



**REAPPRAISAL PLAN
TAX YEARS 2019 & 2020**

ADOPTED BY THE BOARD OF DIRECTORS

September 13, 2018

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Introduction

Scope of Responsibility

The Smith County Appraisal District is responsible for establishing the fair market value of all property in the territorial boundaries of the district each year. Revisions to Section 6.025 of the Texas Property Tax Code (Tax Code), in effect beginning with the 2008 tax year, now define the appraisal district boundaries the same as Smith County. The Appraisal District has prepared and published this reappraisal plan to provide the Board of Directors, taxing units, citizens and taxpayers with a better understanding of the District's responsibilities and reappraisal activities. This report has several parts: a general introduction and detailed sections describing the proposed 2019-2020 reappraisal effort by the appraisal district.

Smith CAD is a political subdivision of the State of Texas created with an effective date of January 1, 1980. The provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. An 8 member board of directors constitutes the appraisal district governing body. The Chief Appraiser, appointed by the Board of Directors, is the chief administrator and chief executive officer of the appraisal district. The district currently reports to eight different cities, ten school districts, Kilgore College, Tyler Jr. College, East Texas MUD, SCESD #1 & #2 and Smith County. In 2018, Smith CAD maintained approximately 180,000 accounts with an approximate appraised value of \$22.9 billion and an approximate taxable value of \$17.5 billion.

The Smith County Appraisal District is responsible for local property tax appraisal and exemption administration for all taxing units in the county. Each taxing unit, such as the county, a city, school district, etc., sets its own tax rate to generate revenue to fund its annual maintenance and operations budget, which includes police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services, and its debt service. Property appraisals are values established by the appraisal district to be used by the taxing units to calculate and allocate the annual tax burden.

The Texas Property Tax Code contains statutes that guide the administration of property taxes in Texas. For the most part, Chapter 23 of the Tax Code defines the scope of work required for local property tax appraisals. Appraisals are based on each property's worth or market value. Smith CAD also administers and determines eligibility for special appraisal provisions to be used in the valuation of specific types of property (e.g. residential inventory, dealer's inventory, taxable leaseholds, oil or gas interest, homeowners' association property, low income housing, agriculture use, open-space land, timber land), various restricted use properties; and property tax exemptions that are authorized by State and local governments; such as those for homestead, over - 65, disabled persons, disabled veterans, and charitable or religious organizations. The scope of work will vary for these properties that are subject to the special appraisal provisions as provided by Chapters 23 and 25 of the Tax Code.

Smith CAD maintains all relevant data and characteristics of each property and improvements (structures) in the county, along with a comprehensive mapping GIS system. All data is maintained by a Computer Assisted Mass Appraisal, or CAMA system (MARS), which enables the district to utilize mass appraisal techniques in accordance with the International Association of Assessing Officers (IAAO) standards, thus producing a mass appraisal that complies with the Uniform Standards of Professional Appraisal Practice (USPAP), as required in Section 23.01(b) of the Tax Code. This Reappraisal Plan's function is to provide the Smith County Appraisal District with a foundation to organize and proceed yearly with the reappraisal process through the

implementation of the Reappraisal Plan. The chief appraiser is authorized by the board of directors to modify the Reappraisal Plan as required in order to meet successful implementation required by USPAP. Moreover, it is the district's responsibility to adhere to the Tax Code and to comply with USPAP regarding the mass appraisal. IAAO standards are followed in developing the mass appraisal techniques used and when conducting ratio studies and other statistical methods of appraisal.

Smith County Entities

The Smith County Appraisal District serves 25 different taxing units which establish their own tax rate and are reported to directly by SCAD. These entities include the following:

Jurisdiction	Count	2018 Certified Appraisal Value
Smith County	173,703	\$22,933,066,794
City of Arp	794	\$53,601,971
City of Bullard	1,940	\$284,238,202
City of Lindale	3,214	\$636,967,784
City of Overton	185	\$9,269,843
City of Troup	3,291	\$96,381,330
City of Tyler	45,402	\$11,452,945,292
City of Whitehouse	3,571	\$511,652,682
City of Winona	498	\$31,935,495
Arp ISD	18,927	\$651,983,421
Bullard ISD	7,352	\$1,040,843,004
Chapel Hill ISD	18,777	\$1,962,484,330
Gladewater ISD	3,442	\$203,815,251
Lindale ISD	15,214	\$2,152,891,929
Troup ISD	20,182	\$309,694,982
Tyler ISD	72,647	\$12,247,756,123
Van ISD	2,696	\$200,462,101
Whitehouse ISD	17,679	\$2,817,205,778
Winona ISD	7,930	\$1,336,464,521
Kilgore College	3,442	\$203,815,251
Tyler Jr. College	103,304	\$17,076,337,556
East Texas Mud	1,207	\$845,569,467
SCESD #1	15,516	\$1,973,105,386
SCESD #2	107,269	\$8,543,402,498
Overton Municipal Cemetery	185	9,269,843

General Overview

Tax Code Requirement

S. B. 1652 enacted in 2005 by the Texas Legislature, amended the Tax Code to require a written biennial reappraisal plan. The following paragraphs detail the changes to the Tax Code:

The Written Plan

Section 6.05 (i), Tax Code, reads as follows:

- (i) To ensure adherence with generally accepted appraisal practices, the board of directors of an appraisal district shall develop biennially a written plan for the periodic reappraisal of all property within the boundaries of the district according to the requirements of Section 25.18 and shall hold a public hearing to consider the proposed plan. Not later than the 10th day before the date of the hearing, the secretary of the board shall deliver to the presiding officer of the governing body of each taxing unit participating in the district a written notice of the date, time, and place of the hearing. Not later than September 15 of each even numbered year, the board shall complete its hearings, make any amendments, and by resolution finally approve the plan. Copies of the approved plan shall be distributed to the presiding officer of the governing body of each taxing unit participating in the district and to the comptroller within 60 days of the approval date.

