2017 / 2019

REAPPRAISAL PLAN

Tom Green County Appraisal District
2017 / 2019 Reappraisal Plan

Pursuant to Sections 25.18 and 6.05(i) of the State Property Tax Code, The Tom Green County Appraisal District has established the following reappraisal plan to provide for the reappraisal of all property within the district.

PLAN OVERVIEW

The plan has been modified to provide the means by which all Real Property, Personal Property, Mobile Home Parks, Industrial Property, Utilities, and Minerals are appraised every year. Agricultural Productivity values are calculated annually, as required by Tax Code.

The CAD is divided into three major regions. These Regions will support more in-depth analysis, and the means to accomplish the reappraisal tasks defined by the market each year. Consequently, each year, all real property will be reappraised, regardless of any ratio study/report findings and as time allows. The three major regions are defined as follows:

Region 1: All of Grape Creek I.S.D., all of Christoval I.S.D., parts of Wall ISD located inside City of San Angelo Limits, and that part of the City of San Angelo and San Angelo I.S.D. lying north of the North Concho River, and that part of San Angelo I.S.D. lying South of Arden Road and West of FM 2335.

Region 2: All of Veribest I.S.D., all of Wall ISD not located within City of San Angelo City Limits, and that part of the City of San Angelo and San Angelo I.S.D. lying south of the North Concho River, west of the South Concho River and north of the Red Arroyo.

Region 3: All of Water Valley I.S.D. located within Tom Green County, all of Miles I.S.D. located in Tom Green County and the South part of the City of San Angelo, and San Angelo I.S.D., lying South and West of the Red Arroyo and any remaining areas not already described in Regions 1 and 2.

Since these areas have been defined, TGCAD may need to use these already coded areas to better accomplish our reappraisal plan, so the current coding will remain in place.

It should be noted that these defined areas contain specific market information, and generally this market information does not apply to other Regions or past those boundaries outlined above. These Regions are considered sub-sets of a whole of Tom Green County.

This reappraisal plan will closely follow the statistical strata that the Comptroller uses in its property value study.

Annual Ratio Reports: Sales ratio reports will be run on all real property to determine what, if any, mass changes in value to respective property types may need to be performed. This will enable the TGCAD staff to identify those properties or areas within the CAD which need to be reappraised during the current year based on market values and resulting sales ratios. Those areas or subdivisions whose ratios are above or below statutory requirements shall be reappraised in the current year. (see flow chart page 49)

This approach will insure not only that all real property within the CAD is reappraised at least once every three years, per minimum standards set forth in Property Tax Code, but also that any other areas or property within the CAD are reviewed annually so that the appraisal district stays current with respect to market value of those areas where property values appear to be changing rapidly.

Residential Reappraisal: Sales analysis of all sales, including but not limited to statistical testing. Stratified sales data compared to value strata as defined by both our local data and the Comptroller. Geographically defined market areas that fall outside of acceptable statistical measures will be mass appraised by applying standardized costs and market tables to the square foot of main residence.

Depreciation modifiers will be standardized to reflect the overall actual and effective age, and may be applied to whole neighborhoods and/or subdivisions.

All accessory components of residential real property are to be valued at a percentage of main structure, unless the accessory is unique in nature.

Commercial Reappraisal: Sales analysis of any information available from the real estate market, including but not limited to statistical testing. Local data will be stratified to reflect the stratum ranges used by the Comptroller. Industry activity that dictates the need for reappraisal will be scrutinized and decisions will be made accordingly.

Commercial Real Property will be coded pursuant to coding used in Corelogic's "Marshall and Swift Valuation Resource Book:. Cost schedules will be used where income information from business operations is not readily available.

Income information will be used when available, as considered to be either through gross sales, as reported through sales tax, occupancy tax as reported to Comptroller, and/or sales tax reported if available, or lessor/leasee information through rental or lease agreements. Operational income as defined as profit or loss from business activity may be considered if obtained.

The District will use resource books such as "Source Strategies" and "Burbach and Associates" the help analyze income data and business operations.

The income approach is the preferred and most prevalent manner to value commercial property; however, most instances dictate that "industry standards or averages" are used as specific information is usually NOT provided.

Commercial Valuation in summary will include:

    Sales Analysis
    Stratification
    Published Industry Income Material
    Income Data
    Sales Tax Data
    Occupancy Tax Data
    Published Cost Models and Valuation

Comptroller's current Stratum Ranges by Property Category

Residential Stratum Ranges

Stratum	less than	
1	$38,200	not tested
2	$38,201	$89,000
3	$89,001	$135,500
4	$135,501	$202,600
5	$202,601	$999,999,999

Commercial Stratum Ranges

Stratum	less than	
1	$62,650	not tested
2	$62,651	$311,100
3	$311,101	$1,160,300
4	$1,160,301	$3,842,300
5	$3,842,301	$999,999,999

Personal Property Stratum Ranges

Stratum	less than	
Stratum 1	$30,225	not tested
Stratum 2	$30,226	$260,433
Stratum 3	$260,434	$859,650
Stratum 4	$859,651	$3,663,430
Stratum 5	$3,663,431	$999,999,999

Departmental Organization:

The Real Estate Department is divided into two sections, Residential Appraisal and Commercial Appraisal. Both sections begin the reappraisal year by employing existing mass appraisal statistical analysis, gathering sales data from deed records, survey letters, local builders, appraisers and other sources. They confirm and analyze sales data, run internal ratio study reports, check outliers, establish and adjust classification system, review and update cost/market schedules as necessary, establish land values on newly platted subdivisions, and analyzing land values through sale abstraction and land to building ratio models.

The Personal Property Department begins the appraisal year with the discovery process. Field inspections, city permits, Sales Tax and DBA reports from the local tax assessor's office. Local newspapers and phone books are also utilized to discover new businesses in the CAD. Renditions are sent and worked as returned. The TGCAD subscribes to an outside vendor for vehicle and aircraft information. All personal property is classified by the industry standard SIC codes. Cost schedules, trending factors, and index factors are reviewed as necessary to conform to changing market conditions. All business personal property accounts are reappraised each year.

Field Appraisers will then begin carrying out field inspections, work sales information and review real estate renditions, review neighborhood sales recap sheets, work subdivisions as required by reappraisal cycle, check all existing data, and work building permits, investigate sales information that may need confirmation, take photographs of improvements, draw plans of new home construction from builder plans or from actual measurements for entry into CAMA, conduct field inspections of newly platted subdivisions.

The TGCAD contracts with the firm of Thos. Y. Pickett & Company Inc. for the appraisal of Mineral Property, Industrial Property, and Utility Property. They have provided an appraisal plan and a 2015-2016 appraisal timeline which is attached to this report.

It is expected that the 2017 reappraisal of all property within TGCAD jurisdiction will cost $20.48* per parcel with an escalation of 2% per year for the remaining two years of the appraisal cycle. This estimate is dependent on any statute or policy changes.
*(Proposed 2017 Appraisal Budget ($1,418,552) divided by 69,246parcels)

July 22, 2016 to September 30, 2016

Handle any outstanding ARB protest. Study and review use of GIS Mapping and Mass Appraisal functions. Begin planning for capture and analyzing sales information. Review and update classification categories and cost / market schedules and enter new tables and data into computer system. Run sales ratio reports throughout the CAD and identify and flag areas for reappraisal as indicated. Send sales confirmation letters, check deed records, and other sources. Work permits- Phase 1- permits from May 1, 2016 thru December 31, 2016. Begin discovery of new business personal property.

October 1, 2016 to November 30, 2016

Review sales ratio reports. Compare CAD values with sales info. Consider Land Valuation study by Abstraction to determine if market value for land in built up neighborhoods are within acceptable land to building ratios, and how land abstraction values are representing market value through concept of location. Establish ratios for increase / decrease as neighborhood adjustments in mass reappraisal defined demographic market areas, with corresponding land values represented by location. Continue to work permits, conduct field inspection of sales and make field notes as required.

December 1, 2016 to January 31, 2017

Survey Mobile Homes Parks, verifying rent roles and units owned by parks. Collect and verify any A2 category field work for changes and additions. Begin working Phase 2 building permits Phase 2- Work permits taken out from December 31, 2016 through January 1, 2017.. Begin setting up new subdivisions / additions for 2017. Send sales confirmation letters for properties conveyed since last survey. Update classification categories and cost / market schedules and enter new data into computer system. Begin organizing appraisal cards for field work. Send Renditions for all business personal property. Update personal property schedules, trending and indexing factors.

February 1, 2017 to March 31, 2017

Continue running sales ratio reports, and refinement of the mass appraisal, sales and land abstraction analysis functions. Continue field work and begin mass maintenance changes to value structure. Utilize GIS to assist field staff with their duties. Re-survey mobile home parks and finish A2 category field work. Reappraisal of specific problem areas as assigned. Conduct field inspections. Finish and move on to field work in other areas indicated by market analysis that need attention based on sales ratio reports. Receive and review Personal Property Rendition returns and update data base. Obtain rental and leasing information on warehouses, apartments, retail and office space.

April 1, 2017 to May 31, 2017

Finalize all field work, and data collection, activities and data entry. Each Appraiser assists in mass maintenance activities as assigned. Prepare for and assist in mailing

2017 ARB notices. Handle taxpayer inquiries and phone calls from notices. Conduct staff meetings with taxpayer. Prepare for ARB process.

