

Monroe County – Transforming Education with ArcGIS and Geospatial Technologies



Jeff Boudrie, Monroe County GIS Manager

Russell Columbus, Monroe County High School Teacher

Donovan Vitale, Monroe County GIS Intern

Allison Hoff, PhD Candidate, Eastern Michigan University, GRACE Project Coordinator

Randy Raymond, GIS Specialist, GRACE Project Senior Advisor

GRACE

Geographic Information Systems Resources and Applications for Career Education

Goal:

To enable teachers and students to develop new
STEM skills and competencies

Sponsors:

- Eastern Michigan University and Partners
- National Science Foundation

Original GRACE Model

Explorer

Investigator

Intern

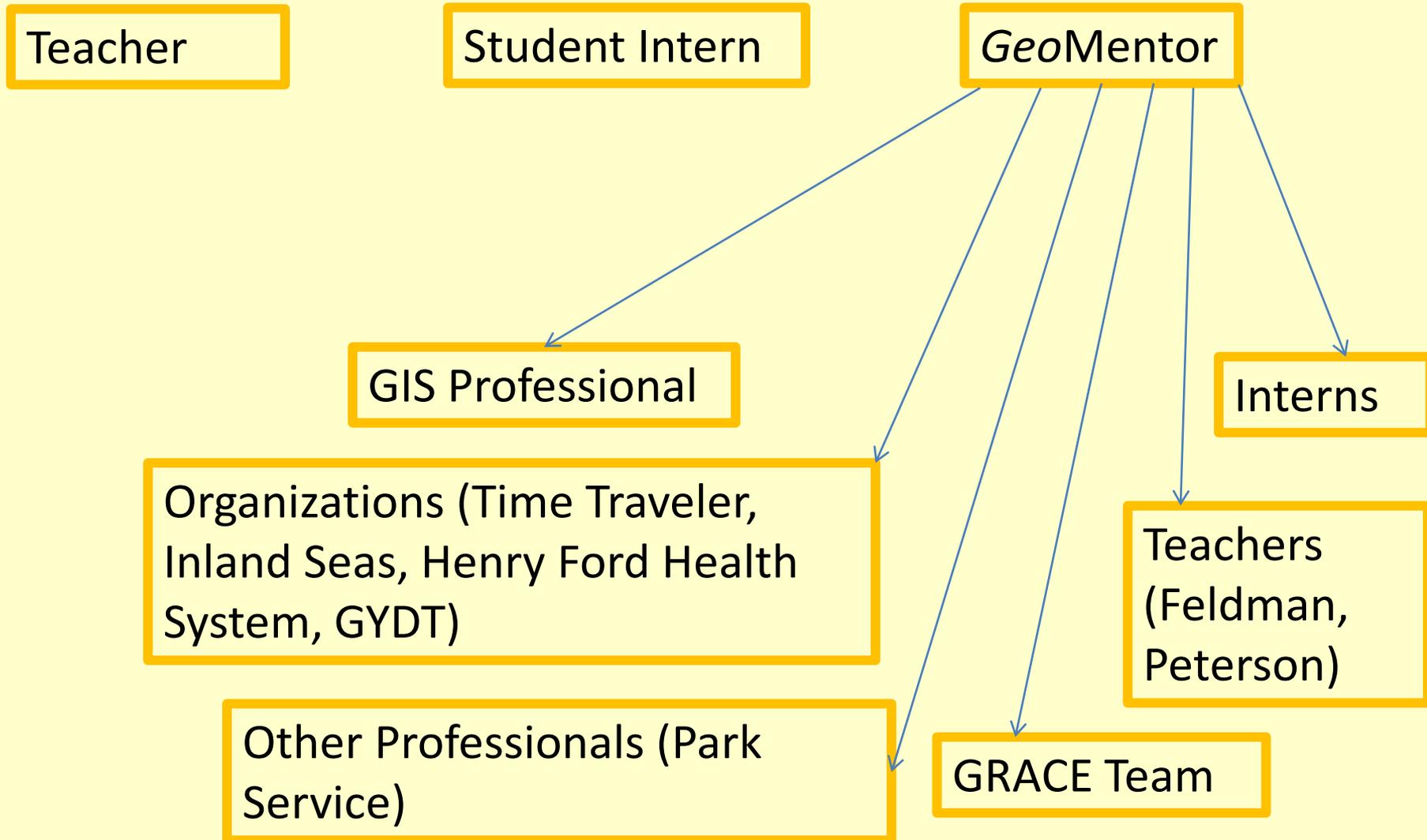


Teacher helps in classroom

Student more independent

GeoMentor in Professional Environment

Variations on GRACE Model



Findings

- Many formats emerged
 - Different pathways, locations, courses, mentor-types
- Best to let the format emerge from the context
 - who at the table
 - what GIS skills needed for the internship project(s)
- Formats had different levels of **engagement**:
 - Complexity of the internship project(s)
 - Effort to learn the skills
 - Accessibility

Good to have many formats and levels of engagement



GRACE PROJECT Pre-Intern ESRI Academy Courses

<http://esri.com/training>

GRACE PROJECT provides students with professional GIS/T training and opportunities to gain work experiences in local organizations as Interns. Students will have access to ESRI Virtual Campus for their online learning activities.

An overview of the 2017-2018 GRACE Internship Training Program can be found here [Click](#)

Option I: Professional GIS Career Pathway Internship Training – Primarily using ArcGIS Pro (35.5 Hours)

(The course description is cited from 2017 Higher EdPlanning Guide to Esri E-Learning)

Part A: ArcGIS Pro Fundamentals (23 hours)

These web course offerings introduce fundamental concepts and workflows for the ArcGIS Pro application.

[Getting Started with ArcGIS Pro \(5.5 hours\)](#) Introduces the ribbon-style interface, project-based organization, and key capabilities of ArcGIS Pro.

[Displaying Data in ArcGIS Pro \(1.25 hours\)](#) Introduces ArcGIS Pro tools for symbology.

[3D Visualization Using ArcGIS Pro \(2.25 hours\)](#) Introduces the ArcGIS Pro 3D environment and explains how to create and share realistic 3D scenes.

[Managing Map Layers in ArcGIS Pro \(1.0 hour\)](#) Introduces basic layer property settings.

[Querying Data Using ArcGIS Pro \(0.5 hour\)](#) Teaches the building blocks of query expression and how to select features that meet one or more attribute criteria.

[Integrating Data in ArcGIS Pro \(1.25 hours\)](#) Teaches GIS data concepts and adding data to a geodatabase.

Part A: ArcGIS Pro Fundamentals (23 hours)

These web course offerings introduce fundamental concepts and workflows for the ArcGIS Pro application.

[Preparing to Perform Analysis Using ArcGIS Pro \(1.25 hours\)](#) Presents using ArcGIS geoprocessing tools that support spatial analysis projects. Discusses how to choose the appropriate tool, and works through a short project.

[Editing Basics in ArcGIS Pro \(2.0 hours\)](#) Shows how to practice editing tools and workflows to keep data accurate and current

[Automating Workflows Using ArcGIS Pro Tasks \(4.5 hours\)](#) Teaches how to create and share ArcGIS Pro tasks to increase productivity.

[Sharing Maps and Layers with ArcGIS Pro \(3.5 hours\)](#) Teaches best practices for sharing projects, maps, layers, tools, and other items using a portal, such as ArcGIS Online, so that they can be used with mobile devices, web and desktop applications.

