognized methods or techniques based on the cost approach, the sales comparison approach, and income approach;

(b) value sites by recognized methods or techniques; such techniques include but are not limited to the sales comparison approach, allocation method, abstraction method, capitalization of ground rent, and land residual technique;

(c) when developing the value of a leased fee estate or a leasehold estate, analyze the effect on value if any, of the terms and conditions of the lease;

Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise the property as if in fee simple, as though unencumbered by existing leases. In such cases, market rent would be used in the appraisal, ignoring the effect of the individual, actual contract rents.

(d) analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, o component parts of a property; the value of the whole must not be developed by adding together the individual values of the various parcels, divided interests, or component parts; and

Comment: When the value of the whole has been established and the appraiser seeks to value a part, the value of any such part. must be tested by reference to appropriate market data and supported by an appropriate analysis of such data.

(e) when analyzing anticipated public or private improvements, located on or off the site, analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.

Standards Rule 6-7

In reconciling a mass appraisal an appraiser must:

(a) reconcile the quality and quantity of data available and analyzed within the approaches used and the applicability and relevance of the approaches, methods and techniques used; and

STANDARD 6 _____

(b) employ recognized mass appraisal testing procedures and techniques to ensure that standards of accuracy is maintained.

Comment: It is implicit in mass appraisal that, even when properly specified and calibrated mass appraisal models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy. This responsibility requires appraisers to evaluate the performance of models, using techniques that may include but are not limited to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio studies, evaluation of hold-out samples, or analysis of residuals.

Standards Rule 6-8

A **written report of a mass appraisal must clearly communicate the elements, results, opinions, and value conclusions of the appraisal.**

Each written report of a mass appraisal must:

(a) clearly and accurately set forth the appraisal in a manner that will not be misleading;

(b) contain sufficient information to enable the intended users of the appraisal to understand the report properly;

Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of (1) property records. (2) sales ratios and other statistical studies, (3) appraisal manuals and documentation, (4) market studies, (5) model building documentation, (6) regulations, (7) statutes, and (8) other acceptable forms.

(c) clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment;

Comment: The report must clearly and conspicuously:

• state all extraordinary assumptions and hypothetical conditions; and
• state that their use might have affected the assignment results.

(d) state the identity of the client and any intended users, by name or type;

(e) state the intended use of the appraisal;

(f) disclose any assumptions or limiting conditions that result in deviation from recognized methods and techniques or that affect analyses, opinions, and conclusions;

(g) set forth the effective date of the appraisal and the date of the report;

Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law. If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is presumed to be contemporaneous with the data and appraisal conclusions.

The effective date of the appraisal establishes the context for the value opinion, while the date of the report indicates whether the perspective of the appraiser on the market and property as of the effective date of the appraisal was prospective, current, or retrospective.

(h) state the type and definition of value and cite the source of the definition;

STANDARD 6_____

Comment: Stating the type and definition of value also requires any comments needed to clearly indicate to intended users how the definition is being applied.

When reporting an opinion of market value, state whether the opinion of value is:

•   In terms of cash or of financing terms equivalent to cash; or

•   Based on non-market financing with unusual conditions or incentives.

When an opinion of market value is not in terms of cash or based on financing terms equivalent to cash, summarize the terms of such financing and explain their contributions to or negative influence on value.

(i) identify the properties appraised including the property rights;

Comment: The report documents the sources for location, describing and listing the property. When applicable, include references to legal descriptions, addresses, parcel identifiers, photos, and building sketches. In mass appraisal this information is often included in property records. When the property rights to be appraised are specified in a statute or court ruling, the law must be referenced.

(j) describe the scope of work used to develop the appraisal; exclusion of the sales comparison approach, cost approach, or income approach must be explained;

Comment: Because intended users' reliance on an appraisal may be affected by the scope of work, the report must enable them to be properly informed and not misled. Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed.

When any portion of the work involves significant mass appraisal assistance, the appraiser must describe the extent of that assistance. The signing appraiser must also state the name(s) of those providing the significant mass appraisal assistance in the certification, in accordance with Standards Rule 6-9.

(k) describe and justify' the model specification(s) considered, data requirements, and the model(s) chosen;

Comment: The appraiser must provide sufficient information to enable the client and intended users to have confidence that the process and procedures used conform to accepted methods and result in credible value conclusions. In the case of mass appraisal for ad valorem taxation, stability and accuracy arc important to the credibility of value opinions. The report must include a discussion of the rationale for each model, the calibration techniques to be used, and the performance measures to be used.

(1) describe the procedure for collecting, validating, and reporting data;

Comment: The report must describe the sources of data and the data collection and validation processes. Reference to detailed data collection manuals must be made, as appropriate, including where they may be found for inspection.

