# **Proposal for SMART Application**

Title:

Ashville Ohio Speed Detection (RadarSign) Improvement Project

# **Project Narrative for SMART Application**

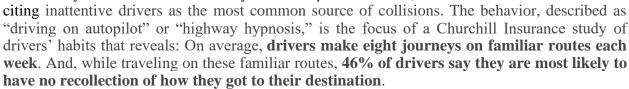
a. The Village of Ashville would like to provide enhanced safety to our community. We are committing our financial resources, see Exhibit 1. We have determined the optimum location for these RadarSigns, see Exhibit 2. These devices have a proven record for that outcome. We are a community of 4,500 that has 1,500 new housing units under development, see Exhibit 3. This could generate a population of over 3,000 new residents or 66% over the next ten (10) years. Our objective is to create safe roadways in all areas of the Village. The information below indicates that these devices do cause that to happen in human behavior.

#### The Science Behind Radar Speed Signs' Ability to Change Driver Behavior

Feedback Loops, which have been studied since the 18th century, have long been recognized as an effective strategy to affect behavioral changes. According to Wired.com, driver feedback signs are effective because of Feedback Loops, a simple concept which states: "Provide people with information about their actions in real time (or something close to it), then give them an opportunity to change those actions, pushing them toward better behaviors. Action, information, reaction."

Why radar speed signs work and why they can have a profound effect on driver behavior.

"Familiarity breeds inattention" says RoadtripAmerica.com,



The study – which identifies the top "autopilot journeys" as the work commute (43%), going shopping (16%) and motorway driving (15%) – also confirms that autopilot drivers regularly break the speed limit (25%), brake too late and do not stop at pedestrian crossings because they haven't seen them until it's too late. Further, 7% of motorists say they are most likely to switch to autopilot while "doing the school run" – a zone that is especially vulnerable to speeding dangers.

Understanding how the brain works can explain the findings and help identify solutions to improve traffic safety. At its basic level, the human brain – as an electrochemical organ – produces three types of brain waves that have an impact on driver behavior, each reflecting specific levels of the awake brain:

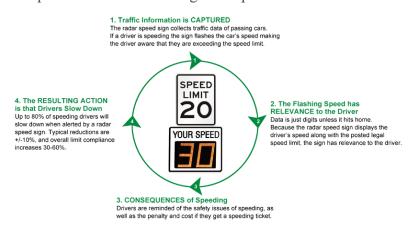
- Beta waves reflect a strongly engaged mind, active in conversation or debate.
- Alpha waves reflect a state of rest or relaxation (e.g., a break from work to take a walk in a garden).
- Theta waves reflect a state of functional daydream the ability to complete repetitious or habitual tasks, such as driving to and from work.



Converting a driver's brain activity from a Theta "autopilot" state to a Beta "engaged" state requires a trigger — an event or interruption that is identified by the Reticular Activator (RA). The RA is the ignition part of the brain, on alert, searching and categorizing all sensory input into categories such as familiar/connected, unusual/shocking/strange, or dangerous/threatening/problematic. Once the RA — which also controls the transition between different states — is triggered by something unfamiliar, problematic, or dangerous, the brain instantly converts from Theta to Beta.

#### **Radar Speed Signs as Reticular Activators**

Strategically placed radar speed signs can serve as triggers – stimulating the RA to identify potential "danger" – to transition a driver's brain activity from Theta to Beta. Utilized as part of a comprehensive traffic management plan in areas classified as 1) "familiar routes" with 2) a high



risk of pedestrian traffic, radar speed signs can alert drivers to pay attention.

In Theta mode, drivers see speed limit signs as usual and familiar, but can be prompted into Beta mode by something unusual and problematic, such as a flashing radar speed sign that indicates high speed. Once engaged, the driver is alert, paying attention and slowing the vehicle to a safer speed.

An independent speed study conducted by the City of Bellevue [Wash.] Transportation Department found that at ten locations — where radar driver feedback signs had been installed for six or more years — the speed reduction effectiveness continued to increase over time: 60% of drivers reduced speed by 10 mph.

Radarsign data also confirms a consistent five mph **reduction in average speeds** and a 62% **reduction in the number of drivers who speed** more than five mph above the speed limit. More than two years after installation, data indicates a long-term shift in driver behavior (Alpharetta, GA location — comparing week 1 data with week 109 data).