Part B: Mapping, visualization, image analysis and sharing your map (12.5 hours)

These training offerings provide options for extending learning about mapping, visualization, and image analysis.

[Cartographic Creations in ArcGIS Pro \(Tutorial\) \(2.0 hours\)](#)

[Creating and Sharing Animation in ArcGIS Pro \(1.5 hours\)](#) Shows how to animate and produce ready-to share videos of your work.

[Creating Vector Tiles in ArcGIS Pro \(1.5 hours\)](#) Explains why and how to create vector tiles for fast and compelling web apps.

[Displaying Raster Data Using ArcGIS Pro \(2.75 hours\)](#) Learn techniques to display and enhance rasters and imagery in ArcGIS Pro. Learn to appropriately symbolize rasters based on their attributes and intended use, modify raster properties to support better visualization and interpretation, and apply out-of-the-box appearance functions to enhance the viewing experience.

Part B: Mapping, visualization, image analysis and sharing your map (12.5 hours)

These training offerings provide options for extending learning about mapping, visualization, and image analysis.

[Classify Land Cover to Measure Shrinking Lakes \(1.25 hours\)](#) In these lessons, you'll assume the role of a geospatial scientist tasked with calculating the change in area of the lake between 1984 and 2014. Using Landsat imagery, you'll classify land cover in three images of the lake taken at various times over the past 30 years in order to show only the surface area of the lake. You'll then determine the change in lake area over time.

[Inform and Engage Your Audience with Esri Story Maps \(1.0 hours\)](#) Story maps combine web maps with text, photos, and other media to provide a rich, interactive experience. This seminar guides you through the steps to create a story map using the right application template for your purpose and audience.

[Creating and Sharing GIS Content Using ArcGIS Online \(2.5 hours\)](#)

Organizations use ArcGIS Online to facilitate collaboration and access to GIS resources. This course shows how to publish data and map layers to ArcGIS Online as services. Learn to build a web map and turn it into a web app.

Optional: Additional Courses for Spatial analytics (15.25 Hours- Optional- Not Required)

These training offerings provide options for extending learning about GIS analysis and modeling.

[Using ArcMap in ArcGIS Desktop 10 \(3.0 hours\)](#) ArcGIS 10 brings many enhancements to ArcMap that help you produce and share better maps faster. Learn about key new features designed to reduce time spent on common mapping tasks and improve the quality of your maps.

[Get Started with Survey123 for ArcGIS \(Tutorial\) \(1.5 hours\)](#) Teaches how to create a Survey123 form, analyze data, and share survey results with other ArcGIS platform client apps.

[Distance Analysis Using ArcGIS Pro \(3.5hours\)](#) Uses ArcGIS Pro to create raster surfaces for distance and path analysis.

[Terrain Analysis Using ArcGIS Pro \(2.75 hours\)](#) Uses ArcGIS Pro and ArcGIS Spatial Analyst tools to derive new raster data from an elevation raster for a variety of applications.

Optional: Additional Courses for Spatial analytics (15.25 Hours- Optional- Not Required)

These training offerings provide options for extending learning about GIS analysis and modeling.

[Performing Viewshed Analysis in ArcGIS Pro \(1.0 hours\)](#) Introduces the Viewshed tool and how to adjust the tool for an analysis.

[Generating Service Areas Using ArcGIS Pro \(1.0 hours\)](#) Uses ArcGIS Network Analyst and existing network data to create areas within a certain distance or travel time of a facility.

[Building Geoprocessing Models Using ArcGIS Pro \(2.5 hours\)](#) Introduces geoprocessing models and the steps required to create, validate, and run models that automate ArcGIS analysis workflows.

Monroe County, Michigan

Internship opportunities

2016

- Mr. Columbus selects prospective interns
- Interviews at Planning Department Office
- Four interns begin six week internship (120 hours)
- Two interns extend their internship for another 120 hours (eventually becoming part-time employees)

