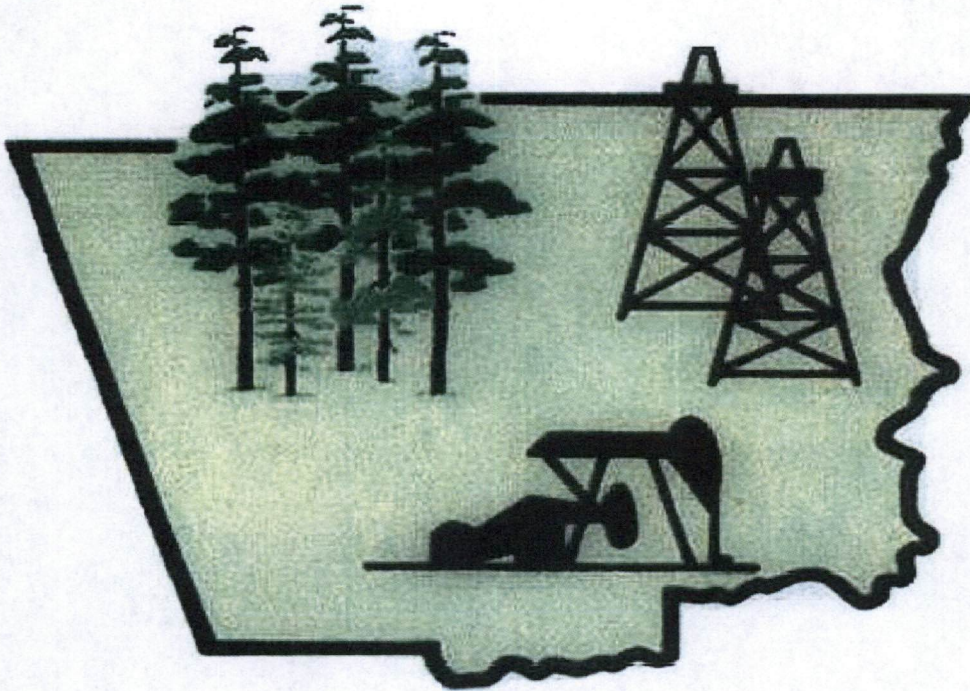


HARDIN COUNTY APPRAISAL DISTRICT



2021-2022 REAPPRAISAL PLAN

**As Adopted by the HCAD
Board of Directors
September 09, 2020**

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This Reappraisal Plan is being submitted as a tool to organize the reappraisal for Hardin County Appraisal District. This plan attempts to outline the necessary work required to complete a reappraisal over the next two years. As we progress into the actual reappraisal process, we reserve the right to modify the plan as required to meet the requirements for this office as set forth in the Texas Property Tax Code.

SCOPE OF RESPONSIBILITY

The Hardin County Appraisal District (HCAD) is a political subdivision of the State of Texas created effective January 1, 1980 and is responsible for establishing the fair market value of all property within the territorial boundaries of the appraisal district each year. The district has prepared and published this reappraisal plan to provide the district's board of directors, the taxing units and citizens with a better understanding of the district's responsibilities and reappraisal activities.

Provisions of the Texas Property Tax Code govern the legal, statutory, and administrative requirements of the appraisal district. A six-member board of directors, five-members are elected by the taxing units within the boundaries of Hardin County and the County Tax Assessor serves as a non-voting member, 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.

HCAD is responsible for the discovery, listing and appraisal of approximately 60,185 accounts of which 50,035 are real/personal property parcels and 10,150 are mineral/industrial accounts. The Appraisal District serves 20 taxing units consisting of 6 school districts, 4 cities, the county, and 9 special use districts, such as municipal utility, drainage, water supply, and emergency services. Hardin County Appraisal District employs an outside appraisal firm, Pritchard & Abbott, Inc., to appraise minerals, oil, gas, utilities, and various other complex properties and are guided by the principles set forth in USPAP.

The Hardin County Appraisal District's estimated values are necessary to allocate each year's tax burden for all taxing units within the county. The district also determines eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, charitable or religious organizations and agricultural productivity valuations. 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.

Hardin County Appraisal District collects and maintains relevant data and characteristics of each property along with any improvements as well as a comprehensive Geographic Information System (GIS). Data pertaining to each property is maintained using a Computer Assisted Mass Appraisal (CAMA) system which enables the district to utilize mass appraisal techniques in accordance with the International Association of Assessing Officers (IAAO) standards and produces an appraisal that complies with the Uniform Standards of Professional Appraisal Practice (USPAP), as required in Section 23.01(b) of the Property Tax Code.

The purpose of this reappraisal plan is to provide Hardin County Appraisal District with a foundation to organize and proceed annually with the reappraisal process through the implementation of the plan. The Chief Appraiser is authorized by the board of directors to modify the reappraisal plan as necessary in order to meet USPAP requirements or if circumstances affecting the district operations are significantly changed.

LEGAL REQUIREMENTS

The Texas Constitution contains the laws that form the foundation for the Texas Property Tax Code. The Tax Code provides an annotated and cross-referenced version of the tax laws that govern property tax administration 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 as of January 1 of each year. Under the Tax Code, "market value" is defined as the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

1. Exposed for sale in the open market with a reasonable time for the seller to find a purchaser;
2. Both the seller and the purchaser 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
3. Both seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the others.

The provisions contained in the Texas Constitution, the Texas Property Tax Code, related case law, and Attorney General's opinions, serve as the primary sources of law that govern the activities of the HCAD. Further, in Texas, ad valorem tax administration is subject to all state, county, and municipal laws.

TAX CODE REQUIREMENT

Section 6.05(i) of the Texas Property Tax Code requires each appraisal district to adopt a written biennial reappraisal plan every two years. Section 25.18 of the Tax Code requires the district to implement the plan.

THE WRITTEN PLAN

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

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.

SEC. 25.18 PERIODIC REAPPRAISAL

Subsections (a) and (b), Section 25.18, of the Property Tax Code, are amended to read as follows:

- (a) Each appraisal office shall implement the plan for periodic reappraisal of property approved by the board of directors under Section 6.05 (i).
- (b) The plan shall provide for the following reappraisal activities for all real and personal property in the district at least once every three years:
 - (1) Identifying properties to be appraised through physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches;
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records;
 - (3) Defining market areas in the district;
 - (4) Identifying property characteristics that affect property value in each market each market area, including:
 - (A) The location and market area of the property;
 - (B) Physical attributes of property, such as size, age and condition;
 - (C) Legal and economic attributes; and
 - (D) Easements, covenants, leases, reservations, contracts, declarations, special assessments, ordinances, or legal restrictions;
 - (5) Developing appraisal models/schedules 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 models/schedules to the characteristics of the properties being appraised; and
 - (7) Reviewing the appraisal results to determine value.

MISSION STATEMENT

The mission of the Hardin County Appraisal District is to appraise all property in Hardin County at one hundred percent of market value, in an equitable, uniform and professional manner designed to ensure that each taxpayer pays only their fair share of the property tax burden, accompanied by excellent customer service and transparency.

REVALUATION DECISION (REAPPRAISAL CYLCE)

The Hardin County Appraisal District does a complete reappraisal once every three (3) years. In 2021, we will inspect Lumberton ISD and Warren ISD. In 2022, we will inspect Hardin Jefferson ISD and West Hardin CCISD. In 2023, we will inspect Silsbee ISD and Kountze ISD.

Only certain areas are appraised in a given year unless market indicators reflect the need to include all properties within the appraisal district boundaries. In any given appraisal year, the chief appraiser reserves the right to modify schedules of reappraisal. If in-house ratio studies, natural disasters, or other information deem reappraisal necessary for the district as a whole, part of the district not within the areas described, or the time frame allotted to the area schedule may be modified while still ensuring adherence to the overall three (3) year cycle.

The revaluation process includes the physical inspection of properties, when applicable, and the updating of all necessary information on the properties such as changes to condition, size, and amenities or out buildings. In addition, HCAD appraisers inspect all new construction each year.

REAPPRAISAL ACTIVITIES

PERSONNEL RESOURCES

Staffing and budget requirements for tax year 2021 are detailed in the 2021 appraisal district budget as adopted by the Board of Directors and attached to the written biennial plan by reference. This reappraisal plan is adjusted to reflect the available staffing in the tax year 2021 and the anticipated staffing for tax year 2022. Staffing will impact accomplishment of real property re-inspection and personal property on-site review for each year.

The HCAD staff consists of the chief appraiser, appraisal supervisor, office manager, appraisers, GIS, data processing, and customer service clerks. All personnel performing appraisal work must be registered with the Texas Department of Licensing and Regulation and are required to attend appraisal courses to achieve the status of Registered Professional Appraiser. Appraisers must complete all course work within 5 years of their registration date. After certification, appraisers must comply with continuing education requirements per the Texas Administrative Code, Rule 94.25. HCAD currently employees 3 registered professional appraisers and 5 registered, but not yet certified.

HCAD appraisers are actively involved in the discovery, listing, and appraisal of all types of property. Properties are grouped by location, type, use, quality, and a variety of other quantitative data elements. A common set of data characteristics on each specific type of property is observed, listed, and collected during field inspection. Each appraiser is trained in the use of the Hardin County Appraisal District's appraisal manual, CAMA System, appraisal techniques, methodology, and philosophy in the use of this information.

At this time HCAD does not provide collection services; however, the CAD does provide technical support to the taxing units it serves.

COMPUTER RESOURCES

Hardin County Appraisal District contracts with Pritchard & Abbott for appraisal administration software through 2021, but will begin converting to our new contract with Harris Govern for appraisal administration with the estimated projection date of going live on Harris Govern software by end of the year of 2021. HCAD employs the use of a server driven computer network with personal computers as workstations to form the CAD computer system. Data is collected in the field and entered via Windows based workstations. The appraisal records are stored on a Dell server. The server is backed up locally to an external hard drive and off-site using a backup software named CrashPlan. The HCAD appraisal software is a CAMA system (computer assisted mass appraisal). This system contains cost and depreciation schedules that utilize common data elements to assist in creating base values. Beginning in 2021, the district will be transitioning to “tablets” computers for use in the field. Each tablet is equipped with appraisal administration software with Harris Govern which allows the appraiser to inspect specific properties and easily make necessary changes to the drawings (if it is new improvement drawing, the appraiser will draw the structure on paper to help with time management in the field and then once in office they will process the changes to be made to data entry), photographs, and the appraisal data while the inspection is being performed.

The entire HCAD database is available to the public via the Internet at www.hardin-cad.org. This service provides instant access to individual property information including homestead, ownership, address, and all related appraisal data. This information includes square foot of living area, land size, age, class, construction type, and a variety of other useful information. Computer generated forms are reviewed for revisions based on year and reappraisal status. Links to tax information, agricultural use guidelines, renditions guidelines, appeal information, the district GIS (mapping), and many other items are also available.

MAPPING RESOURCES

HCAD uses a Geographic Information System (GIS) for the purpose of providing an accurate mapping system. BIS Consulting provides the GIS support (ESRI Software) and Pictometry is provided by Pictometry International Corporation. Recent aerial photography is integrated into the GIS system and is available for employees and taxpayers to use. The mapping department received a CD from the County Clerk’s Office twice a month with all deeds that have been recorded. This information is used to make ownership changes and property splits as they are received. HCAD sends the processed deeds to BIS through the To Be Worked Folder. BIS will take these deeds and make the geometry and PID Changes in ESRI, within four weeks these changes will be reflected on the interactive map.

INFORMATION SOURCES

HCAD appraisal staff and administration collect data on local and regional economic forces that may affect value. Locational forces are carefully observed as we find location to be the most significant factor in determining the market value of property in our geographic area. General trends in employment, interest rates, availability of vacant land, and new construction trends are closely monitored.

THE DATABASE

The HCAD database was constructed from property data obtained originally from Hardin County in 1980. Data received was on-site field-inspected and revised to create the foundation for our current database. Since the inception of the HCAD, this data-base has been continually updated to recognize the current status of the property records. A variety of programs designed to discover changes that may occur to data elements are maintained. Property inspections or drive-outs occur as the result of information gathered during various forms of analysis. Building permits, field review, renditions, reports of value, local news publications, tax offices, and the public are but a few of the sources of information considered by staff analysts during the discovery phase of the appraisal process. Information from building permits is compiled from local taxing units, sorted, and tasks are put into computer system for appraisers to verify with an on-site visit to the property.

Data collection in the field requires preparation of maps, computer generated appraisal cards, and coordination of staff. Beginning in 2021, HCAD field appraisers will be transitioning into using Mobile Tablets in the field during their reappraisals/on-site visits. Each morning the appraiser will download the existing property characteristic information in the area in which they will be working that day contained in the CAMA (Computer Assisted Mass Appraisal System) from the district's computer. Once the appraiser completes all inspections for that day, they will then return to the office and upload all the changes and information that they obtained into our CAMA system on the district's computer.

Properties are grouped by type, location, and neighborhood prior to the start of the fieldwork. State Property Tax Division (PTD) property types include Residential, Multi-Family, Commercial, Industrial, Farm and Ranch, Vacant Land and Acreage, Oil, Gas, and Mineral, Utilities, Business Personal Property, and other Special Inventory types.

Properties are also grouped by location within each of our six (6) school districts. Within each school district are neighborhoods, defined by the IAAO as the environment of a subject property that has a direct and immediate effect on value. The neighborhood concept is used in the grouping of all taxable property located in HCAD with the exception of some special use properties.

The following information is found several times throughout the Reappraisal Plan. This information is summarized here merely for convenience:

1. Hardin CAD is current in processing deeds as they arrive at this office. These deeds are delivered on a CD to our office by the Hardin County Clerk's Office twice a month.
2. HCAD sends the processed deeds to BIS Consulting through the To Be Worked Folder. BIS will take these deeds and make the geometry and PID changes in ESRI, within four weeks these changes will be reflected on the interactive map.
3. Hardin County has had Pictometry flown every two (2) years. We use Pictometry for both discovery and inspections.
4. Hardin County Appraisal District uses City and County permits both for discovery and physical inspections.
5. The Appraisal District is very sensitive towards any changes or characteristics that affect property value. We are always reviewing property attributes, such as size, age or condition. With today's economic outlook we are especially sensitive in dealing with both legal and economic issues.

PLANNING AND ORGANIZATION

A calendar of key events with critical completion dates for each major work department. This calendar identifies all key events for appraisal, clerical, customer service, mapping and information systems. A separate calendar is prepared for each reappraisal year (2021-2022). Production standards for field activities are calculated and incorporated in the planning and scheduling process. The scope of work, available time frame, staffing resources, and any budgetary constraints have been considered in the development of this reappraisal plan and will be submitted to the Board of Directors for approval. **(See Addendum)** If necessary, the Chief Appraiser may make minor adjustments to these deadlines if needed.