Plan for Periodic Reappraisal

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

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:
 - (1) Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation (such as permits, MLS's, etc.), aerial photographs, land-based photographs, surveys, maps, and property sketches;
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records;
 - (3) Defining market areas in the district;

- (4) Identifying property characteristics that affect property value in each market area, including:
 - (A) The location and market area of the property;
 - (B) Physical attributes of property, such as size, age, quality and condition;
 - (C) Legal and economic attributes; and
 - (D) Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;
- (5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
- (6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
- (7) Reviewing the appraisal results to determine value.

Valuation Policy - Reappraisal Cycle

The Smith County Appraisal District board of directors, by approval of this 2019 / 2020 reappraisal plan, adopts the policy that all property will be inspected at least once every 3 years. Appraisal analyses utilizing trend and market analyses, along with statistical measures and physical inspection, will be the basis by which properties are reviewed. The goal is to maintain a current market value assignment as of January 1 for all properties.

Except as otherwise provided by the Texas Property Tax Code, all taxable property is appraised at *market value* as of January 1st of each year. *Market value*, as defined by the Tax Code, means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- Exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
- Both the seller and the buyer know of all the uses and purposes to which the property is adapted and for which it is capable of being used and of the enforceable restrictions on its use, and;
- Both the seller and buyer seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Furthermore, 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. More specific information concerning the appraisal of property is found in the *Smith County Appraisal District Appraisal Manual(s)* and is incorporated by reference in this reappraisal plan.

Exceptions and Special Valuation Provisions

The 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 certain types of 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 by July 31st.

Reappraisal Activities

1. Performance Analysis – the equalized values from the previous tax year will be analyzed with ratio studies to determine the appraisal accuracy and appraisal uniformity overall and by market area within property reporting categories. Ratio studies will be conducted in compliance with the current *Standard on Ratio Studies* of the International Association of Assessing Officers (IAAO).
2. Analysis of Available Resources – Staffing and budget requirements for tax year 2019 are detailed in the 2019 budget, as adopted by the board of directors. Staffing and budget requirements for tax year 2020 will be addressed in the 2020 budget to be adopted in accordance with Section 6.06 of the Tax Code.
3. Planning and Organization – A calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies key events for appraisal, mapping and records, administrative, inquiry, and information systems. A calendar is prepared for tax years 2019 and 2020. Production goals for field activities will be established and incorporated in the planning and scheduling process.
4. Mass Appraisal System – Computer Assisted Mass Appraisal (CAMA) system revisions required will be specified and scheduled with Information Systems. All computer forms and IS procedures will be reviewed and revised as required.
5. Identifying and Updating Relevant Characteristics – The IAAO Standard on Mass Appraisal Section 3.3.2.1 “Initial Data Collection”, Section 3.3.4 “Maintaining Property Characteristics Data”, and Section 3.3.5 “Alternative to Periodic On-Site Inspection” all have specific practical guidelines which have been incorporated into the District’s Work Plan. Field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each tax year include discovery and listing of new construction, demolition and remodeling; re-inspection of problematic market areas and the universe of properties on a three year cycle as feasible; and field or office verification of sales data and property characteristics. Re-inspection of properties is to be completed using physical inspection or by other reliable means of identification, including deeds, legal documentation, aerial photography, street level photographs, surveys, maps, and property sketches.

6. Valuation by Tax Year – Using market analyses of comparable sales, locally and nationally tested cost data and income analyses, valuation models will be specified and calibrated in compliance with supplemental standards from the IAAO and USPAP. The calculated values will be tested for accuracy and uniformity using ratio studies.
7. The Mass Appraisal Report – Each tax year, a USPAP-required mass appraisal report will be prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th).
8. Value Defense & Final Performance Analysis – The appraisal district has the burden of proof regarding protests related to appraisal or market value as well as unequal appraisal. Inspection and/or disclosure of evidence and related materials will comply with Section 41.461 of the Tax Code.

2019 & 2020 REAPPRAISAL PLAN

Performance Analysis

For each tax year, the previous tax year's equalized values will be analyzed using ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within state property reporting categories. Ratio studies will be conducted in compliance with the IAAO *Standard on Ratio Studies*. Descriptive statistics, such as, mean, median, and weighted mean ratios will be calculated for properties in each reporting category and neighborhood market areas (NBHD) to measure the level of appraisal accuracy, and the coefficient of dispersion (COD) will be calculated to measure appraisal uniformity by property reporting category and NBHD. This analysis will be used to develop the starting point for establishing the accuracy and uniformity of appraisal performance.

Ratio Studies are performed at the beginning of the appraisal cycle for NBHD market modeling, upon completion of the appraisal cycle before appraisal notices are mailed, and otherwise as often as necessary to determine how the market is trending and to assist in developing plans to adjust values in particular areas to accurately reflect the market. Smith County experiences several thousand sales per year, so it is important to constantly track the price movement of real estate sales.

Reappraisal Decision and Method

The reappraisal method for Smith CAD is to appraise real property at least once every 3 years. Re-inspection of properties will be completed using a combination of field inspections and office review.

Office review of property for the 2019 tax year will include the examination of aerial photography using the 2018 aerial photography, including change detection analysis of structures' footprints between the 2016 and 2018 imagery, property sketches, and existing property characteristics. These activities concur with the guidelines of the IAAO Standard on Mass Appraisal Section 3.3.4 *Maintaining Property Characteristics Data*.

The district is responsible for establishing and maintaining approximately 140,000 real and personal property accounts covering over 950 square miles within Smith County Appraisal District's jurisdiction. Of this total, approximately 7800 business personal property accounts need inspection each year. A district goal will be to inspect approximately 43,000 real parcels each year.

Residential Property

Residential property is examined at least once every three years by one of two methods: field inspection or aerial photography. Aerial photography review involves viewing orthographic aerial photography looking for changes that might have occurred to the property improvements since the last inspection, measuring the two most significant exterior walls of each improvement when a change is indicated, and verifying that all improvements are on the appraisal roll and listed correctly. Field inspection involves observing each home, and each side and the rear if accessible, looking for changes that might have occurred to the improvement since the last inspection. When a change is determined, the exterior walls of each improvement are measured if accessible and the appraiser verifies that all improvements are on the appraisal roll and listed correctly. Exterior pictures are taken any time an appraiser conducts a field check. If the improvement is inaccessible, the measurements will be made from the most recent aerial photography using the measuring tools available on the district's website, if the current improvement is shown. If the improvement is inaccessible and does not appear on the most recent aerial photography the appraiser makes the best estimate from the nearest available point of observation and specifically notes the date and nature of the estimate in the "Field Notes" in the MARS Note Module.

