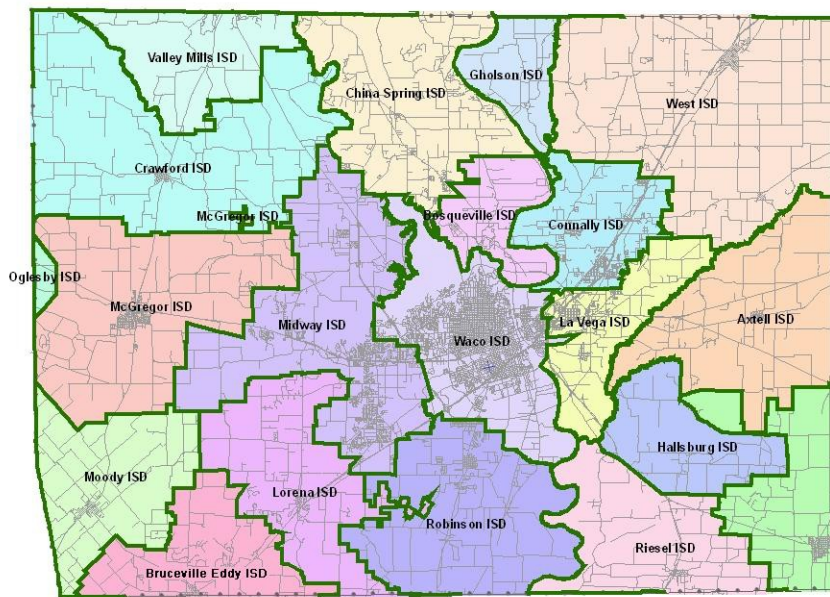


McLENNAN COUNTY APPRAISAL DISTRICT



2021-2022 REAPPRAISAL PLAN

**Revised May 4, 2020
Adopted August 12, 2020**

TABLE OF CONTENTS

ITEM	PAGE
<u>EXECUTIVESUMMARY</u>	Error! Bookmark not defined.
<u>PERFORMANCEANALYSIS</u>	Error! Bookmark not defined.
<u>ANALYSIS OF AVAILABLE RESOURCES</u>	Error! Bookmark not defined.
<u>PLANNING AND ORGANIZATION</u>	Error! Bookmark not defined.
<u>MASS APPRAISAL SYSTEM</u>	Error! Bookmark not defined.
<u>PILOT STUDY</u>	Error! Bookmark not defined.
<u>VALUATION BY TAX YEAR</u>	Error! Bookmark not defined.
<u>VALUE DEFENSE</u>	Error! Bookmark not defined.
<u>THE MASS APPRAISAL REPORT</u>	Error! Bookmark not defined.
<u>MASS APPRAISAL SUMMARY REPORT</u>	Error! Bookmark not defined.
<u>SCHOOL DISTRICTS TO BE REAPPRAISED</u>	Error! Bookmark not defined.
<u>MARKET AREAS</u>	Error! Bookmark not defined.
<u>CALENDAR OF EVENTS</u>	Error! Bookmark not defined.
<u>BUDGET</u>	Error! Bookmark not defined.
<u>RESOLUTION ADOPTING REAPPRAISAL PLAN</u>	Error! Bookmark not defined.

EXECUTIVE SUMMARY

TAX CODE REQUIREMENT

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

The Written Plan

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

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

Plan for Periodic Reappraisal

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

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

- (5) Developing an appraisal model that reflects the relationship among the property characteristics affecting value in each market area and determines the contribution of individual property characteristics;
- (6) Applying the conclusions reflected in the model to the characteristics of the properties being appraised; and
- (7) Reviewing the appraisal results to determine value.

REVALUATION POLICY (REAPPRAISAL CYCLE)

The McLennan County Appraisal District board of directors, by approval of this 2021 and 2022 reappraisal plan, adopts the policy that McCAD reappraises all property in the district annually. The reappraisal year is a complete appraisal analysis of all properties in the district and requires that each property owner be noticed in compliance with section 25.19 of the Tax Code. Tax years 2021 and 2022 will be reappraisal years. Market areas that have existing values consistent with the market and demonstrate uniformity will be noticed at current year value levels.

REAPPRAISAL YEAR ACTIVITIES

1. Performance Analysis – the equalized values from the previous tax year will be analyzed with ratio studies to determine the appraisal accuracy and appraisal uniformity overall and by market area within property reporting categories. Ratio studies will be conducted in compliance with the current *Standard on Ratio Studies* of the International Association of Assessing Officers (IAAO).
2. Analysis of Available Resources – staffing and budget requirements for tax year 2021 are detailed in the 2021 budget, as adopted by the board of directors and attached to the written biennial plan by reference. Existing appraisal practices, which are continued from year to year, will be identified and methods utilized to keep these practices current will be specified. Technology support will be detailed with year specific functions identified and system upgrades scheduled. Existing maps and data requirements will be specified and updates scheduled.
3. Planning and Organization – a calendar of key events with critical completion dates will be prepared for each major work area. This calendar identifies all key events for appraisal, and appraisal staff. A calendar is prepared for tax years 2021 and 2022. Production standards for field activities, and review of aerial photography will be established and incorporated in the planning and scheduling process.
4. Mass Appraisal System – Computer Assisted Mass Appraisal (CAMA) system revisions required will be specified and scheduled with the technology department who will also coordinate any changes necessary with the current software vendor for the District. All computer forms and technology procedures will be reviewed and revised as required. Where necessary all computer forms will comply with the content required by the Comptroller's office.

5. Data Collection Requirements – field and office procedures will be reviewed and revised as required for data collection. Activities scheduled for each tax year include new construction, demolition, remodeling, re-inspection of problematic market areas, re-inspection of the universe of properties on a specific cycle (three years), and field or office verification of sales data and property characteristics. Re-inspection of properties is to be completed using physical inspection or by other reliable means of identification, including deeds or other legal documentation, aerial photographs, land-based photographs, surveys, maps, and property sketches.
6. Pilot study by tax year – new and/or revised mass appraisal models will be tested each tax year. Ratio studies, by market area, will be conducted on proposed values each tax year. Proposed values on each category will be tested for accuracy and reliability in randomly selected market areas. Pilot modeling and ratio studies will be conducted in accordance with IAAO standards and the *Uniform Standards of Professional Appraisal Practices (USPAP)*.
7. Valuation by tax year – using market analysis of comparable sales, locally tested cost data, and income analysis; valuation models will be specified and calibrated in compliance with supplemental standards from the IAAO and USPAP. The calculated values will be tested for accuracy and uniformity using ratio studies.
8. The Mass Appraisal Report – each tax year the Tax Code required mass appraisal report will be prepared and certified by the chief appraiser at the conclusion of the appraisal phase of the ad valorem tax calendar (on or about May 15th). The 2020 mass appraisal report is completed in compliance with USPAP Standard Rule 6–8. The signed certification by the chief appraiser is compliant with USPAP Standard Rule 6-9. This reappraisal plan is referenced in the mass appraisal report.
9. Value defense – evidence to be used by the appraisal district to meet its burden of proof for market value and equity in both informal and formal appraisal review board hearings will be developed and made available to the taxpayer upon request.

2021 -2022 REAPPRAISAL PLAN

The McLennan County Appraisal District reappraises all property in the district every year. The reappraisal year is a complete appraisal analysis of all market areas in the district and each property requiring notice is noticed in compliance with section 25.19 of the Texas Property Tax Code.

PERFORMANCE ANALYSIS

In each tax year 2021 and 2022, the previous tax year’s equalized values are analyzed with ratio studies to determine appraisal accuracy and appraisal uniformity overall and by market area within state property reporting categories. Ratio studies are conducted in compliance with the current *Standard on Ratio Studies* from the International Association of Assessing Officers. Mean, median and weighted mean ratios are calculated for properties in each reporting category to measure the level of appraisal (appraisal accuracy). The mean ratio is calculated in each

market area to indicate the level of appraisal (appraisal accuracy) by property reporting category. The coefficient of dispersion (COD) will be calculated to measure appraisal uniformity by property reporting category. In 2021 and 2022, the reappraisal years, this analysis is used to develop the starting point for establishing the level and accuracy of appraisal performance; and to also indicate the uniformity or equity of existing appraisals.

