

WALLER COUNTY APPRAISAL DISTRICT

REAPPRAISAL PLAN FOR

TAX YEARS 2017 & 2018

AS ADOPTED BY THE BOARD OF

DIRECTORS

SEPTEMBER 13, 2016
Amended January 1, 2015

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WALLER COUNTY APPRAISAL DISTRICT

REAPPRAISAL PLAN

TAX YEARS 2017 AND 2018

TAX CODE REQUIREMENT

Passage of S. B. 1652 amended the Tax Code to require a written biennial reappraisal plan. The following details the changes to the Tax Code:

The Written Plan

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

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

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

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:

- (1) Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land – based photographs, surveys, maps, and property sketches;
- (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 the property;
 - (B) Physical attributes of property, such as size, age and condition;
 - (C) Legal and economic attributes; and
 - (D) Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;
- (5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
- (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 ASSUMPTIONS AND LIMITING CONDITIONS

The 2017-2018 Reappraisal Plan adopted by the Waller County Appraisal District Board of Directors will occur no later than September 15, 2016. The assessment dates for the 2017 and 2018 Reappraisal Plan is January 1, 2017 and January 1, 2018 respectively.

WCAD's goal is to appraise all properties at fair market value as of January 1 of every year by reflecting the market place. The Reappraisal Plan itself regarding 2017 and 2018 building permit and reappraisal account projections are based on historical data and best guess estimates as to what number of properties will be targeted for reappraisal in these years. At that time of approval for 2017 -2018 Reappraisal Plan, a complete listing of the actual properties to be

targeted for reappraisal cannot be specifically identified as WCAD does not undertake a geographical reappraisal effort. WCAD's position has always been to reflect the market place as of January 1 of every year. Therefore, WCAD undertakes an as needed reappraisal approach as opposed to a geographical reappraisal approach in order to better achieve the goal of appraising all property at fair market value as of January 1 of every year.

With this said, WCAD's Reappraisal Plan will always target the properties who meet the following building permit and reappraisal criteria during the course of the appraisal year cycle (August 1 – April 30):

- 1) Any Residential or Commercial account that has a next inspection date of January 1, 2017 or January 1, 2018.
- 2) Any Residential or Commercial account where data or inquiry has been provided to WCAD that indicates the property has had a conditional change that is not currently reflected on the record as of January 1.
- 3) Any Residential account that falls within a Residential Neighborhood that has been targeted for reappraisal based on a neighborhood sales ratio analysis for the current appraisal year. Typically, neighborhoods whose overall sales ratio is less than 95% or greater than 105% will be targeted for reappraisal. In neighborhoods where there is an absence of sales competing neighborhood sales and appraised information will be analyzed and targeted as needed.
- 4) All mobile home parks within the district.
- 5) Any Commercial account that has been targeted for reappraisal based on current market analysis. Market analysis consists of sales analysis, cost analysis and income and expense analysis for the major Commercial property types (Apartments, Offices, Industrial, Retail) and market areas. It should be noted, due to the dynamic nature of commercial property with regard to changing of income and expense data on an annual basis, all significant commercial improved property and high profile improved market areas will likely be reappraised on an annual basis either through the reappraisal effort or appeals process.
- 6) All mineral accounts.
- 7) All business personal property accounts.
- 8) Any account in the reappraisal year in which a rendition has been filed.

REVALUATION DECISION

In each year covered by the plan, WCAD will conduct a mass appraisal of all properties in the district compliant with Uniforms Standards of Professional Appraisal Practices (USPAP), and will update property values as necessary. The chief appraiser will provide a notice of appraisal for each property in compliance with Section 25.19, Tax Code.

PERFORMANCE ANALYSIS

In each tax year 2017 and 2018 the previous tax year’s equalized values are analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within state property reporting categories. Ratio studies are conducted in compliance with the current Standard on Ratio Studies from the International Association of Assessing Officers. Mean, median, and weighted mean ratios are calculated for properties in each reporting category to measure the level of appraisal (appraisal accuracy). The mean ratio is calculated in each market area to indicate the level of appraisal by property reporting category. Each year this analysis is used to develop the starting point for establishing the level and accuracy of appraisal performance.

ANALYSIS OF AVAILABLE RESOURCES

Staffing and budget requirements for the tax year 2017 are detailed in the 2017 appraisal district budget, as adopted by the board of directors. A copy of the 2015 budget is attached to this biennial plan. Likewise, for tax year 2018, staffing and budget requirements will be detailed in the 2018 appraisal district budget. The 2018 budget will be made part of this plan upon adoption by the board of directors.

Each year, the staff will coordinate its computer software needs with its provider, LPS/Harris Corporation. LPS/Harris Corporation will be required to provide appraisal software, forms, and methods of transmission of data that are in full compliance with the requirements of the Property Tax Code.

In similar fashion, the appraisal district will coordinate its requirements with the printing contractor/mailer. The printing contractor will insure full compliance with Tax Code requirements.