(m) describe calibration methods considered and chosen, including the mathematical form of the final model(s); describe how value conclusions were reviewed; and, if necessary, describe the availability of individual value conclusions;

(n) when an opinion of highest and best use, or the appropriate market or market level was developed, discuss how that opinion was determined;

Comment: The mass appraisal report must reference case law, statute, or public policy that describes highest and best use requirements. When actual use is the requirement, the report must discuss how use-value opinions

were developed. The appraiser's reasoning in support of the highest and best use opinion must be provided in the depth and detail required by its significance to the appraisal.

(o) identify the appraisal performance tests used and set forth the performance measures attained;

(p) describe the reconciliation performed, in accordance with Standards Rule 6-7; and

(q) include a signed certification in accordance with Standards Rule 6-9.

Standards Rule 6-9

Each written mass appraisal report must contain a signed certification that is similar in content to the following form:

I 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, opinions, 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 (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.**

___   **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 (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and which individuals did not make a personal inspection of the appraised property.)**

___   **no one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated.)**

Comment: The above certification is not intended to disturb an elected or appointed assessor's work plans or oaths of office. A signed certification is an integral part of the appraisal report. An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal, must also sign this certification.

In an assignment that includes only assignment results developed by the real property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes personal property assignment results not developed by the real property appraiser(s), any real property appraiser(s) who signs a certification accepts full responsibility for the real property elements of the certification, for the real property   assignment results, and for the real property contents of the appraisal report.

In an assignment that includes only assignment results developed by the personal property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the

assignment results, and for the contents of the appraisal report. In an assignment that includes real property assignment results not developed by the personal property appraiser(s), any personal property appraiser(s) who signs a certification accepts full responsibility for the personal property elements of the certification, for the personal property assignment results, and for the personal property contents of the appraisal report.

When a signing appraiser(s) has relied on work done by appraisers and others who do not sign the certification, the signing appraiser is responsible for the decision to rely on their work. The signing appraiser(s) is required to have a reasonable basis for believing that those individuals performing the work are competent. The signing appraiser(s) also must have no reason to doubt that the work of those individuals is credible.

The names of individuals providing significant mass appraisal assistance who do not sign a certification must be stated in the certification. It is not required that the description of their assistance be contained in the certification. but disclosure of their assistance is required in accordance with Standards Rule 6-8(j).

MORGAN AD VALOREM SERVICES, INC.
PO Box 8938
Amarillo, TX 79114-8938
806/358-8186

Appraisers:	**TDLR #**
James R. Morgan, Chief Executive Officer, Appraiser	**69494**
Mike G. Brenner, Appraiser	**69493**

All Mineral, Utility, Industrial and Complex Properties are appraised by MAVSI.

Personal Property Procedures

(Appraisal Report)

For

Morgan Ad Valorem Services, Inc. (MAVSI)

Covering property types L & J

Contents:
Properties covered by this procedures document
Overview of Appraisal conditions
Assumptions and Limiting Conditions
Discovery of new properties
Schedule development and Valuation approaches
Reappraisal Plan

Identifying upgrades, changes, or improvements to existing properties
First year procedures
Uniformity

Properties covered by this procedures document:

  1. Category L properties. Described Personal Properties.
        a. L1— Commercial Personal Property
        b. L2 — Industrial Personal Property

  2. Category J Properties. Described as
        a. J1 — Water distribution systems
        b. J2 — Gas Distribution Systems
        c. J3 — Electric Companies (Including Co-op's)
        d. J4 — Telephone Companies (Including Co-ops)
        e. J5 — Railroad personal property (non-rolling Stock)
         f. J6 — Pipeline Companies
        g. J7 — Cable Television companies
        h. J8 — Other Types of Personal Property (Includes Compressors & communication
towers
                not otherwise defined as J4)

Appraisal district assigns the properties appraised by MAVSI, and may include all, some or none of the
above mentioned categories.

Overview of Appraisal conditions:

The conditions under which these appraisals are performed are according to the scope of work of the contracted appraisal services of the company. The appraisals are consistent and in compliance with the Uniform Standards of Professional Appraisal Practice guidelines. The purpose of the appraisals is to establish market value as of January 1st of the given appraisal year for property tax purposes except for inventory if the September 1st inventory allowed by section 23.12(f) of the Property Tax Code has been requested and granted. Market value being defined as the price for which a property would transfer in cash or its equivalent under prevailing market conditions if:

        1. Exposed for sale on the open market for a reasonable amount of time;
        2. Both the seller and purchaser know all of the uses and purposes for which the property may be used and its enforceable restrictions thereof;
        3. Both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the other.

The results of the appraisals are to be used to set the taxing jurisdictions taxable base for the tax year of the given appraisal. Appraisals are performed in accordance to section 25.06 of the Property tax code in exception to Standards rule 6 of USPAP. List of properties appraised by MAVSI may be obtained from the Appraisal District Office.

