

# Hardin County Appraisal District 2021 Mass Appraisal Report

Prepared for the Taxing Entities and General  
Public of Hardin County, Texas

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# INTRODUCTION

The purpose of this report is to aid the taxpaying public in obtaining a better understanding of the methods and techniques utilized by the Hardin County Appraisal District (HCAD) in the valuation and reappraisal of all taxable property within Hardin County.

## **Appraisal District Overview**

The Hardin County Appraisal District is a political subdivision of the State of Texas. The jurisdictional boundary of the appraisal district encompasses 1,089 square miles. The Constitution of the State of Texas, the Texas Property Tax Code, and the Rules of the Texas Comptroller's Property Assistance Division govern the legal, statutory, and administrative requirements of the appraisal district.

The appraisal district is responsible for the local property tax appraisal and exemption administration for 20 jurisdictions or taxing units in the county. Each taxing unit such as the county, a city, school district, municipal utility district, etc., sets its own tax rate to generate revenue to pay for such things as police and fire protection, public schools, road and street maintenance, courts, water and sewer systems, and other public services. Appraisals established by the appraisal district allocate the year's tax burden on the basis of each taxable property's January 1 market value. The appraisal district is also responsible for determining eligibility for various types of property tax exemptions such as those for homeowners, the elderly, disabled veterans, and charitable and religious organizations.

## **Personal Resources**

A five member board of directors appointed by the taxing units within the boundaries of Hardin County constitutes the district's governing body. The chief appraiser, appointed by the board of directors of the appraisal district, is the chief administrative and executive officer of the district. The chief appraiser employs and directs the district's staff, oversees all aspects of the district's operations and performs either directly or through the district's staff a variety of legal operations. The chief appraiser may employ temporary services, legal services, consulting services or private appraisal services as needed to perform his/her duties.

The HCAD appraisal staff consists of the Chief Appraiser, Appraiser Supervisor, Office Manager, Appraisers, Customer Service, GIS Data Processing, and other support type personnel. HCAD currently employs 7 registered professional appraisers. At this time HCAD does not provide collection services; however, the CAD does provide technical support to the taxing units it serves.

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 inspections. Each appraiser is trained in the use of the Hardin County Appraisal District's appraisal manual, appraisal techniques, and methodology in the use of this information. In order to be aware of, understand, and correctly employ recognized methods and techniques necessary to produce a credible mass appraisal, the appraisal staff stays abreast of current trends through review of published materials, attendance of conferences, seminars, in-house/in-service training, and continuing education sessions.

The appraisers are subject to the provisions of the Property Taxation Professional Certification Act and must be duly registered with the Texas Department of Licensing and Regulation (TDLR). The TDLR has adopted the following Code of Ethics to be sworn and subscribed to by all those licensed by the Department. The Code of Ethics is printed in a form prescribed by the department and after being sworn and subscribed to by each applicant seeking registration, is filed as a permanent portion of the record of each applicant for licensing.

## Code of Ethics

Registrants must:

- Be guided by the principle that property taxation should be fair and uniform, and apply all laws, rules, methods, and procedures in a uniform manner, to all taxpayers;
- Not accept or solicit any gift, favor, or service that might reasonably tend to influence me in the discharge of official duties, with the following exceptions:
  - o The benefit is used solely to defray the expenses that accrue in the performance of duties or activities in connection with the office which are nonreimbursable by the state or political subdivision;
  - o A political contribution as defined by Title 15 of the Election Code; or
  - o An item with a value of less than \$50, excluding cash or a negotiable instrument;
- Not use information received in connection with my duties as an appraiser, assessor, or collector for my own purposes or for my own gain, unless such information can be known by ordinary means to any ordinary citizen;
- Engage in an official act that is dishonest, misleading, fraudulent, deceptive, or in violation of law;
- Not conduct my professional duties in a manner that could reasonably be expected to create the appearance of impropriety;
- Not accept an appraisal, assessment, or collection related assignment that can reasonably be construed as being in conflict with my responsibility to the Hardin County Appraisal District, my employer or client, or in which I have an unrevealed personal interest or bias; and
- Not accept an assignment or responsibility in which I have a personal interest without full disclosure of that interest.

The Hardin County Appraisal District contracts with Pritchard and Abbott, Inc. to appraise industrial real and personal properties, utility properties, and natural resource properties.

## Educational Requirements

The Texas Department of Licensing and Regulations (TDLR) requirements for certification of appraisers consist of educational requirements under time allotments. Successful completions of educational courses as well as level examinations are mandatory. After appraisers have completed the Level 4 examination and the number of hours of experience has been met, a designation of RPA, Registered Professional Appraiser, is awarded. The appraiser must then re-certify every 24 months from the date of the first certification while registered. Re-certification consists of obtaining 30 continuing education units (CEU's) annually.

TDLR's requirements for an appraiser certification are as follows:

**Class 2** (must be completed within 12 months of becoming registered as Class 1 Appraiser):

- 32 hours of Basics of Texas Property Tax System
- 8 hours of Professional Ethics

**Class 3** (must be completed within 36 months of becoming registered as a Class 1 Appraiser):

- 18 hours of Income Approach to Value

- 15 hours of Uniform Standards of Professional Appraisal Practices (USPAP)
- 24 hours of Theory and Practice of Appraisal of Real Property
- Class 3 Examination

**Class 4 RPA** (must be completed within 60 months of becoming registered as a Class 1 Appraiser and can not be earned until the registrant has 36 months of experience as an Appraiser registrant.)

- 18 hours in Analyzing Real Property Appraisal
- 16 hours in Texas Property Tax Law
- 18 hours in Mass Appraisal
- 3.5 hours in USPAP (if no USPAP within 2 years)
- Class 4 Examination

### **Information Systems**

The district’s software vendor, Pritchard and Abbott, develops and maintains software for the district with a CAMA system (computer assisted mass appraisal) which contains cost and depreciation schedules that utilize common data elements to assist in creating base values. The district’s website and information technology interfaces are designed and maintained by BIS Consultants.

### **Record Keeping**

Hardin County Appraisal is responsible for establishing and maintaining approximately 60,017 real and personal property accounts covering the entirety of Hardin County. The data includes property ownership, location, description characteristics, and exemption information.

Retention periods for documents including appeal records, appraisal cards, appraisal correspondence, appraisal field notes, appraisal monitoring documentation, appraisal rolls, amendments and notices, and litigation information are required by the State of Texas. These requirements differ from the record keeping requirements of the USPAP; therefore a JURISDICTIONAL EXCEPTION applies. The District’s board of directors has chosen the Texas State Library and Archives Commission’s rules on records retention as its policy. A copy of this policy can be obtained from the chief appraiser.