We also have Teays Valley High School, Teays Valley Middle School, and Ashville Elementary that will be a focus in positioning these signs, see Exhibit 2.

- b. **Project Location** A project for the Village of Ashville to add speed detection in higherrisk areas of the Village, see location of Radarsign:
  - ⇒ Teays Valley High School (X 1) 1-Circleville Avenue
  - ⇒ Teays Valley Middle School (X 1) 1-Circleville Avenue
  - ⇒ Ashville Elementary School (X 4) 1-Park Street, 1-Plum Street, 1-Station Street, 1-Walnut Street
  - ⇒ Thoroughfares (X 6) 2-Long Street, 1-East Main Street, 1-West Main Street, 2-St. Rt 752
  - ⇒ Residential Entrances (X 15) 2-Ashton Crossing, 1-Ashton Village, 2-Ashton Village Phase Two, 1-Ashton Woods, 1-Church Street, 1-East Street, 1-Glenn Road, 1-Kraft Drive, 1-Kildow Court, 1-Madison Street, 1-Miller Avenue, 1-Scioto Street, 2-Station Street

The Village of Ashville is requesting 28 total speed detection devices, see Exhibit 3.

#### c. Community Impact

The plan is to place these speed detection devices throughout the Village of Ashville. The goal is to reduce speed and therefore enhance safety. This would include six (6) on the west side of the village that are indicated as "Historically Disadvantaged Communities", see Exhibit 4. The negative externalities may be a decrease in police ticket revenue but that would be considered a benefit that out ways the negative. Track #021200: 021200-3, 021200-4, and 021200-5

#### d. Technical Merit Overview

As previously identified, speed detection devices do reduce speeding. They are a long-term affective way to increase pedestrian and vehicle safety.

#### e. Project Readiness Overview

If approved, the Village of Ashville will generate a PO Number in 2023 to purchase 28 RadarSigns and the software that would allow by analyzing data for placement in higher risk areas.

#### iii. Domestic Preference Requirements

The Radarsign in the quote, see Exhibit 5, is manufactured in the USA.





## iv. <u>Civil Rights and Title VI</u>

The site selection was based upon the same criteria throughout the Village of Ashville. The Village is committed to be compliant with all aspects of Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act.

## **Appendices**

#### a. Appendix I – Resumes

a. Franklin Christman,
 Village of Ashville
 Village Administrator
 200 Station Street East
 Ashville, Ohio 43103
 Employee with the Village of Ashville since March 3, 2003
 Reports to Mayor Charles Wise, mayorwise@ashvilleohio.gov

#### b. Appendix II – Summary Budget Narrative

The cost to purchase 28 RadarSigns and software is \$77,0000. Quote is Exhibit 5. The Village of Ashville will commit \$15,400, 20%, for this purchase.

#### c. Appendix III – Letters of Commitment

Exhibit I is a certification of commitment by the Fiscal Officer for the Village of Ashville

#### **Chief Financial Officer Certification**



Village of Ashville P.O. Box 195 200 East Station Street Ashville, OH 43103



Office: 740/983-6367 • Fax: 740/983-4703

Email: agrube@ashvilleohio.gov

Direct: 740/983-7131

#### www.ashvilleohio.gov

#### Mayor

Charles K. Wise

#### **Village Council**

Nelson R. Embrey President Pro Tempore Roger L. Clark Randy S. Loveless R. David Rainey Matt Scholl Steve Welsh

# Clerk-Treasurer

April Grube

#### **Planning & Zoning**

Jason J. Bartholow, Chair Stefanie Wharton Matt Scholl. Village Representative

Samantha Pemberton. Inspector Darryl Ward Charles K. Wise, Mayor

## **Chief of Service**

Gregory L. Sturgill

#### **Tax Administrator**

Patricia S. Cavinee

#### **Personnel Director**

Brian M. Garvine

#### **Chief of Police**

Jeffrey A. George

#### **Chief of Wastewater**

Adam P. Kehoe

#### **Chief of Water**

James R. Welsh

#### Ex. Assistant Administrator

Samantha Pemberton

#### **Village Administrator**

Franklin Christman

#### CHIEF FINANCIAL OFFICER'S CERTIFICATION OF LOCAL FUNDS

November 18, 2022

I, April D. Grube/Fiscal Officer of the Village of Ashville, hereby certify that the Village of Ashville has the amount of \$15,400 in the Street Department Capital Account Number 2011-650-590-0000 that this amount will be used to pay the local share for the Ashville Ohio Speed Detection (Radar Signage) Improvement Project when it is required.