In addition, SCAD utilizes software that analyzes and detects changes in improvements from the previous year's improvement data using aerial photography. This mapping technique (change detection) implemented by the district in 2010, is especially helpful in detecting changes to improvements that are not otherwise known through traditional methods of identification such as permits, liens, or public inquiry.

Commercial/Industrial Property

Commercial and Industrial property is examined at least once every three years by one of two methods: field inspection or aerial photography. Accounts flagged for reappraisal, transfers of ownership, and permits are automatically reviewed every year. Exterior pictures are taken whenever a field check is conducted, and when available, income statements, rent prices, and cost receipts are gathered. The income approach to value is also utilized to appraise properties where the highest and best use is as income producing property, such as shopping centers, apartment complexes, office buildings, motels and hotels, and other types of property that typically sell based on net operating income. The cost

approach is typically used to value industrial properties due to the lack of reliable income data and comparable sales. This is the recommended approach of the International Association of Assessing Officers (IAAO). Rent prices are also gathered where available to develop gross rent multipliers which can also be used to appraise hotels, office buildings, and apartments.

Business Personal Property

Business personal property is appraised annually. District-wide field review is conducted each year to confirm location of existing businesses and identify businesses which closed prior to the January 1 appraisal date. Accounts will be reviewed by categories based on SIC codes (standard industrial classification codes). Account variance among the categories will be analyzed. A review of the current commercial vehicle registrations will also be completed. This analysis will identify variances among currently assessed vehicle values and those that are commercially registered in the county. Also, depreciation tables will be compared to state depreciation tables released by the comptroller's office.

Minerals

SCAD contracts with Capitol Appraisal Group for the valuation of mineral accounts. Working and royalty interests of producing oil and gas wells are appraised annually. The most recent production data available from the Texas Railroad Commission is downloaded into appraisal software that estimates economically recoverable reserves. Those reserves are then valued based upon state mandated pricing.

Work Plan Summary

The reappraisal work plan is based on a 3 year cycle with the main objective to inspect, by one of the two methods described above, every account within those 3 years. The summary of activities can be found below, with the actual detailed plan in a separate document.

2019-2020 Work Plan Summary

Year 1 (2019)

1. Yearly activities as outlined in the "Planning and Organizing" section of this document such as inspecting new permits, new construction, and <100% complete.
2. Accounts in Smith County will be analyzed by change detection software to identify those which have experienced a change in the improvement that was not detected by traditional methods of discovery such as building permits, liens, or public inquiry that are not already reflected in the current improvement data. The accounts that are flagged as having a different improvement structure will be inspected.

3. Neighborhood market areas (NBHDs) will be reviewed on a mass appraisal basis using ratio studies with statistical analysis techniques used to update market factors to ensure that every NBHD is appraised at its current market value.

This step also includes updating land schedules by analyzing vacant land sales using ratio studies and statistical analysis. Rural acreage land models are developed or revised using regression analysis of vacant land sales. This method is also used in certain commercial NBHDs when appropriate.

4. Commercial – IMA Code review in the following categories:

- 200/201/202/203/204/211 – Apartments
- 314/315 – Hotel/Motel
- 316 – Nursing Homes
- 317 – Assisted Living Facilities
- 321/323 – Restaurants
- 324 – Fast Food Restaurants
- 325/326 – Gas Stations & Convenience Stores
- 373/378 – Retail
- 379 – Discount Stores
- 380 – Large Single Retail
- 387/388/389 – Golf Courses/ Country Clubs
- 396 – Mini Warehouse
- 397/398 – Office Warehouse
- 411 – Medical/ Dental Clinics
- 412 – Private Hospitals

5. Business Personal Property – all accounts will be reviewed
6. Confirmation of 1-d-1 agricultural / timber use with an apply year of 1995-1996
7. Manufactured Home Costing update

2019-2020 Work Plan Summary Cont.

Year 2 (2020)

1. Yearly activities as outlined in the “Planning and Organizing” section of this document such as inspecting new permits, new construction, and <100% complete.
2. Residential – Expand AX1 (OBY) to include multiple levels of construction (i.e. AX1, AX2, AX3, etc)

Additions to AX1

- Overhead doors
- AC
- Finish out
- Utilities

3. Residential Costing update

- Swimming pools
- Cabanas/Pergulas
- Outdoor Kitchens
- Outdoor Fireplaces/Pits

4. Neighborhood market areas (NBHDs) will be reviewed on a mass appraisal basis using ratio studies with statistical analysis techniques used to update market factors to ensure that every NBHD is appraised at its current market value.

This step also includes updating land schedules by analyzing vacant land sales using ratio studies and statistical analysis. Rural acreage land models are developed or revised using regression analysis of vacant land sales. This method is also used in certain commercial NBHDs when appropriate.

5. Commercial - IMA Code review in the following categories:

- 200/201/202/203/204/211 – Apartments
- 313 – Breakfast and Beds
- 314/315 – Hotel/Motel
- 316 – Nursing Homes
- 317 – Assisted Living Facilities
- 327 – Supermarkets
- 331 – Auto Dealer Full Service Garage
- 332 – Auto Service Garage (was in year 1 2015 but removed for 2018)
- 333 – Used Card Dealer

- 335 – Truck Stop
- 338 – Parking Garage
- 339 – Parking Lot
- 360 – Bar/Lounge/Night Club
- 361 – Funeral Home
- 362 – Vet Clinic
- 373/378 – Retail
- 397/398 – Office Warehouse

6. Business Personal Property – all accounts will be reviewed

7. Confirmation of 1-d-1 agricultural / timber use with an apply year of 1997-1998.

Analysis of Available Resources

Staffing and budget requirements for tax year 2019 are addressed in the 2019 appraisal district budget and staffing and budget requirements for tax year 2020 are addressed in the 2020 budget, adopted in accordance with Section 6.06 of the Tax Code. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2019–2020 time period.

