

Comparable Sales Adjustment Grid

Jefferson County Assessor's Office

May 1, 2021

The Comparable Sales Adjustment Grid is one of the key tools used in Mass Appraisal for value review and defense. The Comparable Sales Adjustment rates are derived from the Mass Appraisal Model which is a multiple regression analysis that identifies the most important attributes influencing value. When appropriate, additional specific adjustments may be made by the appraiser.

You can look for comparable sales on the Assessor's website via the [Property Record Search](#). Enter your Pin/Schedule number, select your schedule and you will be directed to the Property Information page. The next tab is labeled Sales. This page defaults to the current sales period for the 2021 Reappraisal, listing the qualified sales used in the reappraisal analysis. There are 3 different sections:

- Sale Details which allows you to choose different sale dates, sale price ranges, sale types and qualified and/or all sales (defaults to 07/01/2018 – 06/30/2020, Qualified).
- Location Details which allows you to refine or expand your search (defaults to your Neighborhood) by City, Postal Code, Distance from Property, Market Area, Neighborhood and/or Subdivision.
- Property Inventory Details defaults to the same property type as the subject. Additional refinement options include Gross Square Feet (bldg.), Acreage, Year Built, and Design.

You can see the results on a Google map. Primary inventory used in the mass appraisal analysis can be expanded so that you can see the sale type, qualified reason, time adjusted sale price, and distance from the selected property. The result set can also be exported for your review and analysis.

If you are interested in learning more about the mass appraisal process, please go to the Assessor's website via Assessment Process/Mass Appraisal [Valuation Documents](#) section. If you want to see the Data Dictionary or [Glossary](#), it is located on the Property Records Search, last option on the left-hand side.

This document will compare a Subject property with Comparable 1 for illustration purposes in explaining the adjustment process. Please refer to this section for specifics throughout the document.

Subject: Ranch design, Brick construction, Good quality, 1,500 square foot above grade home, 1,000 square foot unfinished basement, built in 1980, major remodel updates in 2018 resulting with an adjusted year built 2000. It has 1 full bath and 1 three-quarter bath, Forced Air Heat and Central Air Conditioning, and 400 square foot Attached Garage. The home backs to a Private Golf Course, Land Adj 8 and the site size is .350 acres. It is in Neighborhood 1234.

Comparable 1: 2 Story design, Frame construction and Good quality, 2,300 square foot above grade home, 1,500 square foot finished walkout (Grade C) basement, built in 2000, minor remodel updates in 2017 resulting in no change in the adjusted year built. Its Time Adjusted Sale Price is \$500,000. It has 2 full baths, 1 three-quarter bath and 1 half bath. It has Forced Air Heat and Roof-top Evaporative cooling. It has a 600 square foot Attached Garage and an additional 750 square foot Frame, Good quality Carriage House which was added in 2015. The home is located about a half mile from the Subject but does not have any golf course frontage. It is assigned Land Adj 4. The site size is .570 acres. It is in Neighborhood 5678.

Please note: These two properties should **not** be compared to each other. There is very little comparability between the two, which can be seen by the number of adjustments and level of adjustments. Just because they are a half mile from each other does not mean they are comparable. This is presented solely to demonstrate the adjustment methodology. Preferred comparability is using similar designs, age and size properties. Comp grids work best when the adjustments are meaningful.

The Comp Grid uses the rates and factors to calculate a total value for the Subject and Comparable. Those total values are then compared for similarity or differences. A threshold determines when the adjustment is made. For living area, land size, and age, this is the difference between the square footage and age of the Subject and Comparable. For non-living areas, the threshold is a dollar amount.

The calculations for the adjusted rates in this document may not be consistent due to rounding. In addition, none of the adjustments presented were rounded. The adjustment amounts are rounded in the Cama comp grid program.

Property Identification.

Subject/Comparable Number.

Account. Pin aka Schedule Number. Comparable Sales have 3 digits added at the end of their Pin. This is used by the database for indexing purposes.

