

## Ingersoll Township Economic Condition Factors (ECF) Analysis for the 2023 assessment year

In this Section you will find:

1. L-4018 for 2023 Equalization Study for real property
2. Development of Economic Condition Factors (ECF)
3. ECF analysis for real property classes

View PDF

Form 602/603 (L-4018 P/R) Analysis for Equalized Valuation of Real and Personal Property

Due: 01/02/2023

Real Property Personal Property

Assessment Roll Classification					Sample			
Class of Real Property	Study Type	Stratified Study	Combined Study	Assessed Value	Number of Parcels	Assessed Value	True Cash Value	% Ratio Assessments to Appraisals
100 - Agricultural	AS	No	No	37,781,600	29	3,722,900	7,576,966	49.13%
200 - Commercial	AS	No	No	1,948,400	7	490,600	968,533	50.65%
300 - Industrial	AS	No	No	1,169,400	10	420,200	857,678	48.99%
400 - Residential	S2	No	No	88,037,090	75	0	0	44.57%
500 - Timber-Cutover	NC	No	No	0	0	0	0	50.00%
600 - Developmental	NC	No	No	0	0	0	0	50.00%
<b>Totals</b>				<b>128,936,490</b>	<b>121</b>			

Estimated Values (Explain)

Form History

Date	Type	User	Comment
02/16/2023	Accepted	Michael W. Markes	
02/15/2023	Amended	Christopher W. Gaumer	Per Mike Markes
02/15/2023	Unlocked	William Mason	
01/26/2023	Accepted	Michael W. Markes	
12/27/2022	Submitted	Christopher W. Gaumer	

## Chapter 3: Development of Economic Condition Factors

What is an Economic Condition Factor (ECF)? An ECF adjusts the assessor's use of the Assessors Manual to the local market. County multipliers are provided by the State Tax Commission and adjusted annually to reflect change in the market of the construction costs found in the State Tax Commission Assessor's Manual (Assessors Manual) and to "bring" those costs to the County level. But economic condition factors are necessary, and developed annually by assessors to further refine these costs to the local market.

"An ECF must be determined and used in cost appraisal situations where the Assessor's Manual is used." It is not appropriate to declare that one isn't used because the assessor relied on a recently published Assessor's Manual, or because the improvements are newly constructed. The ECF is used to adjust the costs of the Assessor's Manual to local markets. An ECF must be used regardless of the age of the improvements being valued.

According to the Michigan Constitution, Article IX, Section 3, assessments are developed annually, uniformly and not to exceed 50% of a property's true cash value. Because of the diversity of properties Michigan assessors must value every year in their respective jurisdiction(s), assessors often rely on mass appraisal models to accomplish this task. Most mass appraisal models rely on a cost-less-depreciation approach and adjust its results to what properties are selling for through the use of an ECF. The ECF is prepared by analyzing properties which have sold and then comparing their respective cost-less-depreciation of the buildings (i.e., building value) to that portion of the sale prices attributable to those buildings.

### Calculation of Economic Condition Factors

An ECF is developed by analyzing verified property true cash value level sale prices. The portion of each sale price attributed to the building(s) only on the parcel is compared to the value on the record card of the same building(s). The ECF represents the relationship between the appraised value of the building and calculated using the Assessors Manual and its respective building value (i.e., the sale value of that building). When the building value is added to the value of the land and the land improvements, an indication of true cash value is developed for assessment purposes.

Generally, the sales used for the ECF analysis should be from the same time period used for the sales study utilized for Equalization. This is often a 24-month time period. Michigan assessors must consider the following guidelines when developing and applying ECFs:

1. The time period of sales for the ECF study should be the same as the County Equalization Department study.
2. The County multiplier used by the assessor should be the same as the County Equalization Department.
3. The ECF is not applied to land value or the land improvements.
4. The ECF is only applied to building improvements.
5. The ECF is not applied to any buildings that are assessed as "flat-values".



Assessors should start the ECF calculation by identification of an ECF "neighborhood". The neighborhood should be established so properties sharing similar value-related property characteristics are analyzed together. Borders for ECF neighborhoods may be natural and/or human made. They can also be based on the age of the buildings, construction type and qualities of the buildings, general location amenities, as well as a number of other attributes. ECF's are typically calculated for a group of properties based upon the primary structure and its characteristics. For example, the neighborhood may consist of masonry/brick one-story homes built in the 1950's in a subdivision developed with 800 lots or wood frame two-story homes built in the 1960's throughout a small community.