ANALYSIS OF AVAILABLE 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 tax year 2021. The anticipated staffing for tax year 2022 will be contingent upon the 2022 budget. Staffing will impact the cycle of real property re-inspection and personal property on-site review that can be accomplished in the 2021 – 2022 time period.

Existing appraisal practices, which are continued from year to year, are identified and methods utilized to keep these practices current are specified. In the reappraisal year, real property appraisal depreciation tables and cost new tables are tested against verified sales data to ensure they represent current market data. Residential staff will also review *Marshall & Swift* cost guides to insure consistency of data. The cap rate study by commercial real property type is updated from current market data and market rents are reviewed and updated from local published data. Personal property depreciation tables are tested and analyzed based on rendition and prior year hearing documentation.

Technology support is detailed with year specific functions identified and system upgrades scheduled. Additional programming is decided on and requested from the district's software vendor. Computer generated forms are reviewed for revisions based on each year of reappraisal. Legislative changes are incorporated in the CAMA software by the District's software vendor, and checked by the technology department. Existing maps and data requirements are specified and updates scheduled.

PLANNING AND ORGANIZATION

A calendar of key events with critical completion dates is prepared for each major work area. This calendar identifies all key events for appraisal, and appraisal support. Each department prepared their work plans for 2021 and 2022. Production standards for field activities are calculated and incorporated in the planning and scheduling process.

See attached Calendar of Appraisal Events for 2021 and 2022 Exhibit 'D'

MASS APPRAISAL SYSTEM

Computer Assisted Mass Appraisal (CAMA) system revisions are specified and scheduled with the Technology Department. The technology department will coordinate any changes needed with the current software vendor for the District. All computer forms and technology procedures are reviewed and revised as required. The following details these procedures as it relates the 2021 and 2022 tax years.

REAL PROPERTY VALUATION

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

Cost schedules are tested with market data (sales) to insure that the appraisal district is in compliance with Texas Property Tax Code, Section 23.011. Replacement cost new tables as well as depreciation tables are tested for accuracy and uniformity using ratio study tools and compared with cost data from recognized industry leaders, such as *Marshall & Swift*.

Land tables are updated using current market data (sales) and then tested with ratio study tools. Value modifiers are developed for property categories by market area and tested on a pilot basis with ratio study tools. The District may use their own appraiser or an outside vendor to develop land values by area which are then tested and incorporated into district land tables by district employees.

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

PERSONAL PROPERTY VALUATION

Depreciation schedules are updated using data received during the previous tax year from renditions and hearing documentation. Valuation procedures are reviewed modified as needed and tested.

NOTICING PROCESS

25.19—Appraisal notice forms are reviewed and edited for updates and legal correctness. Enclosures will also be updated and include information on how to protest noticed values along with protest forms.

HEARING PROCESS

Protest hearing scheduling for Appraisal Review Board hearings are reviewed and updated as required. Standards of documentation are reviewed and amended as required. The appraisal district hearing documentation is reviewed and updated to reflect the current valuation process. Production of documentation is tested for compliance with HB 201 (evidence 14 days in advance) and all other tax code requirements. The ARB committee surveys the Appraisal Review Board, and appraisal district staff to see what changes need to be considered to better serve the public. All are compiled, reviewed and solutions are submitted to administration for approval. This committee begins meeting the next week after hearings are completed and continue to meet thru March of the next year. This committee performs all training on procedures and processes for the next ARB season.

DATA COLLECTION REQUIREMENTS

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

NEW CONSTRUCTION / DEMOLITION

New construction field and office review procedures are identified and revised as required. Field production standards are established and procedures for monitoring tested. Building permits will be received electronically from the City of Waco and McGregor and in paper form from other cities and the county. System input procedures are identified and included in the departmental plans. The process of verifying demolition of improvements is ongoing. This process will be enhanced as we begin using the change finder system in conjunction with Pictometry Aerials.

REMODELING

Market areas with extensive improvement remodeling will be identified and field on-site inspections will be scheduled to update property characteristic data. Updates to valuation procedures are tested with ratio studies before being finalized in the valuation modeling.

I. MARKET AREA DELINEATION

Market areas are defined by the physical, economic, governmental and social forces that influence property values. The effects of the forces were used to identify, classify and stratify or delineate similarly situated 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. These homogeneous properties have been delineated into valuation neighborhoods for both residential and commercial properties, but because there are discernible patterns of growth that characterize a neighborhood or market segment, analyst staff will annually evaluate the neighborhood boundaries or market segments to ensure homogeneity of property characteristics. The major market areas of McLennan County are the twenty school districts within the county as shown on exhibit B. These major areas are then broken into neighborhoods as shown on exhibit C. Neighborhoods for 2021 & 2022 will be reviewed during the reappraisal cycle for each of those years.

i. RE-INSPECTION OF THE UNIVERSE OF PROPERTIES

The Texas Property Tax Code, Section 25.18 (b) requires the re-inspection of the universe of properties at least once every three years. The annual re-inspection requirements for tax years 2021 and 2022 will be identified by property type and property classification and scheduled on the key events calendar. Re-inspection of properties will be completed using a combination of field inspections and office review. Office review of property for the 2021 tax year will include the examination of aerial photography using the 2020-flown oblique and orthographic imagery provided by *Pictometry, Inc.* McCAD has also contracted *Tyler Technologies* to provide updated street level photography to assist in evaluating condition and identifying where additional improvements have been added or demolished along with verifying situs address. Property sketches, existing property characteristics, and aerial photography will be delivered to the district and installed in the CAMA system. The use of more recent oblique and orthographic imagery by the contracted vendors will be dependent on the approval of subsequent budgets for aerial mapping.

There are approximately 121,000 real and personal property parcels in McLennan County. In order to meet the three year re-inspection mandate of S.B. 1652, the district will re-inspect approximately one third of these parcels in both tax year 2021 and 2022 using the afore mentioned resources. See exhibit C for planned re-inspections.

ii. RE-INSPECTION OF PROBLEMATIC MARKET AREAS

Real property market areas, by property classification, are 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. A combination of field and office reviews are scheduled to verify and/or correct property characteristic data. Additional sales data is researched and verified. In the absence of adequate market data, neighborhood delineation is verified and neighborhood clusters are identified.

Analyses of prior and current protest are performed to determine areas that may need reviewing. Ratio studies are run by school district, by classes, by neighborhoods and any other criteria the appraisers deem necessary to conclude their research for problematic areas. Additional reports of sold and unsold property are run by school district neighborhood, by street, etc., to determine equality in each area. Ratio studies are run several times during the discover period to verify work being performed and to determine if additional attention is warranted.

FIELD OR OFFICE VERIFICATION OF SALES DATA AND PROPERTY CHARACTERISTICS

Sales information must be verified and property characteristic data contemporaneous with the date of sale captured. 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 are tested on randomly selected market areas. These modeling tests (sales ratio studies) are conducted each tax year. 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 are in compliance with *Uniform Standards of Professional Appraisal Practice*.

VALUATION BY TAX YEAR

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

RESIDENTIAL REAL PROPERTY

Ratio studies will be conducted on each residential valuation neighborhood in the district to judge the two primary aspects of mass appraisal accuracy—level and uniformity of value. The valuation process for residential property historically begins in August. Land analysis, sales outlier review, neighborhood sales analysis, and finalization of proposed estimates of value will likely occur from October to late March.