I, April D. Grube/Fiscal Officer of the Village of Ashville, hereby certify that the Village of Ashville has / will have / will collect the amount of \$15,400 in the Street Department Capital Account Number 2011-650-590-0000. The difference between the Grant. That this amount will be used to pay the local share for the SMART Grant for the Ashville Ohio Speed Detection (Radar Signage) Improvement Project.

> April D. Grube Fiscal Officer of the Village of Ashville Ohio







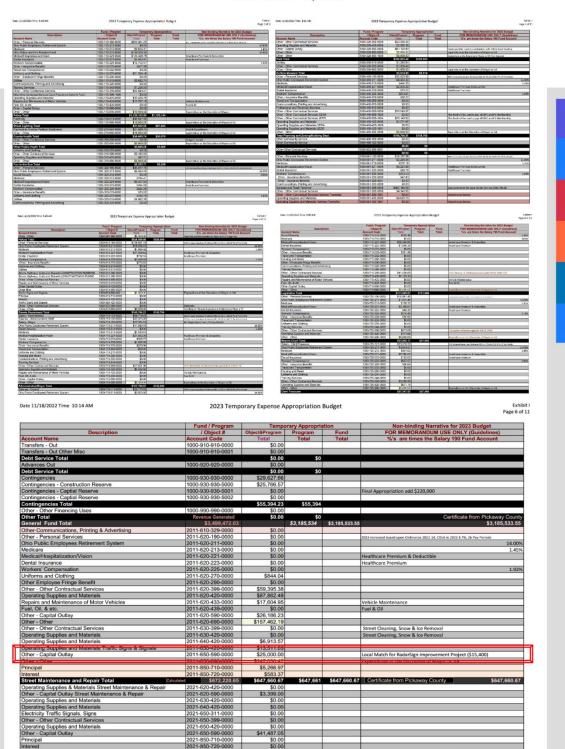


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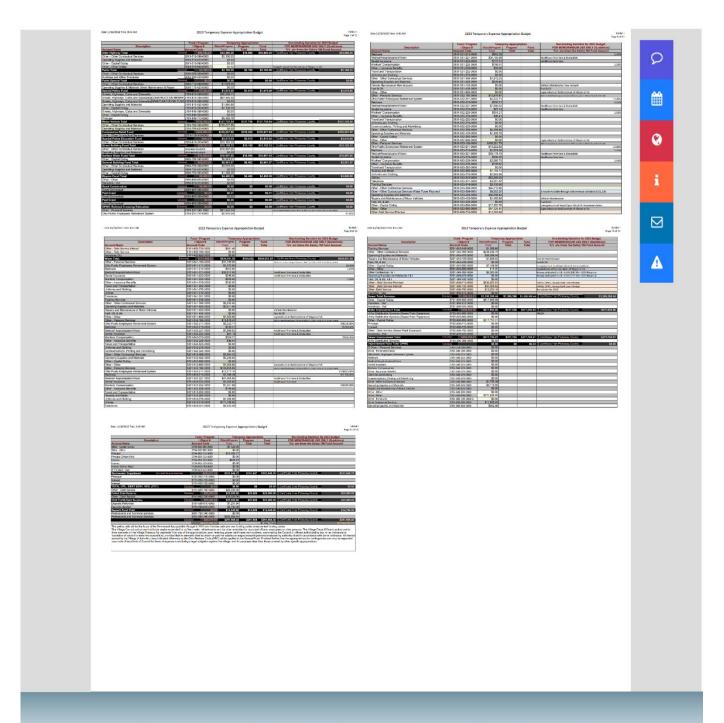
#### November 18, 2022



"It is a place people will want to live, and businesses will want to locate."