All personnel that are performing appraisal work must be registered with the Texas Department of Licensing and Regulation and are required to take appraisal courses to achieve the status of Registered Professional Appraiser. Appraisers must complete all coursework within 5 years of employment. After they are awarded their certificate, appraisers must comply with continuing education requirements per the Texas Administrative Code Rule 94.25.

Existing appraisal practices, which are continued from year to year, will be reviewed and kept current. In each year, real property cost and depreciation tables will be tested against verified sales data to ensure they accurately reflect current market data. Residential analyst staff will evaluate the residential cost and depreciation tables to ensure consistency of data with that of *Marshall & Swift*, which is a nationally recognized cost service. Commercial analyst staff will conduct studies of capitalization rates and current market rents to update income models, verify sales data, and adjust commercial depreciation and cost tables to reflect current market data.

Information Systems (IS) support will be detailed with year-specific functions identified and system upgrades scheduled. Computer generated forms will be reviewed for revisions based on year and reappraisal status. Legislative changes will be scheduled for timely completion and testing. Existing maps and data requirements will be specified and updates put in production as needed.

Planning and Organization

For each year, a calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies key events for appraisal, administrative, inquiry, and information systems. Production goals for field activities will be established and incorporated in the planning and scheduling process.

Apart from the work plan, key appraisal activities which occur every year include:

1. Any account that has been flagged for re-inspection or partial complete status as of January 1 of the prior year;
2. Any account that had a significant building permit issued from one of the cities from January 1 to December 31 and construction began prior to January 1;
3. Any account where data or inquiry has been provided to SCAD that indicates the property has had a conditional change that is not currently reflected on the record;
4. Every delineated market area or, “neighborhood”, using statistical analysis and mass appraisal market factors;
3. Any account or area deemed to be in need of reappraisal by supervision;
4. All business personal property accounts;
5. Any accounts in accordance with contracted appraisal services for minerals, industrial, etc.;
6. Homogeneous neighborhoods with at least 5 valid sales yielding a COD over 10; and
7. Heterogeneous neighborhoods with at least 10 valid sales yielding a COD over 15.

2019 & 2020 Calendar of Key Events
(Attached in Appendix A)

System Development – Mass Appraisal

Beginning in 2009, the district began utilizing the Mass Appraisal Records System (MARS) Computer Assisted Mass Appraisal (MARS/CAMA) system developed by Beyond Appraisal, Inc. MARS/CAMA system revisions will be specified and scheduled with Information Systems. All computer forms and I.S. procedures will be reviewed and revised as required. The following details these procedures as they relate to the 2019 and 2020 tax years:

Real Property Valuation

Revisions to cost models, income models, and market models will be specified, updated and tested each tax year.

Cost schedules will be tested with market data (sales) to insure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables will be tested for accuracy and uniformity through ratio studies and comparison with cost data from *Marshall & Swift*.

Land tables will be updated using current market data (sales) and then tested with ratio studies. The most recent vacant land sales will be closely reviewed to determine whether the rural neighborhood boundaries should be modified to accurately reflect changing patterns in the market values. Value modifiers will be developed for property categories by market area and tested on a pilot basis with ratio studies. Standardized land influence factors for adjusting for differences in physical characteristics (i.e. topography, road frontage, etc) will be developed from appropriate paired sales analyses derived from the sales used to calibrate the land tables.

Income, expense, and occupancy data will be updated in the income models for each market area or property type, and cap rate studies will be completed using current sales data. The resulting models will be tested using ratio studies.

Personal Property Valuation

Business personal property renditions are received from taxpayers between January 1 and April 1. Accounts will be reviewed as categories based on SIC codes (standard industrial classification codes). Account variance among the categories will be analyzed. A review of the current commercial vehicle registrations will be completed. This analysis will identify variances among currently assessed vehicle values and those that are commercially registered in the county.

Depreciation tables will be compared to state depreciation tables released by the comptroller's office. Density schedules, where utilized, will be updated as needed using data received during the previous tax year from renditions and hearing documentation. Valuation procedures will be reviewed, modified as needed, and tested.

Appraisal Notices

In accordance with Section 25.18(b) of the Tax Code which states that all real and personal property in the district be reappraised at least once every three years, Section 25.19(a) requires that, "By April 1 or as soon thereafter as practicable" the chief appraiser, "shall deliver a clear and understandable written notice to a property owner of the appraised value of the property owner's property." Furthermore, the Tax Code outlines the circumstances in which a notice should be mailed which include:

- (1) The appraised value of the property is greater than it was in the preceding year;
- (2) The appraised value of the property is greater than the value rendered by the property owner;
- (3) The property was not on the appraisal roll in the preceding year
or
- (4) An exemption or partial exemption approved for the property for the preceding year was cancelled or reduced for the current year.

Moreover, in accordance with Section 25.19(b)(1) – (b)(9), appraisal notices will be reviewed for legal sufficiency and correctness. Enclosures will be updated as needed to comply with legal requirements.

Lastly, the Smith CAD board of directors may allow the chief appraiser to observe Section 25.19(e) of the Tax Code which provides, "The chief appraiser, with the approval of the appraisal district board of directors, may dispense with the notice required by Subsection (a)(1) if the amount of increase in appraised value is \$1,000 or less." Every property owner will be sent a notice of appraised value at least once every 3 years.

Hearing Process

Protest hearing scheduling procedures for informal and formal appraisal review board hearings will be reviewed and updated as required. Standards of documentation will be reviewed and amended as required. The appraisal district hearing documentation will be reviewed and updated to reflect the current valuation methods and practices. Production of documentation will be tested and compliance with Tax Code requirements will be ensured.

Pilot Study

Whenever new procedures are considered, it is prudent to conduct a pilot study of the new procedures, including a ratio study in one or two areas of a jurisdiction to ensure the new procedures produce accurate and reliable results prior to full implementation. A pilot study can be a useful tool in developing or modifying the new procedures or for determining the contemplated procedures do not work as anticipated.

Data Collection – Identifying and Updating Relevant Characteristics for each Property

Field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each tax year include inspection of new construction, demolition, and remodeling, re-inspection of problematic market areas, and periodic re-inspection of the universe of properties.