Valuation Method Used:

Cost Approach

The district will use a hybrid cost-market approach when valuing single-family and multi-family residential properties. The comparative unit method will be used to develop the “base” cost of a structure. Adjustments will then be made for differences from base specifications using the unit-in-place method. Table-driven cost factors, taken from *Marshall & Swift*, a nationally recognized commercial cost service, will be adjusted for local or regional differences in construction and labor costs. Neighborhood or location adjustment factors will be developed from appraisal statistics provided by ratio studies to ensure that estimated values reflect both the supply and demand side of the market. The following equation denotes the hybrid model used:

$$MV = MA [RCN - D] + LV$$

The market value (MV) equals the market adjustment factor (MA) applied to the replacement cost new less depreciation (RCNLD), plus the land value (LV). Market adjustments will be applied uniformly within neighborhoods to account for location variances between market areas or across a jurisdiction.

Most residential land values will be estimated using a square foot (adjusting for size) method, which establishes the value of average size lots within each stratum or delineated neighborhood through sales comparison analysis. Some residential land values may use the front foot method or the lot value to better reflect market value in that area. The analysis assumes that the major factors causing variations among land values within a neighborhood are view, traffic, and size. In areas where insufficient vacant land sales exist, the abstraction method, also known as the land residual method and the allocation method, known as the land ratio method will be used to establish lot values within a neighborhood. A computerized land table stores the land information required to consistently value individual parcels within neighborhoods. Land adjustments will be applied on individual properties, where necessary, to adjust for such influences as view, shape, size, and topography, among others.

If a neighborhood is to be updated, the analyst will run a cost ratio study that compares recent sales prices of properties appropriately adjusted for the effects of time and stratified geographically by neighborhood with the property’s 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 will be compared to the appraisal-to-sale ratio to determine the market adjustment factor for each neighborhood. This market adjustment factor is needed to trend the values obtained through the cost approach closer to the actual market evidenced by recent sales prices within a given neighborhood. The sales used to determine the market adjustment factor will reflect the market influences and conditions only for the specified neighborhood, thus producing more representative and supportable values. The market adjustment factor calculated for each update neighborhood will be applied uniformly to all properties within a neighborhood and a second set of ratio studies will be generated that compares recent sale prices with the proposed market values for these sold properties. From this set of ratio studies, the appraiser will judge the appraisal level and uniformity in both update and non-update neighborhoods, and finally, for the school district as a whole.

A review and revision of the residential cost schedules will be performed before each reappraisal

year. If there has been little or no change from one year to the next, the same values may be unchanged from one year to the next. Samples of newly constructed sold properties of varying construction quality in McLennan County will be reviewed. The property characteristics of these sampled properties will be verified. The results of this comparison will be analyzed using several measures, including stratification by quality where applicable and review of estimated building costs, as well as land value to sales prices.

Sales Comparison Approach

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

The district does not currently develop estimates of value for single-family properties using the traditional sales comparison approach. The district has not yet implemented the modeling utilities available in our core CAMA software to develop estimates of value using the sales comparison approach. The district does use the sales comparison approach in both formal and informal meetings with the taxpayer to justify values obtained using the hybrid cost-market approach.

Income Approach

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

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

$$\text{Value} = \text{Income}/\text{Rate or, Income} = \text{Rate} \times \text{Value or, Rate} = \text{Income}/\text{Value}$$

The income approach is most suitable for types of properties frequently purchased and held for the purpose of producing income, such as apartments, commercial buildings, and office buildings. It is normally not conducive to the valuation of single-family residential properties that are seldom rented, or where market demand factors such as personal preferences or location unduly influence the market. The district does use the income approach in both formal and informal meetings with the taxpayer to justify values obtained using the cost-market approach when it is prudent to do so.

INVENTORY RESIDENTIAL PROPERTY

Residential improved and vacant property is appraised in compliance with the Texas Property Tax Code, Section 23.12 (a). In general, the district sends inventory appraisal rendition forms to qualified developers each year. These completed forms are used by the district for the actual

itemized construction, labor, and material costs, plus other soft or indirect costs. The information is analyzed to determine the discount that should be applied to the land and or improvement values to estimate market value as of the assessment date. The market values of improved inventory will be reviewed annually and inventory consideration will be eliminated when ownership transfers to an owner who will occupy the improvement for residential purposes.

COMMERCIAL REAL PROPERTY

The valuation period will begin in January and last until the end of mid-April. Once proposed values will be finalized, a ratio study will be performed to test the level and uniformity of appraisal within property use and among various classes. Apartments with over twenty units, retail and warehouse properties, golf courses and office buildings will be valued by the cost approach or the income approach, as deemed most appropriate pursuant to Section 23.0101.

Valuation Methods Used:

Cost Approach

The cost approach to value will be applied using the comparative unit method. This methodology involves the use of national cost data reporting services as well as actual cost information on comparable properties whenever possible. Cost models are typically developed based on *Marshall & Swift Services*.

Cost models include the use of replacement cost new (RCN) of all improvements. The replacement cost will be used because it values the cost of a property that is a utility equivalent of the property being appraised using current construction methods and materials and are updated annually. This method is alternative to using the reproduction cost, which is the cost to construct an exact duplicate of the property being appraised. These costs include comparative base rates, per unit adjustments and lump sum adjustments. This approach also employs an alternative valuation method for the underlying land. Time and location modifiers will be necessary to adjust cost data to reflect conditions in a specific market and changes in costs over a period of time. Because a national cost service is used as a basis for our cost models, local modifiers will be applied to adjust the base costs specifically for McLennan County. Depreciation schedules will be developed based on what is typical for each property type of that specific age. Depreciation schedules have been implemented for what is typical of each major class of commercial property by economic life categories. Schedules have been developed for improvements with fifteen, twenty, twenty-five, thirty, thirty-five, forty, forty-five, fifty, fifty-five, sixty, sixty-five, seventy and seventy-five year expected economic life. These schedules will be tested every other year to ensure they will be reflective of current market conditions. The actual and effective ages of improvements will be noted in the CAMA software. Effective age estimates will be based observed condition, desirability and utility of the improvement.

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

Sales Comparison Approach

Although all three of the approaches to value are based on market data, the Sales Comparison Approach is most frequently referred to as the Market Approach. This approach is utilized not only as a primary method for estimating land value but also in comparing sales of similarly improved properties to each parcel on the appraisal roll. Pertinent data from actual sales of properties, both vacant and improved, will be obtained throughout the year in order to analyze relevant information, which is then used in all aspects of valuation. Sales of similarly improved properties can provide a basis for the depreciation schedules in the cost approach, rates and multipliers used in the income approach, and as a direct comparison in the sales comparison approach. Improved sales will also be used in ratio studies, which afford the appraiser an excellent means of judging the present level and uniformity of the appraised values.

Based on the market data analysis and review discussed in the cost, income and sales approaches, the cost and income models will be calibrated annually. The calibration results will be keyed to the schedules and models in our CAMA system for utilization on all commercial properties in the district.

Income Approach

The income approach to value will be applied to those real properties that are typically viewed by market participants as “income producing”, which are bought and sold based on the property’s ability to produce income, and for which the income methodology is considered a leading value indicator. The first step in the income approach pertains to the estimation of market rent. This is derived primarily from actual rent data furnished by property owners and from local offerings for rent. A bi-annual rental survey for apartments is performed by McCAD’s commercial department or by using accepted journals that collect sales and recent data for our area. This per unit rental rate multiplied by the number of units results in the estimate of potential gross rent. The district subscribes to a national service that provides local sales and rental information on commercial business enterprises within McLennan County to supplement our own sales and data collection efforts.