*Pursuant to Local Government Code Sec. 203.041—Texas State Library and Archives Commission SLR 500 (2/9.3), original filing July 28, 1994, Page 6 of 45.*

### **Taxing Jurisdictions**

The Hardin County Appraisal District is responsible for appraising all properties within the county boundaries. This area includes the following jurisdictions:

- |                      |                                |
|----------------------|--------------------------------|
| Hardin County        | City of Rose Hill Acres        |
| Kountze ISD          | Lumberton MUD                  |
| Silsbee ISD          | Hardin County WCID             |
| Hardin Jefferson ISD | Hardin County ESD #1 (Kountze) |

Lumberton ISD	Hardin County ESD #2 (Lumberton)
West Hardin ISD	Hardin County ESD #3 (Saratoga)
Warren ISD	Hardin County ESD #4 (Batson)
City of Kountze	Hardin County ESD #5 (Sour Lake)
City of Sour Lake	Hardin County ESD #6 (Silsbee)
City of Silsbee	Hardin County ESD #8 (Warren)

## Scope of the Appraisal

### Purpose and Intended Use

Hardin County Appraisal District is charged with the appraisal of all real estate and tangible personal property, unless specifically exempted, within its jurisdiction. As directed by the Texas Property Tax Code, “except as otherwise provided...all taxable property is appraised at its full “market value” as of January 1. This is to be done in an equitable and efficient manner and to be used for ad valorem tax purposes in accordance with said laws of the State of Texas.

### Market Value

Market value as defined by the Texas Property Tax Code differs from the definition used by USPAP; therefore, a JURISDICTIONAL EXCEPTION applies.

The following is the definition of market value as found in Section 1.04 of the Texas Property Tax Code:

“Market value means the price at which a property would transfer for cash or its equivalent under prevailing market conditions if:

- Exposed for sale in the open market with a reasonable time for the seller to find a purchaser; and
- Both the seller and 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.

The purpose of and intended use of the appraisals performed by the Hardin County Appraisal District is to estimate market value for ad valorem tax purposes for the taxing entities it serves.

### Administrative Requirements

This mass appraisal was conducted in accordance with the 2021-2022 Hardin County Appraisal District reappraisal plan and the methods and procedures described in the Appraisal Manual and Procedures Manual of the district. Furthermore, the district subscribes to the standards of the Appraisal Foundation known as the Uniform Standards of Professional Appraisal Practices (USPAP) in accordance with Section 23.01(b) of the Texas Property Tax Code.

### Property Rights Appraised

Most properties are appraised as fee simple interest unless otherwise required by the Texas Property Tax Code. Restrictions, easements, encumbrances, etc., however, are considered on an individual basis. Fractional

interests or partial holdings are appraised in fee simple for the total property and divided proportional based on the pro-rated interests. Fee simple estate is defined by the Dictionary of Real Estate, 2nd Ed. (published by the Appraisal Institute) as: “an absolute ownership unencumbered by any other interest of estate subject only to the four powers government.” In some properties where existing leases are in place, the Fee Simple interest is appraised subject to leasehold.

### **General Assumptions and Limiting Conditions**

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

- The appraisals were prepared exclusively for ad valorem tax purposes.
- All property is appraised as if free and clear of any or all liens or encumbrances unless otherwise stated. All taxes are assumed to be current.
- No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to any property is assumed to be good and marketable unless otherwise stated.
- Assumptions made in the report are based on the best knowledge and judgment of the appraiser and are believed to be typical of the market.
- The property characteristics data upon which the appraisal is based are assumed to be correct.
- Physical inspections of the property appraised were performed as staff resources and time allowed. Inspections were also performed using aerial photography.
- Any drawings, photographs, plans or plats are assumed to be correct and are included solely to assist in visualizing the property.
- No responsibility is assumed for hidden or unapparent conditions in the property that may affect its value.
- All property is appraised as though under responsible, adequately capitalized ownership and competent property management.
- It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined and considered in this mass appraisal report.
- It is assumed that all applicable zoning and use regulations and restrictions have been complied with unless nonconformity has been stated, defined and considered in this mass appraisal report.
- It is assumed that all required licenses, certificates of occupancy, consents or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- It is assumed that the utilization of the land and improvements of the properties described are within the boundaries or property lines, and that there are no encroachments or trespasses unless noted on the appraisal record.
- Unless otherwise stated in this report, the appraiser is not aware of the existence of hazardous substances or other environmental conditions. The value estimates are predicated on the assumption that there is no such condition on or in the property or in such proximity thereto that it would cause a loss in value. No responsibility is assumed for any such condition, or for any expertise or engineering knowledge required to discover them.

## **Effective Date of Appraisal and Date of the Report**

With the exception of certain inventories for which the property owner has elected a valuation date of September 1, 2020, all appraisals are as of January 1, 2021. The Date of this report is October 12, 2021.

## **Documentation for Mass Appraisal**

The documentation for this report is contained in the appraisal records, property cards, appraisal and procedures manuals, sales ratio studies and supporting data maintained by Hardin County Appraisal District.

# **VALUATION PROCESS**

## **Property Identification**

Hardin County Appraisal District field cards and appraisal records identify properties by account numbers, address (when applicable), current owner's name and property description.

The account numbers are twelve (12) digit numbers, formatted as xxxxxx-xxxxxx. Account numbers consists of a six digit subdivision number which identifies the subdivision or abstract in which the properties are located, and a six digit sequential number that identifies individual properties within the subdivision or abstract. A random number is also generated by the computer system and assigned to each property.

The physical address (situs address) is listed when this information is known. Some properties , such as unimproved land, may state only the street name. Appraisers are constantly updating situs addresses, as they become available.

Hardin County Appraisal District's field cards provide a brief description due to limited space. This description may be a full legal description or it may be abbreviated form. The County Clerk's office provides our office with deed records twice a month to update ownership and to assist our mapping department with updating our map records throughout the county.

## **Area Analysis**

Data concerning construction costs and trends, sales prices, availability of properties, and overall real estate market conditions are collected from various private and public sources.

The subject properties are located in a region known as the Big Thicket area of Southeast East Texas. Increasing growth in local and regional economies in the greater Golden Triangle (Beaumont) area to the south, have contributed to a strong demand for real estate within the appraisal district.

Major sources of employment include state and local government, school districts and manufacturing facilities.

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.

Silsbee ISD is a combination of residential and commercial properties. Most of the residential properties are older, but in the last 10 years Silsbee ISD has seen a growth in their commercial properties.

Hardin Jefferson ISD is mostly minerals but in the past few of years has seen a tremendous drop in their mineral value. Hardin Jefferson has started to see a small growth in new residential and commercial construction recently.

Kountze ISD is a small community with no growth and mostly timber.

West Hardin CCISD is very rural. It is all timber and pasture with some minerals.

Warren ISD is mostly rural land with some older residential properties.

Rural accessible and improved acreage tracts of land remain relatively strong. Occupancy rates in multi-family units are stable. Commercial property for sale and rents and occupancy rates appear to be amply available but stable. It appears that many commercial properties will continue to be owner used rather than held for speculative development.

There is no zoning within Hardin County. There is no indication that additional land use regulations will be implemented in 2021.

### **Market Area Analysis**

Market area analysis involves the examination of how physical, economic, governmental, and social forces and other influences affect property values. The effects of these forces are used to identify, classify, and organize properties into smaller groups of properties known as neighborhoods.