2 of 3

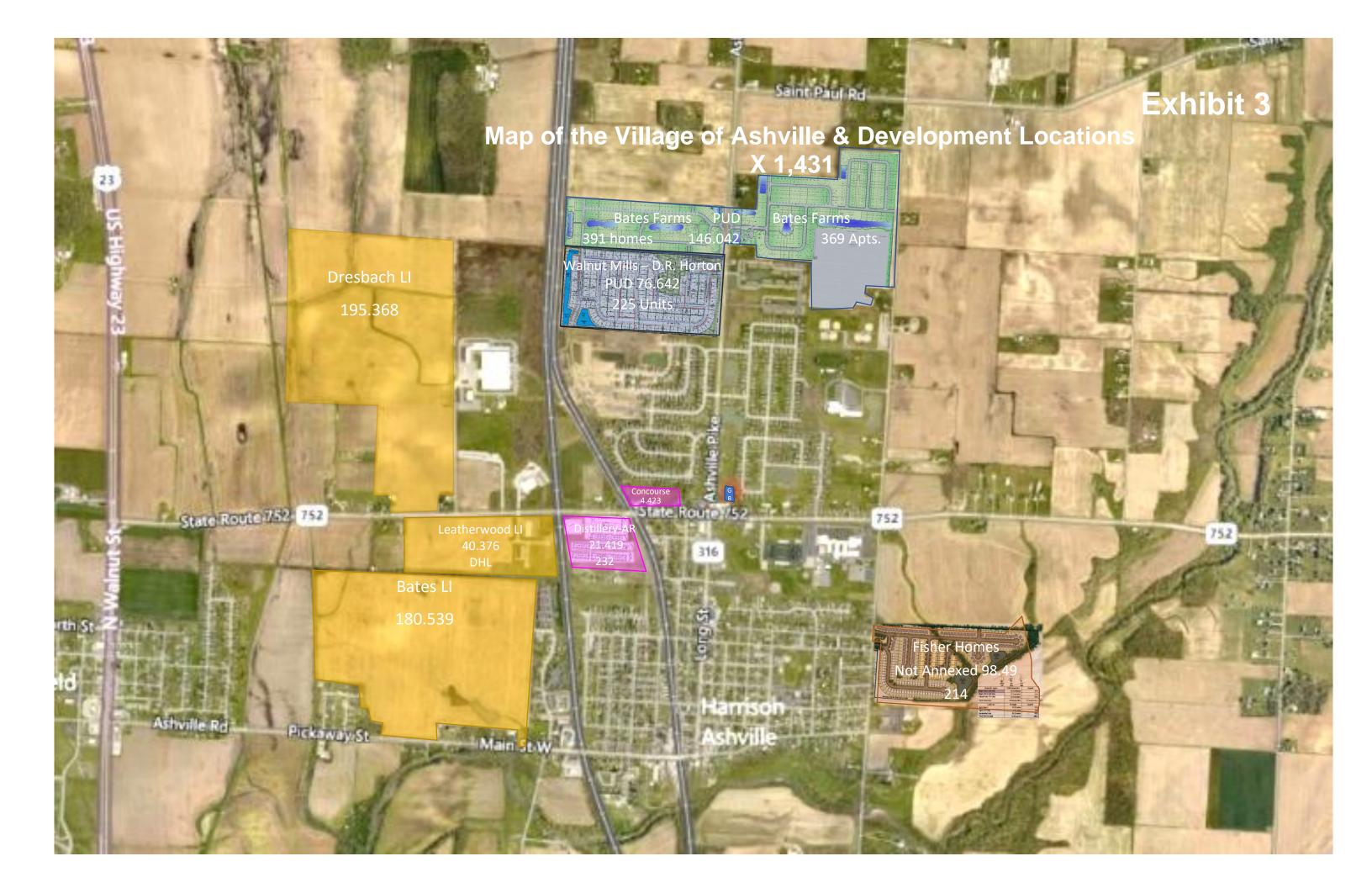
## November 18, 2022

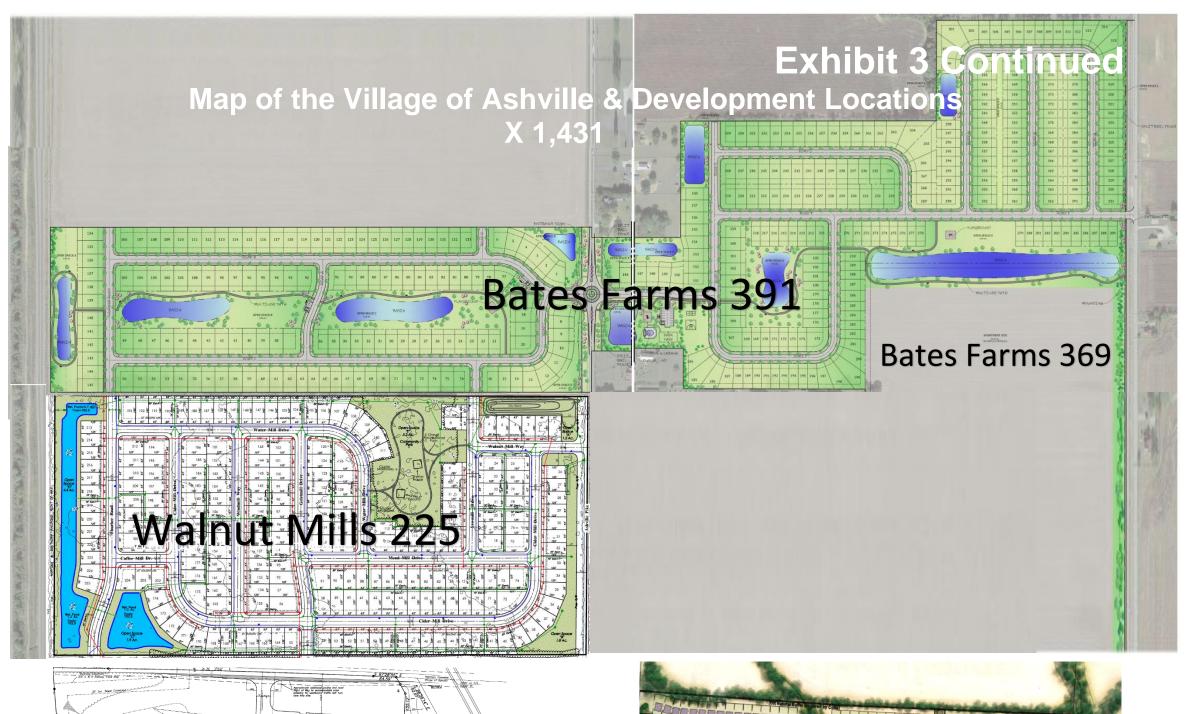


"It is a place people will want to live, and businesses will want to locate."

3 of 3







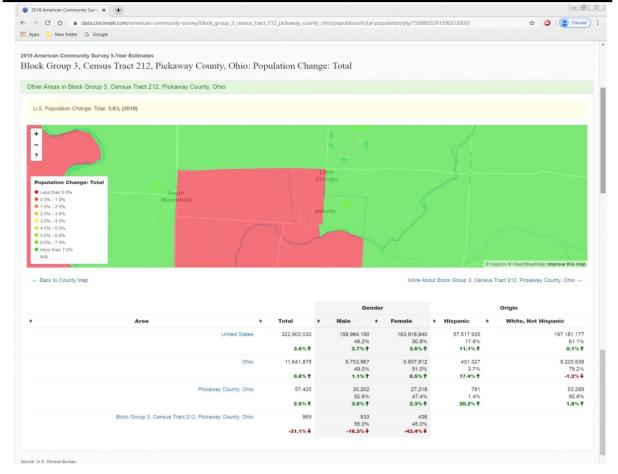




# **Community Economic Health**

2021 FFIEC Census Report - Summary Census Income Information State: 39 - OHIO (OH) County: 129 - PICKAWAY COUNTY							Federal Financial Institutions Examination Council				212 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
State Code	County Code	Tract Code	Tract Income Level	2015 MSA/MD Statewide non- MSA/MD Median Family Income	2021 FFIEC Est. MSA/MD non- MSA/MD Median Family Income	% Below Poverty Line	Tract Median Family Income %	2015 Tract Median Family Income	2021 Est. Tract Median Family Income	2015 Tract Median Household Income	Ashville 02680
39	129	0201.00	Moderate	\$70,454	\$83,900	22.36	56.68	\$39,940	\$47,555	\$36,017	
39	129	0202.00	Moderate	\$70,454	\$83,900	24.65	55.31	\$38,972	\$46,405	\$31,336	Leon House