PLANNING AND ORGANIZATION

Critical to any successful appraisal plan is the identification of required key work efforts/events. Following are those work efforts and timeframes associated with the completion of each. It is important that the timeframes are met.

2017 CALENDAR OF KEY EVENTS

<u>Responsible Department</u>	<u>Event/Work Effort</u>	<u>Timeframe for Completion</u>
All	Finalize Prior Year(s) Hearings	Sept. 1, 2016 – March 15, 2017 (rather small effort, but necessary)
Appraisal	New Construction and Re – Inspection of problem Areas	Sept. 1, 2016 – April 15, 2017
Appraisal	Taking pictures of existing	Aug. 1, 2016 – Sept. 1, 2017

buildings.

Mapping	Identify New Subdivisions Property Splits	Sept. 1, 2016 – Sept. 1, 2017
Clerical/Appraisal Land Person(s)	Create New Ownerships Identify properties requiring New Homestead Exemptions/ Ag or Timber Applications	Jan. 2, 2016 – 2017 Certification
Clerical	Update New Ownerships Match Properties for which required applications are to be mailed	Jan. 2, 2016 – Dec. 31, 2017
Chief Appraiser	Identify New Needed Forms Update Existing Forms	Sept. 1, 2016 – Dec. 31, 2016
Computer Operator	Print required application forms/or send electronically to printing contractor/mailer	Jan. 2, 2017 – Aug. 31, 2017
Personal Property Appraisers	Identify Personal Property for which a Rendition is to be printed and mailed	Jan. 2, 2017 – Mar. 31, 2017
Computer Operator Mapping Department	Respond to Request by public for Electronic Data, Maps, etc.	Jan. 1, 2017 – Dec. 31, 2017
Computer Operator	Print Renditions/or send Electronically to printing contractor/mailer	Jan. 2, 2017 – Mar. 31, 2017
Appraisal: Real & Personal Property	Establish and Test schedules: Land, Cost, Depreciation Tables and Factors	Feb. 15, 2017 – Apr. 30, 2017
Clerical/Appraisal	Data Entry, New Construction, Add-ons, Demolitions	Sept. 1, 2016 – Apr. 30, 2017
Real Estate Appraisal	Collect and Verify Sales Data	Sept. 1, 2016 – Apr. 15, 2017

Computer Operator Appraisal Clerical	Run Evaluation Software Enter New Exemption Applications	Feb. 15, 2016 – Apr. 15, 2017 Jan. 1, 2017 – Dec. 31, 2017
Clerical/Appraisal	Enter New Ag/Timber Use Applications	Jan. 1, 2017 – July 25, 2017
Computer Operator	Print 2017 Appraisal Notices/or Send Electronically to printer/mailer	May 1, 2017 – July 1, 2017
Clerical	Receive/Data Entry 2017 Property Value Protests	Apr. 1, 2017 – July 20, 2017
All the Staff/ARB	Conduct 2017 ARB Protest Hearings	May 15, 2017 - July 20, 2017
Chief Appraiser	Ask the ARB to Approve Appraisal Records	July 16, 2017
ARB	Approve Appraisal Records	July 20, 2017
All the Staff	Prepare the Records for Certification to the Taxing Entities	July 21, 2017 – July 31, 2017
Computer Operator	Runs Reports, Recaps Hard Copy and Electronic Rolls that go to the Taxing Entities	July 27, 2017 – July 31, 2017
Chief Appraiser	Certifies the 2017 Appraisal Rolls to Entities	July 31, 2017

2018 CALENDAR OF KEY EVENTS

<u>Responsible Department</u>	<u>Event/Work Effort</u>	<u>Timeframe for Completion</u>
All	Finalize Prior Year(s) Hearings	Sept. 1, 2017 – March 15, 2018 (rather small effort, but necessary)
Appraisal	New Construction and	Sept. 1, 2017 – April 15, 2018

	Re – Inspection of problem areas	
Mapping	Identify New Subdivisions Property Splits	Sept. 1, 2017 – Sept. 1, 2018
Clerical/Appraisal Land Person(s)	Create New Ownerships Identify properties requiring New Homestead Exemptions/ Ag or Timber Applications	Jan. 2, 2017 – 2018 Certification
Clerical	Update New Ownerships Match Properties for which required applications are to be mailed	Jan. 2, 2017 – Dec. 31, 2018
Chief Appraiser	Identify New Needed Forms Update Existing Forms	Sept. 1, 2017 – Dec. 31, 2018
Computer Operator	Print required application forms/or send electronically to printing contractor/mailer	Jan. 2, 2018 – Aug. 31, 2018
Personal Property Appraisers	Identify Personal Property for which a Rendition is to be printed and mailed	Jan. 2, 2018 – Mar. 31, 2018
Computer Operator Mapping Department	Respond to Request by public for Electronic Data, Maps, etc.	Jan. 1, 2018 – Dec. 31, 2018
Computer Operator	Print Renditions/or send Electronically to printing contractor/mailer	Jan. 2, 2018 – Mar. 31, 2018
Appraisal: Real & Personal Property	Establish and Test schedules: Land, Cost, Depreciation Tables and Factors	Feb. 15, 2018 – Apr. 15, 2018
Clerical/Appraisal	Data Entry, New Construction, Add-ons, Demolitions	Sept. 1, 2017 – Apr. 15, 2018
Real Estate Appraisal	Collect and Verify Sales Data	Sept. 1, 2017 – Apr. 15, 2018