Property Address aka Situs.

Sale Information:

Sales Price is the Time Adjusted Sale Price used in the analysis for value. Adjustments for time, concessions and personal property are included here. Please refer to the [Assessor's website](#) for specific information regarding the sale prices and time adjustments.

Date of Sale. All sales are adjusted to June 30, 2020, which is the Assessment or Valuation Date. Sales occurring during the 24-month period of July 1, 2018 to June 30, 2020 are analyzed for inflation rates by property type and market area.

Time Adjusted Sales Price per square foot. This is the recorded sale price, plus the market conditions and time adjustment amount, divided by the Above Grade Heated Area square footage.

Improvement Adjustments.

Design/Quality/Construction Class. Market analysis has indicated that design, quality and construction class have a correlating influence on sales price. An adjustment is made for these differences between the Subject and Comparable Sale with the following formulas:

1. Base Living Area Rate = Quality Rate x Design Factor x Construction Class
2. $((\text{Subject Rate} / \text{Comparable Rate}) - 1) \times \text{Time Adjusted Sale Price}.$

This adjustment does not have a threshold. The division by 1 in step 2 is to convert the number to a percentage rather than a factor.

Design	Factor	x	Construction Class	Factor	x	Quality	\$/sf
Ranch	1.00		Frame	1.00		0 – Economy	\$73
Raised Ranch	1.00		Brick	1.05		1 – Poor	\$122
1-1/2 Story	0.970		Combination	1.03		2 – Fair	\$146
2 Story	0.997		Log	1.00		3 – Average	\$152
2-1/2 Story	0.997		Modular	0.90		4 – Good	\$165
3 Story	1.04					5 – Very Good	\$197
Mixed Design	0.994					6 – Excellent	\$281
Split Level	0.994					7 – Premier	\$304
Bi Level	0.967						
A-Frame	0.997						
Geodesic Dome	0.997						
Subterranean	0.967						
Seasonal Cabin	0.75						
Condo	1.200						

Subject’s Base Rate is $\$165 \times 1.00 \times 1.05 = \173.25 .

Comparable 1’s Base Rate is $\$165 \times 0.997 \times 1.00 = \164.50 .

$$\$173.25 / \$164.50 = 1.053. \quad 1.053 - 1.00 = 0.053. \quad 0.053 \times \$500,000 = \$26,500$$

Based on the combination of these factors, a positive adjustment is made to Comparable 1.

Living Area Adjustment. Living area consists of all areas above ground. Garden Level area consists of areas mid-level above ground indicated by the windows that are above the ground. Basement area consists of areas below the ground. The Assessor’s Office does not add these areas together as total square footage. Contrary to how realtors market finished areas, our market analysis has determined variations for these building levels. On a mass appraisal basis, inequity is created when basement finished area is considered the same as above area.

Note: Above Grade, Living Area and Heated Area all refer to the same area. These phrases mean the same thing and are legacy versus new software labeling. Basement and Garden Level heating areas are handled in the Finished rate.

When there is a square footage difference greater than 100 square foot between the Subject and Comparable, an adjustment for living area is made. Only the Above Grade Living Area is used for the size adjustment as the Garden Level and Basement areas have separate adjustments. A Size factor is applied to the Adjusted Base Living Area Rate to account for economies of size, which is then applied to the square foot difference.

Subject contains 1,500 square feet Above Grade;
 Comparable 1 contains 2,300 square feet Above Grade.
 $1,500 \text{ sq. ft.} - 2,300 \text{ sq. ft.} = -800 \text{ sq. ft.}$

Adjusted Base Rate x Living Area Difference Factor x Square Foot Difference:

$$\$164.50 \times 0.60 = \$98.70 \times -800 \text{ sq. ft.} = -\$78,960$$

A negative adjustment is applied to Comparable 1 to adjust for the Above Grade living area difference.

The following table shows the area break points and adjustment factors.