June – Mid July

ARB process

July 25, 2017

Certify 2017 Appraisal Roll

Note: Same time action schedule next year unless revisions are required by change in statutes.

2017 / 2018
Time / Action Schedule

July 22, 2017 to September 30, 2017

Handle any outstanding ARB protest. Study and review use of GIS Mapping and Mass Appraisal functions. Begin planning sales ratio reporting. Review and update classification categories and cost / market schedules and enter new tables and data into computer system. Run sales ratio reports throughout the CAD and identify and flag subdivisions for reappraisal as indicated. Send sales confirmation letters, check deed records, and other sources. Work permits- Phase 1- permits from May 1, 2017 thru December 31, 2017. Begin discovery of new business personal property.

October 1, 2017 to November 30, 2017

Review sales ratio reports. Compare CAD values with sales info. Consider Land Valuation study by Abstraction to determine if market value for land in built up neighborhoods are within acceptable land to building ratios, and how land abstraction values are representing market value through concept of location. Establish ratios for increase / decrease as neighborhood adjustments in mass reappraisal defined demographic market areas, with corresponding land values represented by location. Continue to work permits, conduct field inspection of sales and make field notes as required.

December 1, 2017 to January 31, 2018

Survey Mobile Homes Parks, verifying rent roles and units owned by parks. Collect and verify any A2 category field work for changes and additions. Begin working Phase 2 building permits Phase 2-   Work permits taken out from December 31, 2017 through January 1, 2018. Begin setting up new subdivisions / additions for 2018. Send sales confirmation letters for properties conveyed since last survey. Update classification categories and cost / market schedules and enter new data into computer system. Begin organizing appraisal cards for field work. Send Renditions for all business personal property. Update personal property schedules, trending and indexing factors.

February 1, 2018 to March 31, 2018

Continue running sale ratio reports, and refinement of the mass appraisal sales and land abstraction analysis functions. Continue field work and begin mass maintenance changes. Utilize GIS to assist field staff with their duties. Re-survey mobile home parks and finish A2 category field work. Reappraisal of specific problem areas as assigned. Conduct field inspections. Finish and move on to field work in other areas indicated by market analysis that need attention based on sales ratio reports. Receive and review Personal Property Rendition returns and update data base. Obtain rental and leasing information on warehouses, apartments, retail and office space.

April 1, 2018 to May 31, 2018

Finalize all field work, and data collection, activities and data entry. Each Appraiser assists in mass maintenance activities as assigned. Prepare for and assist in mailing 2018 ARB notices. Handle taxpayer inquiries and phone calls from notices. Conduct staff meetings with taxpayer. Prepare for ARB process.

June – Mid July

ARB Process

July 25, 2018

Certify 2018 Appraisal Roll

     Note: Same time action schedule next year unless revisions are required by change in statues.

<center>**2018 / 2019 Time / Action Schedule**</center>

July 22, 2018 to September 30, 2018

Handle any outstanding ARB protest. Study and review use of GIS Mapping and Mass Appraisal functions. Begin planning sales ratio reporting. Review and update classification categories and cost / market schedules and enter new tables and data into computer system. Run sales ratio reports throughout the CAD and identify and flag subdivisions for reappraisal as indicated. Send sales confirmation letters, check deed records, and other sources. Work permits- Phase 1- permits from May1, 2018 thru December 31, 2018. Begin discovery of new business personal property.

October 1, 2018 to November 30, 2018

Review sales ratio reports. Compare CAD values with sales info. Consider Land Valuation study by Abstraction to determine if market value for land in built up neighborhoods are within acceptable land to building ratios, and how land abstraction values are representing market value through concept of location. Establish ratios for increase / decrease as neighborhood adjustments in mass reappraisal defined demographic market areas, with corresponding land values represented by location. Continue to work permits, conduct field inspection of sales and make field notes as required.

December 1, 2018 to January 31, 2019

Survey Mobile Homes Parks, verifying rent rolls and units owned by parks. Collect and verify any A2 category field work for changes and additions. Begin working Phase 2 building permits Phase 2- Work permits taken out from December 31, 2018 through January 1, 2019. Begin setting up new subdivisions / additions for 2019. Send sales confirmation letters for properties conveyed since last survey. Update classification categories and cost / market schedules and enter new data into computer system. Begin organizing appraisal cards for field work. Send Renditions for all business personal property. Update personal property schedules, trending and indexing factors.

February 1, 2019 to March 31, 2019
Continue running sales ratio reports, and refinement of the mass appraisal sales and land abstraction analysis functions. Continue field work and begin mass maintenance change. Utilize GIS to assist field staff with their duties. Re-survey mobile home parks and finish A2 category field work. Reappraisal of specific problem areas as assigned. Conduct field inspections. Finish and move on to field work in other areas indicated by market analysis that need attention based on sales ratio reports. Receive and review Personal Property Rendition returns and update data base. Obtain rental and leasing information on warehouses, apartments, retail and office space.

April 1, 2019 to May 31, 2019

Finalize all field work, and data collection, activities and data entry. Each Appraiser assists in mass maintenance activities as assigned. Prepare for and assist in mailing 2019 ARB notices. Handle taxpayer inquiries and phone calls from notices. Conduct staff meetings with taxpayer. Prepare for ARB process.

June – Mid July

ARB Process

July 25, 2019

Certify 2019 Appraisal Roll

      Note: Same time action schedule next year unless revisions are required by change in statues.

ADMINISTRATIVE STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	TDLR	TYPE OF ASSITANCE
Bill H. Benson	Chief Appraiser	60523	Chief Administrator Of all Appraisal District Operations.

APPRAISAL STAFF PROVIDING SIGNIFICANT MASS APPRAISAL ASSISTANCE

NAME	TITLE	TDLR	TYPE OF ASSISTANCE
Brad Wells	Senior Appraiser	69453 RPA	Directs appraisal operations activities and oversight of appraisal process. Updates Real Property valuation models. Conducts data collection of sales information. Conducts and analyzes ratio studies and field collection for all Real Property.
Cindy Hurt	Real Property Appraiser. Religious and Charitable Orgs.	71502 RPA	Certifies exemptions are accurate and current. Conducts field inspections pursuant to application by Charitable and Religious Orgs. Works assigned single family Residential permits and sale Analysis for residential reappraisal
Stoney Hariman	Residential Rural and Agricultural Appraiser.	72319 RPA	Appraises residential and rural real property. Conducts field data collection for existing and

			new Residential rural Real Property. Appraises Agricultural usage lands and administers agricultural appraisal exemptions.
John Timmons	Residential and Rural Real Estate Appraiser	71698 RPA & RTA	Appraises residential and rural Real Property. Conducts field data Collection for existing and new Real Property
Scott Smetana	Residential Rural And Agricultural	Registrant	Appraises residential and rural Real Property
Austin Wright	Residential, Mobile Home and Residential Rental Valuation	Registrant	Appraises residential and all mobile homes. Uses income stream to appraise Residential rentals
Charles Grossman	Commercial Appraisal	70000 RPA	All Commercial Real Property
Jan Bruce	Personal Property Coordinator	70427 RPA & RTA	Supervises appraisal of Personal Property. Updates Personal Property valuation models. Conducts field data collection for existing Personal Property and discovery of new Personal Property
Gary Young	Business Personal Property Appraiser	64646 RPA	Appraises Business Personal Property. Works with data and field collection, discovery of New Personal Property
Reed Hariman	Business Personal Property	Registrant	Appraiser Trainee in Business Personal Property. Personal Property Theory and Law Customer Service and Data Entry
Thomas Y Pickett	Industrial and Mineral Property		By contract the Thomas Y. Pickett staff of Specialized Appraisers, Licensed and registered Perform all the tasks Necessary

INTRODUCTION

Scope of Responsibility

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

The Tom Green County Appraisal District (CAD) is a political subdivision of the State of Texas created effective January 1, 1981. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A five member board of directors, appointed by the taxing units within the boundaries of Tom Green 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 14 jurisdictions or taxing units in the county. Each taxing unit, such as the county, the city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services.

Appraisals established by the appraisal district allocate the year's tax burden on the basis of each taxable property's January 1st market value. The value is defined as market value in terms of cash or cash equivalent. The three approaches to value are considered during each type of appraisal, cost, market and income.

The approach that is most relevant to highest and best use of a property type is then used to determine the market value of the subject properties within the defined area, for residential real property, commercial real property, and business personal property.

We also determine eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

Except as otherwise provided by the Property Tax Code, 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   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 preceding the tax year to which the appraisal applies by filing an application with the chief appraiser requesting that the inventory be appraised as of September 1st.

The Texas Property Tax Code, under Sec. 25.18, requires each appraisal office to implement a plan to update appraised values for real property at least once every three years. The district's current policy is to conduct a reappraisal of real property once every three years. (See three year plan.) However, appraised values are reviewed annually and are subject to change for purposes of equalization. Personal property is appraised every year.

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

Personnel Resources

The Office of the Chief Appraiser is primarily responsible for overall planning, organizing, staffing, coordinating, and controlling of district operations. The Administration Department's function is to plan, organize, direct and control the business support functions related to human resources, budget, finance, records management, purchasing, fixed assets, facilities and postal services. The Appraisal Department is responsible for the valuation of all real and personal property accounts. The property types appraised include commercial, residential, business personal, and industrial and mineral. 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 include records maintenance, information and assistance to property owners.