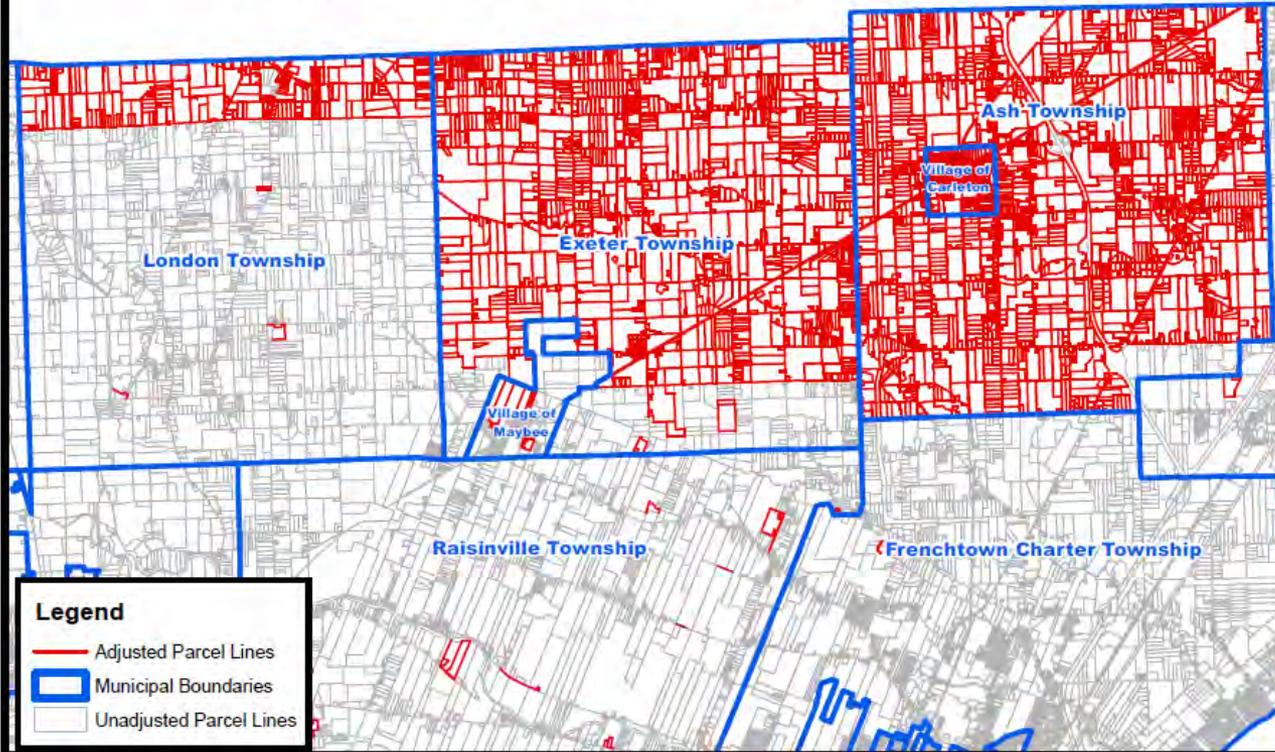
2017

- Two county interns assist in supervising four new summer interns

2018

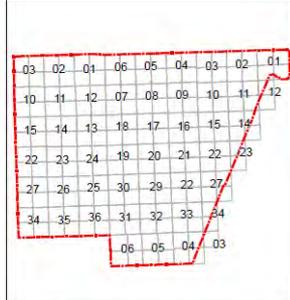
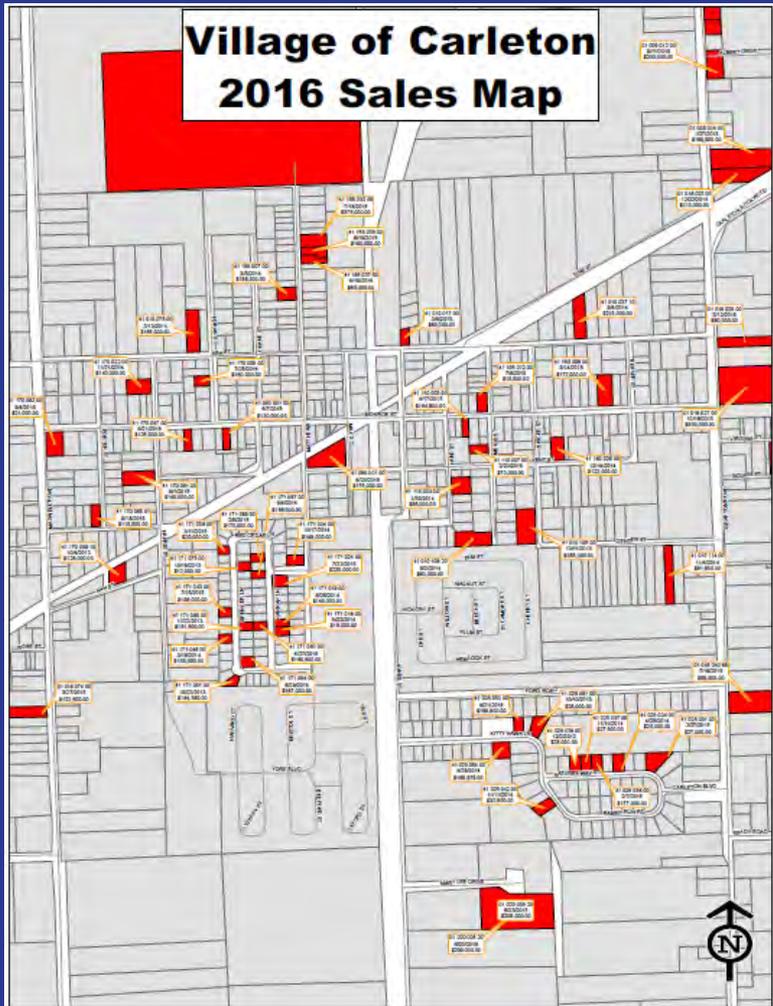
- One county intern assists in supervising two new and one repeating intern
- Repeating intern becomes part-time employee for the County Drain Commission

Property Mapping Progress London, Exeter and Ash Townships



5,085 Adjusted Parcels
July 11, 2016 to June 9, 2017

Village of Carleton 2016 Sales Map



Legend

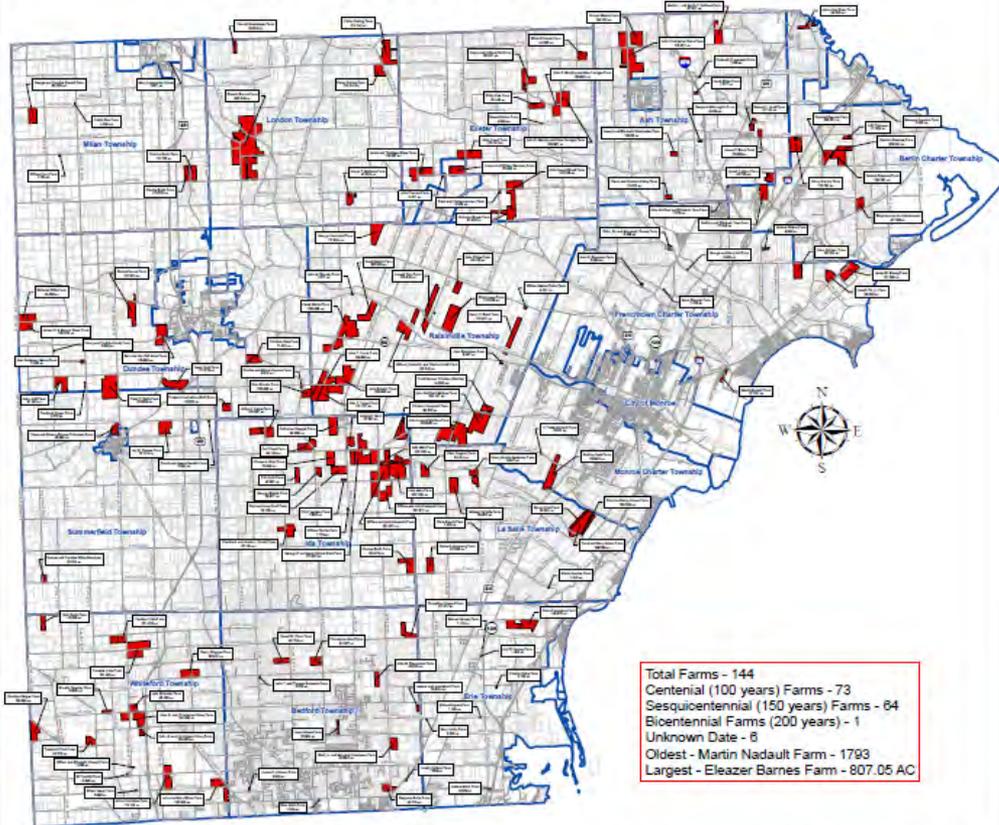
- Municipal Boundary
- Parcels
- Quarter Section Lines
- Roads