Living Area Difference	Factor	Living Area Difference	Factor	Living Area Difference	Factor	Living Area Difference	Factor
101	0.85	750	0.60	2,000	0.43	5,000	0.35
250	0.80	1,000	0.50	3,000	0.40		
500	0.70	1,500	0.45	4,000	0.38		

Year Built -- Adjusted Year Built – Remodel Year. Year Built is the first year the improvement is placed on the tax roll, not when construction is started. For example, if construction began in January 2020, finished and occupied in October 2020, the improvement would be placed on the 2021 tax roll and considered built in 2021.

Adjusted Year Built refers to the result of additional living space added either through an addition or conversion of non-living area or interior remodeling, all of which extends the life of the improvement. Adjusted Year Built is used as the adjustment rather than Year Built due to the modified life to the improvement.

When there is an Adjusted Year difference greater than 10 years between the Subject and Comparable, an adjustment is made by applying an age difference factor to the Time Adjusted Sale Price.

For example, the Year Built difference between the Subject and Comparable 1 is 20 years. However, due to the 2018 major remodel of the Subject, its Adjusted Year Built is 2000, which is the same as Comparable 1. No adjustment for age is made, but an adjustment for Remodel type is considered (see below).

If the Subject’s Adjusted Year Built was not the same as Comparable 1, the adjustment would be: Subject: 1980 – Comparable 1: 2000 = -20. $0.08 \times \$500,000 = -\$40,000$.

Age Difference	Percent	Age Difference	Percent	Age Difference	Percent
10	0.02	40	0.18	70	0.45
15	0.05	45	0.20	75	0.50
20	0.08	50	0.25	80	0.55
25	0.10	55	0.30	85	0.60
30	0.12	60	0.35	90	0.65
35	0.15	65	0.40	95	0.70

The remaining improvement adjustment items are a quality-based rate. What has been presented is the Average quality rate. Please apply the appropriate quality factor for each adjustment item for both the Subject and Comparable Sale if they have been classified by the Assessor’s Office as anything other than Average Quality construction.

Quality	Quality Factor
0 – Economy	0.48
1 – Poor	0.80
2 – Fair	0.96
3 – Average	1.00
4 – Good	1.09
5 – Very Good	1.29
6 - Excellent	1.85
7 - Premier	2.00

Remodel Adjustment. Remodel year is the most recent year when the improvement was modified for remodeling, additions, or conversion of non-living area to living area. Market analysis has shown that there are different levels of remodeling. The Jefferson County Assessor’s Office has been gathering data from building permits, RE Colorado notes and field inspections to determine the level of remodeling completed on an improvement. Three remodel types are applied using a \$/sf quality-adjusted rate by the Above Grade Heated Area: Many Updates, Gutted or Rebuild. To account for the most recent remodels, only remodel years within the past 5 years will have any adjustments.

Remodel Type	Adjustment
0%: As Is; Paint Carpet	\$0.00
5%: Minor Updates (Roofing, Windows)	\$0.00
15%: Some Updates (Room remodel)	\$0.00
40%: Many Updates (Substantial changes)	\$10.00
75%: Gutted	\$15.00
95%: Rebuild	\$15.00

The Subject had Many Updates completed in 2018.

Comparable 1 had Minor Updates completed in 2017.

Both Remodel Years were made within 5 years of 2021 and qualify for an adjustment.

Subject: $\$10.00 \times 1.09 = \$10.90 \times 1,500$ square feet = \$16,350.

Comparable 1: \$0.00.

$\$16,350 - 0 = \$16,350$.

A positive adjustment is made to Comparable 1.

Heating and Cooling Adjustment. A heating adjustment is made when the heat source is something other than forced air. Heat and Cooling adjustments are separately calculated using a \$/sf quality-adjusted rate by the Above Grade Heated Area. The sum of those two-line items is presented on the comp grid when the total calculated difference is greater than \$500.