39	129	0203.10	Moderate	\$70,454	\$83,900	18.30	71.88	\$50,649	\$60,307	\$39,561	
39	129	0203.20	Middle	\$70,454	\$83,900	13.95	113.60	\$80,036	\$95,310	\$63,466	
39	129	0204.00	Moderate	\$70,454	\$83,900	19.66	57.87	\$40,772	\$48,553	\$35,655	South Bloomfield 3
39	129	0211.00	Middle	\$70,454	\$83,900	8.31	117.32	\$82,661	\$98,431	\$76,233	73068
39	129	0212.00	Middle	\$70,454	\$83,900	11.50	99.47	\$70,083	\$83,455	\$59,318	a floating five of Postmay (s) (316) (316)
39	129	0213.00	Unknown	\$70,454	\$83,900	0.00	0.00	\$0	\$0	\$0	W Food 60
39	129	0214.01	Middle	\$70,454	\$83,900	12.57	107.04	\$75,417	\$89,807	\$64,583	Securities Residen As
39	129	0214.02	Middle	\$70,454	\$83,900	5.38	114.95	\$80,987	\$96,443	\$74,564	ON THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN T
39	129	0215.00	Upper	\$70,454	\$83,900	3.01	123.60	\$87,083	\$103,700	\$73,816	
39	129	0216.00	Moderate	\$70,454	\$83,900	13.80	77.81	\$54,821	\$65,283	\$50,703	tunium M
39	129	0217.00	Middle	\$70,454	\$83,900	15.96	98.78	\$69,596	\$82,876	\$63,857	B 6