The appraisal district staff consists of 25 employees with the following classifications:

- Management – Chief Appraiser (1), Administrative Secretary (1), Senior Appraiser (1)
- Appraisal – Appraisers (8),
- Mapper (1)
- Clerical – Cashiers (5),
- Clerks and Bookkeepers (2),
- Secretary (1),
- Senior Clerks & Abstractors (3)
- Data Processing – Programmer (1),
- Data Entry Operator (1)

The district is responsible for establishing and maintaining approximately 68,529 real, personal and mineral property accounts covering 1545 square miles within Tom Green County. This data includes property characteristic and 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 that is prioritized by last field inspection date. Sales are routinely validated during a separate field effort; however, numerous sales are validated as part of the new construction and data review field activities. General trends in employment, interest rates, new construction trends, and cost and market data are acquired through various sources, including internally generated questionnaires to buyer and seller.

The district has a geographic information system (GIS) that maintains cadastral maps and various layers of data, including, facet and aerial photography Pictometry and Google. The district's website makes a broad range of information available for public access. Downloadable files of related tax information and district forms, including exemption applications and business personal property renditions are also available from the Texas Comptroller's website.

Computer Systems

The Computer Systems Department maintains the district's data processing facility, software applications, and geographical information system. The CAMA system (computer assisted mass appraisal) currently being utilized is a comprehensive appraisal and collection software package provided by Southwest Data Solutions. A mainframe computer is an IBM AS/400 Model 270 using the OS/400 operating system. This mainframe is currently being used for archival purposes for the 2012 tax roll data as a repository. The District is supported by a software package supplied by Southwest Data Solutions. The CAD plans on operating exclusively utilizing the software package from Southwest Data solutions.

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 a semi annual property value study (PVS) of each Texas school district and each appraisal district. As a part of this semi annual study, the code also requires the Comptroller to: use sales and recognized auditing and sampling techniques; review each appraisal district's appraisal methods, standards and procedures to determine whether the district used recognized standards and practices (MAPS 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 analysis of sold properties (sale ratio studies) and appraisals of unsold properties (appraisal ratio studies) as a basis for assessment ratio reporting. For appraisal districts, the reported measures include median level of appraisal, coefficient of dispersion (COD), 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 Fl are directly applicable to real property).

There are seven independent school districts in TGCAD for which appraisal rolls are annually developed. The preliminary results of this study are released in January in the year following the year of appraisal. The final results of this study are certified to the Education Commissioner of the Texas Education Agency (TEA) in the following July of each year for the year of appraisal. This outside (third party) ratio study provides additional assistance to the CAD in determining areas of market activity or changing market conditions.

INTRODUCTION

Appraisal Responsibilities

The field appraisal staff is responsible for collecting and maintaining property characteristic data for classification, valuation, and other purposes. Accurate valuation of real and personal property by any method requires a physical description of personal property, and land and building characteristics. This appraisal activity is responsible for administering, planning and coordinating all activities involving data collection and maintenance of all commercial, residential and personal property types which are located within the boundaries of Tom Green County. The data collection effort involves the field inspection of real and personal property accounts, as well as data entry of all data collected into the existing information system. The goal is to periodically field inspect residential, personal, and commercial properties in Tom Green County every three years. Meeting this goal is dependent on budgetary and time constraints.

Appraisal Resources

- Personnel – The appraisal activities consists of 9 appraisers and two clerical personnel.
- 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. The data is printed on a property record sheet, or personal property data sheets. Other data used includes maps, sales data, fire and damage reports, building permits, photos and actual cost information.

PRELIMINARY ANALYSIS

Data Collection/Validation

Data collection of real property involves maintaining data characteristics of the property on 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 establish uniform procedures for the correct listing of real property. All properties are coded accordingly and the approaches to value are structured and calibrated based on this coding system. Data collection for personal property involves maintaining information on PERS (Personal Property System). The type of information contained in PERS includes personal property such as business inventory, furniture and fixtures, machinery and equipment, cost and location. The field appraisers conducting on-site inspections use a personal property manual during their initial training and as a guide to correctly list all personal property that is taxable.

Sources of Data

The sources of data collection are through the new construction field effort, data review/relist field effort, data mailers, hearings, sales validation field effort, commercial sales verification, newspapers and publications, and property owner correspondence 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 drive 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 data of 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 data and confirmation of the sales price. In commercial, the commercial sales group is responsible for contacting both grantee and grantor 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 check. Frequently, the property owner provides sufficient enough data to allow correction of records without having to send an appraiser on-site. For the property owner without access to the Internet, letters are often submitted notifying the district of inaccurate data. Properties identified in this manner are added to a work file and inspected at our earliest opportunity.

Data Collection Procedures

Field data collection requires organization, planning and supervision of the field effort. Data collection procedures have been established for residential, commercial, and personal property. The appraisers are assigned throughout Tom Green County to conduct field inspections. Appraisers conduct field inspections and record information either on a property record sheet, or a personal property data sheet.
The quality of the data used is extremely important in establishing accurate values of taxable property. While production standards are established and upheld for the various field activities, quality of data is emphasized as the goal and responsibility of each appraiser. New appraisers are trained in the specifics of data collection. Experienced appraisers are routinely re-trained in listing procedures prior to major field projects such as new construction, sales validation or data review. A quality assurance process exists through review of the work being performed by the field appraisers. 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.

STUDY OF MASS APPRAISAL CONCEPTS AND PROCEDURES

Extraordinary Assumptions, Limiting Conditions and Predetermined conclusions

By Comptroller Rule and Texas Property Tax Code, all property shall be appraised at Market Value and shall be in minimal compliance of 95% ratio and the resulting ISD jurisdictional values shall be within the ranges established by Comptroller known as the Confidence Interval.

The Tom Green County Appraisal District strives to maintain and or improve the mass appraisal process through the statistical study and evaluation of the market value for property located within each specific economic market area.

The District feels this is an important statement: "Although Property Tax Code requires each appraisal district to appraise property at market value", we are essentially mandated to settle for equal and uniform valuations on all property. We recognize and voice our concern in this reappraisal plan that both conditions cannot be met simultaneously. There can either be market value or there can be equal and uniform. Since we are tested on market value by the Comptroller to determine if we are in compliance regarding ratio studies, this District will follow market value in its purest form, where possible.

The District is required to consider the three approaches to value; cost, market and income, and we are tested by Comptroller on TGCAD's market value when compared to either the Comptroller's appraisals of property located within our jurisdiction or compared against sales of property discovered within our jurisdiction.

The District feels strongly that since the driving force to appraise property is not the accuracy and achievement of market values, but actually is driven by the inadequacy of a completely outdated grading system, we will chose market value as defined by sales of property that have recently transacted and disclosed within the boundaries of our jurisdiction, and the values that will be ultimately be generated by those "ratios" regarding the appraisal of real property. The District will also adhere to market value of Personal Property as evidenced by market value derived from schedules of original costs, adjusted and indexed for life, depreciation and utility.

The District will and does strive for the very best representation of market values for our Clients, the intended users of this reappraisal plan, and we are sensitive to the hardship our actions could have on the Taxpayers of Tom Green County.

The District recognizes and names the following as Clients and Users of this reappraisal plan for financial planning for the upcoming 3 year period of time covered by this plan.

In Alphabetical order:

Christoval ISD
Grape Creek ISD
Miles ISD (overlap)
San Angelo ISD
Veribest ISD
Wall ISD
Water Valley ISD

As well as the local government jurisdictions:

City of San Angelo
Irion County Water Control District
Lipan-Kickapoo Water Conservation District
Red Creek Municipal Utility District
Sterling County Water Conservation District
Tom Green County
Tom Green County Emergency Services District #1

This reappraisal plan approved by the District's Board of Directors and causes actions that best serve the interests of the Jurisdictions/Entities listed above, and welcomes any feedback or input into this process from those jurisdictions we represent in the pursuit of the appraisal and reappraisal of all property within Tom Green County.

It is our duty to reduce to print the fact that the District and its employees have engaged in appraising the same universe of properties in previous years, and will continue to do so in this current 3 year biennial plan.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The date of last inspection, extent of that inspection, and the CAD appraiser responsible are listed on the CAMA record. If a property owner or jurisdiction disputes the district's records concerning this data during a hearing, via a telephone call or correspondence received; CAMA may be altered based on the evidence provided. Typically, a field inspection is requested to verify this evidence for the current year's valuation or for the next year's valuation. Every year a field review of certain areas or neighborhoods in the jurisdiction is done.

Office Review

Office reviews are completed on properties where information has been received from the owner of the property. Data mailers, sent in mass, or at the request of the property owner, frequently verify the property characteristics or current condition of the property. When the property data is verified in this manner, field inspections may not be required.

PERFORMANCE TEST

The valuation appraisers are responsible for conducting ratio studies and comparative analysis. (Refer to the individual valuation process summary reports).

Field appraisers, in many cases may conduct field inspections to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics.

PILOT STUDIES

In the ending period of the previous reappraisal plan (2015-2017) the District committed time, staff and resources to perform a pilot study on land values within built up, static residential neighborhoods.