Assessors can make the mistake of having too many neighborhoods. Assessors set up neighborhoods based on subdivisions and the parcel count is simply too small to do any type of analysis. Within the commercial and industrial classes, ECF's are sometimes calculated for different types of properties (e.g., apartments, warehouses, strip retail centers, big box retail stores, manufacturing plants, and research and development buildings)

It is critical that the ECF analysis be based upon a sufficient number of verified arms-length sales transactions and that the sales be representative of the properties being assessed using the ECF. In some rural townships, there may be insufficient sales to develop an ECF. In this case, the assessor may have to analyze sales in adjoining communities to assist in developing an ECF. The assessor may need to include sales having occurred outside the normal period, requiring the use of a market conditions adjustment (i.e., time). It may be necessary to compare the subject area to another area with a known ECF and make adjustments in much the same way as comparable sales are adjusted to a subject property in a market appraisal.

An assessor should verify the sale price and terms of sale for each parcel used in its ECF analysis. An assessor should also make a physical inspection of the property to determine if there were any physical changes that may affect the sale price. Physical changes could include remodeling a basement, an addition to the building, or a new garage. These changes must be noted so that the assessor can properly value the property as it existed prior to the sale, or so the property can be removed from the ECF analysis. The assessor should use the effective age as of the date of sale or the assessment date.

The proper development of land value is essential to an accurate ECF. The estimate of the depreciated value of the land improvements is also critical. It is important that the land values used to set the ECF are also the land values used for the assessments of those properties. These items are removed from the sale price when developing an ECF.

In terms of comparisons, assessors should try to use properties with small amounts of land and land improvements. Fewer and smaller the deductions will allow for the most accurate ECF because, in most cases, the most value is in the structure. An example would be trying to use a parcel with a house on an 80 acre parcel compared to a similar house on a 1 acre parcel. Chances are the 80 acres are worth more than the house. A slight value difference in the land would cause a huge value change in the residual for the house.



ECFs should generally be applied as calculated. Any variation from the calculated ECF must be fully documented. The detailed calculations used to develop the ECF must be kept on file to be used in defense of appeals, necessary in AMAR audits, explaining assessment to property owners, etc.

The following table contains an example of reproduction costs of four homes which are identical except for their location and are located in six different counties. The base cost is multiplied by the appropriate County multiplier to give the final cost new for each house in each County.

County	Base Reproduction Cost New	County Multiplier	Final Reproduction Cost New
Alcona	\$100,000	1.05	\$105,000
Marquette	\$100,000	1.13	\$113,000
Sanilac	\$100,000	1.14	\$114,000
Kent	\$100,000	1.19	\$119,000
Wayne	\$100,000	1.36	\$136,000
Van Buren	\$100,000	1.13	\$113,000

After getting an estimate of cost new, you subtract depreciation which gives an estimate of cost-new-less-depreciation. To develop an ECF, the depreciated cost of the building which has sold is compared to the sale value of that same building. The ECF indicator for each sale is calculated by dividing the sale price of the building by its cost new (with county multiplier applied) less any and all depreciation associated with the building. One ECF indicator is not sufficient for the development of a reliable ECF. Use of a sufficient number of sales is necessary to ensure the accuracy of an ECF.

Although the individual ECF calculations are shown in the ECF analysis, the separate ECF indicators are **not averaged** to develop the final ECF. The separate ECF indications are listed so an assessor can easily observe and review "outlying" ECFs. Also, showing the individual ECF indications allows the assessing officer an opportunity to observe if there is consistency or patterns reflected by the analysis. It is a good practice to plot the individual ECF indications on a map of the ECF area. Plotting individual ECF indications on a map may help an assessor's ECF evaluation. This same procedure is followed to develop commercial and industrial ECFs.

The development of an ECF is relatively simple if there are a sufficient number of recent, relevant, and reliable sales in the area. Sales for the ECF analysis should be limited to those occurring during the same time period as the sales study used to set the starting base. It is not necessary, or appropriate, to adjust sales for market conditions (i.e., time) if they transacted within the proper sale study time period.