The first step in market area analysis is to identify a group of properties that share certain common traits. A market area for analysis purposes is a grouping of properties where the physical, economic, governmental and social forces acting on the properties are generally uniform. Once a market area has been identified, the next step is to delineate its boundaries. Some of the factors considered include, but are not limited to, location, land use, building type, sales price range, quality of construction and conditions of improvements, and square footage of living area. Analyses have been made to note the degree of similarity in these factors and identify points where these characteristics change and note physical and other characteristics that coincide with these points so that market areas may be delineated. Finally, market area factors are applied to the delineated properties to appropriately adjust for forces influencing value within the market area.

Part of market area analysis is the consideration of discernible patterns of growth that will influence an area's individual market. Few areas are fixed in character. Areas may be characterized as being in a stage of growth,

older areas maintain their desirability due to the stability of the residential character. During the period of decline there is a diminished desirability and the general property use may begin changing to other uses.

Market area delineations and factors are periodically reviewed to determine if they continue to be warranted. Both general and specific data is collected and analyzed.

Sales information is received from various sources. These sources include various internet websites as well as local real estate appraisers, agents, and brokers. In addition to these sources, Hardin County Appraisal District receives CDs from the County Clerk's Office of all deeds at the Hardin County Clerk's Office. From the deed transactions, the District mails out a sales survey to the sellers/buyers to obtain additional sales information that may not be otherwise discovered.

## **Highest and Best Use**

The highest and best use of real estate is defined as the most reasonable and probable use of land that will generate the highest return to the property over a period of time. This use must be legal, physically possible, economically feasible, and the most profitable of the potential uses. An appraiser's identification of a property's highest and best use is always a statement of opinion, never a statement of fact.

In order to complete the highest and best use analysis of a property, an appraiser must estimate its highest and best use as if the land were vacant. This estimate ignores the value of and the restrictions created by any existing improvements. It is the highest value the land could have if it were available for any legal, physically possible and economically feasible kind of development.

In determining highest and best use, preliminary judgments are made in the field by appraisers. The appraisers are normally aware of zoning regulations within physical boundaries of the cities.

Hardin County Appraisal District appraisals contain information describing size and configuration of the property being appraised. Using this information during the field inspection assists the appraiser in determining any limitations to potential uses of the property. Economically feasible and most profitable uses are determined by observing surrounding property. However, changes in property use require a more detailed and technical highest and best use analysis. These studies are usually performed in the office.

Following is a list of property use codes currently used by Hardin County Appraisal District:

<b>A1</b>	SINGLE FAMILY RESIDENCE
<b>A2</b>	MOBILE HOME & LAND IF SAME OWNER OR MH/LAND ARE LISTED ON SEPARATE ACCOUNTS IN THE SAME NAME
<b>A4</b>	RESIDENTIAL HOME ONLY
<b>A5</b>	RESIDENTIAL IMPROVEMENTS ONLY
<b>B1</b>	MULTI-FAMILY RESIDENCE/APARTMENTS/CONDOS/DEPLEXES (However Duplexes that are owner-occupied & have a residential homestead exemption for the owner's portion are reported in Category A)
<b>C1</b>	REAL PROPERTY: VACANT LOTS AND TRACTS
<b>C1C</b>	REAL PROPERTY: COMMERCIAL VACANT LOTS AND TRACTS
<b>D1</b>	ALL ACREAGE AND TRACTS QUALIFIED WITH AG/TIMBER USE
<b>D2</b>	FARM AND RANCH IMPROVEMENTS ON QUALIFIED OPEN SPACE LAND
<b>E</b>	RURAL LAND, NOT QUALIFIED FOR OPEN-SPACE LAND
<b>E1</b>	RURAL LAND WITH RESIDENTIAL HOME, NOT QUALIFIED FOR OPEN-SPACE LAND
<b>E2</b>	RURAL LAND WITH MOBILE HOME, NOT QUALIFIED FOR OPEN-SPACE LAND
<b>F1</b>	ALL COMMERCIAL PROPERTY
<b>F2</b>	INDUSTRIAL PROPERTY
<b>G1</b>	OIL, GAS, AND MINERAL
<b>J</b>	REAL & PERSONAL PROPERTY OF UTILITY COMPANIES AND CO-OPS
<b>J1</b>	WATER SYSTEMS
<b>J2</b>	GAS DISTRIBUTION SYSTEMS
<b>J3</b>	ELECTRIC COMPANIES AND ELECTRIC CO-OPS
<b>J4</b>	TELEPHONE COMPANIES AND TELEPHONE CO-OPS

<b>J5</b>	RAILROADS (ROLLING STOCK)
<b>J6</b>	PIPELINES
<b>J7</b>	CABLE COMPANIES
<b>J8</b>	OTHER
<b>L1</b>	COMMERCIAL PERSONAL PROPERTY
<b>L2</b>	ALL INDUSTRIAL PERSONAL PROPERTY
<b>M1</b>	MOBILE HOMES ONLY
<b>O1</b>	REAL PROPERTY: RESIDENTIAL INVENTORY
<b>S1</b>	SPECIAL INVENTORY
<b>XB</b>	EXEMPT PROPERTY: INCOME PRODUCING TANGIBLE PERSONAL PROPERTY UNDER \$500
<b>XG</b>	EXEMPT PROPERTY: PRIMARILY PERFORMING CHARITABLE FUNCTIONS (EXAMPLE: MASONIC LODGE)
<b>XI</b>	EXEMPT PROPERTY: YOUTH SPIRITUAL, MENTAL, PHYSICAL DEVELOPMENT ORGANIZATIONS
<b>XN</b>	EXEMPT PROPERTY: MOTOR VEHICLES FOR PERSONAL USE
<b>XR</b>	EXEMPT PROPERTY: NON-PROFIT WATER OR WASTEWATER CORPORATION
<b>XV</b>	EXEMPT PROPERTY: OTHER EXEMPTIONS (Including public property, Religious Organizations, Charitable Organizations, Implements of Husbandry, & Other Property Not Reported Elsewhere)

## Collection of Field Data for Reappraisal

Hardin County Appraisal District currently conducts a countywide reappraisal on 3-year rotation. During the 2021 reappraisal period, all properties needing inspection were inspected and updated (if necessary) using either on-site field inspections or by using the District's Pictometry / GIS aerial photography. The latest photography was flown in January 2021. Each year new properties are inspected, measured, when necessary, and added to the appraisal roll. In addition, building permits throughout the County are obtained and changes to accounts are made as indicated. Individual properties are also reappraised due to changes to the condition of the property in instances such as fire, remodeling, or an addition or demolition of a portion of the improvement. Appraisers will perform detailed field inspections of properties if requested by the owner.

The district's appraisers perform reappraisal inspections in the "field" and in the office. Inspections performed in the office are done using the Pictometry aerial imagery and the district's Geographic Information System (GIS). Improvements are reviewed and then flagged for either further office review or a site review as warranted. While making site inspections, appraisers review the appraisal card to check to verify all structures are located and measured correctly, the age/depreciation on the structures, new constructions, condition, and changes observed by the appraiser.