The need for this pilot study was due to the land to building ratios (L : B) being out of reasonable ranges. In 2016, the District determined that the land to building ratios were at levels such as 1 to 7 to as high as 1 to 14.

This indicates that too much emphasis had been placed on the value of the improvements that were located on the land, and the value of the land component not being appraised correctly.

The District committed to the study and changed the valuations and valuation ratios on the land and building components to recognize and account for the portion of the values that may be attributable to the location of the property. This was accomplished on about 1/3 of the total properties reappraised in the year 2016.

The pilot study was successfully completed and brought to our attention that certain properties needed to be adjusted after the initial reappraisal values were determined.

Using these adjustments as guidelines, the District will commit to a second land to building ratio study in 2017, and using what was learned from the pilot study of 2016 predicts that all real property values will reflect market values and will be in more acceptable ranges of land to building ratio values.

Residential Valuation Process

INTRODUCTION

Scope of Responsibility

The Residential Valuation appraisers are responsible for developing equal uniform market values for residential improved and vacant property. There are approximately 68,529 parcels properties in Tom Green County.

Appraisal Resources

- Personnel – The Residential Valuation appraisal staff consists of six appraisers.
- Data – A common set of data characteristics for each residential dwelling in Tom Green County is collected in the field and data entered to the computer. The property characteristic data drives the computer-assisted mass appraisal (CAMA) approach to valuation.

VALUATION APPROACH

Market area is defined as an Economic Area (publication cited: Texas Property Tax Glossary, Second Addition, August 2002)

Economic Area is defined as a geographic area, typically encompassing a group of neighborhoods, defined by the physical boundaries of an area that are more or less equally subject to a set of one or more economic forces that largely determine the value of the properties within the area. (publication cited: Texas Property Tax Glossary, Second Addition, August 2002)

The forces that affect market value within the economic or market area for the types of appraisals performed by TGCAD, i.e.) residential, commercial, business personal property, may be physical, social, governmental, legal, factors of supply and/or demand, acceptability, access, types of property rights, and time of year or season.

Uniform Standards of Professional Appraisal Practices, Standard Rule 6-1(e)(iii)(comment) states: the properties must be indentified in general terms, and each individual property in the universe must be indentified, with the information on its identity stored or referenced in its property record. (publication cited: "USPAP 2016 Updated Edition", copyright The Appraisal Foundation.)

TGCAD identifies each individual parcel within the geographic boundaries of each of the market areas, in general terms and keeps those identities in the CAMA system.(publication cited: "Uniform Standards of Professional Appraisal Practice and Advisory Opinions,)

In addition, each individual property in the defined geographical/economic area outlined in this reappraisal plan has been indentified by location, Reappraisal plan region number, ISD boundary, situs address, unique parcel account number, and legal description, which includes coding within the CAMA to provide for location by GIS map layers, sub-division boundaries and 911 Emergency Street Addressing.

The detailed identity of each parcel in the universe is stored in the CAMA electronic records, both local and off-site, it is reproducible and searchable.

In addition to the above mentioned quantitative and qualitative identifiers, there are also political boundaries.

Those political boundaries are defined by legal description of Independent School District lines, Incorporated City Limits and un-incorporated townships within the jurisdiction of the TGCAD, and Tom Green County, all of which can be delineated and identified on physical maps to aide in the inclusion of property within those ISD boundaries.

The market areas and political boundaries are established and defined for the following entities:

Tom Green County (region 1, 2, 3)
Christoval ISD (region 1)
Grape Creek ISD (region 1)
San Angelo ISD (region 1, 2, 3)
Miles ISD (Tom Green County Portion-Overlap) (region 3)
Veribest ISD (region 2)
Wall ISD (region 1, 2)
Water Valley ISD (Tom Green County Portion-Overlap) (region 3)
City of San Angelo (region 1, 2, 3)
Town of Carlsbad (un-incorporated) (region 3)
Town of Christoval (un-incorporated) (region 1)
Town of Grape Creek (un-incorporated) (region 1)
Township of Mereta (un-incorporated) (region 2)
Township of Veribest (un-incorporated) (region 2)
Town of Wall (un-incorporated) (region 2)
Town of Water Valley (un-incorporated) (region 3)
Red Creek M.U.D. (region 1)
Lipan-Kickapoo WCD (Tom Green County Portion-Overlap) (region 1, 2, 3)
Irion County WCD (Tom Green County Portion-Overlap) (region 1)
Sterling County WCD (Tom Green County Portion-Overlap) (region 3)
Tom Green County Emergency Services (region 1 and 3)

The Sterling County Water Control District and the Irion County areas were defined by Legislative action; accordingly the boundaries of those entities are attributed to geographical and physical landmarks of man-made origin.

Participation by parcel owner in these two (2) WCDs was by voluntary annexation into the taxing unit, creating individual characteristics of a small population of parcels with the TGCAD's jurisdiction, the identity of those parcels is stored in the CAMA system.

An individual property may be defined as within Tom Green County, within the District's jurisdiction, within an ISD, within a rural area or within a Town or City, within an economic area, within a geographical area, within a Region, within a subdivision, within a legal description, and within a neighborhood.

This plan encompasses the time frame sufficient and relative to the scope of work. This time frame is generally defined as data collection and organization for market value evidence during the period of Jan 1 through December 31 of the previous year to effectively analyze quantity and quality of information on market value and trends to arrive at the application of statistical review, analysis and performance.

The decision model is calibrated to be effective January 1 of each year following the year previous of data collection of the re-appraisal plan, using time adjustments on sales data as needed, and remains in effect for the tax year stated in the re-appraisal plan, and certified by the Chief Appraiser on or before July 25th of each year.

It is recognized that the outlined, defined areas are microcosms of the TGCAD universe and each specific area has its own unique market value, established by all the forces within the particular area and the dynamic interaction with other defined areas relating to economic principles such as location, substitution, uniformity, homogeneity, and conformity. This is evidenced by market information gathered from various sources, and specifically indentified during statistical review and analysis.

The statistical analysis of the defined regions and the market information gathered is processed and maintained within the local CAMA system, including but not limited to Microsoft Excel Spreadsheet Analysis. This market area analysis is retained year after year within the TGCAD CAMA servers.

These defined economic areas are stated on the very first page of the plan, delineated and known as Regions One (1), Two (2) and Three (3) and are utilized by the CAD, as well as all the jurisdictions represented by The District, for funding and planning purposes by assessment and collection of Property Taxes pursuant to Texas Property Tax Law and Code.

Area Analysis

Data on regional economic forces such as demographic patterns, regional and 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 are collected from public sources and provide the field appraiser a current economic outlook on the real estate market. Information is gleaned from real estate publications and sources such as continuing education in the form of IAAO and TDLR classes.

Neighborhood and Market Analysis

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

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

Delineation can involve the physical drawing of neighborhood boundary lines on a map, but it can also involve statistical separation or stratification based on attribute analysis. Part of neighborhood analysis is the consideration of discernible patterns of growth that influence a neighborhood's individual market. Few neighborhoods are fixed in character. Each neighborhood may be characterized as being in a stage of growth, stability or decline. The growth period is a time of development and construction. As new neighborhoods in a community are developed, they compete with existing neighborhoods. An added supply of new homes tends to induce population shift from older homes to newer homes. In the period of stability, or equilibrium, the forces of supply and demand are about equal.

Generally, in the stage of equilibrium, older neighborhoods can be more desirable due to their stability of residential character and proximity to the workplace and other community facilities. The period of decline reflects diminishing demand or desirability. During decline, general property use may change from residential to a mix of residential and commercial uses. Declining neighborhoods may also experience renewal, reorganization, rebuilding, or restoration, which promotes increased demand and economic desirability.

Neighborhood identification and delineation is the cornerstone of the residential valuation system at the district. All the residential analysis work done in association with the residential valuation process is neighborhood specific. Neighborhoods are field inspected and delineated based on observable aspects of homogeneity. Neighborhood delineation is periodically reviewed to determine if further neighborhood delineation is warranted.

Whereas neighborhoods involve similar properties in the same location, a neighborhood group is simply defined as similar neighborhoods in similar locations. Each residential neighborhood is assigned to a neighborhood group based on observable aspects of homogeneity between neighborhoods. Neighborhood grouping is highly beneficial in cost-derived areas of limited or no sales, or use in direct sales comparison analysis. Neighborhood groups, or clustered neighborhoods, increase the available market data by linking comparable properties outside a given neighborhood. Sales ratio analysis, discussed below, is performed on a neighborhood basis, and in soft sale areas on a neighborhood group basis.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, legal, financially feasible, and productive to its maximum. The highest and best use of residential property is normally its current use. This is due in part to the fact that residential development, in many areas, through use of deed restrictions and zoning, precludes other land uses. Residential valuation undertakes reassessment of highest and best use in transition areas and areas of mixed residential and commercial use. In transition areas with ongoing gentrification, the appraiser reviews the existing residential property use and makes a determination regarding highest and best use. Once the conclusion is made that the highest and best use remains residential, further highest and best use analysis is done to decide the type of residential use on a neighborhood basis. As an example, it may be determined in a transition area that older, non-remodeled homes are economic detriments, 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.