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

Allowable expenses and expense ratio estimates will be based on a study of the local market, with the assumption of “prudent management”. When necessary an allowance for non-recoverable expenses such as leasing costs and tenant improvements will be included in the expenses. A non-recoverable expense represents costs that the owner pays to lease rental space. Different expense ratios will be developed for different types of commercial property based on use. For instance, retail properties are most frequently leased on a triple-net basis, whereby the

tenant is responsible for his pro-rata share of taxes, insurance and common area maintenance. In comparison, a general office building is most often leased on a base year expense stop. This lease type stipulates that the owner is responsible of all expenses incurred during the first year of the lease. However, any amount in excess of the total per unit expenditure in the first year is the responsibility of the tenant. Under this scenario, the total operating expense in year one establishes the base rate. Any increase in expense over the base rate throughout the remainder of the lease term would be the responsibility of the tenant. As a result, expense ratios will be implemented based on the type of commercial property.

Another form of allowable expense is the replacement of short-lived items, such as, roof or floor coverings, air conditioning or major mechanical equipment, or appliances requiring expenditures of large lump sums. When these capital expenditures are analyzed for consistency and adjusted, they may be applied on an annualized basis as stabilized expenses. When performed according to local market practices by commercial property type, these expenses when annualized are known as replacement reserves. Subtracting the allowable expenses (inclusive of non-recoverable expenses and replacement reserves) from the effective gross income yields an estimate of net operating income.

Rates and multipliers will be used to convert income into an estimate of market value. These include income multipliers, overall capitalization rates, and discount rates. Each of these is used in specific applications. Rates and multipliers also vary between property types, as well as by location, quality, condition, design, age, and other factors. Therefore, application of the various rates and multipliers must be based on a thorough analysis of the market.

Capitalization analysis will be used in the income approach models. This methodology involves the capitalization of net operating income as an indication of market value for a specific property. Capitalization rates, both overall (going-in) cap rates for the direct capitalization method and terminal cap rates for discounted cash flow analyses will be derived from the market. Sales of improved properties from which actual income and expense data are obtained provide a very good indication of what a specific market participant is requiring from an investment at a specific point in time. Additionally, overall capitalization rates can be derived from the built-up method, band-of-investment, debt coverage ratio, and published sources for similar properties, as well as results from verified sales. The capitalization rates relate to satisfying the market return requirements of both the debt and equity positions of a real estate investment. This information is obtained from real estate and financial publications, as well as cap rate studies conducted by the district using verified sales and income information for that specific property. Rent loss concessions will be made on specific properties with known vacancy problems. A rent loss concession accounts for the impact of lost rental income while the building is moving toward stabilized occupancy. The rent loss will be calculated by multiplying the rental rate by the percent difference of the property's stabilized occupancy and its actual occupancy. Build out allowances (for first generation space or retrofit/second generation space) and leasing expenses will be added to the rent loss estimate. A leasing expense necessary to bring the property to a stabilized level is also included in this adjustment. The total adjusted loss from these real property operations will be discounted using an acceptable risk rate. The discounted value, inclusive of rent loss due to extraordinary vacancy, build out allowances and leasing commissions, becomes the rent loss concession and will be deducted from the value estimate of the property at stabilized occupancy. A variation of this technique allows that for every year that the property's actual occupancy is less than stabilized occupancy a rent loss deduction may be estimated. Conversely, if a property were above the stabilized occupancy level as of the appraisal date, the market would pay a premium for this situation. In this instance, the present value of

the excess income over the stabilized level will be added to the value of the property.

INDUSTRIAL REAL PROPERTY

These properties will be valued each year by district staff as well as outside appraisal firms under contract. For 2021 Industrial properties will be primarily appraised by Capitol Appraisal Group and will be re-evaluated for 2022 based on internal staffing and budget constraints. Industrial properties will typically be valued on a cost approach basis since these properties have a low frequency of being bought and sold in the open market compared to commercial and residential properties. In addition, since these properties are owner occupied, the income approach to value will rarely be applicable to industrial properties.

Valuation Model Used:

Cost Approach

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

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

Sales Comparison Approach

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

The few sales of industrial facilities that do occur are not typically used because the sales are usually part of a merger or acquisition and other assets and intangible considerations are part of the sales price and are not disclosed. There will usually not be enough verifiable sales of stand-alone industrial properties to have a representative sample of properties to which to compare when valuing other industrial properties.

Income Approach

Industrial facilities are rarely valued by the income approach to value since they are usually owner occupied. These facilities are usually general commercial structures built out to meet an industrial owners needs over a certain period of time. In other words, an industrial facility is built for that owner's needs and not built to turn around and lease out the facility to another

industrial user. There are not enough industrial facilities built by industrial users that are leased out to other industrial users to be a meaningful universe of properties for valuation purposes, if they can be found at all.

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

BUSINESS PERSONAL PROPERTY

Valuation Method Used:

Cost Approach

The primary approach to the valuation of business personal property is the cost approach. Cost schedules will be developed based on Standard Industrial Classification (SIC) codes. These schedules will be reviewed to conform to changing market conditions, if necessary.

Comparable type property values will be used to estimate the value of new accounts for which no property owner's rendition is filed. Comparable values will establish parameters for testing the valuation of property for which prior years' data exists or for which current year rendered information is available.

The percent good depreciation factors will be based on the depreciation schedules for furniture, fixtures, and equipment as published in the *Marshall Valuation Service* for October of each year. This mass appraisal percent good depreciation schedule is used to ensure that estimated values are uniform and consistent within the market. RCN and percent good depreciation factors will be utilized to develop value estimates using the following formula:

MARKET VALUE ESTIMATE = RCN X PERCENT GOOD FACTOR

Sales Comparison Approach

Business personal property is typically sold as part of the business as a whole and not by itself, which makes this approach unsuitable for valuing most personal property. This approach is only suitable for the valuation of certain types of vehicles and heavy equipment. Value estimates for vehicles will be provided by an outside vendor and are based on data furnished by National Market Reports. An appraiser using published market guides such as the NADA blue book will appraise these types of properties.

There are not enough known sales of business personal property to have a meaningful population of sales for value comparison purposes. This category of personal property is inclusive of various types, such as furniture, computers and machinery with each having different useful lives. It is typical for personal property to be included in the sale of a facility, instead of being sold separately. There may be certain subsets of personal property that are sold, but all of the personal property must sell at the location with this separate personal property amount known to make meaningful value comparisons under the sales approach.

Income Approach

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

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

CAPITOL APPRAISAL GROUP 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 Capitol Appraisal Group, Inc. (CAGI) to appraise these properties for the CAD.
 - (1) Identifying properties to be appraised: Utility, railroad and pipeline properties that are susceptible to inspection are identified by inspection. The appraiser may also refer to other documents, both public and also confidential to assist in identification of these properties.
 - (2) Identifying and updating relevant characteristics of each property
In the appraisal records: The appraiser identifies and updates relevant characteristics through data collected as part of the inspection process and through later submissions by the property owner, sometimes including confidential rendition. Additional data are obtained through public sources, regulatory reports and through analysis of comparable properties.
 - (3) Defining market areas in the district: Market areas for utility, railroad and pipeline property tend to be regional or national in scope. Financial analyst and investor services reports are used to help define market areas.
 - (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: For all three types of property, the appraiser must first form an opinion of highest and best use. Among the three approaches to value (cost, income and market), pipeline value is calculated using a Replacement/Reproduction Cost New Less Depreciation model [RCNLD]. In addition to the RCNLD indicator, a unit value model may 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 are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser contributes to the review process. These types of property are 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:

- (b) 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 Capitol Appraisal Group, Inc. (CAGI) to appraise these properties for the CAD.
 - (1) Identifying properties to be appraised: Industrial properties are identified as part of the appraiser's physical inspection process each year and through submitted data by the property owner. The appraiser may also refer to legal documents, photography and other descriptive items.
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records: The appraiser identifies and updates relevant characteristics through the inspection process. Confidential rendition, assets lists and other confidential data also provide additional information. Subject property data is verified through previously existing records and through published reports.
 - (3) Defining market areas in the district: Market areas for industrial properties tend to be regional, national and sometimes international. Published information such as prices, financial analysis and investor services reports are used to help define market area.
 - (4) Developing an appraisal approach that reflects the relationship among property characteristics affecting value and determines the contribution of individual property characteristics: Among the three approaches to value (cost, income and market), industrial properties are most commonly appraised using Replacement/Reproduction Cost New Less Depreciation models because of readily available cost information. If sufficient income or market data are available, those appraisal models may also be used.