2011-2015 LMI Census Tract and Block Group Data for Ohio Non-Entitlement Counties							
Area	Low Pop	Low-Mod Pop	LMI Universe	LMI Percent	Margin of		
Pickaway County							
Census Tract 212	1,635	2,930	7,665	38.23%			
Block Group 1	845	1,230	4,130	29.78%	+1-8.81		
Block Group 2	325	510	1,070	47.66%	+/-20.37		
Block Group 3	400	650	1,085	59.91%	+/-38.80		
Block Group 4	20	100	750	13.33%	+/-12.40		
Block Group 5	45	440	630	69.84%	+/-43.65		



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# Databases, Tables & Calculators by Subject

Change Output Options: From: 2011 ∨ To: 2021 ∨ 60

✓ include graphs □ include annual averages

Data extracted on: August 19, 2021 (8:38:29 AM)

#### **Local Area Unemployment Statistics**

**Series Id:** LASST390000000000003

Seasonally Adjusted

Area: Ohio
Area Type: Statewide
State/Region/Division: Ohio

Economy in Ashville, Ohio

Ashville has an unemployment rate of 4.2%. The Ohio average is 5.5%. The US average is 6.0%. May 2021

Ashville has seen the job market increase by 0.5% over the last year. Future job growth over the next ten years is predicted to be 32.0%, which is lower than the US average of 33.5%.

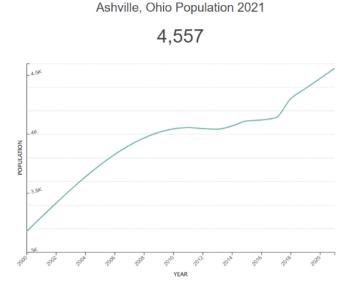
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The average household income in Ashville is \$77,976 with a poverty rate of 7.32%. The median rental costs in recent years comes to \$734 per month, and the median house value is \$154,600. The median age in Ashville is 29.8 years, 29 years for males, and 31.9 years for females.

2019 Poverty Rate7.32% 18.5% 1-Year Increase 2019 Median Household Income \$76,970 6.93% 1-Year Growth

2019 Employed Population 2,116 5.59% 1-Year Growth



State	Ohio
County	Pickaway County
Land Area (mi²)	2.2 sq mi
Density (mi²)	2,044.50/sq mi
2020 Growth Rate	1.92%
Growth Since 2010	11.23%
Rank in State	269th
Rank in Country	5026th

unemployment rate

01/11 01/12 01/13 01/14 01/15 01/16 01/17 01/18 01/19 01/20 01/21

Ashville is a village located in Pickaway County Ohio. With a 2020 population of 4,557, it is the 269th largest in Ohio and the 5026th largest in the United States. Ashville is currently growing at a rate of 1.92% annually and its population has increased by 11.23% since the most recent census, which recorded a population of 4,097 in 2010.