**Monroe County, Michigan
Raisinville Township
Land Value and Acreage**

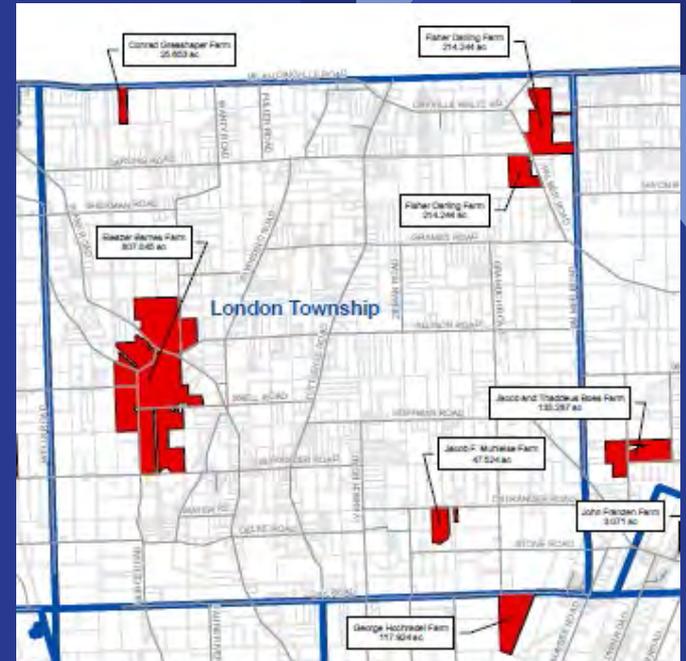
T6S R7E 12 SW

0 150 300 600 900 1,200 Feet

Centennial, Sesquicentennial and Bicentennial Farms

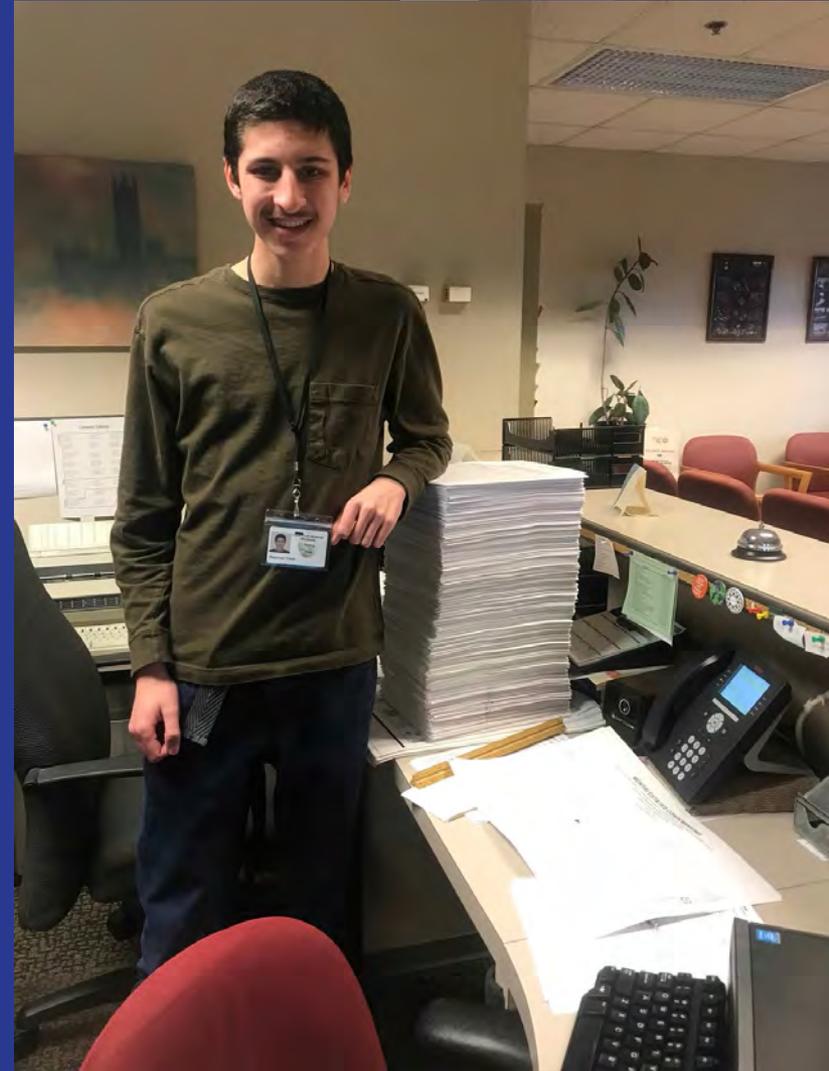


Mapping prepared by: Monroe County Planning Department © July 2016



Total Farms - 144
Centennial (100 years) Farms - 73
Sesquicentennial (150 years) Farms - 64
Bicentennial Farms (200 years) - 1
Unknown Date - 6
Oldest - Martin Nadault Farm - 1793
Largest - Eleazer Barnes Farm - 807.05 AC

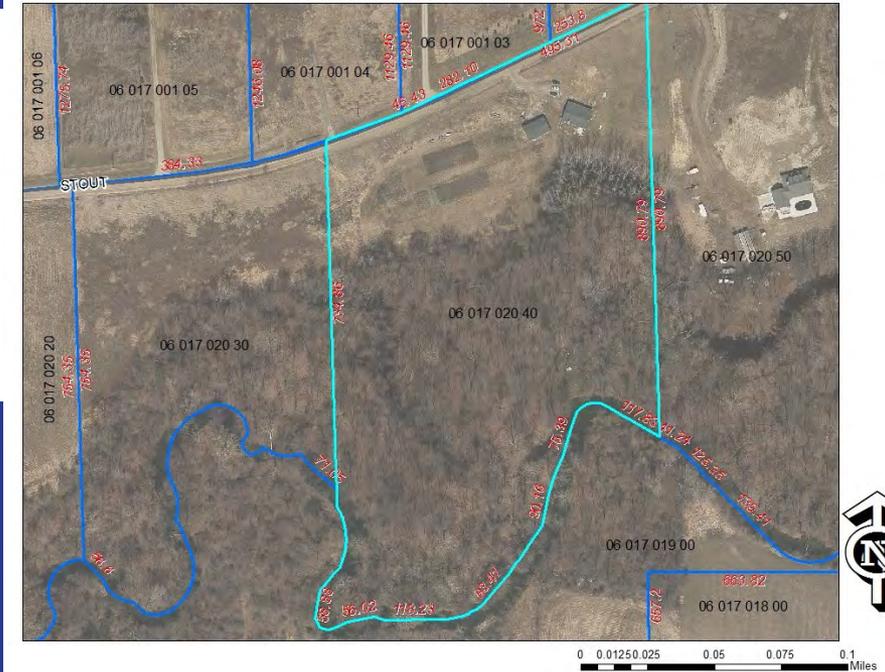
Approximately **4375** Parcels mapped



Property Mapping (Challenging)