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

CAD Plan for Periodic Reappraisal of Industrial Personal Property

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

- (c) 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 industrial personal property appraised by the CAD. The CAD has a professional services contract with Capitol Appraisal Group, Inc. (CAGI) to appraise these properties for the CAD.
 - (1) Identifying properties to be appraised: Through inspection the appraiser identifies personal property to be appraised. The appraiser may also refer to other documents, both public and confidential, to assist in identification of these properties. Such documents might include but are not limited to the previous year's appraisal roll, vehicle listing services and private directories.
 - (2) Identifying and updating relevant characteristics of each property in the appraisal records: Data identifying and updating relevant characteristics of the subject properties are collected as part of the inspection process through directories and listing services as well as through later submissions by the property owner, sometimes including confidential rendition. These data are verified through previously existing records and through public reports.
 - (3) Defining market areas in the district: Market areas for industrial personal property are generally either regional or national in scope. Published price sources 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. Personal property is appraised using Replacement/Reproduction Cost New Less Depreciation models. Income approach models are used when economic and/or subject property income is available, and a market data model is used when appropriate market sales information is available.
 - (5) Comparison and Review: The appraiser reconciles multiple models by considering the model that best addresses the individual characteristics of the subject property. Year-to-year property value changes for the subject

property are examined using computer-assisted statistical review. Periodic reassignment of properties among appraisers or the review of appraisals by a more experienced appraiser contributes to the review process.



VALUE DEFENSE

Evidence to be used by the appraisal district to meet its burden of proof for market value and equity in both informal and formal appraisal review board hearings will be developed and provided to the property owner or agent in compliance with HB. 201. After a protest is received and verified, hearing evidence will be generated. To the extent possible, hearing evidence will be available for the following property types:

- Residential Property
- Special Inventory Residential Property
- Muti-Family Residential Property
- Commercial Real Property
- Vacant Real Property
- Industrial Real Property
- Utilities
- Mineral Interests
- Special Valuation Properties
- Business Tangible Personal Property
- Industrial Tangible Personal Property

THE MASS APPRAISAL REPORT

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

Exhibit 'A'

MASS APPRAISAL SUMMARY REPORT

MCLENNAN COUNTY APPRAISAL DISTRICT

2020 MASS APPRAISAL SUMMARY REPORT

Identification of Subject: The property subject to this report is all real property and tangible personal property, unless specifically exempted, located within the boundaries of the McLennan County Appraisal District, hereinafter referred to as "MCAD" or "District".

Effective Date of Appraisal: The effective date of this mass appraisal is January 1, 2020, unless otherwise specified as in the case of some inventories, which may qualify for appraisal as of September 1 in accordance with Section 23.12, Texas Property Tax Code. The date of this appraisal report is May 15, 2020.

Purpose and Intended Use of Appraisal: The purpose of this mass appraisal is to estimate the market value of all taxable property in an equitable and efficient manner for ad valorem tax purposes in accordance with the laws of the State of Texas.

Legal Requirements: This mass appraisal is made within the provisions of the Texas Property Tax Code.

Administrative Requirements: This mass appraisal is conducted in accordance with the reappraisal policy of MCAD and the methods and procedures described in the appraisal manual of the District. Furthermore, the District subscribes to the standards of The Appraisal Foundation known as the *Uniform Standards of Professional Appraisal Practices*.

Definition of Market Value: Market value for purposes of this mass appraisal is as defined by the Texas Property Tax Code, §1.04(7), and is as follows:

"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.

In regards to inventory held as part of a business, §23.12(a) of the Texas Property Tax Code further provides, in part; "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."

Identification of Properties: The descriptions of the properties included in this appraisal are included in detail within the appraisal records of MCAD. These descriptions include, but are not limited to the legal description, situs location, ownership and detailed listing of the characteristics of the properties.

Property Rights to be Valued: Properties are appraised in fee simple interest. However, restrictions, easements, encumbrances, etc., are considered on an individual basis. Fractional interests or partial holdings are appraised in fee simple for the total property and divided proportionately based on the pro-rated interests.

Assumptions and Limiting Conditions: The District has taken reasonable steps to secure adequate funding; however fiscal restraints do impact the mass appraisal process. Limited resources and personnel are available to perform the appraisals; therefore, it is not possible to physically inspect

every property included on the appraisal roll. When physical inspections were conducted on real property, they were generally performed with exterior review only. It is assumed that the interior conditions are consistent with the exterior condition. When physical inspections were made for the valuation of personal property, inspections were made of the entire facility if allowed by the owner or management of the business.

This mass appraisal has been made under the following additional assumptions and limiting conditions:

- It is assumed that the title to the properties is good and merchantable.
- No liability is assumed for matters of a legal nature.
- 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.
- All properties are appraised as if free and clear of any or all liens or encumbrances, unless otherwise stated.
- Existence of hazardous materials or other adverse environmental conditions are not considered, unless otherwise indicated.
- Any drawings, photographs, plan, or plats are assumed to be correct and are included solely to assist in visualizing the property.
- It is assumed that there is full compliance with all applicable federal, state, and local regulations and laws, unless otherwise noted.
- No responsibility is assumed for hidden or unapparent conditions in the property that may affect its value.
- It is assumed that all required licenses, certificates of occupancy, consents or other administrative authority from local, state or federal governments can be obtained or renewed for any use on which the value estimate contained in this report is based.
- A specific survey and analysis of properties to determine compliance with the provisions of the Americans with Disabilities Act has not been performed and possible non-compliance has not been considered in valuing these properties.
- While it is believed all information included in the appraisal is correct and accurate; the appraiser does not guarantee such.

This report may not be used for any purpose or by any person other than the party to which it is addressed without the written permission of the McLennan County Appraisal District.

Scope of Appraisal: The scope of the appraisal relates to the nature of the appraisal assignment and the extent of collecting, confirming, and reporting the data, which provides the basis for the estimate of value.

The three generally accepted approaches to value are considered in estimating the market value for each property, with the most appropriate method given the greatest emphasis.

A market-based cost approach is considered the most appropriate for single family residential, most owner occupied commercial, and mobile homes since this method reflects the actions of buyers and sellers in the market, with some exceptions. This approach is based on the principal that a buyer will not pay more for a property than the cost of acquiring a vacant site and constructing a substitute structure of comparable utility, assuming no costly delays in construction.

The sales comparison method is used for vacant lots and land because it reflects the actions of the market place. Where there are no vacant lot sales, an allocation by abstraction is used to value land. Since these properties typically do not produce any income, the income approach to value is given minimal emphasis.

The income approach is applicable to revenue producing property. It is based on the principal of present worth of future benefits. High-valued commercial properties rarely sell and although difficult to obtain, Income information is usually the only available source of factual data.

In the event a property is unavailable for inspection and the owner has not supplied any information, the appraiser has estimated the measurements and condition of the improvements or a lump sum value for the property.

Personal property is appraised utilizing the cost approach to value. The market approach is used for some categories of personal property when available.

All appraisal estimates are made in compliance with requirements as provided in the Texas Property Tax Code.

This report is applicable to the following property types: single family and multifamily residential, vacant lots and acreage, farm and ranch properties, commercial and industrial properties, mineral, utility, business personal property and mobile homes.

Personnel Resources: The McLennan County Appraisal District staff consists of 42 full-time employees within the departments listed below.