Heating Adjustment						
Quality	Forced Air	Hot Water	Electric	Gravity	Wall Furnace	No Heat
Average	\$0.00	\$3.50	-\$1.50	-\$1.50	-\$1.50	-\$15.70
Cooling Adjustment						
Quality	Central Air Conditioning		Evaporative Cooler			
Average	\$6.00		\$2.70			

The Subject has Forced Air and Central Air Conditioning;
 Comparable 1 has Forced Air and Roof-top Evaporative Cooling.

Subject: $\$6.00 \times 1.09 = \$6.54 \times 1,500$ square feet = $\$9,810$.
 Comparable 1: $\$2.70 \times 1.09 = \$2.94 \times 2,300$ square feet = $\$6,769$.
 $\$9,810 - \$6,769 = \$3,041$.

A positive adjustment is applied to the Comparable.

Bathroom Adjustment. A lump sum adjustment for the differences on each quality-adjusted item type is made when the calculated difference is greater than \$500.

Bathroom Adjustment					
Quality	Full Bath+ Kit/Laundry	Full Bath	3/4 Bath	1/2 Bath	No Bath
Average	\$13,190	\$13,190	\$9,900	\$6,600	-\$7,920

The Subject has 1 Full bath, 1- $\frac{3}{4}$ bath.
 $\$13,190 + \$9,900 = \$23,090 \times 1.09 = \$25,168$.
 Comparable 1 has 2 Full baths, 1 - $\frac{3}{4}$ bath, 1 - $\frac{1}{2}$ bath.
 $\$13,190 + \$13,190 + \$9,900 + \$6,600 = \$42,880 \times 1.09 = \$46,739$.
 $\$25,168 - \$46,739 = -\$21,571$.

A negative adjustment is applied to the Comparable.

Basement Area / Garden Level / Walkout Adjustment. When the calculated difference is greater than \$1,000, the \$/sf quality-adjusted rate is made for both total basement/garden level area and finished basement/garden level area. There are 3-line items for this category:

- Total Basement / Garden Level, which is considered Unfinished Area.
- Finished Basement / Garden Level area, which reflects the heated area.
- Walkout Type associated with appropriate floor level.

If either the Subject or Comparable have both a Garden Level and Basement area, then each respective area is calculated. The Walkout adjustment is applied to the area specified in the database. For example, a property has Finished Garden Level, Walkout C and the comparable has Finished Basement, Walkout C, the walkout rate is based on the level assigned. There are separate thresholds of \$1,000 each for Basement and Garden Level adjustments.

Basement / Garden Level Area Adjustment				
Quality	Total Basement	Finished Basement	Total Garden Level	Finished Garden Level
Average	\$29.00	\$28.00	\$40.00	\$41.00

There are three types of walkouts. These additional adjustments are applied to the total basement area. The rates below reflect average quality homes.

Walkout Type	\$/sf
A - Exterior Stairwell Access	\$5.00
B aka 2 - Slightly out of ground / Door at Grade	\$8.00
C aka 3 At least one side out of ground / Door & Windows at Grade	\$12.00

The Basement / Garden Level / Walkout adjustment is calculated as:

Quality Factor * ((Total Basement Rate x Total Basement SF) + (Finished Basement Rate x Finished Basement SF) + (Walkout Type x Total Basement SF)).

Subject has 1,000 square foot Unfinished Basement, no walkout:
 $\$29.00 \times 1.09 = \$31.61 \times 1,000 \text{ sq. ft.} = \$31,610.$

Comparable 1 has 1,500 square foot Finished Basement (100%) and a Grade C Walkout:
 $\$29.00 + \$28.00 + \$12.00 = \$69.00 \times 1.09 = \$75.21 \times 1,500 \text{ sq. ft.} = \$112,815.$
 $\$31,610 - \$112,815 = -\$81,205.$

A negative adjustment is applied to the Comparable.

Garage Adjustment. When the calculated difference is greater than \$1,000, a quality-based garage adjustment is made between the Subject and Comparable. When the Garage type is either Detached or Carport, an age factor is applied to the quality-adjusted rate. The age factors are the same that were used for the main improvement age. To determine the age factor, the current year (2021) is compared to the Year Built for those items. That number is then subtracted from 1 for the age factor. Then the calculated values are compared for the adjustment.