**2023 Ingersoll Twp Residential ECF Development  
BC, Freeland, Hemlock and Merrill District ECF**

Tri-Level, Bi-Level	Sale Date	Residual Value	Cost by Manual	ECF
060-005-400-070-00	8/21/2020	99481	138911	0.716
060-033-400-160-00	8/12/2020	105637	122854	0.860
		205118	261765	0.784
			use	0.780

Single & Multi Story		Residual Value	Cost by Manual	ECF
*				use 0.98

\* total value from Res. sales study 4/1/2020 to 3/31/2022

\* see ECF Analysis for 001. BC/HEM/Free Mer Res

Mobile Home/Manufactured Homes		Residual Value	Cost by Manual	ECF
160-024-100-301-00	1/4/2021	31808	54148	0.587
160-034-300-190-00	8/19/2021	29368	45904	0.640
160-001-300-020-00	8/26/2020	40459	29434	1.375
		101635	129486	0.785
				use .78

Duplex		Residual Value	Cost by Manual	ECF
29-13-3-17-2244-000	11/4/2021	95525	105240	0.908
29-13-3-20-1005-108	7/21/2022	172000	191000	0.901
29-13-3-09-4111-000	12/23/2022	91820	91345	1.005
		<b>359345</b>	<b>387585</b>	<b>0.927</b>
				use .93



Neighborhoods Used: 001.BC/HEM/FREE/MER RES

2888 MALLARD LAKE TRAIL

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-008-100-301-00	03/30/2022 001	401	685,000	144,768
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	75	540,232	468,652
				E.C.F.
				1.153



3544 LAPORTE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-034-200-040-00	03/23/2022 001	401	160,000	17,620
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	74	142,380	198,866
				E.C.F.
				0.716



1624 POSEYVILLE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-055-500-110-00	03/22/2022 001	401	115,000	13,832
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	52	101,168	100,408
				E.C.F.
				1.008



3248 FREELAND RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-021-100-200-00	03/01/2022 001	401	220,000	54,658
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	55	124,809	114,527
Agricultural Buildings:			ResidualValue	CostByManual
			40533	37194
				E.C.F.
				1.090



2959 LYDIA ST

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-056-500-180-00	12/03/2021 001	401	80,000	10,000
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	58	70,000	82,248
				E.C.F.
				0.851



2516 POSEYVILLE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-017-100-000-00	09/21/2021 001	401	100,000	15,379
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 1/2 STORY	50	84,621	100,163
				E.C.F.
				0.845



1776 POSEYVILLE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-005-400-255-00	08/31/2021 001	401	160,000	17,772
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	65	142,228	122,420
				E.C.F.
				1.162



2889 PINEVIEW

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-005-400-014-00	07/29/2021 001	401	362,000	12,312
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	79	349,688	330,475
				E.C.F.
				1.058





Neighborhoods Used: 001.BC/HEM/FREE/MER RES

2938 MARTIN CT

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-045-500-180-00	07/16/2021 001	401	220,000	11,634
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	72	208,366	190,675
				E.C.F. 1.093



2000 SASSE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-009-100-085-00	01/28/2021 001	401	164,300	14,474
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	70	149,826	154,823
				E.C.F. 0.968



3771 KENT RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-022-400-011-00	12/31/2020 001	401	150,000	10,180
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	58	139,820	142,268
				E.C.F. 0.983



2979 E HILLSIDE DR

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-005-400-060-00	12/14/2020 001	401	149,000	14,381
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	55	134,619	128,438
				E.C.F. 1.048



3403 TITTABAWASSEE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-033-400-050-00	11/18/2020 001	401	186,000	38,046
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	74	147,954	156,139
				E.C.F. 0.948



2219 TITTABAWASSEE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-031-300-254-00	11/13/2020 001	401	266,900	41,872
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	75	225,028	228,197
				E.C.F. 0.986



3869 BADOUR RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-030-300-020-00	11/13/2020 001	401	165,000	27,805
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	59	131,194	126,804
Agricultural Buildings:				
		6001	5800	1.035



2973 HILLSIDE DRIVE

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-005-400-070-00	08/21/2020 001	401	110,000	10,519
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	BI-LEVEL	66	99,481	138,911
				E.C.F. 0.716