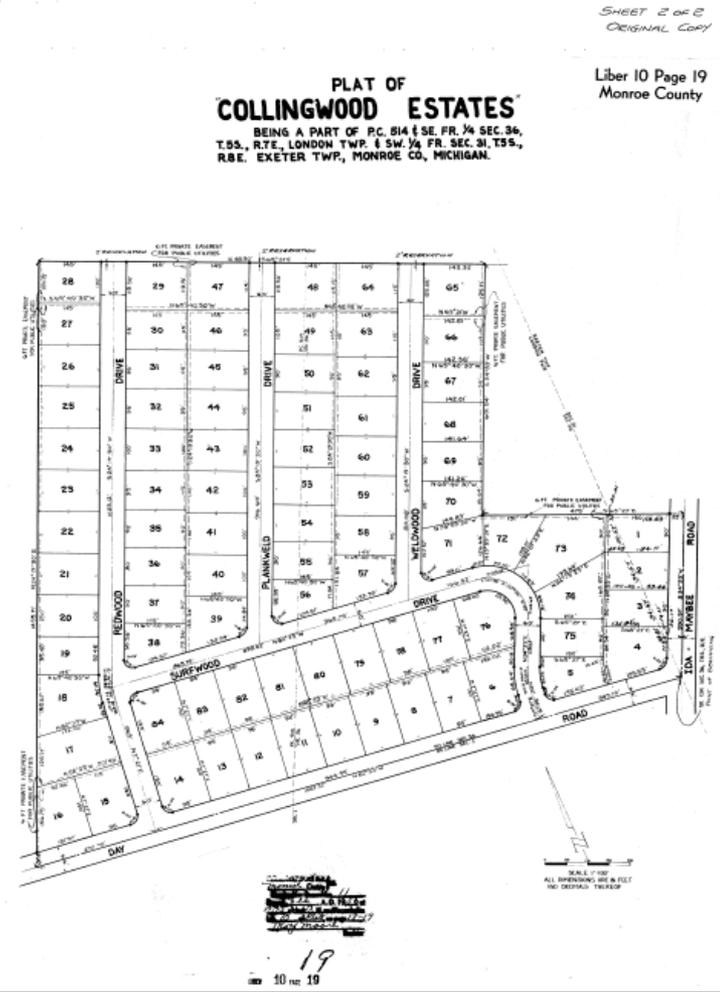
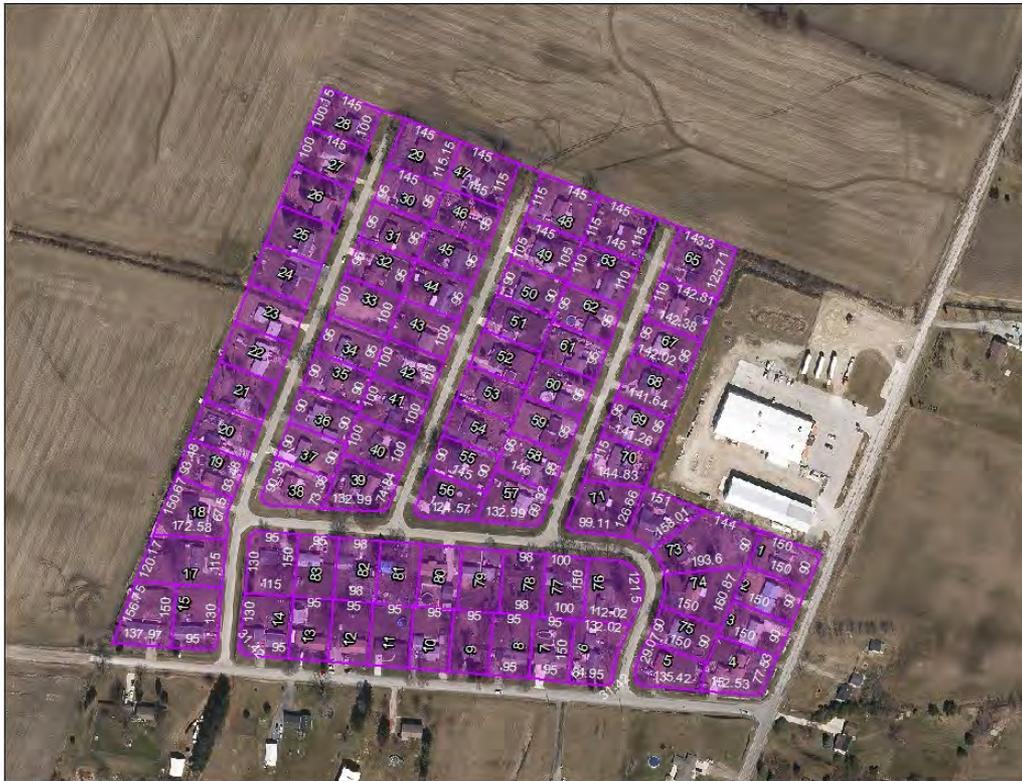
Description:

PER SURVEY SEC 17 T5 SR8E 14.021 AC COM AT A PT S 01 DEG 50'45"E 1968.24 FT & S 75 DEG 51'16"W 170.15 FT & S 67 DEG 46'26"W 167.19 FT & S 65 DEG 36'40"W 242.46 FT & S 63 DEG 56'08"W 40.59 FT FR NE COR OF SEC 17 TH S 01 DEG 40'15"E 890.79 FT TH N 59 DEG 31'03" W 117.83 FT TO PT OF CUR TH ANG AN ARC OF CUR TO LT 85.99 FT TO PT OF TAN SD CUR HAV RAD 43.16 FT CEN ANG 114 DEG 09'25" & CHORD BEAR & DIST S 70 DEG 55'35" W 72.46 FT TH S 16 DEG 55'09" W 75.39 FT TH S 22 DEG 24'05" W 59.14 FT TH S 11 DEG 39'15" W 90.16 FT TH S 34 DEG 04'17" W 62.28 FT TH S 35 DEG 18'37" W 54.11 FT TH S 39 DEG 35'44"W 83.41 FT TO A PT OF CUR TH ALG AN ARC OF A CUR TO RT 83.20 FT TH S 35 DEG 22'12"W 118.23 FT TH N 70 DEG 25'32" W 20.39 FT TH S 78 DEG 15'48" W 56.02 FT TH S 62 DEG 25'13: W 22.42 FT TO PT OF CUR TH ALG ARC OF A CUR TO RT 36.15 FT TO PT OF TAN SD CUR HAV RAD 32.84 FT CEN ANG 63 DEG 04'06" & CHORD BEAR & DIST N 88 DEG 37'38" W 34.35 FT TH N 27 DEG 04'50" W 18.68 FT TO PT OF CUR TH ALG ARC OF CUR TO RT 62.63 FT TO PT OF TAN SD CUR HAV RAD 51.75 FT CEN ANG 69 DEG 20'13" CHORD BEAR & DIST N 09 DEG 43'26" E 58.88 FT TH N 42 DEG 14'44" E 29.03 FT TH N37 DEG 20'01" E 32.17 FT TO A PT OF CUR TH ALG AN ARC OF CUR TO LT 125.66 FT TO PT OF TAN SD CUR HAV A RAD 126.15 FT CEN ANG 57 DEG 04'24" & CHORD BEAR & DIST N 02 DEG 44'33" W 120.53 FT TH N 01 DEG 40'15"W 734.86 FT TO A PT ON A CURVE TH ALG AN ARC OF CURVE TO LT 206.73 FT TO PT OF TAN SD CURVE HAVING A RAD OF 1630 FT CENTRAL ANG 07 DEG 15'60" AND CHORD BEAR & DIST OF N 67 DEG 34'08"E 206.59 FT TH N 63 DEG 56'08"E 495.31 FT TO POB