Garage Adjustment				
Quality	Attached	Detached Frame	Detached Masonry	Carport
Average	\$56.00	\$46.75	\$50.00	\$15.00

The Subject has a 400 square foot Attached Garage. No age adjustment is made.
 $\$56.00 \times 1.09 = \$61.04 \times 400 \text{ sq. ft.} = \$24,416.$

Comparable 1 has a 600 square foot Attached Garage. No age adjustment is made.
 $\$56.00 \times 1.09 = \$61.04 \times 600 \text{ sq. ft.} = \$36,624.$
 $\$24,416 - \$36,625 = -\$12,208.$

A negative adjustment is made to Comparable 1.

Other Adjustments. Additional adjustments are made for porches, wood decks, and utility buildings. The tables listed below represent separate sections: Porch / Utility Building / Additional Detached Units. Each section has a \$1,000 threshold (sum of all areas within the section) and the areas within each section are handled as separate line item calculations which are then summarized. An age factor is applied to the Utility Building and Additional Detached Unit rates. To determine the age factor, the current year (2021) is compared to the Year Built for each item; the age is looked up on the Age factor chart. It is then subtracted from 1 to get the adjusted age factor. The calculated totals are compared for adjustment.

Property specific adjustments for functional or external forces, identified as quality and depreciation adjustments, are made as needed.

Porch and Wood Deck Adjustments							
Quality	Enclosed Porch		Covered Porch		Wood Balcony/Deck		
Average	\$34.00		\$32.00		\$23.00		

Utility Building Adjustments				
Quality	Barn, Residential Use	Pole Barn/ Residential Greenhouse	Utility Building/Shed, Residential Use	Stable, Residential Use
Average	\$25.00	\$16.00	\$10.00	\$27.00

Additional Detached Unit Adjustments							
Quality	Carriage House, Frame	Carriage House, Masonry	Detached Structure w/ Bath & Living Area	Detached Apartment Unit	Detached Studio	Detached Storage	Work Shop, Residential Use
Average	\$112.00	\$120.00	\$100.00	\$107.00	\$67.50	\$50.00	\$45.00

The Subject has no additional areas.

Comparable 1 has a 750 square foot Good quality, Frame Carriage House built in 2005.

2021 – 2005 = 16 years old or 0.05. $1 - 0.05 = 0.95$

$\$112.00 \times 1.09 \times 0.95 = \$115.98 \times 750 \text{ sq. ft.} = \$86,982.$

$0 - \$86,982 = -\$86,982.$

A negative adjustment is made to Comparable 1 for this additional structure.

Land Adjustments

Land Adjustment. When there is a difference greater than .125 acres between the Subject's acreage and the Comparable Sale's acreage, an adjustment is made. The adjustment uses the per acre rate times the specific acreage for a total land size value. Refer to the table below for the Acre break points and their respective per acre rates.

Acre	Acre Rate	Acre	Acre Rate	Acre	Acre Rate	Acre	Acre Rate
0.125	\$250,000	0.80	\$150,000	3.0	\$50,000	15.0	\$20,000
0.20	\$225,000	1.0	\$100,000	5.0	\$35,000	20.0	\$15,000
0.35	\$200,000	1.5	\$80,000	7.0	\$30,000	50.0	\$10,000
0.50	\$175,000	2.0	\$70,000	10.0	\$25,000	80.0	\$7,000

The Subject has .350 acres. $0.35 \text{ acres} \times \$200,000 = \$70,000.$

Comparable 1 has .570 acres. $0.57 \text{ acres} \times \$175,000 = \$99,750.$

$\$70,000 - \$99,750 = -\$29,750.$

A negative adjustment is made to Comparable 1 for land size.