New Construction/ Demolition

Appraisers performing reappraisals in the field are provided property record cards that contain specific information regarding the property being appraised. These cards contain brief legal descriptions, ownership information, property use codes, addresses, land size, sketches of improvements, a photograph of the property, as well as detailed information relating to all values for improvements.

New construction may be identified from various methods such as field inspections, building permits obtained from cities, or aerial photography. If physical inspection of the property indicates changes to improvements, the appraiser makes note of the changes in the field and returns them to the office to be keyed into the system. Examples of changes that might be made to an improvement are condition, building class, and effective age. Individual properties are also reappraised due to changes in condition regarding fire, remodeling, or an addition or demolition of a portion of the improvement

Market Analysis

In addition to the reappraisal work plan, NBHDs will be analyzed annually. The real property NBHDs, stratified by property classification, will be tested for low or high sales ratios, and high coefficients of dispersion. NBHDs that fail any or all of these tests will be reviewed. Field reviews will be scheduled to verify and correct property characteristics data. Additional sales data will be researched and verified in order to assess whether the NBHD is correctly defined and stratified.

Sales Data

Sales data is also gathered by sending sales letters to the buyers of properties that the district knows changed ownership. Sales are confirmed from the direct parties involved whenever possible. SCAD subscribes to the Greater Tyler Area Board of Realtors *Multiple Listing Service*. Confirmation of sales from local real estate appraisers is also considered a reliable source.

Data listed on the property record is verified and updated as needed such as building classification, building size, additions, condition of structures and any change in characteristics that would affect the value of the property.

Individual sales are analyzed to verify whether they meet the definition of market value per Texas Property Tax Code Section 1.04(7). Arm's length (valid) transactions are preferred for mass appraisal

purposes. In accordance with Texas Property Tax Code, Section 23.01 (c)(1) distressed (e.g. foreclosed, short sales) sales will be considered. In NBHDs where the number of sales is scarce, sales with non-typical financing may be used if the terms of financing are known and proper adjustments can be made to the sale price. Examples of reasons why sales may be excluded are:

1. Property acquired through foreclosures or auction, if the transaction does not meet the definition of market value in the Texas Property Tax Code.
2. Property sold between relatives.
3. The buyer or seller is under duress and may be compelled to sell or purchase.
4. Financing may be non-typical or below or above prevailing market rates.
5. Considerable improvements or remodeling have been done since the date of the sale and the appraiser is unable to make judgments on the property's condition at the time of the transaction.
6. Sales may be unusually high or low when compared with typical sales located in the market area due to seller relocation or divorce proceedings.
7. The property is purchased through an estate sale.
8. The sale involves intangibles, such as goodwill.
9. There are value-related problems associated with the sale, i.e. incorrect land size or square footage of living area.
10. Property use changes occurring after the sale.

Furthermore, several sources are explored for economic and market data which can be used in market analyses. Some examples include: "Texas A&M Real Estate Center", "Realty.com", "Economic Development Council", "Greater Tyler Association of Realtors", "U.S. Bureau of Economic Analysis", along with SCAD's own collection techniques using surveys and deed information.

Market Area Delineation

There are approximately 100 market areas (or neighborhood areas) within the Smith CAD that are defined by the physical, economic, governmental and social forces that influence property values. The effects of these forces are used to identify, classify, and stratify or delineate similarly situated properties into smaller, more comparable and manageable subsets for valuation purposes, known as neighborhoods (NBHDs). Delineation can involve the physical, geographic identification of NBHD boundary lines on a map or, it can also involve statistical stratification within a NBHD area based on

attribute analysis. These homogeneous properties have been delineated into valuation NBHDs for residential property or economic class for commercial property. Because there are discernible patterns of growth that characterize a NBHD or market segment, analyst staff will evaluate and redefine the NBHD boundaries or market segments when necessary in order to ensure homogeneity of property characteristics.

Market factors are applied to NBHDs to add or subtract additional value to/from the total CAMA calculated value for each property record to represent the NBHD's correct market adjusted value. Ratio studies, forecasting, and regression modeling are the primary methods for establishing trends and calculating the market factors (location factors) within a NBHD. Each method is described in detail in the appropriate appraisal manual. A detailed list of each NBHD with property population, average values, age, size, and location factors and a map of NBHD areas can be found in Appendix B.

The NBHD code is identified on the property record in MARS in the Owner module on the Ownership [1] tab. It is located on the right side of the screen on the third line under Situs Address. The naming conventions used are described in Appendix B.

Quality Control

Mass Appraisal is the valuation of many properties as of a given date, using standard procedures and statistical testing. The scale of mass appraisal requires that many people work on the process. It requires standardized procedures across many properties. Therefore, quality is measured differently in mass appraisal compared to single property appraisal. In mass appraisal, statistical methods are used to measure quality. These methods are described in the sections of this Reappraisal Plan under Valuation Policy – Reappraisal Cycle, Reappraisal Activities (paragraphs 1, 6), Performance Analysis, Production of Values.

During the field review process, the quality control division measures appraisal performance keyed to the concepts of Mass Appraisal quality assurance as required by USPAP, IAAO, and State law. The quality of data is important in establishing accurate values of property. The quality control process is performed by supervisory review of the appraisal work being done by field appraisers. Field appraisers are responsible for quality assurance of data entry.

A quality control team is responsible for confirmation of the accuracy of collected field data of the field appraisers for residential, commercial and business personal property. The quality control team will routinely audit field work of completed areas by performing random audits of property throughout the appraisal cycle. Once the field work audit is completed, a report will be generated by the quality control team. These results will be electronically filed by appraisal year.

Production of Values

Valuation models are specified and calibrated using market analysis of comparable sales and cost data, and market area specific income and expense data. Calculated values are tested for accuracy and uniformity using ratio studies. Property values in all market areas are reviewed for update each year.

Residential Real Property

Ratio studies will be conducted on each of the approximately 400 residential valuation neighborhoods in the district to judge the two primary aspects of mass appraisal accuracy - level and uniformity of value. The valuation process for residential property typically begins in September. Land analysis, sales outlier review, neighborhood sales analysis, and finalization of proposed estimates of value will likely occur from September through March.