Computer Operator Appraisal	Run Evaluation Software	Feb. 15, 2018 – Apr. 15, 2018
Clerical	Enter New Exemption Applications	Jan. 1, 2018 – Dec. 31, 2018
Clerical/Appraisal	Enter New Ag/Timber Use Applications	Jan. 1, 2018 – July 25, 2018
Computer Operator	Print 2018 Appraisal Notices/or Send Electronically to printer/mailer	May 1, 2018 – July 1, 2018
Clerical	Receive/Data Entry 2018 Property Value Protests	Apr. 1, 2018 – July 20, 2018
All the Staff/ARB	Conduct 2018 ARB Protest Hearings	May 15, 2018 - July 20, 2018
Chief Appraiser	Ask the ARB to Approve Appraisal Records	July 20, 2018
ARB	Approve Appraisal Records	July 20, 2018
All the Staff	Prepare the Records for Certification to the Taxing Entities	July 23, 2018 – Aug. 1, 2018
Computer Operator	Runs Reports, Recaps Hard Copy and Electronic Rolls that go to the Taxing Entities	July 23, 2018 – Aug. 1, 2018
Chief Appraiser	Certifies the 2018 Appraisal Rolls to Entities	Aug. 1, 2018

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions are specified and coordinated with LPS/Harris Corporation, the software provider. All computer forms and procedures are reviewed and revised as required. The following details these procedures as it relates to the 2017 and 2018 years:

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 the Waller County Appraisal District jurisdiction. 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 year.

APPRAISAL RESOURCES

- Personnel – The appraisal activities are conducted by 5 appraisers and 2 staff appraisers.
- Data – The data used by field appraisers includes the existing property characteristic information contained in the Computer Assisted Mass Appraisal System (CAMA) from the district's computer system. The data is printed on property record cards or appraisal cards, or is accessed by using lap tops in the field. This technology allows field appraisers to extract property record data from the lap tops and make any changes to the properties while on-site.
- Other data used includes map, sales data, building permits, aerial photos and actual cost and market information. Sources of information are gathered using excellent joint relationships with other participants in the real estate market place. 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 – WCAD's goal for residential property is visually or physically examined each year with appraisers noting the condition of the improvement and looking for changes that might have occurred to the property since the last inspection. This is done by physically driving the entire district each year along with the use of Pictometry and Google Earth. WCAD strives to statistically analyze subdivisions annually to ensure that sales in the subdivision at least during the last 12 months are within a +/- 5% range of appraised value. If sales do not indicate that range, adjustments may be recommended and made to areas affected using a process outlined in the residential appraisal section of this report.
- Commercial Property – WCAD's goal is to observe and examine commercial property to verify class and condition every year. The inspection occurs as appraisers are checking business personal property and by physically driving the district every year along with the use of Pictometry and Google Earth. Real estate accounts are analyzed against sales of similar properties in Waller CAD. The income approach to value is also utilized to appraise all commercial properties such as shopping centers, apartment complexes, office buildings, restaurants, motel and hotel, and other types of property that typically sell based on net operating income.

- Business Personal Property - Business personal property is observed annually with appraisers' effort to inspect businesses to develop quality and density observations. Renditions are mailed or delivered to new businesses. Appraisers will utilize SIC codes to determine consistency for appraisal of similar businesses. Rendition laws provide additional information on which to base taxability of business personal properties.
- Mineral Properties - Working and royalty interests of producing oil and gas wells are appraised annually through contracted services with Hugh Landrum and Associates. The most recent production data available from the Texas Railroad commission is downloaded into appraisal software that estimates economically recoverable reserves. Those reserves are then valued based upon state mandated pricing. A discount is applied over the anticipated life of the well in order to consider the value of money over time to recover those revenues. Each producing lease is valued as a unit and then that value is divided according to the various owners of the lease listed in the division order. A Reappraisal Plan produced by Hugh Landrum and Associates is attached for further details.
- Utilities and Pipelines – Utility companies and pipelines are appraised annually through contracted services with Hugh Landrum and Associates using a unit value developed by using all three approaches to value (Market, Cost and Income). A Reappraisal Plan produced by Hugh Landrum and Associates is attached for further details.
- Special Valuation Properties – Properties in this category are properties that receive ag-use, wildlife management, recreational/park/scenic, or public access airport valuations. All receive two values – a market value and a “special valuation” value.

The market value is established by applying the approach to value that is applicable to the property. The “special value” is calculated by more than one method.

Ag-use and timber-use values are directly related to the income producing ability of the land. The calculation of ag-use or timber-use values is an income approach calculation.

In this appraisal district, the market value and the ag-use/timber-use values are rarely equal. The market value almost always exceeds the “special value”.