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 a city or the county during the year with construction beginning prior to January 1;
3. Any account where data or inquiry has been provided to HCAD that indicates the property has had a conditional change that is not currently reflected on the record;
4. The delineated market areas (neighborhoods), using statistical analysis and mass appraisal market factors;
5. Any account or area deemed in need of reappraisal by management;
6. All business personal property accounts;
7. Any accounts in accordance with contracted appraisal services for minerals, industrial or utilities;
8. Any neighborhoods showing a significant variance in ratio or coefficient of dispersion as compared to other neighborhoods.

A calendar is prepared showing important deadlines for each reappraisal year (2021-2022). See Addendum.

WORK SCHEDULE

The Hardin County Appraisal District has a broad outline for its cycle of events in its "Reappraisal Plan for 2021-2022". Please see Addendum for the outline.

Residential/Commercial/Personal Property Appraisal started immediately (or soon thereafter) certification of the 2020 appraisal roll. In 2021, appraisers will work Lumberton ISD and Warren ISD with a deadline of the end of November. Once the designated areas are completed each appraiser will work permits, field checks, and new construction in their own school district that is assigned to them.

County Permits were gathered for the non-incorporated areas of the county.

City Permits were obtained for the incorporated areas of the county.

A manufactured home installation report was printed for all homes (MHS) installed in the county for the past year

CALENDAR OF KEY EVENTS OF PROPERTY TAX LAWS DEADLINES

(If deadline falls on a holiday/weekend the deadline will be extended to the next business day).

January

- 1 * Date that taxable value and qualification for certain exemptions determined for the tax year (except for inventories appraised September 1) (Sec. 11.42, 23.01,23.12).
- 2 * Date rendition period begins: continues through April 15 for those property owners not requesting a filing extension (Sec. 22.23).
- 31 * Last day for chief appraiser to deliver applications for agricultural designation and exemptions requiring annual applications (Sec. 11.44, 23.43).

* Deadline for the Texas Comptroller to publish the preliminary Property Value Study (PVS) findings, certify findings to the Texas Education Commissioner, and deliver findings to each school district (Government Code Sec. 403.302(g)).

February

- 1 * Date that taxes imposed the previous year become delinquent if bill was mailed on or before January 10 of the current year. (Sec 31.02(a), 31.04(a)).
- 28 * Last day to request cooperative housing appraisal (Sec. 23.19 (c)).
(29 if a leap year)

March

- 10 * Deadline to file written appeal of PVS findings with Texas Comptroller (Government Code Sec. 403.303(d). (Petition must be filed within 40

calendar days after the Comptroller's office certifies preliminary findings of taxable value to the Commissioner of Education)

April

- 1 * Last day (or as soon as practicable thereafter) for chief appraiser to mail Notices of Appraised Value for single-family residential homestead properties (25.19 (a)).
- * Last day for the Chief Appraiser to notify the taxing units of the form in which appraisal roll will be provided to them (Sec. 26.01 (a)).
- 15 * Last day to file renditions and property reports on most property types. Chief appraiser must extend deadline to May 15 upon written request (Sec. 22.23(a) and (b)).
- 30 * Last day for Chief Appraiser to certify estimate of school district's taxable value for school district to use for publishing notice of budget and proposed tax rate and adopting its budget for a fiscal year that begins July 1. Chief Appraiser must also certify estimate of taxable value for county and cities unless the taxing units choose to waive the estimate (Sec. 26.01 (e) and (f)). (Not later than April 30)

May

- 1 * Last day (or as soon as practicable thereafter) for Chief Appraiser to mail Notices of Appraised Value for properties other than single-family residence homesteads (Sec. 25.19 (a)).
- 1-14 * Period that taxing units may file resolutions with chief appraiser to change CAD finance method. (Sec. 6.061(c)).
- 1-15 * Period when chief appraiser must publish notice about taxpayer protest procedures in a local newspaper with general circulation (Secs. 41.70 (a) and (b)).

NOTE: Chief Appraiser must annually publicize property owner rights and methods to protest to the ARB (Sec. 4141 (b)). Chief Appraisers should consult legal counsel on the manner and timing to fulfill this requirement.

- 15 * Date (or as soon as practicable) for chief appraiser to prepare appraisal records and submit to ARB (Sec. 25.01 (a), 25.22(a)).
- * Last day for property owners to file protests with ARB (or by 30th day after Notice of Appraised Value is delivered, whichever is later) (Sec. 41.44 (a)(1)).
- 19 * Last day for Chief Appraiser to determine whether a sufficient number of eligible units filed resolutions to change CAD's finance method (Sec. 6.061).
- 24 * Last day for Chief Appraiser to notify taxing units of change in the CAD's finance method (Sec. 6.061).
- 31 * Last day for taxing units to file challenges with ARB (or within 15 days after the date

the appraisal records are submitted to ARB, whichever is later) (Sec. 41.04 (c)).

- * Last day for a religious organization that has been denied an 11.20 exemption because of the charter to amend the charter and file a new application or the 60th day after the date of notification of the exemption denial, whichever is later (Sec. 11.421 (b)).

June

- 14 * Last day for chief appraiser to submit proposed budget for next year to CAD board and taxing units (unless taxing units have changed CAD's fiscal year) (Sec. 6.06 (a) and (i)).
- 30 * Last day for taxing units to adopt local option percentage homestead exemptions (Sec. 11.13(n)).

July

- 1 * Last day for review and protests of appraisal of railroad rolling stock values (or as soon as practicable thereafter); once the appraised value is approved, the chief appraiser certifies to the Comptroller the allocated market value (Sec. 24.35 (b), 24.36).
- 20 * Date ARB must approve appraisal records but may not do so if more than 5 percent of total appraised value remains under protest (Sec. 41.12(a)-(c)).
- 25 * Last day for chief appraiser to certify appraisal roll to each taxing unit's assessor (Sec. 26.01(a)).
- 31 * Last day for property owners to apply for September 1 inventory appraisal for next year. (Sec. 23.12 (f)).

August

- 14 * Last day for CAD Board to pass resolution to change CAD finance method, subject to taxing unit's unanimous consent (Sec 6.061(a)).
- * Last day for CAD Board to pass resolution to change number of directors, method of appointing or both, and deliver to each taxing unit (Sec. 6.031(a)).
- 31 * Last day for property owner to give correct address to CAD in writing for tax bill; penalties and interest waived if bill not sent to correct address 21 days before delinquency date (Sec. 33.011(b)(1)).
- * Last day taxing units may file resolution with the CAD Board to oppose proposed change in the CAD finance method (Sec. 6.061(a)).

September

- 1 * Date that taxable value of inventories may be determined at property owner's

written option (Sec. 23.12 (f)).

- 14 * Last day for CAD board to adopt CAD budget for the next year, unless district has changed its fiscal year (Sec. 6.06(b) and (i)).
- * Last day for CAD Board to notify taxing units in writing if a proposal to change finance method by taxing units' unanimous consent has been rejected (Sec. 6.061(a)).
- * Last day for CAD Board to notify taxing units in writing if a proposal to change the number or method of selecting CAD directors is rejected by a voting taxing unit (Sec. 6.031(a)).

December

- 1-31 * Time when chief appraiser may conduct a mail survey to verify homestead exemption eligibility (Sec. 11.47(a)).

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions and enhancements will be specified and scheduled with Information Systems. Legislative mandates will be addressed and implemented into system applications as warranted. All computer-generated forms and Information Systems procedures are reviewed and revised as required. Details of these procedures as they relate to the 2021 and 2022 tax years are as followed:

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 against market data to ensure that the appraisal district complies with Section 23.011 of the Property Tax Code. Replacement Cost New tables and depreciation tables will be tested for accuracy and uniformity using ratio studies as well as by comparing with nationally recognized costing services such as Marshall & Swift Services and local contractors.

Land schedules are updated using current market data (sales) and then tested with ration study tools. Values are then modified by adjusting actual values as indicated by the last data. Units of comparison vary as to typical sales data indicated.

Income, expense, and occupancy data is updated in the income models for each market area and capitalization rate studies are completed using current sales data when available. The resulting models are tested using ratio study tools.

PERSONAL PROPERTY VALUATION

Business personal property renditions are received from taxpayers between January 1 and April 15 of each year. Accounts will be reviewed as categories based on Standard Industrial

Classification Codes. Variance among the categories will be analyzed. A review of the current commercial vehicles will be performed. This analysis will identify variances between currently assessed vehicle values and those commercially registered in the county.

Depreciation scheduled will be compared to those released by the State Comptroller's Office. Quality and density schedules, where utilized, will be updated as needed, using data received from renditions and hearing documentation. Valuation procedures will be reviewed modified as needed and tested.

DATA COLLECTION REQUIREMENTS

Field and office procedures will be reviewed and revised as required for data collection and verification of value-related and descriptive property characteristics for each property. Activities scheduled for each tax year include inspection of new construction, demolition, remodeling, re-inspection of problematic market areas, and re-inspection of the universe of properties on a specific cycle (3 years).

NEW CONSTRUCTION/DEMOLITION

New construction field and office review and inspection procedures are identified and revised as required. Field production standards are established and procedures for monitoring tested. Source of building permits is confirmed and system input procedures are identified. Process of verifying demolition of improvements is specific. This critical activity is protected and entered on the key events calendar for each year.

- HCAD acquires building permits, utility connections, and mechanic's liens
- Visual inspections of each property during re-appraisal
- Acquires market information from sales of new/existing homes

REMODELING

Market areas with extensive improvements remodeling will be identified, verified and field activities scheduled to update property characteristic data. Updates to valuation procedures are tested with ration studies before finalized in the valuation modeling. This field activity, when entered in the key events calendar, must be monitored carefully.

RE-INSPECTION OF PROBLEMATIC MARKET AREAS

Real property market areas, stratified by property classification, will be tested for: low or high protest volumes; low or high sales ratios; or high coefficient of dispersion. Market areas that fail any or all of these tests are determined to be problematic. Field reviews are performed with special attention given to verify and/or correct property characteristic data. Additional sales data is to be researched and verified. In absence of adequate market data, neighborhood delineation is verified and neighborhood clusters are identified.

SALES DATA

Sales data is gathered by sending sales letters to the buyers and the sellers of properties that the district knows changed ownership. Sales are confirmed from the direct parties involved whenever possible. 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 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 sales will be considered. In neighborhoods 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 deleted or not considered 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 under duress and may be compelled to sell or purchase;
4. Financing may be non-typical or below or above prevailing market rates;
5. Considering improvements or remodeling have been done since the date of the sale and the appraiser is unable to make judgements on the property's condition at the time of transaction;
6. Sales may be unusually high or low when compared with typical sales located in the market are 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.

Several sources are explored for economic and market data which can be used in market analysis. Some examples include Texas A&M Real Estate Center, internet verification, voluntarily disclosed closing statements or fee appraisal usually submitted as evidence in a protest hearing, along with HCAD's own collection techniques using surveys and deed information.

Sales information must be verified and property characteristics data contemporaneous with the date of sale captured. The district obtains sales information from many different resources such as sales letters, closing statements, internet verifications, sales data gathered during informal or protest, field discovery, third party sources such as real estate agents or fee appraisers. The sales

ratio tools require that the property that sold must equal the property appraised in order that statistical analysis results will be valid.

PILOT STUDY

New and/or revised mass appraisal models will be tested on randomly selected market areas. These modeling tests (sales ratio studies) are conducted each tax year to test the models. Actual test results are compared with anticipated results and those models not performing satisfactorily are refined and retested. The procedures used for model specification and model calibration will comply with *Uniform Standards of Professional Appraisal Practice*, Standards Rule 6 for the applicable year.

MARKET AREA DELINEATION

Market areas are defined by the physical, economic, governmental and social forces that influence property values. The effects of these forces were used to identify, classify, and stratify or delineate similarly properties into smaller, more comparable and manageable subsets for valuation purposes. Delineation can involve the physical drawing of neighborhood boundary lines on a map or it can also involve statistical separation or stratification based on attribute analysis. In performing this analysis for Hardin County, the primary factor affecting market conditions were school districts.

Hardin County is broken up into six (6) school districts and each is its own market:

Lumberton ISD is the population center. It is mainly high-end residential properties. Currently some of their market areas are Westwood Subdivisions, River Birch Subdivision, and Woosley Palms Subdivision.

Silsbee ISD is combination of residential and commercial properties. Most of the residential properties are older, but in the last 10 years Silsbee ISD has seen growth in their commercial properties located off the Hwy 96 Bypass. Currently, Silsbee ISD's market is scattered throughout the school district.

Hardin Jefferson ISD is composed of very old buildings inside the city limits. Hardin Jefferson ISD has started to see a low growth in new residential construction recently. Currently, Hardin Jefferson ISD's market area is the Pinewood Subdivision and Rock Creek Subdivision.

Kountze ISD is a small community with no growth and mostly timber. Currently, Kountze ISD's market is scattered throughout the school district.

West Hardin CCISD is very rural. It is all timber and pasture with some minerals. Currently, West Hardin ISD's market is scattered throughout the school district.

Warren ISD is mostly rural land with some older residential properties. Currently, Warren ISD's market area is Wildwood Subdivision.

Each school district is a very distinct market.

1. The Appraisal District cost schedules are extreme in detail in order to address every possible characteristic change imaginable. The annual physical inspection is used to update any changes,
2. The Appraisal District uses ratio studies to identify problem areas. Ratio studies are conducted before, during, and after the inspection and analysis is completed. There is a final review done by the Appraisal Supervisor.
3. The standard procedure when working ratio studies is to exclude (throw out) outliers (very high or very low ratios).
4. The Appraisal District compares the property being appraised to the previous year, then compares it to similar properties to identify differences and maintain equal and uniform appraisals.

REINSPECTION OF THE UNIVERSE OF PROPERTIES

As required by Section 23.18 of the Tax Code, the universe of properties should be re-inspected on a cycle of 3 years. The Hardin County Appraisal District re-inspects all real property on a 3 years cycle basis. In 2021, we will inspect Lumberton ISD and Warren ISD. In 2022, we will inspect Hardin Jefferson ISD and West Hardin CCISD. In 2023, we will inspect Silsbee ISD and Kountze ISD. Review of the properties includes the physical inspection of properties, when applicable, examination of aerial photographs, and the updating of all necessary information on the properties such as changes to condition, size, and amenities or out buildings

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. Quality is therefore 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 this reappraisal plan under topics of Reappraisal Cycle, Reappraisal Activities, Performance Analysis and Production of Values.