Valuation Methods Used:

Cost Approach

The district will use a combined cost-market approach when valuing single-family and multi-family residential properties. Before each reappraisal year the base cost and any additional residential cost schedules will be reviewed and revised as needed.

Residential cost schedules are reviewed and revised using sales of newly constructed sold properties of varying construction quality in Smith County. In this method, the indicated “base cost” must be “backed into”. In the last several years this process has become more difficult with many home-builders using widely varying profit margins, often from one project to the next.

The district also uses the comparative unit method to develop the “base” cost of a structure. In this method the base would be the remaining difference (constant) after all additional components are determined by using the unit-in-place method. Table-driven cost factors, taken from *Marshall & Swift*, a nationally recognized commercial cost service, will be adjusted for local or regional differences in construction and labor costs. When reliable data is available from the local market it will be used, particularly with regards to secondary structures. The results of this comparison will be analyzed using several measures, including stratification by quality and review of estimated building costs, as well as land value to sales prices.

The focus on new cost (discussed above), may skew data that can result in a pattern of under-appraisal of older properties and neighborhoods. This sometimes occurs because of limited data in the market required to accurately adjust depreciation tables. Ratio studies limited to sales of homes with depreciated RCNs may be used to determine the necessary adjustment to the base-cost to more accurately appraise the older homes/neighborhoods. This enables efficient and more accurate direct equalization between neighborhoods, in effect providing for direct compensation of any appraisal inaccuracies in new construction on a neighborhood basis.

In 2015 and 2016 the methods described above will be used and the results reconciled to determine appropriate adjustments to the base-cost.

Neighborhood or Market Adjustment factors will be developed from appraisal statistics provided by ratio studies to ensure that estimated values reflect both the supply and demand side of the market. The following equation denotes the model used:

$$MV = [((RCN-D) + AV) * MA] + L$$

where MV= appraised or estimated market value
RCN= replacement cost new of improvement(s)
MA=Market Area-specific adjustment factor
D= accrued depreciation
AV= additional improvement value
L= land value

Market Area - specific adjustment factors are applied to account for local differences between defined areas. This appraisal phase is also known as direct equalization.

Residential land values are estimated based on market sales. Adjustments to land appraisals may be based on parcel size, shape, rights-of-way or easements, slope, drainage issues, and where necessary, economic obsolescence. Land values are calculated by any of the various units in place or, when data is insufficient to accurately determine the appropriate unit or unit values, by site value.

In saturated Market Areas (Neighborhoods) where there are insufficient vacant land sales available, market area specific adjustment factors for land are calculated based upon ratio studies. The appropriate land adjustment will be determined by calculating the MA factor required to achieve an appropriate land: total value or land: total sale price ratio. This model may be described in equation form as follows:

$$MV = ((RCN-D) + AV) + (L * MA)$$

After this has been completed, the ratio study will then be used to determine whether an additional MA factor is required to adjust the improvement values to accomplish accurate appraisals. The model required to adjust both the improvement and land values may be described in the equation form as follows:

$$MV = [((RCN-D) + AV) * MA] + (L * MA)$$

The sales used to determine the market adjustment factor(s) will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor(s) calculated for each update neighborhood will be applied uniformly to all properties within a neighborhood and a second set of ratio studies will be generated that compares recent sale prices with the proposed market values for these sold properties. From this set of ratio studies, the analyst will judge the appraisal level and uniformity in both update and non-update neighborhoods.

Sales Comparison Approach

As indicated in *Property Appraisal and Assessment Administration* (IAAO, 1990), in the absence of a sale of the subject, sales prices of comparable properties are usually considered the best evidence of market value. The sales comparison approach models the behavior of the market by comparing the properties being appraised with comparable properties that have recently sold or for which offers to purchase have been made. Their sales prices will then be adjusted for differences from the subject and a market value for the subject is estimated from the adjusted sales prices of comparable properties.

Although the district does not use the direct sales comparison approach as a primary method of valuation, it is, on occasion, used for verification of market value estimates.

Income Approach

The income approach is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. In other words, value is the estimated present value of future benefits, namely income and proceeds from the sale of the property. The appraiser must estimate income from a property and capitalize the income into an estimate of current value.

The model used to estimate the present value of income expected in the future is represented by the following formulas known as IRV.

Value = Income/Rate or, Income = Rate x Value or, Rate = Income/Value

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income, such as apartments, commercial buildings, and office buildings. It is not conducive to the valuation of single-family residential properties that are seldom rented, or where market demand factors such as personal preferences or location unduly influence the market.

Inventory Residential Property

Residential improved and vacant property, when qualified as an inventory, will be appraised in compliance with the Texas Property Tax Code, Section 23.12 (a).

In general, the district uses its land value estimates and the actual itemized construction, labor, and material costs, plus other soft or indirect costs to estimate market value as of the assessment date. The market values of improved inventory will be reviewed annually and inventory consideration will be eliminated when ownership transfers to the individual property owner.

Vacant residential inventory, when appropriate, will be valued using a discounted cash flow formula that considers value relative to the income or cash flow, the interest or discount rate, and the number of years the property is likely to be held. As with improved inventory, full market value will be applied once the vacant land is absorbed and ownership transfers for the purpose of residential construction.

Agricultural and Timber Land

The appraisal of agricultural or timber land is governed by Chapter 23 of the Tax Code. The appraised value of qualified open-space or timber land is determined on the basis of the category of land, using accepted income capitalization methods applied to average net to land.

Schedules for valuing qualified land have been developed for various agricultural uses and types of timber production. These schedules are reviewed annually and updated as needed using data from recognized sources such as the Texas Forest Service and the Texas Agricultural Extension Service as well as local landowners engaged in leasing land for agricultural use. Agricultural/Timber schedules are periodically reviewed with the district's Agricultural Advisory Board.

Commercial Real Property

All commercial properties including but not limited to retail properties, apartments, warehouses, medical offices, golf courses, office buildings and mobile home parks will be valued by the cost approach, the income approach, or the sales comparison approach as deemed most appropriate pursuant to Section 23.0101 of the Tax Code. Ratio studies will be performed to test the level and uniformity of appraisal within specific property use categories.