- 4 - Administration
- 12 - Customer Service
- 10 - Residential Valuation
- 5 - Commercial Valuation
- 5 - Personal Property Valuation
- 6 - GIS Mapping

The administrative staff is responsible for overall planning, organizing, staffing, coordinating, and supervising MCAD and the appraisal activities. The appraisal duties are divided among three departments: Residential, Commercial, and Personal Property. The Residential Department is responsible for appraising all residential housing, and mobile homes in the District. The Commercial Department is responsible for appraising all commercial, industrial, utility, multi-family real property, excluding 4-plexes and smaller in the District. Land is appraised by both the residential and commercial departments. The Personal Property Department appraises business personal property. The Customer Service Department is responsible for exemptions, owner addresses, some data entry, and first response to the property owner. Several support staff are responsible for data entry and verification of data. The Chief Appraiser, Assistant Chief Appraiser and all appraisers are registered with the Texas Department of Licensing and Regulation. All but two of the twenty appraisers have obtained their Registered Professional Appraiser (RPA) certification. The Chief Appraiser has his RPA and RTA designation.

The McLennan County Appraisal District contracts with Capitol Appraisal Group Inc. to appraise its personal property utility properties (Category J).

Data Collection and Verification Resources: The McLennan County Appraisal District is responsible for approximately 121,932 real and personal property accounts covering approximately 1,198 square miles. MCAD is responsible for appraising property for 44 entities comprised of twenty (20) school districts, twenty (20) cities, three (3) special districts, McLennan County and McLennan Community College. Appraisal records are maintained in a computer automated mass appraisal (CAMA) system.

Property characteristic data is recorded for each property to be appraised. Resources for the discovery, describing, and listing of property include, but are not limited to the following: field inspections by appraisal staff, renditions, deed records, plat records, and assumed name certificates filed for record with the McLennan County Clerk's office, city building permits, local fee appraisers, builders and realtors, newspaper publications, maps, aerial photography, various third party data sources and other appraisal records of the District.

Construction costs are gathered from available sources including, but not limited to the Marshall and Swift Valuation Service and local builders and developers for use in the cost approach to value.

Information for the sales comparison approach is gathered from properties within the appraisal district through the mailing of questionnaires to grantors and grantees, and all other available sources deemed reliable. Sales data is entered into the "Sales Module" of the appraisal database making it available for use by the appraisal staff. Sales are checked for validity by appraisal and clerical staff.

Rental rates, expenses and occupancy rates are gathered on income producing properties for use in the income approach to value through questionnaire mailings, owner filed property reports and telephone surveys. Income and expense information is entered into a spreadsheet database for analysis and use by district appraisers.

Information relating to business personal property is collected during the normal inspection process and through owner filed renditions and property reports. Costs are also researched for personal property using NADA Guides and other sources.

General trends in new construction techniques, construction costs, interest rates and other pertinent data are gathered from various sources such as trade journals, Marshall and Swift Valuation Service, university real estate research centers, and any other sources deemed appropriate and reliable.

Preliminary Analysis: A ratio analysis is performed for all types of property to determine the accuracy of schedules and properties that need visual inspection or reappraisal.

Area Analysis: MCAD appraises all properties that fall within the county limits. There are thirteen school districts that extend beyond McLennan County. The City of Waco is located in McLennan County, surrounded by several smaller cities. Waco has a population of approximately 140,000 which is about half of the total county population. Baylor University, with a student enrollment of approximately 16,700, is located in Waco. The area also contains a technical college, Texas State Technical College and a junior college, McLennan Community College.

With relatively low interest rates and a growing economy in Waco, new construction and market activity are increasing at a rapid rate in some areas.

Neighborhood Analysis: Neighborhood analysis examines how economic, social, physical, and governmental forces affect property values. The effects of these factors are used to identify neighborhoods. Properties whose values are influenced by the same economic, social, physical and governmental forces are grouped as neighborhoods. Included in the neighborhood analysis is the consideration of patterns of development and property use. Neighborhoods typically experience a three-stage cycle: development, stability, and decline.

Highest and Best Use: Highest and best use is the reasonably, probable and legal use of vacant land or improved property, which when physically possible, financially feasible, and appropriately supported, results in the highest value for the property. For improved properties, the highest and best use determination of a site is made both as if the site is vacant and as improved. The highest and best use for residential property that has a homestead exemption is by law its current use even though its highest and best use may be commercial or industrial.

Data Collection and Validation: Appraisers are assigned areas to work annually either by aerial photography or physical inspection. Although most inspections are performed as a drive-by, properties with changes such as additions, swimming pools, and etc. are conducted by an on-site inspection or aerial photos if the image allows. Properties where physical data has been questioned or requires reviewing, inspections may include confirming the dimensions of structures and/or a complete interior and exterior inspection. The field appraiser determines the extent of the inspection needed. A walk-through inspection is made on all new construction if possible. Physical characteristics such as size, quality of construction, detail and property amenities are determined during these inspections. Additionally, size is confirmed through sources such as building permits, construction plans, aerial photos and realtor information. All available and reliable resources are used in pursuit of accurate characteristic data for each property.

Recently sold properties, with high variances from typical sales ratios are site inspected or inspected by aerial photos to ensure proper classification and accurate characteristic descriptions prior to being used in ratio studies or being used to develop market value adjustment factors. They are also checked for any enhancements made prior to sale that may update effective age or change over all depreciation since the last inspection and appraisal.

Depreciation: Depreciation is the loss in value from replacement cost new of an improvement or personal property item due to physical deterioration, functional obsolescence and/or economic obsolescence. Each property, during the on-site review process, is assigned a depreciation factor

based on the observed physical condition of the property. Additional adjustments may be made to the property for functional or economic obsolescence if conditions so warrant. Personal property is depreciated using the age-life method based on a typical economic life for each personal property component type.

Testing: Appraised values to sale price ratio studies are conducted to determine the accuracy of values in the District. All areas are tested every year based on the availability of sales information. Ratio tests are performed first to see if global or general adjustments should be made to the cost and/or depreciation schedules or if certain geographic areas or improvement subclasses require reappraisal. The final ratios are performed by school district and/or state code, where sales information is available. Stratification is performed to help in determining if certain valued properties need to be reappraised.

Certification:

I certify that, to the best of my knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analysis, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial and unbiased professional analyses, opinions, and conclusions.
- I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.
- I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- My engagement in this assignment was not contingent upon developing or reporting predetermined results.
- My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice*.
- I have not made a personal inspection of the properties that are the subject of this report.
- Don Whitney, Gary Schibler, and Jim Halbert provided significant professional assistance to the person signing this report.

/Original Signed/

Joe Don Bobbitt, Acting Chief Appraiser
McLennan County Appraisal District

/Original Signed/

Don Whitney, Director of Appraisal
McLennan County Appraisal District

/Original Signed/

Gary Schibler, Personal Property Supervisor
McLennan County Appraisal District

/Original Signed/

Jim Halbert, Residential Supervisor
McLennan County Appraisal District

Exhibit 'B'

SCHOOL DISTRICTS TO BE REAPPRAISED

MCAD REAPPRAISAL DISTRICTS 2021-2022

2021

	School District	Total Props	Commercial	Business Personal Property	Residential
12	AXTELL ISD	2177	77	94	2006
14	BOSQUEVILLE ISD	1703	254	153	1296
18	CHINA SPRING ISD	6539	195	281	6063
20	CONNALLY ISD	7833	674	515	6644
24	GHOLSON ISD	1126	22	34	1070
26	HALLSBURG ISD	919	54	34	831
28	LA VEGA ISD	7121	991	567	5563
44	ROBINSON ISD	5871	276	366	5229
Total Parcels		33289	2543	2044	28702

2022

	School District	Total Props	Commercial	Business Personal Property	Residential
16	BRUCEVILLE-EDDY ISD	2513	245	113	2155
22	CRAWFORD ISD	1963	127	103	1733
30	LORENA ISD	4087	294	266	3527
34	McGREGOR ISD	3929	441	470	3018
36	MIDWAY ISD	20646	1748	1786	17112
38	MOODY ISD (Formerly BELL)	2162	177	83	1902
40	OGLESBY ISD (formerly Coryell)	33	1	1	31
46	VALLEY MILLS ISD (formerly Bosque)	726	20	27	679
Total Parcels		36059	3053	2849	30157