Neighborhoods Used: 001.BC/HEM/FREE/MER RES

4354 SASSE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-033-400-160-00	08/12/2020 001	401	117,000	11,363	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	TRI-LEVEL	47	105,637	122,854	0.860



2197 TITTABAWASSEE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-031-300-200-00	07/23/2020 001	401	128,000	14,435	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	60	113,565	119,597	0.950



1601 BADOUR RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-085-500-040-00	06/08/2020 001	401	86,900	10,759	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	53	76,141	78,222	0.973



1788 POSEYVILLE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-005-400-175-00	05/04/2020 001	401	150,000	18,746	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	64	131,254	156,779	0.837



Neighborhoods Used: 001.BC/HEM/FREE/MER RES

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<<<<<<<<<<<      Single Family Computed Costs by Manual      >>>>>>>>>>
* Style *           91..100      81..90      71..80      61..70      51..60      0..50
  1 STORY           0           0      1,051,854      434,022      814,290      0
  1 1/2 STORY       0           0           0           0           0      100,163
  1 1/4 STORY       0           0           0           0           0           0
  1 3/4 STORY       0           0           0           0           0           0
  2 STORY           0           0      521,151           0      78,222      0
  BI-LEVEL          0           0           0      138,911           0           0
  DUPLEX            0           0           0           0           0           0
  MFG               0           0           0           0           0           0
  TRI-LEVEL         0           0           0           0           0      122,854
                   0           0           0           0           0           0

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Total Single Family Costs by Manual : 3,261,467  
 Total Mobile Home Costs by Manual : 0  
 Total Town Home Costs by Manual : 0  
 Total Agricultural Costs by Manual : 42,994  
 Total Commercial Costs by Manual : 0

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<<<<<<<<<<<      Single Family Sale Residual Values      >>>>>>>>>>
* Style *           91..100      81..90      71..80      61..70      51..60      0..50
  1 STORY           0           0      1,055,594      423,308      815,175      0
  1 1/2 STORY       0           0           0           0           0      84,621
  1 1/4 STORY       0           0           0           0           0           0
  1 3/4 STORY       0           0           0           0           0           0
  2 STORY           0           0      558,054           0      76,141      0
  BI-LEVEL          0           0           0      99,481           0           0
  DUPLEX            0           0           0           0           0           0
  MFG               0           0           0           0           0           0
  TRI-LEVEL         0           0           0           0           0      105,637
                   0           0           0           0           0           0

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Total Single Family Sale Residual Values : 3,218,011  
 Total Mobile Home Sale Residual Values : 0  
 Total Town Home Sale Residual Values : 0  
 Total Agricultural Sale Residual Values : 46,534  
 Total Commercial Sale Residual Values : 0

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<<<<<<<<<<<      Statistics for this Analysis      >>>>>>>>>>
# Valid # Invalid      Coefficient of      Coefficient of      Price Related
  Sales   Sales      Dispersion (%)      Variation (%)      Differential
    20     23          9.54              12.81              1.040
After Application of E.C.F.s 5.92              10.11              1.021