Contributor Adjustment. The difference between the Subject and Comparable Sale land contributors, if any, is calculated as a percentage of the Comparable Time Adjusted Sale Price. Refer to the table below for the Land Codes and Factors. These rates are from the global land model and may differ from the actual rates used in the valuation due to locational influences. The comp grid uses the

actual factors used in the 2021 Reappraisal specific to Subject and Comparable. The calculation is as follows:

$$\text{Neighborhood Factor} \times \text{Contributor Factors} = \text{Net Factor}$$

$$\text{Subject Net Factor} / \text{Comparable Net Factor} = \text{Factor difference} / 100 =$$

$$\text{Percent Adjustment} \times \text{Time Adjusted Sales Price}$$

Contributors are assigned to a Category. The Category is the first 2 characters of the Code displayed in the table below and on the comp grid. The Contributor is the last 2 characters of the Code. A property should have one Contributor per Category. When there are overlaps in contributors, we try to assign contributors based on their value influence, most important to least important.

Category: Access			Category: Coverage			Category: View		
Contributor	Code	Factor	Contributor	Code	Factor	Contributor	Code	Factor
Fair Access	AC-AF	0.94	Average Coverage	CV-CA	1.0	Excellent View	VW-V1	1.65
No Access	AC-AN	0.5	Good Coverage	CV-CG	1.05	Very Good View	VW-V2	1.45
Poor Access	AC-AP	0.67	Poor Coverage	CV-CP	0.8	Good View	VW-V3	1.15

Category: Topography			Category: Restricted Area			Category: Water		
Contributor	Code	Factor	Contributor	Code	Factor	Contributor	Code	Factor
Level	TP-LV	1.0	Restricted Area	RS-R1	0.9	Creek	WT-CR	1.5
Steep	TP-ST	0.65	Partial Restriction	RS-R2	0.95	Floodplain	WT-FL	0.65
Very Steep	TP-VS	0.4	Vacant Restriction	RS-R3	1.0	Lake	WT-LK	1.4

Category: Location			Category: Soil Problems			Category: Traffic		
Contributor	Code	Factor	Contributor	Code	Factor	Contributor	Code	Factor
Golf Course, Pblc Community	LO-N6	1.1	5% Bentonite	SP-B1	0.95	Collector	TR-T1	0.9
Golf Course, Prv Community	LO-N7	1.1	25% Bentonite	SP-B2	0.75	Minor Arterial	TR-T2	0.81
Gated Community	LO-N8	1.3	50% Bentonite	SP-B3	0.5	Principal Arterial	TR-T3	0.74
Energy Efficient Community	LO-N9	1.05	Remediated	SP-B4	1	Parkway	TR-T4	0.67
						Freeway	TR-T5	0.62

Category: Open Space			Category: Soil Problems			Category: Location Factor Adjustment		
Contributor	Code	Factor	Contributor	Code	Factor	Contributor	Code	Factor
Golf Course, Pblc adjacent	OS-F1	1.15	10% Disaster	SP-D1	0.9	Land Adj 1	SG-1	0.57
Golf Course, Prv adjacent	OS-F2	1.15	25% Disaster	SP-D2	0.75	Land Adj 2	SG-2	0.72
Greenbelt	OS-G1	1.05	40% Disaster	SP-D3	0.6	Land Adj 3	SG-3	0.88
Park	OS-P1	1.05	50% Disaster	SP-D4	0.5	Land Adj 4	SG-4	1.0
Open Space	OS-S1	1.18	80% Disaster	SP-D5	0.2	Land Adj 5	SG-5	1.2
			90% Disaster	SP-D6	0.1	Land Adj 6	SG-6	1.35
			100% Disaster	SP-D7	0.1	Land Adj 7	SG-7	1.55
			Remediated	SP-D8	1	Land Adj 8	SG-8	2.15
						Land Adj 9	SG-9	2.4