Assumptions & Limiting Conditions:

1. Title to the property is assumed correct.
2. Legal description is assumed correct as on the title.
3. All properties appraised as though free and clear of any legal encumbrances.
4. Property is assumed to be operated in a prudent manner.
5. Not every property is inspected each year.
6. The appraisals are prepared for Ad Valorem Tax purposes only.
7. All information obtained from the property owner is assumed true and correct unless noted otherwise.

Discovery of New Property:

MAVSI attempts to locate and identify new property covered by the categories described above utilizing the following methods:

1. Sales tax information
2. Physical drive outs of areas prone to have new properties
3. Aerial photo comparisons where available
4. Newspaper and other media which may lead to discovery of new businesses or properties
5. Review any Deed records or transactions that may be relevant to the property types
6. Renditions from property owners
7. Information from other government agencies that we are able to obtain to show properties with new licenses, permits, etc...

Schedule Development and Valuation Approaches:

MAVSI's Valuation approach relies heavily on the cost approach to value as this is the most readily available and reliable information available to our appraisers. If information is available and sufficient for use for the Market or Income approach, this data is also considered; however, the Cost approach is always considered and used unless otherwise indicated. Schedules are developed each year by MAVSI using industry standard publications and data. MAVSI subscribes to various publications providing various variable data allowing for the development of indexes, depreciation, and original cost schedules to be used in the appraisal of personal property. This data along with the expertise and experience of our appraisers are then used to develop the various schedules. Copies of schedules used are given to the various appraisal districts for which MAVSI appraises the defined property types for, and can be obtained by taxpayers upon request. MAVSI uses various publications to assist in developing our schedules, among these being Marshall and Swift Valuation Guide and Handy Whitman index guidelines.

For the typical Cost approach method, Value =

Replacement cost new
Less depreciation (Physical and all other)
Less functional obsolescence (if indicated)
Less Economic Obsolescence (if indicated)

For the typical Income Approach, we determine Net Operating income =

Potential gross rent (income)
Less Income loss (loss of income due to vacancy or collections)
Less Expenses (fixed and variable)
Divided by Discount rate for the property type

For a typical Market Approach, we determine market value =

Sales price per unit (adjusted accordingly to subject property)
Divided by the Unit of Comparison
Multiplied by subject property number of units of comparison

The appraiser may consider all three approaches, but should choose the one that the best results in an appraisal that suits the characteristics of the property being appraised.
Land valuation is not done by MAVSI, and is removed from any valuation done by us.

Reappraisal Plan:
Unless otherwise defined or required by the Appraisal District, reappraisal of the property types   defined herein and contracted to be appraised by MAVSI is done every year. Each year stands on its own as a new reappraisal cycle.

Identifying upgrades, changes, or improvements to existing properties:
Each year MAVSI attempts to identify any upgrades, changes, or improvements to the herein defined property types. There are various ways of attempting to identify these changes, and MAVSI attempts to use as many of the methods on each property as possible depending on the property type, location, accessibility, etc... The various methods we attempt to use are:

1. Performing a physical site visit to the property on a yearly basis when possible and feasible. This can include an actual tour of the property or just a physical stop at the facility to visually inspect the property.

    a. Take pictures each year of the subject property when possible and compare each year.
    b. Note any CWIP (Construction Work in Progress) visually identified during visits.
   c. Speak with Appraisal District personnel to determine if any of their staff has noted any construction or improvements from one year to the next. Also verify if any building permits or other construction type permits have been filed.
   d. Make sketches of property when feasible.

Contacting the owner verbally and discussing the property each year.
Compare rendition information from one year to the next.
When available, use aerial photographs of properties for comparison.

First Year Procedures:
When a property is placed on the roll for the first time, MAVSI attempts to perform all the following steps to properly place the property on the Appraisal roll.

   1. Identify the property as new.
   2. Identify the situs of the property.
   3. Identify the ownership of the property.
   4. Identify the type of the property.
   5. Appraise the property.
   6. Place the property on the Appraisal Roll.

Uniformity:

MAVSI being a smaller company is able to more closely work together as a staff to verify that we are looking at the various properties in a uniform manner. MAVSI staff annually review each and every property that we appraise, and will often pull the files on several like properties and sit down and compare the appraisals for uniformity in content, and appraisal methods. Onsite inspections are performed on random properties to verify the condition and accuracy of the appraisal. Market sales occur infrequently, and the sales information is difficult to obtain making the analysis using market sales difficult. The Texas State Comptroller's office (Property Tax Division) also performs a yearly sample and review of these types of properties to ensure the validity of the models and techniques employed.