## **Data Collection/Validation**

Hardin County Appraisal District cost and value schedules include land, residential improved, commercial improved, and person property. Data sources currently used by Hardin County Appraisal District include information from Marshall and Swift Valuation Services, cost data obtained from local contractors, and renditions provided by the property owners. Marshall and Swift Valuation Services is a national base cost manual and is generally accepted throughout the nation by the real estate appraisal industry. This cost manual is based on cost per unit or square foot and also used the unit in place method. The unit in place method involves the estimated cost by using actual building components. This national based cost information service provides the base price of buildings by classification with modifications for equipment and additional items. The District's schedule is then modified for time and location.

Local contractors and builders are another source of cost data utilized by Hardin County Appraisal District.

Rendition are confidential sources and cannot be used for specific information; however, data from renditions may be compared with data obtained from cost manuals and used to test schedules for accuracy.

Hardin County Appraisal District schedules are then formulated from a combination of each these sources. Schedules may also be modified for market data (sales information).

Data on individual properties is also collected from the field, compiled and analyzed. Buildings and other improvements are inspected in the field, measured, and classified. The appraiser estimates the age and condition of the improvements. This data is used to compile depreciation (loss of value) tables. Any notes pertaining to the improvement are made during the inspection.

Currently, single family dwellings are classified for quality of constructions from Class 1 to Class 7. Class 1 is the most basic of structures and Class 7 is a structure of excellent quality. Manufactured homes are classified as single or double wide along with size of mobile home. Benchmark properties along with their descriptions, attributes and photographs are maintained in the District's appraisal manual.

The age of buildings is based on effective age and is used to estimate depreciation. Effective age is the age of the property appears to be due to maintenance and upkeep. Effective age for a house that is properly maintained may be its actual or chronological age; however, if a structures suffers from deferred maintenance due to neglect, its effective age may be older than actual age. In contrast, if a house is an older structure and has been remodeled or updated, it effective age may be less than its actual age.

Depreciation is also estimated by condition of improvements. Conditions range from poor, fair, average, good, and excellent. Appraisers in the field usually inspect structures from exterior perspectives. The interior condition is assumed to be similar to the exterior. However, at the request of the taxpayer, an interior inspection may be made by an appointment. Foundation failure may occur in varying degrees and may also result in loss of value. Hardin County Appraisal District measures foundation failure and makes adjustment based on cost information from a local foundation contractors to repair foundations using concrete piers or other stabilization techniques.

## Valuation Analysis

Hardin County Appraisal District valuation schedules are divided into two primary classifications: Real and Personal Property. Real property schedules include site-built residential and manufactured homes. Commercial properties are appraised using Marshall and Swift Valuation, Inc. and the income approach when data is available. Miscellaneous special categories such as special inventory and agricultural land are appraised using different techniques, which will be addressed later in this report. Depreciation tables / schedules (loss of value schedules) are also included within these schedules. These tables are calibrated from cost data as well as sales data and are updated as needed. The Residential and Commercial Schedules are available upon request from the Appraisal District.

### Residential Schedules

Residential valuation schedules are cost-based tables modified by actual sales with the cost reflecting the actual replacement cost new of the subject property. Market research indicates that the common unit of comparison for new residential construction as well as sales existing housing is the price paid per square foot. The value of extra items is based on their contributory value to the property. This value may be estimated by the price per square or a value of the item as a whole. This data is extracted from the market by paired sales and conversations with local appraisers and brokers. These schedules were originally formulated from the cost of new residential construction due to the stability of the market. Then the schedules were tested against the Marshall and Swift valuation Service Residential Handbook. The District's appraisal manual includes benchmark properties showing photographs and descriptions which help each appraiser determine classification to be used on each subject property. Variables listed below are included in these descriptions.

The residential schedule is based on quality of construction, size of structure, age of structure, condition of structure, contributory value of extra items and land value. Each of these variables has a direct impact on the cost as well as the value of the property. Following is an example of the variables and how they may affect market value.

- **Quality of Construction**—Residential construction may vary greatly in quality of construction. The type of construction affects the quality and cost of the material used, the quality of the workmanship, as well as the attention in detailed. The cost of the value of the residential property will vary greatly depending on the quality of construction. As stated above Hardin County Appraisal District residential schedule currently classes houses based on quality of construction from Class 1 to Class 7+.
- **Size of Structure**—The size of a building also has direct impact on its cost as well as its value; the larger the building, the less the cost per square foot. Hardin County Appraisal District schedules are graduated in size increments from 100 to 200 square feet, depending on market conditions. Marshall and Swift Valuation Service also supports this size factor.
- **Stories**—The number of stories can also have an impact on a structure's cost. This is primarily due to the fact that foundation costs do not have to be included.
- **Age of Structure**—Hardin County Appraisal District's residential schedule is located in our Appraisal Manual. Estimated Economic Life of residential properties to be approximately 50 years. Properties in the 51 years and older bracket are given the maximum amount of depreciation. As stated above, effective age and chronological age may or may not be the same, depending on the condition of the structure.
- **Extra Items**—As stated above, extra items are values according to their contributory value to the whole. Examples of extra items include covered porches/patios, screened or enclosed porches, storage buildings,

swimming pools, fireplaces, generators, outdoor kitchens, and some instances basketball/tennis courts.

- Land Value—Hardin County Appraisal District values land based on market transactions.

Rural acreage tracts are classified into different groups based on

1) Location

2) Physical characteristics

3) Acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acre basis.

Values are modified by road factors and may be further modified for shape, topography, or other factors.

Subdivision acreage tracts are classified by neighborhood and acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acre basis and may be further modified for shape, topography, or other factors.

Lots are classified by neighborhood and front footage or square footage. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a front foot basis; acreage, or square foot basis. Land values may be further modified on the basis of shape, size, topography, and other factors.

The residential schedule has one depreciation schedule. This schedule is used to estimate the loss of value of improvements due to age and condition. This depreciation schedule is included in our Appraisal Manual.

### **Specification of Models for Single Family/Rural Residential**

The models for single family residential and rural residential properties specify the cost approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for an improved property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Land models are specified by the sales comparison method as follows:

Rural acreage tracts are classified into different groups based on 1) Location; 2) Physical characteristics; 3) Acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acre basis. Values are modified by road factors and may be further modified for shape, topography, or other factors.

Subdivision acreage tracts are classified by neighborhood and acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acres basis and may be further modified for shape, topography, or other factors.

Lots are classified by neighborhood and front footage or square footage. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a front footage basis of shape, size, topography, and other factors.

For residential properties, improvements are stratified into similar groups since there is a different market for each group. Specifically, properties are classified by the following characteristics: 1) Exterior wall cover ---brick veneer or frame; 2) Quality of construction based on typical building specifications for each class; 3) Square footage of living area.

Replacement cost new (RCN) for living area is expressed in terms of cost per square foot. Building component cost for items in excess of the base cost for a class, such as fireplaces or bathrooms, are expressed in a lump sum basis. The RCN for building additives such as CH/CA, garages and porches are expressed in terms of square foot cost based on a percentage of the base cost for the living area. Other structures such as outbuildings are expressed on a per square foot basis or a lump sum contributory basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics and different sizes is determined. A local modifier is determined by analyzing a group of sold properties consisting of new construction or relatively new construction and then applied to the Marshall & Swift indicated costs. The schedule cost may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### **Depreciation for Single Family/Rural Residential**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

HCAD's residential depreciation tables are based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

Schedules have been developed for improvements with typical economic lives of various lengths. The schedules reflect what is considered typical for a structure at a certain effective age. The schedules are based on generally accepted sources are modified for local conditions by extracting depreciation directly from the market. However, scheduled depreciation may be overridden with a percent good to account for the condition of otherwise similar structures that depreciate at lesser or more rapid rates than what is considered to be typical.