During the field review process, the appraisal supervisor will measure performance keyed to the concepts of the 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 appraisers. The appraisers will be responsible for quality assurance of data entry.

The chief appraiser and/or the appraisal supervisor will be responsible for confirmation of the accuracy of collected field data work of completed areas will be accomplished by performing random audits of property throughout the appraisal cycle.

APPRAISAL NOTICES

In accordance with Section 25.18 of the Property Tax Code which states that all real and personal property in the appraisal 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 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.
4. An exemption or partial exemption approved for the property for the preceding year was canceled 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 need to comply with legal requirements.

The Hardin County Appraisal District Board of Directors may allow the chief appraiser to observe Property Tax Code Section 25.19(e), which states, 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 the appraised value is \$1,000 or less."

HEARING PROCESS

Protest hearing scheduling for informal and formal Appraisal Review Board hearings will be reviewed and updated as required. Standards of documentation are reviewed and amended as required. The Hardin County Appraisal District will conduct staff training beginning in early April of each year to ensure and understanding of procedures for informal and formal hearings. These hearings will typically begin in late May. Any changes or enhancements affecting hearing scheduling procedures for Appraisal Review Board hearings will be reviewed and updated as necessary. The appraisal district hearing documentation is reviewed and updated to reflect the current valuation process. Production of documentation is tested and compliance with the Tax Code ensured.

Evidence in compliance with Texas Property Tax Code Section 41.461 may be requested by the taxpayer or their agent and will be provided at least 14 days prior to the scheduled protest hearing. If evidence has not been requested, it will be given to the taxpayer or agent before their formal Appraisal Review Board hearing.

LEGAL ATTRIBUTES AFFECTING VALUE

The district will maintain an active procedure to identify and describe elements of recorded conveyances that will affect the use or value of the property, such as easements, covenants,

reservations, and declarations. The district will also monitor the enactment or changes of governmental restrictions affecting property value, such as zoning, health ordinances, special assessments, and other legal restrictions. Where leases and other possessory interests are of a nature and duration that they affect value, they will be considered in the individual valuation of the property to which they apply.

VALUATION BY TAX YEAR

Using Market analysis of comparable sales and locally tested cost data, market area specific income and expense data, valuation models will be specified and calibrated in compliance with the supplemental standards from *International Association of Assessing Officers* and the *Uniform Standards of Professional Appraisal Practice*. The calculated values will be tested for accuracy and uniformity using ratio studies. Performance standards are those as established by the *IAAO Standard on Ratio Studies*. 2021 and 2022 are reappraisal years and property values in all market areas will be updated.

RESIDENTIAL REAL PROPERTY

MARKET ANALYSIS

Market Analysis is performed throughout the year. Both, general and specific data is collected and analyzed. There are a number of economic principles that relate to the market value of property. The principle of supply and demand is an important economic principle that must be considered by appraisers. There are a number of others including economic trends, national, regional, and local trends that affect the value of properties located in our various tax jurisdictions. An awareness of physical, economic, governmental, and social forces is essential in understanding, analyzing, and identifying local trends that affect the real estate market.

NEIGHBORHOOD 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. The most common boundary used to define location is the school district boundary. In all types of property, valuation analysis and neighborhood analysis are conducted on school districts. The IAAO defines a neighborhood as the environment of a subject property that has a direct and immediate effect on value. For our purposes, the neighborhood boundary is the environment of the subject property. The neighborhood concept is used in the grouping of all taxable property located in HCAD with the exception of some special use properties.

HIGHEST AND BEST USE ANALYSIS

In considering the fair market value of taxable property, HCAD employs the principle of 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. Highest and best use is the

first step in the District appraisers' economic analysis. For the purpose of ad valorem property taxation in Texas, the specific time is January 1 of each calendar year. The highest and best use must be legal, physically possible, financially feasible, and maximally productive. However, in areas of transition, it may be necessary for the analyst to more carefully consider the concept of highest and best use. The chief appraiser and the deputy chief appraiser generally discuss decisions regarding changes in highest and best use determination. Highest and best use may not be the present use of the property when the agents of production are not in alignment (i.e. land, labor, capital, and management), then highest and best use of the property may not currently exist.

COST APPROACH

All residential properties in the District are valued by the aforementioned cost schedule using a comparative unit method. HCAD schedules are constructed based on a schedule developed originally by The Property Tax Division (PTD), and periodically modified to reflect the current HCAD market place. The cost schedules are tested against commonly accepted sources of building cost information, such as Marshall & Swift, to determine accuracy and cost estimates are also compared to analysis of the local market to determine level of appraisal. Neighborhood or market adjustments factors will be developed from appraisal statistics provided by ratio studies to ensure that appraisals reflect both the supply and demand side of the market.

SALES COMPARISON APPROACH

In the absence of a sale of the subject property, 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. Sales prices will then be adjusted for differences from the subject property and a market value for the subject is determined from the appraisal at the time of sale is maintained. Residential improved and vacant sales are collected from a variety of sources including: district sales letters mailed to buyer and seller, field discovery, protest hearings, builders and fee appraisers. Sales data are keypunched into our CAMA system. The sales are classified to recognize their appropriate status and source. School district neighborhood sales reports are generated as an analysis tool for the appraiser in the development of value estimates.

INCOME APPROACH

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income such as commercial buildings, strip centers, mini storage warehouses, and hotels. It has not conductive 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.

STATISTICAL ANALYSIS

The chief appraiser and appraisal supervisor will perform statistical analysis annually to evaluate whether values are equitable and consistent with the market. Ratio studies will be conducted by residential class and by neighborhood to measure appraisal accuracy. Appraisal statistics of

central tendency and dispersion generated from sales ratios are calculated for each school district by residential classification. These statistics provide the district a tool by which to determine both the level and uniformity of appraised value.

Neighborhoods are reviewed annually by way of the sales ratio analysis process. By comparing recent sales prices to values within each neighborhood, the appraiser is able to judge the present level and uniformity of appraised values. Based on this information, a decision can be made as to whether the neighborhood needs to be updated or if the level of market value is at an acceptable level.

MARKET ADJUSTMENT OR TRENDING FACTORS

Neighborhood, or market adjustment, factors will be developed from appraisal statistics provided ratio studies and are used to ensure that estimated values are consistent with the market. The District's primary approach to valuation of residential properties uses a hybrid cost/sales comparison approach. This type of approach accounts for neighborhood market influences not specified in the cost model. The following equation denotes the hybrid model used:

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

Whereas, the market value equals the land value plus the depreciated replacement cost of buildings times the market adjustment factor. This adjustment is applied uniformly throughout the neighborhood to account for Locational variances between market areas or across a jurisdiction.

The market adjustment factor is calculated by using cost ratio study that compares recent sales prices of properties with the properties' actual cost value. The calculated ratio derived from the sum of the sold properties' cost value divided by the sum of the sales prices indicates the neighborhood level of value based on the unadjusted cost value for the sold properties. This cost-to-sale ratio is compared to the appraisal-to-sale ratio to determine the market adjustment factor for each 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 update 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 sales prices with the proposed appraised values for these sold properties enabling the appraiser to judge appraisal levels in the updated neighborhood.

SPECIAL INVENTORY RESIDENTIAL PROPERTY

Section 23.12 of the Property Tax Code says: the market value of an inventory is the price for which it would sell as a unit to a purchaser who would continue the business. An inventory shall include residential real property which has never been occupied as a residence and is held for sale in the ordinary course of a trade or business, provided that the residential real property remains unoccupied, is not leased or rented, and produces no income."

When a new subdivision is approved and filed at the County Clerk's Office, we obtain a copy of the approved plat. Once the acreage is split and the subdivision parcels are created, we contact the Developer in an attempt to determine the asking prices of each lot. We offer a 70% developer's discount for lots held in inventory, if the developer provides this information. Sometimes a written request is mailed, in some instances, we may contact the developer by phone, if we have their contact information. Once the asking prices are determined the values are set with a developer's discount on the appropriate lots. In some instances, we can get the asking prices from local realtor websites.

If we do not get feedback from the developer, the lots, if subdivision has roads or utilities as of January 1, value will be determined by comparable subdivisions suitable for that area and no discount will be applied. If the subdivision has only been platted and not yet begin to construct road or any utilities, then the lot values will remain at a price per acre suitable for the area and the same as the parent parcel it was split form with no discount.

Once the lot is sold, the developer discount is removed and the value becomes true market value based on the asking prices provided to us.

MULTI-FAMILY RESIDENTIAL PROPERTY

See Commercial Real Property below

COMMERCIAL REAL PROPERTY

The Hardin County Appraisal District employs all three approaches to value, when possible, in valuing income-producing property. The appraisal supervisor will be responsible for supervising the appraisal of commercial property types by the appraisers assigned to this task. Data used by the District includes verified sales of vacant land and improved properties and the pertinent data obtained from each (sales price levels, capitalization rates, income multipliers, market period, etc.) Other data used by the appraiser include actual income and expense data, actual contract rental data, leasing information and actual construction cost data. In addition to the actual data obtained from specific properties, market data publications will be also reviewed to provide additional support for market trends.

COST APPROACH

The primary approach used to initiate the valuation process is the cost approach to value. *Marshall & Swift's Commercial Cost Estimator* is a reference we use to get cost estimates for building costs. Using this information, a replacement cost for each segment of the improvements is calculated and totaled. Depreciation is calculated and assigned during this process. After deducting depreciation estimated from all causes from the replacement cost new, a value estimate for the improvements is calculated and added to the estimated value of the land for a total value estimate via the cost approach. It will be sometimes necessary to consider the unit-in-place, quantity, survey, or historical cost method to derive accurate cost estimate.

SALES COMPARISON APPROACH (MARKET APPROACH)

Although all three 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 appraised values.

Sales of commercial properties in Hardin County rarely occur. Confirmation of these sales is extremely difficult. Due to this fact, the Sales Comparison Approach will typically be given less credence than the cost and income approaches.

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 from 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 are the next item to consider in the income approach. The projected vacancy and collection loss allowance is established from actual data furnished by property owners and on 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 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.

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 from the effective gross income yields an estimate of net operating income.

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 application of the various rates and multipliers must be based on a thorough analysis of the market.

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 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. Overall capitalization rates may also be derived from using other recognized methods (band of investment, built-up, etc.). The capitalization rates relate to satisfying the market return requirements of both debt and equity positions of a real estate investment. This information will be obtained from real estate and financial publications as well as from other sources such as real estate appraisers and lenders.

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.

VACANT REAL PROPERTY

LAND ANALYSIS

Residential land values will be 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 value will be calculated by any of the various units in place, or when data is insufficient to accurately determine the appropriate unit or unit value, by site value. Abstraction and allocation methods are used, when necessary, to ensure that the land values created best reflect the contributory market value of the land to the overall property value.

Land Analysis will be supervised by the appraisal supervisor with the assistance of each of the residential appraisers.

Using sales within the neighborhood, a base lot and a base unit rate is developed. Specific land influences are used, where necessary, to adjust parcels outside the neighborhood norm for such factors as view, shape, size, topography, among others. Abstraction and allocation methods are used, when necessary, to ensure that the land values created best reflect the contributory market value of the land to the overall property value.

The District uses market transactions to define factors that influence rural land value. Unlike fee appraisers, the District cannot compare each tract individually to each market transaction to

make adjustment due to the volume of properties to be appraised. The District's appraisers must incorporate the factors indicated by market transactions into general standards or schedules of value. Such schedules are normally comprised of per acre, per front foot, per lot, per square footage prices that will be multiplied by the number of acres in an individual tract to develop an estimate of value. Schedules of this kind are divided into categories or classes as necessary to reasonably reflect market values when applied to individual tracts of land. Ratio studies are then run by neighborhood throughout the District to determine the level and accuracy of the schedules.

SPECIAL VALUATION PROPERTIES

AGRICULTURAL LAND

Section 23.52 of the Property Tax Code requires that "the appraised value of qualified open-space land is determined on the basis of the category of the land, using accepted income capitalization methods applied to average net to land. The appraised value so determined may not exceed the market value as determined by other appraisal methods."

For these properties, two values are maintained by the District; market value and "ag" or special value based on the income attributable to the land. The market value is established as described in other sections of this report. To be eligible for this special valuation, an application must be timely filed providing the District with pertinent information about the agricultural history of the property. When a determination is made by the District's appraiser that the property meets minimum requirements, approval for this special appraisal is granted.

The District annually calculates a price per acre schedule for the various types of agricultural products and uses of the property. These prices are derived using five-year averages of land rent information as well as income attributable to the land from products grown on the property. The net income to the land is then capitalized using a formula spelled out in the Property Tax Code in Section 23.53.

TIMBER LAND

Section 23.73 of the Property Tax Code requires that "the appraised value of qualified timber land is determined on the basis of the category of the land, using accepted income capitalization methods applied to average net to land. The appraised value so determined may not exceed the market value of the land as determined by other appraisal methods."

The District annually calculates a price per acre schedule for the various types of timber products and uses (hardwood, pine, mixed timber, etc.) of the property. The prices are derived using five-year average of land rent information as well as income attributable to the land from products grown on the property. The net income to the land is then capitalized using a formula spelled out in the Property Tax Code in Section 23.74.

BUSINESS TANGIBLE PERSONAL PROPERTY

All income-producing business personal property located within District boundaries is subject to tax. Business use vehicles are also listed in the appraisal records and subject to ad valorem taxation. Personal property schedules are used to value business furniture, fixtures, equipment, and inventory. Depreciation Schedules will be compared to those released by the State Comptroller's office. Quality and density schedules, where utilized, will be updated as needed, using data received from renditions and hearing documentation. Valuation procedures will be reviewed, tested, and modified as needed.

Business owners are required by Property Tax Code Section 22.01, to render their business personal property each year. Accounts will be reviewed as categories based on Standard Industrial Classification Codes. Variance among the categories will be analyzed.

Depreciation of the property is determined by the age of the property and its expected life. Valuation and depreciation schedules are included in the HCAD appraisal manual. Business vehicles are valued based on NADA Used Car Guide trade-in value for the particular make, model, and age of the vehicle. The Appraisal District uses a report obtained from Texas Motor Vehicle Listings to determine ownership, make, model, and vehicle characteristics to determine NADA trade-in value. This report along with the aforementioned renditions and physical observations are used to discover and list vehicles that are taxable. When adverse factors, such as high mileage, are known, appropriate adjustments are made.