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<<<<<<<      Economic Condition Factor Estimates (# of data points)      >>>>>>
* Style *           91..100      81..90      71..80      61..70      51..60      0..50
  1 STORY           1.000( 0)    1.000( 0)    1.004( 4)    0.975( 3)    1.001( 7)    1.000( 0)
  1 1/2 STORY       1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    0.845( 1)
  1 1/4 STORY       1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)
  1 3/4 STORY       1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)
  2 STORY           1.000( 0)    1.000( 0)    1.071( 2)    1.000( 0)    0.973( 1)    1.000( 0)
  BI-LEVEL          1.000( 0)    1.000( 0)    1.000( 0)    0.716( 1)    1.000( 0)    1.000( 0)
  DUPLEX            1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)
  MFG               1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)
  TRI-LEVEL         1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    0.860( 1)
                   1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)    1.000( 0)

```

Single Family E.C.F. : 0.987 (20)  
 Mobile Home E.C.F. : 1.000 (0)  
 Town Home E.C.F. : 1.000 (0)  
 Agricultural E.C.F. : 1.082 (2)  
 Commercial E.C.F. : 1.000 (0)

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<<<<<<<<<<<      Settings for this Analysis      >>>>>>>>>>
Starting Date: 04/01/2020
Ending Date: 03/31/2022
Terms Selected: 1
Analyze by Style:
Analyze by %Good: X
Show Valid Data : X
Show Invalid Data :
Show Costs and Residuals: X
Use Infl. Adj. Sale Prices:
Neighborhood(s): 001 - BC/HEM/FREE/MER RES

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Max # of Res. Buildings: 10

Minimum E.C.F. (Residential): 0.10  
Maximum E.C.F. (Residential): 3.00

Max # of Ag. Buildings: 30

Minimum E.C.F. (Agricultural): 0.10  
Maximum E.C.F. (Agricultural): 3.00

Max # of C/I Buildings: 30

Minimum E.C.F. (Commercial): 0.10  
Maximum E.C.F. (Commercial): 3.00

Neighborhoods Used: 002.MIDLAND PUBLIC RES

1825 SMITH CROSSING RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-001-300-050-00	02/03/2022 002	401	187,500	19,033	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	61	167,313	169,170	0.989
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	1154	1166	0.989		



4420 LAPORTE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-035-100-060-00	01/14/2022 002	401	95,000	10,720	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	58	84,280	62,419	1.350



4747 SAGINAW RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-001-100-300-00	01/07/2022 002	401	200,000	31,951	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	55	168,049	121,297	1.385



4722 BAILEY BRIDGE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-001-200-010-00	01/06/2022 002	401	97,900	12,816	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	50	85,084	72,230	1.178



4533 TITTABAWASSEE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-036-300-150-00	11/23/2021 002	401	145,000	36,504	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	45	108,406	117,630	0.922
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	90	97	0.922		



1789 SMITH CROSSING RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-001-300-030-00	11/09/2021 002	401	117,000	13,370	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	52	103,630	70,990	1.460



4280 BROOKS RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-014-100-111-00	11/05/2021 002	401	190,000	17,339	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	68	172,661	142,304	1.213



4447 LAPORTE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-026-400-090-00	11/01/2021 002	401	125,900	15,435	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	2 STORY	49	107,750	99,221	1.086
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	2715	2500	1.086		





Neighborhoods Used: 002.MIDLAND PUBLIC RES

3330 SMITH CROSSING RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-023-400-101-00	10/27/2021 002	401	146,250	17,179
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	45	129,071	113,777
			E.C.F.	1.134



2240 SCHREIBER RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-010-100-100-00	09/18/2021 002	401	217,900	14,956
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	59	195,523	134,594
Agricultural Buildings:			E.C.F.	1.453
			ResidualValue	CostByManual
			7421	5108
			E.C.F.	1.453



4444 LAPORTE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-035-100-050-00	08/03/2021 002	401	145,100	12,835
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	51	132,265	77,090