Land Valuation

During a pilot program and statistical study of market value and what portion of market value was attributable to the land component, the District successfully proved through allocation by abstraction the portion of the market value that is attributable to the land.

The District will continue the study and revaluation of the land components in this reappraisal plan, as this concept is the basis for the economic delineation of the economic markets within our jurisdictions. This is based on the economic principle of supply and demand and this is further affirmed that location drives market value and location is defined as the value of the land component, which in turn represents highest and best use.

VALUATION AND STATISTICAL ANALYSIS (Model Calibration)

Cost and Market Driven Schedules

All residential parcels in the district are valued from cost and market driven schedules using a comparative unit method. The district's residential cost schedules follow the nationally recognized Marshall and Swift's cost schedules and are customized to fit Tom Green County's local residential building and sales market.

An extensive review and revision of the residential cost schedule is performed each tax year. This process includes correlation of quality of construction factors from CAD and Marshall & Swift. The results of this comparison were analyzed and the Marshall & Swift regional multiplier is used in the district's cost process. In addition to the mainframe cost schedules, PC spreadsheet applications have been created to address unique appraisal situations, such as different levels of remodeling and atypical housing features not normally accounted for in the mainframe benchmark cost system.

Sales Information

A sales file for the storage of "snapshot" sales data at the time of sale is maintained. Residential vacant land sales, along with commercial improved and vacant land sales are maintained in a separate sales information system. Residential improved and vacant sales are collected from a variety of sources, including: district questionnaires sent to buyer and seller, field discovery, protest hearings, local MLS, various sale vendors, builders, and realtors. A system of type, source, validity and verification codes was established to define salient facts related to a property's purchase or transfer. School district or neighborhood sales reports are generated as an analysis tool for the appraiser in the development of value estimates.

Land Analysis

Residential land analysis is conducted by each of the residential appraisers. The appraisers develop a base lot, primary unit value assign each unique neighborhood to a square foot land value. Each lot may be adjusted by a percent good or an economic factor. Specific land influences are used, where necessary, to adjust parcels outside the neighborhood norm for such factors as view, shape, size, and topography, among others. The appraisers use abstraction and allocation methods to insure that the land values created best reflect the contributory market value of the land to the overall property value, and that the resulting land values are representative of value as a function of location.

Statistical Analysis

The Property Tax Division of the Comptrollers office performs statistical analysis annually to evaluate whether values are equitable and consistent with the market. Ratio studies are conducted on each of the approximately 625 residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy--level and uniformity of value. Appraisal statistics of central tendency and dispersion generated from sales ratios are available for each stratified neighborhood within an ISD and summarized by year.

These summary statistics including, but not limited to, the weighted mean, median, standard deviation, coefficient of variation, and coefficient of dispersion provide the appraisers a tool by which to determine both the level and uniformity of appraised value on a stratified neighborhood basis. The level of appraised values is determined by the weighted mean for individual properties within a neighborhood, and a comparison of neighborhood weighted means reflect the general level of appraised value between comparable neighborhoods. Review of the standard deviation, coefficient of variation, and coefficient of dispersion discerns appraisal uniformity within and between stratified neighborhoods.

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

Market Adjustment or Trending Factors

Neighborhood, market adjustment and time adjustment factors are developed from appraisal statistics provided from ratio studies and are used to ensure that estimated values are consistent with the market. The district's primary approach to the valuation of residential properties uses a hybrid cost-sales comparison approach. This type of approach accounts for neighborhood market influences not specified in the cost model. This is essentially a market approach to value reflected as a cost approach.

Market value of a class of property is calculated by analyzing the price per square foot that comparable properties are selling for and applying that price per square foot back to the individual properties of that class. The appraiser may determine that an individual property may need further adjustment either by a per cent good or an economic factor. This market value is reflected on the appraisal records as a cost approach identifying contributory value for each property characteristic. The total appraised value of an individual property can then be supported by comparing it to the most comparable sales that have occurred in the market place.

If a neighborhood is to be updated, the appraiser uses a market ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time within a delineated neighborhood with the properties' appraised value. The calculated ratio derived from the sum of the sold properties' appraised value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted appraised value for the sold properties.

A market adjustment factor is needed to trend the values obtained through the market approach closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values.

The market adjustment factor calculated for each updated neighborhood is applied uniformly to all properties within a neighborhood. Once the market-trend factors are applied, a second set of ratio studies is generated that compares recent sale prices with the proposed appraised values for these sold properties. From this set of ratio studies, the appraiser judges the appraisal level and uniformity in both update and non-update neighborhoods, 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 the new law, beginning in the second year a property receives a homestead exemption; market value increases in the value of that property are "capped."

The value for tax purposes (appraised value) of a qualified residence homestead will be the LESSER of:

    The market value; or
- The preceding year's appraised value;
    PLUS 10 percent of the appraised value of the appraised value of the preceding year;
    PLUS the value of any improvements added since the last re-appraisal.

Values of capped properties must be recomputed annually. If a capped property sells, the cap automatically expires as of January 1st of the following year. In that following year, that home is reappraised at its market value to bring its appraisal into uniformity with other properties. An analogous provision applies to new homes. While a developer owns them, unoccupied residences are appraised as part of an inventory using the district's land value and the developer's construction costs as of the valuation date. However, in the year following sale, they are reappraised 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 with a high variance in sales ratios are field reviewed on a regular basis to check for accuracy of data characteristics.

It is the Field Appraiser's responsibility and judgement to identify any individual characteristics of any property that may have an effect or influence on the estimate of Market Value. This is inclusive of both internal and external characteristics that may affect market value of the subject.

As the district's parcel count has increased through new home construction, and the homes constructed in the boom years of the late 70's and early 80's experience 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, and physical, functional and economic obsolescence, factors contributing significantly to the market value of the property. After preliminary estimates of value have been determined in targeted areas, the appraiser takes valuation documents to the field to test the computer-assisted values against his own appraisal judgment. During this review, the appraiser is able to physically inspect both sold properties and unsold properties for comparability and consistency of values.

Office Review

Given the lack of resources and time required to conduct a routine field review of all properties, homogeneous properties consisting of tract housing with a low variance in sales ratios and other properties having a recent field inspection date are value reviewed in the office. Valuation reports comparing previous values against proposed and final values are generated for all residential improved and vacant properties. The dollar amount and 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 notice are sent.

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 ISD to allow the appraiser to review general market trends within their area of responsibility, and provide an indication of market appreciation or depreciation over a specified period of time. The neighborhood descriptive statistics are reviewed for each neighborhood being updated for the current tax year. The ratio studies are designed to emulate the findings of the state comptroller's annual property value study for category "A", "D", "F", "L" and "J" property.

The standard of minimal level of compliance with the Comptroller's office is 95% overall median level of market value estimates when compared to sold or appraised values, and to be statistically and mathematically within the confidence interval which is +/- 5%.

The District realizes that the annual work on estimating market value for taxation purposes is not an exact science; however the District runs ratio studies annually in addition to the biennial test performed by the Comptroller.

The District strives for the 95% ratio when comparing current CAD values to sale prices confirmed and adjusted for market variables such as time and financing.

The performance of these internal ratio studies regarding the 95% level of market value that indicate to staff what types of property need to be reappraised and where that property is located within our economically defined areas.

Our economic areas are primarily defined by the activity in the real estate market. Those areas within our County that have high sales volumes, or lower than compliant ratios are typically the econometric results or levels that are given the highest consideration. This is for the simple reason, that the Comptroller will test our values every other year, and recognition of fact and past history show that the study performed by the Comptroller centers around low spectrum of ratios regardless of economic or geographic areas, and the Comptroller study is also primarily centered on high value properties, which also skews the test results.

INTRODUCTION

Scope of Work

This mass appraisal assignment includes all commercially classed real property assigned to the commercial valuation appraiser and located within the jurisdiction of Tom Green County and overlapping appraisal districts. Commercial appraisers appraise the fee simple interest of properties according to statute. However, the affect 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 pro-rata interests.

Appraisal Resources
- Personnel – The Commercial Valuation Staff consists of 2 appraisers
- DATA – a common set of data characteristics for each commercial property in collected from the market place regarding economic rents, net to land and published income, or from National sources such as "Marshal & Swift".

SPECIAL NOTE: Starting in the appraisal year of 2017 all Commercial Property will be the subject of extensive work. This will include but not be limited to CAMA coding changes to be consistent with new codes in Corelogic's "Marshal and Swift Valuation Models", valuation coding based on replacement costs new, functional depreciation scheduling, and an extensive land value study and reappraisal based on location and the valuation of the land component when sales of existing Improved Commercial Property are analyzed to indicated the remaining value attributable to the land component. Land values determined through the study will then be scheduled to produce a credible table format based on highest and best use, land size and location. This work project will be consistent when valuation of income producing property is subject of reappraisal, and the highest and best use doctrine will indicate to the appraiser the valuation method that produces the most reliable and accurate estimate of value.

Procedure for Collecting and Validating Data

The data used by the commercial appraisers includes verified sales of vacant land and improved properties and the pertinent data obtained from each (conditions of sale, financing, sales price levels, vacancy, capitalization rates, income multipliers, equity dividend rates, marketing period, etc.). Other data used by these appraisers includes actual income and expense data, actual contract rental data, leasing information (commissions, tenant finish, length of terms, etc.), actual construction cost data, and in-house surveys.