Valuation Methods Used:

Cost Approach

The cost approach to value will be applied using the comparative unit method. This methodology involves the use of national cost data estimating services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on *Marshall & Swift Service* and cost tables developed from local construction indexes. Cost models include the use of replacement cost new (RCN) of all improvements. The "replacement cost" will be used because it values the cost of a property that is a utility equivalent of the property being appraised using current construction methods and materials. Such costing is contra to "reproduction cost", which is defined as the cost to construct an exact duplicate of the property being appraised. Replacement cost new includes comparative base rates, per unit adjustments and lump sum adjustments. Time and location modifiers will be 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 estimating service is used as a primary basis for our cost models, local modifiers will be applied to adjust the base costs specifically for Smith County.

Depreciation schedules will be developed based on what is typical for each property type of a specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with various terms of estimated expected economic life. These schedules will be tested periodically to ensure they will be reflective of current market conditions. The actual and effective ages of improvements will be noted in the CAMA software. Effective age estimates will be based on the utility of the improvements relative to the improvement's total economic life and its competitive position in the marketplace.

Market adjustment factors such as external, economic and functional obsolescence will be applied, if warranted. A depreciation calculation override will be applied if the condition or effective age of a property varies from the norm. This override is indicated by appropriately noting the physical condition and functional utility ratings on the property data characteristics. These adjustments will typically be applied to a specific property type or location and will be developed through ratio studies or other market analyses. Accuracy in the development of the cost schedules, condition ratings, and depreciation schedules usually minimize the necessity of this type of an adjustment factor.

Sales Comparison 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 as a primary method 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, will be obtained throughout the year in order to analyze relevant information, which is then 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 will also be used in ratio studies, which 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 in the cost, income and sales approaches, the cost and income models will be calibrated annually. The calibration results will be keyed to the schedules and models in the CAMA system for utilization on all commercial properties in the district.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as “income producing”, which are bought and sold based on the property’s ability to produce income, 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. This is derived primarily from actual rent data furnished by property owners and local market study publications. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent.

A vacancy and collection loss allowance is the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and local market publications. 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. Secondary income represents parking income, escalations, reimbursements, and other miscellaneous income generated by the operations of real property. The secondary income estimate is derived from actual data collected and available market information. The secondary income estimate is then added to effective gross rent to arrive at an effective gross income or EGI.

Allowable expenses and expense ratio estimates will be 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 will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. 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 multi-tenant 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. Under this scenario, the total operating expense in year one establishes the base rate. Any increase in expense over the base rate throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios will be 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 or NOI.

Rates and multipliers will be 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 and are substantiated by national and regional surveys produced by such companies as Korpacz Real Estate Investor Survey.

Capitalization analysis will be 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 will 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. Additionally, overall capitalization rates can be derived from the built-up method, band-of-investment, debt coverage ratio, and published sources for similar properties, as well as results from verified sales. The capitalization rates relate 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, as well as cap rate studies conducted by the district using verified sales and income information for that specific property.

Rent loss concessions will be made on specific properties with known vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized

occupancy. The rent loss will be calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space) and leasing expenses will be added to the rent loss estimate. A leasing expense necessary to bring the property to a stabilized level is also included in this adjustment. The total adjusted loss from these real property operations will be discounted using an acceptable risk rate. The discounted value, inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions, becomes the rent loss concession and will be deducted from the value estimate of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated.

Conversely, if a property were consistently above the stabilized occupancy level as of the appraisal date, the market would pay a premium for this situation. In this instance, the present value of the excess income over the stabilized level will be added to the value of the property.

Industrial Real Property

These properties will be valued each tax year by district staff. Industrial properties will typically be valued on a cost approach basis since these properties have a low frequency of being bought and sold in the open market compared to commercial and residential properties. In addition, since these properties are owner occupied, the income approach to value will rarely be applicable to industrial properties.

Some special use properties, such as amusement facilities, will be valued in the commercial section. An income approach may be used to value these properties.

Valuation Methods Used:

Cost Approach

The cost approach is most applicable to the valuation of industrial properties. The values will be appropriately adjusted for age and condition and, if warranted, additional adjustment will be made for facility utilization. For example, two facilities making the same or similar products will not necessarily have values close together because one facility may have better efficiencies, which makes that facility worth more in the market. The market's estimation of the worth of a facility will be taken into account since there will rarely be any similar properties available for comparison under the sales or income approaches to value.

Cost schedules will be tested to ensure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables will be tested for accuracy and uniformity using cost data primarily from *Marshall & Swift*.

Sales Comparison Approach

As previously stated, industrial real property does not have a history of being bought and sold with any regularity in the open market. In fact, most industrial facilities remain just as they are, without changing ownership.

The few sales of industrial facilities that do occur are typically difficult to analyze. The sales are usually part of a merger, acquisition or liquidation. Intangible considerations may be part of the sales price, but are not typically disclosed. Acquiring verifiable sales of stand-alone industrial properties, in order to have a representative sample of properties when valuing industrial properties, is a challenge.

Utility properties, such as electric generation, electric transmission, telephone, and cable systems are typically sold on a unit basis. In other words, when a utility sells, it sells as an entire company, not piecemeal assets. This makes the sales comparison approach difficult to apply.

Income Approach

Industrial facilities are rarely valued by the income approach to value since they are usually owner occupied. These facilities are usually general commercial structures built to meet an industrial owner's very specific needs over a certain period of time. In other words, an industrial facility is built for that owner's needs and not built to lease out the facility to another industrial user. There are not enough industrial facilities built by industrial users that are leased out to other industrial users to be a meaningful universe of properties for valuation purposes, if they can be found at all.

Industrial real property valuation analysts consider all three approaches to value to see which approach is most applicable to the property being valued. Usually, the cost approach is most applicable for the reasons previously given, but if there are any commercial properties that are closely similar to the industrial property being valued, then the approach to value for the commercial property is reviewed to see if its method is suitable for the industrial property being examined.