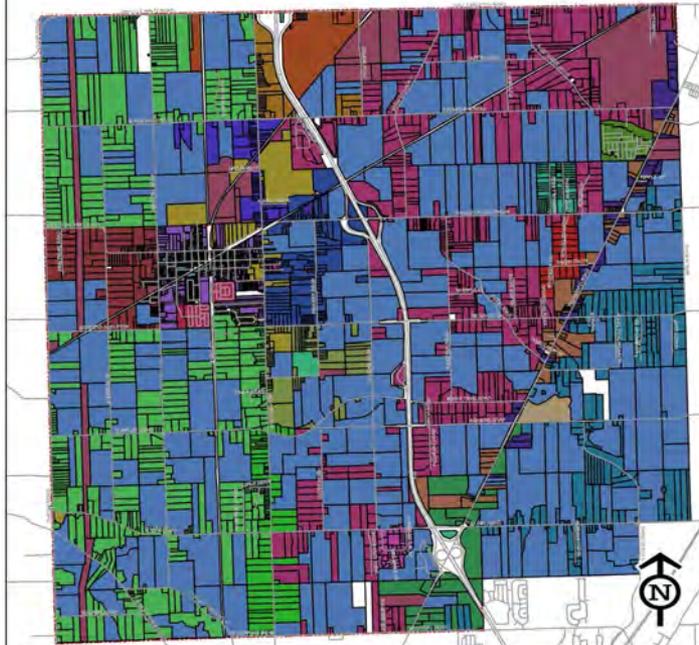
Subdivision Mapping

Collingwood Estates



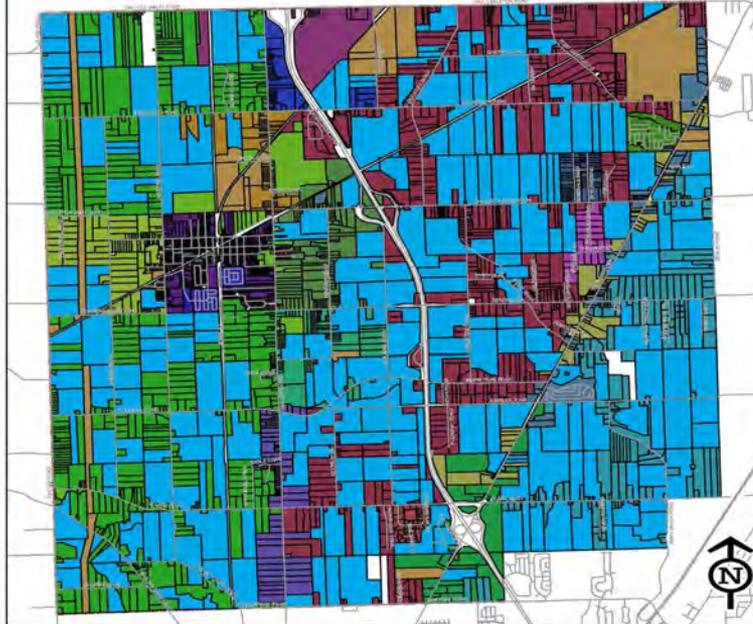
Audit of Minimum Assessing Requirements (AMAR)

Ash Township 2019 ECF Neighborhood Map



ECF			
CENTRAL TOWNSHIP	SEC 9 AND 16	RESIDENTIAL TEL	MOBILE HOME PARK VILLAGE
W OF GRAFTON	CARLETON CROSSING	COMM WILL CARL	COMM GRAFTON RD
E OF TELEGRAPH	SCHIRRMACHER SUB	TELEGRAPH S OF LABO RD	AGRICULTURAL
SEC 4 GRAFTON	SEC 18 MAXWELL RD	ORCHARDS MHP	LAZY OAKS
SEC 8 S GRAFTON	VILAGE	COM TEL AND CAR ROCK	NORTH POINT COMMONS
DON ALLENTHORN	SEC 21 GRAFTON RD	MOBILE HOME PARK TOWNSHIP	INDUSTRIAL
GARDEN EST SUB	S GRAFTON RD	COMM MONROE ST	EXEMPT PROPERTIES

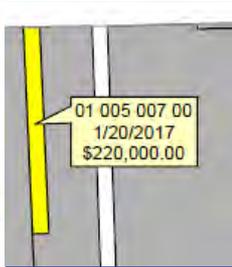
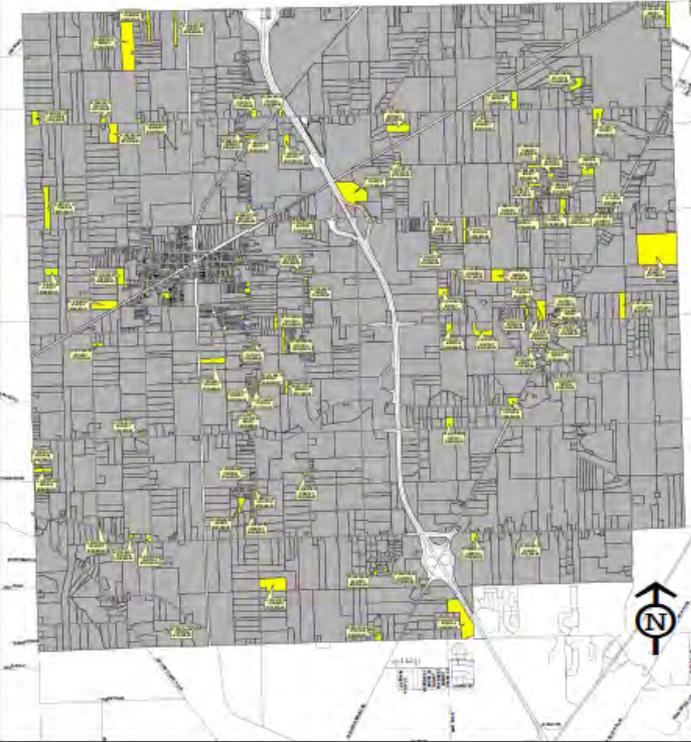
Ash Township 2019 Land Code Map



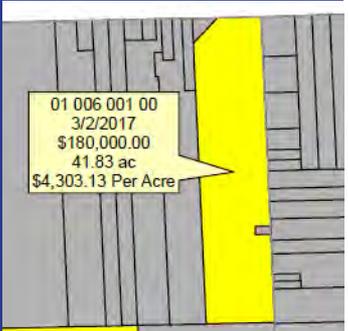
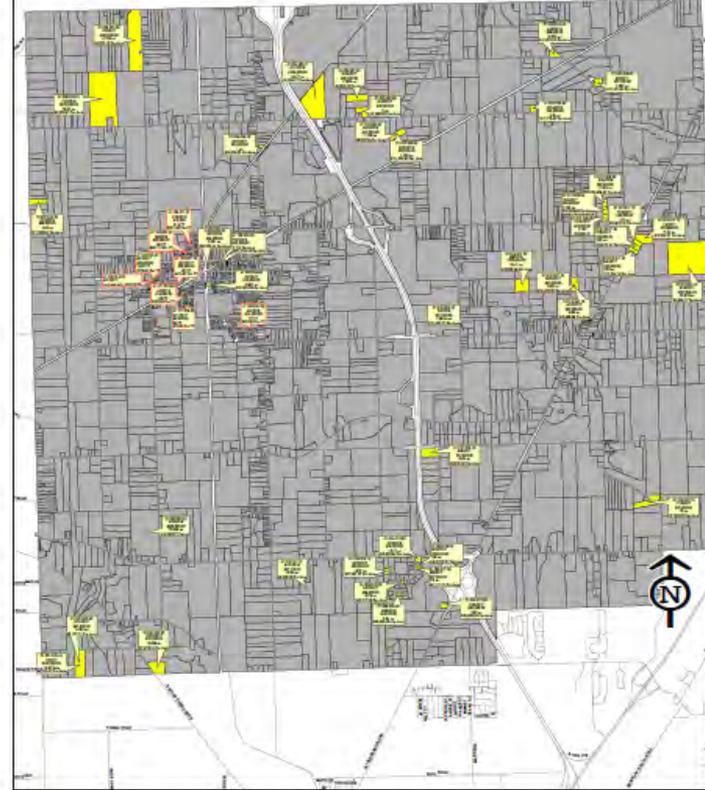
LANDCODE			
CENTRAL TOWNSHIP	SEC 9 AND 16	RESIDENTIAL TEL	COMM GRAFTON RD
W OF GRAFTON	CARLETON CROSSING	COMM WILL CARL	AGRICULTURAL
E OF TELEGRAPH	SCHIRRMACHER SUB	TELEGRAPH S OF LABO COMMERCIAL	LAZY OAKS
SEC 4 GRAFTON	SEC 18 MAXWELL RD	ORCHARDS MHP	NORTH POINT COMMONS
SEC 5, 8 GRAFTON	VILAGE	COM TEL AND CAR ROCK	INDUSTRIAL
DON ALLENTHORN	SEC 21 GRAFTON RD	COMM MONROE ST	
GARDEN EST SUB	S GRAFTON RD	MOBILE HOME PARK	

Audit of Minimum Assessing Requirements (AMAR)