### **Market Area Adjustments for Single Family/ Rural Residential**

The district's primary approach to value for residential properties uses a hybrid cost-sales comparison approach that accounts for market area influences not otherwise specified in the cost approach as it is applied at large. Market area influence adjustments are needed to trend values produced by the cost approach closer to actual sales prices of property within a given market area. The sales used to determine the market area adjustment will reflect the market influences and conditions only for the specified area.

Market area adjustments are made on the basis of sales to appraisal ratios studies that compare recent sales prices of properties within a delineated area with the properties' value as determined by the cost approach. The ratios derived from dividing the appraisal district's cost approach values by the sales prices will indicate the level of appraisal currently produced by the at large cost approach. The appropriate area adjustment, whether upward or downward, is then applied to trend the appraised values closer to actual market value as evidenced by the recent sales prices within the area. Once the area adjustment is applied, a second ratio study is conducted to compare the proposed appraised values with the recent sales prices. From this study, a financial market area adjustment is selected and applied uniformly to all properties within the area including sold and unsold properties.

### **Summary of Models for Single Family/Rural Residential**

The following formula describes the single family residential/rural residential model:

$$MV = LV + MAA [(RCN - D)]$$

Where:

<b>MV</b>	= <b>Market Value</b>
<b>LV</b>	= <b>Land Value</b>
<b>MAA</b>	= <b>Market Area Adjustment</b>
<b>RCN</b>	= <b>Replacement Cost New</b>
<b>D</b>	= <b>Depreciation</b>

### **Model Calibration for Single Family/Rural Residential**

Model calibration of the single family residential/rural residential model involves the selection of the appropriate RCN, economic life and market area for each type or class of property.

## **MULTI-FAMILY RESIDENTIAL**

### **Specification of Model for Multi-Family-Cost**

The models for multi-family properties specify the cost approach.

The cost approach is based on the principle of substitution: an informed buyer will pay no more for a property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Land values are specified by a sales comparison approach. An analysis of vacant land sales is conducted and schedules using front foot, square foot, and acreage or per lot values are developed. Schedule driven values may be modified for shape, size, topography, etc.

For multi-family residential properties, improvements are stratified into similar groups since there is a different market for each group. Specifically, properties are classified by the following characteristics: 1) Exterior wall cover --- brick veneer or frame; 2) Quality of construction based on typical building specifications for each class; 3) Square footage of living area.

Replacement cost new (RCN) for living area is expressed in terms of cost per square foot. Building component cost for items in excess of the base cost for a class, such as fireplaces or bathrooms, are expressed in a lump sum basis. The RCN for building additives such as CHCA, garages and porches are expressed in terms of square foot cost based on a percentage of the base cost for the living area. Other structures such as outbuildings are expressed on a per square foot basis or on a lump sum contributory basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics and different sizes is determined. A local modifier is determined by analyzing a group of sold properties consisting of new construction or relatively new construction and then applied to the Marshall & Swift indicated costs. The schedule costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### **Depreciation for Multi-Family**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

Depreciation for commercial properties is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than that of the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

### **Market Area Adjustments for Multi-Family**

Since multi-family properties (apartments) compete in a county-wide market there are no market areas established for multi-family properties.

### **Summary of Cost Model for Multi-Family**

The following formula describes the cost model for multi-family:

$$MV = LV + [(RCN - D)]$$

Where:

**MV** = Market Value

**LV** = Land Value

**RCN** = Replacement Cost New

**D** = Depreciation

## **Model Calibration for Multi-Family-Cost**

Model calibration of the multi-family cost model involves the selection of the appropriate RCN and economic life for each type or class of property.

## **Specification of Models for Multi-Family Residential-Income**

The models for multi-family residential properties specify the cost approach with a secondary use of the income approach.

When the income approach is used, Sec. 23.012 requires the appraiser to:

1. Analyze comparable rental data or the potential earnings capacity of the property, or both, to estimate the gross income potential of the property;
2. Analyze comparable operating expense data to estimate the operating expenses of the property;
3. Analyze comparable data available to estimate rates of capitalization or rate of discount;
4. Base projections of future rent or income potential and expenses on reasonable clear and appropriate evidence;
5. To consider, in developing income statements and cash flow projections, historical information and trends; current supply and demand factors affecting these trends; current supply and demand factors affecting these trends; and anticipated events such as competition from other similar properties under construction.

Rents, expenses and vacancy rates are obtained from a market analysis.

Allowable expenses occur in three categories: fixed expenses, variable expenses and replacement allowances. An example of a fixed expense is hazard insurance. Examples of variable expenses are utilities and janitorial services. Replacement allowance provides for the replacement of building components that wear out more rapidly than the building itself and must be replaced periodically during the buildings useful life such as heating and cooling systems.

An overall capitalization rate reflecting a satisfactory rate or return for the investor, recapture of capital and property taxes is used.

## Summary of Model for Multi-Family Residential-Income

The following formula describes the model for multi-family properties:

Where:

<b>PGI</b>	<b>PGI</b>	<b>= potential gross income</b>
<b>-V/C</b>	<b>V/C</b>	<b>= vacancy/collection loss</b>
<b>=EGR</b>	<b>EGR</b>	<b>= effective gross rent</b>
<b>+SI</b>	<b>SI</b>	<b>= secondary income</b>
<b>=EGI</b>	<b>EGI</b>	<b>= effective gross income</b>
<b>-OPEX</b>	<b>OPEX</b>	<b>= operating expenses</b>
<b>=NOI</b>	<b>NOI</b>	<b>= net operating income</b>
<b>/ CR</b>	<b>CR</b>	<b>= capitalization rate</b>
<b>=MV</b>	<b>MV</b>	<b>= market value</b>

## Model Calibration for Multi-Family Residential-Income

Model calibration for the multi-family residential involves the selection of the appropriate capitalization rate and the adjustment of the projected net income to reflect the characteristics of the subject property.

## HOTELS AND STRIP CENTERS

### Specification of Models for Hotels and Strip Centers-Income

The models for Hotel and Strip Center properties specify the income approach.

When the income approach is used, Sec. 23.012 requires the appraiser to:

1. Analyze comparable rental data or the potential earnings capacity of the property, or both, to estimate the gross income potential of the property;
2. Analyze comparable operating expense data to estimate the operating expenses of the property;
3. Analyze comparable data available to estimate rates of capitalization or rate of discount;
4. Base projections of future rent or income potential and expenses on reasonable clear and appropriate evidence;
5. To consider, in developing income statements and cash flow projections, historical information and trends; current supply and demand factors affecting these trends; current supply and demand factors affecting these trends; and anticipated events such as competition from other similar properties under construction.

Rents, expenses and vacancy rates are obtained from a market analysis.