In addition to the actual data obtained from specific properties, market data publications are also reviewed to provide additional support for market trends. These include fee appraiser rental property surveys, many web sites from real estate organizations,

professionals and individual property owners. Publications such as Corelogic's "Marshal and Swift " valuation models, Texas A & M Research Center, Source Strategies, Inc-Hotel Performance Fact book, Burbach and Associates, and Appraisal Institute's economic indicators are used for income and expense data, capitalization rates, typical holding periods for real estate investments, interest rates and other pertinent real estate criteria are analyzed.

In terms of commercial sales data, TGCAD receives a copy of the deeds recorded in Tom Green County that convey commercially classed properties. The deeds involving a change in commercial ownership are entered into the sales information database and researched to obtain the pertinent sale information. For those properties involved in a transfer of commercial ownership, a sale file is produced which begins the research and verification process. The initial step in sales verification involves a computer-generated questionnaire that is mailed to the transaction grantee. If a questionnaire is answered and returned, the documented responses are recorded into the computerized sales database system.

If no information is provided, verification is then attempted via phone calls to both parties. If the sales information is still not obtained, other sources are contacted such as the brokers involved in the sale, property managers or commercial vendors. In other instances sales verification is obtained from local appraisers or others that may have the desired information. Also, closing statements are often provided during the appraisal process. The actual closing statement is the most reliable and preferred method of sales verification. After the sales data has been keyed into the database, the data is reviewed to maintain quality control.

Annually, prior to the hearing season and after sales have been researched, verified, keyed into the database, and quality control has been completed, the sales data are summarized and produced into book form. The confirmed sales in the vacant land sale and commercial improved sale books are categorized by property and use type and are sorted by location and chronological order. These books are available to the public for use during hearings, and are also used by the TGCAD appraisers during the hearings process.

Highest and Best Use Analysis

The highest and best use is the most reasonable and probable use that generates the highest present value of the real estate as of the date of valuation. The highest and best use of any given property must be physically possible, legally permissible, financially feasible, and maximally productive. For improved properties, highest and best use is evaluated as improved and as if the site were still vacant. This assists in determining if the existing improvements have a transitional use, interim use, nonconforming use, multiple uses, speculative use, excess land, or a different optimum use if the site were vacant. 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 insures that an accurate estimate of market value (sometimes referred to as value in exchange) is derived.

Please review the earlier mentioned "Pilot Study on value of Land Components and the relationship to location".

On the other hand, value in use represents the value of a property to a specific user for a specific purpose. This maybe significantly different than market value, which approximates market price under the following assumptions: (1) no coercion of undue influence over the buyer or seller in an attempt to force the purchase or sale, (2) well-informed buyers and sellers acting in their own best interests, (3) a reasonable time for the transaction to take place, and (4) payment in cash or its equivalent.

Model Specification

The commercial valuation function is divided into five improved property valuation groups and a vacant commercial land group. The improved real property appraisal responsibilities are categorized according to major property types of apartment, office, retail, warehouse and special use (i.e. hotels, hospitals and, nursing homes).
When applicable, the cost approach to value is applied to all real property. This methodology involves the utilization of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on the Marshall Swift Valuation Service. This approach also employs the sales comparison approach and or other acceptable methods in the valuation of the underlying land value.

When applicable, the income approach to value was applied to the real property that is typically viewed by market participants as "income producing" and for which the income methodology is considered a leading value indicator.

When applicable, the sales comparison (market) approach was utilized not only for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll.
 The final estimate of value is reconciled depending on the quality and quantity of the data from the three approaches.

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. Information is obtained from real estate publications and sources such as local surveys, regional newspaper real estate articles, and the Real Estate Center at Texas A & M University.

Continuing education in the form of IAAO, Texas Association of Assessing Officers (TAAO), Texas Association of Appraisal Districts (TAAD) and Board of Tax Professional Examiners (BTPE) courses, and real estate seminars provide appraisers a current economic outlook on the local real estate market. Strict adherence to these

procedures ensures that appraisers consider pertinent factors and trends about the forces within the governmental bodies and within the geographic boundaries of TGCAD.

In addition, once a year our staff attends a data exchange seminar with other commercial appraisers in the West Texas area to exchange data on regional commercial properties. Many large commercial properties have a regional market and not confined to city boundaries.

Neighborhood Analysis

The neighborhood is comprised of the land area and commercially classed properties located within the boundaries of this taxing jurisdiction. This area consists of a wide variety of property types including residential, commercial and industrial, and vacant acreage.

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 organize comparable properties into smaller, manageable subsets of the universe of properties known as neighborhoods. In the mass appraisal of commercial properties these subsets of a universe of properties are generally referred to as market areas 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 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.

Property use type is the primary selection delineation criteria utilized by the commercial valuation system.

All income model valuation (income approach to value estimates) is use specific. Economic areas are periodically reviewed to determine if re-delineation 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 are analyzed.

Market Analysis

A market analysis relates directly to 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, and capitalization rate studies are analyzed. Local consultations with area real estate professionals are utilized lend support to the various assumptions utilized in the valuation of real estate.

Model Calibration

Model calibration involves the process of periodically adjusting the mass appraisal formulas, 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

When applicable, the cost approach to value is applied to all 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 comparable properties whenever possible. Cost models are typically developed based on the Marshall Swift Valuation Service. Cost models include the derivation of replacement cost new (RCN) of all improvements. These include comparative base rates, per unit adjustments and lump sum adjustments. This approach also employs the sales comparison approach and other accepted methods in the valuation of the underlying land value. 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, location modifiers are necessary to adjust these base costs specifically for Tom Green County. The national cost service provides these modifiers.

Depreciation schedules are developed based on what is typical for each property type at that specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. These are located in the Marshall Swift Manual. These schedules are then tested to ensure they are reflective of current market conditions. The actual and effective ages of improvements are noted. 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 based on personal inspection and analysis by staff commercial appraisers.

Market adjustment factors such as external and/or functional obsolescence can be applied if warranted. 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 property type or location and can be developed via ratio studies or other market analyses. Accuracy in the development of the cost schedules,

condition ratings and depreciation schedules will usually minimize the necessity of this type of an adjustment factor.

Income Models

When applicable, the income approach to value was 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 study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

The projected vacancy and collection loss allowance is established from actual data furnished by property owners and district market surveys. This allowance accounts for periodic fluctuations in occupancy, both above and below an estimated stabilized level. The market derived stabilized vacancy and collection loss allowance is subtracted from the potential gross rent estimate to yield an effective gross rent.

A secondary income or service income is calculated as a percentage of stabilized effective gross rent and or actual data supplied by property owners and agents. 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 and is added to the effective gross rent to arrive at an effective gross income.

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 are included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space.

Different expense ratios are developed for different types of commercial property based on use. Actual expense data for the subject property is used when available for analysis and confirmation of model estimates. For instance, retail properties are most frequently leased on a triple-net basis, whereby the tenant is responsible for his pro-rata share of taxes, insurance and common area 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. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Expense ratios are implemented based on the type 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 large lump sums. 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.

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

Rates and multipliers are used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also 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.

Capitalization Analysis and Techniques

Capitalization analysis is used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses, can be derived from the market.

Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. In addition, overall capitalization rates can be derived from the built-up method (band-of-investment). This method relates to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications.

Care is taken by the commercial department's management and appraisal staff to choose the appropriate income value technique for the type of property being appraised and in applying these methods in a uniform and equal way within the particular class and subclasses of commercial property being evaluated on a mass basis.

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 each parcel on the appraisal roll.

Pertinent data from actual sales of properties, both vacant and improved, is pursued throughout the year in order to obtain relevant information that 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 that afford the analyst an excellent means of judging the present level and uniformity of the appraised values.

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 on Excel spreadsheets and applied to relevant commercial properties.

How Estimates are Reviewed

Field Review

Commercial appraisers field review, to the extent possible, properties or economic areas experiencing remodeling, renovations, or retrofits, changes in occupancy levels or rental rates, new leasing activity, new construction, or wide variations in sale prices. Additionally, the analyst 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. In some cases field reviews are warranted when sharp changes in occupancy or rental rate levels occur between building classes or between economic areas. With preliminary estimates of value in these targeted areas, the analyst test computer assisted values against their own appraisal judgment. While in the field, the appraiser physically inspects sold and unsold properties for comparability and consistency of values.

Office Review

Office reviews are completed on properties not subject to field inspections and are performed in compliance with procedures and guidelines contained in Tom Green County Appraisal District's Appraisal Manual. The district's Appraisal Manual outlines the application of the three approaches to value.

Office review consists of analyzing the pertinent data for each property, as well as comparing the previous values to the proposed value conclusions of the various approaches to value. The appraiser may review methodology for appropriateness to ascertain that it was completed in accordance with USPAP or more stringent statutory and district policies. Previous values resulting from protest hearings are individually reviewed to determine if the value remains appropriate for the current year based on market conditions

Once the appraiser is satisfied with the level and uniformity of value for the commercial property being reviewed, the estimates of value go through a process from CAMA to an ad valorem administrative review. Although the value estimates are processed in a computerized mass appraisal environment, value edits enable an individual parcel review of value anomalies before the estimate of value is released for noticing.