			E.C.F.	1.716



4805 FREELAND RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-013-400-101-00	07/02/2021 002	401	142,500	12,463
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	49	130,037	83,115
			E.C.F.	1.565



4800 LAPORTE RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-036-100-200-00	05/27/2021 002	401	150,000	11,619
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	58	138,381	121,126
			E.C.F.	1.142



4849 RIVER RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-012-100-250-00	02/18/2021 002	401	234,000	13,938
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 1/4 STORY	74	220,062	202,651
			E.C.F.	1.086



4305 BROOKS RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-011-400-130-00	01/11/2021 002	401	155,000	16,577
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	60	128,779	102,756
Agricultural Buildings:			E.C.F.	1.253
			ResidualValue	CostByManual
			9644	7695
			E.C.F.	1.253



3775 SMITH CROSSING RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-025-300-051-00	01/05/2021 002	401	167,000	9,884
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	61	157,116	158,581
			E.C.F.	0.991





Neighborhoods Used: 002.MIDLAND PUBLIC RES

4272 KENT RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-026-100-475-00	10/29/2020 002	401	183,000	17,465
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	72	163,861	184,184
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	1674	1882	0.890	



4328 FREELAND RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-023-100-054-00	09/23/2020 002	401	298,000	21,827
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	74	267,063	290,413
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	9110	9906	0.920	



4539 RIVER RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-001-300-060-00	09/08/2020 002	401	151,500	13,188
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	MFG	60	133,515	149,021
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	4797	5355	0.896	



1799 RIVER RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-002-400-195-00	08/27/2020 002	401	170,000	18,288
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	58	151,712	168,052
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	4797	5355	0.903	



3666 SOUTHGATE DR

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-010-200-090-00	08/26/2020 002	401	400,000	37,894
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	70	362,106	395,025
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	1674	1882	0.917	



4720 FREELAND RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-024-200-005-00	08/18/2020 002	401	201,000	27,441
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	49	173,559	161,468
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	1674	1882	1.075	



3375 SMITH CROSSING RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-024-300-040-00	07/30/2020 002	401	175,000	26,250
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	2 STORY	52	130,004	137,997
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	18746	19899	0.942	



4994 RIVER RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue
060-012-100-480-00	07/16/2020 002	401	109,200	12,912
Occupancy	Style	%Good	ResidualValue	CostByManual
Single Family	1 STORY	60	95,175	91,104
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.	
	1113	1065	1.045	



Neighborhoods Used: 002.MIDLAND PUBLIC RES

3921 KENT RD

Parcel Number	** Valid Sale	** Class	AdjSalePrice	LandValue	
060-022-400-070-00	07/08/2020 002	401	172,250	16,332	
Occupancy	Style	%Good	ResidualValue	CostByManual	E.C.F.
Single Family	1 STORY	56	152,052	142,483	1.067
Agricultural Buildings:	ResidualValue	CostByManual	E.C.F.		
	3866	3623	1.067		



Neighborhoods Used: 002.MIDLAND PUBLIC RES

Statistics for this Analysis

# Valid Sales	# Invalid Sales	Coefficient of Dispersion (%)	Coefficient of Variation (%)	Price Related Differential
25	13	12.75	15.76	0.980
After Application of E.C.F.s				
		9.36	13.04	0.995

Economic Condition Factor Estimates (# of data points)

* Style *	91..100	81..90	71..80	61..70	51..60	0..50
1 STORY	1.000( 0)	1.000( 0)	0.890( 1)	0.993( 4)	1.147( 6)	1.178( 1)
1 1/2 STORY	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)
1 1/4 STORY	1.000( 0)	1.000( 0)	1.086( 1)	1.000( 0)	1.000( 0)	1.000( 0)
1 3/4 STORY	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)
2 STORY	1.000( 0)	1.000( 0)	0.920( 1)	1.000( 0)	1.276( 5)	1.128( 5)
BI-LEVEL	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)