Ash Township 2019 Sales Map



Ash Township 2019 Vacant Sales Map



Act 116 Farmland Agreement

Monroe Co PA 116 October 30 2013.xlsx - Microsoft Excel

Agreement Number	Landowners	Legal Description	County
941 SE 43052-123119	Reau Charles	The S 1/2 of Section 16, T8S R8E, comm at center of Sec 16, th N 89deg58'49" E 79 ft, th S 00deg01'11" E 240 ft, th N 89deg58'49" E 181.50 ft, th N 00deg01'11" W 240 ft, th N 89deg58'49" Monroe	Monroe
942 SE 43053-123119	Reau Charles	That part of Section 21, T8S R8E, desc as the E 1/2 of the W 1/2 of the NW 1/4 lying W of the New York Central RR ROW, EXC therefrom a parcel lying SW of Ohio State Monroe Highw Monroe	Monroe
943 SE 43054-123119	Reau Charles	That part of Section 16, T8S R8E, desc as comm at the center of Vienna Rd at the N corner of W 1/2 of Section 16, runs th along the E line of the SE 1/4 of sd sec 16	Monroe
944 SE 44010-123100	Clarence J McClain and Marilyn A McClain	A parcel of land lying N of Bay Creek Drain and N of Cousino Drain within the following desc parcel to-wit: that part of Section 16, desc as comm 405.5 N N 87deg46'00" W and 1571.1 Monroe	Monroe
945 SE 44021-123200	Clarence J McClain and Marilyn A McClain	NE 1/4 of the NW 1/4 of Section 16, EXC comm at the NW corner of the NE 1/4 of the NW 1/4 of Section 16, th E 208.71 ft, S 208.71 ft, W 208.71 ft, N 208.71 ft to the POB, ALSO that pa Monroe	Monroe
946 SE 21776-123170	Cousino Prudence	Com 258.13 ft N 01deg 02'30" W from inter of c/l of US 24 & E W 1/4 lin, th S 88deg 38'30" W 1937 ft, th S 1deg33'30" E 208.89 ft, th S 79deg52'20" E 249.95 ft, th S 87deg05'37" E 200.3 Monroe	Monroe
947 SE 55416-123179	Cousino Prudence	All that part of E 70 acres of W 1/2 of NW 1/4, Section 17, T8S, R8E, lying Ely of Dixie HWY bounded on W by Sec line on S by Sec line & on N by 1/4 Sec line. All land is located in Section 17, T Monroe	Monroe
948 SE 55416-123179	Cousino Prudence	SW 1/4 parcels 33 & 36, AND part of parcel 36, 109-66 acres lying W of Dixie HWY bounded on W by Sec line on S by Sec line & on N by 1/4 Sec line. All land is located in Section 17, T Monroe	Monroe
949 SE 55417-123179	Cousino Prudence	All that part of E 1/2 of SW 1/4 and W 20 acres of SE 1/4, Section 17, T8S, R8E, lying Ely of Dixie Hwy and being further desc as comm at the SE corner of SW 1/4, Sec 17, aforesaid, th Monroe	Monroe
950 SE 29188-123122	Erie Orchards & Cider Mill Inc	That part of Sec 18 desc as comm at N 1/4 cor of Sec 18, th S0deg9'53" W 1122.4 ft, th N85deg49'7" 590.17 ft, th S0deg30'47" W 1476.16 ft, th N89deg43'20" W 118.65 ft, th S0deg4'35" Monroe	Monroe
951 SE 44349-123220	Heck Eileen	E 20 acres of W 46 acres of the NE 1/4 of Section 18; ALSO W 1/2 of E 1/2 of the NE 1/4 of Sec 18, EXCEPT that part of NE 1/4, sec 18 desc as comm at NW cor of the W 1/2 of E 1/2 of the Monroe	Monroe
952 SE 55418-123179	Cousino Prudence	Part of parcel 38, ALSO all of parcels 30, 24 & 68 acres bounded on S by Decl on E by Sec L & on N by Sec L. All land is located in Section 18, T8S, R8E, Erie Township, Monroe County, M Monroe	Monroe
953 SE 41363-123124	Calmes Selma	N 11.5 acres of S 15 acres of W 1/2 of W 1/2 of the NW 1/4, ALSO N 25 acres of W 1/2 of W 1/2 of the NW 1/4, Section 15, T8S R8E, Erie Township, Monroe County, Michigan. Monroe	Monroe
954 SE 55419-123179	Cousino Prudence	Part of NE 1/4, Section 19 bound on N by Decl line, last by Sec line & on S by 1/4 Sec line bound on W by RR Property being part of parcels 13 & 15, ALSO all of parcels 14, 19, & 20. All Monroe	Monroe
955 SE 55420-123179	Cousino Prudence	Located in SE 1/4 of Section 15, bound on N by 1/4 Sec line on W by Property BO C5X on S by Sec line & E by Dixie HWY & Sec line. All land is located in Section 15, T8S, R8E, Erie Tow Monroe	Monroe
956 SE 21779-123170	Cousino Prudence	E 20 acres of W 30 acres of SW 1/4 of SE 1/4, Section 20, T8S R8E, EXC parcel comm on c/l of Dean Rd 839.35 ft E from S 1/4 corner of Sec, th N 01deg15' E 200 ft, th W 150 ft, th Monroe	Monroe
957 SE 60042-123193	James A Cousino Trust	The E 1/2 of the SW 1/4 of Sec 20, desc as comm at the S 1/4 cor of sd Sec 20, monumented by a 1/2 inch pipe found, for the POB, th N 89deg30'14" W 545.79 ft on the S 1/2 of sd Monroe	Monroe
958 SE 60043-123193	James A Cousino Trust	The W 21 acres of the NW 1/4 of SE 1/4 of Section 20, desc as comm at an iron pipe set 1322.41 ft N 00deg15'48" W from the S 1/4 cor of sd Sec 20, th N 00deg15'48" W 1322.41 ft to Monroe	Monroe
959 SE 60132-123113	James A Cousino Trust	W 21 acres of NW 1/4 of SE 1/4 Sec 20, T8S R8E, described as: comm at an iron pipe set 1322.41 ft N 00deg15'48" W from S 1/4 cor of Sec 20, th N 00deg15'48" W 1322.41 ft to ctr of Sec 2; Monroe	Monroe
960 SE 60133-123113	James A Cousino Trust	Part of E 1/2 of SW 1/4 Sec 20, T8S R8E, desc as: comm at S 1/4 cor of Sec 20, monumented by 1/2 inch pipe found for POB: th N 89deg30'14" W 545.79 ft on S line of Sec 20, centerline Monroe	Monroe
961 SE 60884-123195	James A Cousino Trust	The E 30 acres of W 40 acres of NE 1/4 of Sec 20, W of RR ROW desc as comm 990.53 ft S 88deg42'55" E of S 1/4 cor of sd Sec 20, then N 00deg15'48" W 1316.32 ft, then S 88deg; Monroe	Monroe
962 SE 21775-123170	Cousino Prudence	Com at a point located 428 ft S from NE cor of Sec 21, T8S, R8E, th S 89deg 41'34" W 1038.22 ft, th N 36deg30' E 1121.76 ft, th E 370.55 ft to POB. Section 21, T8S, R8E, Erie Monroe	Monroe
963 SE 60044-123193	James A Cousino Trust	Part of the W 1/2 of W 1/2 of NW 1/4 of Sec 21, desc as comm at the NW cor of sd Sec 21, monumented by a monument box found, th N 88deg08'31" E 33.56 ft measured (31.40 rec Monroe	Monroe
964 SE 60140-123113	James A Cousino Trust	Part of the W 1/2 of W 1/2 of NW 1/4 of Sec 21, desc as comm at the NW cor of sd Sec 21, monumented by a monument box found: th N 88deg00'31" E 33.26 ft measured (31.40 P Monroe	Monroe
965 SE 19938-123127	Humach LLC	NW 1/4 of the NE 1/4, W of RR ROW; ALSO NW 1/4 of the NE 1/4, E RR ROW, EXCEPT comm 1318.75 ft, S 89deg34' E from the N 1/4 corner of Sec 29, th S 0deg3'30" W 905.19 ft, th S 89de Monroe	Monroe
966 SE 19939-123170	Reau Charles	Com 599.67 ft S 88 deg 59' E from NW cor of Section 29, th S 0deg 19' W 1946.61 ft, th N 88 deg 59' W 557 ft, th S 1deg 727.11 ft, th S 89 deg 6' 30" E 1323.48 ft, th N 0 deg 52' 30" E 261 Monroe	Monroe
967 SE 19940-123127	Humach LLC	SW 1/4 of the SW 1/4 of Sec 29, which premises are desc as tax rolls as: SW 1/4 of SW 1/4 of Sec 29 lying W of RR ROW and W 1/2 of SE 1/4 of SW 1/4 of Sec 29, lying W of RR ROW. Monroe	Monroe
968 SE 33771-123120	LaPointe Martin	Com 2671.9 ft N 00deg46' W and 1215 ft W from SE cor of Sec 29, W alg c/l Benore Rd 826.54 ft, S 34deg19' W 1260.2 ft, S 15deg59' W 26.65 ft, S 79deg48' E 822.36 ft, S 86deg38' E 734. Monroe	Monroe
969 SE 57886-123185	Reau Charles	Com at NW corner of Sec 29, th S 1deg30' W 1946.53 ft, th S 88deg30' E 557.0 ft, th N 1deg40' E 1946.61 ft, th N 88deg30' W 539.67 ft to POB; EXCEPT N 210 ft thereof; being a part of the Monroe	Monroe
970 SE 59924-123198	Dusseau Raymond	Part of the E 1/2 of the NE 1/4 of Section 29, comm at a point on the E line of Sec 29, which is 917.34 ft S 01deg43' E from the NE corner of Section 29, th cont S 01deg43' E 250.00 ft, th Monroe	Monroe
971 SE 643-123120	LaPointe Martin	Commencing at S 1/4 corner of section 29, th N 88deg 40' W 490.67 ft, th N 0deg44'40" E 854.77 ft, th N 88deg 40' W 43.03 ft, th N 15deg 0'30" E 847.11 ft, th S 85deg02' E 1023.84 ft th S Monroe	Monroe
972 SE 40252-123117	Cousino Prudence	Com at NE cor of the SE 1/4 of Sec 30, th S 89deg34' W 2014.6 ft, th S 23deg06'30" W alg c/l of US-25 296.87 ft, th S 85deg52' E 280 ft, th S 40deg08' W 132.37 ft, th N 85deg52' W 325.58 ft th S Monroe	Monroe
973 SE 8706-123120	LaPointe Martin	That part of Sec 32, desc as the 3/4 of E 1/2 of NE 1/4, excd therefrom parcel comm at the NE cor of sd Sec 32, th S 01deg02' W 310 ft, th N 88deg48' W 220 ft, th N 01deg02' E, 310 ft, Monroe	Monroe
974 SE 55421-123179	Cousino Prudence	Part of W 1/2 bound N by Sec line E & S by Dixie HWY & by Sec line, part of parcels 13 & 15. All land is located in Section 20, T8S, R8E, Erie Township, Monroe County, Michigan. [54] Monroe	Monroe
975 SE 19941-123127	Humach LLC	Com at SE corner, Sec 19, th N 88deg47' W 863.42 ft, th N 24 deg17' 30" E 2908.4 ft, th S 88 deg14' E 349.4 ft, th S 0 deg29' W 2670.26 ft to c/l of Dean Rd, th N 88 deg59' W 646.42 ft m) Monroe	Monroe
976 SE 3287-123166	Zorn Properties LLC	Part of Pt Sec 33, comm at a point on S line of Sec 33, located 13 ft S88deg52' W from N 1/4 cor of Sec 2, th N0deg17' W 1553.5 ft, th S88deg18' W 834.7 ft, th S0deg16'E to township line E Monroe	Monroe
977 SE 4220-123118	Dale J. Benore Trust instrument, under ag	Com at SE corner of Section 8, T8S R8E, th N 88deg52' E 1.91 ft, th N 1deg42'30" W 1299.22 ft, th S 89deg52'30" W 922.66 ft, th S 22deg22'30" W 1156.42 ft, th N 88deg45'130" E 385.90 ft. Monroe	Monroe
978 SE 15572-123119	Smith Mark	30 acres of SE 1/4 of NE 1/4, Sec 7, T8S R8E including the S 30 ft. ALSO NE 1/4 of SE 1/4, Sec 7; ALSO a triangular parcel of land in the N 1/2 of SE 1/4 of SE 1/4 formerly bounded N by. Monroe	Monroe
979 SE 26981-123155	Dennis P Rietzel and Amy K Rietzel Living	NW 1/4 frst Section 6, T8S, R8E, Whiteford Twp, Monroe County, Michigan. Monroe	Monroe
980			