INDUSTRIAL VALUATION (REAL, PERSONAL, UTILITIES, PIPELINE, & MINERALS)

Hardin County Appraisal District has contracted with Pritchard and Abbott, Inc for 2021 and 2022 tax years for the appraisal of Industrial Real, Industrial Personal, Utilities, and Minerals located within the District. Appraisers and engineers with Pritchard and Abbott, Inc. make annual inspections on all industrial properties and utilities and use methods following USPAP procedures to appraise these properties. Natural resources (minerals) are valued using information provided by the Texas Railroad Commission as well as trade and other publications. The cost approach is most applicable in valuation of these properties. Industrial personal property is appraised using similar techniques to those in Business Tangible Personal Property section.

CAD PLAN FOR PERIODIC REAPPRAISAL OF UTILITY, RAILROAD, AND PIPELINE PROPERTY

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

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the Board of Directors under Section 6.05 (i).
- (b) The plan provides for annual reappraisal of all utility, railroad and

pipeline property appraised by the CAD. The CAD has a professional services contract with Pritchard & Abbott, Inc. to appraise these properties for the CAD.

- (1) Identifying properties to be appraised: Utility, railroad and pipeline properties that are susceptible to inspection and identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties.
- (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.
- (3) Defining market areas in the district: Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.
- (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: For all three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market), pipeline value is calculated using a replacement/reproduction cost new less depreciation model [RCNLD]. In addition to the RCNLD indicator, a unit value model may also be used if appropriate data are available. Utility and railroad property are appraised in a manner similar to pipeline except that the RCNLD model is not used.
- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property when multiple models are used. Year-to-year property value changes for the subject property is examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review

process. These types of property are also subject to review by the Property Tax Division of the Texas Comptroller's Office through their annual Property Value Study.

CAD PLAN FOR PERIODIC REAPPRAISAL OF INDUSTRIAL PROPERTY

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

- (a) CAD shall implement the plan for periodic reappraisal of property approved by the Board of Directors under Section 6.05 (i)
- (b) The plan provides for annual reappraisal of selected industrial property appraised by the CAD. The CAD has a professional services contract with Pritchard & Abbott, Inc. to appraise these properties for the CAD.
 - (1) Identifying properties to be appraised: Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.
 - (3) Defining market areas in the district: Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.
 - (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using replacement/reproduction cost new less depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.

- (5) Comparison and Review: The appraiser considers results that best address the individual characteristics of the subject property and that are based on the most reliable data when multiple models are used. Year-to year property value changes for the subject property is examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser also contributes to the review process.

CAD PLAN FOR PERIODIC REAPPRAISAL OF OIL AND GAS PROPERTY

In accordance with Section 25.18 of the Tax Code:

- (a) CAD shall implement the plan for periodic reappraisal of property as approved by the Board of Directors under Section 6.05 (i).
- (b) The plan provides for annual reappraisal of all oil and gas property appraised by the CAD. The CAD has a professional services contract with Pritchard & Abbott, Inc. to appraise these properties for the CAD.
- (1) Identification of new property and its situs. As subsurface mineral properties lie within the earth, they cannot be physically identified by inspection like other real property. However, the inability to directly inspect does not appreciably affect the ability to identify and appraise these properties. To identify new properties, Pritchard & Abbott, Inc. 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 Pritchard & Abbott'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. Pritchard & Abbott, Inc. 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 value is most commonly used in the oil and gas industry. Through use of the discounted cash flow technique in particular, the appraiser is able to bring together relevant characteristics of production volume and pattern, product prices, operating expenses and discount rate to determine an estimate of appraised value of an oil or gas property.
- (5) Comparison and Review. Use of the income approach is the first step in determining an estimate of market value. After that the appraiser reviews the estimated market value compared to its previous certified value and also compares it to industry expected payouts and income indicators. The appraiser examines the model's value with its previous year's actual income, expecting value to typically vary within in a range of 2-5 times actual annual income, provided all appropriate income factors have been correctly identified. Finally, periodic reassignment of properties among appraisers and review of appraisals by a more experienced appraiser further expand the review process.

FINAL PERFORMANCE ANALYSIS

INDEPENDENT PERFORMANCE TEST

In addition to sales ratio studies performed by the appraisal district, the State Comptroller's Property Tax Assistance Division conducts a biannual property value study (PVS) of each Texas school district and each appraisal district. As part of this study, the code requires the Comptroller to use sales and recognize auditing and sampling techniques to test the validity of the school district taxable values in each appraisal district 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 district value omitted from the study. Moreover, real estate is separated into several categories to test each independently.

The Property Tax Study, ratio studies, and the prior year's mass appraisal report are all used in conjunction to determine proper direction for the future years' reappraisal efforts. Results from the upcoming 2020 Property Value Study will be reviewed and analyzed by the appraisal district.

Geographic areas or property categories with unsatisfactory ratio results will be added to the work plan for 2021 reappraisal cycle.

VALUE DEFENSE

Evidence to be used by Hardin County Appraisal District to meet its burden of proof for market value and equity in both informal appraisal review board hearings is specified and tested. The District makes every attempt to notify the taxpayer of any property value changes through required notices which are sent annually to all properties. Informal hearings are held with the District's appraisers in an attempt to allow the taxpayer to present evidence that may not have been considered in the appraisal. The District also provides the ability to file formal protest on-line. Formal protests are scheduled and if requested, District evidence is presented as required by the Property Tax Code before the hearing. Inspection and/or disclosure of evidence and related materials will comply with statutory confidentiality requirements. At the formal hearing, District personnel, at the instruction of the Appraisal Review Board, present a defense of the appraisal using evidence list below.

Evidence provided (as deemed necessary) includes, but is not limited to:

- Sales of similar properties
- Appraisal Manual
- Photos of property and comparables
- Aerial photographs integrated with GIS (Pictometry)
- Appraisal Card
- Testimony by appraiser
- Ratio Studies by neighborhood
- Income/Expense Information
- Income Approach Calculations

THE MASS APPRAISAL REPORT

Each tax year the Mass Appraisal Report/USPAP required by the Property Tax Code 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/USPAP is completed in compliance with STANDARD RULE 6 – 2 of the *Uniform Standards of Professional Appraisal Practice*. The signed certification by the Chief Appraiser is compliant with STANDARD RULE 6 – 3 of USPAP. This written reappraisal plan is attached to the report by reference.

DEFINITIONS AND ECONOMIC PRINCIPLES

Arms-Length Transactions

An arms-length transaction is an exchange between unrelated buyers and sellers under no duress to buy or sell. Although the following are considered arms-length transactions, because they involve special circumstances, they should be excluded from analysis or used with caution:

1. Trades
2. Transactions involving partial interests
3. Land contracts, contracts-for-deed, and other installment purchase agreements
4. Incomplete or un-built property

The following types of transactions are not considered arms-length:

1. Sales involving courts, or in which government agencies or public utilities are principals
2. Sales in which charitable, religious, or educational institutions are principals
3. Sales in which a financial institution is the buyer and a lien-holder or the seller of property taken through foreclosure
4. Sales between relatives
5. Sales between corporate affiliates
6. Sales of convenience
7. Sales settling an estate
8. Forced sales
9. Sales of doubtful title
10. Auctions
11. Foreclosure sales, condemnation sales, or other sales which the price was not representative of market

Bundle of Rights Theory

The "Bundle of Rights Theory" asserts that owners have the right to occupy, use, sell, lease, bequeath, or lease their property as they choose. These beneficial interests or rights are guaranteed by law but subject to governmental and private regulations and restrictions.

Governmental regulations and restrictions include:

1. Taxation
2. Condemnation (for the benefit of the public providing that just compensation is made to the owner; also referred to as eminent domain)
3. Police power (enforcing regulations deemed necessary to promote the safety, health, morals, and general welfare of the public)
4. Provide for the reversion of ownership to the State in cases where a competent heir to the property cannot be ascertained (also called escheat).

Private restrictions imposed upon property are frequently found in the form of deed restrictions. Deeds spell out precisely which rights of the "total bundle" of rights the buyer is acquiring. Since value is related to each of these rights, the appraiser should know precisely which rights are involved in his valuation of the property. Appraisals for ad valorem tax purposes generally assume the property is owned in "fee simple" title, meaning that the total bundle of rights is considered intact.

Depreciation

Most simply put, depreciation is a loss in value from all causes and may be physical (wearing out of components), functional (improvement design), and/or economic (influences outside of the property).

Disposition Value

(According to the Appraisal Institute) Disposition Value is the most probable price that a specified interest in real property is likely to bring under all of the following conditions:

1. Consummation of a sale within a limited future marketing period specified by the client.
2. Current actual market conditions for the property interest appraised.
3. Buyer and seller each acting prudently and knowledgeably.
4. Seller under compulsion to sell.
5. Buyer typically motivated.
6. Both parties acting in what they consider their best interest.
7. Adequate marketing effort made for the limited time allowed for completion of a sale.
8. Payment made in cash in U. S. dollars or in terms of financial arrangements comparable thereto.
9. Price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Fee Simple

“Unqualified ownership and power of disposition.” An inherited or heritable estate in property. private ownership in which the owner has the right to control, use, and transfer property at will, subject to the limitations of eminent domain, escheat, police power, and taxation. (This information was obtained from the Appraisal Institute).

Liquidation Value

Liquidation Value is the most probable price that a specified interest in real property is likely to bring under all of the following conditions:

1. Consummation of a sale within a severely limited future marketing period specified by the client.
2. Current actual market conditions for the property interest appraised.
3. Buyer acting prudently and knowledgeably.
4. Seller under extreme compulsion to sell.
5. Buyer typically motivated.
6. Buyer acting in what he/she considers his/her best interests.
7. Limited marketing effort made and limited time allowed for completion of sale.
8. Payment made in cash in U. S. dollars or in terms of financial arrangements comparable thereto. Price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Market Value Definitions

Tax Code Definition

Market Value means the price at which a property would transfer for cash or its equivalent under prevailing market conditions, if (a) Exposed for sale in the open market with a reasonable time for the seller to find a purchaser; (b) Both the seller and the purchaser 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 (c) Both the seller and purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Appraisal Institute Definition

Market Value is based on the concept of an open and competitive market in which transactions are free of duress or forced liquidation. It is the most probable price that a specified interest in real property is likely to bring under all of the following conditions:

1. Consummation of a sale as of a specified date.
2. Open and competitive market for the property interest appraised.
3. Buyer and seller each acting prudently and knowledgeably.
4. Price not affected by undue stimulus.
5. Buyer and seller typically motivated.
6. Both parties acting in which they consider their best interests.
7. Adequate marketing efforts made and a reasonable time allowed for exposure in the open market.
8. Payment made in cash in U. S. dollars or in terms of financial arrangements comparable thereto.
9. Price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Definitions Implied By Supreme Court Rulings

Personal Property Market Value is the price that dealers in the goods are willing to receive and purchasers are willing to pay when goods are bought and sold in the ordinary course of trade.

Real Property Market Value is the amount of money that probably would be arrived at through fair negotiations between a willing seller and a willing buyer, taking into consideration the uses to which the property may be put.

Principle of Change

The impact of change on the value of real property manifests itself in the life cycle of a neighborhood, characterized by four stages of evolution: 1) development and growth evidenced by improving values; 2) leveling off evidenced by static values; 3) infiltration and decay evidenced by declining values; and 4) Revitalization as evidenced by rebuilding or restoration. The highest and best use today is not necessarily the highest and best use tomorrow. Highest and best use of land often lies in a succession of uses. A declining single-family residential

neighborhood may be ripe for multi-family, commercial, or industrial development. Determination of change is dependent upon the relationship of present or anticipated future demand with existing supply.

In estimating value, the appraiser is obligated to reasonably anticipate the future benefits as well as the present benefits derived from ownership and to evaluate the property in light of the quality, quantity, and duration of these benefits. It should be noted that benefits referred to are likely benefits based on actual data as opposed to speculative or potential benefits that may or may not occur.

Principle of Highest and Best Use

Highest and best use for a property is that use which will produce the highest net return to the land for a given period of time within the limits of those uses which are economically feasible, probable, and legally permissible.

On a community-wide basis the major determining factor in highest and best use is the maximum quantity of land that can be devoted to a specific use and still yield a satisfactory return. Once a suitable basic use has been chosen for a specific property, each increment of capital investment to the existing or planned improvement will increase the net return to the land only up to a certain point. After this point is reached the net return to the land begins to diminish. This is the point at which the land is at its highest and best use.

Example: When planning a high-rise office building, each additional upper floor represents an extra capital expenditure that must yield a certain return to an investor. This return will be dependent upon the levels of economic rent the market will bear at that point in time. An optimum number of floors can be calculated above which the income yield requirements of additional expenditures will no longer be satisfactorily met. Notwithstanding the possibility of other considerations, this optimum return should determine the story height of the building.

Principle of Substitution

Buyers and sellers in the marketplace create value - demand is translated into a commodity of exchange. When the benefits and advantages derived from two properties are equal, the lowest price property received the greatest demand. An informed buyer is not justified in paying more for a property than it would cost to acquire an equally desirable substitute property.

Principle of Supply and Demand

Among the forces, which constantly operate to influence supply and demand, are population growth, new techniques in transportation, purchasing power, price levels, wage rates, taxation, governmental controls, and scarcity. A sudden population increase in an area would create an increase in demand for housing. If the demand increased at a higher rate than the supply, there could soon be a scarcity of housing. When demand is supported by purchasing power, rentals and sales prices tend to increase and ultimately reach a level that would stimulate more builders to compete for the potential profits and thus serve to increase the supply toward the level of

demand. As the supply is increased, demand would begin to taper off. When builders, due to increases in labor and material rates, are no longer able to build at costs that meet new level of prices and rents, competition tends to taper and supply levels off. Balance occurs when reasonable competition serves to coordinate supply with demand. When competition continues unchecked to produce a volume that exceeds demand, net returns to investors are no longer adequate to pay the costs of ownership, resulting in loss rather than profit, and consequently a decline in values.

Real Estate

Generally, real estate is real or fixed improvements to land such as buildings and other appurtenances (storage sheds, fencing, etc.). An identified tract of land including improvements, if any.

Real Property

Real property encompasses all of the interests, benefits, and rights enjoyed due to ownership of real estate; the bundle of rights endowed to the owner.