DUPLEX	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)
MFG	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	0.896( 1)	1.000( 0)
TRI-LEVEL	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)
	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)	1.000( 0)

- Single Family E.C.F. : 1.081 (25)
- Mobile Home E.C.F. : 1.000 (0)
- Town Home E.C.F. : 1.000 (0)
- Agricultural E.C.F. : 1.035 (11)
- Commercial E.C.F. : 1.000 (0)

Settings for this Analysis

Starting Date: 04/01/2020  
 Ending Date: 03/31/2022  
 Terms Selected: 1  
 Analyze by Style:  
 Analyze by %Good: X  
 Show Valid Data : X  
 Show Invalid Data :  
 Show Costs and Residuals:  
 Use Infl. Adj. Sale Prices:  
 Neighborhood(s): 002 - MIDLAND PUBLIC RES

Max # of Res. Buildings: 10	Minimum E.C.F. (Residential): 0.10
	Maximum E.C.F. (Residential): 3.00
Max # of Ag. Buildings: 30	Minimum E.C.F. (Agricultural): 0.10
	Maximum E.C.F. (Agricultural): 3.00
Max # of C/I Buildings: 30	Minimum E.C.F. (Commercial): 0.10
	Maximum E.C.F. (Commercial): 3.00



Neighborhoods Used: 002.MIDLAND PUBLIC RES

Single Family Computed Costs by Manual

Table with 7 columns: Style, 91..100, 81..90, 71..80, 61..70, 51..60, 0..50. Rows include 1 STORY, 1 1/2 STORY, 1 1/4 STORY, 1 3/4 STORY, 2 STORY, BI-LEVEL, DUPLEX, MFG, TRI-LEVEL.

Total Single Family Costs by Manual : 3,568,698
Total Mobile Home Costs by Manual : 0
Total Town Home Costs by Manual : 0
Total Agricultural Costs by Manual : 58,297
Total Commercial Costs by Manual : 0

Single Family Sale Residual Values

Table with 7 columns: Style, 91..100, 81..90, 71..80, 61..70, 51..60, 0..50. Rows include 1 STORY, 1 1/2 STORY, 1 1/4 STORY, 1 3/4 STORY, 2 STORY, BI-LEVEL, DUPLEX, MFG, TRI-LEVEL.

Total Single Family Sale Residual Values : 3,857,454
Total Mobile Home Sale Residual Values : 0
Total Town Home Sale Residual Values : 0
Total Agricultural Sale Residual Values : 60,330
Total Commercial Sale Residual Values : 0

Statistics for this Analysis

Table with 5 columns: # Valid Sales, # Invalid Sales, Coefficient of Dispersion (%), Coefficient of Variation (%), Price Related Differential. Rows for 'After Application of E.C.F.s'.

Economic Condition Factor Estimates (# of data points)

Table with 7 columns: Style, 91..100, 81..90, 71..80, 61..70, 51..60, 0..50. Rows include 1 STORY, 1 1/2 STORY, 1 1/4 STORY, 1 3/4 STORY, 2 STORY, BI-LEVEL, DUPLEX, MFG, TRI-LEVEL.

Single Family E.C.F. : 1.081 (25)
Mobile Home E.C.F. : 1.000 (0)
Town Home E.C.F. : 1.000 (0)
Agricultural E.C.F. : 1.035 (11)
Commercial E.C.F. : 1.000 (0)

Settings for this Analysis

Starting Date: 04/01/2020
Ending Date: 03/31/2022
Terms Selected: 1
Analyze by Style:
Analyze by %Good: X
Show Valid Data : X
Show Invalid Data :
Show Costs and Residuals: X
Use Infl. Adj. Sale Prices:
Neighborhood(s): 002 - MIDLAND PUBLIC RES

-----  
Max # of Res. Buildings: 10

Minimum E.C.F. (Residential): 0.10  
Maximum E.C.F. (Residential): 3.00

Max # of Ag. Buildings: 30

Minimum E.C.F. (Agricultural): 0.10  
Maximum E.C.F. (Agricultural): 3.00

Max # of C/I Buildings: 30

Minimum E.C.F. (Commercial): 0.10  
Maximum E.C.F. (Commercial): 3.00

**2023 Ingersoll Township ECF Study**

Commercial ECF	Land Value	Sale Price	Bld Val. Sale price	Bldg Appraisal	ECF Ratio	Date of sale
060-016-200-120-00	\$6,922	\$30,000	\$23,078	\$45,250	0.51	8/16/2018
060-002-400-075-00	\$20,085	\$75,000	\$54,915	\$104,300	0.53	11/9/2018
060-025-300-190-00	\$3,028	\$52,500	\$49,472	\$82,500	0.60	6/12/2018
060-025-300-170-00	\$17,100	\$85,000	\$67,900	\$105,620	0.64	8/10/2020
060-006-200-045-00	\$14,863	\$44,000	\$29,137	\$43,337	0.67	8/24/2021
060-002-200-201-00	\$152,880	\$400,000	\$247,120	\$269,861	0.92	1/12/2022
			\$471,622	\$650,868	0.72	

use .72

Industrial ECF Ratio	Land Value	Sale Price	Bld Val. Sale price	Bldg Appraisal	ECF Ratio	Sale Date
010-027-404-001-10	\$28,890	\$115,000	\$86,110	\$95,580	0.90	7/11/2017
29-13-3-22-2015-000	\$40,571	\$110,000	\$69,429	\$105,254	0.66	9/29/2017
29-13-3-21-4110-000	115,100	725000	835600	1225000	0.68	10/30/2020
			\$991,139	\$1,425,834	0.70	

use .70

Ag ECF Study	Land value	Sale Price	Bld Val. Sale	Bldg Appraisal	ECF Ratio	Sale Date
22-12-2-16-1003-000	210000	342500	59400	65,450	0.91	1/19/2018
060-014-300-210-00	175768	240,000	64232	67310	0.95	5/29/2019
060-012-300-151-00	215000	215,000	95000	92864	1.02	7/23/2019
060-034-100-005-00	180013	219,000	40000	44000	0.91	5/26/2019
29-13-3-33-1004-000	451600	572,165	120565	135525	0.89	1/24/2020
160-028-200-102-00	209682	400,000	190318	182584	1.04	6/22/2022

569515 587,733 0.97  
use .97