Allowable expenses occur in three categories: fixed expenses, variable expenses and replacement allowances. An example of a fixed expense is hazard insurance. Examples of variable expenses are utilities and janitorial services. Replacement allowance provides for the replacement of building components that wear out more rapidly than the building itself and must be replaced periodically during the buildings useful life such as heating and cooling systems.

An overall capitalization rate reflecting a satisfactory rate or return for the investor, recapture of capital and property taxes is used.

## Summary of Model for Hotel and Strip Center-Income

The following formula describes the model for Hotel and Strip Center properties:

Where:

<b>PGI</b>	<b>PGI</b>	<b>= potential gross income</b>
<b>-V/C</b>	<b>V/C</b>	<b>= vacancy/collection loss</b>
<b>=EGR</b>	<b>EGR</b>	<b>= effective gross rent</b>
<b>+SI</b>	<b>SI</b>	<b>= secondary income</b>
<b>=EGI</b>	<b>EGI</b>	<b>= effective gross income</b>
<b>-OPEX</b>	<b>OPEX</b>	<b>= operating expenses</b>
<b>=NOI</b>	<b>NOI</b>	<b>= net operating income</b>
<b>/ CR</b>	<b>CR</b>	<b>= capitalization rate</b>
<b>=MV</b>	<b>MV</b>	<b>= market value</b>

## Model Calibration for Hotel and Strip Center-Income

Model calibration for the Hotels and Strip Centers involves the selection of the appropriate capitalization rate and the adjustment of the projected net income to reflect the characteristics of the subject property.

## Specification of Model for Hotels and Strip Centers-Cost

The models for Hotel and Strip Center properties specify the income approach with a secondary use of the cost approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for a property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Land values are specified by a sales comparison approach. An analysis of vacant land sales is conducted and schedules using front foot, square foot, and acreage or per lot values are developed. Schedule driven values may be modified for shape, size, topography, etc.

For Hotel and Strip Center properties, improvements are stratified into similar groups since there is a different market for each group. Specifically, properties are classified by the following characteristics: 1) Exterior wall cover --- brick veneer or frame; 2) Quality of construction based on typical building specifications for each class; 3) Square footage of living area.

Replacement cost new (RCN) for living area is expressed in terms of cost per square foot. Building component cost for items in excess of the base cost for a class, such as fireplaces or bathrooms, are expressed in a lump sum basis. The RCN for building additives such as CHCA, garages and porches are expressed in terms of square foot cost based on a percentage of the base cost for the living area. Other structures such as outbuildings are expressed on a per square foot basis or on a lump sum contributory basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics and different sizes is determined. A local modifier is determined by analyzing a group of sold properties consisting of new construction or relatively new construction and then applied to the Marshall & Swift indicated costs. The schedule costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### **Depreciation for Hotels and Strip Centers**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

Depreciation for commercial properties is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than that of the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

### **Market Area Adjustments for Hotels and Strip Centers**

Since Hotel and Strip Center properties compete in a county-wide market there are no market areas established for Hotel and Strip Center properties.

### **Summary of Cost Model for Hotels and Strip Centers**

The following formula describes the cost model for Hotels and Strip Centers:

$$MV = LV + [(RCN - D)]$$

Where:

**MV** = Market Value

**LV** = Land Value

**RCN** = Replacement Cost New

**D** = Depreciation

## **Model Calibration for Hotels and Strip Centers**

Model calibration of the Hotels and Strip Centers cost model involves the selection of the appropriate RCN and economic life for each type or class of property.

### **COMMERCIAL**

#### **Specification of Models for Commercial**

The models for commercial properties specify the cost approach with a secondary use of the income approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for an improved property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Land values are specified by the sales comparison approach. An analysis of vacant land sales is conducted and a series of schedules using front foot, square foot, and acreage or per lot unit values are developed. Schedule driven values may be modified for shape, size topography or other factors.

For commercial properties, improvements are classified by the following since there is a different market for each group: 1) Use types for which they were designed such as office and retail; 2) Construction types which refer particularly to the materials used in the exterior walls and frame; 3) Quality of construction. RCN is expressed in terms of cost per square foot. The RCN for building additives such as garages and porches is expressed in terms of square foot cost based on a percentage of the base cost for the main area or per square foot unit special price. Other structures such as outbuildings are expressed on a cost per square foot basis or on a lump sum contributory basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics and different sizes is determined. A local modifier is determined by analyzing a group of sold properties consisting of new construction or relatively new construction and then applied to the Marshall & Swift indicated costs. The schedule costs may be overridden to account for atypical-features or characteristics not adequately addressed by the benchmark cost system.

#### **Depreciation for Commercial**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

Depreciation for commercial properties is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than that the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

#### **Market Area Adjustments for Commercial**

Since commercial properties compete in a county-wide market there are no market areas established for commercial properties.

## Summary of Cost Model for Commercial

The following formula describes the cost model for commercial:

$$MV = LV + [(RCN - D)]$$

Where:

**MV** = Market Value

**LV** = Land Value

**RCN** = Replacement Cost New

**D** = Depreciation

### Model Calibration for Commercial-Cost

**Model calibration of the commercial cost model involves the selection of the appropriate RCN and economic life for each type or class of property.**

The income approach is used on commercial properties where the value of the property is based upon its ability to generate income over a period of time. Typically the income approach is applied to commercial properties such as offices and retail.

When the income approach is used, Sec. 23.012 requires the appraiser to:

1. Analyze comparable rental data or the potential earnings capacity of the property, or both, to estimate the gross income potential of the property;
2. Analyze comparable operating expense data to estimate the operating expenses of the property;
3. Analyze comparable data available to estimate rates of capitalization or rate of discount;
4. Base projections of future rent or income potential and expenses on reasonable clear and appropriate evidence;
5. To consider, in developing income statements and cash flow projections, historical information and trends; current supply and demand factors affecting these trends; current supply and demand factors affecting these trends; and anticipated events such as competition from other similar properties under construction.

Rents, expenses and vacancy rates are obtained from a market analysis.

Allowable expenses occur in three categories: fixed expenses, variable expenses and replacement allowances. An example of a fixed expense is hazard insurance. Examples of variable expenses are utilities and janitorial services. Replacement allowance provides for the replacement of building components that wear out more rapidly than the building itself and must be replaced periodically during the buildings useful life such as heating and cooling systems.

An overall capitalization rate reflecting a satisfactory rate or return for the investor, recapture of capital and property taxes is used.

### **Summary of Income Model for Commercial:**

The following formula describes the income model used for commercial:

Where:

<b>PGI</b>	<b>PGI = potential gross income</b>
<b>- V/C</b>	<b>V / C = vacancy/collection loss</b>
<b>=EGR</b>	<b>EGR = effective gross rent</b>
<b>+SI</b>	<b>SI = secondary income</b>
<b>=EGI</b>	<b>EGI = effective gross income</b>
<b>- OPEX</b>	<b>OPEX = operating expenses</b>
<b>=NOI</b>	<b>NOI = net operating income</b>
<b>/ CR</b>	<b>CR = capitalization rate</b>
<b>=MV</b>	<b>MV = market value</b>

### **Model Calibration for Commercial-Income**

Model calibration for the commercial income model involves the selection of the appropriate capitalization rate and the adjustment of the projected net income to reflect the characteristics of the subject property.