APPRAISAL OF OIL AND GAS RESERVES
MORGAN AD VALOREM SERVICES INC.

SUMMARY

Various County Appraisal Districts employ Morgan Ad Valorem to appraise all remaining economic serves associated with producing mineral interests within the county borders. Using production and pricing data obtained through state records as well as input from the operating companies, Morgan Ad Valorem produces a market value (Defined in Sec. 1.04 of the Texas Property Tax Code) for the reserves as of January 1st of each year. These market values are turned over to the appraisal districts, who will then use them as part of the tax base in order to levy property taxes. All mineral interest is listed separately on the appraisal roll by mineral owner in accordance to Sec. 25.12 of the Texas Property Tax Code.

CONDITIONS THAT AFFECT THE APPRAISAL

There are certain conditions that guide the overall conduct of the appraisal. They are as listed: (1) it is assumed that the lease is operated in a competent and prudent manner by the operator. (2) Legal matters affecting the owner of a mineral interest do not come into play in the development of the appraisal. (3) Unless an error can be detected, all data used in the appraisal is assumed to be truthful and correct, and (4) the appraisals are used for ad valorem tax purposes only.

BASIC ELEMENTS REQUIRED FOR THE APPRAISAL OF OIL AND GAS RESERVES

The five elements of data needed for oil and gas appraisal are as follows:
1. The average daily start rate for the production.
2. Decline rate of the production.
3. Average price of the product for the previous year.
4. Lease operating expenses (LOE).
5. The discount rate.

Production data is acquired from the Texas Railroad while the pricing data is acquired from the Texas Comptroller of Public accounts. From the production history a decline curve is created to determine the yearly decline rate and the average daily production used in the appraisal. The price of the oil and gas is the average price paid over the previous year as determined in section 23.175 of the Texas Property Tax Code. This average price is obtained by summing the averages for each month and dividing by 12. To obtain a price for the first year of the appraisal, the average price is multiplied by a market condition factor. The market condition factor is obtained by dividing the current year statewide average price by the previous year average price. This is done for both gas and oil. This allows for a better projection of the prices for which oil and gas will be sold in the first year of the appraisal. Subsequent year's appraisal prices are then governed by the state comptroller's price escalation forecast. Lease operating expenses are the direct cost to produce reserves. Information on the lease operating expenses can be obtained from the lease operator. The discount rate is based on various risk factors involving the mineral property. We typically survey the range of discount rates that the mineral industry is using and consider the various risk involved with the mineral industry before picking discount rates we think will help arrive at a market value.

APPRAISAL OF OIL AND GAS RESERVES

Before the appraisal can be conducted, the mineral lease must be discovered. Monthly reports are received by Morgan Ad Valorem Services that indicate the newly completed wells as reported to the Texas Railroad Commission. Those reports indicate the county and the exact location of the well. This allows for placement of the property in the right taxing jurisdictions. The appraisal operation is accomplished through the use of the income method (otherwise known as a discounted cash flow, using the comptroller's revenue forecast model for escalating and deescalating the future price of the oil and gas in the appraisal) as cited in Section 23.012 of the Texas Property Tax Code. Most oil and gas companies use this method to determine future revenue and the value of their reserves. As previously indicated the production and pricing data are obtained from the Texas Railroad Commission and the Texas Comptroller's office (See attachment 1A, 1B and 2). The daily production can be averaged from the previous year using that data. Attachment 3 is a decline curve developed by plotting production over time. From that graph a decline rate is determined and express as a decimal percent. The annual decline rate is used with the previous year production data to determine the daily production rate used in the appraisal. As previously mentioned, the pricing is averaged and subjected to the marketing adjustment factor to determine the price to be used in the appraisal. Lease operating statements submitted by the operating companies are screened to make sure that expenses submitted are appropriate for the appraisal. All appropriate data is entered into the computer. An annual gross income is obtained by multiplying the projected production for each year of the appraisal by the price of the product. A net income is obtained by subtracting the lease operating expenses from the gross income. The net income is then multiplied by the discount rate to give a net discounted income for each year of the appraisal. The net discounted income and the equipment value for each year of the appraisal are then summed up to give a net present value of the reserves (See attachment 4 for example of an oil and gas reserve appraisal). Prior to submittal of the values to the county appraisal district, the operating companies are allowed to view the values as well as the parameters used to arrive at those values. These companies are allowed input concerning such items as the production rate, decline rates, prices and lease operating expenses. Input from the operators and the royalty owner's is also considered during the period after notices of appraisal value are sent out and leading up to and including Appraisal Review Board Day. These discussions between the mineral owners and the appraiser are intended to result in a value that is considered a fair market value by both parties. The property value study conducted by the

Property Tax Division is also intended to ensure that the appraisal company is conducting the appraisal in a proper manner that leads to a proper market value.