Wildlife management can only occur on property that previously received ag-use valuation. The “special value” for wildlife management is the same as the ag-use value assigned to the property. The legislature, when it created wildlife management, required wildlife management to be revenue neutral; therefore, the same value as if it remained in ag-use.

In order for land to qualify for either recreational/park/scenic or public access airport valuation, the property must first be voluntarily deed restricted – restricted to the type of property indicated by the application. To arrive at a special value for these properties, the fact that the property is deed restricted must be part of the process. These types of properties are difficult to value.

With public access airport properties as the lone exception, all improvements on the property (home, barns, storage sheds, hangers, terminals, runways, etc.) are valued and taxed at market value. The “special value” applies only to the land. Improvements on public access airport properties are valued as restricted, just as is the land.

- Business and Industrial Tangible Personal Property – All three approaches to value are used to value these types of property. The cost approach is the approach most often used. The sales comparison and income approaches to value are used in a minority of situations.

PRELIMINARY ANALYSIS

Data Collection/Validation

Data collection of real property involves maintaining data characteristics of the property on CAMA. The information contained in the CAMA includes site characteristics, such as land size and topography and improvement data such as square footage of living area, actual/effective 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. Data collection for personal property involves maintaining information of software designed to record and appraise business personal property. The type of information contained in the business personal property field includes personal property such as business inventory, furniture and fixtures, machinery and equipment, and vehicles with details such as cost and location. The field appraiser 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 efforts, data review, data mailer questionnaires, hearings, sales validation efforts, commercial sales verification and field effort, newspapers, and publications, and property owner correspondence by mail or via internet, building permits received from municipalities that require septic system permits, electrical hook ups, and physically driving the district every year. Area regional real estate brokers and managers are also sources of market and property information. Surveying and title companies are also sources of market and property information. Data surveys of property owners requesting market information and property descriptions information is also valuable data. Improvement costs information is gathered from local building contractors and Marshall and Swift Valuation Services. Various income and rental surveys are performed by interviewing property managers and operators to determine operating income and expenses for investment and income producing real property along with information gathered at hearings.

Data review of entire neighborhoods is generally a good source for data collection. Appraisers drive the entire neighborhoods to review the accuracy of our data and identify properties that have to be re-listed. The sales validation effort in real property pertains to the collection of market data for properties that have sold. In residential, sales validation effort involves on-site inspection by filed appraisers to verify the accuracy of the property characteristics and confirmation of sales prices. In commercial properties, the appraisers are responsible for contacting sales participants to confirm sales prices and to verify pertinent data.

Property owners are one of the best sources for identifying incorrect data that generates a field inspection. Frequently, the property owner provides reliable data to allow correction of records without having to send an appraiser on-site. As the district has increased the amount of information available on the internet, property owners have the opportunity to review information on their property and forward corrections via e-mail. 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 coded for future inspection 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. Appraisal opinion quality and validity relies on data accuracy as its foundation.

Data Collection Procedures

The WCAD will assign appraisers a specific school district to conduct field inspections. It will be the responsibility of the appraisers to become knowledgeable of all the factors that drive values for that specific area. Appraisers of real estate and business personal property conduct field inspections and record information using printed appraisal cards or the use of lap tops that holds data dealing with the properties and allow for the entry of corrections, additions or changes the appraiser may find in his or her filed 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 will be trained in the specifics of data collection and the classification system set forth and recognized as rules to follow. Quality assurance supervision is charged with the responsibility of ensuring that appraisers follow listing procedures, identify training issues and provide uniform training throughout the field appraisal staff.

Data Maintenance

The field appraisers are responsible for ensuring that all the data collected is correct and this information will be entered into the CAMA system either by the appraiser or jurisdiction representative. The responsibility includes not only data entry, but also quality assurance.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of last inspection and the WCAD appraiser responsible are listed on the CAMA record or property file. If a property owner or jurisdiction disputes the district records concerning this date during a hearing, via 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 the information for the current year's valuation or for the next year's valuation. Every year each district is physically driven for a field review of real property and personal property located within the boundaries of Waller County. The appraiser also reviews and re-inspects the properties coded on a next inspection list dated January 1, of the year being reviewed. A field review is performed on all personal property accounts every year. WCAD is responsible for approximately 37,886 parcels.

Office Review

WCAD's goal is to conduct office reviews on properties where update information has been received from owners of the property and is considered accurate and correct. Data mailers, sent in mass, or at the request of the property owner, frequently verify some property characteristics or current conditions of the property. When the property data is verified in this manner, and considered accurate and correct, field inspections may not be required. The personal property department mailed property rendition forms in January or February of each year to assist in the annual review of property.

PERFORMANCE TESTS

The property appraisers are responsible for conducting ratio studies and comparative analysis. Ratio studies are conducted on property located within certain neighborhoods, districts or other geographic areas by appraisal staff. 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 areas. This information is the basis for updating property valuations for the entire area of property to be evaluated. Field appraisers, in many cases, may conduct field inspections to ensure the accuracy of the property description 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 have changed as 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. A change made to the property after the sales date or after any negotiation and agreement in price was concluded not to be included in the sales ratio. Properly performed ratio studies are a good reflection of the level of appraisals for the district.