Value

Value is the monetary worth of a commodity or service to buyers and sellers at a given point in time. Value is not a characteristic inherent in a commodity itself rather it is man-made, created by desire, modified by varying degrees of desire, and destroyed by lack of desire. One desires property because it is a useful commodity in that it has utility. Utility is a pre-requisite to value but does not alone cause value. If a great supply of a useful commodity exists (such as air), needs would automatically be satisfied, desire would not be aroused, and value therefore would not be created. Thus, in addition to utility, in order to effectively arouse desire, the commodity must also be scarce. A final component of value is the ability of a buyer to translate desire into a unit of exchange via purchasing power. When a commodity has utility, is relatively scarce, arouses desire, and may be traded for -- value is created.

An additional component for an appraiser when defining value is the purpose of the appraisal and the type of value being estimated. For ad valorem tax purposes, the value sought is generally market value, indicating activity of buyers and sellers.

Value-In-Use

When estimating the value of a special, highly unique property that is useful to the present owner but relatively less useful to typical buyers in the marketplace, the property is said to have a value in use. Value in use refers to the actual value of a commodity to a specific person.

Value In Exchange

Value in exchange refers to the dollar value of a commodity to buyers in the marketplace.

Certification Statement:

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

**Crystal Smith, RPA
Chief Appraiser**

**Kenny Burkhalter
Board of Director Chairman**

Board Approved September 09, 2020

ADDENDUM

CALENDAR OF KEY EVENTS 2021-2022

REAL/COMMERCIAL PROPERTIES

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul
Land/Sales Analysis												
Sales Collection & Valuation												
Income & Expense Collection & Validation												
Re-inspection (Onsite & or Pictometry)												
New Construction/Discovery												
Permits												
Mobile Home Parks												
Final Value Review												
Jurisdiction Estimates												
Mail Notices												
Current Year ARB Hearings												
Prior Year ARB Hearings												
Roll Certified												

LOCAL PERSONAL PROPERTY

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul
Personal Property Inspections												
Mail Renditions												
Processing Renditions												
Finish Processing Renditions w/Extensions												
Mail Penalty Letters												
Testing Personal Property Schedules												
Special Inventory Monthly Reports												
Special Inventory Declarations												
Receive/Work Vehicle Book												
Notices Mailed												
Current Year ARB Hearings												
Prior Year ARB Hearings												

DATA ENTRY/CLERICAL/MAPPING

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul
Receive/Process Ownership/Address Changes												
Mail Sales Letters												
Mail New Homestead Applications												
Ceiling Transfer Requests												
Parcel Edits Reports												
Data Entry Fieldwork Notes/Sketches												
Mail Ag/Timber Applications												
Process Splits/Combinations												
Mail Annual Exemptions & Abatements												
Process Homestead Exemption Applications												

INDUSTRIAL REAL & PERSONAL PROPERTIES, UTILITIES, & MINERALS

	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul
Land/Sales Analysis												
Re-inspection												
New Construction/Discovery												
Deliver of Jurisdiction Estimates												
Mineral Lease Information Delivered												
Mineral Changes Made												
Notices Mailed by Contractor												
Current Year ARB Hearings												
Prior Year ARB Hearings												
Roll Certified												



**PRITCHARD & ABBOTT, INC.
VALUATION CONSULTANTS**

S.B. 1652* BIENNIAL REAPPRAISAL PLAN

**FOR THE ANNUAL APPRAISAL FOR
AD VALOREM TAX PURPOSES OF
MINERAL, INDUSTRIAL, UTILITY AND
RELATED PERSONAL PROPERTY**

For Tax Years:

2021 and 2022

Originally Printed: June 29, 2020

*Senate Bill 1652 passed by the Texas Legislature, 79th Regular Session in 2005, amending Section 6.05 of the Texas Property Tax Code, adding Subsection (i) as follows:

"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 for 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."



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**POLICY STATEMENT OF PRITCHARD & ABBOTT, INC., ON THE
UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE**

Pritchard & Abbott, Inc., (P&A), a privately held company engaged primarily, but not wholly, in the ad valorem tax valuation industry endorses Uniform Standards of Professional Appraisal Practice (USPAP) as the basis for the production of sound appraisals. Insofar as the statutory requirement to appraise groups (or a “universe”) of real and personal property within an established period of time using standardized procedures—and subjecting the resulting appraisals to statistical measures—is the definition of mass appraisal, P&A subscribes to USPAP Standards 5 and 6 (Mass Appraisal, Development and Reporting) whenever applicable in the development and defense of values. When circumstances clearly dictate the use of single property appraisal procedures, P&A adheres to the spirit and intent of the remaining USPAP Standards within all appropriate, practical, and/or contractual limitations or specifications.

A biennial reappraisal plan is, at its core, a discussion of the CAD’s intended implementation of the Scope of Work Rule in USPAP. This plan provides general information about this rather comprehensive USPAP rule, as well as the specific steps P&A takes in the actual appraisal of various property types per our contractual obligations. This Biennial Reappraisal Plan should not be confused or conflated with an “appraisal manual” or other “how-to” guide which may or may not exist within P&A for any particular property type we appraise.

This reappraisal plan discusses a few other USPAP rules that interact with the Scope of Work Rule, such as the Ethics Rule, the Record Keeping Rule, and Jurisdictional Exception Rule. For further information regarding other sections of USPAP, including the Competency Rule, definitions, and appraisal reports, please reference P&A’s “USPAP report” which accompanies our appraisals and supporting documentation provided to clients per Property Tax Code, Sec. 25.01(c) at the completion of each tax year. ***An appraisal season thus begins with an appraisal plan (approved by the CAD’s Board of Directors) and ends with appraisal reports.*** Providing these reports is definitely part of the plan. Likewise, much of the verbiage in the “USPAP report” is a reiteration of the Biennial Reappraisal Plan.

USPAP defines “appraisal” as the act or process of developing an opinion of value or pertaining to appraising and related functions such as appraisal practice or appraisal services. Valuation services is defined as services pertaining to an aspect of property value, regardless of the type of service and whether it is performed by appraisers or by others. The USPAP definition of “appraiser” is one who is expected to perform valuation services competently and in a manner that is ***independent, impartial, and objective.*** USPAP Advisory Opinion 21: *USPAP Compliance* states that this expectation (by clients and intended users of appraisal reports) is the basis that creates an ethical obligation to comply with USPAP, even if not legally required. Advisory opinions do not establish new standards or interpret existing standards, but instead are issued to illustrate the applicability of appraisal standards in specific situations.

The majority of property types that P&A typically appraises for ad valorem tax purposes are categorized as unique, complex, and/or “special purpose” properties (mineral interests, industrial, utility, and related personal property). These categories of properties do not normally provide sufficient market data of reliable quality and/or quantity to support the rigorous use of all USPAP-prescribed mass appraisal development mandates (Standard 5: Mass Appraisal, Development), particularly with regards to some, but not all, of the *model calibration* and *statistical performance testing* confines. However, P&A does strive to employ all or most elements of mass appraisal techniques with regards to the *definition* and *identification of property characteristics* and *model specification* and application.

Per USPAP Advisory Opinion 32: *Ad Valorem Property Tax Appraisal and Mass Appraisal Assignments*, in the

interests of equity, the scope of work in mass appraisal assignments for ad valorem taxation can include consideration of appraisal level (the overall proximity between appraised values and actual prices) and the uniformity of property values (equity within groups of like properties). The appraiser is responsible for recognizing when the concepts of appraisal level and appraisal uniformity are necessary for credible assignment results in a mass appraisal assignment for ad valorem taxation.

Residential real estate property appraisers most frequently apply mass appraisal methods within the sales comparison (market) approach to value. Through the use of standardized data collection (i.e., actual market sales), specification and calibration of mass appraisal models, tables, and schedules are possible. Through ratio study analysis and other performance measures, a cumulative summary of valuation accuracy can thus be produced in order to calibrate the appraisal model(s). Where sufficient data of reliable quality exists, mass appraisal is also used for other types of real estate property such as farms, vacant lots, and some commercial uses (e.g., apartments, offices, and small retail).

Regarding mass appraisal reports due the client and other intended users per USPAP (Standard 6 (Mass Appraisal, Reporting), a written report of the mass appraisal as described in Standards 6-2 is not provided for each individual property. An individual property record or worksheet may describe the valuation of the specific property after the application of the mass appraisal model. To understand the individual property result developed in a mass appraisal requires the examination of all the information and analysis required by Standards 6-2.

P&A will clearly state or otherwise make known all extraordinary assumptions, hypothetical conditions, limitations imposed by assignment conditions, and/or jurisdictional exceptions in its appraisal reports as they are conveyed to our clients. ***Intended users of our reports are typically the client(s) for which we are under direct contract.*** Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. ***A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.*** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

USPAP does not currently address communications of assignment results prior to completion of the assignment, thus such communications have no requirements other than to comply with the general requirements in the ETHICS RULE, the COMPETENCY RULE, and the JURISDICTIONAL EXCEPTION RULE. The client and all intended users should be aware that mass appraisals, as opposed to most "fee" appraisals, are somewhat inherently "limited" versus "complete" and that appraisal reports, unless otherwise contracted for by the client, will most often be of a "restricted" nature whereas explanations of appraisal methods and results are more concise versus lengthy in order to promote brevity, clarity, and transparency to the intended user(s).

Per USPAP, the appropriate reporting option and level of information in a report are dependant on the intended use and the intended users. Although the reporting verbiage in USPAP Standard 6 does not specifically offer or promulgate a "Restricted Appraisal Report" such as in Standard 2 (Real Property Appraisal, Reporting) and Standard 8 (Personal Property Appraisal, Reporting), it should be noted that: a) all mass appraisals and mass appraisal reports deal with real and personal property in some form or fashion; and b) P&A is a private consulting firm, a fact which may necessitate the withholding of certain data and/or appraisal models/techniques which are deemed confidential, privileged and/or proprietary in nature. The use of "limited" appraisals in conjunction with "restricted" reports in no way implies non-compliance with USPAP. ***The substantive content of a report***

determines its compliance.

P&A believes that, with its vast experience and expertise in these areas of appraisal, all concluded values and reports thereof are credible, competent, understandable, uniform and consistent; and most importantly for ad valorem tax purposes, accomplished in a cost-efficient and timely manner.

Per previous ASB comments under Standard 6-2(b) [*scope of work... special limiting conditions*]:

“Although appraisers in ad valorem taxation should not be held accountable for limitations beyond their control, they are required by this specific requirement to identify cost constraints and to take appropriate steps to secure sufficient funding to produce appraisals that comply with these standards. Expenditure levels for assessment administration are a function of a number of factors. Fiscal constraints may impact data completeness and accuracy, valuation methods, and valuation accuracy. Although appraisers should seek adequate funding and disclose the impact of fiscal constraints on the mass appraisal process, they are not responsible for constraints beyond their control.”

In any event, however, it is not P&A’s intent to allow constraints, fiscal or otherwise, to limit the scope of work to such a degree that the mass appraisal results provided to our clients are not credible within the context of the intended use(s) of the appraisal.

PREAMBLE

The purpose of USPAP is to establish requirements and conditions for ethical, thorough, and transparent property valuation services. Valuation services pertain to all aspects of property value and include services performed by appraisers and other professionals including attorneys, accountants, insurance estimators, auctioneers, or brokers. Valuation services include appraisal, appraisal review, and appraisal consulting. The primary intent of these Standards is to promote and maintain a high level of public trust in professional appraisal practice.

It is essential that professional appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading. The importance of the role of the appraiser places ethical obligations upon those who serve in this capacity. These USPAP Standards reflect the current standards of the appraisal profession.

These Standards are for both appraisers and users of appraisal services. To maintain a high level of professional practice, appraisers observe these Standards. However, these Standards do not in themselves establish which individuals or assignments must comply. The Appraisal Foundation nor its Appraisal Standards Board is not a government entity with the power to make, judge, or enforce law. Compliance with USPAP is only required when either the service or the appraiser is obligated to comply by law or regulation, or by agreement with the client or intended users. When not obligated, individuals may still choose to comply.

USPAP addresses the ethical and performance obligations of appraisers through DEFINITIONS, Rules, Standards, Statements (if any), and Advisory Opinions. USPAP Standards deal with the procedures to be followed in performing an appraisal or appraisal review and the manner in which each is communicated. A brief description of the USPAP Standards are as follows:

- **Standards 1 and 2:** establish requirements for the development and communication of a real property appraisal.
- **Standards 3 and 4:** establishes requirements for the development and communication of an appraisal review.
- **Standards 5 and 6:** establishes requirements for the development and communication of a mass appraisal.
- **Standards 7 and 8:** establish requirements for the development and communication of a personal property appraisal.
- **Standards 9 and 10:** establish requirements for the development and communication of a business or intangible asset appraisal.

Section 23.01(b) [Appraisals Generally] of the Texas Property Tax Code states:

“The market value of property shall be determined by the application of generally accepted appraisal methods and techniques. If the Appraisal District determines the appraised value of a property using mass appraisal standards, the mass appraisal standards must comply with the Uniform Standards of Professional Appraisal Practice....” (underline added for emphasis)

Consequently, USPAP Standards 5 and 6 are assumed to be the applicable standard for ad valorem tax purposes in Texas, if mass appraisal practices are in fact being used to appraise the subject property. USPAP Advisory Opinion 32 suggests several USPAP standards other than Standards 5 or 6 can apply in ad valorem tax work. It appears that an appraiser engaged in ad valorem tax work in Texas is not specifically required by law to follow these USPAP standards if in fact mass appraisal practices have not been used to appraise the subject property. In this case it could be deemed appropriate to invoke the Jurisdictional Exception Rule which is applicable when

there is a contradiction between the requirements of USPAP and the law or regulation of a jurisdiction. Please see the P&A Policy Statement on USPAP as provided elsewhere in this report for a more detailed discussion regarding this matter.

ETHICS RULE

Because of the fiduciary responsibilities inherent in professional appraisal practice, the appraiser must observe the highest standards of professional ethics. This Ethics Rule is divided into three sections:

- Conduct;
- Management;
- Confidentiality.

This Rule emphasizes the personal obligations and responsibilities of the individual appraiser. However, it should be noted that groups and organizations *which are comprised of individual appraisers engaged in appraisal practice* effectively share the same ethical obligations. To the extent the group or organization does not follow USPAP Standards when legally required, individual appraisers should take steps that are appropriate under the circumstances to ensure compliance with USPAP.

Compliance with these Standards is required when either the service or the appraiser is obligated by law or regulation, or by agreement with the client or intended users, to comply. *Compliance is also required when an individual, by choice, represents that he or she is performing the service as an appraiser.*

An appraiser must not misrepresent his or her role when providing valuation services that are outside of appraisal practice.

Honesty, impartiality, and professional competency are required of all appraisers under USPAP Standards. To document recognition and acceptance of his or her USPAP-related responsibilities in communicating an appraisal or appraisal review completed under USPAP, an appraiser is required to certify compliance with these Standards.