Category: External Forces			Category: Unbuildable		
Contributor	Code	Factor	Contributor	Code	Factor
Conservation Easement	CE-ES	1.0	90% unbl.	UB-U1	0.1
Industrial	EF-IN	0.88	80% unbl.	UB-U2	0.2
Light Rail	EF-LR	0.88	70% unbl.	UB-U3	0.3
Multi-Family	EF-MF	0.88	60% unbl.	UB-U4	0.4
Office	EF-OF	0.9	50% unbl.	UB-U5	0.5
Powerline	EF-PL	0.9			
Retail	EF-RE	0.88			
Railroad Tracks	EF-RR	0.88			

The Subject backs to a Private Golf Course (OS-F2), assigned Land Adj 8 (SG-8) and Nbhd 1234.
 $1.15 \times 2.15 \times 1.04 = 2.57$.

Comparable 1 is assigned Land Adj 4 (SG-4) and Nbhd 5678.
 $1.0 \times 1.17 = 1.17$.

$2.57 / 1.17 = 2.20 / 100 = 0.022$.
 $0.022 \times \$500,000 = \$11,000$

A positive adjustment is made to Comparable 1 for land characteristic differences.

To summarize, the following are the adjustments made to Comparable 1:

Adjustment Item		\$500,000
Design/Construction/Quality	Inferior	26,500
Living Area	Superior	-78,960
Year Built / Adjusted Year Built	Similar	0
Remodel Type	Inferior	16,350
Heat / AC	Inferior	3,041
Bath Type / Count	Superior	-21,571
Basement/Garden Level/ Walkout	Superior	-81,205
Garage	Superior	-12,208
Other Area Adjustments	Superior	-86,982
Land Size	Superior	-29,750
Land Characteristics	Inferior	11,000
Adjusted Sale Price		\$246,215

Conclusion: Comparable 1 has one similar characteristic, Adjusted Year Built; four inferior characteristics, and six superior characteristics. Total number of adjustments is 10. Absolute Adjustment = \$367,567 or 73%. Net Adjustment = -\$253,785 or 50%. Because of the number of adjustments and the percentage of adjustments over 25%, Comparable 1 is not a good candidate to compare with the Subject.

Agricultural Property Adjustments

When the Subject property is assigned an agricultural tax classification, the land value is assigned a per acre rate based on its usage. Agricultural classifications are granted after the property owner submits an application and then provides documentation of agricultural use after a three-year period. So, an improved sale that originally was given a residential tax classification could potentially be changed to a residential agricultural tax classification at a later date.

This complicates the matter of reviewing total, improvement and land values of the subject versus the comparables. Agricultural properties have mixed tax assessment percentages: the agricultural land is assessed at 29%, while the residential improvement is assessed at the current residential rate of 7.15%. Comparables are considered solely residential.

To handle those situations, the agricultural land is considered as if Full Market value and uses the same per acre rates as described on page 7. Agricultural land does not have any land characteristics assigned, so the only adjustment applied would be the neighborhood factor. The land characteristic adjustment would be applied as described on page 8. The sum of these totals is then subtracted from the sale price to reflect an improvement only value.

Search Model Methodology

A key component when using the Comparable Sales method is the comparability of sales to the subject because sale selection drives the resulting calculated Market Value. The appraisers run queries and look through lists of sales within the subject’s neighborhood and/or market area, looking for similar design, quality, living area size, age and land area size. Additional elements are Garden Level and/or Basement areas (and % Finished area), bath count, remodel type / remodel year, extra features, and land characteristics.

A new feature was added in 2019 where search models were created that assigned specific attribute selection criteria to handle the many different properties within the Residential areas. Approximately 35 search models were used for the 2021 Appeal season.

The search models include several refinement methods to the search. For example, large acreage homes should use large acreage sales, so three Acre specific search models were created that set a starting and ending point for the sales within the acre range. Older homes can be difficult to find if an area is changing due to demos, remodels, and new construction. A search model for homes older than 1940 was created. The filtering also allows for exact matches, +/- columns, and appraiser specific matches (noted as a comma-list which presented all options and the appraiser could select specific attribute matches).