INDEPENDENT PERFORMANCE TESTS

According to Chapter 5 of the Texas Property Tax Code and Section 403.302 of the Texas Government Code, the State Comptroller's Property Tax Assistance Division (PTAD) conducts a biennial property value study (PVS) of each Texas school district and each appraisal district

unless the study reveals invalid findings, in which case the study is conducted every year until the school district receives valid findings.

The methodology used in the property value study includes stratified samples to improve sample representativeness and techniques or procedures of measuring uniformity. This study utilizes statistical analysis of sold properties (sales 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 (i.e., categories A, B, C, D, and F1 are directly applicable to real property). There are 4 Independent School Districts (ISD) in Waller County Appraisal District for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the following year. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

The Comptroller's Property Tax Assistance Division is also required to review each CAD's governance, taxpayer assistance, operating standards, appraisal standards, appraisal procedures, and appraisal methodology at least every two years. This review referred to as the Methods and Assistance Program (MAPP) will be conducted during the year in which a Property Value Study is not undertaken. The Comptroller is required to deliver a written report to the chief appraiser, CAD board of directors and each superintendent and board of trustees in school districts in the CAD concerning the MAP findings.

RESIDENTIAL VALUATION PROCESS

Scope of Responsibility

The residential appraisers are responsible for estimating equal and uniform market values for residential improved and vacant property.

Appraisal Resources

Personnel – The residential appraisal staff consists of five (5) appraisers and two (2) staff appraisers. The following appraisers are responsible for estimating the market value of residential property:

Chris Barzilla – Chief Appraiser Howard Kelly – Appraiser, Royal & Katy ISD
Billie Wilbanks – Appraiser, Waller ISD Daniel Rodriguez – Appraiser, Hempstead ISD
Brenda Shanks – Staff Appraiser Todd Belz - Staff Appraiser
Doyleen Fairchild - Appraiser

Additional Staff:

The Waller CAD in addition to the appraisers, the following staff provides these services:

	<u>Title</u>	<u>Appraisal Services Provided</u>
Becky Gurrola	Deputy Chief Appraiser	
Suzanne Hillis	Bookkeeper	
Michael Sargent	Cartographer	Mapping
Pablo Loucel	Cartographer	Mapping Assistant
Randi Baade	Jurisdiction Representative	General clerical assistance
Diana Alvarado	Jurisdiction Representative	General clerical assistance
Jena Qualls	Deed/Map Research Clerk	Mapping
Norma Fausto	Jurisdiction Representative	ARB Records/Data Entry/Clerical

GATHERING OF DATA

Data – An individualized set of data characteristics of each residential dwelling (A1/A2 category) and multiple family units (B1 category) and Vacant (C) are collected in the field and data entered into the computer and or lap top. The Waller CAD has taken steps to enter data more efficiently while in the field with the purchase of three (4-5) I-pads that will assist the field appraisers to enter data at the same time he or she is gathering it.

The property characteristic data drives the application of computer-assisted mass appraisal (CAMA) under Cost; Market, and Income Approaches to property valuation.

NEW CONSTRUCTION/DEMOLITION

New construction and office review procedures are identified and revised as needed. The district physically drives the district every year along with using Pictometry and Google Earth. This important annual activity is projected and entered on the key events calendar for each tax year. Additional information on new construction is also received from taxpayers, San Bernard Electric, Waller County septic permits and any other viable means of gathering this information.

MARKET AREAS

The district uses the school district boundaries to delineate market areas. Each school district represents one market area. Each of the districts is broken down into smaller market areas and these areas are determined by their location within the county and by what the market value is in that area. For example, Katy I.S.D’s land values and housing values are higher than those of Hempstead I.S.D. because of its proximity to Harris and Fort Bend County. The appraisal district has found that the land and housing prices vary between school districts for various reasons. Because of this the market areas are defined and broken down by the four school districts.

PROPERTY CHARACTERISTICS

The appraisal districts market areas are also delineated by school district boundaries. There are many characteristics that can affect property values which are taken into account by the market. The location in the county and the school district that the property is located has an effect on property values. Property that is located in the south east part of the county, such as the City of Katy and Katy I.S.D., are impacted by their proximity to Harris and Fort Bend County. Also those entities are affected by their proximity to the I-10 Freeway. The property values located within Waller I.S.D. or the east side of the county is also affected by their proximity to Harris and Montgomery County. Those market values are usually a little higher than those in the north end of the county or Hempstead I.S.D. There are other characteristics that affect market values other than the location within the county, i.e. property that sit on a hardtop road vs. a dirt road or a major thoroughfare. Other examples would be the location of property whether it is in the floodplain or floodway. All characteristics of all property are taken into consideration when being appraised by the district

RE-INSPECTION/IDENTIFICATION OF PROBLEMATIC MARKET AREAS

Real property market areas, by classification, are tested for low or high protest ratios. Market areas whose ratios fail to fall within the 5% confidence interval (5% from the median appraisal ratio of 1.00) are determined to be problematic. Field reviews are scheduled to verify and/or correct property characteristic data. Additional sales data is researched and verified. In the absence of adequate market data, neighborhood comparisons are made to find comparable areas that have sufficient data to conduct these tests. Market areas with extensive improvement remodeling are identified, verified and field activities scheduled to update property characteristics data. Properties considered as “locked gates” or in accessible to appraisers due to locked gates or no entry gates, are identified and yellow hangers are left on gates to request for an on-site inspection. If there is no response received, then aerials are pulled, inspected and the appraiser will estimate a market value on the property.

FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS

Sales information must be verified and property characteristics data contemporaneous (same time) with the date of sale captured. The sales ratio formula is equal to the appraisal of the property / (divided by) the sales price. The sales ratio tools require that the property that sold must be the same property appraised in order that statistical analysis results will be valid.

VALUATION APPROACH

Land Analysis

Land valuation analysis is conducted prior to market areas or 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 area or neighborhood. A computerized file of land tables stores the land information required to consistently value individual parcels within an area given known land characteristics, such as dimension or acreage. Specific land influences are considered, where necessary, and depending on neighborhood or area and individual land parcel or tract characteristics, to adjust parcels outside the area norm for such factors as access, shape, size, topography, flood factors or un-useable land. 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 location 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 may be collected from private vendors and public sources and provide the field appraisers a current economic outlook on the real estate market. Information is obtained from real estate publications and sources such as continuing education in the form of IAAO and the Comptroller of Public Accounts classes and seminars.

Neighborhood and Market Analysis

Neighborhood analysis involves the examination of how physical, economic, governmental and social forces and other influences affect property values. The effect of these forces is also used to identify, classify, and stratify comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. Residential valuation and neighborhood analysis is conducted on various market areas within each of the political entities known as Independent School District (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 indication 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. For multiple family properties the Income Approach to value is the basic technique to estimate an opinion of value for investment level residential property.

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. 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 of stratification based on attribute analysis. Part of neighborhood analysis is the consideration of noticeable 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 state 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 a 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 residential analysis work done in association with the residential valuation process is neighborhood specific. 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 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 in direct sales comparison analysis. Neighborhood groups, or given neighborhoods, increases the available market data by linking comparable properties outside a given neighborhood. Sale ratio analyses, discussed below, are performed on a neighborhood basis and are soft sale area on a neighborhood group basis.

Highest and Best Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present values as of the date of 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, preclude 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 neighborhood (renovations of unprosperous neighborhoods), 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 misimprovements, 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 may review the 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 selected population of properties. Due to the passage of a Texas Constitution, November 3, 2009, HJR 36 would amend Section 1, Article VIII to authorize the Legislature to provide for taxation on residence homesteads to be based on value solely as a residence and not according to "highest and best use" of the property.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost Schedules

All residential parcels in the district were originally valued in 1981 using cost schedules estimated from identical cost schedules based on improvement classification system using comparative unit method. The district's residential cost schedules are estimated from market sales and cost estimates collected from both builders and contractors. These cost estimates 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 from 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 yearly.

A review of the residential cost schedules are performed as necessary. 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.

Sales Information

A sales file of sales letters is maintained for real property. Residential vacant land sales, along with commercial improved and vacant land sales are maintained in a sales information system. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyers, field discovery, protest hearings, Fee appraisers, 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.

Statistical Analysis

The residential valuation appraisers perform statistical analysis annually to evaluate whether estimated values are equitable and consistent with the market. Ratio studies are conducted on

residential properties in the district to judge the two primary aspects of mass appraisal accuracy – level and uniformity of value. Appraisal statistics of central tendency generated from sales ratios are evaluated and analyzed for the area. The level of appraised values is determined by the weighted mean ratio for sales of individual properties, and a comparison of weighted means reflect the general level of appraised value.

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

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 ascertain 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:

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

Whereas, 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, market, or location adjustments, may be abstracted and applied uniformly within neighborhoods to account for location 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 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 elevation 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 an area, the appraiser reviews and evaluates a ratio study that compares recent sales prices of properties, appropriately adjusted for the effects of time, within a delineated neighborhood, with the value of the properties' based on the estimated depreciated replacement cost of improvements plus land value. The calculated ratio derived from the sum of the sold properties' estimated value divided by the sum of the time adjusted sales prices indicates the neighborhood level of appraisal based on sold properties. This ratio is compared to the acceptable appraisal ratio, 95% to 105%, to determine the level of appraisal for each neighborhood. If the level of appraisal for the neighborhood is outside the acceptable range of ratios, adjustments to the neighborhood are made.

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

factors applied, a final ratio study is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity in both update and non-update neighborhoods and verifies appraised values against overall trends as exhibited by the local market, and finally, for the school district as a whole.

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; increases 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. When 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

Field Review

The appraiser identifies individual properties in critical need of field review through sales ratio analysis. Sold properties are periodically reviewed to check for accuracy of data characteristics.