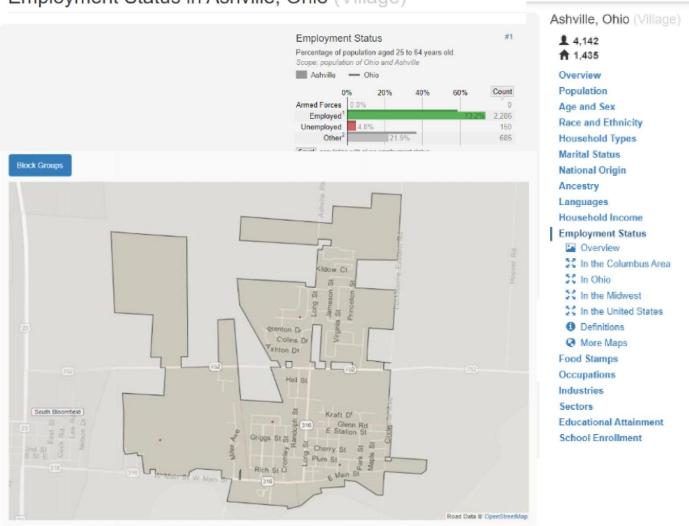
Ashville reached it's highest population of 4,557 in 2021. Spanning over 2 miles, Ashville has a population density of 2,045 people per square mile.

The average household income in Ashville is \$77,976 with a poverty rate of 7.32%. The median rental costs in recent years comes to \$734 per month, and the median house value is \$154,600. The median age in Ashville is 29.8 years, 29 years for males, and 31.9 years for females.

### **Exhibit 4 Continued**



# Employment Status in Ashville, Ohio (Village)





#### Data from US Census Bureau



# **PROCLAMATION**

**AS A RESULT OF** the Federal Census of Two Thousand Twenty for the State of Ohio and the various political subdivisions having been officially made known to me, I, Frank LaRose, Secretary of State of the State of Ohio, complying with the provisions of Section 703.06 of the Revised Code of the State of Ohio, do hereby make proclamation that the municipality of

# Ashville in Pickaway County, Ohio

according to said Federal Census of Two Thousand Twenty has a population of

#### 4,529

and shall, from and after thirty days from date of this proclamation be known as a **Village** by virtue of and in accordance with said Section 703.06 of the Revised Code of the State of Ohio.

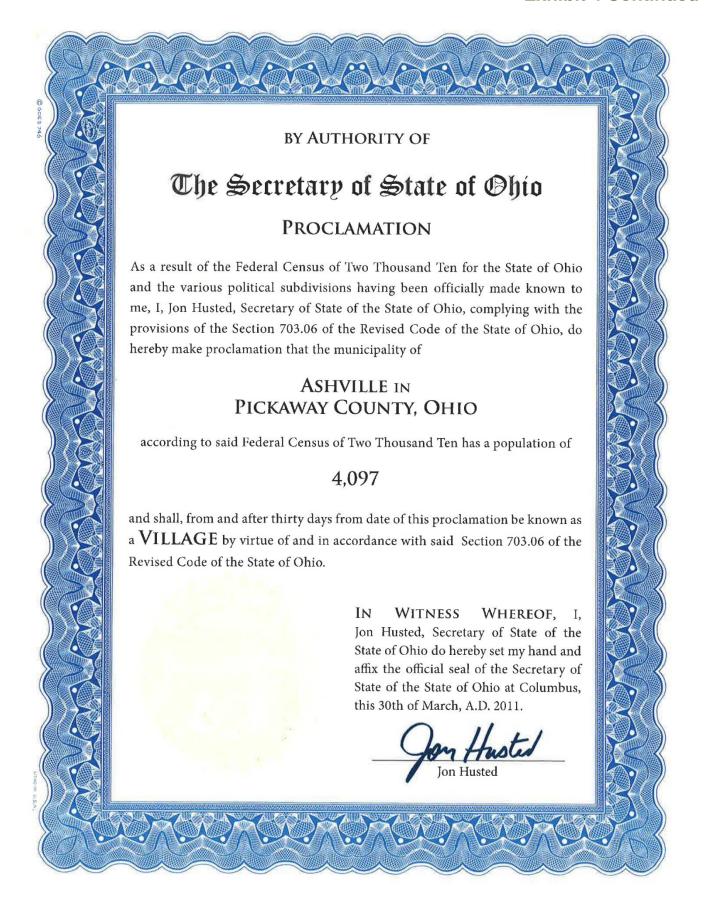


Census Percentage Growth Year 2040 27.61% 7,984 2030 6,257 38.14% 2020 4,529 10.54% 2010 4,097 29.08% 2000 3,174 38.97% ge 4 of 8 1990 2,284

IN WITNESS HEREOF, I have hereunto set my hand and caused the Seal of the State of Ohio to be affixed. Done at the City of Columbus this 21<sup>st</sup> day of September in the year of our Lord two thousand and twenty-one, and of the Independence of the United States of America the two hundred forty-fifth and of the statehood of Ohio the two hundred eighteenth.