Exhibit 'C'

MARKET AREAS

2021 Residential Neighborhood Plan

12890.1	42890.1	48045.0	48096.0	48139.0	48505.1	48557.1	48709.1	50000.3
12890.5	42890.3	48046.0	48097.0	48140.0	48510.1	48558.1	48710.1	50001.1
20890.1	42890.4	48048.0	48098.0	48141.1	48511.1	48559.1	48711.1	50001.2
24890.1	42890.5	48049.0	48099.0	48142.1	48511.2	48560.1	48711.2	50001.3
26275.0	44890.1	48050.0	48100.0	48143.1	48512.1	48561.1	48711.3	50002.1
28890.1	44890.4	48051.0	48101.0	48144.1	48512.2	48562.1	48711.4	50002.2
32000.0	48001.0	48052.0	48102.1	48145.1	48513.1	48563.1	48712.1	50003.1
32000.1	48002.0	48053.0	48102.2	48146.1	48513.2	48563.2	48713.1	50003.2
32000.3	48003.0	48054.0	48102.3	48147.0	48513.3	48564.1	48714.1	50003.3
32001.1	48004.0	48055.0	48102.4	48148.0	48515.0	48565.1	48715.1	50004.1
32001.2	48005.0	48055.1	48102.5	48149.0	48515.1	48566.1	48716.1	50004.2
32002.1	48006.0	48056.0	48103.0	48150.1	48516.0	48567.1	48717.1	50004.3
32002.2	48007.0	48057.0	48104.0	48151.1	48516.1	48570.1	48718.1	50006.5
32003.1	48007.1	48057.1	48105.0	48152.0	48517.1	48571.1	48719.1	50018.0
32003.2	48008.0	48058.0	48105.1	48153.0	48517.2	48572.1	48720.1	50020.1
32004.1	48009.0	48059.0	48106.0	48154.0	48517.3	48573.1	48721.1	50022.1
32004.2	48010.0	48059.1	48107.0	48155.0	48520.1	48574.1	48722.1	50035.0
32325.2	48011.0	48060.0	48108.0	48156.1	48522.1	48575.0	48723.1	50038.0
32725.0	48012.0	48060.1	48108.1	48157.1	48523.1	48575.1	48724.1	50039.0
32870.0	48013.0	48061.0	48110.0	48237.0	48527.1	48576.1	48724.2	50040.0
32890.1	48014.0	48062.0	48111.0	48300.0	48528.1	48577.1	48725.1	50041.0
32890.3	48015.0	48063.0	48112.0	48350.0	48529.1	48578.1	48726.1	50042.0
32890.4	48016.0	48064.0	48113.0	48360.0	48529.2	48579.1	48727.1	50045.0
32890.5	48019.0	48066.0	48114.0	48370.0	48530.1	48600.1	48728.1	50100.0
32890.6	48020.0	48067.0	48115.0	48375.0	48531.1	48600.2	48729.1	50478.0
36017.0	48021.0	48068.0	48116.0	48375.1	48532.1	48600.3	48730.1	50700.0
36130.0	48023.0	48069.0	48117.0	48375.2	48533.1	48600.4	48731.1	50701.0
36135.1	48023.1	48071.0	48119.0	48375.3	48534.1	48600.5	48732.1	50715.7
36158.0	48024.0	48072.0	48120.0	48385.0	48535.1	48600.61	48733.1	50760.0
36871.0	48025.0	48073.0	48121.0	48401.1	48536.1	48600.62	48734.1	50793.0
36880.0	48025.1	48074.0	48122.0	48402.1	48537.1	48600.71	48734.2	50793.1
42000.0	48026.0	48075.0	48123.0	48403.1	48538.1	48600.72	48735.1	50801.0
42000.1	48026.1	48076.0	48124.0	48405.1	48539.1	48601.1	48736.1	50870.0
42000.3	48027.0	48077.0	48125.0	48406.1	48540.1	48601.2	48737.1	50870.1
42001.1	48028.0	48078.0	48126.0	48407.1	48542.1	48601.3	48738.1	50890.1
42001.2	48029.0	48079.0	48127.0	48408.1	48543.1	48601.4	48739.1	50890.3
42002.1	48031.0	48081.0	48128.0	48409.1	48544.1	48601.5	48870.0	50890.4
42002.2	48033.0	48082.0	48129.0	48411.1	48545.1	48601.6	48870.1	50890.5
42003.1	48034.0	48083.0	48130.0	48412.1	48546.1	48601.8	48870.2	50890.6
42003.2	48034.1	48084.0	48131.0	48413.1	48547.1	48701.1	48870.3	50890.7
42004.1	48035.0	48084.1	48132.0	48500.1	48548.1	48702.1	48890.1	
42004.2	48036.0	48085.0	48133.0	48500.2	48551.1	48703.1	48890.3	
42275.3	48039.0	48086.0	48134.0	48500.3	48552.1	48704.1	48890.4	
42375.0	48040.0	48088.0	48135.0	48501.1	48553.1	48705.1	48890.5	
42535.0	48041.0	48089.0	48136.0	48502.1	48554.1	48706.1	48890.6	
42870.0	48042.0	48092.0	48137.0	48503.1	48555.1	48707.1	50000.0	
42870.1	48043.0	48095.0	48138.0	48504.1	48556.1	48708.1	50000.1	

2021 Commercial Neighborhood Plan

32950.1	48905.3	48925.6	48950.1	48980.D	50957.5
32950.2	48905.A	48925.8	48951.0	48980.E	50957.6
32980.1	48905.E	48925.A	48951.F	48981.0	50957.7
42950.1	48905.F	48925.B	48951.G	48981.1	50957.8
42980.1	48909.2	48925.D	48952.1	48982.1	50957.9
42989.1	48909.3	48925.G	48952.2	48982.2	50957.A
42989.2	48909.4	48925.H	48952.3	48982.4	50957.B
42989.4	48909.5	48925.J	48952.G	48982.5	50957.C
42989.5	48909.6	48925.L	48952.J	48982.6	50957.D
42989.6	48909.A	48925.N	48952.K	48982.7	50957.E
42989.A	48909.B	48925.P	48953.2	48982.8	50957.F
42989.B	48909.D	48925.S	48953.3	48982.9	50957.G
44955.1	48909.J	48926.0	48953.4	48983.5	50957.H
48900.1	48909.L	48928.0	48953.5	48984.0	50957.J
48900.1C1	48912.0	48928.1	48953.A	48984.2	50957.K
48900.1C2	48912.2	48928.2	48953.C	48984.3	50957.L
48900.2	48912.3	48928.3	48955.1	48984.5	50970.1
48900.2C1	48912.4	48928.4	48955.2	48984.A	50975.1
48900.2C2	48912.5	48928.5	48955.3	48985.1	50980.1
48900.2C3	48915.1	48928.6	48955.4	48985.2	
48900.2C4	48915.2	48928.9	48955.5	48985.3	
48900.2C5	48919.0	48928.C	48955.6	48985.6	
48900.2C6	48919.1	48928.D	48955.7	48986.3	
48900.2C7	48919.2	48928.E	48955.8	48986.4	
48900.2C8	48919.3	48930.1	48955.9	48986.5	
48900.2C9	48919.4	48930.2	48955.A	48986.6	
48900.3	48919.5	48930.3	48955.B	48986.7	
48900.3C1	48919.6	48930.4	48955.C	48986.B	
48900.4	48919.7	48930.5	48955.D	48987.0	
48900.5	48919.8	48931.0	48955.E	48987.1	
48900.6	48919.9	48931.2	48957.1	48987.4	
48900.7	48919.A	48931.4	48957.2	48987.6	
48900.8	48919.B	48931.B	48957.3	48987.7	
48900.A	48919.C	48932.0	48957.4	48987.8	
48900.G	48919.D	48933.0	48957.5	48987.9	
48902.1	48919.E	48933.3	48957.6	48987.B	
48902.2	48919.F	48935.0	48970.0	48987.D	
48902.3	48919.G	48937.1	48970.1	48987.E	
48902.4	48919.J	48937.2	48975.1	48987.F	
48902.5	48919.N	48940.1	48975.3	48987.G	
48903.0	48919.P	48940.2	48975.4	48987.P	
48903.2	48919.U	48940.5	48980.0	48988.2	
48903.3	48919.V	48941.1	48980.2	48988.3	
48903.4	48919.W	48941.2	48980.3	48988.5	
48903.5	48924.0	48941.3	48980.5	48989.0	
48903.A	48924.A	48941.4	48980.6	48995.0	
48903.B	48925.0	48941.6	48980.7	50950.1	
48903.C	48925.1	48941.7	48980.8	50957.0	
48903.D	48925.2	48941.8	48980.9	50957.1	
48905.0	48925.3	48941.9	48980.A	50957.2	
48905.1	48925.4	48941.A	48980.B	50957.3	
48905.2	48925.5	48941.C	48980.C	50957.4	