CONDUCT

An appraiser must perform assignments with impartiality, objectivity, and independence, and without accommodation of personal interests.

An appraiser:

- must not perform an assignment with bias;
- must not advocate the cause or interest of any party or issue;
- *must not accept an assignment that includes the reporting of predetermined opinions and conclusions;*
- must not misrepresent his or her role when providing valuation services that are outside of appraisal practice;
- must not communicate assignment results with the intent to mislead or to defraud;
- must not use or communicate a report or assignment results known by the appraiser to be misleading or fraudulent;
- must not knowingly permit an employee or other person to communicate a report or assignment results that are misleading or fraudulent report;
- must not use or rely on unsupported conclusions relating to characteristics such as race, color, religion, national origin, gender, marital status, familial status, age, receipt of public assistance income, handicap, or an unsupported conclusion that homogeneity of such characteristics is necessary to maximize value;
- must not engage in criminal conduct;

- must not willfully or knowingly violate the requirements of the RECORD KEEPING RULE; and must not perform an assignment in a grossly negligent manner.

If known prior to accepting an assignment, and/or if discovered at any time during the assignment, an appraiser must disclose to the client, and in each subsequent report certification:

- any current or prospective interest in the subject property or parties involved; and
- any services regarding the subject property performed by the appraiser within the three year period immediately preceding acceptance of the assignment, as an appraiser or in any other capacity.

The appraiser can agree with the client to keep the mere occurrence of a prior appraisal assignment confidential. If an appraiser has agreed with the client not to disclose that he or she has appraised a property, the appraiser must decline all subsequent assignment that fall with the three year period. In assignments in which there is no report, only the initial disclosure to the client is required.

Presumably all parties in ad valorem tax appraisal will be aware of the ongoing yearly nature of the appraisal assignments performed by valuation consulting firms like Pritchard & Abbott, Inc.—i.e., it will not be confidential—so that this particular conduct instruction is more or less a moot point (regarding the three year period discussed) if the prior service is in fact the ad valorem tax appraisals performed in previous tax years.

MANAGEMENT

The payment of a fee, commission, or a thing of value by the appraiser in connection with the procurement of an assignment must be disclosed. This disclosure must appear in the certification and in any transmittal letter in which conclusions of value are stated; however, the disclosure of the amount paid is not required. Intra-company payments to employees of groups or organizations involved in appraisal practice for business development do not require disclosure.

It is unethical for an appraiser to accept compensation for performing an assignment when it is contingent upon the reporting of a ***predetermined result, a direction in assignment results that favors the cause of the client, the amount of a value opinion, the attainment of a stipulated result,*** or the occurrence of a subsequent event directly related to the appraiser's opinions and specific to the assignment's purpose.

Advertising for or ***soliciting assignments in a manner that is false, misleading, or exaggerated*** is unethical. Decisions regarding finder or referral fees, contingent compensation, and advertising may not be the responsibility of an individual appraiser, but for a particular assignment it is the responsibility of the individual appraiser to ascertain that there has been no breach of ethics, that the assignment consulting assignment has been prepared in accordance with USPAP Standards, and that the report can be properly certified when required by USPAP Standards 2-3, 4-3, 6-3, 8-3, or 10-3.

An appraiser must affix, or authorize the use of, his or her signature to certify recognition and acceptance of his or her USPAP responsibilities in an appraisal or appraisal review assignment. An appraiser may authorize the use of his or her signature only on an assignment-by-assignment basis.

In addition, an appraiser must not affix the signature of another appraiser without his or her consent. An appraiser must exercise due care to prevent unauthorized use of his or her signature. However, an appraiser exercising such care is not responsible for unauthorized use of his or her signature.

CONFIDENTIALITY

An appraiser must protect the confidential nature of the appraiser-property owner relationship.

An appraiser must act in good faith with regard to the legitimate interests of the client in the use of confidential information and in the communication of assignment results.

An appraiser must be aware of, and comply with, all confidentiality and privacy laws and regulations applicable in an assignment.

An appraiser must not disclose confidential factual data obtained from a property owner to anyone other than:

1. The client;
2. Parties specifically authorized by the client;
3. State appraiser regulatory agencies;
4. Third parties as may be authorized by due process of law; or
5. A duly authorized professional peer review committee except when such disclosure to a committee would violate applicable law or regulation.

An appraiser must take reasonable steps to safeguard access to confidential information and assignment results by unauthorized individuals, whether such information or results are in physical or electronic form. In addition, an appraiser must ensure that employees, coworkers, subcontractors, or others who may have access to confidential information or assignments results, are aware of the prohibitions on disclosure of such information or results.

It is unethical for a member of a duly authorized professional peer review committee to disclose confidential information presented to the committee.

When all confidential elements of confidential information are removed through redaction or the process of aggregation, client authorization is not required for the disclosure of the remaining information, as modified.

RECORD KEEPING RULE

An appraiser must prepare a workfile for each appraisal or appraisal review assignment. A workfile must be in existence prior to the issuance of any report or other communication of assignment results. A written summary of an oral report must be added to the workfile within a reasonable time after the issuance of the oral report.

The workfile must include the name of the client and the identity, by name or type, of any other intended users, and true copies of all written reports, documented on any type of media. (A true copy is a replica of the report transmitted to the client. A photocopy or an electronic copy of the entire report transmitted to the client satisfies the requirement of a true copy.) A workfile must contain summaries of all oral reports or testimony, or a transcript of testimony, including the appraiser's signed and dated certification; and all other data, information, and documentation necessary to support the appraiser's opinions and conclusions and to show compliance with USPAP, or references to the location(s) of such other data, information, and documentation.

A workfile in support of a Restricted Appraisal Report or an oral appraisal report must be sufficient for the appraiser to produce an Appraisal Report. A workfile in support of an oral appraisal review report must be sufficient for the appraiser to produce an Appraisal Review Report.

An appraiser must retain the workfile for a period of at least *five years after preparation* or at least two years after final disposition of any judicial proceeding in which the appraiser provided testimony related to the assignment, whichever period expires last.

An appraiser must have custody of the workfile, or make appropriate workfile retention, access, and retrieval arrangements with the party having custody of the workfile. This includes ensuring that a workfile is stored in a medium that is retrievable by the appraiser throughout the prescribed record retention period. An appraiser having custody of a workfile must allow other appraisers with workfile obligations related to an assignment appropriate access and retrieval for the purpose of:

- submission to state appraiser regulatory agencies;
- compliance with due process of law;
- submission to a duly authorized professional peer review committee; or
- compliance with retrieval arrangements.

A workfile must be made available by the appraiser when required by a state appraiser regulatory agency or due process of law.

An appraiser who willfully or knowingly fails to comply with the obligations of this Record Keeping Rule is in violation of the Ethics Rule.

SCOPE OF WORK RULE

For each appraisal or appraisal review assignment, an appraiser must:

1. Identify the problem to be solved;
2. Determine and perform the scope of work necessary to develop credible assignment results; and
3. Disclose the scope of work in the report.

An appraiser must properly identify the problem to be solved in order to determine the appropriate scope of work. The appraiser must be prepared to demonstrate that the scope of work is sufficient to produce credible assignment results.

Scope of work includes, but is not limited to:

- the extent to which the property is identified;
- the extent to which tangible property is inspected;
- the type and extent of data researched; and
- the type and extent of analyses applied to arrive at opinions or conclusions.

Appraisers have broad flexibility and significant responsibility in determining the appropriate scope of work for an appraisal or appraisal review assignment. Credible assignment results require support by relevant evidence and logic. *The credibility of assignment results is always measured in the context of the intended use.*

PROBLEM IDENTIFICATION

An appraiser must gather and analyze information about those assignment elements that are necessary to properly identify the appraisal, appraisal review or appraisal consulting problem to be solved. The assignment elements necessary for problem identification are addressed in the Standard 6-2:

- client and any other intended users;
- intended use of the appraiser's opinions and conclusions;
- type and definition of value;
- effective date of the appraiser's opinions and conclusions;
- subject of the assignment and its relevant characteristics; and
- assignment conditions.

This information provides the appraiser with the basis for determining the type and extent of research and analyses to include in the development of an appraisal. Similar information is necessary for problem identification in appraisal review and appraisal consulting assignments. Assignment conditions include:

- assumptions;
- extraordinary assumptions;
- hypothetical conditions;
- laws and regulations;
- jurisdictional exceptions; and
- other conditions that affect the scope of work.

SCOPE OF WORK ACCEPTABILITY

The scope of work must include the research and analyses that are necessary to develop credible assignment results. The scope of work is acceptable when it meets or exceeds:

- the expectations of parties who are regularly intended users for similar assignments; and
- what an appraiser's peers' actions would be in performing the same or a similar assignment.

Determining the scope of work is an ongoing process in an assignment. Information or conditions discovered during the course of an assignment might cause the appraiser to reconsider the scope of work. An appraiser must be prepared to support the decision to exclude any investigation, information, method, or technique that would appear relevant to the client, another intended user, or the appraiser's peers.

An appraiser must not allow assignment conditions to limit the scope of work to such a degree that the assignment results are not credible in the context of the intended use. In addition, the appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

DISCLOSURE OBLIGATIONS

The report must contain sufficient information to allow intended the client and other intended users to understand the scope of work performed. Proper disclosure is required because clients and other intended users may rely on the assignment results. Sufficient information includes disclosure of research and analyses performed or not performed. ***The information disclosed must be appropriate for the intended use of the assignment results.***

Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed. ***The appraiser has broad flexibility and significant responsibility in the level of detail and manner of disclosing the scope of work in the appraisal report or appraisal review report.*** The appraiser may, but is not required to, consolidate the disclosure in a specific section or sections of the report, or use a particular label, heading or subheading. An appraiser may choose to disclose the scope of work as necessary throughout the report.

JURISDICTIONAL EXCEPTION RULE

If any applicable law or regulation precludes compliance with any part of USPAP, only that part of USPAP becomes void for that assignment. When compliance with USPAP is required by federal law or regulation, no part of USPAP can be voided by a law or regulation of a state or local jurisdiction. ***When an appraiser properly follows this Rule in disregarding a part of USPAP, there is no violation of USPAP.***

In an assignment involving a jurisdictional exception, an appraiser must:

- identify the law or regulation that precludes compliance with USPAP;
- comply with that law or regulation;
- clearly and conspicuously disclose in the report the part of USPAP that is voided by that law or regulation; and
- cite in the report the law or regulation requiring this exception to USPAP compliance.

The purpose of the Jurisdictional Exception Rule is strictly limited to providing a saving or severability clause intended to preserve the balance of USPAP if one or more of its parts are determined as contrary to law or public policy of a jurisdiction. By logical extension, there can be no violation of USPAP by an appraiser who disregards, with proper disclosure, only the part or parts of USPAP that are void and of no force and effect in a particular assignment by operation of legal authority.

It is misleading for an appraiser to disregard a part or parts of USPAP as void and of no force and effect in a particular assignment without identifying the part or parts disregarded and the legal authority justifying this action in the appraiser's report.

“Law” includes constitutions, legislative and court-made law, and administrative rules (such as from the Office of the Texas Comptroller of Public Accounts) and ordinances. “Regulations” include rules or orders having legal force, issued by an administrative agency. ***Instructions from a client or attorney do not establish a jurisdictional exception.***

A jurisdictional exception prevalent in Texas is that appraisers are seeking to establish “fair market value” as defined by the Texas Property Tax Code instead of “market value” as found in the USPAP definitions section.

USPAP STANDARDS 5 AND 6: MASS APPRAISAL, DEVELOPMENT AND REPORTING (General Discussion)

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

Standards 5 and 6 apply to all mass appraisals of real and personal property regardless of the purpose or use of such appraisals. It is directed toward the substantive aspects of developing and communicating competent analyses, opinions, and conclusions in the mass appraisal of properties, whether real property or personal property. Standard 5 is directed toward the substantive aspects of developing credible analyses, opinions, and conclusions in the mass appraisal of properties, while Standard 6 addresses the content and level of information required in a report that communicates the results of a mass appraisal. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for purposes of ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

- identifying properties to be appraised;
- defining market areas of consistent behavior that applies to properties;
- identifying characteristics (supply and demand) that affect the creation of value in that market area;
- developing (specifying) a model structure that reflects the relationship among the characteristics affecting value in the market area;
- calibrating the model structure to determine the contribution of the individual characteristics affecting value;
- applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
- reviewing the mass appraisal results.

The Jurisdictional Exception Rule may apply to several sections of Standards 5 and 6 because ad valorem tax administration is subject to various state, county, and municipal laws.

As previously stated in the P&A Policy Statement (page 2), it may not be possible or practicable for all the mass appraisal attributes listed above to be rigorously applied to the many types of complex and/or unique properties that P&A typically appraises. Often there are contractual limitations on the scope of work needed or required. More prevalently, these types of properties do not normally provide a reliable database of market transactions (or details of transactions) necessary for statistically supportable calibration of appraisal models and review of appraisal results. Generally these two functions are effectively accomplished through annual extended review meetings with taxpayers (and clients) who provide data, sometimes confidentially, that allows for appraisal models to be adjusted where necessary. Nevertheless, and notwithstanding whether P&A implicitly or explicitly employs or reports all attributes listed above, in all cases P&A at the minimum employs tenants of “generally accepted appraisal methods” which are the genesis of USPAP Standards.

Per USPAP guidelines, P&A will make known all departures and jurisdictional exceptions when invoked (if an appraisal method or specific requirement is applicable but not necessary to attain credible results in a particular assignment).