Frank LaRose

51st Ohio Secretary of State





#### **Exhibit 4 Continued**



// Census.gov > Search Results

# Search

Search Features & Tips

# Search results

Web Image Video

# Ashville village, Ohio

2019 Population Estimates 4,385

Source: Vintage 2019 Population Estimates

Median Household Income

\$ 76,970

Source: 2015-2019 American Community Survey 5-Year Estimates

Persons in poverty, percent

7.3 %

Source: 2015-2019 American Community Survey 5-Year Estimates

Educational Attainment: Percent high school graduate or higher

89.4 %

Source: 2015-2019 American Community Survey 5-Year Estimates

Persons without health insurance, percent

7.7 %

Source: 2015-2019 American Community Survey 5-Year Estimates

**Median Housing Value** 

\$ 154,600

Source: 2015-2019 American Community Survey 5-Year Estimates

**Total Housing Units** 

1,559

Source: 2015-2019 American Community Survey 5-Year Estimates

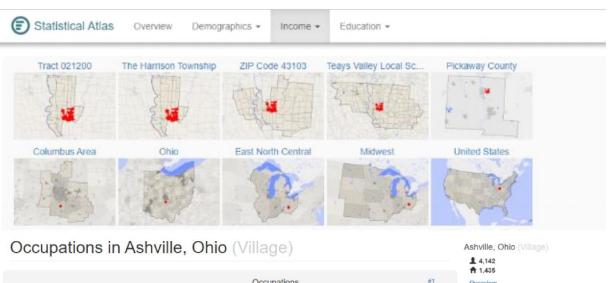
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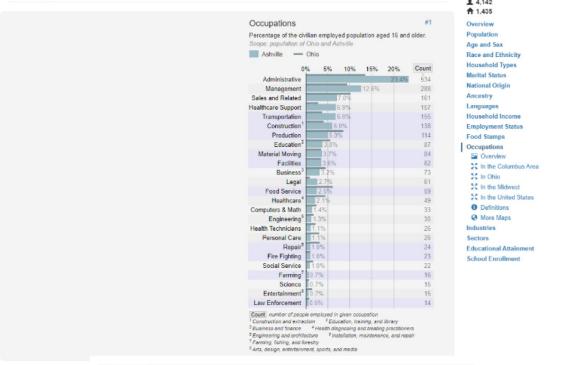
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Top

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# **Quote from A & A Safety**

### **QUOTE**

**QUOTE NO** 20368



1126 Ferris Road, Amelia, OH 45102 4080 Industrial Lane, Beavercreek, OH 45430 16000 Miles Road, Cleveland, OH 44128

TO: Franklin Christman
Village of Ashville
200 E. Station St
Ashville, OH 43103
(740) 983-6367
fchristman@Ashvilleohio.gov

Phone: (513) 943-6100 Phone: (937) 912-9590 Phone: (216) 283-8040 Fax: (513) 943-6106 Fax: (937) 912-9593 Fax: (216) 283-8041

QUOTE DATE	VALID THRU	FOR	PAGE
11/9/2022	12/8/2022	Radarsign	1

ITEM NO	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENDED
006-3002	28ea	Radarsign TC-600S Solar Powered Radar Speed Sign -13" Full Matrix LED Display -SLOW DOWN & TOO FAST Alert Messages -50W Solar Panel w/Pole Mount Bracket -(2) 12V 18Ahr AGM Battery -28" x 33" YOUR SPEED Faceplate -Stainless Steel Pole Mount Hardware -Bashplate -WiFi Transmitter -2 Year Warranty	2,555.00ea	71,540.00*
006-3010	28ea	Option: SS002 StreetSmart Data Collection Software -Provides 1/2 hour, hourly, daily, weekly data on number of vehicles, number of speeders, average speeds, 50th & 85th percentile	195.00ea	5,460.00*

TOTAL AMOUNT 77,000.00

If you have any questions please feel free to contact me.

Thank you,

Jeff Blackburn C: 513-319-6180

Email: jblackburn@aasafetyinc.com

<sup>\*</sup> means item is non-taxable