### **Miscellaneous Rural**

#### **Specification of Models for Miscellaneous Rural**

The models for miscellaneous rural properties specify the cost approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for an improved property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Rural acreage tracts are classified into different groups based on 1) Location; 2) Physical characteristics; 3) Acreage size. An analysis of vacant real property sales is conducted and then a series of land schedules are developed. Values for these properties are expressed on a per acre basis. Values are modified by road factors and may be further modified for shape, topography, or other factors.

For miscellaneous rural improvements, use type, quality of construction and size are considered.

Replacement cost new (RCN) is expressed in terms of cost per square foot area. Relatively insignificant structures may be valued on a lump sum contributory basis. RCN for different levels of quality of construction, exterior characteristics and different sizes is determined from generally accepted sources.

### **Depreciation for Miscellaneous Rural**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

Depreciation of miscellaneous rural improvements is based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than that the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

### **Market Area Adjustments for Miscellaneous Rural**

There have been no market areas identified concerning valuations of miscellaneous rural improvements.

### **Summary of Model for Rural Miscellaneous**

The following formula describes the model used for miscellaneous rural:

$$\mathbf{MV = LV + (RCN-D)}$$

Where:

**MV = Market Value**

**LV = Land Value**

**RCN = Replacement Cost New**

**D = Depreciation**

## **Calibration of Model for Rural Miscellaneous**

Model calibration of the rural miscellaneous model involves the selection of the appropriate RCN and economic life for each type or class of property.

## **MANUFACTURED HOUSING / MOBILE HOMES**

### **Specifications of Model for Mobile Homes**

The models for mobile homes specify the cost approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for an improved property than the price of acquiring a vacant site and constructing a substitute building of equal utility, assuming no costly delays in construction.

Mobile homes are stratified into similar groups based on quality of construction and size.

Replacement cost new (RCN) for living area is expressed in terms of cost per square foot. Building component cost for items in excess of the base cost for a class, such as fireplaces or bathrooms, are expressed in a lump sum basis. The RCN for building additives such as CHCA, garages and porches are expressed on a cost per square foot basis or on a lump sum contributory basis. RCN as specified by Marshall & Swift for different levels of quality of construction, exterior characteristics and different sizes is determined. A local modifier is determined and then applied to the Marshall & Swift indicated costs. The schedule costs may be overridden to account for atypical features or characteristics not adequately addressed by the benchmark cost system.

### **Depreciation for Mobile Homes**

Depreciation is the loss in value from the replacement cost of an improvement due to physical deterioration, functional obsolescence and economic obsolescence.

HCAD's mobile home depreciation tables are based on an age-life method of depreciation that uses effective age and economic life. Effective age is the age indicated by the condition and utility of a structure. Effective age will not always be the same as actual age. Structures with better than average maintenance, remodeling or modernization will have an effective age less than that the actual age. On the other hand, structures with poor maintenance that have not been remodeled or modernized will have an effective age greater than the actual age. Economic life is the period of time over which a structure contributes to property value. This concept can be stated as: effective age divided by economic life equals percent physical depreciation.

Schedules have been developed for improvements with typical economic lives of various lengths. The schedules reflect what is considered typical for a structure at a certain effective age. The schedules are based on generally accepted sources and are modified for local conditions by extracting depreciation directly from the market. However, scheduled depreciation may be overridden with a percent good to account for the condition of otherwise similar structures that depreciate at lesser or more rapid rates than what is considered to be typical.

## **Market Area Adjustments for Mobile Homes**

The district's primary approach to value for residential properties uses hybrid cost- sales comparison approach that accounts for market area influences not otherwise specified in the cost approach as it is applied at large. Market area influence adjustments are needed to trend values produced by the cost approach closer to actual sales prices of property within a given market area. The sales used to determine the market area adjustments will reflect the market influences and conditions only for the specified area.

Market area adjustments are made on the basis of sales to appraisal ratios studies that compare recent sales prices of properties within a delineated area with the properties' value as determined by the cost approach. The ratios derived from dividing the appraisal district's cost approach values by the sales prices will indicate the level of appraisal currently produced by the at large cost approach. The appropriate area adjustment, whether upward or downward, is then applied to trend the appraised values closer to actual market value as evidenced by the recent sales prices within the area. Once the area adjustment is applied, a second ratio study is conducted to compare the proposed appraised values with the recent sales prices. From this study, a final market area adjustment is selected and applied uniformly to all properties within the area including sold and unsold properties.

## **Summary of Models for Mobile Homes**

The following formula denotes the formula generally used for mobile home properties:

$$\text{MV} = \text{LV} + \text{MAA} \{ \text{RCN} - \text{D} \}$$

Where:

**MV** = Market Value

**LV** = Land Value

**MAA** = Market Area Adjustment

**RCN** = Replacement Cost New

**D** = Depreciation

## **Calibration of Model for Mobile Homes**

Model calibration of the mobile home model involves the selection of the appropriate RCN and economic life for each type or class of property.

## **SPECIAL VALUATION / SPECIAL USE**

### **Model Specifications for Special Valuations Properties**

Special valuation properties (ag-use and timber-use properties) are valued according to their productivity value in accordance with provision of Sec 23 Property tax Code.

Ag use properties are classified into categories such as native pasture and improved pasture. For each category a net-to-land is determined. Net to land means the average annual net income derived from the use of the land that would have been earned from the land during the five year period preceding the year before the appraisal by an owner using ordinary prudence in the management of the land. The net to land is calculated by considering cash lease income less expenses for property taxes, fencing, and management. The net to land is then divided by a statutory capitalization rate to arrive at a value.

Timber use properties are classified according to forest type (pine, hardwood, mixed and by soil types (Class I, II, III, IV). A net to land is determined for each category. Net to land means the average net income that would have been earned by the land or the five preceding years by a person using ordinary prudence in the management of the land. The net to land for each year is determined by multiplying the land's potential average annual growth rate, expressed in tons, by the stumpage value, expressed in price per ton, of large pine saw timber, small pine saw timber, pine pulpwood, hardwood saw timber, hardwood pulpwood, and any other significant timber product and by then subtracting from the product reasonable management costs and other reasonable expenses directly attributable to the production of timber. The net to land is divided by a statutory capitalization rate to arrive at a value.

### **Market Areas for Special Use Properties**

Special use properties participate in a regional market and no market areas are established for them.

### **Summary of Models for Special Use Properties**

The following formula describes the model for special use properties:

$$AV = NTL / CR$$

Where:

**AV** = Assessed Value

**NTL** = Net to land

**CR** = Capitalization rate

### **Calibration of Model for Special Use Properties**

Calibration of the model for special use properties involves selection of the appropriate land class for the type of property being appraised.

### **BUSINESS PERSONAL PROPERTY**

#### **Model Specifications for Business Personal Property**

The cost approach is specified for business personal property. The district's primary approach to the valuation of business personal property is the cost approach. The cost approach is based on the principle of substitution: an informed buyer will pay no more for the property than the price of acquiring a substitute property of equal utility.