Appraisal Performance tests used and performance measures attained

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 the weighted mean, standard deviation and coefficient of variation, provide the analysts 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. Review of the standard deviation and the coefficient of variation can discern appraisal uniformity within a specific property type.

The appraiser reviews every commercial property type annually through sales ratio analysis. 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 analyst 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 utilizing frequency distribution methods or other statistical procedures or measures.

Income model conclusions are compared to actual information obtained on individual commercial properties during the hearings process as well as information from published sources and area vendors.

Sales Ratio Studies

Overall sales ratios are generated by property use type from the sales database and CAMA. The appraisers utilize desktop applications such as EXCEL programs to evaluate subsets of data by property category type or a specific and unique data item. On the desktop, this may be customized and performed by building class and age basis. In many cases, field checks may be conducted to insure the ratios produced are accurate and the appraised values utilized are based on accurate property data characteristics. These ratio studies aid the appraiser by providing an indication of market activity by economic area or changing market conditions (appreciation or depreciation).

Comparative Appraisal Analysis

Commercial appraisers perform 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. Commercial appraisers examine 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 are available for each property type. These summary statistics are available and referenced on the TGCAD CAMA system.

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 Multi-Location Assets. There are approximately 3999 business personal property accounts in Tom Green County.

Appraisal Resources

- Personnel – The personal property staff consists of a senior appraiser, a Field Appraiser and a data entry / trainee
- Data – A common set of data characteristics for each personal property account in Tom Green County is collected in the field and data entered to the district's computer. The property characteristic data drives the computer-assisted personal property appraisal (CAPPA) system. The field data is collected by the personal property appraisers.

VALUATION APPROACH (Model Specification)

SIC Code Analysis

Four digit numeric codes, called Standard Industrial Classification (SIC) codes that were developed by the federal government. These classifications were used by TGCAD to develop the locally specific codes which are used as a way to classify personal property by business type. TGCAD has further stratified these codes by adding alpha codes in order to group business types that have similar personal property characteristics.

All of the personal property analysis work done in association with the personal property valuation process is code specific. There are in excess of 231 TGCAD personal property codes. Local codes are delineated based on observable aspects of homogeneity. This code delineation is periodically reviewed to determine if further code delineation is warranted.

Highest and Best Use Analysis

The highest and best use of property is the reasonable and probable use that supports the highest present value as of the date of the appraisal. The highest and best use must be physically possible, 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. The most recent revision of the personal property data collection procedures was in 2001.

Sources of Data

Business Personal Property

The district's property characteristic data was originally received from the Tom Green County Tax Assessor/ Collector's records, and various school district records in 1981, and where absent, collected through a massive field data collection effort coordinated by the district over a period of time. When revaluation activities permit, district appraisers collect new data via an annual field drive-out. This project results in the discovery of new businesses not revealed through other sources. Discovery methods also include onsite inspections using location address listings from the current appraisal roll, information obtained from the Tom Green County's Clerk's office of assumed name registrations, Sales Tax Permit information from the State Comptroller's office, telephone directory information, and radio and television advertising. Tax assessors, city and local newspapers, and the public often provide the district information regarding new personal property and other useful facts related to property valuation.

Vehicles

An outside vendor provides TGCAD with a listing of vehicles within Tom Green County. The vendor develops this listing from the Texas Department of Transportation (DOT) Title and Registration Division records. Other sources of data include property owner renditions and field inspections.

Leased and Multi-Location Assets

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

VALUATION AND STATISTICAL ANALYSIS (model calibration)

Cost Schedules

Cost schedules are developed by SIC code and locally specific code by district personal property appraisers. The cost schedules are developed by analyzing cost data from property owner renditions, hearings, state schedules, and published cost guides. The cost schedules are reviewed as necessary to conform to changing market conditions. The schedules are typically in a price per square foot format, but some exception SIC's 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.

Depreciation Schedule and Trending Factors:

Business Personal Property

TGCAD'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 TGCAD developed valuation models. The trending factors used by TGCAD to develop RCN are based on published valuation guides. The percent good depreciation factors used by TGCAD 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.

Computer Assisted Personal Property Appraisal (CAPPA)

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

The data sampling process is conducted in the following order: 1) Prioritizing locally specific codes and SIC codes for model analysis. 2) Compiling the data and developing the reports. 3) Field checking the selected samples. The models are built and adjusted using internally developed software. The models are then tested against the previous year's data. The typical RCN per square foot (or applicable unit) is determined by a statistical analysis of the available data.

CAPPA model values are used in the general business personal property valuation program to estimate the value of new accounts for which no property owner's rendition is filed. Model values are also used to establish tolerance parameters for testing the valuation of property for which prior data years' data exist or for which current year rendered information is available. The calculated current year value or the prior year's value is compared to the indicated model value by the valuation program. If the value being tested is within an established acceptable percentage tolerance range of the model value, the account passes that range check and moves to the next valuation step. If the account fails the tolerance range check, it is flagged for individual review. Allowable tolerance ranges may be adjusted from year to year depending on the analysis of the results of the prior year.

Vehicles

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

Leased and Multi-Location Assets

Leased and multi-location assets are valued using the 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 not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

INDIVIDUAL VALUE REVIEW PROCEDURES
Office Review
Business Personal Property

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

Vehicles

A vehicle master file is received from an outside vendor and vehicles in the district's system from the prior year are programmatically matched to current DOT records. The vehicles remaining after the matching process are sorted by owner name and the owners are then prioritized by the number of vehicles owned. These vehicles are then matched to existing accounts and new accounts are created as needed. Vehicles that are not valued by the vendor are valued by an appraiser using PVF schedules or published guides.

Leased and Multi-Location Assets

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

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

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 TGCAD's personal property values and ratios are formed.

Internal Testing

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

AMENDMENT TO BUSINESS PERSONAL PROPERTY:

Tom Green Recognizes the importance of professional organizations and their relentless pursuit of professionalism and accuracy.

In keeping with this virtue, The Tom Green County Appraisal District has adopted, and incorporated into its own operations and appraisal manual the text titled:

STANDARD ON VALUATION OF PERSONAL PROPERTY.

This text is produced by the IAAO and attached as an amendment to the reappraisal plan and the appraisal manual, in its entirety, at the end of this reappraisal plan.

Industrial Valuation Process

INTRODUCTION

Appraisal Responsibility

The industrial contract appraisers of the Tom Green County Appraisal District are responsible for developing fair, uniform market values for improved industrial properties and industrial vacant land. The industrial appraiser is also responsible for the valuation of all tangible general industrial personal property in Tom Green County. There are approximately 230 parcels of industrial real property in Tom Green County, which is inclusive of Real both improved and vacant, and Personal Property generally as Rendered.

Appraisal Resources

- Personnel – The industrial section consists of an appraiser and an assistant. In addition, TGCAD contracts with the Thomas Y. Pickett appraisal firm to value properties for which the district does not have the available personnel or resources.
- Data – The industrial appraisers and contract appraisal staff inspects their assigned properties to obtain information about buildings, site improvements, process and shop equipment, and various items of personal property. In addition, appraisal personnel use information provided by property owners concerning the cost to purchase, install, and construct items of real and personal property. The individual characteristics of the property being appraised are the primary factors that drive the appraised value.

VALUATION APPROACH (MODEL SPECIFICATION)

Area Analysis

The scope of market forces affecting industrial products and the capital goods used in the production process tends to extend beyond regional considerations. The effects of information and transportation technology are such that most industrial market forces are measured globally. One exception to this general concept is the market for industrial land. The pricing of land tends to be closely tied to possible alternative uses in the area. For this reason, appraisers assigned to land valuation analyze market forces for specific areas and adjust land value schedules appropriately.

Neighborhood Analysis

Neighborhood analysis of the type of properties valued by the industrial appraiser is not meaningful. Industrial properties do not have the type of generic "sameness" that is appropriate for neighborhood models.

Highest and Best Use Analysis

The highest and best use of real or personal property is the most reasonable and probable use of the property on the date of appraisal that is physically and financially feasible, legal, and that derives maximum production from the property. Usually, the current use of the property is the highest and best use of that property. Industrial facilities are most commonly located in areas that support industrial use. In areas where mixed use does occur, the highest and best use of the property is examined by the appraiser to estimate the effect of this factor.

Market Analysis

Market analysis is the basis for finalizing value estimates on properties for which the industrial appraiser has responsibility. Even though many industrial properties are unique in nature, the market for this type property is analyzed to see how the values of similar or similar as possible properties are affected by market forces.

Industrial properties, such as machine shops, have many similar facilities that can be compared to the subject property in terms of type and size of equipment, type of property fabricated or serviced at the subject facility, and other factors. Those similarities help the appraiser estimate the value of the subject property.

However, some facilities, such as specialty oil field related plants, are so unique in nature that the appraiser must use the closest available plant in terms of output quantity, type of product manufactured, and other factors to estimate the value of the subject property. Many industrial properties use the same type of building and, depending on the type of business, may use the same type of manufacturing or service equipment. However, the manner in which the entire business operation is put together makes that particular facility unique.

The district uses information from similar businesses to examine the real and personal property values at a particular business, but the individual characteristics of the business

being reviewed determine the value estimation. Many of the buildings encountered at industrial facilities are generic in construction, such as pre-engineered metal buildings.