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

is able to physically inspect both sold properties and unsold properties for comparability and consistency of values.

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 differences 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/her 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 appraiser reviews the sales ratios by neighborhood and presents pertinent valuation data, such as weighted sales ratio and pricing trends, to the appraisal supervisors and the Chief Appraiser for final review and approval. This review includes comparison of level of value between related neighborhoods within and across jurisdiction lines. The primary objective of this review is to ensure that the proposed values have met preset appraisal guidelines appropriate for the tax year in question.

BUSINESS PERSONAL PROPERTY VALUATION PROCESS

INTRODUCTION

Appraisal 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.

- **Personnel** – Even though all appraisers, because of their training may appraise business personal property, WCAD designates Doyleen Fairchild – Director of Appraisal and Sharon Fialos – Personal Property Appraiser. These appraisers are responsible for personal property business rendition mailers, processing, data entry and valuation.
- **Data** - A common set of data characteristics for each personal property account in Waller CAD is collected in the field and data sheets or a lap top. The property characteristic data drives the computer-assisted personal property appraisal (CAPP) system. The personal property appraisers collect the field data and maintains electronic property files making updates and changes gathered from filed inspections, newspapers, property renditions, sales tax permit listing and interviews with property owners.

VALUATION APPROACH

SIC Code Analysis

Business personal property is classified and utilizes a four digit numeric code, called Standard Industrial Classification Code (SIC) codes that were developed by the federal government to describe property. These classifications are used by Waller CAD to classify personal property by business type.

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

Highest and Best Use Analysis

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

DATA COLLECTION / 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

- **Business Personal Property**

The district's property characteristic data was collected through a massive field data collection 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 district receives a report yearly from Info Nation listing all vehicles commercially listed in Waller County or used in the production of income.

- **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)

Cost Schedules

Cost schedules are developed based on the SIC code by the Property Tax Division of the Comptroller's Office and by the district personal property valuation appraiser. The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square footage format, but some exception SICs are in an alternate price per unit format, such as per room for hotels.

Statistical Analysis

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

Schedule and Trending Factors

- **Business Property**

Waller 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 Waller CAD are also based on published valuation guides. The index factors and percent good depreciation factors are used to develop present value factors (PVF), by year of acquisition, as follows:

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

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

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

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

- **Vehicles**

Value estimates for vehicles are based on NADA Book published book values, and there are also considerations available for high mileage and condition. If vehicles are not found in the NADA book, an appraiser will use PVF schedules for values.

- **Leased and Multi-Location Assets**

Leased and multi-location assets are valued using the PVF schedules mentioned above. If the asset to be valued in this category is a vehicle then NADA published book values are used.

INDIVIDUAL VALUE REVIEW PROCEDURES

Office Review

- **Business Property**

A district appraisers review accounts yearly and after field inspections processes the property owner renditions, makes other data entry changes, accounts with prior hearings, new accounts created, and SIC cost table changes are all considered.

PERFORMANCE TESTS

Ratio Studies

Each year the Property Tax Division of the state comptroller's office conducted a property value study (PVS). As of 2010, the property value study will be conducted every other year. The PVS is a ratio study used to gauge appraisal districts 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 Waller CAD's personal property values and ratios are indicated.

MINERALS (OIL AND GAS RESERVES) VALUATION PROCESS

CAD Plan for Plan for Yearly Reappraisal of Oil and Gas Property

The CAD has a professional services contract with Hugh Landrum and Associates to appraise these properties.

In accordance with Section 25.18 of the Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property as approved by the board of directors under Section 6.05 (i).
 - (b) The plan provides for annual reappraisal of all oil and gas property appraised by the CAD.
1. Identification of new property and its situs. As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, Hugh Landrum and Associates obtains monthly oil and gas lease information from the Railroad Commission of Texas [RRC] to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC, as well as Hugh Landrum and Associates in-house map resources.
 2. Identifying and updating relevant characteristics of all oil and gas properties to be appraised. Relevant characteristics necessary to estimate value of remaining oil or gas reserves are production volume and pattern, product prices, expenses borne by the operator of the property, and the rate at which the anticipated future income should be discounted to incorporate future risk. Hugh Landrum and Associates obtains information to update these characteristics annually from regulatory agencies such as the RRC, the Comptroller of Public Accounts, submissions from property owners and operators, as

well as from published investment reports, licensed data services, service for fee organizations and through comparable properties, when available.

3. Defining market areas in the district and identifying property characteristics that affect property value in each market area. Oil and gas markets are regional, national and international. Therefore they respond to market forces beyond defined market boundaries as observed among more typical real properties.
4. Developing an appraisal approach that best reflects the relationship among property characteristics affecting value and best determines the contribution of individual property characteristics. Among the three approaches to value (cost, income and market), the income approach to value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.
5. Comparison and Review. Use of the income approach is the first step in determining an estimate of market value. After that the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within in a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

INDUSTRIAL PROPERTY VALUATION PROCESS

CAD Plan for Yearly Reappraisal of Industrial Property

Subsections (a) and (b), Section 25.18, Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
 - (b) The plan provides for annual reappraisal of selected industrial property appraised by the CAD. The CAD has a professional services contract with Hugh Landrum and Associates to appraise these properties for the CAD.
1. Identifying properties to be appraised. Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.
 2. Identifying and updating relevant characteristics of each property in the appraisal records. The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.