The various sections of Standard 5 (development of mass appraisal) and Standard 6 (communication of the mass appraisal results) are briefly summarized below:

- **Standard 5-1:** Establishes the appraiser's technical and ethical framework. Specifically, appraisers must recognize and use established principles, methods and techniques of appraisal in a careful manner while not committing substantial errors of fact or negligence that would materially affect the appraisal results and not give a credible estimate of fair market value. To this end appraisers must continuously improve his or her skills to maintain proficiency and keep abreast of any new developments in the real and personal property appraisal profession. This Standards does not imply that competence requires perfection, as perfection is impossible to attain. Instead, it requires appraisers to employ every reasonable effort with regards to due diligence and due care.
- **Standard 5-2:** Defines the introductory framework requirements of developing a mass appraisal, focusing on the identification and/or definition of: client(s), intended users, effective date, appraisal perspective, scope of work, extraordinary assumptions, hypothetical conditions, the type and definition of value being developed (typically "fair market value" for ad valorem tax purposes), characteristics of the property being appraised in relation to the type and definition of value and intended use, the characteristics of the property's market, the property's real or personal attributes, fractional interest applicability, highest and best use analysis along with other land-related considerations, and any other economic considerations relevant to the property.
- **Standard 5-3:** Defines requirements for developing and specifying appropriate mass appraisal data and elements applicable for real and personal property. For real property, the data and elements include: existing land use regulations, reasonably probable modification of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use analysis. For personal property, the relevant data and elements include: identification of industry trends, trade level, highest and best use, and recognition of the appropriate market consistent with the type and definition of value.
- **Standard 5-4:** Further defines requirements for developing mass appraisal models, focusing on development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration. This rule specifies that appraisers employ recognized techniques for specifying and calibrating mass appraisal models. Model specification is the formal development of a model in a statement or mathematical equation, including all due considerations for physical, functional, and external market factors as they may affect the appraisal. These models must accurately represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation. Models may be specified incorporating the income, market, and/or cost approaches to value and may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics such as adaptive estimation. Model calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model.
- **Standard 5-5:** Defines requirements for collection of sufficient factual data, in both qualitative and quantitative terms, necessary to produce credible appraisal results. The property characteristics collected must be contemporaneous with the effective date of the appraisal. The data collection program should incorporate a quality control procedure, including checks and audits of the data to ensure current and consistent records. This rule also calls for calls for an appraiser, in developing income and expense statements and cashflow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction. Terms and conditions of any leases should be analyzed, as well as the need for and extent of any physical inspection of the properties being appraised.

- **Standard 5-6:** Defines requirements for application of a calibrated model to the property being appraised. This rule calls for: the appraiser to recognize methods or techniques based on the cost, market, and income approaches for improved parcels; the appraiser to value sites by recognized methods or techniques such as allocation method, abstraction method, capitalization of ground rent, and land residual; the appraiser to develop value of leased fee or leasehold estates with consideration for terms and conditions of existing leases, and, when applicable by law, as if held in fee simple whereas market rents are substituted for actual contract rents; the appraiser to analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the appraiser to analyze anticipated public or private improvements located on or off the site, and analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.
- **Standard 5-7:** Defines the reconciliation process of a mass appraisal. Specifically, appraisers must analyze the results and/or applicability of the various approaches used while ensuring that, on an overall basis, standards of reasonableness and accuracy are maintained with the appraisal model selected (underline added for emphasis). It is implicit in mass appraisal that, even when properly specified and calibrated models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. Appraisers have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy.
- **Standard 6-1:** Defines general requirements of a mass appraisal written report by addressing the level of information required that will allow the report to be non-misleading, clearly understood, and sufficiently qualified with any assumptions and conditions (elements of which are further detailed in the next three sections of this report that discuss P&A appraisal procedures with regards to specific categories of property).
- **Standard 6-2:** Defines specific content required to be included in a mass appraisal written report.
- **Standard 6-3:** Defines the certification of the mass appraisal written report.

The following sections of this report discuss in more detail the various elements of the development of P&A's mass appraisals and associated written reports as required by USPAP Standards 5 and 6, with regards to P&A appraisal of Mineral Interests, Industrial, Utility, Related Personal Property, and Real Estate.

USPAP STANDARDS 5, 6-1, 6-2: MASS APPRAISAL OF MINERAL INTERESTS

INTRODUCTION

Definition of Appraisal Responsibility (Scope of Effort): The Mineral Valuation Department of Pritchard & Abbott, Inc. ("P&A" hereinafter), is responsible for developing credible values for mineral interests (full or fractional percentage ownership of oil and gas leasehold interest, the amount and type of which are legally and/or contractually created and specified through deeds and leases, et.al.) associated with producing (or capable of producing) leases. Mineral interests are typically considered real property because of their derivation from the bundle of rights associated with original fee simple ownership of land. Typically all the mineral interests that apply to a single producing lease are consolidated by type (working vs. royalty) with each type then appraised for full value which is then distributed to the various fractional decimal interest owners prorata to their individual type and percentage amount.

P&A's typical client is a governmental entity charged with appraisal responsibility for ad valorem tax purposes, although other types of clients (private businesses, individuals, etc.) occasionally contract for appraisal services which are strictly for various non-ad valorem tax purposes so that no conflicts of interest are created with P&A's core ad valorem tax work.

P&A hereby makes the assumption that, in all appraisal assignments performed for governmental entities in satisfaction of contractual obligations related to ad valorem tax, the client does not wish to or cannot legally request the appraisal report not identify the client.

Intended users of our reports are typically the client(s) for which we are under direct contract. Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. **A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

This section of P&A's USPAP report is not applicable to any mineral or mineral interest property that an appraisal district appraises outside of P&A's appraisal services, in which case the appraisal district's overall USPAP report should be referenced.

P&A makes the **Extraordinary Assumption** that all properties appraised for ad valorem tax purposes are marketable whereas ownership and title to property are free of encumbrances and other restrictions that would affect fair market value to an extent not obvious to the general marketplace. If and/or when we are made aware of any encumbrances, etc., these would be taken into account in our appraisal in which case the extraordinary assumption stated above would be revoked.

P&A is typically under contract to determine current market value or "fair market value" of said mineral interests. Fair market value is typically described as the price at which a property would sell for if:

- exposed in the open market with a reasonable time for the seller to find a purchaser;

- both the buyer and seller know of all the uses and purposes to which the property is, or can be, adapted and of the enforceable restrictions on its use; and
- both the buyer and seller seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other. [Exigencies are pressing or urgent conditions that leave one party at a disadvantage to the other.]

For ad valorem tax purposes the effective date is usually legislatively specified by the particular State in which we are working - for example, in Texas the lien date is January 1 per the Texas Property Tax Code. For ad valorem tax purposes, the date of the appraisals and reports are typically several months past the effective date, thereby leaving open the possibility that a retrospective approach is appropriate under limited and prescribed circumstances (information after the effective date being applicable only if it confirms a trend or other appraisal condition that existed and was generally known as of the effective date).

P&A believes this section of this report, in conjunction with any attached or separately provided P&A-generated report(s), meets the USPAP definition of “typical practice”; i.e., it satisfies a level of work that is consistent with:

- the expectations of participants in the market for the same or similar appraisal services; and
- what P&A’s peers’ actions would be in performing the same or similar appraisal services in compliance with USPAP.

Legal and Statutory Requirements: In Texas, the provisions of the Texas Property Tax Code and other relevant legislative measures involving appraisal administration and procedures control the work of P&A as an extension of the Appraisal District. Other states in which P&A is employed will have similar controlling legislation, regulatory agencies, and governmental entities. P&A is responsible for appraising property on the basis of its fair market value as of the stated effective date (January 1 in Texas) for ad valorem tax purposes for each taxing unit that imposes ad valorem taxes on property in the contracted Appraisal District. All mineral properties (interests) are reappraised annually. The definition of Fair Market Value is provided and promulgated for use in ad valorem tax work in Texas by the Texas Property Tax Code, and therefore as a **Jurisdictional Exception** supercedes the definition of “market value” as found in USPAP definitions.

NOTE: IN TEXAS, P&A BELIEVES THE PROPERTY BEING APPRAISED AND PLACED ON THE TAX ROLL IS THE INTEREST AND NOT THE OIL OR GAS MINERAL ITSELF, PER PROPERTY TAX CODE SECTION 1.04(2)(F). WHILE OIL AND GAS RESERVES CERTAINLY HAVE VALUE, THE FACT IS THAT IT IS THE INTERESTS IN THESE MINERALS THAT ARE BOUGHT AND SOLD, NOT THE MINERALS THEMSELVES. THE SALE OF MINERALS AS THEY ARE EXTRACTED FROM THE SUBSURFACE OF THE LAND WHERE THEY RESIDE AS MINERALS IN PLACE “MONETIZES” THE INTEREST AND THUS GIVES THE INTEREST ITS VALUE. WHENEVER P&A REFERS TO “MINERAL PROPERTIES” IN THIS REPORT OR IN ANY OTHER SETTING, IT IS THE MINERAL INTEREST, AND NOT THE MINERAL ITSELF, THAT IS THE SUBJECT OF THE REFERENCE.

Administrative Requirements: P&A endorses the principals of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures. P&A also endorses, and follows when possible, the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP). In all cases where IAAO and/or USPAP requirements cannot be satisfied for reasons of practicality or irrelevancy, P&A subscribes to “generally accepted appraisal methods and techniques” so that its value conclusions are credible and defensible. P&A submits annual or biannual contract bids to the Appraisal District Board of Directors or the Office of the Chief Appraiser and is bound to produce appraisal estimates on mineral properties within the cost constraints of said bid. Any appraisal practices and procedures followed by P&A not explicitly defined or allowed through IAAO or USPAP requirements are specified by the Texas Property Tax Code or at the specific request or direction of the Office of the Chief Appraiser.

Appraisal Resources

Personnel: The Mineral Valuation Division staff consists of competent Petroleum Engineers, Geologists, and Appraisers. All personnel are Registered Professional Appraisers with the State of Texas, or are progressing towards this designation within the allowable time frames prescribed by the Texas Department of Licensing and Regulation (TDLR) and/or other licensing and regulatory agencies as applicable.

Data: For each mineral property a common set of data characteristics (i.e. historical production, price and expense data) is collected from various sources and entered into P&A's mainframe computer system. Historical production data and price data is available through state agencies (Texas Railroad Commission, Texas Comptroller, et al.) or private firms who gather, format and repackage such data for sale commercially. Each property's characteristic data drives the computer-assisted mass appraisal approach to valuation.

Information Systems: The mainframe systems are augmented by the databases that serve the various in-house and 3rd-party applications on desktop personal computers. In addition, communication and dissemination of appraisals and other information is available to the taxpayer and client through electronic means including internet and other phone-line connectivity. The appraiser supervising any given contract fields many of the public's questions or redirects them to the proper department personnel.

VALUATION APPROACH (MODEL SPECIFICATION)

Concepts of Value: The valuation of oil and gas properties is not an exact science, and exact accuracy is not attainable due to many factors. Nevertheless, standards of reasonable performance do exist, and there are usually reliable means of measuring and applying these standards.

Petroleum properties are subject to depletion, and capital investment must be returned before economic exhaustion of the resource (mineral reserves). The examination of petroleum properties involves understanding the geology of the resource (producing and non-producing), type of reservoir energy, the methods of secondary and enhanced recovery (if applicable), and the surface treatment and marketability of the produced petroleum product(s).

Evaluation of mineral properties is a continuous process; the value as of the lien date merely represents a "snapshot" in time. The potential value of mineral interests derived from sale of minerals to be extracted from the ground change with mineral price fluctuation in the open market, changes in extraction technology, costs of extraction, and other variables such as the value of money.

Approaches to Value for Petroleum Property

Cost Approach: The use of cost data in an appraisal for market value is based upon the economic principle of substitution. The cost approach typically derives value by a model that begins with replacement cost new (RCN) and then applies depreciation in all its forms (physical depreciation, functional and economic obsolescence). This method is difficult to apply to oil and gas properties since lease acquisition and development may bear no relation to present worth. Though very useful in the appraisal of many other types of properties, the cost approach is not readily applicable to mineral properties. [Keep in mind that the property actually being appraised is the mineral interest and not the oil and gas reserves themselves. Trying to apply the cost approach to evaluation of mineral interests is like trying to apply the cost approach to land; it is a moot point because both are real properties that are inherently non-replaceable.] **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., does not employ the cost approach in the appraisal of mineral interests.**

Market Approach: This approach may be defined as one which uses data available from actual transactions recorded in the market place itself; i.e., sales of comparable properties from which a comparison to the subject property can be made. Ideally, this approach's main advantage involves not only an opinion but an opinion supported by the actual spending of money. Although at first glance this approach seems to more closely incorporate the aspects of fair market value per its classical definition, there are two factors that severely limit the usefulness of the market approach for appraising oil and gas properties. First, oil and gas property sales data is seldom disclosed (in non-disclosure states such as Texas); consequently there is usually a severe lack of market data sufficient for meaningful statistical analysis. Second, all conditions of each sale must be known and carefully investigated to be sure one does have a comparative indicator of value per fair market value prerequisites.

Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets in addition to oil and gas reserves are involved; this further complicates the analysis whereby a total purchase price must be allocated to the individual components - a speculative and somewhat arbitrary task at best. In the case of oil and gas properties, a scarcity of sales requires that every evidence of market data be investigated and analyzed. Factors relative to the sale of oil and gas properties are:

- current production and estimated declines forecast by the buyer;
- estimated probable and potential reserves;
- general lease and legal information which defines privileges or limitation of the equity sold;
- undeveloped potential such as secondary recovery prospects;
- proximity to other production already operated by the purchaser;
- contingencies and other cash equivalents; and
- other factors such as size of property, gravity of oil, etc.

In the event that all these factors are available for analysis, the consensus effort would be tantamount to performing an income approach to value (or trying to duplicate the buyer's income approach to value), thereby making the market approach somewhat moot in its applicability. **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., rarely employs a rigorous application of the market approach in the appraisal of mineral interests.**

Income Approach: This approach to value most readily yields itself to the appraisal of mineral interests. Data is readily available whereby a model can be created that reasonably estimates a future income stream to the property. This future income may then be converted (discounted) into an estimate of current value. Many refer to this as a capitalization method, because capitalization is the process of converting an income stream into a capital sum (value). As with any method, the final value is no better than the reliability of the input data. The underlying assumption is that people purchase the property for the future income the property will yield. If the land or improvements are of any residual value after the cessation of oil and gas production, that value should also be included (if those components are also being appraised).

The relevant income that should be used is the expected future net income. Assumptions of this method are:

- Past income and expenses are not a consideration, except insofar as they may be a guide to estimating future net income.
- That the producing life as well as the reserves (quantity of the minerals) are estimated for the property.
- Future income is less valuable than current income, and so future net income must be discounted to make it equivalent to the present income. This discount factor reflects the premium of present money over future money, i.e., interest rate, liquidity, investment management, and risk.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., relies predominantly on the income approach to value in the appraisal of mineral interests.

DATA COLLECTION/VALIDATION

Sources of Data: The main source of P&A's property data is data from the Railroad Commission of Texas as reported by operators. As a monthly activity, the data processing department receives data tapes or electronic files which have updated and new well and production data. Other discovery tools are fieldwork by appraisers, financial data from operators, information from chief appraisers, tax assessors, trade publications and city and local newspapers. Other members of the public often provide P&A information regarding new wells and other useful facts related to property valuation.