Act 116 Farmland Agreement Progress



Zoning Maps

City of Monroe Zoning Map



Legend
City_of_Monroe_Zoning_Map
 -all other values-
ZONING_LAB

- I-2: General Industrial
- WC: Waterfront Commercial
- CBD: Central Business District
- R-2: Two Family Residential
- C-1: Local Commercial
- P-1: Vehicular Parking
- C-O: Office
- PUD: Planned Unit Development
- R-1A: Single Family Residential
- I-1: Light Industrial
- R-1C: Single Family Residential
- C-2: General Commercial
- RM: Multiple Family Residential
- R-1B: Single Family Residential
- PROS: Public Recreation and Open Space
- AP: Airport

3,750 1,875 0 3,750 Feet



- I-2: General Industrial
- WC: Waterfront Commercial
- CBD: Central Business District
- R-2: Two Family Residential
- C-1: Local Commercial
- P-1: Vehicular Parking
- C-O: Office
- PUD: Planned Unit Development
- R-1A: Single Family Residential
- I-1: Light Industrial
- R-1C: Single Family Residential
- C-2: General Commercial
- RM: Multiple Family Residential
- R-1B: Single Family Residential
- PROS: Public Recreation and Open Space
- AP: Airport

Reflection: was the GRACE Program and following internship worth while?

- Opportunity Cost
- What have I gained?
- How has this experience changed my future career outlook?
- Was it worth it?

Monroe County – Transforming Education with ArcGIS and Geospatial Technologies

Contact Information

Jeff Boudrie, Monroe County GIS Manager,
jeff_boudrie@monroemi.org

Russell Columbus, Monroe County High School Teacher,
rkc118@gmail.com

Donovan Vitale, Monroe County GIS Intern,
gis_intern@monroemi.org

Allison Hoff, EMU, GRACE Project Coordinator,
ahoff@emich.edu

Randy Raymond, GIS Specialist, randalleraymond@gmail.com