The cost per square foot to construct these type structures can be used to estimate values at facilities that have similarly constructed buildings. However, the building as constructed will have differences that must be taken into account when estimating the final value of the property being reviewed.

A similar analysis is used for personal property. Many items of personal property, such as furniture and fixtures, computers, and even machinery and equipment are generic in construction, but individual characteristics that affect value, such as usage, environment where used, and level of care will have an effect on the final value estimation. When cost data for this type property is available and considered reliable, it is used for value estimation purposes at other plant facilities. However, on-site inspection and information provided by the property owner will affect the final value.

DATA COLLECTION/VALIDATION

Data Collection

An extended range of variations may exist within the same class of industrial property, and there are a multitude of property types within the industrial category. For this reason, effective data collection procedures would be very difficult to organize in a single comprehensive manual.

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

Sources of Data

The original real and personal property data used by TGCAD was supplied by the City of San Angelo and the Tom Green County tax office. Since that time, the district and contract appraisal personnel have updated that information based on field review. As new facilities are built, the appraisal personnel collect all the real and personal property data necessary to value the property initially and thereafter update the information when the property is again visited. The district receives building permit information from the city and from the county when a facility is being built outside the city. Other sources of data include publications such as the Texas Register regarding waste control permits, TNRRC, and the City/County Health Department.

Data Collection Procedures

The district and contract appraisal personnel annually or periodically visit assigned plants. The frequency of the visit is determined by the nature of the business conducted at each facility. For example, refineries and chemical plants are continually changing or

adding to processes to extract greater efficiencies or make new products, but machine shops may not add or remove equipment over a period two or more years.

The appraisers take with them the historical data on the buildings and site improvements and the previous listing of personal property at the facility being visited. Changes to the existing structures and personal property are noted and that information is used for value estimation purposes. If cost information for the real or personal property is supplied later, the field data can be compared to that information to judge the accuracy of the information.

The district and contract firm appraisal staff members are not assigned any one geographical area of the county. The nature of the business and whether or not the district has the staff resources available determines which properties are valued by contract firms and which properties are valued by the district's appraisal staff. New district appraisers are trained by accompanying appraisers who have performed field visit and appraisal functions for a number of years. Each district appraiser is responsible for the completeness and correctness of their valuation work, but a new appraiser is encouraged to seek the advice of and review by experienced appraisal staff if that person is not sure of their value estimation results.

VALUATION ANALYSIS (MODEL CALIBRATION)

Final Valuation Schedules

The schedules used by the contract appraisal firm are from commercial building valuation systems for real property improvements. The real property valuation schedules are updated periodically. The valuation schedules incorporated into the district's contract appraiser's records are updated annually using a calculated index factor.

TGCAD develops schedules based on indexed Marshall & Swift depreciation factors for use in the valuation of all business and industrial personal property. These schedules are updated annually by TGCAD appraisal staff. The contract appraisal firms use similar schedules and methodology based on their experience in valuing real and personal property.

INDIVIDUAL VALUE REVIEW PROCEDURES

Field Review

The district's personnel periodically review their assigned real and personal property accounts where there is evidence of change at a particular facility and when there is not, these accounts are revisited on a two to three-year cycle. Certain properties are reviewed annually because past experience shows that changes are occurring continually in the real or personal property at that facility. Properties assigned to contract appraisal firms are reviewed annually because changes also occur regularly at these facilities.

The results of prior year hearings and indication of building permits being issued are another source of required field visits. Many times during hearings, issues are presented that cause a value adjustment. Those issues must be field checked to see if these

influences will be on going and warrant permanent value adjustment or are transitory and permanent adjustment is not warranted. This information needs to be recorded so the appraiser will be better able to estimate the property value. Building permits must be field checked to see what affect these have on existing structures. Any new construction is noted and the information necessary to value the structure is recorded. Additionally, any structure demolition is noted so the improvement value can be adjusted accordingly.

Part of the field review includes noting any land characteristics that would affect the land value.   The contract appraisal firms must advise the district of any characteristics that would affect the value of the land associated with that assigned facility.

Office Review

All properties not subjected to field review are reviewed in the office by the district appraiser assigned to particular real or personal properties. The office review relies on historical information in the real or personal property file as the basis for deciding on the estimated value to be placed on the property for the current tax year.

When valuing real property, the individual characteristics of the property being reviewed are the driving force in value estimation. The Appraiser's experience in valuing other similar real property helps the appraiser decide the estimated value to be placed on the subject improvements.

When valuing personal property, the type of furniture, equipment, computers, etc., will be used along with any cost data provided by the property owner to estimate the value. Experience in valuing similar property at other facilities will help the appraiser estimate the value of the subject facility. Individual characteristics of the property, such as usage and maintenance will have a bearing on the value calculated by use of District schedules.

PERFORMANCE TESTS

Sales Ratio Studies

Ratio studies are an important tool to examine how close appraised values are to market values. The ratio study may use available sales data or may use independent, expert appraisals. Typically, there are not enough sales of industrial properties to show representativeness of that class of property in a ratio study. Ratio studies of industrial properties usually have to rely on independent appraisals as an indicator of market values.

Comparative Appraisal Analysis

This type of analysis is usually not done on industrial properties due to the unique nature of the property and also because of time and budget constraints regarding available appraisal staff. Only in an instance where a jurisdiction would file a jurisdiction challenge with the Appraisal Review Board would the district perform such an analysis.

If a jurisdiction challenge is received by TGCAD on an industrial category of properties, the appraisers assigned to those accounts will research the appraisal roll to see what other similar properties exist. The real property values can be compared on an average value per square foot of structure basis, but the differences from one facility to another must be carefully compared because it is unlikely that two different facilities are going to build

like improvements and use them in similar ways. In like manner, the personal property values can be compared per category, such as furniture and fixtures, machinery and equipment, etc., but the same comparison of the type of and use of the property must be examined to ensure property comparison.

Mineral Valuation Process

INTRODUCTION

Appraisal Responsibility

The Mineral contract appraisers of the Tom Green County Appraisal District are responsible for developing fair, uniform market values for Mineral properties that include Royalties, working interests, undivided interests and over-riding interests for all types of ownerships, such as simple deed to complex valuations for multi-level Operator conglomerates. The mineral appraiser is responsible for the valuation of all tangible mineral property as evidenced by Division Orders. There are approximately 5008 parcels of mineral property in Tom Green County.

Appraisal Resources

- Personnel – The mineral section consists of an appraiser and an assistant. In addition, TGCAD contracts with the Thomas Y. Pickett appraisal firm to value properties for which the district does not have the available personnel or resources.
- Data – The mineral appraisers and contract appraisal staff inspects their assigned properties to obtain information about all fractional and divisional interests in payable mineral property.

Adopted Ratio Study Decision Making Model
Adopted January 1, 2013

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             │  ┌─────────────────┐ ┌─────────────────┐│
             │  │ Sample Interval │ │ Sample Interval ││
             │  │ Intersects the  │ │ Does Not Intersect││
             │  │  Acceptable     │ │  the Acceptable ││
             │  │  Interval       │ │  Interval       ││
             │  └─────────────────┘ └─────────────────┘│
             │          │                  │           │
             ▼          ▼                  ▼           ▼
      ┌──────────────────┐          ┌──────────────────┐
      │  No Compliance   │          │   Compliance     │
      │  Order Issued    │          │  Order Issued    │
      └──────────────────┘          └──────────────────┘
```

NEW WORK

SEPTEMBER
ORGANIZE
REAPPRAISAL PLAN
REAPPRAISAL REPORT
BUDGET APPROVAL

PENDING WORK
DISCOVERY
PROCEDURE CORRECTIONS

OCTOBER
COLLECT DATA

PVS STARTS

NOVEMBER
COLLECT DATA
PERMITS
FIELD INSPECTIONS

DECEMBER
AUDIT AND VERIFY DATA
FIELD WORK

JANUARY
PROCESS DATA
DATA ENTRY
APPLY NEW EXEMPTIONS
FINALIZE PERSONAL PROPERTY
INSPECTIONS
SET UP NEW ACCOUNTS
SET UP NEW PLATS AND SUBDIVISIONS

SUBMIT EARS

FEBRUARY
VERIFY STATISTICS
RATIO STUDIES
COMMITT TO DECISION

PVS PRELIMINARY FINDINGS PUBLISHED

in compliance   yes

out of compliance   no
                         yes

                         no

MARCH
APPLY ALL REAPPRAISAL DECISIONS
RATIO STUDIES
AUDIT RECORDS

APRIL
FINALIZE ALL WORK
RECORD CUTOFF

MAY
PREPARE FOR NOTICES
DELIVER APPRAISAL ROLL TO ARB
INFORMAL MEETINGS

5 months spent in
appeals process

?

JUNE
INFORMALS MEETINGS
ARB HEARINGS
PRELIMINARY UPCOMING BUDGET

JULY
ARB HEARINGS
ARB RETURNS 95%
CERTIFY CURRENT APPRAISAL ROLL

AUGUST
ARB FINALS AND CLEANUP
APPRAISAL REPORT
EARS

PVS FINAL FINDINGS

SUBMIT EARS

NON-COMPLIANCE ISSUES

PENDING WORK
DISCOVERY
PROCEDURE CORRECTIONS