Another crucial set of data to obtain is the ownership of these mineral interests. Typically a mineral lease is fractionated and executed with several if not many owners. This information is typically requested (under a promise of confidentiality concerning owners' personal information) from pipeline purchasers and/or other entities (such as operators) who have the responsibility of disbursing the income to the mineral interest owners. Another source of ownership information is through the taxpayers themselves who file deeds of ownership transfer and/or correspond with P&A or the appraisal district directly.

Data Collection Procedures: Electronic and field data collection requires organization, planning and supervision of the appraisal staff. Data collection procedures for mineral properties are generally accomplished globally by the company; i.e., production and price data for the entire state is downloaded at one time into the computer system. Appraisers also individually gather and record specific and particular information to the appraisal file records, which serves as the basis for the valuation of mineral properties. P&A is divided into four district offices covering different geographic areas. Each office has a district manager, appraisal and ownership maintenance staff, and clerical staff as appropriate. While overall standards of performance are established and upheld for the various district offices, quality of data is emphasized as the goal and responsibility of each appraiser.

VALUATION ANALYSIS (MODEL CALIBRATION)

Appropriate revisions and/or enhancements of schedules or discounted cash flow software are annually made and then tested prior to the appraisals being performed. Calibration typically involves performing multiple discounted cash flow tests for leases with varying parameter input to check the correlation and relationship of such indicators as: Dollars of Value Per Barrel of Reserves; Dollars of Value Per Daily Average Barrel Produced; Dollars of Expense Per Daily Average Barrel Produced; Years Payout of Purchase Price (Fair Market Value). In a more classical calibration procedure, the validity of values by P&A's income approach to value is tested against actual market transactions, if and when these transactions and verifiable details of these transactions are disclosed to P&A. Of course these transactions must be analyzed for meeting all requisites of fair market value definition. Any conclusions of this analysis are then compared to industry benchmarks for reasonableness before being incorporated into the calibration procedure.

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's discounted cashflow software dynamically generates various benchmark indicators that the appraiser reviews concurrent with the value being generated. These benchmarks often prompt the appraiser to reevaluate some or all of the parameters of data

entry so as to arrive at a value more indicative of industry standards. Examples of indicators are dollars of value per barrel of oil reserve, years payout, etc. In addition to appraiser review, taxpayers are afforded the opportunity to review the appraised values, either before or after Notices of Appraised Value are prepared. Operators routinely meet with P&A's appraisers to review parameters and to provide data not readily available to P&A through public or commercial sources, such as individual lease operating expense and reserve figures. And of course, all property values are subject to review through normal protest and Appraisal Review Board procedures, with P&A acting as an extension of the Office of the Chief Appraiser.

PERFORMANCE TESTS

An independent test of the appraisal performance of properties appraised by P&A is conducted by the State of Texas Comptroller's Office through the annual Property Value Study for school funding purposes. This study determines the degree of uniformity and the median level of appraisal for mineral properties. School jurisdictions are given an opportunity to appeal any preliminary findings. After the appeal process is resolved, the Comptroller publishes a report of the findings of the study, including in the report the median level of appraisal, the coefficient of dispersion around the median level of appraisal and any other standard statistical measures that the Comptroller considers appropriate.

USPAP STANDARDS 5, 6-1, 6-2: MASS APPRAISAL OF INDUSTRIAL, UTILITY AND RELATED PERSONAL PROPERTY

INTRODUCTION

Definition of Appraisal Responsibility: The Engineering Services Department of Pritchard & Abbott, Inc. (P&A) is responsible for developing fair and uniform market values for industrial, utility and personal properties.

P&A's typical client is a governmental entity charged with appraisal responsibility for ad valorem tax purposes, although other types of clients (private businesses, individuals, etc.) occasionally contract for appraisal services which are strictly for various non-ad valorem tax purposes so that no conflicts of interest are created with P&A's core ad valorem tax work.

P&A hereby makes the assumption that, in all appraisal assignments performed for governmental entities in satisfaction of contractual obligations related to ad valorem tax, the client does not wish to or cannot legally request the appraisal report not identify the client.

Intended users of our reports are typically the client(s) for which we are under direct contract. Although taxpayers or their agents who own and/or represent the subject property being appraised often receive these reports either by law or as a courtesy of the client or P&A, this receipt does not mean these parties automatically become Intended Users as defined by USPAP. **A party receiving a copy of a report in order to satisfy disclosure requirements does not become an intended user of the appraisal or mass appraisal unless the appraiser specifically identifies such party as an intended user.** Potential other users include parties involved in adjudication of valuation disputes (review board members, lawyers, judges, etc.), governmental agencies which periodically review our appraisals for various statutory purposes (such as the Texas Comptroller's Office) and private parties who may obtain copies of our appraisals through Open Records Requests made to governmental agencies.

P&A believes this section of this report, in conjunction with any attached or separately provided P&A-generated report(s), meets the USPAP definition of "typical practice"; i.e., it satisfies a level of work that is consistent with:

- the expectations of participants in the market for the same or similar appraisal services; and
- what P&A's peers' actions would be in performing the same or similar appraisal services in compliance with USPAP.

This section of P&A's USPAP report is not applicable to any Industrial, Utility, or related Personal Property that an appraisal district appraises outside of P&A's appraisal services, in which case the appraisal district's overall USPAP report should be referenced.

P&A makes the **Extraordinary Assumption** that all properties appraised for ad valorem tax purposes are marketable whereas ownership and title to property are free of encumbrances and other restrictions that would affect fair market value to an extent not obvious to the general marketplace. If and/or when we are made aware of any encumbrances, etc., these would be taken into account in our appraisal in which case the extraordinary assumption stated above would be revoked.

Legal and Statutory Requirements: The provisions of the Texas Property Tax Code and relevant legislative measures involving appraisal administration and procedures control the work of P&A as a subcontractor to the

Appraisal District. P&A is responsible for appraising property on the basis of its market value as of January 1 for ad valorem tax purposes for each taxing unit that imposes ad valorem taxes on property in the contracted Appraisal District. All industrial, utility and personal properties are reappraised annually. The definition of Fair Market Value is provided and promulgated for use in ad valorem tax work in Texas by the Texas Property Tax Code, and therefore as a **Jurisdictional Exception** supercedes the definition of "market value" as found in USPAP definitions.

Administrative Requirements: P&A follows generally accepted and/or recognized appraisal practices and when applicable, the standards of the International Association of Assessing Officers (IAAO) regarding its appraisal practices and procedures. P&A, when applicable, also subscribes to the standards promulgated by the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practice (USPAP). P&A submits annual or biannual contract bids to the Office of the Chief Appraiser and is bound to produce appraisal estimates on industrial, utility and personal properties within the cost constraints of said bid. Any appraisal practices and procedures followed by P&A not explicitly defined through IAAO or USPAP requirements are specified by the Texas Property Tax Code and/or at the specific request or direction of the Office of the Chief Appraiser.

Appraisal Resources

Personnel: The Engineering Services Department and P&A's appraisal staff consists of appraisers with degrees in engineering, business and accounting. All personnel are Registered Professional Appraisers with the State of Texas, or are progressing towards this designation as prescribed by the Texas Department of Licensing and Regulation (TDLR).

Data: A set of data characteristics (i.e. original cost, year of acquisition, quantities, capacities, net operating income, property description, etc.) for each industrial, utility and personal property is collected from various sources. This data is maintained in either hard copy or computer files. Each property's characteristic data drives the appropriate computer-assisted appraisal approach to valuation.

Information Systems: P&A's mainframe computer system is composed of in-house custom software augmented by schedules and databases that reside as various applications on personal computers (PC). P&A offers a variety of systems for providing property owners and public entities with information services.

VALUATION APPROACH (MODEL SPECIFICATION)

Concepts of Value: The valuation of industrial, utility and personal properties is not an exact science, and exact accuracy is not attainable due to many factors. These are considered complex properties and some are considered Special Purpose properties. Nevertheless, standards of reasonable performance do exist, and there are reliable means of measuring and applying these standards.

The evaluation and appraisal of industrial, utility and personal property relies heavily on the discovery of the property followed by the application of recognized appraisal techniques. The property is subject to inflation and depreciation in all forms. The appraisal of industrial and personal property involves understanding petroleum, chemical, steel, electrical power, lumber and paper industry processes along with a myriad of other industrial processes. Economic potential for this property usually follows either the specific industry or the general business economy. The appraisal of utility properties involves understanding telecommunications, electrical transmission and distribution, petroleum pipelines and the railroad industry. Utility properties are subject to regulation and

economic obsolescence. The examination of utility property involves the understanding of the present value of future income in a regulated environment.

The goal for valuation of industrial, utility and personal properties is to appraise all taxable property at "fair market value". The Texas Property Tax Code defines Fair Market value as 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 purchaser 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 purchaser seek to maximize their gains and neither is in a position to take advantage of the exigencies of the other.

Approaches to Value for Industrial, Utility, and Personal Property

Cost Approach: The use of cost data in an appraisal for market value is based upon the economic principle of substitution. This method is most readily applicable to the appraisal of industrial and personal property and some utility property. Under this method, the market value of property equals the value of the land plus the current cost of improvements less accrued depreciation. An inventory of the plant improvements and machinery and equipment is maintained by personally inspecting each facility every year. **As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., relies predominantly on the cost approach to value in the appraisal of industrial, utility, and personal property.**

Market Approach: This approach is characterized as one that uses sales data available from actual transactions in the market place. There are two factors that severely limit the usefulness of the market approach for appraising industrial, utility and personal properties. First, the property sales data is seldom disclosed; consequently there is insufficient market data for these properties available for meaningful statistical analysis. Second, all conditions of sale must be known and carefully investigated to be sure one does have a comparative indicator of value. Many times when these properties do change hands, it is generally through company mergers and acquisitions where other assets and intangibles in addition to the industrial, utility and personal property are involved. The complexity of these sales presents unique challenges and hindrances to the process of allocation of value to the individual components of the transaction.

In the case of industrial, utility and personal properties, a scarcity of sales requires that all evidence of market data be investigated and analyzed. Factors relative to the sale of these properties are:

- plant capacity and current production; terms of sale, cash or equivalent;
- complexity of property;
- age of property;
- proximity to other industry already operated by the purchaser; and
- other factors such as capital investment in the property.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., rarely employs a rigorous application of the market approach in the appraisal of industrial, utility, and personal property.

Income Approach: This approach to value most readily yields itself to all income generating assets, especially utility properties. Data for utility properties is available from annual reports submitted to regulatory agencies

whereby future income may be estimated, and then this future income may be converted into an estimate of value. The valuation of an entire company by this method is sometimes referred to as a Unit Value. Many refer to this as a capitalization method, because capitalization is the process of converting an income stream into a capital sum (value). As with any method, the final value estimate is no better than the reliability of the input data. The underlying assumption is that people purchase the property for the future income the property will yield.

The relevant income that should be used in the valuation model is the expected future net operating income after depreciation but before interest expense (adjustments for Federal Income Taxes may or may not be required). Assumptions of this method are:

- Past income and expenses are a consideration, insofar as they may be a guide to future income, subject to regulation and competition.
- The economic life of the property can be estimated.
- The future production, revenues and expenses can be accurately forecasted. Future income is less valuable than current income, and so future net income must be discounted to make it equivalent to the present income. This discount factor reflects the premium of present money over future money, i.e., interest rate, liquidity, investment management, and risk.

As a general rule, and for the reasons stated above, Pritchard & Abbott, Inc., employs the income approach in the appraisal of industrial and utility property only when quantifiable levels of income are able to be reliably determined and/or projected for the subject property. P&A does not employ the income approach in the appraisal of personal property.

DATA COLLECTION/VALIDATION

Sources of Data: The main source of P&A's property data for industrial and personal property is through fieldwork by the appraisers and commercially/publicly available schedules developed on current costs. Data for performing utility appraisals is typically provided by the taxpayer or is otherwise available at various regulatory agencies (Texas Railroad Commission, Public Utilities Commission, FERC, et. al.). Other discovery tools are financial data from annual reports, information from chief appraisers, renditions, tax assessors, trade publications and city and local newspapers. Other members of the public often provide P&A information regarding new industry and other useful facts related to property valuation.

Data Collection Procedures: Electronic and field data collection requires organization, planning and supervision of the appraisal staff. Data collection procedures have been established for industrial and personal properties. Appraisers gather and record information in the mainframe system, where customized programs serve as the basis for the valuation of industrial, utility and personal properties. P&A is divided into multiple district offices covering different geographic zones. Each office has a district manager and field staff. While overall standards of performance are established and upheld for the various district offices, quality of data is emphasized as the goal and responsibility of each appraiser. Additionally, P&A's Engineering Services Department provides supervision and guidance to all district offices to assist in maintaining uniform and consistent appraisal practices throughout the company.

VALUATION ANALYSIS (MODEL CALIBRATION)

The validity of the values by P&A's income and cost approaches to value is tested against actual market transactions, if and when these transactions and verifiable details of the transactions are disclosed to P&A. These transactions are checked for meeting all requisites of fair market value definition. Any conclusions from this analysis are also compared to industry benchmarks before being incorporated in the calibration procedure. Appropriate revisions of cost schedules and appraisal software are annually made and then tested for reasonableness prior to the appraisals being performed.

INDIVIDUAL VALUE REVIEW PROCEDURES

Individual property values are reviewed several times in the appraisal process. P&A's industrial, utility, personal property programs and appraisal spreadsheets afford the appraiser the opportunity to review the value being generated. Often the appraiser is prompted to reevaluate some or all of the parameters of data entry so as to arrive at a value more indicative of industry standards. Examples of indicators are original cost, replacement cost, service life, age, net operating income, capitalization rate, etc. In addition to appraiser review, taxpayers are afforded the opportunity to review the appraised values either before or after Notices of Appraised Value are prepared. Taxpayers, agents and representatives routinely meet with P&A's appraisers to review parameters and to provide data not readily available to P&A through public or commercial sources, such as investment costs and capitalization rate studies. And of course, all property values are subject to review through normal protest and Appraisal Review Board procedures, with P&A acting as a representative of the Office of the Chief Appraiser.

PERFORMANCE TESTS

An independent test of the appraisal performance of properties appraised by P&A is conducted by the State of Texas Comptroller's Office through the annual Property Value Study for school funding purposes. This study determines the degree of uniformity and the median level of appraisal for utility properties. School jurisdictions are given an opportunity to appeal any preliminary findings. After the appeal process is resolved, the Comptroller publishes a report of the findings of the study, including in the report the median level of appraisal, the coefficient of dispersion around the median level of appraisal and any other standard statistical measures that the Comptroller considers appropriate.