A typical neighborhood search model looked like this:

Impr Type	Name	Weight		Exact/All	+ / -	Range Low	Range High
201	NBHD	20	Sale Date			7/1/2018	6/30/2020
		0	Nbhd	Exact			
		95	Subdivision	All			
		0	Improvement Type	Exact			
		90	Design/Style	All/comma			
		95	Quality	All/comma			
		60	Actual Year Built	All			
		90	Year Remodeled	All			
		90	Eff. Year Built		10		
		20	Remodel Type	All/comma			
		95	Living Area		500		
		90	Garden Level Area	All			
		90	Basement Area	All			
		60	Land Area	All			
		0	Sale Type	RI/comma			

Weights were assigned to the attributes to score and/or define comparability of the sale with the subject. Each attribute was reviewed individually within the Cama system and the sum of these calculations created a “Distance” or score of comparability. The Distance is not the mileage from the Subject to Comparable, but it’s strength of comparability. The lower the score, the more comparable the sale is to the subject. The weighting removes extremes from the calculation.

There are 3 weight calculations:

1. Exact or Binary = Yes / No. If it matches the Subject, then 0, otherwise the assigned Weight.
2. Sale Date Difference with June 30 Reappraisal Date =
$$\frac{(\text{DAYS360}(\text{Comp DOS}, 6/30/2020))}{365} \times \text{Weight}$$
3. Percent Difference = $\frac{(\text{Subject} - \text{Comp})}{\text{Subject}} \times \text{Weight}$.

A sample calculation is as follows:

Weight	Attributes	Exact/All	Range High	Subject	Comp 1	Calc	Comp 2	Calc	Comp 3	Calc	Comp 4	Calc
20	Sale Date		6/30/2020		12/1/2017	11	1/1/2018	10	9/14/2016	35	6/30/2017	20
0	Nbhd	Exact		1234	1234	0	1234	0	1234	0	1234	0
95	Subdivision	All		A	A	0	A	0	C	95	B	95
0	Improvement Type	Exact		Single Family	Single Family	0	Single Family	0	Single Family	0	Single Family	0
90	Design/Style	All		Ranch	Ranch	0	Raised Ranch	90	Ranch	0	Split Level	0
95	Quality	All		Average	Average	0	Average	0	Average	0	Good	95
60	Actual Year Built	All		1980	1980	0	1980	0	1980	0	1985	-0.1515152
90	Year Remodeled	All		2018	0	90	2010	0.3567889	2018	-1.1515152	2015	0.1337958
90	Eff. Year Built			1985	1980	0.2267003	1981	0.1813602	1982	0.1360202	1987	-0.0906801
20	Remodel Type	All		Many		20	Minor	20	Some	20	Some	20
95	Living Area			1500	1500	0	1250	15.8333333	1450	3.1666667	1900	25.3333333
90	Garden Level Area	All		0	0	0	0	0	0	0	1200	0
90	Basement Area	All		1500	1500	0	1250	15	1450	3	0	90
60	Land Area	All		0.35	0.34	1.7142857	0.34	1.7142857	0.36	-1.7142857	0.32	5.1428571
0	Sale Type	RI			RI	0	RI	0	RI	0	RI	0
Sum of all Calcs				Distance		123.393041		152.893987		153.834146		299.427152
				1 / Distance	0.0244849	0.00810418		0.00654048		0.00650051		0.00333971
Proration of 1/Distance				Contribution	1	0.33098729		0.26712318		0.26549065		0.13639888
Net Adjusted Sale Price				Adjusted Price		\$375,000		\$395,000		\$365,000		\$395,000
Contribution x Adjusted Price				Weighted Price	\$380,416	\$124,120		\$105,514		\$96,904		\$53,878
Sum of Adjusted Price / # Sales				Average Price	\$382,500							

Please note if Comparable 1 and 2 were used again, but Comparables 3 – 4 were different, the Contribution would be different, resulting in a different Weighted Price. In addition, weights change depending upon the model used, which also can result in different distance calculations.