2022 Residential Neighborhood Plan

12001.0	18007.0	18093.1	20003.0	20703.0	26757.0	28031.1	30890.1	44032.1
12002.0	18008.0	18172.0	20004.0	20710.7	26757.1	28032.1	30890.3	44033.0
12025.0	18009.0	18325.7	20004.1	20713.1	26870.0	28033.1	36891.1	44034.0
12870.0	18010.0	18451.0	20004.2	20714.0	26890.1	28034.1	44000.0	44035.0
12870.1	18011.0	18468.0	20005.0	20740.7	26890.3	28035.1	44001.0	44036.1
12890.1	18011.1	18475.0	20005.1	20779.0	26890.4	28036.1	44002.1	44037.0
12890.3	18012.0	18477.0	20006.1	20791.0	26890.5	28037.1	44003.1	44038.0
12890.4	18013.0	18582.0	20006.2	20870.0	26890.6	28038.1	44004.1	44039.1
12890.5	18014.0	18582.1	20007.0	20870.1	26890.7	28039.1	44005.0	44040.1
12890.6	18014.1	18710.0	20008.0	20870.3	28001.0	28040.1	44006.1	44075.0
14000.0	18015.1	18723.0	20009.0	20870.4	28002.0	28041.1	44007.0	44475.5
14001.1	18016.1	18725.0	20010.1	20870.7	28003.0	28042.1	44008.0	44701.0
14002.1	18026.0	18726.0	20014.1	20890.1	28004.0	28043.1	44009.1	44743.0
14004.1	18075.0	18746.2	20015.0	20890.3	28004.2	28044.1	44009.2	44744.4
14010.0	18077.0	18746.3	20016.0	20890.4	28005.0	28045.1	44010.0	44870.0
14011.1	18077.4	18753.0	20017.0	20890.5	28006.0	28046.1	44010.1	44890.1
14015.1	18077.41	18757.1	20020.0	20890.6	28007.0	28100.0	44011.1	44890.3
14019.1	18077.42	18767.0	20021.1	20890.7	28008.0	28870.0	44012.1	44890.4
14175.0	18077.43	18778.0	20021.2	20893.7	28010.0	28870.1	44013.0	44890.5
14401.0	18077.44	18778.1	20023.1	22890.1	28011.0	28870.2	44014.0	44890.6
14475.0	18077.7	18783.0	20026.1	22890.5	28012.1	28870.3	44016.0	46890.1
14477.0	18078.0	18783.7	20027.1	24001.1	28013.0	28870.4	44016.1	48405.1
14477.1	18079.0	18870.0	20028.1	24002.1	28015.0	28870.5	44017.0	48890.1
14870.0	18080.0	18870.1	20031.1	24100.1	28016.0	28870.6	44018.1	48890.4
14870.1	18081.0	18871.1	20032.1	24870.0	28017.0	28870.7	44019.1	50478.0
14890.1	18082.0	18872.1	20033.0	24890.1	28019.0	28870.8	44021.0	50870.0
14890.3	18084.0	18873.1	20035.1	24890.3	28020.0	28870.9	44023.1	50890.1
14890.4	18085.0	18890.1	20035.2	24890.4	28021.0	28871.1	44024.0	50890.4
14890.5	18088.0	18890.3	20036.1	24890.5	28022.0	28871.2	44026.0	50890.6
14890.6	18089.0	18890.4	20040.1	24890.7	28023.1	28890.1	44027.0	
14890.7	18090.1	18890.5	20050.1	24950.1	28023.2	28890.3	44028.0	
18003.0	18091.1	18890.6	20325.0	26275.0	28027.1	28890.4	44029.0	
18004.1	18092.1	18890.7	20500.0	26364.0	28028.1	28890.5	44030.0	
18006.0	18092.2	20002.0	20588.0	26570.1	28029.1	28890.6	44031.0	

2022 Commercial Neighborhood Plan

12940.0	14980.1	20909.3	20960.1	28909.3	28957.5	28980.6	36955.6	44950.1
12950.1	14999.1	20928.0	20970.1	28909.A	28957.6	28980.7	44909.1	44955.1
12980.1	18919.2	20937.0	20980.1	28909.C	28957.7	28980.8	44909.2	44955.4
12980.2	18919.3	20937.1	24950.1	28909.D	28957.8	28980.9	44909.3	44955.6
14919.1	18919.4	20940.0	24980.1	28940.0	28957.9	28987.1	44909.4	44980.1
14919.2	18919.5	20950.1	26940.0	28940.1	28960.1	28987.2	44909.5	48909.8
14919.3	18919.9	20957.0	26950.1	28940.5	28970.1	28987.4	44909.6	48933.0
14919.4	18970.1	20957.1	26980.1	28940.6	28980.0	28987.5	44909.7	48955.E
14919.5	18980.1	20957.2	26989.1	28950.1	28980.1	28987.6	44909.8	48957.2
14928.0	18999.1	20957.3	26989.2	28957.1	28980.2	28987.7	44909.9	48957.4
14931.0	20909.0	20957.4	26989.3	28957.2	28980.3	28987.8	44909.A	48980.E
14940.0	20909.1	20957.5	28909.1	28957.3	28980.4	28987.9	44909.B	48987.4
14950.1	20909.2	20957.6	28909.2	28957.4	28980.5	28989.2	44940.0	48987.E

Exhibit 'D'

CALENDAR OF EVENTS

Exhibit 'E'

BUDGET

Exhibit 'F'

RESOLUTION ADOPTING REAPPRAISAL PLAN

**RESOLUTION OF ADOPTION OF A REAPPRAISAL PLAN
FOR TAX YEARS 2021 & 2022 FOR
McLENNAN COUNTY APPRAISAL DISTRICT**

WHEREAS, Sections 6.05 and 25.18 of the Texas Property Tax Code, sets forth requirements for developing a biennial written plan for the periodic reappraisal of all property within the boundaries of the appraisal district; and

WHEREAS, in order to create a definitive plan, the McLennan County Appraisal District has developed a written plan for the District to use for the periodic reappraisal of all property within the boundaries of the district for tax years 2021 & 2022; and

WHEREAS, the Board of Directors of the McLennan County Appraisal District have reviewed the reappraisal plan prepared by the Appraisal District and has determined that the plan meets the statutory criteria and that it is in the public interest that the plan be adopted by the McLennan County Appraisal District,

NOW, THEREFORE BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE McLENNAN COUNTY APPRAISAL DISTRICT:

That the McLennan County Appraisal District adopts the Reappraisal Plan for Tax Years 2021 and 2022, attached hereto as Exhibit 1.

PASSED AND APPROVED THIS THE ____th Day of _____, 2020

John Kinnaird, Chairman
McLennan County Appraisal District

ATTEST:

Allen Sykes, Secretary
McLennan County Appraisal District