Business personal property is generally classified according to use types to identify businesses having common attributes such as convenience stores, auto parts stores, etc. Then the property is grouped into two principle categories: 1) furniture, fixtures, and equipment (FFE); and 2) inventory. Other categories may include leased equipment, supplies, consigned goods, and vehicles.

Business personal property is valued at its current level of trade. The valuation of business personal property recognizes three distinct levels of trade: manufacturing, wholesale and resale. Incremental costs are added to a product as it advances from one level of trade to the next, increasing its value along the way.

The historical (RCN) for FF&E is generally developed from information that the property owner furnishes to the district by filing renditions or other reports costs may be expressed on a comparative unit basis (per square foot). Costs may also be expressed in terms of individual assets or groups of assets where a comparative unit basis is not applicable. If the cost information is not provided by the owner or is unacceptable, the cost is estimated using costs reported for assets of similar businesses that are deemed to have provided accurate and complete information, the Comptroller's latest available business personal property cost schedules, published cost schedules or other generally accepted sources of cost data.

Inventory values are based on information the property owner reports in a rendition or other data reported for similar businesses. Additionally, other generally accepted sources of published data may be used. Inventories may include raw materials, goods in progress and finished goods (or goods held for resale). The market of inventory is the price for which it would sell as a unit to a purchaser who would continue the business. Inventory values may be expressed on a comparative unit bases (per square foot) or expressed in terms of a total value where a comparative unit basis is not applicable.

Vehicle values are based on values provided by a vendor and property owner rendition information.

Values for dealer inventory properties are determined on the basis of inventory and declaration reports they file in accordance with the previously listed sections of the Property Tax Code addressing dealer inventory valuation.

## **Depreciation for Business Personal Property**

The district uses index factors, based on generally accepted published sources, to trend historical costs. Percent good depreciation factors are also based on generally accepted sources. The index factors and percent good factors are used to develop a present value factor (PVF) by year of acquisition as follows:  $PVF = \text{Index Factor} \times \text{Percent Good Factor}$ . Then,  $\text{Historical Cost} \times PVF = \text{Market Value}$ . The district's PVF table establishes a schedule of economic lives for assets that can be applied against a specific asset or a category of FFE such as convenience store or fast food. The appropriate economic life is selected and the PVF for the year of acquisition is applied.

A depreciation override may be applied if the condition or effective age of a property cannot be adequately accounted for in the benchmark depreciation system. Also, adjustments for functional and economic obsolescence may be made if warranted.

## **Market Areas for Business Personal Property**

Business personal property participates in a county-wide market and no market areas are established for this type of property.

## **Summary of Models for Business Personal Property**

The following formula describes the business personal property model:

$$MV = RCN - D$$

Where:

**MV** = Market Value

**RCN** = Replacement Cost New

**D** = Depreciation including physical, functional and economic

## **Calibration of Model for Business Personal Property**

Model calibration of the business personal property model involves the selection of the appropriate RCN and economic life for each type or class of property.

## **Consideration and Reconciliation of Approaches to Value**

All three approaches to value, cost sales comparison and income, are considered for all property types. The most appropriate approach is selected and used. In reconciling multiple models that may be appropriate for a property, the model results that best address the individual characteristics of the subject property while maintaining equal and uniform appraisal among similar properties is selected.

## **Individual Property Field Review**

### **NEW CONSTRUCTION/DEMOLITION/REMODELING**

Field and review procedures for new construction, demolition and remodeling are identified and revised as required. Field production standards are monitored. Only reliable sources of information concerning new construction, demolition and remodeling are used. This critical annual activity is incorporated and entered on the key events calendar for each tax year. All areas, inside and outside of the designated re-inspection zones, are annually inspected on a generalized basis to address new improvements, demolition, remodeling, and other updates to property characteristics.

### **RE-INSPECTION OF PROBLEMATIC MARKET AREAS/PROPERTY TYPES/ PROPERTIES**

Property types, market areas, and individual properties that fall outside of the normal range of generally accepted statistical measures are determined to be problematic. Field reviews are scheduled to verify and/or correct property characteristic data. Sales confirmation data is re-verified and additional sales data is researched.

### **REINSPECTION OF THE UNIVERSE OF PROPERTIES**

Sec. 25.18 of the Texas Property Tax Code requires a re-inspection of the universe of properties at least once every three years. The plan calls for re-inspection, as defined in Sec. 28.15b(1), every year. The inspection requirements for tax year 2021 is identified and scheduled on the key events calendar which is attached to this report.

Additionally, all areas, inside and outside of the designated re-inspection zones are annually inspected on a generalized basis to address new improvements, demolition, remodeling, and other updates to property characteristics. Finally, a re-inspection of any property may be conducted at any time, if deemed necessary to verify property characteristic data.

## **Office Review**

Office reviews of certain neighborhoods, samples of properties, and individual properties are also conducted to the extent possible under the circumstances listed above. Sample selections of properties are made and reviewed for unusual differences in dollar amount or percentage change from the previous year's value so that these anomalies may be researched and resolved so that individual value conclusions will meet standards of reasonableness, consistency and accuracy.

## **Performance Testing**

Appraisal to sales ratio studies for real property are conducted to determine if a reappraisal is required, to determine how accurately specified and calibrated mass appraisal models are, and to measure appraisal performance. The key elements in the sales ratio studies are the median level of appraisal, the mean, the weighted mean, the coefficient of dispersion, and the price related differential. Sales ratio studies are conducted in accordance with the **IAAO** Standard on Ratio Studies, and the HCAD guidelines and procedures for conducting ratio studies. In regard to business personal property, samples of properties are checked against individual properties that have highly reliable values, generally those resulting from renditions, to determine how accurately the models are performing.

## **Independent Performance Testing**

Pursuant to Chapter 5 of the Texas Property Tax Code and Sec. 403.302 of the Texas Government Code, the State Comptroller's Property Tax Assistance Division (PTAD) conducts a property value study (PVS) of each school district and appraisal district in Texas every other year. The PVS 1) Measures appraisal performance and 2) Establishes an estimate of total value for school districts that is used in the distribution of state funding for public education. The PVS compares the appraisal district's values to PTD values that are established by sales price or independent appraisals. The PTD is required to use recognized statistical sampling techniques; review each appraisal district's appraisal methods, standards and procedures; test the validity of school district taxable values; and test the level and uniformity of appraisal in each appraisal district. The methodology used in the PVS include, stratified samples to improve sample representatives. The PVS reports a number of measures including the median level of appraisal, coefficient of dispersion and price-related differential for properties overall and by property category. The HCAD staff reviews and analyzes the PVS results.

## **PROFESSIONAL APPRAISAL SERVICES AGREEMENT PROPERTIES**

The portion of this Report related to Oil & Gas Reserves; Industrial; Utilities; Pipelines; Railroads; Special Purpose Improvements; and Business Personal Property – which is appraised by Pritchard & Abbott under a Professional Appraisal Services Agreement is attached to and made a part of this Mass Appraisal Report as Addendum A.

## **REAPPRAISAL PLAN**

The Hardin CAD 2021-2022 Reappraisal Plan, as amended, and referenced herein, is attached to and made a part of this Mass Appraisal Report as Addendum B.