The income approach is the most valid approach to use in valuing utility properties. The reason is that the unit as a whole is being valued and the result apportioned to the component parts of the whole. The worth of this income stream can be compared to other investment opportunities to select the proper capitalization rate to apply to the income stream to estimate the value of the system. The worth of a utility is the income stream the system will generate compared to alternative investments that may have less risk in the market. The capitalization rate that is used to estimate the value of the income stream from the utility will always have a risk component in the capitalization rate. The usual forms of depreciation will be applied to the valuation and any additional consideration for economic issues will be applied. These factors will usually be reflected in the risk portion of the capitalization rate.

Business and Industrial Personal Property

Valuation Methods Used:

Cost Approach

An approach to the valuation of business and industrial personal property is the cost approach. Cost analysis will be developed based on Standard Industrial Classification (SIC) codes. Data will be reviewed to conform to changing market conditions, if necessary.

Cost data is used to derive valuation summaries for specific categories of assets and/or SIC codes. The summaries indicate a range of values for replacement cost new (RCN) per square foot (or applicable unit), where available.

These values will be used to estimate the value of new accounts for which no property owner's rendition is filed. They also establish parameters for testing the valuation of property for which prior years' data exist or for which current year rendered information is available. This approach uses RCN, which is developed from property owner reported historical cost or other sources.

The percent good depreciation factors will be compared with the depreciation schedules for furniture, fixtures, and equipment provided by the Property Tax Assistance Division of the State Comptroller's Office when available. This mass appraisal percent good depreciation schedule is used to ensure that estimated values are uniform and consistent within the market. RCN and percent good depreciation factors will be utilized to develop value estimates using the following formula:

MARKET VALUE ESTIMATE = RCN x PERCENT GOOD FACTOR

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole and not by itself, which makes this approach unsuitable for valuing most personal property. This approach is only suitable for the valuation of certain types of vehicles, heavy equipment, and airplanes. Value estimates for vehicles will be provided by independent sources and are based on data furnished by National Market Reports. These types of properties will be appraised using published market guides such as NADA book values or Aircraft Bluebook Price Digest.

There are not enough known sales of industrial personal property to have a meaningful population of sales for value comparison purposes. This category of personal property is inclusive of all types at a facility, such as furniture, computers, and machinery. It is typical for personal property to be included in the sale of a facility, instead of being sold separately. There may be subsets of personal property that are sold, but that does not provide the sales of all personal property necessary to make value comparisons under the sales approach.

Income Approach

The income approach has limited use in the appraisal of machinery, equipment, furniture, fixtures, and leasehold improvements because of the difficulty in estimating future net benefits; except in the case of certain kinds of leased equipment. When reliable data on equipment leases is available, the income approach may be used to estimate fair market value of the equipment.

The income approach is not suitable in the appraisal of industrial personal property because the industrial facility operator in the production of an end service or product is using the personal property. Industrial facilities are not in the business of leasing their personal property to another industrial facility for the production of an end service or product.

Oil and Gas Property

Smith County Appraisal District contracts with Capitol Appraisal Group, Inc. (CAGI) to appraise all oil and gas properties annually. The Reappraisal plan states:

1. Identification of new property and its situs

As subsurface mineral properties lie within the earth; they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, CAGI obtains monthly oil and gas lease information from the Railroad Commission of Texas (RRC) to compare against oil and gas properties already identified. The situs of new properties is determined using plats and W-2/G-1 records from the RRC as well as CAGI's in-house map resources.

2. Identifying and updating relevant characteristics of all oil and gas properties to be appraised

Relevant characteristics necessary to estimate value of remaining oil or gas reserves are production volume and pattern, product prices, expenses borne by the operator of the property, and the rate at which the anticipated future income should be discounted to incorporate future risk. CAGI obtains information to update these characteristics annually from regulatory agencies such as the RRC, the Comptroller of Public Accounts, submissions from property owners and operators, as well as from published investment reports, licensed data services, service for fee organizations and through comparable properties, when available.

3. Defining market areas in the district and identifying property characteristics that affect property value in each market area

Oil and gas markets are regional, national and international. Therefore, they respond to market forces beyond defined market boundaries as observed among more typical real properties.

4. ***Developing an appraisal approach that best reflects the relationship among property characteristics affecting value and best determines the contribution of individual property characteristics***

Among the three approaches to value (cost, income, and market), the income approach to value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.

5. ***Comparison and review***

Use of the income approach is the first step in determining an estimate of market value. After that, the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

6. ***Availability of Market data***

Market data used in the valuation of a property is available to the CAD and the property owner upon request, or may be available in electronic format for viewing on the CAG website <http://www.cagi.com>.

Preparation of the Appraisal Roll

Once the appraisal roll is completed and all accounts and improvements have been updated, Section 25.22(a) of the Property Tax Code states, "By May 15 or as soon thereafter as practicable, the chief appraiser shall submit the completed appraisal records to the appraisal review board for review and determination of protests."

Each tax year, the mass appraisal report is prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The mass appraisal report is completed in compliance with USPAP Standard Rule 6-8. The signed certification by the chief appraiser is compliant with USPAP Standard Rule 6-9.

Final Performance Analysis

Value Defense

The appraisal district, to meet its burden of proof for market value and equity in both informal and/or formal appraisal review board hearings, will rely on data in its possession or data obtained from other sources, as appropriate. Inspection and/or disclosure of evidence and related materials will comply with Section 41.461 of the Tax Code. Disclosure of such data will be compliant with statutory confidentiality requirements.

Independent Performance Test

In addition to sales ratio studies performed by the appraisal district, the State Comptroller's Property Tax Assistance Division (PTAD) conducts a biannual property value study (PVS) of each Texas school district and each appraisal district. As part of this biannual study, the code requires the Comptroller to use sales and recognized auditing and sampling techniques, to 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. Each school district is arrayed by value and stratified into quartiles with the lowest 5% of a school districts value omitted from the study. Moreover, real estate is separated into several categories to test each independently.

The Property Value Study, quarterly ratio studies, and the prior year's mass appraisal report are all used in conjunction to determine proper direction for the future year's reappraisal efforts. This outside (third party) ratio study provides additional assistance to Smith County Appraisal District in determining areas of market activity or changing market conditions. Results from the upcoming 2019 Property Value Study will be reviewed and analyzed by appraisal managers. Geographic areas or property categories with unsatisfactory ratio results will be added to the work plan for the 2020 reappraisal cycle.