3. Defining market areas in the district. Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.
4. Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics. Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using replacement/reproduction cost new less depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.
5. Comparison and Review. The appraiser considers results that best address the individual characteristics of the subject property and that are based on the most reliable data when multiple models are used. Year-to-year property value changes for the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

UTILITY & PIPELINE PROPERTY VALUATION PROCESS

CAD Plan for Yearly Reappraisal of Utility and Pipeline Property

Subsections (a) and (b), Section 25.18, Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
 - (b) The plan provides for annual reappraisal of all utility and pipeline property appraised by the CAD. The CAD has a professional services contract with Hugh Landrum and Associates to appraise these properties for the CAD.
1. Identifying properties to be appraised. Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties.
 2. Identifying and updating relevant characteristics of each property in the appraisal records. The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.
 3. Defining market areas in the district. Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.
 4. Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics. For all three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market),

pipeline values are calculated using a replacement/reproduction cost new less depreciation model [RCNLD]. In addition to the RCNLD indicator, a unit value model may also be used if appropriate data are available. Utility and railroad property are appraised in a manner similar to pipeline except that the RCNLD model is not used.

5. Comparison and Review. The appraiser considers results that best address the individual characteristics of the subject property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process. These types of property are also subject to review by the Property Tax Division of the Texas Comptroller's office through their annual Property Value Study.

NOTICING PROCESS

Appraisal notice and related forms are reviewed and edited for updates and changes signed off on by appraisal district management. Updates include the latest copy of Comptroller's Taxpayers rights, remedies, and responsibilities.

HEARING PROCESS

Protest hearing scheduling for informal and formal Appraisal Review Board hearings is reviewed and updated as required. Standards of documentation are reviewed and amended as required. The appraisal district hearing documentation is reviewed and updated to reflect the current valuation process. Production of documentation is tested and compliance with the Tax Code is insured.

THE MASS APPRAISAL REPORT

Each tax year the tax code required Mass Appraisal Report is prepared and certified by the Chief Appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The Mass Appraisal Report is completed in compliance with STANDARD RULE 6-8 of the Uniform Standards of Professional Appraisal Practice. The signed certification by the Chief Appraiser is compliant with STANDARD RULE 6-9 of USPAP. The written reappraisal report is attached to the Mass Appraisal Plan by reference.

DEFENDING DISTRICT VALUES

The district defends its values by being prepared for the protest hearing process. Great effort is expended by the entire staff in preparation as well as conducting the protest hearings, be they informal or formal hearings.

The districts defense is dependent upon the very information it used to establish its values for the particular appraisal year. That information includes sales data, income and expense data, and

cost and depreciation data collected from several sources. Collection of the referenced data is an on-going, continual process.

The district receives sales data from property owners, realtors, deeds, publications, and any other available sources. Income and expense data is acquired from professional publications and property owners. Cost and depreciation data is acquired from professional publications, builders or contractors, and property owners.

ORDINANCE

On this the _____ day of _____, 20____, at a _____ meeting of the Waller County Appraisal District Board of Directors, there came on for consideration, the approval of an ORDINANCE for the Reappraisal Plan 2017-2018 of the Waller County Appraisal District.

A motion was made by _____, seconded by _____, that, subject to approval by said Board of Directors, Appraisal District does adopt said ORDINANCE for the purpose of the Reappraisal Plan 2017 – 2018 for the Waller County Appraisal District.

Said motion being put to a vote, it carried by a vote of _____ to _____.

Those voting “AYE” were:

Those voting “No” were:

It is therefore ordered that said ORDINANCE be prepared and executed, and recorded in the minutes of the Board of Directors.

Chairman, Board of Directors

Secretary, Board of Directors

Member, Board of Directors

Member, Board of Directors

Member, Board of Directors

STATE OF TEXAS

COUNTY OF WALLER

I, the undersigned secretary of the Waller County Appraisal District Board of Directors, do hereby certify that the above and foregoing is a true and correct copy of a certain ORDINANCE of the Board of Directors, of the Minutes of said Board.

Witness my official hand this _____ day of _____, 20_____.

Secretary, Board of Directors
Waller County Appraisal District

LIMITING CONDITIONS

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

- The appraisals were prepared exclusively for Ad-valorem tax purposes.
- The property characteristic data upon which the appraisals are based is assumed to be correct. 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 property owner and required by the district for clarification purposes and to correct property descriptions.
- Validation of sales transactions was attempted through questionnaires to buyer and seller, telephone survey and filed review. In the absence of such confirmation, confirmation, residential sales data obtained from vendors was considered reliable.
- I have attached a list of staff providing significant mass appraisal assistance to the person signing this certification.

Certification Statement:

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

Chris Barzilla
Chief Appraiser

Date

